



National Aeronautics and
Space Administration

Cooperative Agreement Notice (CAN) 2017

Dual Use Technology Development
at
NASA John C. Stennis Space Center

Catalog of Federal Domestic Assistance (CFDA) Number 43.003

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Cooperative Agreement Notice (CAN)

Technology Development

1.0 Description of the Opportunity

1.1 Background

John C. Stennis Space Center (SSC) is the primary NASA rocket propulsion testing center. SSC tests items ranging from multi-engine stages to individual components of rocket engines. Propulsion test customers include NASA, the Department of Defense and the commercial space launch industry. SSC manages a large federal city that is home to over forty federal, state, university and industry entities. SSC manages a restricted airspace that is available for development, testing and operation of unmanned aerial vehicles. SSC engineering laboratories design and test electronics, sensors, algorithms and mechanical components.

1.2 Purpose

This CAN supports identification and implementation of cost-sharing partnerships to develop technology to meet a specific NASA need at SSC.

1.3 Scope

This notice is seeking responses from potential partners interested in entering into a Cooperative Agreement with NASA for the joint development of technologies to meet SSC needs. These technology development projects are managed by the Chief of the Advanced Technology & Technology Transfer branch at the John C. Stennis Space Center, Stennis Space Center, MS.

Project awards are contingent upon availability of funds. The participating partner will contribute an equal value of resources to match the NASA funding for the project. NASA plans to fund projects in FY2017 at approximately \$25,000 to \$75,000 per project with a period of performance of 12 months. The projects will be joint technology development efforts in the areas indicated in Section 2.0 that will include collaboration with NASA or NASA support contractor personnel. NASA facilities may be available for use in the technology development and demonstration if needed, but must be stipulated in the agreement and negotiated prior to proposal submission.

Under this notice, NASA will award Cooperative Agreements in accordance with the applicable sections of the NASA Grant and Cooperative Agreement Manual (the Manual). The Manual is available at https://prod.nais.nasa.gov/pub/pub_library/srba/index.html. Under a Cooperative Agreement, the funding agency will have substantial involvement in, and contribution to, the technical aspects of the effort. This type of notice also allows contact with the subject matter experts at Stennis Space Center during the CAN open period, subject to the limitations set forth in the Manual. Particular attention is directed to Section 5.7 **Funding**. The agreements officer for this notice is Gerald Norris (gerald.l.norris@nasa.gov) and his authorized representative is George Piccolo (george.r.piccolo@nasa.gov).

1.4 Eligible Applicants

There are no restrictions on eligibility, all potential applicants are eligible

1.5 Partnership Principles

In a Cooperative Agreement between NASA and a partner, the partner is required to contribute at least 50 percent of the total resources required to accomplish the objectives of the project. However, special situations may arise in which NASA will allow the partner contribution to be less than 50 percent. This will require justification by the partner and approval by NASA prior to formal submission of the proposal. Partner contributions may be cash, non-cash or both.

Cooperative Agreements awarded under this notice will be fixed price agreements and milestone billing will be the method of payment to the partner. Performance based milestones are used as the basis of establishing a set of verifiable milestones for payment purposes and monitoring project progress. Each milestone payment shall be established so that the Government payment is at the same share ratio as the Cooperative Agreement share ratio. The partner will establish the milestones necessary to accomplish the technology development. Milestone schedules having payments heavily loaded early in the schedule (“front loaded”) must include sufficient rationale documenting the need for, and benefit to the government of, such an arrangement

2.0 Project Requirements

All proposals must clearly identify a specific NASA technical need at John C. Stennis Space Center (SSC) or technologies that address the Space Technology Roadmap and could applied a SSC. NASA technology roadmap can be found at the following link: <http://www.nasa.gov/offices/oct/home/roadmaps/index.html>

2.1 Areas of Interest

SSC technology interests, include, but are not limited to, the following:

