DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
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Regulation
No. 1110-1-8158

1 April 2022

Engineering and Design
CENTERS OF EXPERTISE PROGRAM

1. Purpose. This engineer regulation (ER) defines the policy and process for establishing and maintaining expert designation under the U.S. Army Corps of Engineers (USACE) Centers of Expertise (CX) Program. The program provides an inventory of specialized knowledge and skills within USACE that can furnish beneficial and expert assistance to all USACE elements.

2. Applicability. This ER applies to all USACE Commands.

3. Distribution Statement. Approved for public release; distribution is unlimited.

FOR THE COMMANDER:

John P. Lloyd

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5 Appendixes
A: Centers of Expertise Approval Process
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C: Centers of Expertise Recertification Process
D: Sample Customer Survey Form
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*This ER supersedes ER 1110-1-8158, dated 15 April 2011.

SUMMARY of CHANGE

ER 11110-1-8158 Centers of Expertise Program
United States Army Corps of Engineers (USACE)

Boards, Commissions, and Committees: USACE HQ Engineering and Construction Division

This administrative revision, dated 1 April 2022:

- Updates the references
- Updates the requirements for the USACE Management Action Group
- Updates definitions of a Mandatory Center of Expertise and Technical Center of Expertise
- Updates requirements for the initial certification of a Centers of Expertise
- Updates requirements for the recertification of a Center of Expertise
- Updates operating and reporting instructions for a Center of Expertise
- Provides a listing of all the current Centers of Expertise in USACE
- Updates requirements for the use of a Mandatory Center of Expertise within USACE

1. Purpose. This ER defines the policy and process for establishing and maintaining expert designation under the USACE CX Program. The program provides an inventory of specialized knowledge and skills within USACE that can furnish beneficial and expert assistance to all USACE elements.

a. This ER prescribes policy and guidance concerning CX use by USACE major subordinate commands (MSCs), Districts, Laboratories, and field operating activities.

b. This ER provides the approval process to establish a new CX.

c. This ER provides the process for recertifying a CX.

d. This ER requires all CXs designated as a Mandatory Center of Expertise (MCX) to publish an ER that provides roles, responsibilities, guidance, and structure of the MCX.

2. Applicability. This ER applies to all USACE Commands.

3. Distribution Statement. Approved for public release; distribution is unlimited.

4. References.

a. ER 5-1-10, Corps-Wide Areas of Work Responsibility.
https://www.publications.usace.army.mil/Portals/76/Users/182/86/2486/ER%205-1-10_26Jan2022.pdf?ver=CKyGGg11SrllGwk6wJbMEg%3d%3d

b. ER 5-1-11, USACE Business Process.
https://www.publications.usace.army.mil/Portals/76/ER_5-1-11.pdf?ver=AXN5bVVxEYAVEcfDr5wL0g%3d%3d

c. ER 5-1-13, USACE Policy on Regional Business Centers (RBC).
https://www.publications.usace.army.mil/Portals/76/Users/182/86/2486/ER_5-1-13.pdf?ver=GzFLU7gkHk7qLkL-86ujiw%3d%3d

d. ER 70-1-5, USACE Research and Development Program.
https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_70-1-5.pdf?ver=aB24-wk1fNY8IwVLyDShiQ%3d%3d

e. ER 1110-2-1150, Engineering and Design for Civil Works Projects.
https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1110-2-1150.pdf?ver=rQq3svenvupbLUQtYE1n1w%3d%3d

f. ER 1110-3-12, Quality Management.
https://www.publications.usace.army.mil/Portals/76/Users/182/86/2486/ER%201110-3-12.pdf?ver=KLQcEXVLB0FLvAdNKbXMQQ%3d%3d

g. ER 1110-3-113: Department of the Army Facility Standardization Program. https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1110-3-113.pdf?ver=PTfcKhYDEmNDbtBDoqX5Mw%3d%3d

h. ER 1110-345-100, Design Policy for Military Construction. https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1110-345-100.pdf?ver=5jr1HcZyael3stxXZhoPEA%3d%3d

i. ER 1140-1-211, Support for Others: Reimbursable Services. https://www.publications.usace.army.mil/Portals/76/Users/182/86/2486/ER%201140-1-211.pdf?ver=z_OveQXkQ_u_57Z2GEDYrA%3d%3d

j. ER 1165-2-217, Civil Works Review Policy, Water Resource Policies and Authorities. https://www.publications.usace.army.mil/Portals/76/Users/182/86/2486/ER%201165-2-217s.pdf?ver=NWMOw86W9QEK3DLpWyt3bQ%3d%3d

5. Records Management (Recordkeeping) Requirements. The records management requirements for all record numbers, associated forms, and reports required by this regulation are addressed in the Army Records Retention Schedule – Army (RRS-A). Detailed information for all related record numbers is located in the Army Records Information Management System (ARIMS)/RRS-A at https://www.arims.army.mil. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS-A, see Department of the Army (DA) Pamphlet 25-403, Guide to Recordkeeping in the Army, for guidance.

6. Definitions. This ER defines a CX and three subcategories including an MCX, a Technical Center of Expertise (TCX), and Centers of Standardization (COS). A current listing (as of the publishing date of this ER) of the CXs is provided in Appendix E.

a. Centers of Expertise. CXs are designated USACE organizations that have demonstrated capability and expertise in a specialized area often not available at the District level. The current CXs are in a variety of locations including Districts, Laboratories, Design Centers, etc. (see Appendix E). CXs improve capabilities and management of the applicable specialized expertise. They help eliminate redundancy, optimize the use of specialized expertise and resources, enhance USACE wide consistency, facilitate technology transfer, help maintain institutional knowledge in key areas, and improve service to customers including rapid response to emergencies.

b. Technical Center of Expertise. A TCX is a USACE organization that has been approved by Headquarters, USACE (HQUSACE) as having a unique or exceptional technical capability in a specialized subject area that is beneficial to other USACE commands. The services to be rendered by a TCX are voluntary, advisory, and reimbursable.

c. Mandatory Center of Expertise. An MCX is a USACE organization that has been approved by HQUSACE as having a unique and exceptional technical capability in a highly specialized subject area that is critical to other USACE commands. A CX receives its designation as an MCX when one or more services provided by the CX are mandatory (as defined in the specific ER).

(1) An MCX also must make a business case demonstrating its cost effectiveness, value and responsiveness are necessary above that needed for a TCX. An MCX must provide reasoning and justification for an MCX rather than a TCX during the initial approval process. Mandatory services to be rendered by an MCX are published in an ER specific to the MCX. Project delivery teams (PDTs) must utilize the services of the applicable MCX as required in the specific ER. These services may be reimbursable or centrally funded depending on the specific program.

(2) For an MCX, there may also be a specific Department of Defense (DOD), Army, or USACE policy or ER that mandate the MCX central services. An MCX may provide additional discretionary or voluntary products or services as authorized, like a TCX. However, its designation remains an MCX based on the mandatory component.

