

Federal Aviation Administration

**Center of Excellence
for
Technical Training and
Human Performance**

Final Solicitation

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FAA CENTER OF EXCELLENCE FOR TECHNICAL TRAINING AND HUMAN PERFORMANCE

Overview

The Federal Aviation Administration (FAA) intends to establish a Center of Excellence (COE) for Technical Training and Human Performance (TTHP) in 2016. The goal of this endeavor is to create a cost sharing relationship between academia, industry and government that will focus on areas of primary interest to the FAA and the aviation community as a whole.

Our purpose is to forge a union of public sector, private sector and academic institutions to create a world-class consortium that will identify solutions for existing and anticipated technical training and related issues. The FAA expects the COE to perform basic and applied research, education and training tasks through a variety of analyses, development, and prototyping activities.

To this end, the FAA Center of Excellence Program Office is soliciting proposals from accredited institutions of higher education with their partners and affiliates. The FAA intends to initially enter into cooperative agreements with core university members, and will thereafter award matching grants to establish the COE without further competition.

The Office of Primary Interest (OPI) and sponsor of the COE for TTHP is the FAA Air Traffic Organization, Technical Training Directorate, AJI-2. The FAA OPI intends to support this COE over the next five years at a base funding level of \$1 M each year. Without further competition, the FAA may exercise the option to renew the initial COE cooperative agreement for an additional five years following a successful evaluation which will be conducted prior to expiration of Phase I activities.

Other government organizations and private companies have indicated an interest in working with the FAA and the selected COE team, and may contribute additional funds and other resources as co-sponsors of this Center.

As a result of this competitive process, the FAA also plans to award an Indefinite Delivery Indefinite Quantity (IDIQ) contract to the selected COE team members. Thereafter, the COE team will be positioned to receive delivery order tasks on a cost reimbursement, cost sharing, and/or fixed-price basis for the benefit of the FAA, as a result of this competitive process.

Lead COE universities must declare their intention to submit a proposal and identify the core university team and affiliate members by **January 15, 2016**.

FAA CENTERS OF EXCELLENCE PROGRAM

The FAA has engaged in public-private partnerships with the nation's academic research community and has fostered important research through the long-term COE business strategy and organizational structure. The COEs enable the agency to enhance internal research capabilities by accessing the talent of nationally recognized academic and industry research scientists and maximizing the synergies amongst all partners and affiliates. COEs have provided the agency and the industry a high return on research investments by educating a pool of professionals to serve the next generation, promoting the advancement of aviation science and technology transfer while generating matching contributions in excess of \$300M from non-federal sources.

Background

The agency complies with Congressional direction by establishing major research centers throughout the U.S. with our COE university members and their industry and other affiliates. In doing so, the FAA proactively creates a cadre of scientists trained in critical aviation topics, supports cooperative public-private research and development (R&D) efforts, and strategically facilitates outreach, information dissemination, and technology transfer.

The COEs are required by Congress to generate dollar-for-dollar matching contributions when awarded federal grants to *establish, operate, and conduct related research*. These non-federal contributions solidify a significant partnership between the COE members and the FAA by enabling the government, academic institutions, and industry to: leverage their combined resources; expand aviation-related research; and maximize the technological competence of each participating entity.

The selected educational institution enter into long-term cooperative agreements to conduct critical research, education, training and related COE activities in specific areas of importance to the FAA's mission and long-term vision. In order to comply with the terms of the cooperative agreement and enable proper oversight and monitoring of tasks, the members are required to host four meetings during the first year of COE operations, and two meetings each year thereafter.

COE members conduct annual research reviews, provide technical expertise to relevant FAA projects, and participate on major planning and investigative committees. They support joint COE conferences as scheduled, host seminars, conduct reviews, and participate in meetings to assure the dissemination of research results and to comply with statutory mandates.

Researchers may be drawn from faculty and students at academic institutions, other organizations, the FAA, and other government agencies. They may perform their work at a college or university, an FAA location, an industry location, or an appropriate facility agreed upon by the parties involved.

Each proposing team designates one academic institution to serve as the Lead during the application process. This university is initially responsible for: 1) combining the input of each member and all affiliates, and 2) submitting the proposal in accordance with the procedures described in this

document. Once established, the team may also designate members to serve in leadership positions such as Executive Director, Administrative Lead, Technical Lead, or members may assume other Lead or Co-Lead responsibilities.