Propulsion system test technology • In-line LOX quality measurement • LOX flow measurement	Innovative components & materials • Cryogenic pumps • Valves designed for 15kpsi and higher
Autonomous & intelligent systems • Machine learning & adaptive systems • Anomaly detection & identification • Fault tolerant systems • Autonomous operations	Big data processing & analysis • HPC & cloud computing • Real-time, high-speed, streaming data analytics • High-speed video processing and analysis • Predictive monitoring and forecasting
Advanced sensors & instruments • Internet of Things (IoT) • Nonintrusive monitoring of flow systems • NDE of structures • Revolutionary sensor systems for system monitoring or in-situ resource utilization (ISRU)	Systems engineering & optimization • SysML and/or MATLAB-based modeling and simulation of complex, multi-domain systems • Optimization of operations & logistics • Optimization of system design and operations • Robust cost estimation tools/practices

Image & signal processing • Remote sensing algorithms & analysis • High-speed signal processing • Deep learning & neural networks	Computational modeling & simulation • CFD • Electromagnetics • Optics
Energy harvesting • Energy harvesting & storage • Very low power circuits & systems	Decision support tools & systems • Software engineering, development & test • App & software tool development

2.2 Reporting Requirements

All proposals shall provide monthly progress reports using the link found [here](#). The reports shall describe the progress, results and issues to NASA SSC. Additional reporting requirements can be found in the Manual at https://prod.nais.nasa.gov/pub/pub_library/srba/index.html.

In addition, the reporting clauses in a Cooperative Agreement require that any reportable technology or innovation developed during the partnership must be reported. ***The final milestone payment will not be made until all reporting requirements for the project have been submitted.***

3.0 Submission Instructions

This CAN is valid for one year from the date of issuance. The first step in the process is submission of a Notice of Intent (NOI). NOI submissions may be received at any time during the open period of this CAN. All Notices of Intent in response to this CAN shall be submitted electronically by completing the Notice of Intent (NOI) link at the following URL: <http://technology.ssc.nasa.gov>

Each NOI will be evaluated based on the following factors:

- Strategic alignment with NASA SSC interests
- Technical merit and feasibility
- Period of performance
- Cost realism and acceptability

All offerors will be notified via email with the result of the assessment regarding their NOI. Each offeror with a NOI selected by NASA SSC for further evaluation will be notified by NASA with instructions for submitting a full Project Proposal.

3.1 Notice of Intent

A Notice of Intent must provide the following information:

- Project Title
- Lead Individual and Key Personnel
- Relevant NASA Personnel and Facilities, if needed
- Proposal Abstract
- Project Cost Estimate

3.2 Project Proposal Submission

Upon notification that a NOI has been selected for submission of a full Project Proposal, the offeror will be provided with a template for that proposal. The offeror shall use that template to prepare the Project Proposal in accordance with the instructions in the following sections. Cost and budget information shall be submitted in accordance with the instructions in Appendix A. Examples of milestone submittals are shown in Appendix B. All Project Proposals in response to this CAN must be submitted electronically to the SSC Procurement Office via e-mail to gerald.l.norris@nasa.gov (cc to george.r.piccolo@nasa.gov) and referencing the CAN number in the subject line. Electronic proposals must bear the signature of an authorized company official (e.g. pdf document, scanned copy of signed proposal, etc.) Paper submission will not be reviewed. Should electronic submission of a signed copy of the proposal not be possible, the signature page only should be faxed to John C. Stennis Space Center, NASA Office of Procurement/Mail Code DA10, Attn: Gerald Norris at (228) 688-6024.

3.2.1 Proposal Content and Format

All proposals shall contain the following sections: 1) Technical Proposal section detailing the technical objectives and methods to be used in the project, 2) Business/Commercialization Plan section outlining the commercialization goals and processes, 3) Personnel and Facilities section describing the relevant experience of the key personnel and the facilities to be used in the execution of the project, and 4) Cost section containing both the expected NASA cost and the contributions of the company.