(3) An MCX may also develop memorandums of agreement for their services in addition to the specific ER. These are sometimes necessary to help clarify work responsibilities with their customers since the specific ER is only updated every five years.

d. Center of Standardization. A COS is an MCX which may also include voluntary services. COSs were established to develop requirements and designs for Army facilities per ER 1110-3-113 and as documented by specific facilities DA Standards.

e. HQ Functional Division Chief. The HQ Functional Division Chief is the Senior Executive Service (SES) member responsible for the program execution of specific USACE mission areas. The Engineering and Construction (E&C) Division Chief is one example as is the Operations and Regulatory Division Chief. The majority of the CXs are currently assigned to the E&C Division Chief at HQ. The HQ Functional Division Chiefs are responsible for recertification of the CXs assigned to them as described below.

f. HQ Proponent. The HQ Proponent is the functional lead appointed by the HQ Functional Division Chief. Each CX has a HQ (staff) Proponent assigned by the HQ Functional Chief aligned with the CX. The HQ Proponent is responsible for CX management and oversight of a CX on behalf of the HQ Functional Divisional Chief.

g. HQ CX Program Manager (CX PM). The CX PM is the designated overall program lead appointed by the Chief of E&C at HQUSACE. The CX PM is responsible for overall program oversight. This includes review of USACE Management Action Group (UMAG) submissions, recertification of CXs, maintaining the official list of current CXs, and maintaining this ER. The CX PM is also responsible for maintaining a SharePoint site and/or Knowledge Management site for documenting the CX program.

h. CX Technical Lead. The CX technical lead is established and appointed within the CX itself and is required for each CX. The CX Technical Lead coordinates CX management and reporting and establishes CX performance metrics. The CX Technical Lead is also responsible for coordinating and developing the recertification package.

i. USACE Management Action Group. The UMAG serves as an analytical assessment forum, focusing on enterprise-level strategy and policies that influence USACE organization, management, and performance cutting across all organizational elements and activities. Its scope crosses functional and regional boundaries. UMAG members include:

(1) Voting members: Commanding General; Deputy Commanding General; Deputy Commanding General (Civil and Emergency Operations); Director, Civil Works; Deputy Commanding General (Military and International Operations); Director, Military Programs; Director, Research and Development; MSC and Center Commanders; MSC SES leaders (one Program Director and one Business Director).

(2) Non-voting members: Chief, Strategy and Integration Office; Chief of Staff; Chief Counsel; Director, Human Resources; Director, Resource Management; Director, Contracting; Director, Corporate Information.

7. Policy. The Centers of Expertise (both MCX and TCX) will deliver the products and services authorized, with quality as expected, with full command support. The services provided by an MCX must be utilized by all USACE elements as applicable.

8. New Center of Expertise Approval. The first required step for CX approval is to obtain applicable Command support, endorsement and sign-off on the need for a new CX following the format and guidance in Appendix A and Appendix B. Command support may be at a District level, MSC level, Engineering Center (Design Center) level, etc., as applicable. The applicable Commander must sign off on the endorsement. Command endorsement must include the proposed USACE organization (District, Laboratory, or Center) that will carry the CX designation. The appropriate HQ Functional Division Chief (SES) must be identified at this stage.

a. The applicable HQ Divisional Functional Chief (SES) for the new CX is responsible for adhering to the CX approval process as described in Appendix A and Appendix B.

b. The HQ Proponent must be designated, and that person, along with the CX Technical Lead, will help prepare, coordinate, submit, and present all required documentation for approval.

c. The Commander, USACE, will make the final decision on requests to establish a new MCX.

d. Directors of Civil Works and Military Programs. The Director of Civil Works (DCW) and Director of Military Programs (DMP) at HQUSACE jointly make the final decision on requests to establish a new TCX. The DCW and DMP will also jointly review all requests to establish a new MCX.

e. If a new MCX is endorsed by both the DCW and DMP, then that decision moves the request forward to the UMAG for further consideration. Proposals to the DCW and DMP for an MCX must be in a written report, for which the format and requirements are provided in Appendix A. If a proposed MCX is located outside of the Civil Works and Military Programs Directorates, the Director of the Directorate or Office Chief responsible for the MCX function will share the CX review and approval responsibility.

f. The UMAG will evaluate a request for a new MCX and make a recommendation to the Commander, USACE. If a new MCX is approved, the UMAG must notify all USACE activities. The UMAG must maintain a list of all approved requests.

9. Center of Expertise Recertification. Recertification of CX designations must be undertaken every five years. Appendix C provides an outline of the required process. The HQ Proponent must ensure that the expertise is still retained by the CX organization, the CX is viable and that other MSC and District commands are using the center's expertise and services.

a. The HQ Functional Division Chief, responsible for the function the CX provides, has the authority for recertification. If the responsible office or directorate does not have a division chief, the CX Technical Lead, the CX Program Manager, and the HQ Proponent jointly determine the appropriate sign off authority for recertification.

b. The CXs Technical Lead completes the recertification process by completing, at a minimum, the questions listed in Appendix C. Additional questions by the sponsoring HQ Functional Chief (SES) are acceptable.

c. The completed request for recertification must be signed by the District and MSC Commander. In the case of a CX assigned to HQUSACE directly, the Director of the CX signs the request for recertification.

d. The CX Program Manager reviews for adherence to this ER requirement before the recertification memorandum is prepared for approval by the HQ Functional Division Chief (SES).

e. The HQ Proponent and CX Technical Lead jointly prepare a recertification memorandum for the record for signature by the responsible HQ Functional Division Chief (SES).

10. Responsibilities.

a. The Chief of E&C at HQUSACE has the overall responsibility for program policy, oversight, and review of the CX Program.

b. The Chief, E&C at HQUSACE assigns CX program management responsibility to an HQUSACE employee. This employee, designated as the CX Program Manager, is responsible for coordinating among all the CXs, coordinating all approval request reports, keeping web-based information current, and maintaining official record copies of recertification packages.

c. In addition to assigning a CX Program Manager, the overall technical monitoring of an MCX or TCX is assigned to a HQUSACE employee, designated as the HQ Proponent for that CX. The HQ Proponent works with the CX Program Manager to effectively and efficiently manage the CX Program. The HQ Proponent is responsible for the following:

(1) Operating and Reporting. The HQ Proponent is responsible for establishing operating and reporting procedures with the cooperation of the assigned MCX or TCX. For an MCX, the operating and reporting procedures are to be published through an ER with clarifying memorandums of agreement as needed. For a TCX, these procedures may be published in the form of a program management plan, a memorandum of agreement, or an authorizing letter. Approved documents will, at a minimum:

(a) Detail the responsibilities of the CX.

(b) Identify products and services that are mandatory or voluntary and the means of funding these services, as appropriate.

(c) Establish procedures and criteria to streamline acceptance and accomplishment of reimbursable work according to ER 5-1-10.

(d) Establish procedures for periodically reporting the program activities of the CX and insuring its viability.

(e) Establish enforceable customer service criteria.

(f) Detail the management responsibilities of the organization that houses the CX staff.

