DEFENSE LOGISTICS AGENCY (DLA)
15.C Small Business Technology Transfer (STTR) Program
Proposal Submission Instructions

Use the following address for information concerning DLA: http://www.dla.mil/. DLA HQ J348 Research and Development implements, administers, and manages the DLA SBIR and STTR Programs. Direct all related general questions to:

Natalie Seiling, DLA SBIR/STTR Program Manager
E-mail: natalie.seiling@dla.mil
Phone: 804-279-5120

Use of e-mail is encouraged.

TECHNICAL QUESTIONS

During the pre-release period (August 27 – September 27, 2015), contact the topic authors listed for each topic in the solicitation.

To obtain answers to technical questions during the formal solicitation period (September 28 – October 14, 2015), all questions must go through the online DoD SBIR/STTR SITIS Q&A System at https://sbir.defensebusiness.org.

For general inquiries or problems with the electronic submission, contact the DoD Help Desk at **1-800-348-0787** (9:00 am to 6:00 pm ET), or by email to sbirhelp@bytecubed.com.

DLA's projected funding levels support between one (1) and four (4) Phase I awards and between one (1) or two (2) Phase II awards from this topic. DLA reserves the right to limit awards under any topic.

DLA SBIR/STTR PROGRAM PRINCIPLES

DLA is very committed to this research topic area, although projected funding levels are extremely limited. Therefore, in order to ensure eligibility of selection, a project must offer exceptional benefits to one or more military services, a partnership with DLA, or another military service, or an OEM, or provide exceptional benefits or partnership with a private entity.

DLA seeks to solicit innovative, high-risk research and development proposals from the small business community. All selections shall demonstrate and involve a degree of technical risk where the technical feasibility of the proposed work has yet to demonstrate a fully established maturity.

DLA prefers market-driven companies, which can move technology into the commercial high volume market. Phase I proposals should demonstrate the feasibility of the proposed technology and the merit of a Phase II for a prototype or at least a proof-of-concept demonstration. Future market possibilities and demonstrated commercialization potential strongly influence both Phase I and II selections. Formal funding commitments, Government in-kind support, and other legal arrangements (public or private), submitted as part of the Phase II proposal, are the best demonstration of commercialization potential.

PHASE I KEY DATES

15.3/15.C Solicitation (Pre-release)	August 27 – September 27, 2015
15.3/15.C Solicitation (Open)	September 28 – October 28, 2015
Phase I evaluations	January 2016
Phase I awards	April 2016

SUBMISSION OF DLA SBIR/STTR PROPOSALS

The DLA STTR program, in its decision process for Phase I award selections, uses the 15.C BAA Evaluation Criteria – Phase I from Section 6.0 PHASE I EVALUATION CRITERIA, however with a differing prioritization and additional emphasis on innovation, commercialization potential and dual commercialization pathways (private and public), which DLA considers very important for its mission to support all DoD branches with logistics and supplies which have a higher quality, are less expensive, and can be delivered faster. Appropriate consideration of these factors within your Phase I proposal will increase your competitiveness for selection. DLA reserves the right to limit awards under any topic. The DLA lists evaluation criteria in descending order of importance:

- **Technical Sufficiency:** The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward topic or subtopic solution. (from DoD 15.C BAA section 6.0a)
- **Innovation:** DLA evaluates innovation independently from technical sufficiency. The DLA SBIR/STTR programs employ the following concepts and definitions of innovation when making project selection decisions. An invention improves some product, process, or service. Further, an invention transforms into innovation through introduction to the public. A transition path would involve the innovation moving into some sort of commercialization phase (e.g. technology to end-use development, technology to system integration, licensing into various fields of use, legally structured partnering agreements, outside investment, or sales). Although DLA seeks breakthrough technologies and processes, it will consider enabling and incremental technologies that offer the potential for increases in quality or decreases in cost or decreases in lead-time for items related to the relevant topic. Proposed technologies should support existing military systems (or their manufacturing processes) for which DLA is the procuring activity (DLA added this criteria).
- **Commercialization Potential**: The potential for commercial (Government or private sector) application and the benefits expected to accrue from this commercialization (from DoD 15.C BAA section 6.0c). In addition to the above, DLA recommends the offeror provide a meaningful commercialization plan with sufficient strategic and tactical thought to advance the technology along the full development cycle into end-use application or integration. The Phase I plan should be the basis to seek private and public funding commitments along with possible licensing, integration, or commercialization partnerships that have the relevant potential to leverage investment in the technology. The offeror would accomplish this plan in conjunction with the performance of the Phase I technical research, optimally resulting in potential co-investors and co-developers at the time of Phase II proposal submission.
- **Qualifications of Key Personnel:** The qualifications of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the research and development but also the ability to commercialize the results (from DoD 15.C BAA section 6.0b).

The offeror must submit the entire proposal (which includes Cover Sheet, Technical Proposal, Cost

Proposal, and Company Commercialization Report) electronically via the DoD SBIR/STTR Proposal Submission Site (https://sbir.defensebusiness.org); DLA will not accept any proposals submitted via any other medium. Do not send a hardcopy of the proposal. Hand or electronic signature on the proposal is not a requirement. If you experience problems uploading a proposal, call the DoD Help Desk **1-800-348-0787** (9:00 am to 6:00 pm ET).

Notification of Selection and non-selection letters will occur electronically via e-mail.

Proposals not conforming to the terms of this solicitation will not receive further consideration.

FOREIGN NATIONALS

If the offeror proposes to use a foreign national(s) [any person who is NOT a citizen or national of the United States, a lawful permanent resident, or a protected individual as defined by 8 U.S.C. 1324b(a)(3) – refer to section 3.4 of the DoD STTR Program Solicitation 15.C for definitions of "lawful permanent resident" and "protected individual"] as key personnel, the following information should be provided: country of origin, the type of visa or work permit under which they are performing and an explanation of their anticipated level of involvement on this project. DLA may require additional information during negotiations in order to verify the foreign citizen's eligibility to participate on a contract issued as part of this solicitation.

PHASE I PROPOSAL PAGE LIMIT

DLA Phase I proposals have a 20-page limit (excluding the Cost Proposal and the Company Commercialization Report). Pages in excess of the 20-page limitation will not receive any consideration for proposal (including attachments, appendices, and references).

OPTION MUST BE INCLUDED AS PART OF PHASE I PROPOSAL

Phase I contracts are expected to have a period of performance (POP) of roughly nine to twelve months and a maximum cost of $100,000 for the base award. The Phase I Option, which **must** be included as part of the Phase I proposal, covers activities over a period of up to six months and should describe appropriate initial Phase II activities that may lead to the successful demonstration of a product or technology. The Phase I Option proposal must be included within the 20-page limit for the Phase I proposal. DLA may or may not exercise the Phase I Option; however, DLA will make the determination to exercise the option prior to the end of the POP stated in the Phase I contract.

The offeror will submit a firm-fixed-price-level-of-effort-term Phase I cost proposal ($150,000 maximum) in detail online. Proposers that participate in this solicitation must complete the Phase I Cost Proposal not to exceed the maximum dollar amount of $100,000 and a Phase I Option Cost Proposal not to exceed the maximum dollar amount of $50,000. Phase I and Phase I Option costs must be shown separately but may be presented side by side on a single Cost Proposal. DLA recommends that the Phase I Cost Proposal include a cost estimate for travel for a final program review. Travel locations for planning purposes are as follows:

Topic:	Location:
DLA15C-001	DLA HQ, Ft Belvoir, VA

PHASE II PROPOSAL SUBMISSION

Offeror may submit Phase II proposals during any open solicitation period any time after the effective date of the Phase I award. DLA will notify Phase I performers to submit a Phase II proposal, not to exceed $1,000,000, of a time period (typically two weeks) in which the Phase II proposal is desired and source selection resources are available to meet the technical goals of the topic. This Phase II notification process shall not limit a company from submitting a Phase II proposal. The evaluation of Phase II proposals adhere to the evaluation criteria provided below.