Title Page	1 page
Introduction	2 pages
Technical Proposal	5 pages
Business/Commercialization Plan	2 pages
Personnel and Facilities	2 pages
Cost Plan	2 pages
Schedule	2 pages
Milestones with Cost	2 pages

3.2.2 Technical Proposal

A project proposal must present a scientific or technical innovative approach that addresses a specific NASA technology need in the areas described in Section 2.1. The proposal should contain a clear and succinct statement of the specific technology development proposed and a brief explanation of how this innovative approach is relevant and important to meeting the identified technology need. A work plan should be included that indicates what development effort will be performed, where it will be performed, and how it will be performed. The methods planned to achieve each objective or task should be discussed in detail. These task descriptions should be linked to the milestones defined for the payment schedule.

3.2.3 Business/Commercialization Plan

This section will describe plans for commercialization by identifying the contemplated commercial product and/or service and describe the corresponding commercial venture and the unique competitive advantage of both. Provide a market feasibility study by identifying the target market and showing the distinction between U.S. Government and other markets with an estimated potential market size in terms of revenues to be realized by the partner. Show the strategic relevance of the project to the partner with the proposed technology in terms of the partner's current business segments, overall business plan, and relative position with respect to its competitors.

Describe the amounts and sources of private financial resources expended and committed to date with respect to the technology development project and business development of the targeted commercial venture with evidence of the partner's current financial strength.

3.2.4 Personnel and Facilities Plan

Key personnel involved in the development activities will be identified in this section. Key personnel are the principal investigator and other individuals whose expertise and functions are essential to the success of the project. Provide biographic information including directly related education and experience. Describe in detail any consortia as recipients, subcontracting, consultant, or other business arrangements.

The partner should identify and describe the relevant facilities and equipment currently available, and those to be purchased, to support the proposed activities. NASA strongly discourages funding the acquisition of equipment, instrumentation, or facilities.

3.2.5 Cost Plan

The Cost Plan should contain a budget and co-funding plan that contains clear identification of cash requirements and contributions as well as the value of in-kind resources dedicated to accomplishing the project. Under the terms of a Cooperative Agreement, the partner is required to contribute at least 50% of the total resources required to accomplish the Cooperative Agreement. However, special situations may arise in which NASA will allow for the partner contribution to be less than 50 percent. This will require justification by the partner and approval by NASA prior to proposal submission. This contribution can be in cash, non-cash, or a combination. The cost plan should be submitted as a budget summary using the format shown in Appendix A.

The budget must be sufficient and reasonable to accomplish the project. It must identify the costs for the milestones and final deliverables. It must also contain a clear co-funding plan for the use of NASA resources.

The Cost Plan should be prepared in accordance with the following guidelines and completed for each agreement year if applicable. The Plan shall include the resources requested from NASA. The costs for the project and the shared funding requirements of the Cost Plan should be reflected in a Table similar to that shown in Exhibit 3.6.1. The cost categories in the table should be based on the descriptions in the following sections and will show in detail in the budget summary in Appendix A.

Salaries and Wages: The names of the Principal Investigator and other senior associates should be listed along with the estimated number of person months for which NASA funding is requested or cost sharing will be provided. For other professionals and associates, each position must be

listed, with the number of full time equivalent person months and rate of pay (hourly, monthly, or annual). For clerical, secretarial, supporting staff, etc., only the total numbers of persons and total amount of salaries per year in each category are required. Salaries requested must be consistent with the institution's regular practices.

Fringe Benefits: Contributions to employee (social security, retirement, etc.) may be treated as direct costs if that is the company's usual accounting practice.

Materials: Equipment purchases are discouraged, especially computing equipment. Equipment or materials costing \$1,000 or more should be listed individually by description and estimated cost and adequately justified. Allowable items for NASA funding will be limited to equipment and apparatus that are not already available for the conduct of the work. General purpose office equipment will not be considered eligible for support. NASA prefers that these items be a part of the proposer's cost sharing plan.

Other Direct Costs: Travel - Mode of travel, destination, number of calendar days, per diem, and relevance to the proposed activities should be specified. In order to qualify for support, attendance at meeting or conferences must directly contribute to specific project objectives. Allowance for air travel normally will not exceed the cost of round trip, economy air accommodations.