(g) Provide and develop and maintain an Enterprise Program Management Plan that includes the approval documentation, recertification process and requirements noted in Appendix A, B and C of this document.

(2) The HQ Proponent for each CX is responsible for maintaining and providing to the CX Program Manager approved information on current centers and their roles and responsibilities. This includes keeping current points of contact for the centers.

11. Major Subordinate Commands and District Commands. The MSC and District command to which CXs are assigned have the responsibility to establish, maintain, and support those centers. Support includes providing sufficient training opportunities and funding to enable assigned personnel to maintain state-of-the-art proficiency in their assigned mission area. Specific responsibilities of MCX and TCX designees are defined below:

a. Mandatory Centers of Expertise. Maintain technical expertise in the assigned specialty. Provide technical assistance and specific services to HQUSACE, all other USACE commands, and other organizations outside USACE per the mission and function statements as approved and authorized in the applicable ER. Maintain minimum customer service quality standards established in the ER.

b. Technical Centers of Expertise. Maintain technical competence and awareness in the assigned specialty. Provide advisory assistance or specific design services in the assigned specialty to HQUSACE, USACE commands, and other organizations outside USACE upon request. Maintain customer service quality standards established in the Center management plan.

12. Using Commands. All MSC and District commands must coordinate with and use the expertise and services of the applicable MCXs to satisfactorily accomplish their mission. Consultation with applicable TCXs is recommended and must be considered for all projects. They must use the expertise and advisory service of centers as they would any other consulting service and will monitor and review those services as described in ER 1110-2-1150, ER 5-1-11, and ER 1110-345-100.

a. Using commands must provide adequate funding for CX services. Each District must maintain familiarity with the MCX categories as published through ERs from each MCX.

b. MCX functions and services that are listed as mandatory in the applicable ER must be utilized by all USACE elements.

c. Any USACE command PDT involved with the disciplines or business processes identified with an MCX must contact the appropriate MCX to determine which services of the MCX are mandated for use. Involvement by the MCX must be initiated as early as possible in the planning and design process. To allow MCXs to manage their workload effectively, all USACE commands involved in a project with an assigned MCX must keep the appropriate MCX advised of all applicable project developments. Service-related problems should immediately be brought to the attention of the HQ Proponent.

13. Procedures. USACE commands may request the services of a CX by letter, memorandum of agreement, or any other authorizing document. This document will outline the required scope of service, funding for reimbursable services, and required scheduling constraints.

a. Administration. Administrative requirements, including transfer of funds, are the same as those usually performed for any reimbursable service.

b. Services. The services provided by a center will be included in, and become a part of, the appropriate project documents and will be subject to the same review and approval actions as any other product furnished by a USACE command as defined in ER 1110-2-217 and ER 1110-3-12.

c. Interagency and International Support. Procedures for performing services for other agencies of the federal government, state and local governments, and private firms are outlined in ER 70-1-5 for research and development laboratories and in ER 1140-1-211 for all other USACE commands.

14. Exceptions. Exceptions to the mandatory use of an MCX may be requested (specific exceptions, if any, can be found within the published ER for that specific MCX). Exceptions must be fully justified and submitted by the MSC to the HQ Functional Division Chief (SES) for approval. TCX use is always voluntary.

15. Enforcement of Mandatory Center of Expertise and Technical Center of Expertise Use. MSCs will monitor the use of MCXs in the design activities of their Districts and centers and are responsible for ensuring their appropriate use as described in ER 1165-2-217 for Civil Works projects and ER 1110-3-12 for military engineering and design. Districts must include a memorandum for record in their project design documentation (such as the Project Design Documentation Report), signed by their Chief of Engineering, certifying that MCXs were appropriately utilized in the planning, design, and execution of the project. The District Chief of Engineering will fully document any approved exceptions to MCX use and will certify that use of TCX assets was appropriately considered.

16. Right of Refusal of Work. TCX organizations maintain a need to execute their own missions. Therefore, TCX organizations maintain the right of refusal for work that Districts elect to send to them. TCXs may refuse additional work only when there is adequate justification, however, they are encouraged to refuse work sparingly. Concerns regarding non-acceptance of work should be referred to the HQ Proponent for resolution. MCXs may not refuse mandatory work in their assigned specialty without approval of the HQ Functional Division Chief.

17. Program Maintenance. Once established by HQUSACE, a CX must be maintained and supported by the applicable MSC, District, Design Center, Laboratory, etc. to which it is assigned.

a. Both TCXs and MCXs should provide either annual or biannual reports. These reports should then be included as reference information for the recertification process. The specific report requirements for an MCX should be included in their specific ER. The report requirements for a TCX should be included in the applicable management plan. Reports can remain internal to the CX, but courtesy copies should be provided to the HQ Proponent and the CX Program Manager.

(1) Reports should identify how the center maintains capability, viability, and proficiency; how it keeps abreast of emerging technologies; and how well its quality control program is working. Reports should address and summarize yearly workload.

(2) Reports should address staffing levels of the CX and whether sufficient staff is available to perform the work.

b. Each TCX or MCX should maintain an internet or intranet site that provides full details, points of contact and description of the center. These sites can be maintained on the host District site as one example.

18. Discontinued or Changes to Mission of a Center of Expertise. As USACE responsibilities and missions change, the missions and functions of established centers may be altered, established centers discontinued, or new centers established.

a. Changes to mission and function statements (TCX) must be approved by the HQ Functional Division Chief (SES). This includes discontinuance of the TCX.

b. Changes to mission statements or mandatory products or services (MCX) must be approved by the HQ Functional Chief (SES), DCW, DMP, and the UMAG. In addition, for an MCX, prepare a draft revision (ready for staffing) to the MCX ER prior to presentation to the UMAG.

c. Once a change is approved, the draft MCX ER needs to be staffed and published. A TCX needs to update corresponding agreements or MOUs in place.

d. Discontinuing an MCX requires the agreement of both the HQ Functional Division Chief (SES), DCW, DMP, and the UMAG. If approved, a transition plan will be jointly developed by the HQ Functional Division Chief (SES), the HQ Proponent, and the CX Technical Lead to minimize the impacts to mission.

Appendix A
Centers of Expertise Approval Process

A.1. Purpose. This appendix outlines the approval process for Centers of Expertise (CX) by the Chief of Engineers, through the DCW, DMP, other director or office chiefs (if applicable), and the UMAG. Using this approval process for each CX ensures that the CX is in the corporate best interests of USACE and is critical to support missions.

A.2. Process for Establishing a New Center of Expertise. A new CX may be proposed at any time either through a District, MSC, Laboratory, or Engineering Center (Design Center), etc. The first step is a letter of intent approving establishing a new CX and signed and endorsed by the applicable District and MSC Commanders. An HQ Proponent must be designated and, along with the CX Technical Lead, helps prepare, coordinate, submit, and present all required documentation for approval. The responsible HQ Functional Division Chief (SES) and CX program manager must endorse all reports prior to obtaining approval beyond the HQ Functional Division Chief.