Due to limited funding, DLA reserves the right to limit awards under any topic and only proposals considered to be of superior quality will receive funding consideration. The preferred contract types for DLA Phase II are firm-fixed-price-level-of-effort-term (FFP) or cost plus fixed fee (CPFF).

The DLA STTR program, in its decision process for Phase II award selections, uses the same three 15.C BAA Evaluation Criteria – Phase II from Section 8.0 PHASE II EVALUATION CRITERIA, however with a differing prioritization and additional emphasis on commercialization potential. DLA lists the evaluation criteria in descending order of importance:

- **Technical Sufficiency:** The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward topic or subtopic solution (from DoD 15.C BAA section 8.0a).
- **Commercialization Potential:** The potential for commercial (Government or private sector) application and the benefits expected to accrue from this commercialization (from DoD 15.C BAA section 6.0c). In addition to the requirements of BAA section 8.0, DLA recommends that companies demonstrate the commercialization potential of their technology by attracting private-sector co-investment and support during the performance of the Phase II. The value that DLA assesses for this factor depends on the type of co-investment or support (cash or support-in-kind), the amount of matching support, and the timing of the matching support, please address the DoD STTR 15.C Instructions, section 7.4 Commercialization Strategy.
- **Qualifications of Key Personnel:** The qualifications of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the research and development but also the ability to commercialize the results (from DoD 15.C BAA section 6.0b).

OPTIONS MUST BE INCLUDED AS PART OF PHASE II PROPOSAL

Phase II contracts are expected to have a period of performance (POP) of roughly twenty-four months and a maximum cost of $1,000,000. Phase II contracts, consisting of a Base plus two Phase II Options (**must** be included as part of the Phase II proposal), cover the activities over the initial (base) period and should describe appropriate the Phase II activities of each Option, all of which lead to the successful demonstration of a product or technology. The Base and Option periods may each be from six to twelve months. The Phase II Options technical proposal must be included within the 40-page limit for the Phase II proposal. DLA may or may not exercise the Phase II Options; however, DLA will make the determination to exercise the option prior to the end of the existing POP stated in the Phase II contract award.

The offeror must submit the entire proposal (which includes Cover Sheet, Technical Proposal, Cost Proposal, and Company Commercialization Report) electronically via the DoD SBIR/STTR Proposal Submission Site (https://sbir.defensebusiness.org); DLA will not accept any proposals not submitted via this site. Do not send a hardcopy of the proposal. Hand or electronic signature on the proposal is also not a requirement. If you experience problems uploading a proposal, call the DoD Help Desk

1-800-348-0787 (9:00 am to 6:00 pm ET).

DLA recommends that the Phase II Cost Proposal include a cost estimate for travel for quarterly program reviews. Travel locations for planning purposes are as follows:

Topic:	Location:
DLA15B-001	DLA HQ, Ft Belvoir, VA

Notification of Selection and non-selection letters occurs electronically via e-mail.

Proposals not conforming to the terms of this solicitation will not receive further consideration.

PHASE II PROPOSAL PAGE LIMIT

DLA Phase II proposals have a 40-page limit (excluding the Cost Proposal and the Company Commercialization Report). Pages in excess of the 40-page limitation will not receive consideration during the evaluation of the proposal (including attachments, appendices, or references)

FAST TRACK

DLA does not utilize the Fast Track process.

PHASE I DELIVERABLES / REPORTS

All DLA SBIR and STTR awardees are required to submit reports in accordance with the Contract Data Requirements List – CDRL and any applicable Contract Line Item Number (CLIN) of the Phase I contract. The Awardee must provide all Reports to the individuals identified in Exhibit A of the contract. Milestones: Each phase of the project will be milestone driven. The Principal Investigator will propose milestones prior to starting any phase of the project.