Applicants are required to show the combined resources, facilities, equipment, and matching commitments from industry affiliates, state and local governments, and other resources from non-federal sources that are being made available to meet FAA and statutory requirements. Confirmation of commitments and letters of support are to be included in the proposal submission. The FAA COE Program Office will also accept such documents mailed separately and received by **February 25, 2016**.

A panel of subject-matter-experts and fiscal officers review and evaluate proposals to determine the extent to which applicants are able to demonstrate an appropriate environment for the activities specified. The competitive process is rigorously executed to assure the selecting official(s) that each team being considered for selection meets or exceeds the criteria mandated by Congress and each team is able to meet the needs of the aviation community over the next decade.

As stated in Public Law 101-508, 49 USC 44513, applicants must demonstrate to the selecting official their ability to meet the following equally weighted criteria:

1. *The extent to which the needs of the State in which the applicant is located are representative of the needs of the region for improved air transportation services and facilities.*
2. *The demonstrated research and extension resources available to the applicant to carry out this section.*
3. *The ability of the applicant to provide leadership in making national and regional contributions to the solution of both long-range and immediate air transportation problems.*
4. *The extent to which the applicant has an established air transportation program.*
5. *The demonstrated ability of the applicant to disseminate results of air transportation research and educational programs through a statewide or region-wide continuing education program.*
6. *The projects the applicant proposes to carry out under the grant.**

- ***Please Note:** The projects proposed during the COE application process are for evaluation purposes only. Following the selection of the COE team, specific projects and budgets for each task will be discussed with the COE members. The FAA will fund tasks following FAA technical and programmatic evaluations of individual proposal submissions and each proposal will be subject to a technical evaluation during the establishment of the new COE. . Tasks typically have one to two year duration, and additional tasks may be added throughout the life of the COE.

In addition to the six selection criteria noted above, P.L. 101-508 also states:

GENERAL AUTHORITY - The Administrator may make grants to one or more colleges or universities to establish and operate several regional centers of air transportation excellence, whose locations shall be geographically equitable.

ALLOCATION OF FUNDS - Funds made available to carry out this subsection shall be allocated by the Administrator in a geographically equitable manner.

These requirements are also taken into consideration by the selecting official(s).

Contract Awards

The FAA received authority through the White House Reinvention Lab to award contracts to successful applicants as a result of the COE competitive process. This funding option gives the COE the latitude to take initial research results and continue to develop multiple forms of analyses, applications, and prototyping activities. Once established, funding awarded via the contract vehicle enables the COE to provide deliverables and products for the benefit of the government throughout the life of the Center.

Declaration of Intent to Apply

Qualified institutions of higher education must declare their intention to submit proposals for consideration to the FAA COE Program Director, Patricia Watts, via email:

Patricia.Watts@faa.gov by **January 15, 2016**. The Lead University must submit names and contact information for all core members and proposed COE affiliates.

Questions

Prior to the closing date of this Solicitation, questions may be submitted to the COE Program Director via email: Patricia.Watts@faa.gov.

Questions will be answered officially in writing and posted on the COE website; answered and updated on a weekly basis, and made available at: <http://www.faa.gov/go/coe>.

OVERVIEW OF COE OF TTHP OBJECTIVES

Background

On March 23, 2015, the Federal Aviation Administration (FAA) Administrator concurred with a request submitted by the OPI to establish a Center of Excellence for Technical Training and Human Performance (COE for TTHP). Through this COE, the FAA intends institutions of higher learning to conduct research and related activities expected to result in recommendations for innovative solutions centered on training and human performance throughout the aviation community. The COE will enhance the FAA's research efforts by providing access to the talents of nationally recognized academic training and human performance research scientists. This effort is in support of the FAA's mission to provide the safest and most efficient airspace in the world.

Scope of Work

The selected COE applicant(s) are required to perform research and provide solutions that will advance the technology required to ensure the capabilities of the highly skilled aviation workforce required for the future. The FAA must identify and develop criteria and standards required for the modernization and application to support technical training and proficiency within the aviation community. The research areas presented are examples of the challenges that must be addressed to achieve these goals.