A.3. Approval Request Report. The CX Technical Lead and HQ Proponent coordinate and prepare a report in the format established below. Prior to submission, the CX Technical Lead and HQ Proponent ensure appropriate review and coordination with appropriate elements at HQ and MSCs to ensure there is no overlap with capabilities or responsibilities of existing elements, including other CXs or laboratories.

a. Endorsement. The HQ Functional Division Chief (SES) is responsible for adhering to the CX approval process identified in this ER, and for any required presentations to the DCW, DMP, and the UMAG.

b. MCX Approval. The Commander, USACE approves or disapproves an MCX.

c. TCX Approval. The DMP and DCW jointly approve or disapprove a TCX.

A.4. Approval Request Report Format. There are two parts to the approval process as described in the paragraphs below. Approval of Part I is required before starting Part II. Confirm that the proposed organization has Command-level support and is willing to actively maintain the organization, skills, and other resources needed to perform the function in a responsive, cost-effective manner. Obtain a letter of endorsement from the USACE element Commander being considered for this new requirement.

A.5. Part I – Obtain Approval to Establish a Center of Expertise. Identify and document the need for a CX based on the following criteria:

a. Recognize how the function is presently being accomplished. Describe in full detail how the function is being met without a CX.

b. Describe how the function should be accomplished. Explain in detail how the function needs to be established to meet the CX objective. Include staff requirements, duties, and responsibilities. Develop a survey or questionnaire to find out what specific technical capabilities are currently available at each USACE element to back up any claim regarding existing capabilities. See Appendix D.

c. If seeking approval for an MCX, state reasons why a TCX is not sufficient. Define reasoning in detail, including any assumptions. It is not necessary to be a TCX first to become an MCX.

d. Verify an MCX or TCX is the appropriate designation based on the following criteria. The statements below must be included as part of the recommendation and endorsement letter.

(1) Confirm the function is highly specialized and requires unique or exceptional technical knowledge and experience. The same survey or questionnaire can be used for one of the above criteria (describing how the function should be accomplished) to back up the reasoning for this response.

(2) Explain why the expertise needs to be consolidated. Are there other USACE locations that can execute the support and services being proposed?

(3) Performing the function at a single center optimizes responsiveness, cost- effectiveness, uniformity, and quality within USACE. Define exactly how each item presented in these criteria will be accomplished.

(4) The function is a critical mission area for USACE, and significant adverse corporate and individual project impacts could result from its absence as a CX. Define the critical mission and exactly how these impacts could result in adverse corporate and individual project impacts.

(5) Explain why the function and services from the proposed CX are not readily available from the private sector, and/or if there is a poor track record in executing contracts for this function.

(6) Describe the impact if the proposed CX is not provided. Indicate any assumptions.

(7) The USACE workload for performing the function is significant. Define how this is being determined.

e. For an MCX only, this additional question must be addressed: Are there any DOD, Army, or USACE policies or ERs that mandate the MCX central services? Include the complete name and number of documents.

f. The following additional questions are to be answered only when requesting a transition from a TCX to an MCX:

(1) Why is the TCX currently insufficient to improve the delivery of the current mission?

(2) Why is granting an MCX a more effective means of improving the delivery of the current USACE mission?

(3) What are the costs/risks associated with creating an MCX? What are the benefits?

(4) How will the labor requirements of these mandatory services be managed?

(5) What are the critical aspects of the support and services that require such unique and specialized expertise that make an MCX the appropriate course of action?

(6) How will the transition of the TCX to an MCX optimize responsiveness, cost, effectiveness, uniformity, and quality within USACE?

(7) Is the transition to an MCX necessary to comply with current DOD, Army, USACE, or higher, policy mandates? What are they?

A.6. Part II – Solicitation of Interest. The CX Technical Lead and HQ Proponent must prepare a mission and function statement specifically defining the roles and responsibilities of the proposed CX as approved in Part I.

a. This statement is used to convey the intent of the action and allow other USACE organizations to determine if they can potentially provide the level of required services. The statement identifies the type of center being proposed (MCX or TCX), identifies which services are mandatory and which are optional, identifies the appropriate area of responsibility for the CX (consistent with ER 5-1-10), and identifies any source of special or central funding available to support the operation.

b. The HQ Functional Division Chief, along with the CX Technical Lead and CX HQ Proponent, solicits proposals of interest from all USACE organizational elements that can potentially provide the required services. Proposals received are evaluated by a panel of members appointed by the HQ Functional Division Chief. The recommendation of the panel, with appropriate endorsements from the Division Chief and CX Program Manager, moves forward for approval. The panel's evaluation report and recommendation are to be attached to the approval request report. The proposals with the following minimum evaluation selection factors are as follows:

(1) The organizational structure, staffing, and other personnel resources that will optimize performance of the function. Provide a staffing capabilities chart to show skills and staff numbers.

(2) The technical abilities, specialized skills, experience, expertise, and equipment that will optimize performance of the function. Include the number of staff available, either fully dedicated or as needed.

A.7. Evaluation, Selection Process, and Criteria. The following criteria is proposed for the HQ Functional Division Chief (SES) when evaluating the skills, resources, and technologies of the proposed CX, using the following criteria:

a. The center possesses the unique and specialized skills, technical ability and expertise, experience, equipment, and capacity required to perform its function in a responsive, cost-effective manner.

b. The center possesses both sufficient fiscal and labor resources to perform its function in a responsive, cost-effective manner.

c. The center maximizes use of information-age technology to perform its function.

d. The center optimizes technology transfer throughout USACE.

e. The center has formalized Quality Control/Quality Assurance processes in place.

f. The organizational structure, staffing, and other personnel resources (in-house and/or virtual) that will optimize performance of the function.

g. The technical abilities, specialized skills, experience, expertise, and equipment that will optimize performance of the function.

h. Confirmation that the proposed organization has Command-level support and is willing to actively maintain the organization, skills, and other resources needed to perform the function in a responsive, cost-effective manner.

Appendix B
Centers of Expertise Process Overview

B.1. Step One: Request for a new TCX or MCX.

Submit the request for the new TCX or MCX to the HQ Functional Division Chief (SES).

1. In a decision memo to the HQ Functional Division Chief (SES), respond to all the requirements listed in Appendix A. Additional requirements can be added by the HQ Functional Division Chief (SES) to be addressed. Include the questions in the response.

2. Have the submittal signed by the local District and MSC Commander.

3. Send the signed submission to the sponsoring HQ Functional Division Chief (SES) for approval.

4. For an MCX, start preparing a draft ER.

B.2. Step Two: Solicitation of Interest.

Upon approval of Step One by the HQ Functional Division Chief (SES), send a notice to USACE MSCs, Districts, Labs, and Centers announcing the creation of a new CX.

1. Interested organizations (including the organization that submitted the request) will complete the responses required in Appendix A, at a minimum. Include the questions in the response. The HQ Functional Division Chief (SES) may add additional requirements.

2. When all responses have been received, send to the CX Program Manager for validation of completeness to the requirements.

