

# TRANSPORTATION SYSTEMS- MANDATORY CENTER OF EXPERTISE

**TSC PRESENTATION TO SOCIETY OF  
AMERICAN MILITARY ENGINEERS**  
**30 May 2024**

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**US Army Corps  
of Engineers®**

**U.S. ARMY**



# TSC: WHO WE ARE



## Transportation Systems-Mandatory Center of Expertise (TSC):

- Established 10 January 1990 to support engineering, planning, design, construction, evaluation, criteria development, and real property requirements for all military transportation systems to include airfields, railroads, and roadways within the Military Construction and Civil Works programs.
- The TS-MCX provides continuity, standardization, and technical excellence within USACE and provides transportation systems technical support to USACE activities within the DOD and other agencies worldwide.
- *The TSC Team: a professional organization of transportation experts, in cooperation and association with experts from our AE partners.*

<https://transportation.erdc.dren.mil/tsmcx/Default.aspx>



# TSC: CURRENT MISSION SET



## AIRFIELDS

- Consulting USACE and DOD on all phases of airfield projects.
- Mandatory design reviews and workshops for construction.
- Complete airfield infrastructure design & construction support, NAVAIDs & asset management.



## ROADWAYS

- Consulting USACE and DOD on all phases of roadway projects.
- Mandatory reviews of roadway projects designs (+\$5M).
- Complete roadway infrastructure design & construction support, roadside safety & traffic operations.



## RAILROADS

- Consulting USACE and DOD on all phases of railroad projects
- Mandatory reviews of USACE railroad projects designs
- Enterprise-wide legal, regulatory, and real estate coordination with Class I railroads; complete railway design & construction support.

SYSTEMS ENGINEERING

## PCASE

Pavement-Transportation Computer Assisted Structural Engineering  
 TSC Managed Program  
 TSC Training

## PAVER

Pavement Management System  
 TSC Managed Program  
 TSC Training

## RAILER

Railroad Design & Management System



# TSC: QUALITY & ROI STRATEGY

The TS-MCX:

Emphasizes and strongly advocates for QUALITY in engineering design and construction practices, to include the employment of desired risk management strategies, to bring about highly effective cost-saving practices for the benefit to the DOD and our stakeholders.

TS-MCX RETURN ON INVESTMENT STRATEGY			
TS-MCX INPUTS	EXPECTED OUTPUTS	USACE OUTCOMES	DOD OUTCOMES
Expertise/Services Employed	Improved Quality & Execution	Compliant Projects & Successful Execution	Cost & Time Savings
Risk Management Strategies Employed	Risk Reduction & Loss Avoidance	Improved Constructability & Biddability	Mission Operability & Customer Ownership
Technology Transfer	Improved Capability	Enhanced Reputation & Utilization of MCX	Meet or Exceed Customer Expectations



# TSC: CONTRACTS



Program:		Current Contract Vehicle:
Architect-Engineer*	Rails & Roads Design – Worldwide (Unrestricted) W9128F20R0013	<ul style="list-style-type: none"> <li>• \$20M MATOC Pool, 5 Contractors</li> <li>• PoP: February 2022 to February 2027</li> <li>• Replacement IDC planned</li> </ul>
	Airfield Design – Worldwide (Unrestricted) W9128F22R0014	<ul style="list-style-type: none"> <li>• \$30M MATOC Pool, 5 A-Es</li> <li>• PoP: January 2023 to January 2028</li> <li>• Capacity projected to end May 2024</li> <li>• Replacement IDC initiated</li> </ul>
	Airfield Design – Nationwide (Small Business) W9128F22R0015	<ul style="list-style-type: none"> <li>• \$10M MATOC Pool, 4 A-Es</li> <li>• PoP: August 2023 to August 2028</li> <li>• Replacement IDC planned</li> </ul>
Construction	Airfield Paving – NWD ONLY (Unrestricted) W9128F21R0013	<ul style="list-style-type: none"> <li>• \$400M MATOC Pool, 4 Contractors</li> <li>• PoP: to Sep 2028</li> <li>• Replacement IDC planned</li> </ul>
	Airfield Paving – NWD ONLY (Small Business) W9128F22R0016	<ul style="list-style-type: none"> <li>• \$99M MATOC Pool, 4 Contractors</li> <li>• PoP: to Jan 2030</li> </ul>

<https://transportation.erdc.dren.mil/tsmcx/aecontracts.aspx>



# TSC: ACQUISITIONS



## Ongoing Acquisitions:

\$135M Airfield Design A-E MATOC (Unrestricted/Small Business Split Acquisition)

\$25M PAVER and PCASE Software Services (Small Business) IDC

## Future Acquisitions:

Roads and Rail Design A-E MATOC (Unrestricted/Small Business Split Acquisition)

Testing and Construction Phase Services A-E MATOC

Roads and Rail Construction MATOC



# TSC: TRAINING OFFERED



## Training Courses and Workshops Offered by the TSC

### Airfield Paving Workshops

- Offered as required for USACE and requested for other Stakeholders

### Airfield Design Workshops

- Upcoming Workshop on 20 May 2024 to 24 May 2024

### PAVER Workshops

- Upcoming Workshop on 05 August 2024 to 08 August 2024

### PCASE Workshops

- Upcoming Workshop on 26 August 2024 to 29 August 2024

### Future Training Courses

- All upcoming courses are posted on <https://transportation.erdc.dren.mil/tsmcx/training.aspx>



# TSC: TRENDS & PATTERNS



## General:

Major sources of funding include projects from the National Defense funding program (NDAA), the European Defense Initiative (EDI), and Pacific Defense Initiative (PDI).

