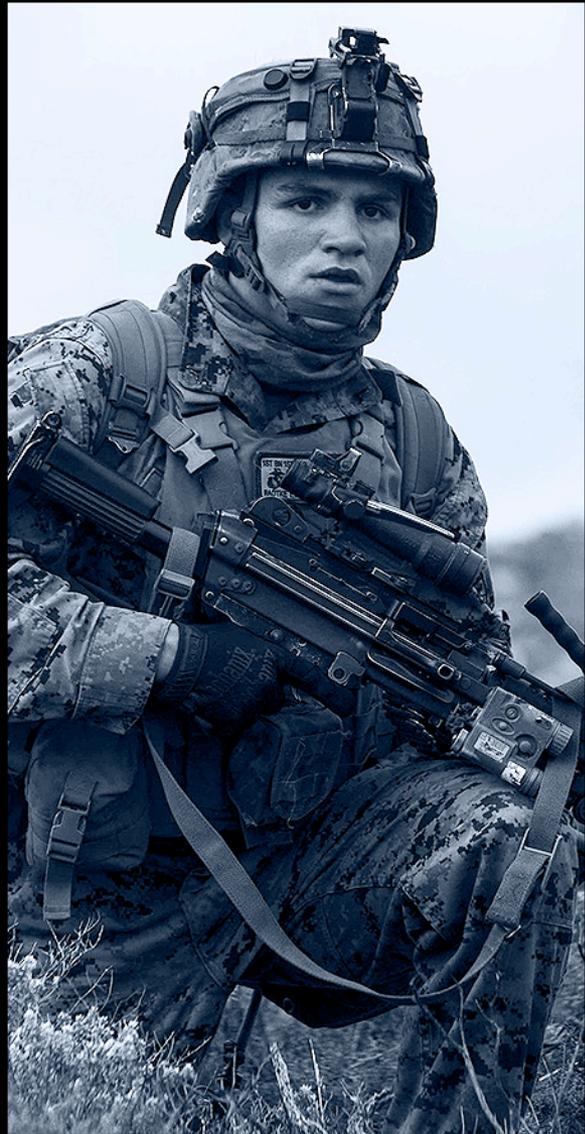




DEFENSE LOGISTICS AGENCY

THE NATION'S COMBAT LOGISTICS SUPPORT AGENCY



**Source Sampling
Modernization**

Jamie Hieber, Lab Manager
DLA Product Test Center — Analytical
November 07, 2019





Background



- Submit 1 in 10 lots to C&T laboratory
- Lot failed → Unreliable Status
- 3 consecutive lots to exit Unreliable Status
- Contractors chose to wait and did NOT ship goods



Background



- Source Sampling Program begins
- Government reviews test reports
- No regular verification schedule
- Contractor's test results primary
- Goal → Reduce contractor's delayed shipments



Background



- Poor communication of program requirements
- Ineffective enforcement of lot notification timeline
- Ineffective enforcement of test report submission timelines
- Difficult to communicate testing requirements uniformly across the supply chain
- Difficult to conduct trend analyses
- Siloed viewpoint rather than broad overview

Program requirements found in the Additional Quality Assurance Requirements (AQAR), formerly DSCPM 4155.3



Purpose



- Currently the program is reliant on a “paper-based” system using email and faxed submittals using various electronic formats or hand-written forms. Current processes also rely on manual review and sign off steps.
- New technologies offer great efficiencies for suppliers, labs, and PTC to automate procedures, enabling consistent data forms and reports.
- DLA is adapting a commercially available technology for our needs, transitioning from a manual review process to an electronic, data driven process.
- This effort will enable DLA Troop Support to:
 - *strengthen its partnership and communication* with the Clothing & Textile industrial base, and
 - *increase the visibility* of material and end item quality requirements.

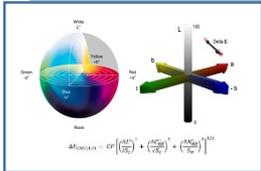
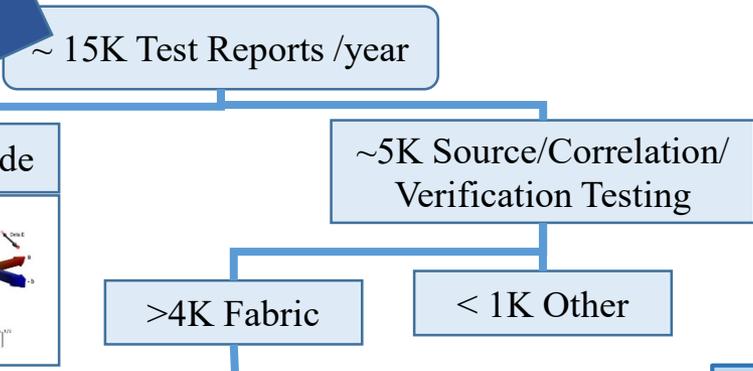
As a result, DLA Troop Support and its industrial base will increase its capability to deliver the highest quality clothing and individual equipment items to the warfighter.