3. Start the evaluation and selection process.

4. The HQ Functional Division Chief (SES) presents the preferred organization to the DCW and DMP.

B.3. Step Three: Review and Approval by DCW and DMP.

1. The DCW and DMP jointly review the Proposal from the HQ Functional Division Chief.

2. For a TCX, the DCW and DMP either approve or disapprove the request.

3. For an MCX, the DCW and DMP either approve or disapprove the request.

4. If an MCX and approved by both the DCW and DMP, the proposal is forwarded to the UMAG for final approval or disapproval.

B.4. Step Four: UMAG Decision.

1. Presentations for an MCX to the UMAG are delivered by the HQ Functional Division Chief (SES).

2. The USACE Commanding General (CG) is the only authority to approve the creation of an MCX. The UMAG sends notification to the CG of its recommendation for the final approval.

3. The UMAG notifies the HQ Functional Division Chief (SES) of the CG's decision.

4. The HQ Functional Division Chief (SES) issues a statement to USACE announcing the creation of the new MCX.

5. Begin staffing of the ER for publication.

6. Provide the UMAG and CG responses, the announcement to USACE of a new MCX, and, when signed, the ER number and date of the ER to the CX PM.

B.5. Discontinuance of an MCX or TCX.

1. HQ Functional Division Chief (SES) sends notification of discontinuance to the Division and District Commanders, indicating the reason(s) for the action. The HQ Functional Division Chief (SES) is the final authority on discontinuance of a TCX.

2. If there is disagreement from the CX regarding the discontinuance, prepare a memo to the HQ Functional Division Chief (SES) with a detailed justification indicating why the CX needs to remain.

3. If the HQ Functional Division Chief (SES) agrees to continue operation of the CX, no further action is required.

4. If an MCX is discontinued, that request is forwarded to the DCW and DMP and then to the UMAG.

5. When approved by the UMAG to discontinue an MCX, a transition plan is jointly developed by the HQ Functional Division Chief (SES) and the CX Technical Lead.

6. The HQ Proponent of the MCX sends the documentation of discontinuance to the CX PM.

B.6. Changes to the Mission of an MCX or TCX.

1. Prepare a decision memo for the HQ Functional Division Chief from the MSC and District Commanders justifying the specific services to be included or deleted from the CX. Specify which, if any, are mandatory services. If a TCX, the HQ Functional Division Chief makes the final determination.

2. If the services being included or deleted are agreed to, the HQ Functional Division Chief (SES) presents the changes to the MCX to the DMP and the DCW and then to the UMAG for approval.

3. When approved by the UMAG, the decision is sent to the CG for final approval.

4. Approved changes for an MCX require updates to the ER.

5. The HQ Proponent of the CX sends the documentation of changes to the CX PM.

Appendix C
Centers of Expertise Recertification Process

C.1. Purpose. This appendix outlines the recertification process for a Center of Expertise whether a TCX or MCX. The HQ Functional Division Chief (SES) is responsible for recertifying both a TCX and an MCX.

C.2. Process. Every five years, the MSC Commander of the CX will present the HQ Functional Division Chief (SES) a request for recertification or discontinuance of their CX. In the case of a CX assigned to HQUSACE directly, the Director of the CX signs the request for recertification. The request, in memorandum for the record format, indicates the performance of the CX, along with all the responses from the CX to the questions below. Include the questions with the responses.

a. The CX Technical Lead must work with the HQ Proponent to prepare the CX recertification documentation. This is to ensure that all the proper documentation is assembled. This also allows the CX Technical Lead and HQ Proponent to coordinate and discuss the submission requirements.

b. Prior to presenting to the HQ Functional Division Chief (SES) for approval, the CX Technical Lead reviews the responses for adherence to this ER.

c. After evaluating the continuing need for the CX against the performance statements below, the HQ Functional Division Chief (SES) makes the determination of continuing the CX or not. The signed documentation (by the HQ Functional Chief (SES)) will, along with the CX responses, be provided to the CX Technical Lead for official retention.

d. The following questions must be addressed by the CX in the recertification memo:

(1) Provide an overall summary of the work that the CX provides; and for an MCX, summarize how the CX continues to provide the services as authorized in the applicable Engineering Regulation. Summarize and document any changes to services over the recertification period, ensuring any changes have appropriate approval(s) documented. Include any approval documentation as an appendix to the recertification memo. Identify and describe any additional services performed.

(2) Summarize the number of requests or services received by the CX and acted on annually over the recertification period, indicating sufficient work to sustain the staffing. If the CX offers different services (over the recertification period), break out these services separately.

(3) Provide the number of requests for service acted on during the recertification period that were completed on schedule.

(4) The center measurably improves cost-effectiveness for the function within USACE. Define how this is determined.

(5) The center measurably improves the quality of the function within USACE. Define how this is measured. Many CXs have customers that are outside of USACE. Summarize how that work is adding quality to the function.

(6) The center measurably improves responsiveness to the customer and the speed of accomplishing the function within USACE. Define how this is measured. Include any customer satisfaction results from customer surveys (over the recertification period) and/or letters of support from customers related to the work performed by the CX. See Appendix D for a customer survey template. If letters of support are provided, they should be signed on letterhead and refer to projects the CX performed for the entity providing the letter.

(7) Define how the CX is adding value to USACE. Many CXs have customers that are outside of USACE. Summarize how that work is adding value for USACE.

(8) Define why the function cannot be eliminated without adversely affecting the USACE mission.

(9) Define how the CX staff continues to maintain the unique and specialized skills, training, technical ability and expertise, experience, equipment, and capacity required to perform its function. How is training provided to keep skills and knowledge current with new requirements and standards?

(10) No USACE laboratory has the required technical ability, experience, resources, capacity, and customers to perform the function in a responsive, cost-effective manner.

(11) No other USACE CX or entity has the required technical capability, experience, or resources to perform the function in a responsive and cost-effective manner.

Appendix D
Sample Customer Survey Form

Center of Expertise Customer/Stakeholder Satisfaction Survey					
Customer Name:					
Command, Agency:					
Email Address:					
Project Name:					
How would you rate the following (1-5)?	**1 Excellent** Exceeds requirements	**2 Great** Fulfills requirements	**3 Good** Mostly meets requirements	**4 Satisfactory** Partially meets requirements but with issues	**5 Poor** Does not meet requirements
Seeks your Input during project planning.					
Manages your projects/programs effectively					
Treats you as an important member of the team					
Resolves your concerns					
Provides timely services					
Delivers quality products and technical services					
Delivers products/services at a reasonable cost					
Is flexible in responding to your needs					
Keeps you informed					
Would be your choice for future products and services					
Your overall level of satisfaction					
What aspect of services would you improve?					
What aspect of services would you sustain?					
Customer/Stakeholder Overall Project Comments					