Phase I proposals should anticipate the following deliverables.

Deliverables:

- Major milestone schedule and decision tree for project
- Initial Project Summary (one-page, unclassified, non-sensitive, and non-proprietary summation of Phase I results that is intended for public viewing)
- Monthly reports, may be in the format of a slide deck and teleconference
    - Identify major problems and actions necessary or taken to resolve them
- Phase I Special Technical Summary (may be in the form of a slide deck, after a significant achievement, event, or meeting)
    - Identify major problems and actions necessary or taken to resolve them
- Final Report including major accomplishments and proposed path forward
- Final Project Summary (one-page, unclassified, non-sensitive, and non-proprietary summation of Phase I results that is intended for public viewing)

PHASE II and "DIRECT TO PHASE II" DELIVERABLES / REPORTS

Phase II proposals should anticipate the deliverables listed above with the addition of the following:

- Quarterly In-Progress reviews in the format of a slide deck and teleconference

    - Identify major problems and actions necessary or taken to resolve them
- Monthly reports, may be in the format of a slide deck and teleconference
    - Identify major problems and actions necessary or taken to resolve them
- Final Report including major accomplishments and proposed path forward

EXTERNAL CERTIFICATION AUTHORITY (ECA)

Effective for the 12.3 SBIR and 12.A STTR solicitations and thereafter, DoD mission partners under contract with DLA who are not eligible to receive a Common Access Card (CAC) are required to obtain a digital certificate from an approved External Certification Authority (ECA) vendor within 90 days of contract award. DoD Instruction 8520.02 (Public Key Infrastructure (PKI) and Public Key (PK) Enabling, May 24, 2011)) requires DoD mission partners to use certificates issued by the DoD ECA program or a DoD-approved Public Key Infrastructure (PKI) when interacting with the DoD in unclassified domains.

NOTE: Offerors must include, in the ODC line, the proposed purchase cost of each ECA in order to receive reimbursement for the cost of ECAs. Reimbursement is limited to a maximum of three ECAs per company. Offerors should consider purchasing the ECA subscription to cover the entire Phase II period of performance, to include the option year. Offerors will only receive reimbursement for ECA costs once per subscription. Offerors that previously obtained a DoD-approved ECA may not receive reimbursement under any potential SBIR/STTR Phase II contract. Likewise, offerors having received reimbursement for ECAs obtained, as a requirement under an active SBIR/STTR Phase II contract, may not receive reimbursement again for the same ECA purchase under any subsequent government contract.

SMALL BUSINESS CERTIFICATIONS

15 U.S.C. §638(cc), as amended by NDAA FY12 Sec. 5143. Reducing Vulnerability of SBIR and STTR Programs to Fraud, Waste, and Abuse, requires each applicant for and small business concern that receives funding under the SBIR program or the STTR program shall certify whether the applicant or small business concern is in compliance with the laws relating to the SBIR Program and the STTR Program and the conduct guidelines established under the SBIR Policy Directive and the STTR Policy Directive.

SECURITY REQUIREMENTS

If a proposed effort is classified or classified information is involved, the offeror must have, or obtain, a security clearance in accordance with the Industry Security Manual for Safeguarding Classified Information (DOD 5220.22M).

PAYMENT SCHEDULE

Payment will be made in accordance with General Provisions FAR 523.216-7, Allowable Cost and Payments.

PUBLICATION APPROVAL (PUBLIC RELEASE)

National Security Decision Directive (NSDD) 189 established the national policy for controlling the flow of scientific, technical, and engineering information produced in federally funded fundamental research at colleges, universities, and laboratories. The directive defines fundamental research as follows: "Fundamental research' means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from

proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons."

