

**Federal Aviation Administration**

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

**Draft Solicitation**

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# FAA CENTERS 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 long-term 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, ANG-E4, 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 award matching grants to establish the COE.

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 the 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,

Lead COE universities must declare their intention to submit a proposal and identify the core university team and affiliate members by a date to be published in the Final Solicitation.

## FAA CENTERS OF EXCELLENCE PROGRAM

The FAA has had successful partnerships with the nation's academic research community and has fostered important research through the long-term COE business strategy and organizational structure. The FAA has enhanced internal research capabilities by accessing and coordinating the talent of nationally recognized academic and industry research scientists while generating matching contributions in excess of \$300 M from non-federal COE members and affiliates. Over the past two decades, the COE partnerships have provided the agency and the industry a high return on investments and have contributed significantly to the education of a pool of professionals to serve the next generation and promote the advancement of aviation science and technology transfer.

### 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. Each selected educational institution enters into a long-term cooperative agreement 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 all 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; participate on major planning and investigative committees. They actively participate in joint COE conferences as scheduled; host seminars, reviews, and other meetings to assure the dissemination of research results, and to comply with statutory mandates.

The COEs are required by Congress to generate dollar-for-dollar matching contributions when awarded federal grants to *establish, operate, and conduct 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.

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 and thereafter. 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.

Applicants are required to show the combined facilities, equipment, matching commitments from industry affiliates, state and local governments, and others. Applicants must show resources from non-federal sources and financial and other resources 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 letters of support mailed separately which are received by a date indicated in the Final Solicitation.

A panel of subject- matter-experts and management and fiscal officers review and evaluate COE proposals on a competitive basis. These federal employees evaluate each proposal to determine the extent to which academic institutions with their team members and affiliates are able to provide an appropriate environment for the research and related activities specified in the Final Solicitation. The process is executed to assure the selecting official(s) that each team being considered meets the criteria mandated by Congress and each is well qualified to meet the needs of the federal government and 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 COE tasks following individual proposal submissions. Each proposal will be subject to a technical evaluation during the establishment of the new COE. Tasks will be supported following individual evaluation on an ongoing basis throughout the life of the COE.

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

*(1) 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.*

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

COE applicants should note that 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 basic research 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 as needed throughout the life of the Center.

## Declaration of Intent to Apply

In response to the Final Solicitation, 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](mailto:Patricia.Watts@faa.gov) by a date to be stated in the Final Solicitation. The Lead University must submit names and points of contact of all core members and a list of proposed COE affiliates.

## Suggestions and Questions

Prior to the closing date of proposal submission, letters of support, suggestions and questions may be submitted to the COE Program Director via email.

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

# STATEMENT OF OBJECTIVES

## Purpose

The purpose of this section is to provide the research statement of objectives that applicants must discuss in their proposals to address Evaluation Criterion 6 – *The projects the applicant proposes to carry out under the grant.*

## 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 various 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, most efficient airspace in the world.

## Scope

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 of the aviation community. The research areas presented are examples of the challenges that the FAA must address to achieve mission goals.

As outlined in the evaluation criteria, the COE applicants must address the research areas and respond based on their backgrounds, areas of expertise/specialty. 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 the FAA's 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 to adapt to the needs of the technical training requirements, human performance demands, and the National Airspace System (NAS). Each area listed below describes a research area and proposes research questions the applicant should consider. The Center's broad range of study will include, but not be limited to, the following:

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 a 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.

## EVALUATION CRITERIA

Members of this Center of Excellence will be selected based on the formal evaluation criteria set forth in Public Law 101-508, 49 U.S.C. 44513. Each applicant should equally address the individual evaluation factors which are the basis for the selection.

It should be noted that the italicized text used throughout this document is 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 (curriculum, physical locations, etc.) to meet educational needs for the region, such as unique regional airspace or weather patterns for aviation personnel to understand, or the ability 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.
- **Multicultural Diversity** - The team's ability to reach learners of different cultural backgrounds throughout the region.

**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.
- **Data Processing and Analysis Capabilities** - The team's ability to process and analyze data as part of research efforts.
- **Extension Resources** - The team's ability to make available extension facilities for 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.
- **Competence in Instructional Design** - The team's competence and forward-thinking approaches to instructional design, particularly for aviation and other technical training.
- **Expertise in Human Performance** - 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 tools for program management that are currently in place among the team members or may be developed specifically to support the COE.
- **Contracting Process Maturity** - The team's ability to procure additional resources and contract as needed with industry or other universities for research and for implementation of program objectives.
- **Partnering/Membership** - The team or a team member's major contribution(s) when partnering with other entities (private, public or non-profit) that resulted in significant improvements or advancements in the field of air transportation 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 and events conducted.

**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 related activities.
- **Access to Online Journals and Publications** - The team's ability to disseminate research results to agency or public 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 research in aviation technical training and human performance areas as defined in the scope of work. The plan shall not exceed 18 of the 70-page limit (see: Page 16, “What to Submit”, D. Volume 1, Proposal Contents).

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 technology areas listed in STATEMENT OF OBJECTIVES; Research Areas beginning on page 8. The description of each project should be the length of typical abstracts of no more than three pages each. Specific page limits will be stated in the Final Solicitation.

**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.

**Please note:**

- 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 FAA is interested in how the applicant will approach, conduct, coordinate and evaluate COE activities, as well as how the team will manage the research and related initiatives within the COE in the short- and long-term. The applicant 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 (See Page 16, “What to Submit”; D. Volume 1, Proposal Contents).