As outlined in the evaluation criteria, the COE applicants must respond to each criterion based on their backgrounds and areas of expertise. Proposals must clearly demonstrate experience in the topic areas, research capabilities, resources, and other factors which would influence the team's ability to provide insight and valuable work products in support of technical training and human performance efforts.

Research Areas

The FAA has identified initial COE research areas of interest. However, it is anticipated the research areas will evolve over time to adapt to changes in the National Airspace System (NAS), technical training requirements, and human performance demands. Each technical area listed under Criterion 6 describes a research area and proposes research questions the applicant should consider.

EVALUATION CRITERIA

Members of this Center of Excellence will be selected based on the evaluation criteria set forth in Public Law 101-508. Applicants are advised to equally address evaluation criteria which are the basis for the selection.

The italicized text used throughout this document indicates language quoted from the enabling legislation and it is unchanged.

Criterion 1: *The extent to which the needs of the State in which the applicant is located are representative of the needs of the region for improved air transportation services and facilities.*

The applicant should demonstrate the following:

- **Regional Relevance of the Team's Educational Environment** - The ability of the team's educational environment, including curriculum, physical locations, etc., to meet educational needs for the region, and demonstrate unique regional airspace or weather patterns for aviation personnel to understand. The ability of the team to reach a rural or dispersed learner base in the region.
- **Socioeconomic Reach** - The team's ability to reach learners of different socioeconomic categories throughout the region, and plans to extend such outreach efforts through a COE.
- **Multicultural Diversity** - The team's ability to reach learners of different cultural backgrounds throughout the region, and plans to extend outreach such efforts through a COE.

Criterion 2: *The demonstrated research and extension resources available to the applicant for carrying out COE activities.*

The applicant should demonstrate the following:

- **Aviation Research Capabilities** - The team's demonstrated ability to conduct aviation research, as indicated by their published research, aviation/aerospace labs, equipment, and/or dedicated personnel available to the COE.
- **Data Processing and Analysis Capabilities** - The team's ability to process and analyze data as part of research and related COE efforts.
- **Extension Resources** - The team's ability to make available resources and extension facilities for COE research and training activities.
- **Computer and Simulation-based Training Resources** - The ability of the team to provide computer and simulation-based environments for applied research in training technology and related COE activities.
- **Instructional Design** - Evidence of the team's competence and forward-thinking approaches to instructional design, particularly for aviation and other technical training.
- **Human Performance** - Evidence of the team's expertise in measurement, analysis, and development of human performance in the workplace.

Criterion 3: *The capability of the applicant to provide leadership in making national and regional contributions to the solution of both long-range and immediate air transportation problems.*

The applicant should demonstrate the following:

- **Program Management Resources** - People, processes, and training tools for program execution and COE management currently in place among the team members or may be developed specifically to support the COE. The demonstrated outcomes of previous efforts.
- **Contracting Process Maturity** - The team's ability to access and develop additional resources with industry or other universities to conduct research and achieve program goals and objectives.
- **Partnering/Membership** - The team members' major contributions when partnering with other entities (private, public or non-profit) that resulted in significant improvements or advancements in the field of air transportation focus areas over the last eight years.

Criterion 4: *The extent to which the applicant has an established air transportation program.*

The applicant should demonstrate the following:

- **Accredited Aviation Programs** - The presence of accredited aviation programs among team members.
- **Aviation Facilities with Flight Operations** - The presence of aviation facilities conducting flight operations among team member universities and affiliates.
- **National Airspace System (NAS) Expertise** - The extent to which the team has expertise in the NAS, including En Route and Terminal operations as well as the technologies that support navigation, communications, surveillance, and air traffic control.
- **Technical Training** - The team's demonstrated ability to deliver a curriculum of modernized training for aviation professionals as evidenced by courses delivered, events conducted and the impact of such activities.

Criterion 5: *The demonstrated ability of the applicant to disseminate results of air transportation research and educational programs through a state-wide or region-wide continuing education program.*

The applicant should demonstrate the following:

- **Distance Learning Resources** - The ability of the team to disseminate research or training via eLearning platforms.
- **Facility Availability** - The availability of facilities for conferences, workshops, etc., for dissemination of research, education, training and COE related activities.
- **Access to Online Journals and Publications** - The team's ability to disseminate research results to stakeholders through in-house or university-affiliated online journals.