It is DLA's goal to eliminate pre-publication review and other restrictions on fundamental research except in those exceptional cases when it is in the best interest of national security.

COPYRIGHTS

To the extent permitted by statute, the awardee may copyright (consistent with appropriate national security considerations, if any) material developed with DoD support. DoD receives a royalty-free license for the Federal Government and requires that each publication contain an appropriate acknowledgement and disclaimer statement.

PATENTS

Small business concerns normally may retain the principal worldwide patent rights to any invention developed with government support. The Government receives a royalty-free license for its use, reserves the right to require the patent holder to license others in certain limited circumstances and requires that anyone exclusively licensed to sell the invention in the U.S. must normally manufacture it domestically. To the extent authorized by 35 USC 205, the Government will not make public any information disclosing a government-supported invention for a period of five years to allow the awardee to pursue a patent.

Technical Data Rights in technical data, including software, developed under the terms of any contract resulting from proposals submitted in response to a DoD SBIR/STTR Solicitation generally remain with the contractor, except that the Government obtains a royalty-free license to use such technical data only for government purposes during the period commencing with contract award and ending five years after completion of the project under which the data were generated. Upon expiration of the five-year restrictive license, the Government has unlimited rights in the SBIR/STTR data. During the license period, the Government may not release or disclose SBIR/STTR data to any person other than its support services contractors, except:

1. For evolutional purposes
2. As expressly permitted by the contractor
3. A use, release, or disclosure that is necessary for emergency repair or overhaul of items operated by the Government. See
4. FAR clause 52.227-20, "Rights in Data - SBIR Program" and DFARS 252.227-7018, "Rights in Noncommercial Technical Data and Computer Software - SBIR Program."

DLA STTR 15.C Topic Index

DLA15C-001 Detecting Substandard, Nonconforming, Improperly Processed and Counterfeit Materiel

DLA STTR 15.C Topic Descriptions

DLA15C-001 TITLE: Detecting Substandard, Nonconforming, Improperly Processed and Counterfeit Materiel

TECHNOLOGY AREA(S): Air Platform, Battlespace, Chemical/Biological Defense, Ground/Sea Vehicles, Human Systems, Nuclear Technology, Sensors, Space Platforms, Weapons

OBJECTIVE: The Defense Logistics Agency (DLA) seeks to provide responsive, best value supplies consistently to our customers. DLA continually investigates diverse technologies which would lead to the highest level of innovation in the discrete-parts support of fielded weapon systems (many of which were designed in the 1960s, 1970s and 1980s) with a future impact on both commercial technology and government applications. As such, advanced technology demonstrations for affordability and improved industrial practices to demonstrate the combination of enhanced discrete-parts manufacturing and optimized business methods are of interest. All these areas of manufacturing technologies provide potential avenues toward achieving breakthrough advances. Research and Development efforts selected under this topic shall demonstrate and involve a degree of risk where the technical feasibility of the proposed work has not been fully established. Further, proposed efforts must be judged to be at a Technology Readiness Level of less than 6 -- system/subsystem model or prototype demonstration in a relevant environment -- but greater than 3 -- analytical and experimental critical function and/or characteristic proof of concept -- to receive funding consideration.

DESCRIPTION: DLA procures thousands of different components made from metals, plastics, composites and/or rubber for use as spares and replacement parts for weapon systems and critical safety equipment. This includes almost every air, land and sea vehicle; and the support equipment for all of those weapons systems that the DoD employs. From missiles, to rifles, vehicles, aircraft and naval systems, to support equipment for troops, problems abound with substandard, nonconforming, improperly processed or manufactured base materials and with counterfeits parts. The DoD weapon systems and warfighters rely on hundreds of defense contractors to purchase subcomponents, or to design, manufacture, process, and assemble parts into the material that will supply the end items' system and critical subsystems. The U.S. Government Accountability Office (GAO), and the audit, evaluation, and investigative arm of the U.S. Congress has been busy investigating reports of substandard, substituted, fake, nonconforming, counterfeit, and/or damaged parts in the U.S. supply chain. The GAO claims that 40 percent of the DoD supply chain is suffering an adverse impact from fake or defective parts.