Appendix E
Current Listing of USACE Centers of Expertise

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
Aircraft Hangar Fire Protection	TAM	TCX	https://www.tam.usace.army.mil/Business-With-Us/Hangar-Fire-Protection/	Fire Protection TCX service is to provide professional fire protection services (guidance, design reviews, and participation in acceptance testing) to USACE Districts, Department of the Army (DA) agencies, Department of the Air Force agencies, and Department of Homeland Security.
Ballistic Missile Defense System (BMDS) Program	HNC	MCX	https://www.hnc.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/622664/ballistic-missile-defense/	The BMDS MCX, established per ER 1110-2-8163 (30 September 2016), provides expert ballistic missile defense system support services to all HQUSACE elements, divisions, Districts, laboratories, field operations, the Missile Defense Agency and other DOD agencies.
Computer-Aided Design/Building Information Modeling (CAD/BIM) Technology Center	ERDC	TCX	https://cadbimcenter.erdc.dren.mil/	The CAD/BIM Technology Center for Facilities, Infrastructure, and Environment (CAD/BIM TCX) develops and supports a DOD-wide strategy and tactical plans for the integration of CAD and BIM, technologies in several mission areas including role in acquisition.
Centers of Standardization (All COSs)	Varies	COS	https://mrsi.erdc.dren.mil/cos/	The Army's Facility Standardization Program continues to be the primary means through which we will deliver standard facilities. The MCX COS standard designs build models continue to be used as the baseline solution for execution of all standard facility types.
Collaboration and Public Participation Center (CPCX)	IWR	TCX	http://www.iwr.usace.army.mil/About/Technical-Centers/CPCX-Conflict-Resolution-Public-Participation/	The CPCX assists USACE in the collaboration, partnering, and public participation in water resources decision-making. CPCX's mission is to help USACE staff anticipate, prevent, and manage water conflicts, ensuring that the interests of the public are addressed in USACE's decision-making. The center achieves this mission by developing and expanding the application of collaborative tools to improve water resources decision-making.
Control System Cybersecurity (CSC)	HNC	MCX	http://www.hnc.usace.army.mil/Missions/Centers-of-Expertise	The CSC-MCX provides highly specialized expertise in cybersecurity, planning, engineering, design, and construction support to USACE activities, the Army, and other DOD and non-DOD federal agencies.

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
Corrosion Control and Cathodic Protection	SAM	TCX	https://www.sam.usace.army.mil/Missions/Military-Missions/Engineering/Corrosion-Control-and-Cathodic-Protection-Systems/	This TCX provides the following functions on the Corrosion Control and Cathodic Protection Systems and their related matters: • Producing corrosion control and cathodic protection system designs • Consulting services in all phases of corrosion control and cathodic protection system planning, design, construction, final acceptance testing, operation, and maintenance
Cost Engineering Center of Expertise	NWW	MCX	http://www.nww.usace.army.mil/Missions/CostEngineering.aspx	The Walla Walla District's Cost Engineering Branch was established as the Cost Engineering MCX. The MCX serves a critical role in cost support activities for the overall USACE community, with a focus on the Civil Works, Military, and Interagency and International Support programs.
USACE Critical Infrastructure Cybersecurity (UCIC)	SWL	MCX	https://wiki.usace.army.mil/index.php?title=SWD:_Critical_Infrastructure_Cybersecurity_Mandatory_Center_of_Expertise&redirect=no	The UCIC MCX mission is to assure that new and existing projects and facilities with control systems that are owned and operated by USACE are secured and authorized according to applicable DOD and Army regulations. The center serves to protect control systems throughout the system development lifecycle from internal and external cyber threats and enable the systems to obtain an Authority to Operate.
Curation/Management of Archaeological Collections (CMAC)	MVS	MCX	http://www.mvs.usace.army.mil/Missions/CentersofExpertise/CurationMgmtofArchaeologicalCollections.aspx	The MCX for CMAC in St. Louis District maintains state-of-the-art technical expertise in curating archaeological collections, collections management, special purpose designs and construction requirements of curation facilities, archival document processing and preservation, mass grave investigations, forensic support to other Government agencies, and archival/historic cartographic investigations to assist military and intelligence agencies.
Dam Safety Modification	LRH	MCX	https://www.lrh.usace.army.mil/Missions/DSMMCX/	The USACE Dam Safety Modification Mandatory Center of Expertise provides technical advice, oversight, review and production capability for all aspects of dam modification projects across USACE.

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
DD1391/Engineer Form 3086 Review Center	HNC	TCX	http://www.hnc.usace.army.mil/Missions/Centers-of-Expertise	The Military Construction (MCA) DD Form 1391, ENG Form 3086, and supporting documentation TCX is responsible for execution of the Centrally Funded Planning Charrette program for the Army. Planning Charrettes are used to develop the DD Form 1391 for MCA projects. The TCX is responsible for reviewing MCA 1391s to ensure program-wide consistency and inclusion of the latest MILCON policy guidance.
DOD National Relocation Program (DNRP)	NAB	TCX	https://www.nab.usace.army.mil/Business-With-Us/Real-Estate/DNRP/	The DNRP is designed to provide: (1) hotline service 1-800-344-2501, (2) client services counselor, (3) destination services, (4) guaranteed home sale service with marketing assistance, and (5) property management.
Electronic Security Systems (ESS)	HNC	MCX	http://www.hnc.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/482087/electronic-technology-division-electronic-security-systems/	The MCX for ESS was created to maintain state-of-the-art technical expertise in, and provide expert support to a number of mission areas including reviewing all DD 1391s that identify ESS; supporting all planning and design charrettes that involve the application of ESS; and performing electronic security surveys.
Environmental and Munitions CX	HNC	MCX	https://www.hnc.usace.army.mil/Missions/Environmental-and-Munitions/	The Environmental and Munitions CX is a quality assurance organization that provides mandatory document review, project technical support, training development and instruction, and guidance development for environmental and military munition compliance and clean-up activities.
Facilities Explosives Safety (FES)	HNC	MCX	https://www.hnc.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/482080/facilities-explosives-safety/	The FES MCX, established per ECB 2017-21 (01 November 2017), provides expert facilities explosives safety technical support services to all HQUSACE elements, divisions, Districts, laboratories, field operations, Army, and other DOD and non-DOD federal agencies. Technical expertise in this area includes (1) determining explosives safety separation distances, (2) determining explosives effects such as overpressure and fragment/debris characteristics, (3) mitigation (protective construction) of explosives effects, and (4) requirements for lightning protection systems for explosives operations and storage.

