Artificial Intelligence in Federal Construction: Risk, Governance, and Delivery

Moderator:

- Cdr. Matt McCann, CEM, USN (Ret.), Centrica Business Solutions

Speakers:

- Andy Wohlsperger, Technical Director - Digital Consulting, AECOM
- Naomi Jordan, P.E., LEED AP, Planning Design Construction Director and Chief Engineer, NAVFAC EURAFCENT

March 5, 2026 | 11:30 a.m. – 12:30 p.m.

THANK YOU EXHIBITING COMPANIES

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Engineering

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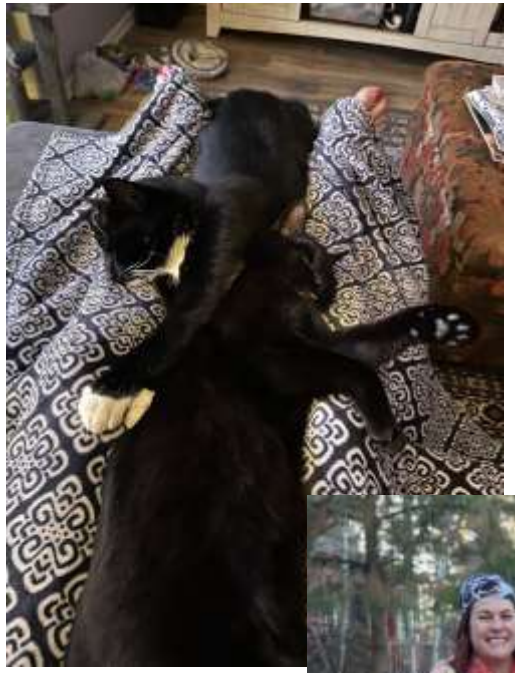
Agenda:

- Introductions
- Objectives
- Overview
- Naomi Jordan
- Andy Wohlsperger
- Moderated Q&A
- Audience Q&A



Matt McCann

Centrica Business Solutions

Fun Facts

Grew up in:	• Vermont
Currently binge-watching:	• Pluribus
Proudest accomplishment:	• Successful Navy Career
Biggest fear:	• Red Mountain Pass

Andy Wohlsperger

AECOM

Grew up in:	• Germany & Texas
Currently binge-watching:	• Slow Horses
Proudest accomplishment:	• Cactus to Cloud Solo climb
Biggest fears:	• AI & Avalanches (ask me why)

Naomi Jordan, P.E.

NAVFAC EURAFCENT

Fun Facts

Grew up in:	• Warwick, RI
Currently binge-watching:	• The Big C
Proudest accomplishment:	• Navigating life in Naples
Biggest fear:	• Hot mic moment

Objectives:

- **Understand how AI is currently being used in Federal construction, project management, and contracting environments.**
  - What tools, what information is being shared, what are the benefits?
- **Identify governance, liability, and compliance risks associated with AI-assisted project delivery in Europe.**
  - Disclosures, requirements, guard rails
- **Recognize differences between U.S. and European approaches to AI policy, data protection, and contracting.**
  - Lessons learned? Effective approaches? Challenges?
- **Apply practical oversight and risk-management principles to AI adoption on OCONUS projects.**
  - Identifying and mitigating risks

Overview:

- AI is ubiquitous part of everyone's daily life, whether we want it or not – e-mail systems, work chats, all productivity tools, everytime you open a web browser
- In the federal design and construction world, it's not just the tools and software, but how projects are estimated, managed, procured, and documented.
- This extends well beyond productivity gains and into policy, security, contracting risk, and compliance. Who among us know all the ways AI is being used around us and how its influencing decision making?
- We will present this session as a governance, compliance, and risk management issue rather than a technology issue.
- UK and European Union regulatory frameworks governing AI, data protection, and contractor accountability are already more developed and more stringent than those applied in the US
- With a central focus on government data security – with AI touching drawings, schedules, specifications, correspondence, and operational data

Defining the Risk:

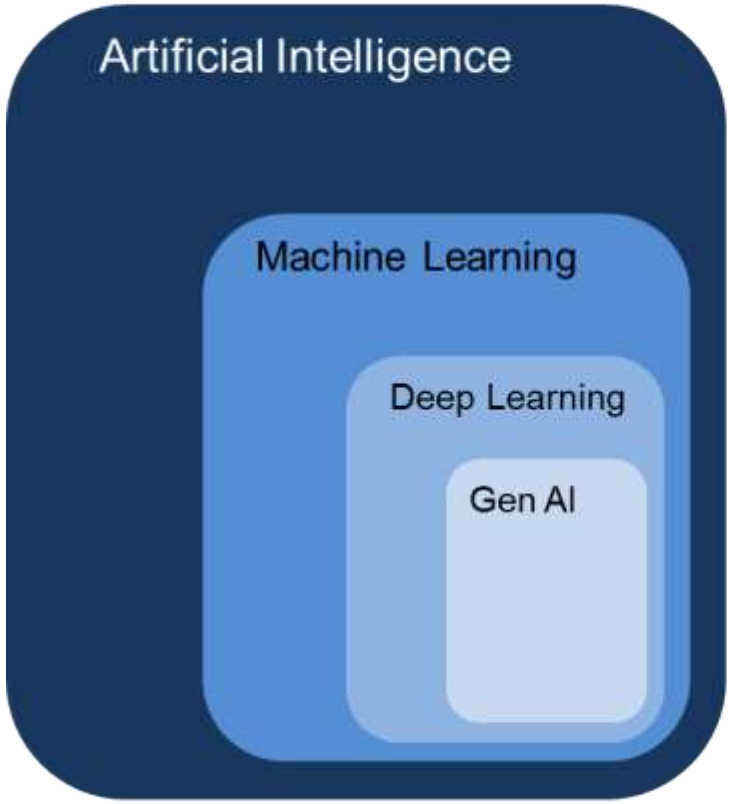
Hallucinations and design errors	Generative AI can produce plausible code references or quantities that are not accurate, which can be propagated into drawings and specifications
Model bias and incomplete data	Models trained on non-federal data sets may not reflect applicable federal standards
Over automation	Over reliance on AI tools can reduce engineering judgement. It's fundamentally different reviewing a document, drawing or calculation than actually generating or doing it. What's falling through the cracks and what damage are we doing to the skills of a professional engineer?
Regulatory Risks	Federal and DoD guidance has been issued via NDAA and other sources. Is it being followed or enforced?
Ownership Risks	Who owns AI generated output? Who's liable for mistakes?
Cybersecurity Risks	Are organizations keeping up with cybersecurity and now CMMC requirements for all tools being uses?

Andy Wohlsperger

Technical Director - Digital Consulting

AECOM

AI & Value to AEC Market:



1956 — Artificial intelligence
The field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence

1997 — Machine learning
Subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions

2017 — Deep learning
A machine learning technique in which layers of neural networks are used to process data and make decisions.(computer vision)

today — Generative AI
Create new written, visual, and auditory content given prompts or existing data

Today/ tomorrow — Autonomous AI
Ai systems that run fully without human intervention and adapt based on their own reasoning

Exponential Impact at scale

- Scenario Masterplanning
- Cost & Schedule optimization
- Conceptual design iterations
- Design optimization
- Carbon & Material optimization
- Progress monitoring & Materials take-offs
- Site security
- Clash detection / BIM
- Site report generation
- Contract reviews
- PPE Compliance Monitoring

AI vs. Digital, IoT, Data Science

Examples of high value digital tools & processes that are not always based on AI, but are being augmented more and more **with** AI – narrow procedural tasks

Scenario planning

GIS site intelligence

Geotracking with alerting

Sensor based IoT with alerting

BIM Collaboration

UAV survey/change detection

Digital twins

Automated reporting from site visits

Multicriterial Assessments

Navigating AI Regulation:

	EU	UK	USA
	EU	UK	USA
Regulation	Binding Risk Based Specific Law - EU AI Act	Regulator led, reliance on existing laws *(UK GDPR, Equality Law, Work Act etc.)*	Mix of light federal & state laws and government policies *(protect consumers or best practice for gov agencies)*
Effect it has	Strong compliance duties, but clear legal certainty; comes at a cost	Innovation friendly; based on principles; more ambiguity	Innovation friendly; very flexible
Explanation	Regulates how AI is used – usage categories *(Unacceptable-,high-, limited-, minimal risk, General Purpose AI)*	Regulates outcomes and responsibility, not AI itself	Regulates after the fact; liability & litigation
Example of compliance items	Risk Mgt Plan, Human oversight, Documentation of training data, Data governance, transparency obligations	Declaration of AI tools being used, watermarks etc.	AI Inventory of Use Cases, Bias Auditing