Indirect Costs: The basis and rate for all indirect fees and costs, including overhead and general and administrative expenses must be within generally acceptable levels, conform to typical Federal grant and contract guidelines, and be clearly specified in the proposal. A copy of any indirect rate agreement in place (e.g. with the Department of Naval Research - DNR, or Health and Human Services - HHS) should be submitted with the proposal.

Profit/Fee: Profit/fee is considered an unallowable cost, per the Manual, **5.9 Budget Analysis**. In addition, profit/fee is inconsistent with the spirit of the Dual Use program, which is intended to enable an entity to further a technology/research by using resources that may not otherwise be available to them and to potentially expand an industrial base for NASA. It is not intended to be a profit generating venture.

Cost Category	Total Per Cost	Cost Sharing	NASA Funding
Salaries & Wages			
Fringe Benefits			
Materials			
Other Direct			
Indirect (Overhead)			
Total			

Exhibit 3.2.5: Budget and Cost Sharing Requirements Breakdown

3.2.6 Additional Information

In addition, the proposal will also include:

1. A Taxpayer Identification Number (TIN) must be included with the address listed on the proposal. If an award is made, advance payments cannot be made without a TIN (31 U.S.C. 7702(c) (1)).

2. A Dun and Bradstreet, Data Universal Numbering System (DUNS) number shall be included on the Cover Page of all proposal submissions. Before submitting a proposal, all applicants shall have an active registration in the Department of Defense, System for Award Management (SAM) database and shall obtain a Commercial and Government Entity (CAGE) code. Prior to award, the grant officer shall verify active registration in the System for Award Management (SAM) database, by using the DUNS number or, if applicable, the DUNS+4 number, via the Internet at https://www.sam.gov/portal/public/SAM/?portal:componentId=66fdb602-77f6-4ba0-914a-0be8f0d831e1&portal:type=action&interactionstate=JBPNS_rO0ABXc0ABBfanNmQnJpZGdlVmllld0lkAAAAAQATL2pzZi9mdW5jdGlvbmFsLmpzcAAHX19FT0ZfXw** or by calling toll free: (866)-606-8220.

3.2.7 Schedule/Milestones

The schedule section will define the development schedule with key milestones clearly identified on the schedule. Definitions of the key milestones should be included with task descriptions and assignments, resource allocations, and planned accomplishments in the Technical Proposal. The due dates for any identified deliverables, by either party of the agreement, will be shown on the schedule. An example Milestone Plan is shown in Appendix B.

The Milestones are important because the amount of payment of NASA resources will be made only upon completion of the milestones identified in the proposal and established in the Cooperative Agreement.

As described in paragraph 2.2. above, NASA requires that the first Milestone be a project “kick-off” meeting between the partner and NASA. NASA also requires that the last Milestone be a project closeout briefing between NASA and all parties involved.

Payment Milestone Costs should be structured so that the cost identified for the kick-off meeting reflects only those costs required to conduct the meeting. Should other activities be included, they should be identified and their corresponding costs identified. Payment Milestone Costs should be appropriately structured for the actual work planned, as “front loading” of proposals will not be permitted.

4.0 Selection and Evaluation Factors

4.1 Selection of Notices of Intent

Offerors will be notified whether or not they have been selected for Project Proposal submission within 60 business days after NASA receives the Notice of Intent. In some incidences the Offeror may be notified that the Notice of Intent submission meets the selection criteria but invitation to submit a Project Proposal may be delayed for administrative and/or funding availability reasons. The Offeror should indicate in the Notice of Intent whether a delay of this nature is acceptable and the length of time the NOI will be valid.

4.2 Evaluation of Project Proposals

The full proposals will be evaluated on the following factors. These factors will be weighted as follows:

Factor	Weight (%)
Strategic Alignment with NASA/SSC Interest	50
Technical merit and feasibility	30
Cost realism and acceptability	15
Period of performance	<u>5</u>
Total	100

The proposals will be ranked in order of maximum score and selected in accordance with available funding levels.