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
Facility Systems Safety (FASS)	HNC	TCX	http://www.hnc.usace.army.mil/Missions/Centers-of-Expertise	The FASS CX currently performs all authorized services including training safety professionals and design engineers, providing FASS process guidance and review of requirements, and performing reviews of designs when requested. FASS supports design engineers in "designing out hazards" through the entirety of the facility or system lifecycle.
Fuel Facilities (Petroleum, Oils, and Lubricants) (POL-MCX)	N W O	MCX	http://www.nwo.usace.army.mil/About/Centers-of-Expertise/Fuel-Systems/	The POL-MCX is a project lifecycle production center with mandatory authorities. Its matrix organization consists of project managers, engineers, architects, construction managers, and administrative staff in the USACE Omaha District. The POL-MCX monitors technological advancements and industry developments relative to military fuel systems and assists in developing design guidance and criteria related to military fuel systems.
Historic Structures and Buildings	NWS	TCX	http://www.nws.usace.army.mil/BusinessWithUs/HistoricPreservation.aspx	The administration and operation of the TCX as USACE's technical and advisory center on matters of the historic building environment that fall within the agency's scope of responsibility under the National Historic Preservation Act (NHPA). Program standards and guidance are defined primarily in the Secretary of the Interior's Standards for the Rehabilitation of Historic Properties and in Sections 106 and 110 of the NHPA.
Homeowners Assistance Program (HAP)	SAS	MCX	http://www.usace.army.mil/Missions/Military-Missions/Real-Estate/HAP	The HAP provides the following functions: (1) Hotline Service Numbers: Savannah 1-800-861-8144; Fort Worth 1-888-231-7751; Sacramento 1-800-811-5532; (2) applicants counselor; (3) government acquisition; (4) private sale benefits; and (5) foreclosure benefits.

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
Heating, Ventilating, and Air Conditioning (HVAC) Controls and HVAC Systems TCX (HVACCS-TCX)	HNC	TCX	http://www.hnc.usace.army.mil/Missions/Centers-of-Expertise	The HVACCS-TCX provides technical engineering support to Army organizations including HQUSACE, USACE Divisions and Districts, Army Commands, individual garrisons, and field elements. Technical assistance includes a wide range of services such as answering technical questions, performing technical submittal reviews, specifications development, procurement documents development, support for HVAC control criteria, and conducting performance verification and acceptance testing of HVAC controls.
Hydroelectric Design Center (HDC)	NWP	MCX	https://www.nwp.usace.army.mil/about/hdc/	The MCX for hydroelectric design was established to consolidate the USACE hydroelectric economic and engineering expertise and workload at a centralized office. HDC is an MCX for hydroelectric power plant economic evaluation, engineering, and design, and a TCX for large pumping plant engineering and design.
Hydrologic Engineering Center (HEC)	IWR	TCX	http://www.hec.usace.army.mil/	The HEC is a designated TCX. HEC is an organization within the USACE Institute for Water Resources (IWR). The primary goal of HEC is to support the nation in its water resources management responsibilities by increasing USACE technical capability in hydrologic engineering and water resources planning and management.
Inland Navigation Design Center (INDC)	MVR	MCX	https://www.mvr.usace.army.mil/About/Offices/Inland-Navigation-Design-Center-INDC/	The focus of the INDC MCX is providing engineering design, analysis, and review services for studies, new locks, new navigation dams, major rehabilitation of existing inland navigation locks and dams, and significant inland navigation lock and dam O&M projects.
Installation Support	HNC	TCX	http://www.hnc.usace.army.mil/Missions/Centers-of-Expertise	The Engineering and Support Center, Huntsville serves as the Installation Support CX and partners with USACE Districts and labs to provide support in public works business processes, systems, training, and contingency support. It provides quality engineering and design services in areas such as conforming storage facilities, intrusion detection systems, utility monitoring and control systems, and ranges and training lands management.

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
Joint Airborne Lidar Bathymetry Center (JALBTCX)	SAM	TCX	http://www.sam.usace.army.mil/Missions/NationalCentersinMobile/JointAirborneLidarBathymetry.aspx	The JALBTCX mission is to perform operations, research, and development in airborne lidar bathymetry and complementary technologies to support coastal mapping and charting requirements of USACE, the U.S. Naval Meteorology and Oceanography Command, and the National Oceanic and Atmospheric Administration.
Marine Design Center	NAP	MCX	http://www.nap.usace.army.mil/Missions/MarineDesignCenter.aspx	The Marine Design Center is the USACE CX for development and application of innovative strategies and technologies for naval architecture and marine engineering. The MCX provides total project management including planning, engineering, and shipbuilding contract management supporting USACE, Army, DOD, and other federal agencies.
Medical Facilities	HNC	MCX	http://www.hnc.usace.army.mil/Missions/Centers-of-Expertise	The U.S. Army Engineering and Support Center, Huntsville, Alabama, is USACE's Medical Facilities Mandatory Center of Expertise and Standardization (MX). The MX partners with USACE project delivery teams, regional business centers/divisions, stakeholders, and geographical Districts to provide medical expertise and the highest quality medical and research facility lifecycle support to the DOD, other federal agencies, and foreign governments.
Military Housing Privatization Initiative (MHPI); includes PAL, RCI, and UPH	NAO	TCX	https://www.nao.usace.army.mil/Business-With-Us/RCI-Small-Installations-Privatization-Initiative/	The MHPI CX Team provides direct support to the Deputy Chief of Staff for Installations, Housing, and Partnerships and the USACE Director of Real Estate for the Residential Communities Initiative (RCI), Privatized Army Lodging (PAL) and Unaccompanied Personnel Housing (UPH) Programs under Army's MHPI portfolio, on Army installations across the country.
Modeling, Mapping, and Consequences (MMC) Production Center	MVK	MCX	http://prod.mmc.usace.army.mil/mmc/	The MMC Production Center MCX supports the USACE IWR, Risk Management Center (RMC) and HQUSACE Office Homeland Security, Critical Infrastructure Protection and Resilience, by analyzing the potential consequences of dam and levee infrastructure failures.

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
Paint Technology Center (PTC)	CERL	TCX	http://www.erdc.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/9254/Article/476731/paint-technology-center.aspx	The PTC-TCX is assigned to the Construction Engineering Research Laboratories (CERL) in Champaign, Illinois. Expertise in areas related to paints and coatings, including corrosion mitigation techniques and high-performance polymer materials, is also available from other personnel at this location. PTC-TCX maintains state-of-the-art technical expertise regarding all types of paints and coatings for use on Army military and Civil Works facilities.
Photogrammetric Mapping	MVS	TCX	http://www.mvs.usace.army.mil/Missions/CentersofExpertise/PhotogrammetricMapping.aspx	The mission of this CX is to provide rapid response, full-service photogrammetric mapping support, and maintain technical proficiency in all aspects of photogrammetry including: • Project Planning and Specification • Architect Engineer Contracting • Project Cost Estimation • Image Acquisition
Power Reliability Enhancement Program (PREP)	HQ	TCX	https://www.usace.army.mil/Missions/Military-Missions/PREP/	The Power Reliability Enhancement Program provides expert power availability and reliability analysis for the electrical and mechanical systems that provide primary and back-up power for defense critical infrastructure, which includes Command, Control, Communications, Computer, Cyber, Intelligence, Surveillance and Reconnaissance facilities. PREP identifies single points of failures, troubleshoots, ensures redundancy of systems.
Protective Design Center (PDC)	N W O	MCX	https://www.nwo.usace.army.mil/pdc/home/	The PDC MCX was created to maintain state-of-the-art technical expertise in, and provide expert support to, a number of mission areas including design to conform to DOD Minimum Antiterrorism Standards for Buildings and Design to resist the effects of conventional and nuclear weapons and design that provides protection from chemical, biological, or radiological agents for people inside buildings. • Electromagnetic Pulse (EMP) and Geomagnetic Disturbance protection design, review, testing verification, and maintenance programs