When the mechanical components/raw materials of legacy systems become difficult to source because of obsolescence, company closures/buy-outs, etc., they are usually located and sourced using unauthorized suppliers, or reverse engineered and manufactured by other vendors. Suppliers search for parts and materials from their own stock, contractor or government excess stock, aftermarket sources, and often from internet listing sites, which list available components and materials. Components and or materials from alternate locations, and in particular from internet listing sites, run a high risk of being counterfeit or substandard. Vendors trying to figure out how to reverse engineer items will often have to "guess" at the required materials and manufacturing processes, (example, this can be very difficult when trying to recreate a composite item that may have complicated fabric lay-ups). Some base materials visually appear to be the correct substance with proper processing. They will pass a cursory authenticity evaluation. However, the material below the surface may have different properties and not meet the requirements. The very serious risk comes when parts manufactured from substandard material, or without the proper material processing, enter the DoD supply chain.

For example, there have been a number of situations when improperly processed or counterfeit unfinished materials enter the supply chain. There were two episodes where a heat treatment facility processed and sold tons of incompletely heat-treated aluminum to both Government activities and to industry. These incidents seriously contaminated the U.S. supply chain. Another more recent issue was the use of hot ingot titanium to counterfeit forged and rolled titanium. In all of these cases, there was no technology to sort good items from nonconforming or counterfeit items in a nondestructive method.

The general assumption is that through maximum use of authorized suppliers, the mitigation of risk management for

active parts is much less difficult; however, this is not always possible for mechanical items and materials. This risk is present for all purchases from unauthorized suppliers and from reverse engineering activities, regardless of the obsolescence status. There are many needed supply items unavailable from authorized suppliers, and most mechanical items purchased from authorized suppliers (such as a raw unfinished casting or forging) will still require further manufacturing processes (such as final machining, heat treatment, stress relief, shot-peening, chemical coatings, paint, etc.) performed by a contractor to become a finished product useable by the DoD. Things can become even more complex if there is an unapproved substitution of a base material (such as a foreign-made casting, with internal defects or incorrect alloys). Even if the vendor does all the final finishing manufacturing processes correctly, the item(s) made from that material substitution can fail (prematurely or catastrophically).

There are a number of non-destructive methods used for certain types of material authentication. They can include traceability, magnetism (to determine if they are magnetic materials), optical & infrared (if applicable), dimensional inspections, visual (including magnification), chemical, X-Ray Fluorescence (XRF), Eddy Current (surface & near surface on conductive materials), and Ultrasound (for nonporous items). While each of these methods can evaluate and test certain materials and mechanical items to a point, they cannot determine if the material has been properly and fully processed, may not be useable on all types of materials, nor (for the most part) determine if a finished items construction is only from authentic materiel. None of these test methods can reliably test or compare properties such as internal hardness, tensile strength, alloy/composite compositions, material lay-ups, and other internal material properties.

This topic solicits innovative technology development with the goal of being able to determine if manufacturing materials/items have undergone the required proper processing and to determine the authenticity of materials/items. To do this will require baseline comparative studies of manufacturing materials' properties, setting up certain materials with a known certified processing/manufacturing history as reference standards, and then using innovative methods of determining whether the physical properties & characteristics of the base material used to manufacture parts fully meets those standards. The seven most critical requirements for this counterfeit component/nonconforming material avoidance technique are:

1. Identify for further development a non-destructive inspection (NDI) method to ensure that the material in a component or in an unfinished state meets all processing requirements, and is not substandard nor does it have nonconforming physical properties.
2. Identify for further development a non-destructive inspection (NDI) method to ensure that the material in a component or in an unfinished state is authentic, (not made from counterfeit subcomponents or substances).
3. The process must be applicable to both conductive and non-conductive materials (both metallic and non-metallic).
4. To the maximum extent practicable, address the prospective costs and benefits of the candidate NDI process.
5. To the maximum extent practicable, address the time requirements imposed by the candidate NDI verification processes.
6. Develop a comparative "library" of known good materials/items with known good processing as reference standards.
7. Initiate the development of a standard for both commercial and Government use.