4.2.1 Factor: Strategic Alignment with NASA/SSC Interest

Proposed projects must demonstrate strategic alignment with and relevance to NASA's overall goals and Stennis Space Center's assigned mission.

4.2.2 Factor: Technical Merit and Feasibility

The proposed project will be evaluated on whether it offers a feasible technical approach to a NASA problem or need. Specific objectives, approaches and plans for developing and verifying the innovation must demonstrate a clear understanding of the problem and current state-of-the-art. The degree of understanding and significance of the risks involved in the proposed innovation must be presented.

The technical capabilities and experiences of the principal investigator or project manager, key personnel, staff, consultants and subcontractors, if any, will be evaluated for consistency with the research effort and their degree of commitment and availability. The necessary facilities required must be shown to be adequate and any reliance on external sources, such as Government Furnished Equipment or Facilities, addressed.

4.2.3 Factor: Cost Realism

The cost plan will be evaluated to ensure that the proposed budget is sufficient and reasonable to accomplish the project. The evaluation will assess whether there is clear identification of cash requirements and contributions as well as the value of in-kind resources dedicated to accomplishing the project. The evaluation will ensure the plan meets the terms of the Cooperative Agreement and that there is a sufficient contribution of the total resources required to accomplish the Cooperative Agreement whether in cash or in kind contributions.

4.2.4 Period of Performance

The period of performance shall not exceed one year or twelve months from the date of the contract.

5.0. Personal Identity Verification of Contractor Personnel (JAN 2011)

Agencies must follow Federal Information Processing Standards Publication (FIPS PUB) Number 201, “Personal Identity Verification of Federal Employees and Contractors,” and the associated Office of Management and Budget (OMB) implementation guidance for personal identity verification for all affected contractor and subcontractor personnel when contract performance requires contractors to have physical access to a federally-controlled facility or access to a Federal information system.

As a result, the following clause is required to be in all applicable solicitations and contracts

Personal Identity Verification (PIV) of Contractor Personnel (JAN 2011)

- (a) The Contractor shall comply with agency personal identity verification procedures identified in the Homeland Security Presidential Directive-12 (HSPD-12), Office of Management and Budget (OMB) guidance M-05-24, and Federal Information Processing Standards Publication (FIPS PUB) Number 201.
- (b) The Contractor shall insert this clause in all subcontracts when the subcontractor is required to have physical access to a federally-controlled facility or access to a Federal information system.
- (c) Please See Appendix C for the procedure and process for PIV.

Appendix A: Budget Summary



BUDGET SUMMARY NASA use only

FROM _____ TO _____ (performance period)

Recipient's Costs

	A: Total Project Cost	B: Company Cost Share	C: NASA Contribution
Direct Labor: (salaries, wages, fringe benefits)	\$4.00	\$2.00	\$2.00
Other Direct Costs:	\$2.00	\$1.00	\$1.00
Subcontracts			
Consultants			
Equipment			
Supplies			
Travel			
Other			
Other			
Other			
Facilities & Administrative Costs:	\$2.00	\$2.00	\$0.00
Other Applicable Costs:	\$4.00	\$2.00	\$2.00
SUBTOTAL – Estimated Costs:	\$12.00	\$7.00	\$5.00
Carryover Funds (if any)	\$0.00	\$0.00	\$0.00
a. Anticipated amount:			
b. Amount used to reduce budget			
TOTAL ESTIMATED COST:	\$12.00	\$7.00	\$5.00
APPROVED BUDGET:	\$	\$	\$

Instructions

1. Provide a completed budget summary sheet for year one and separate estimates for each subsequent year.
2. Recipient's total estimated project costs should be entered in Column A. Columns B should reflect the amount of the project cost to be contributed by the company and C should reflect the amount of the cost to be contributed by NASA.
3. Provide as attachments detailed computations of estimates in each cost category with narratives required to fully explain proposed costs. See back page, Appendix A.

NOTICE: INFORMATION CONTAINED ON THIS FORM IS NOT TO BE RELEASED OUTSIDE OF THE GOVERNMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE RECIPIENT.