Product Test Center — Analytical



Recent Annual Statistics



Collaborative Partners: LMI, Texbase, Major Fabric Suppliers
DLA Sponsor: DLA MUST Program and DLA Product Test Center - Analytical

Benefits:

- Automated identification of non-conforming material
- Standardized process and formats for test result submittal
- Higher quality C&T products for the warfighter

Technical Approach:

- Reengineer processes, develop protocols
- Leverage/validate adopted commercial procedures for proper communication and management of product test data
- Identify, tailor and validate COTS software for PTC application

Purpose:

- Reengineer and automate manufacturers' source production lot test reporting
- Streamline DLA PTC review and analysis of test results



Description of Automated Solution



- The Product Test Center has embarked on a modernization program to streamline processes and update its systems to maintain the quality control of materials used to construct clothing and equipment for today's warfighter.
- The MUST Source Sampling Tool is a commercially available textile testing and supplier collaboration system that has been modified to meet the specific workflow requirements of the DLA supply chain.
- The MUST Source Sampling Tool merges Prime Contractors, Material Suppliers and Independent Testing Labs into one standardized system.



Intro to Source Sampling Tool



- Easy to use browser-based system (no software to install)
- Benefits include:
 - Standardized workflow
 - Standardized testing procedures
 - Digitizing data
 - Automated notification and PTC response of source lot testing date/enforcement of 14 day waiting period
 - Visibility to current testing requirements
 - Automatic evaluation of test results versus test requirements
 - Ability to re-use previously entered data
 - Automated creation and archiving of standard DD1222
 - Automated event notifications for all members of the supply chain



Overview of Source Sampling Tool Capabilities



Below is an example of Testing Requirements:

TEST REQUIREMENT INFORMATION

Test Requirement Number:

Vendor: B-R

Specification: BR587838TW - I - 13

Test is for:

Assign To: B-R

Drafted By:

Draft Date:

Active:

Only Active test requirements appear in Drop Downs

Cloned From Spec: NCTRF PD 04-06 14FEB2006

TEST REQUIREMENT DETAILS

No symbols, text, or punctuation may be used in the Target Value fields if auto-evaluation is to be used, only positive or negative whole numbers or decimals.

Description	Test Standard #	Selected Value	Target Value	Units	Min	Max	Comment	Require In Test		
Appearance after Washing	AATCC 135/158	<input type="text"/>	<input type="text"/>	grade	<input type="text" value="4.00"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appearance after Wet/Dry Cleaning	AATCC 135/158	<input type="text"/>	<input type="text"/>	grade	<input type="text" value="4.00"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Breaking Strength Fill		<input type="text"/>	<input type="text"/>	lbs	<input type="text" value="80.00"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Breaking Strength Warp		<input type="text"/>	<input type="text"/>	lbs	<input type="text" value="100.00"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colorfastness to Crocking, Dry	AATCC 8	<input type="text"/>	<input type="text"/>		<input type="text" value="4.00"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colorfastness to Crocking, Wet	AATCC 8	<input type="text"/>	<input type="text"/>		<input type="text" value="4.00"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colorfastness to Light	AATCC 16	<input type="text"/>	<input type="text"/>	visual	<input type="text" value="4.00"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Overview of Source Sampling Tool Capabilities



- Data is added to Excel and uploaded to the tool which automatically creates lab tests in the system and compares results to expected values on test requirements.

Sections	Field	New Lab Test 1	New Lab Test 2
Item Information	Vendor	B-R	B-R
	Specification	Tropical	Tropical
	Quantity Received	1	1
	Unit of Measure		
	Submit Type		
	Submit Season	Multi-Season	Multi-Season
	Submit PO	33	3
	Inventory Control #	TBD	TBD
	Location		
	Color	Black	Black
	Production Lot Number	31	
	Batch Number	31	312
	Roll Number	321	321
	Piece Number	31	3
Lab Test Information	Generic ID		
	Government Lot Number	5809680	5809680
	ReferenceID	TBD	TBD
	Analyst	Teresa West	Teresa West
	Analyst 2		
	Requestor		
	Spec Used	NCTRF PD 04-06	NCTRF PD 04-06
	Received Date		
	Due Date		
	Finished Date		
Lab Test Status	Assign To	Precision Testing	Precision Testing
	Complete	False	False
	Partner Status		
	Partner Status By		
Appearance	Partner Status Date		
	Ext. Note		
Appearance after Washing: AATCC 135/158	#1		
	Notes		
Appearance after Wet/Dry Cleaning: AATCC 135/158	#1		
	Notes		