This is no legal advice, but I did stay at a Holiday Inn once…

Risk & Governance:

The Risk isn´t ai in itself, but the uncontrolled & undocumented use

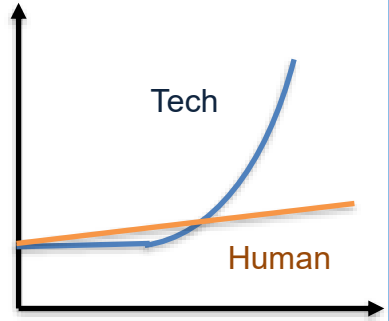
- Contractual disputes
- Compliance violations
- Cyber Sec & Data risk
- Workforce disruption

Challenges

- Liability & Accountability
- Workforce & Supply chain
  - Skills mismatch/transition
  - Need for focus on ethics & human factors
- Foundation model Biases & overoptimism
  - Models try to please the user

What helps produce clarity

- Consistent ai policy across an agency
- Clear guidance for ai usage on specific workflows (bids, design, CM)
- Mandatory ai use transparency / combat shadow AI



Provide a pathway to AI without eradicating the value potential
For example:

- Documented human audit review processes on AI based design tasks
- Documented AI training data sources

Naomi Jordan

PDC Director/Chief Engineer
Planning, Design, and Construction
NAVFAC Europe Africa Central (EURAFCENT)

NAVFAC Initiatives - Artificial Intelligence

- **Investigating opportunities to exploit AI**
  - **Increase efficiency – high workload vs constrained work force**
  - **Reduce costs**
  - **Deliver faster**
- **Participating on SAME IGE: AI in the Federal A/E/C sector**
- **Palo Alto summit - Technical Terrain Cross-walk**
  - **Met with AI industry leaders. Assessed available AI tools**
  - **Testing / Evaluating**
    - AI assisted Structural Design - Hedral
    - AI assisted Planning - Giraffe
- **Investigating AI planning, design & construction tools**
  - **Partnership with NLR and NIBS**
  - **Identified high value pre and post-award use cases**
    - Completing evaluation of several AI applications and platforms (AcqBot, TwinKnowledge, and Code Comply)
    - MAR 2026 initial pilot results

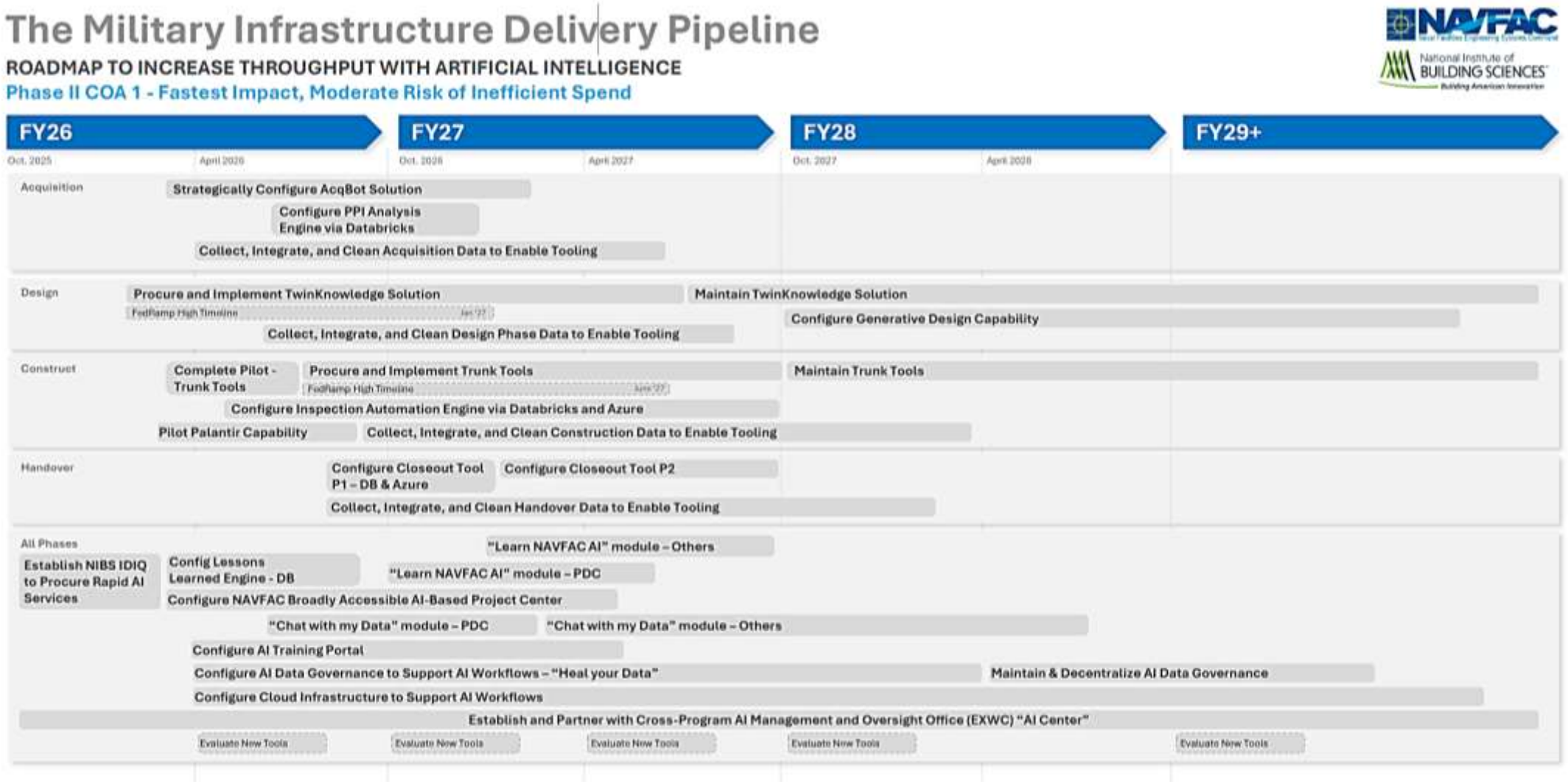
Center for Naval Anaysis Partnership
LLM Training and Evaluation