Appendix A: Budget Summary, Continued

SPECIFIC COSTS

1. Direct Labor (salaries, wages, and fringe benefits): Attachments should list number and titles of personnel, amounts of time to be devoted to the Cooperative Agreement, and rates of pay.
2. Other Direct Costs:
 - a. Subcontracts: Attachments should describe the work to be subcontracted, estimated amount, recipient (if known), and the reason for subcontracting.
 - b. Consultants: Identify consultants to be used, why they are necessary, the time they will spend on the project, and rates of pay.
 - c. Equipment: List separately. Explain the need for items costing more than \$5,000, unless a lower threshold has been established by your institution for classifying such purchases as equipment. Describe the basis for estimated cost. General purpose equipment is not allowable as a direct cost unless specifically approved by the grant officer. Any equipment purchase requested to be made as a direct charge under this grant must include the equipment description, how it will be used in the conduct of the basic research proposed, why it cannot be purchased with indirect funds, and a statement certifying that the equipment will be used exclusively for research and not for general business or administrative purposes.
 - d. Supplies: For items below the threshold established for equipment, provide the general categories of needed supplies, the method of acquisition and the estimated cost.
 - e. Travel: Describe the purpose of the proposed travel in relation to the agreement and provide the basis of the estimate, including information on destination and number of travelers where known.
 - f. Other: Enter the total of direct costs not covered by 2a through 2e. Attach an itemized list explaining the need for each item and the basis for the estimate.
3. Facilities and Administrative (F&A) Costs: Identify F&A cost rate(s) and base(s) as approved by the cognizant Federal agency, including the effective period of the rate. Provide the name, address, and telephone number of the Federal agency official having cognizance. If unapproved rates are used, explain why, and include the computational basis for the F&A expense pool and corresponding allocation base for each rate.
4. Other Applicable Costs: Enter total, explaining the need for each item.
5. Subtotal-Estimated Costs: Enter the sum of items 1 through 4.
6. Carryover Funds (if any): Enter the dollar amount of any funds that are expected to be available for carryover from the prior budget period. Identify how the funds will be used if they are not used to reduce the budget. NASA officials will decide whether to use all or part of the anticipated carryover to reduce the budget. Not applicable to 2nd-year and subsequent-year budgets submitted for the award of a multiple year grant.
7. Total Estimated Costs: Enter the total after subtracting items 6 and 7b from item 5.

Appendix B: Sample of Possible Proposal Inputs

Example of Milestone Costing Plan

Milestones	* Time (end of)	Cost (\$)
Kickoff meeting	1 week	3,000
Preliminary Design	5 weeks	10,000
Material Procurement	9 weeks	10,000
Fabrication of Prototype I	15 weeks	15,000
Testing of Prototype I	22 weeks	10,000
Modification and Fabrication of Prototype II	29 weeks	10,000
Closeout and Delivery of Prototype II	39 weeks	5,000

Total NASA Funding: \$63,000

* - Time, in weeks, from effective date of agreement.

Appendix C: PIV Card Issuance Procedures

PIV Card Issuance Procedures in accordance with Grant and Cooperative Agreement Manual 1800.913 Investigative Requirements (October 2015)

FIPS 201 Appendix A graphically displays the following procedure for the issuance of a PIV credential.