Criterion 6: *The projects the applicant proposes to carry out under the grant.* The applicant shall submit a plan that reflects the following research in aviation technical training and human performance areas:

1. **Curriculum Architecture:** The FAA requires the development and maintenance of curriculum architecture to provide organization and structure for Agency training efforts. Curriculum architecture is to form the basis for Agency initiatives for the modernization of training, and well-designed curriculum architecture will allow the Agency to tie all course development and modernization efforts to defined learner job tasks.
2. **Content Management and Delivery:** In order to enable the efficient development and delivery of training courses, the FAA requires implementation of an integrated strategy for managing course content objects and delivering training. The Center can assist in the development and implementation of this content management and delivery strategy, and support research into new content management processes as Agency needs evolve over time.
3. **Simulation and Part Task Training:** The use of simulation and part task training present an opportunity to train in ways that enable more rapid acquisition of proficiency among learners. The Agency requires research into best practices for implementation and evaluation of processes and systems for both simulation and part task training, across the entire aviation technical training learner base.
4. **Human Factors Research:** Human Factors is a discipline that has shown clear applicability to technical training. The FAA stands to benefit from research into the application of human factors concepts to the aviation community technical training curriculum and the implementation of remedial and skill-enhancement training programs based upon lessons learned in applied human factors research.
5. **Analytics:** The FAA requires research into strategies for implementation of learning analytics that can inform recommendations on the best processes and systems for training. Beyond simple training completion records, analytics can provide the Agency with insights into the relative merits of different training environments, instructional strategies, and overall learner progress in training initiatives.
6. **Safety:** The FAA requires research into the relationships between safety and the areas of technical training and human performance. This research can inform and integrate efforts to improve safety by incorporating safety aspects within training outcomes for multiple groups to include but not be limited to inspectors, air traffic controllers and field technicians.

- **Limit:** The research plan shall not exceed 18 of the 70-page limit
- **Distribution:** It is expected that the plan will contain a project addressing **each research area and attempt to be evenly** distributed across the entire spectrum of the areas. The description of each project should be the length of a typical abstract of no more than three pages each.
- **Order:** The research areas are not presented in a particular order of importance. If the applicant believes it is appropriate to place more emphasize on one or more of the focus areas than the others, a clear rationale for the prioritization is suggested.
- **Weight:** In keeping with P.L. 101-508, selection criteria 1 through 6 are equally weighted during the evaluation process.

Note re Criterion 6:

- 1) The projects proposed will not necessarily be funded if the applicant is selected but are presented to be indicative of the applicants understanding of the relevant issues and research approaches to be taken.
- 2) Once a university team has been selected to serve as an Air Transportation Center of Excellence, the FAA sponsor develops a research agenda based on the specific resources and skills provided by the team. Thereafter, university members submit research proposals in their individual area(s) of expertise.
- 3) Funded projects will be defined, evaluated, and supported in accordance with sponsors' needs on an ongoing basis throughout the life of the COE.

Management and Oversight

The applicant must demonstrate their ability to execute and monitor COE activities. Proposals must show how the team will approach, conduct, coordinate and evaluate COE activities. Submissions must also address how the Team Lead will manage the COE, the research and related initiatives within the COE in the short- and long-term. The applicants shall submit a concise Management Plan that reflects the need to manage and oversee COE activities as defined in the Scope of Work and a plan to generate matching contributions from non-federal sources. The Management Plan shall not exceed **10** pages

Center Operations

The COE members maintain close working relationships with the FAA COE Program Management Office (PMO), the FAA Office of Primary Interest (OPI), and other sponsoring program offices. This interactive relationship extends to participation in conferences, meetings, joint research efforts, presentations, and the submission of routine and standardized activity reports to the FAA OPI, other sponsors, and the FAA COE PMO.

The COE is required to track various activities and submit quarterly, semiannual, and a fully inclusive annual report. COE reports include, but are not be limited to: accomplishments; sources of all funds including matching contributions; fiscal expenditures; sub-awards made to COE affiliates and others, hiring of students and placement of graduates; photographs, and other information as required by the FAA COE PMO.

COE OVERSIGHT AND MONITORING

Year 1

During the first year, the COE is required to submit reports and host on-site meetings to assure oversight and monitoring of start-up activities on a quarterly basis. Thereafter, members are required to submit quarterly reports as specified in the cooperative agreement, and host meetings on a semiannual basis.