Fiscal Year	National Defense Authorization Act			EDI	PDI
	Base (\$B)	OCO (\$B)	Total (\$B)	(\$B)	(\$B)
2020	\$ 658.40	\$ 71.50	\$ 729.90	\$ 5.91	\$ 2.10
2021	\$ 662.20	\$ 69.00	\$ 731.20	\$ 4.50	\$ 4.68
2022	\$ 777.70	\$ 27.80	\$ 805.50	\$ 3.80	\$ 7.10
2023	\$ 816.70	\$ 30.30	\$ 847.00	\$ 4.20	\$ 6.10
2024	\$ 844.30	\$ 32.40	\$ 876.70	\$ 3.60	\$ 9.00
<b>AVG</b>	<b>\$ 751.86</b>	<b>\$ 46.20</b>	<b>\$ 798.06</b>	<b>\$ 4.40</b>	<b>\$ 5.80</b>



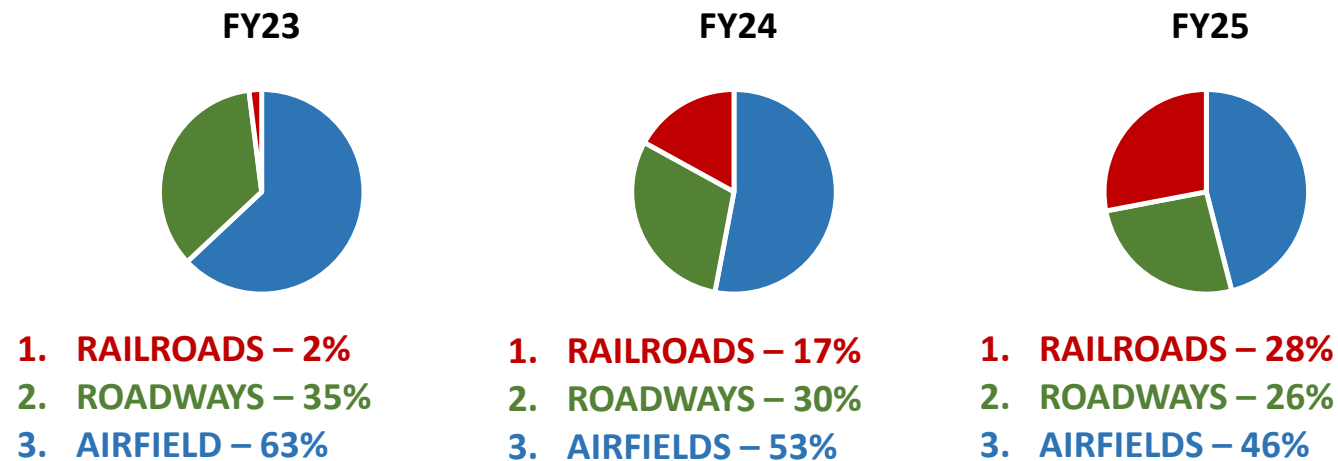


# TSC: TRENDS & PATTERNS

## General:

The TS-MCX's program is largely military construction (MILCON) funded, but Civil Works (CW) funding is on the rise due to the **\$1.2T Infrastructure Investment and Jobs Act (IIJA)** enacted in November 2021. The TS-MCX is currently experiencing a surge in railroad related projects within both MILCON and CW programs.

The IIJA infused \$284B into transportation related projects, but the majority of these funds will remain with other federal agencies. However, the railroad mission is estimated to see an approximate **\$4.5B program increase** through CW.





# TSC: TRENDS & PATTERNS



## Airfields:

- 1. Maintenance & Repair (M&R):** Military Construction (MILCON) projects are consistently being programmed for M&R, and full-depth reconstruction throughout the DOD. TSC's MATOCs are seeing increased demand.
- 2. New Construction:** Military Construction projects are consistently being programmed for airfield/runway expansions, hangar additions, and new aircraft missions. TSC's MATOCs are seeing increased demand.
- 3. Design:** MILCON design projects are consistently being programmed. Demand is steady and high.



# TSC: TRENDS & PATTERNS



## Roadways:

1. **M&R:** MILCON projects are experiencing an increase in programming and requests for assistance with M&R and asset management, and other construction of general roadway networks and pavement infrastructure. In addition, requests for supporting infrastructure, e.g., bridges, roadside safety, etc., are experience an increase in demand for services and is expected to continue to increase in demand.
2. **M&R:** CW projects are experiencing normal programming and requests for assistance with M&R.
3. **New Construction:** MILCON projects are experiencing normal programming and requests for assistance.
4. **Contracts:** Overall demand is steady for roadway design contracts but projected to increase steadily in the near future.



# TSC: TRENDS & PATTERNS



## Railroads:

1. **M&R:** MILCON projects are experiencing a steady increase in programming and requests for assistance with M&R, and other construction.
2. **M&R:** CW projects are experiencing a sharp increase in programming and requests for assistance with M&R and CLASS 1 Railroad Coordination Assistance.
3. **New Construction:** MILCON and CW projects are experiencing *high-level awareness* and emphasis from leadership and a sharp increase in programming and demand.
4. **Design:** MILCON and CIVIL WORKS projects are experiencing a sharp increase in demand for design and review support.



# TSC: TRENDS & PATTERNS



## Summary:

Overall, the benefits to USACE and the DOD from the TS-MCX is most evidenced by:

1. high-level of expertise leveraged,
2. increase level of quality realized in engineering design and construction,
3. the reduction of contractor RFIs and increase biddability of contractor bids.

***AS A TEAM AND WITH OUR AE PARTNERS—MISSION ACCOMPLISHED.***



# TRANSPORTATION SYSTEMS CENTER



**COMMENTS & QUESTIONS**