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
Range Training Land Program (RTLP)	HNC	MCX	http://www.hnc.usace.army.mil/Missions/Centers-of-Expertise	The RTLP MCX is responsible for reviewing designs, conducting technical support inspections, and ensuring Army standards are maintained and met. This MCX provides planning, MILCON programming, and development of standard designs for Army automated ranges, and DD1391 preparation and validation.
Rapid Response (RR)Technical Center of Expertise	N W O	TCX	http://www.nwo.usace.army.mil/About/CentersofExpertise.aspx	The RR-TCX mission is to provide national and international time-sensitive and non-time-sensitive support of homeland security/defense, disaster, and infrastructure work where a discretionary and/or flexible cost reimbursement contract is required to accomplish the mission to serve the nation to support all federal agencies.
Reserve Real Property Exchange (RPX) Program	SPK	MCX	https://www.spk.usace.army.mil/Portals/12/documents/small_business/Virtual%20BOOH%202021/Real_Estate_Division_Information.pdf?ver=noLd6tefpdqaoI6ccsSUCg%3D%3D	Title 10 United States Code §18240 is the authority for the RPX. Only a facility of a Reserve Component that is not excess to the needs of the Army Reserve may be exchanged. The value of the replacement facility or addition to an existing facility, including any utilities, equipment, and furnishings, must be at least equal to the fair market value of the facility conveyed. If the values are unequal, the values may not be equalized by any payment of cash consideration by either party to the agreement.
Risk Management Center (RMC)	IWR	MCX	http://www.iwr.usace.army.mil/About/TechnicalCenters/RMCRiskManagementCenter.aspx	The mission of the RMC is to support Civil Works by managing and assessing risks for dams and levee systems across the Corps, to support dam and levee safety activities throughout the Corps, and to develop policies, methods, tools, and systems to enhance those activities. The RMC serves as a Corps-wide resource for risk-related tools, assessments, knowledge and methods
Roller Compacted Concrete Technology Center (RCCT)	NWP/ NWW	TCX	https://www.nwp.usace.army.mil/expertise/	The RCCT TCX consists of networked, selected, nationwide experts, including Waterways Experiment Station, providing reimbursable services for a variety of technical services for concrete structures and pavements.
Sign Standards Program	NWK	MCX	https://corpslakes.erdc.dren.mil/employees/sign/sign.cfm	The Sign Standards Program MCX began as a TCX in November 1994 and was converted into a MCX in June 1995. In October 1996, the Engineering Waterway Signs MCX and Sign Program MCX merged into one MCX.

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
Subsurface Exploration Center	SAM	TCX	http://www.sam.usace.army.mil/Missions/Military-Missions/Engineering/Subsurface-Exploration	The Subsurface Exploration TCX provides technical assistance and guidance to USACE commands and other government agencies on all aspects related to geotechnical and geologic investigations. Mobile District was selected to manage the TCX due to having over 60 years of successful drilling experience, proven leadership and reliability in the industry, high customer satisfaction, and an extensive knowledge base among its personnel.
Survey Engineering and Mapping Center (SEMTCX)	AGC	TCX	https://team.usace.army.mil/sites/AGC/PDT/SEMC/default.aspx	The SEMTCX was established at the Army Geospatial Center (AGC) to provide consistency in surveying and mapping projects in USACE and to provide expertise and knowledge in these areas: • Horizontal and Vertical Datums (Geodetic and Water Level) • Electronic Charting for Navigating
Sustainment Management Systems (SMS)	CERL	TCX	https://www.sms.erdc.dren.mil/	SMS-TCX personnel are experts in the field of facility management; the SMS-TCX addresses USACE stakeholder needs by providing innovative solutions to facility assessment, investment identification, and requirements forecasting challenges for DOD installations in all regions of the U.S. and of the world. Some activities around the deployment and use of the SMS are not an enduring requirement and/or require specialized knowledge not found commonly throughout USACE.
Transportation Systems Center (TSC)	N W O	MCX	https://transportation.erdc.dren.mil/tsmcx/Default.aspx	TSC was established in 1990 to support the Tri-Services (Army, Air Force, and Navy) for training, operations, and mobilization by providing expertise in the planning, design, construction, evaluation, and criteria development of military airfields, roads, and railroads. TSC also provides continuity, standardization, and technical excellence within the Army and as a benefit to all the DOD.

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
Tribal Nation (TNTCX)	SPA	TCX	https://www.spa.usace.army.mil/Missions/TNTCX/	The mission of the TNTCX is to improve USACE's quality and effectiveness in delivering water resource services to Indian Country. Moreover, to facilitate USACE's ability to support the responsibilities that the federal government has to Native American governments resulting from federal trust doctrine, treaties, statutes, regulations, Executive Orders, and agreements between the United States government and Tribal governments.
Utility Monitoring and Control System (UMCS)	HNC	MCX	https://www.hnc.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/482088/utilities-monitoring-and-control-systems/	The UMCS MCX was created to maintain state-of-the-art technical expertise and provide expert support to a number of mission areas, including reviewing all DD 1391s that identify UMCS, supporting all planning and design charrettes that involve the application of UMCS, and performing UMCS surveys, if required.
Water and Wastewater Treatment	SAM	TCX	http://www.sam.usace.army.mil/Missions/MilitaryMissions/Engineering/WaterandWastewater.aspx	The Water and Wastewater Treatment TCX maintains state-of-the-art technical expertise in the field of water and wastewater treatment. Water and wastewater treatment includes potable water supply, treatment, storage and distribution; and domestic wastewater collection, pumping, treatment and disposal.
Water Resources Remote Sensing/GIS Technology Center	CRREL	TCX	http://www.erdc.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/9254/Article/6215/remote-sensinggeographic-information-systems-center.aspx	The Water Resources Remote Sensing (RS)/Geographic Information System (GIS) Technology Center is the USACE TCX for Civil Works remote sensing (RS) and GIS technologies, providing mission-essential support to Civil Works programs. The RS/GIS TCX provides cost-effective centralized management and support through technology transfer and applications development for USACE mission responsibilities in practice areas including: • Navigation • Flood and coastal storm damage reduction • Hydropower • Regulatory

Name of Center	Place of Center	MCX, TCX, or COS	Website	Summary
Welding and Metallurgy Technical Center of Expertise	NWP	TCX	https://usace.dps.mil/sites/INTRA-NWP/SitePages/Welding-and-Metallurgy-Technical-Center.aspx?web=1	The TCX for metallurgy and welding was created to maintain state-of-the-art technical expertise in, and provide expert support to, the following mission areas: • Designing weldments for new hydraulic steel • Designing weldments to resist the effects of fatigue and fracture through proper welding details and techniques • Authoring and reviewing Weld Procedure Specifications and Procedure Qualification Records