Years 2-5

After the first year, the COE members and affiliates will host semiannual meetings with agency representatives on topics relating to the status and results of the research and related activities and participate in planning tasks and COE activities during the next year. The COE members will host a major symposium prior to the end of each five-year phase, and as otherwise agreed upon. The Center is also required to actively participate in FAA joint COE meetings as scheduled.

The COE shall host a semiannual review for sponsors of all funded activities, and others, to highlight the results of completed tasks and those in progress. The semiannual review includes on-site meetings and briefings conducted by appropriate technical and support personnel. The meeting must focus on the relevance, merit, direction, results, costs, and benefits of research, training and education efforts in the designated area(s), and include a discussion of potential future projects and plans.

Annual Report

The COE shall prepare and deliver to the FAA COE PMO and to the COE Program Manager a COE standardized annual report. The report shall include but not be limited to: research results, benefits, and information dissemination efforts; the sources and value of matching contributions; spending levels; the name and national origin of all research personnel and intended graduation dates of students; significant events that were sponsored or attended by faculty and students; journal articles and conference proceedings published throughout the past year; and a brief description of the research, training, and COE activities intended to be conducted during the following year. Graphics and photographs, in addition to the narrative descriptions, are highly encouraged. To the extent possible, COE universities are expected to track and report the placement of students upon completion of their studies.

Duration and Assessments

The FAA expects this COE to be established in fiscal year 2016 and to operate under the terms and conditions of the initial cooperative agreement through 2021. The needs of the agency are reviewed annually and the Center is formally assessed within the first five years. COE Phase I cooperative agreements are closed out at the end of the initial five-year period.

Following the Phase I assessment, the FAA Administrator (AOA) is advised of the outcome. With the concurrence of AOA, a Phase II scope of work is developed and the FAA COE PMO negotiates a new cooperative agreement with each COE core university member.

As a result of changing needs, the agency reserves the right to expand scope, change direction, or terminate COE support. Should the FAA determine there is no longer a need for a COE in the particular topic area, the evaluation process has indicated that the COE has not served as needed, or the agency is unable to commit to supporting the partnership through the completion of the Phase II period, the COE PMO will advise the FAA Administrator. The Administrator determines the final course of action to be taken and provides written guidance to the COE PMO and sponsor(s). Thereafter, the FAA COE PMO will develop a plan for an orderly COE phase down over a period not to exceed two years.

During the initial transition between agreement phases, and the final transition through independence or shut down, the FAA takes all measures possible to assure project completion and orderly close out of all tasks.

Information Dissemination

In keeping with the Congressional requirement to disseminate information and the interest expressed by the agency to disseminate and utilize new knowledge, the COE will report on and participate in numerous informational and outreach activities. To satisfy this requirement and to highlight research results, the COE hosts an open meeting prior to the end of Phase I, and conducts a major symposium prior to the end of Phase II.

Additional information dissemination activities may be accomplished in a variety of ways. These might include, but are not limited to continuing education programs focused on COE related topics, university technology transfer activities, the conduct of workshops, or the following:

- Site visits for representatives of key professional, industrial, academic, state or local associations or organizations, members of the media, etc.
- Preparation of COE related publications, articles, pamphlets, manuals, books, and papers delivered at conferences.
- Local, state, or regional meetings.
- Demonstrations of new or proposed technology.

PROPOSAL PREPARATION AND SUBMISSION

To avoid processing delays, the proposal submission should be reviewed carefully to include all essential data and required forms.

Who Is Eligible to Submit

Accredited institutions of higher education are eligible to submit proposals. When a team is proposing to serve as a COE, one member must serve as the Team Lead. The COE members may rotate roles, and change or redefine Lead or member responsibilities during the life of the Center.

Graduate students cannot submit proposals, but they are encouraged to serve as research assistants to faculty members.

Communications during the Competitive Process

- Written questions regarding proposal preparation may be submitted throughout the competitive process to the FAA Centers of Excellence Program Director, Patricia Watts, via email: patricia.watts@faa.gov.
- Potential applicants and others may communicate in writing directly with the FAA COE Program Director during the application and selection process.
- The FAA COE Program Office will review all submissions as received. The COE Program Director may request additional information at any time, during the evaluation period, and thereafter.