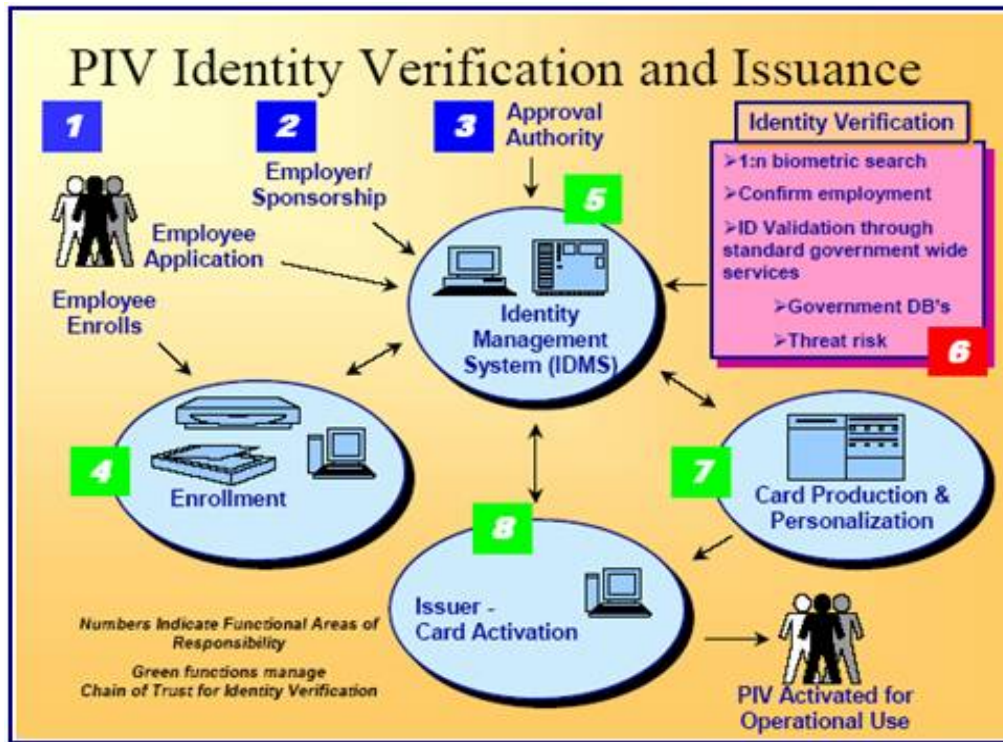


Figure A-1, FIPS 201, Appendix A

Step 1:

The grantee or recipient submits a formal letter that provides a list of the names of individuals (applicants) who require access to a federally-controlled facility or access to a Federal information system to the cognizant NASA technical officer. In the case of a foreign national applicant, approval through the NASA Foreign National Management System (NFMMS) must be obtained for the visit or assignment before any processing for a PIV credential can take place. Further, if the foreign national is not under a grant or Cooperative Agreement where a technical officer has been officially designated, the foreign national will provide the information directly to their visit/assignment host, and the host sponsor will fulfill the duties of the technical officer mentioned herein. In each case, the letter shall provide notification of the grant, Cooperative Agreement, or foreign national's full name (first, middle and last), social security number (SSN) or NASA Foreign National Management System Visitor Number if the foreign national does not have a SSN, and date and place of birth. If the applicant has a current satisfactorily completed National Agency Check with Inquiries (NACI) or an equivalent or higher degree of background investigation, the letter shall indicate the type of

investigation, the agency completing the investigation, and date the investigation was completed. Also, the letter must specify the risk/sensitivity level associated with the position in which each applicant will be working (NPR 1600.1, §4.5 is germane). Further, the letter shall also acknowledge that applicants may be denied access to NASA information or information systems based on an unsatisfactory background investigation/adjudication.

After reviewing the letter for completeness and concurring with the risk/sensitivity levels, the technical officer/host must forward the letter to the Center Chief of Security (CCS). The CCS shall review the OPM databases (e.g., DCII, PIP, et al.), and take appropriate steps to validate the applicant's investigation status. Requirements for a NACI or other investigation shall be initiated only if necessary.

Applicants who do not currently possess the required level of background investigation shall be directed to the e-QIP web site to complete the necessary background investigation forms online. The CCS shall provide to the technical officer/host information and instructions on how to access the e-QIP for each grantee, recipient or foreign national employee requiring access.

Step 2

Upon acceptance of the letter/background information, the applicant will be advised that in order to complete the investigative process, he or she must appear in-person before the authorized PIV registrar and submit two forms of identity source documents in original form. The identity source documents must come from the list of acceptable documents included in Form I-9, Employment Eligibility Verification, one of which must be a Federal¹ or State issued picture identification. Fingerprints will be taken at this time. The applicant must appear no later than the entry on duty date.