Overview of Source Sampling Tool Capabilities



Test Plan Lab Tests Summary

Test Results

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Colorfastness Tests					
Test Method					
Colorfastness to Crocking, Dry (grade) - AATCC-8					
Test Specimen #1	2	4	2	4	2
Notes					
Performance Requirements					
Result	Pass	Pass	Pass	Pass	Pass
	Required for Testing <input checked="" type="checkbox"/>		Target Value		Min 1.5
					Max
Test Method					
Colorfastness to Crocking, Wet (grade) - AATCC-8					
Test Specimen #1	1.5	4	4	1.5	4
Notes					
Performance Requirements					
Result	Pass	Pass	Pass	Pass	Pass
	Required for Testing <input checked="" type="checkbox"/>		Target Value		Min 1.5
					Max
Test Method					
Colorfastness to Laundering-1A, Change (grade) - AATCC 61 1A					
Test Specimen #1	3.5*	4.5	4.5	4.5	4.5
Notes					
Performance Requirements					
Result	FAIL*	Pass	Pass	Pass	Pass
	Required for Testing <input checked="" type="checkbox"/>		Target Value		Min 4
					Max

Powered by Texbase



Overview of Source Sampling Tool Capabilities



Test results are summarized to expedite review:

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Colorfastness					
Colorfastness to Crocking, Dry - AATCC-8					
<i>Powered by Texbase</i>					
Test Plan Lab Tests Summary					
10/9/2019					
	Pass	Pass	Pass	Pass	Pass
Colorfastness to Crocking, Wet - AATCC-8					
	Pass	Pass	Pass	Pass	Pass
Colorfastness to Laundering-1A, Change - AATCC 61 1A					
	Pass	Pass	Pass	Pass	Pass
Colorfastness to Laundry Accelerated Stain 1A - AATCC 61, 1A					
	Pass	Pass	Pass	Pass	Pass
Colorfastness to Light: Carbon-Arc - ATCC 16.2					
	Pass	Pass	Pass	Pass	Pass
Colorfastness to Light: Xenon-Arc - AATCC 16.3					
	Pass	Pass	Pass	Pass	Pass
Colorfastness to Perspiration-Acid 4Nylon - AATCC 15					
	Pass	Pass	Pass	Pass	Pass
Colorfastness to Perspiration-Acid 5Cotton - AATCC 15					
	Pass	Pass	Pass	Pass	Pass
Colorfastness to Perspiration-Alkaline 4Nylon - AATCC 15					
	Pass	Pass	Pass	Pass	Pass
Colorfastness to Perspiration-Alkaline 5Cotton - AATCC 15					
	Pass	Pass	Pass	Pass	Pass
pH Testing					
pH - AATCC 81					
	Pass	Pass	Pass	Pass	Pass
Spectral Reflectance 600 to 860nm					



Overview of Source Sampling Tool Capabilities



- DD1222s are created and archived within the tool and can be downloaded or printed.

REQUEST FOR AND RESULTS OF TESTS Page 1 of 1

Copy

SECTION A-REQUEST FOR TEST

1. TO: (include ZIP Code): DLA Product Test Center 700 Robbins Ave. Bldg 5-D Philadelphia, PA 19111		2. FROM: (include ZIP Code) PTC 700 Robbins Ave Bldg 5D Philadelphia PA 19111 USA		
ATTN: Jessica Raushel				
3. PRIME CONTRACTOR AND ADDRESS (Include ZIP Code) B-R 700 Robbins Ave Bldg 5D Philadelphia PA 19111 USA		4. MANUFACTURING PLANT NAME AND ADDRESS (Include ZIP Code) B-R 2244 Triangle Drive Blackstone NC 28376 USA		
Contract Number: BR587838TW - I - 13		P.O. NUMBER SubmitPO		
5. END ITEM AND/OR PROJECT BDU Uniform - Other	6. SAMPLE NUMBER:	7. LOT NO.	8. REASON FOR SUBMITTAL:	9. DATE SUBMITTED:
10. MATERIAL TO BE TESTED BR587838TW - I - 13	10a. QUANTITY SUBMITTED:	11. QUANTITY REPRESENTED:	12. SPEC. & AMEND AND/OR DRAWING NO. & REV. FOR SAMPLE & DATE: BR587838TW - I - 13	
13. PURCHASED FROM OR SOURCE: B-R	14. SHIPMENT METHOD:		15. DATE SAMPLED AND SUBMITTED BY: 8/27/2019 TXBQAR Admin Signature: TXBQAR Admin	
16. REMARKS AND/OR SPECIAL INSTRUCTIONS AND/OR WAIVERS				