Please Note: Other than the COE Program Director, **FAA employees MAY NOT DISCUSS or TAKE QUESTIONS** regarding technical issues, the competitive process, COEs or the COE for TTHP related matters.

When to Submit

The closing time and date for submission is:

3:00 p.m. Eastern Standard Time on Thursday, February 25, 2016.

Proposals postmarked on or before the closing date will be accepted for review.

The FAA COE Program Office will review all submissions as received. Universities submitting a proposal in advance of the closing date will have an opportunity to provide further clarifications as needed prior to the final due date.

Proposals must also be received by **Grants.gov by 3:00 p.m. Eastern Standard Time on Thursday, February 25, 2016.**

What to Submit

The applicant should submit two volumes:

- **Volume I** contains the Technical Proposal, management plan, budget with narrative and forms, and letters of support.
 - a) **Margins** should be 1 inch at the top, bottom and on each side, and text should be in **12 point** Times New Roman.
 - b) Pages must be numbered at the bottom of the page.
 - c) The proposing team should be specified in either a header or footer.
- **Volume II** contains the formal Certifications and Declarations.

Five copies of each proposal must be submitted in addition to the original.

- Attach reprints, appendices or other materials to be considered with the proposal to each individual copy of the proposal.
- Print the original signed copy single-sided and clearly mark as “**Original**” with the exception of original forms. Additional copies of the proposal may be printed on both sides.

USB Flash Drive: Applicants must also include an electronic copy of all submitted materials on a clearly labeled USB flash drive. The digital files should be appropriately identified.

Metric System: The Omnibus Trade and Competitiveness Act of 1988 requires federal agencies use the metric system in procurement, grants, and other business-related activities. Proposals for grants submitted to the FAA are required to use the metric system of weights and measures. Likewise, reports, publications, and communiqués regarding proposals are required to use metric units.

Submission Order: Assemble proposals with tabs and present in the order outlined below:

A. Cover Letter: The Team Lead must affix a standard cover letter to the front of the proposal. The cover letter must be signed by (1) an official authorized to commit the university and (2) the principal investigator (PI) serving as the main technical contact and/or a senior level officer at the lead institution.

B. Points of Contact: **A final list of all points of contact, technical leads and fiscal officers (form attached)**

C. Evaluation Grid. The attached form entitled the “Evaluation Grid” is to be filled out and inserted immediately prior to the Table of Contents. This 11” x 17” form is meant to assist the evaluation team and the applicant in identifying the exact location of responses to the Evaluation Factors and Selection Criteria. Fold the page inward as needed to accommodate the proposal size.

This page IS NOT counted as part of the narrative statement 70 page limitation cited in Volume I, Proposal. The last column of the Grid (“Additional References”) has been included to accommodate

any material that the applicant would like to draw to the attention of the evaluators that may further address the Criterion cited.

D. Table of Contents

E. Volume I, Proposal Contents: – tabulated in three Sections as follows:

Section 1: - The Narrative (limit 70 pages). The proposal must consist of a narrative statement that addresses the evaluation factors reflected by the six selection criteria established by statute.

Note: The six evaluation criteria are equally weighted during the evaluation process. Therefore, the team should address Criteria 1 through 5 carefully distributing the pages to adequately cover each criterion.

Criterion 6 - Projects Proposed. Applicants may submit **no more than three (3)** pages to address **each of the research areas** in response to **Criterion 6.**

A budget form for each project is not required but may be included. See attached.

Section 2: - The Management Plan (limit 10 pages). The strategic business and financial plan must detail how the Lead institution proposes to: oversee, monitor, direct and manage the COE team; track awards and expenditures; collaborate with and coordinate COE activities, and generate matching contributions and income from outside sources in order to achieve self-sufficiency within a 10-year period. The plan should include, in this order:

- 1) an organization chart
- 2) a narrative describing the roles and responsibilities of key personnel including the team lead(s), industry affiliates, advisory board members, etc.
- 3) projected activities to be undertaken during the life of the COE to satisfy Congressional mandates, achieve goals of the COE and the COE Program, and provide oversight for technical and fiscal matters
- 4) the anticipated cost of managing the COE during the first two years in the form of a projected budget and a supporting narrative. **The attached budget form may be used.**

Section 3 - Letters of Commitment (**no page limit**). In addition to the Cover Letter provided by the Lead University, each core university team member must submit a letter of commitment signed by the authorized official and the PI.