When the applicant appears, the registrar will electronically scan the submitted documents; any document that appears invalid will be rejected by the registrar. The registrar will capture electronically both a facial image and fingerprints of the applicant. The information submitted by the applicant will be used to create or update the applicant identity record in the Identity Management System (IDMS).

Step 3:

Upon the applicant's completion of the investigative document, the CCS reviews the information, and resolves discrepancies with the applicant as necessary. When the applicant has appeared in person and completed fingerprints, the package is electronically submitted to initiate the NACI. The CCS includes a request for feedback on the NAC portion of the NACI at the time the request is submitted.

Step 4

Prior to authorizing physical access of a grantee or recipient to a federally-controlled facility or access to a Federal information system, the CCS will ensure that a check has been performed with the National Crime Information Center (NCIC) and Interstate Identification Index. In the case of a foreign national, a national check of the Bureau of Immigration and Customs Enforcement (BICE) database will be performed for each applicant. If this process yields negative information, the CCS will immediately notify the technical officer/host of the determination regarding access made by the CCS.

Step 5

Upon receipt of the completed NAC, the CCS will update IDMS from the NAC portion of the NACI and indicate the result of the suitability determination. If an unsatisfactory suitability determination is rendered, the technical officer will advise the grantee or recipient that the applicant is being denied physical access to all federally-controlled facilities and Federal information systems.

Based on a favorable NAC and NCIC/III or BICE check, the CCS will authorize the issuance of a PIV federal credential in the Physical Access Control System (PACS) database. The CCS, based on information provided by the technical officer/host, will determine what physical access the applicant should be granted once the PIV issues the credential.

Step 6 :

Using the information provided by the applicant during his or her in-person appearance, the PIV card production facility creates and instantiates the approved PIV card for the applicant with an activation date commensurate with the applicant's start date.

Step 7:

The applicant proceeds to the credential issuance facility to begin processing for receipt of his/her federal credential.

The applicant provides to the credential issuing operator proof of identity with documentation that meets the requirements of FIPS 201 (DHS Employment Eligibility Verification (Form I-9)) documents. These documents **must** be the same documents submitted for registration.

The credential issuing operator will verify that the facial image, and optionally referenced finger print, matches the enrollment data used to produce the card. Upon verification of identity, the operator will locate the employee's record in the PACS database, and modify the record to indicate the PIV card has been issued. The applicant will select a PIN for use with his or her new PIV card. Although root data is inaccessible to the operator, certain fields (hair color, eye color, etc.) may be modified to more accurately record the employee's information.

The applicant proceeds to a kiosk or other workstation to complete activation of the PIV card using the initial PIN entered at card issuance.

¹*A non-PIV government identification badge, including the NASA Photo Identification Badge, MAY NOT BE USED for the original issuance of a PIV vetted credential.*

ALTERNATIVE FOR APPLICANTS WHO DO NOT HAVE A COMPLETED AND ADJUDICATED NAC AT THE TIME OF ENTRANCE ON DUTY (EOD)

Steps 1 through 4 shall be accomplished for all applicants in accordance with the process described above. If the applicant is unable to appear in person until the time of entry on duty, or does not, for any other reason, have a completed and adjudicated NAC portion of the NACI at the time of entrance on duty, the following interim procedures shall apply.

If the documents required to submit the NACI have not been completed prior to EOD, the applicant will be instructed to complete all remaining requirements for submission of the investigation request. This includes presentation of I-9 documents and completion of fingerprints, if not already

accomplished. If the applicant fails to complete these activities as prescribed in NPR 1600.1 (Chapters 3 & 4), it may be considered as failure to meet the conditions required for physical access to a federally-controlled facility or access to a Federal information system, and result in denial of such access.

Based on favorable results of the NCIC, the applicant shall be issued a temporary NASA identification card for a period not-to-exceed six months. If at the end of the six month period the NAC results have not been returned, the agency will at that time make a determination as to whether an additional extension will be granted for the temporary identification card.

Upon return of the completed NAC, the process will continue from Step 5.