The performance of development and testing must progress with the goal of meeting the seven critical requirements above. Phase I development work should focus on meeting the first three critical requirements. Phase II should address the fourth and fifth critical requirements (cost-effective and simple fast detection). The third Phase should address the sixth and seventh critical components ("library" development and standard development).

PHASE I: Develop a method for identification of different base materials and different processing of the same materials. This method must be able to determine differences in processing, such as being able to identify similar appearing rubber components made from different rubber mixes, or to sort out components that have been made from the same mix, yet processed differently. This same sort of requirement must also be demonstrable for metals such as aluminum, i.e., with different alloys or the same alloy with different tempers. If Phase I is accomplished, DLA shall approve all test plans.

PHASE II: Develop production-level methods that allow for cost-effective, efficient, positive material identification. Verify the capability to support positive material identification (100 minimum different combinations of known good materials/processing). (Examples could be one series of Aluminum with different tempers, and multiple

grades or types of rubbers.) Demonstrate the NDI process for the actual items as well as known counterfeits (e.g. rolled titanium vs cast titanium) to ensure detectability. Acceptable detection methods at this level may include sending samples to the developer's facility for analysis. Estimate minimum amount of material per component to achieve 100% confidence. Generate a cost model for the implementation. At this point, either the contractor or DLA representatives will solicit other DoD Components, prime contractors, and component manufacturers for endorsement of the effort. The Phase II cost estimate assessments will be a high-ranking factor in determining feasibility.

A partnership with a current or potential supplier to DLA is highly desirable. Identify any commercial benefit or application opportunities of the innovation. Innovative processes should be developed with the intent to readily transition to production in support of DLA and its supply chains.

DLA shall approve all test plans.

PHASE III DUAL USE APPLICATIONS: Develop a "library" of known certified good materials/items with known good processing as a baseline. Develop a plan to use this baseline to establish in-house counterfeit detectability methods for manufactured components that are 100% accurate. Determine implementation timeframe, and develop a cost and time estimate for developing equipment available for purchase. Situate the equipment for use within the manufacturing and the purchasing facilities to determine whether components are of authentic material. This in-house assessment capability must be stand-alone, but will include exchange of data with the developer in order to confirm base material properties are accurate. DLA and the developer present final information to DoD to develop plan forward for adoption (e.g., no adoption, adoption for only critical components, full adoption as DLA recognizes that this library will become an on-going effort as new materials are inducted). Initiate the development of a commercial standard for use by both industry and the Government during the development of the "library." (Due to the time needed for standards development, this standard does not have to be balloted or released at the end of PHASE III.)

REFERENCES:
1. "Intellectual Property Rights Violations: A Report on Threats to United States Interests as Home and Abroad", National Intellectual Property Rights Coordination Center, November 2011.

2. "Defense Supplier Base: DoD Should Leverage Ongoing Initiatives in Developing its Program to Mitigate Risk of Counterfeit Parts", United States Government Accountability Office, Report to Congressional Requesters, April 2010

3. Government-Industry Data Exchange Program (GIDEP) Documents: AAN-U-05-034, XS2-A-98-01, EQ3-A-98-01, and AAN-U-10-005B.

KEYWORDS: Counterfeit, detection, substandard material, nonconforming, fake, conforming, improperly processed, non-destructive testing, NDI, NDT, quality, authentication, verification, unapproved substitution, material substitution, certified, remarking, reference standards, traceability, non-metallic, physical properties and material characteristics