## CENTER OPERATIONS

The COE members maintain close working relationships with the FAA COE Program Office, the FAA Office of Primary Interest (OPI), and other sponsoring program office(s). 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 sponsor and the FAA COE Program Office.

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 Program Office.

## COE OVERSIGHT AND MONITORING

During the first year, the COE is required to submit reports and host on-site meets to assure adequate 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.

After the first year, the FAA will require the COE to hold a semiannual meeting with agency representatives on topics relating to the status and results of the designated research and to participate in the planning of tasks and related 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 as appropriate, to highlight the research completed, in progress and planned. The semiannual review includes on-site meetings and briefings conducted by appropriate technical and administrative support personnel. The meeting must focus on the relevance, merit, direction, results, costs, and benefits of research 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 Centers of Excellence Program Director 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; 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 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 cooperative agreements are closed out at the end of the initial five-year period. Pending satisfactory results of the COE assessment, and the COE makes changes as indicated by the assessment, the FAA Administrator (AOA) is advised of the results. With the concurrence of AOA, a Phase II cooperative agreement is negotiated 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 Program Office will advise the FAA Administrator. The Administrator determines the final course of action to be taken and provides written guidance to the COE Program office 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 provide for 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 throughout the life of the Center. To satisfy this requirement and to highlight research results, the COE hosts a major 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 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 to become a core member of the proposed Center of Excellence. When a team is proposing to serve as a COE, one member must serve as the administrative 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 may be submitted throughout the competitive process to the FAA Centers of Excellence Program Director, Patricia Watts, via email: [patricia.watts@faa.gov](mailto: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. Written questions and answers will be distributed to all participants who request a solicitation package.

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

Proposals may be submitted after the effective date of the Final Solicitation. The closing time and date for submission will be indicated in the Final Solicitation:

### What to Submit

The applicant should submit two volumes: **Volume I** is the Technical Proposal and management plan, and **Volume II** contains the formal Certifications and Declarations. Proposals must be submitted on a USB flash drive and in separate binders.

**Margins** should be 1 inch at the top, bottom and on each side, and text should be in **12 point** Times New Roman. Pages must be numbered at the bottom of the page. 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.

**Six 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.

**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 to 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.

**Expenditures.** The FAA is not responsible for proposal preparation or related expenditures incurred by the proposing organization during the competitive process. Following announcement of the selection, COE core members may begin to incur costs.

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

- A. Cover Letter.** The 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. Evaluation Grid.** The attached form entitled the “Evaluation Grid” is to be filled out and inserted just 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 below 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.

- C. Table of Contents.**
- D. Volume I, Proposal Contents** - tabulated as follows:

**Section 1** - The Narrative **(Limited to 70 pages)**. The proposal must consist of a narrative statement that addresses the evaluation factors reflected by the six selection criteria established by statute. Of the 70 pages allowed, applicants may submit **no more than three (3)** pages to address **each of** the six Research Areas. (See Page 8- [Statement of Objects; Research](#)

Areas in response to Criterion 6 (on page 12). A general budget form for each project is not required but may be included.

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.

**Section 2** - The Management Plan (**Limited to 10 pages**). The strategic business and financial plan must detail how the Lead institution proposes to: oversee, monitor, direct and manage the Center of Excellence team; track awards and expenditures; 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, 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 fiscal matters and technical requirements of public and private sponsors;
- 4) the anticipated cost of managing the COE during the first two years in the form of a budget and a supporting narrative. The attached budget form may be used.

**Section 3** - Letters of Commitment (**No 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 other proposing affiliates and sources of potential support may also be included in this Section.

**E. 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, and provide a narrative to address remedial efforts taken in response to audit findings. The core members 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 and key staff at member universities, 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 and matching contributions anticipated and potential sources.

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

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

**Note:** Applicants must ensure that the costs the FAA is being asked to support are allowable, necessary, and reasonable and that the treatment of direct and indirect costs in the proposed budget are consistent with applicable federal cost principles and with the policies of the submitting organization.

## Where to Submit

Send original proposal plus six 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. TBD

# 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 at least 30 days prior to the close of solicitation. The COE Program Office will acknowledge receipt and assign a proposal number as submissions are received.

## Review

The COE Program Management office will review each submission.

## Evaluation/Review

- A team of subject matter experts will evaluate each proposal to assure that the FAA technical evaluation factors are fully addressed and to determine the extent to which the selection criteria can be satisfied. The evaluation team will consist of five 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.

## Ineligible Proposals

Proposals determined to be ineligible for consideration under this solicitation will be returned to the applicant with a written explanation as to the reasons the proposal was determined to be ineligible.

## Withdrawal

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

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

### Grants

The award instruments will be issued by the COE Grants Officer as amendments to the COE cooperative agreement 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. Grant awards are made for public purpose and, under the COE statute, they must be matched.

The office of primary interest (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.

### Contracts

Once the COE is operational, the OPI may begin the process to award contract tasks for the benefit of the agency.

## Grant Administration

Program guidance is provided in the COE cooperative agreement, and supplemented in the COE Policy Guide, and 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.

The FAA COE Grants Officer may make direct awards at any time to universities, COE partners and affiliates for the convenience of the government.

**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 attached forms are 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

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](http://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](http://www.faa.gov/go/coe) for additional information regarding the FAA COE Program.