Letters from affiliates and sources of potential support may also be included in this Section.

F. Volume II, Certifications and Declarations. This volume is not limited by page count and consists of the following items tabulated in this order:

(1) Audit Reports:

- a) Each core university member must include a copy of the most recent audit report or a link to this document. The members selected will be required to provide documentation of actions taken to address audit findings where they might have existed.
- b) Include the name and telephone number of the cognizant federal auditing agency representative or other auditor where appropriate. Members of the selected COE team(s) will be asked to provide additional forms and reports if needed.

(2) Standard Form 424: Application for Federal Assistance. The original must be signed by the authorized Organizational Representative.

(3) Research and Related Senior/Key Person Profile (Expanded): Curriculum vitae for Center Lead(s) and key staff at member universities are limited to two pages per individual plus list of individuals' published papers.

(4) Research and Related Personnel Data

(5) Anticipated Research and Related Budget

(6) Research and Related Federal and Non Federal Budget form:- include both FAA award amount, matching contributions anticipated and potential sources of match.

(7) Project/Performance Site Locations of each Core member and a Form 424 (Application for Federal Assistance) signed by each Core COE university fiscal officer.

(8) Indirect Cost Agreement. Provide a copy of the negotiated overhead and fringe benefit rates.

Note:

- a) Applicants must ensure that the costs the FAA is being asked to support are allowable, necessary, and reasonable and that the treatments of direct and indirect costs in the proposed budget are consistent with applicable federal cost principles and with the policies of the submitting organization.
- b) The FAA is not responsible for proposal preparation or related expenditures incurred by the proposing organization during the competitive process.
- c) Following announcement of the selection, COE core members may begin to incur costs.

Where to Submit

Send original proposal plus five copies and the USB drive to:

Patricia Watts, Ph.D.
Program Director, FAA Centers of Excellence
Federal Aviation Administration
William J. Hughes Technical Center
ANG-E4, Fourth Floor, L-28
Atlantic City International Airport, NJ 08405

The outside of each mailed package must be clearly marked:

Center of Excellence Proposal Submission – Time Sensitive

Proposals must also be submitted through Grants.gov at:
<http://www.grants.gov>, **Opportunity No. 15-C-TTHP-100PM71515**

PROPOSAL PROCESSING AND EVALUATION

Acknowledgment

The COE Program Officer requests that each proposing university lead advise the FAA COE Program Director of the intention to submit a proposal in response to the Final Solicitation and identify team members and affiliates not later than January 15, 2016. The COE Program Office will acknowledge receipt and assign a proposal number as submissions are received.

Review

The COE PMO will review each submission prior to evaluation and review. Proposals determined to be ineligible for consideration under this solicitation will be returned to the applicant with a written explanation

Evaluation/Review

- A team of subject matter experts will evaluate each proposal to assure that the FAA evaluation factors are fully addressed and to determine the extent to which the selection criteria can be satisfied. The evaluation team will consist of government employees with expertise in the stated topic areas. The team leader will be responsible for developing an executive summary of the overall rating based on evaluations of the team members.
- The FAA COE Program Office will also establish a team to conduct a Management and Fiscal review of each proposal. The review team will consist of members with expertise in management and fiscal matters. The team leader will be responsible for developing an overall summary based on the input of the team members.
- The COE Program Office may schedule site visits to inspect available resources prior to finalizing the evaluation process.
- During the evaluation and selection process, discussions regarding program requirements or the competitive process are not permitted between the proposing organizations, the sponsoring organization, or others within the FAA.
- The FAA COE Program Director may contact the proposing organizations to discuss the submission or to request further information to assist in assessing a proposal at any time.
- External communications regarding the proposal submission, FAA requirements or related topics **are not permitted with FAA employees or evaluators** after the FAA issues the Final Solicitation.

Withdrawal

A proposing institution may withdraw a proposal at any time prior to selection.

GRANT AWARD AND ADMINISTRATION

Types of Awards

COE Cooperative Agreements

This agreement specifies terms and conditions of the initial five-year period of award. In keeping with Congressional requirements, the COE must match 100% of the FAA-provided grant funds awarded to *establish, operate and conduct related research* within each cooperative agreement period. The FAA encourages, but does not require, that tasks be matched as they are funded. All matching obligations, however, must be satisfied during Phase I of the cooperative agreement.