- **Purpose: Quickly increase Planning, Design, and Construction staff capacity by providing AI capability**
  - Goal: quickly assure contract compliance with greater speed and accuracy
  - Use readily available Department of War LLMs
  - Plan developed and approved by NAVFAC, currently in LLM testing phase

- **Partners: Center for Naval Analysis (CNA) and PDC-CMP Bethesda & ROICC Annapolis**
  - Effort 1: Monthly training comms to NAVFAC staff on LLM best practices (MAR 26)
  - Effort 2: Evaluation of NAVFAC-available LLMs for use in post-award code compliance scenarios

- **LLMs tested: AcqBot, GenAI, OPNAV GPT, potentially CNA's controlled-environment hosted LLM: Morse Code**
  - LLMs tested for accuracy, ability to cite sources and related codes, and ability to develop plain English summaries
  - Analysis comparing the LLM outputs to follow - Mar 2026
  - Additional partnerships with the Project Management COI

NAVFAC Partnership with NIBS: Evaluation and Development of Tools



Why AI Matters in Federal A/E/C Projects

- AI is reshaping project delivery
  - estimation, management, procurement, and documentation.
- Implications extend to policy, security, contracting risk, and compliance.
- Focus on governance and risk management rather than technology demonstration.

Key Risks in AI Adoption

- **Data Residency and Leakage Risks:** Sensitive data may persist in AI systems, risking unauthorized access.
- **Intellectual Property Ownership Concerns:** AI-generated outputs may create ambiguity in ownership.
- **Inadvertent Disclosure of Sensitive Information:** Public AI platforms may expose FCI/CUI.
- **Lack of Clear Authorization and Controls:** Many AI tools lack compliance with federal standards.

AI Integration Challenges

Category	Examples Cited in Policy/Reports
Governance	AI inventories, risk categorization, oversight structures
Data Readiness	Siloed data, inconsistent standards, legacy systems
Cybersecurity	CMMC, DFARS compliance, CUI restrictions
Procurement	Contract language, model documentation, evaluation difficulty
Workforce	Skill gaps, training requirements
System Integration	BIM/GIS interoperability, lifecycle data mapping
Transparency	Bias mitigation, explainability requirements
Infrastructure	FedRAMP/IL-level hosting constraints
Culture	Risk aversion, audit concerns

Thanks For Listening!

- Naomi Jordan
  naomi.b.jordan.civ@us.navy.mil

- Andy Wohlsperger
  Andy.Wohlsperger@aecom.com