SECTION B-RESULTS OF TEST

1. DATE SAMPLE RECEIVED:	2. DATE RESULTS PROVIDED:	3. LAB REPORT NUMBER: BR587838TW - I - 13
--------------------------	---------------------------	---

4. Tests Performed Results of Test Sample Result Requirements

PASSING

THIS LOT WAS TESTED BY THE DLA-PTC. PASSING TEST RESULTS WERE REPORTED ON THE CONTRACTOR'S TEST REPORT RECEIVED BY DLA-PTC ON _____.

DATE AND NAME AND TITLE OF PERSON CONDUCTING TEST 8/27/2019 Approved by Teresa West	SIGNATURE
--	---------------

DD Form 1222, Feb 62 Replaces DD Form 1222, 1 Jul 58, Which is Obsolete Powered by Teabase



Challenges to Overcome



- Resistance to change
 - Current DLA process is inefficient and needs to change
 - Suppliers individually optimized
- Fear of the unknown
 - Education on the use of the tool
- Dual Entry
 - Understand how the tool works and see how it can reduce the work currently being done
- Concern for increased oversight
 - Streamlined processes equate to reduced costs and increased quality



Source Sampling Tool Roll-Out



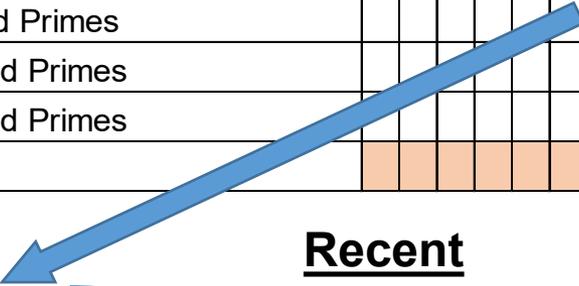
1. Continue Final Phase of Development
2. On-board Combat/Utility Uniform fabrics suppliers and primes
3. On-board fabric suppliers to submit all fabric reports through the system
4. Focus on high volume fabric suppliers
5. When on-boarding the fabric suppliers, include their associated primes
6. Considerations for timing supplier on-boarding
 1. Past engagement with Source Sampling Tool User Eval
 2. Past engagement with R&D/PTC efforts
 3. Stability
7. PTC will contact participants prior to on-boarding coordination



PTC Source Sampling Roll Out Plan – Step 1 BDU Items



Description	2019						2020						2021										
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
Final Modifications and Demos	█	█	█	█	█	█	█	█															
Addition of BDUs Supplier/Primes		█	█	█	█	█																	
a) Internal Assessment Using Actual BDU Data		█	█	█																			
b) Training of BDU Suppliers and Primes					█	█																	
c) Onboarding BDU Suppliers and Primes							█	█	█	█	█												
Phase 1 of Major Fabric Suppliers and Primes									█	█	█	█											
Phase 2 of Major Fabric Suppliers and Primes													█	█	█	█							
Support Suppliers Already Engaged	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█



Recent Fabric Suppliers

- Brittany
- Carlisle Finishing
- Santee
- Bennettville
- Pinebelt/Warmkraft

Recent Primes

- | | |
|------------------------|-----------------------|
| NIB | SNC Manufacturing |
| Excel Garment | Aurora Industries |
| UNICOR | Bluewater Defense |
| Golden Manufacturing | Puerto Rico Apparel |
| Creighton | Short Bark Industries |
| Tallahoma | American Apparel |
| Coachys and Associates | Pentaq Manufacturing |
| Sterlingwear of Boston | M&M Manufacturing |
| Campbellsville Apparel | Bethel Industries |
| Industrial Wholesalers | Goodwill Industries |
| Silver Oak Leaf | Bernard Cap |
| | SEKRI |