Once the FAA Administrator announces the selection of the COE team, the FAA COE Program Director will negotiate and enter into a cooperative agreement with the responsible fiscal officer at each core university. Grant funds will be awarded in the form of amendments to this agreement.

Grants

- The award instruments will be issued by the COE Grants Officer as amendments to the Phase I COE cooperative agreements and will contain all documentation applicable to the award and administration of the COE grant(s).
- A grant is the basic award instrument which the FAA uses to support COE activities at a specific level of effort and period of time.
- A grant includes no statement of FAA intent to provide additional future support without submission of another proposal.
- FAA COE grant awards are made for public purpose and, under the COE statute, they must be matched.

The OPI makes a commitment on behalf of the Administrator to provide grant support to the COE at a basic level-of-effort each year. The OPI establishes the minimum level-of-effort for the COE and develops long-term fiscal plans to support the ongoing research, education, training and related activities, and to carry out COE management and fiscal oversight responsibilities. These plans are defined annually and appropriately coordinated as an FAA priority on behalf of the FAA Administrator.

The FAA establishes no limits on the grant funds which may be awarded to a COE.

Contracts

Once the COE is operational, the OPI may begin the process to award contract tasks for the benefit of the agency without further competition.

Grant Administration

Program guidance is provided in the COE cooperative agreement, and supplemented in the COE Policy Guide and, where appropriate, the Aviation Research Grants Order 9550.7B. The conditions and provisions of the initial COE cooperative agreement and the subsequent award instrument(s) govern the administration of grant funds awarded through the COE Program Office.

Please Note: Only officially designated and certified fiscal officer(s) within the FAA are authorized to commit FAA funds and to permit FAA supported projects to be initiated with universities and their affiliates.

Direct Awards

The FAA awards COE grants directly to each core team member. Awards are made to COE members, as necessary, during the term of the cooperative agreement without further competition. The FAA COE PMO reserves the right to award directly to COE members and affiliates for the convenience of the government to support an individual COE, the COE Program, or the federal government.

Required Forms / Reports

The following forms may be required when submitting grant proposals:

- Standard Form 424, Application for Federal Assistance
- Research and Related Budget
- Research and Related Personnel Data
- Research and Related Senior/Key Person Profile (Expanded)
- Research and Related Fed/NonFed Budget
- Project/Performance Site Locations
- Negotiated Indirect Cost Agreement
- Copy of the core universities' latest institutional audit report or letter

See WWW.Grants.gov for additional information and forms which may be required at the time of submission.

Once selected, a Project Participant form must accompany each proposal submitted for funding consideration.

E-Grants and Additional Information

For additional information regarding the FAA Air Transportation Centers of Excellence Program, the electronic grants application system and process, and the COE reporting requirements, see the COE website at www.faa.gov/go/coe.

APPENDIX

Checklist for Center of Excellence Proposal Submission

Use this checklist to ensure that a complete proposal is submitted. *Properly sequenced, tabulated, and completed proposals expedite processing and facilitate the review process.*

Details of the following required elements are found within this solicitation.

_____ Cover Letter

_____ Evaluation Grid

Volume I, Proposal

_____ Statement in response to the Evaluation Factors - Narrative limited to 70 pages total. However, Criterion 6 may be no more than 18 pages of the total.

_____ Management plan and a proposed two-year budget - Narrative limited to 10 pages. The attached budget form may be used.

_____ Letters of Support and Commitment - A letter of commitment from each university team member and letters of support from non-federal affiliates expected to support and work with the COE – No limit.

Volume II, Certifications and Declarations

_____ Cover Sheet for Proposals to the FAA - Application for Federal Assistance SF-424

_____ Research and Related Personnel Data

_____ Research and Related Senior/Key Person Profile (Expanded)

_____ Project/Performance Site Locations

_____ Other Attachments to support Proposal Narrative, negotiated overhead and fringe benefit rates - Indirect Cost Agreement, Audit Report or link, findings and remedies taken, etc.

See Grants.gov for additional forms required. Do not include Social Security numbers.

See www.faa.gov/go/coe for additional information regarding the FAA COE Program.