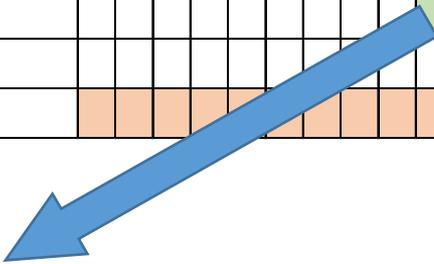


PTC Source Sampling Roll Out Plan – Step 2

1st Wave of Fabric Suppliers/Finishers



Description	2019							2020							2021									
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
Final Modifications and Demos	█	█	█	█	█	█	█	█	█															
Addition of BDUs Supplier/Primes		█	█	█	█	█	█																	
a) Internal Assessment Using Actual BDU Data		█	█	█																				
b) Training of BDU Suppliers and Primes					█	█	█																	
c) Onboarding BDU Suppliers and Primes						█	█	█	█															
Phase 1 of Major Fabric Suppliers and Primes										█	█	█	█											
Phase 2 of Major Fabric Suppliers and Primes														█	█	█	█	█						
Support Suppliers Already Engaged	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█



1) Kenyon

2) Milliken

3) Deer Creek

4) Raeford

5) Warmkraft/Pinebelt



PTC Source Sampling Roll Out Plan – Step 3

2nd Wave of Fabric Suppliers/Finishers



Description	2019						2020						2021											
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
Final Modifications and Demos	█	█	█	█	█	█	█	█																
Addition of BDUs Supplier/Primes		█	█	█	█	█																		
a) Internal Assessment Using Actual BDU Data		█	█	█																				
b) Training of BDU Suppliers and Primes					█	█																		
c) Onboarding BDU Suppliers and Primes						█	█	█	█															
Phase 1 of Major Fabric Suppliers and Primes									█	█	█	█												
Phase 2 of Major Fabric Suppliers and Primes													█	█	█	█	█							
Support Suppliers Already Engaged	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█

1) Brittany

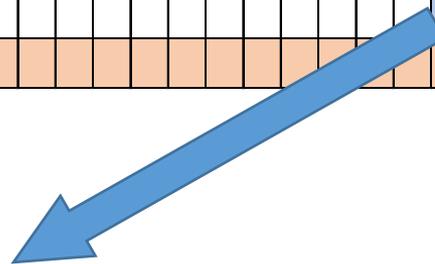
2) Santee

3) Carlisle

4) Bennettsville

5) Polartec (Milliken)

6) WL Gore

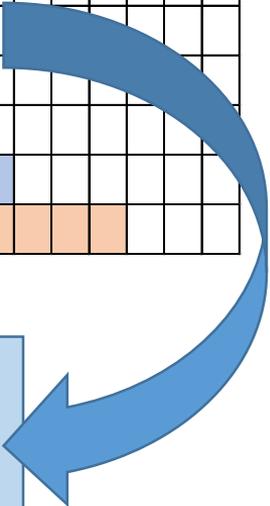




PTC Source Sampling Tool Roll Out Plan



Description	2019						2020						2021										
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
Final Modifications and Demos	█	█	█	█	█	█	█	█															
Addition of BDUs Supplier/Primes		█	█	█	█	█																	
a) Internal Assessment Using Actual BDU Data		█	█	█																			
b) Training of BDU Suppliers and Primes					█	█																	
c) Onboarding BDU Suppliers and Primes						█	█	█	█														
Phase 1 of Major Fabric Suppliers and Primes								█	█	█	█												
Phase 2 of Major Fabric Suppliers and Primes													█	█	█	█							
Support Suppliers Already Engaged	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	



<u>Recent Fabric/BDU Suppliers</u>		<u>Recent End Item/BDU Primes</u>		
Brittany	Kenyon	NIB	Sterlingwear of Boston	Short Bark Ind.
Carlisle Finishing	Milliken	Excel Garment	Campbellsville Appl.	American Appl.
Santee	Deer Creek	UNICOR	Industrial Wholesalers	Pentaq Mfg.
Bennettsville	Burlington/Raeford	Golden Mfg.	SNC Mfg	M&M Mfg.
Pinebelt/ Warmkraft	Polartec	Creighton	Aurora Ind.	Bethel Ind.
	WL Gore	Tullahoma	Bluewater Defense	Goodwill Ind.
		Coachys & Assoc.	Puerto Rico Appl	Bernard Cap
			Silver Oak Leaf	SEKRI

Suppliers planned for on-boarding account for > 93% of fabric test reports submitted to DLA PTC



Expectations of Suppliers



- Use the tool
 - Allows supplier earlier familiarity with PTC modernization effort
- Provide feedback (LOTS)
 - Positive and Constructive Critiques
 - Identify any shortfalls in capability
 - Feedback to date has been instrumental in improving the tool and making it better.
- Possible process adjustments by the supplier