

United States Military Academy  
Cyber & Engineering Academic Center  
West Point, New York



## Federal & Environmental Solutions

Environmental  
Planning  
Design/Engineering  
Program Management  
Construction Management  
Digital Transformation

**Jacobs** Challenging today.  
Reinventing tomorrow.





We live in an undeniably intricate world, vastly different from the 1960s when Jacobs initially started supporting federal clients. Our goals remain the same: we solve the world's most important problems, leaving it better with each project.

We deploy industry-leading technologies, underscored by an intrinsic culture of safety, to successfully deliver projects, including construction, energy and water, environmental, civil works, transportation, and more. Our teams are empowered to tackle challenges with creativity and innovation, supported by deep and broad technical subject matter expertise, and global capabilities and reach. We work with our clients to reduce environmental liabilities, protect human health, and reduce our carbon footprint, while creating sustainable, resilient solutions, compliant with all applicable permits and standards.

Beginning with the end in mind, we leverage seasoned technologists and engineers to collaboratively work with stakeholders to develop unique, cost-effective approaches to carry our clients and their projects into, and through, any presumable future need.

# Planning, Analysis, Design, & Engineering



Some of the most significant government facilities and infrastructure carry the Jacobs stamp, from revamping older buildings, like the NAVSEA Headquarters Rehabilitation, to innovating the most advanced strategic and tactical systems, such as the “Installation of the Future” at Tyndall AFB. We have established and maintained military bases worldwide, supported defense contractors like Lockheed Martin and Boeing, and we’ve been called on to design civil works projects like the USACE \$1.9B Levee and Floodwall System along the coastline near Galveston, TX. We provide the full spectrum of services, from policy and strategy through site analysis and project execution, helping our clients improve and diversify their planning and infrastructure to best support our nation’s critical missions.

- Asset Management & Smart Installations
- Architecture
- Anti-Terrorism
- Building Engineering
- Communications & Information Technology Networks
- Energy Simulations
- Economics & Socioeconomics
- Environmental Planning
- Facility Requirements Analysis & Utilization Studies
- Furniture, Fixtures, & Equipment
- Interior Design
- Master Planning & Installation/Site Planning
- Public/Community & Stakeholder Involvement
- Programming & Charrettes
- Real Property Management Systems
- Regulatory Compliance
- Structural Engineering
- Sustainable Design & LEED Certification
- Spatial Data Solutions/Geographic Information Systems
- Seismic & Blast Protection
- Tribal & First Nations Relations
- Utility Infrastructure Studies & Capacity Analysis
- Value Engineering & Optimization
- Workplace Strategy



## Program & Construction Management

Jacobs is one of the premier providers of program and construction management services in the world, overseeing activities ranging from planning, coordination, scheduling and cost control, to design, and commissioning. Our projects range from multimillion-dollar buildings to multifaceted billion-dollar programs, and our success rests on our role as a dependable and trustworthy partner. With a large staff of Certified Construction Managers, we custom-tailor our proven processes to best align with your needs. We act as an extension of your staff, protecting your interests as our own.

- Alternative Project Delivery Methods
- Construction Quality Management & Inspection
- Commissioning, Retro-commissioning & Recommissioning
- Contract Administration & Compliance Auditing
- Cost Estimating & Change Management
- Design Management
- Program Budgeting & Planning
- Project Controls, Accounting & Reporting
- Procurement & Packaging
- Scope-to-Budget Validation & Value Engineering
- Schedule Development & Management

# Environmental Solutions



Environmental stewardship and climate adaptation are defining issues of our time. As one of the top ranked global environmental firms and a recipient of the World Environment Center's Gold Medal Award for Sustainable Development, Jacobs is a trusted solutions partner for addressing complex environmental challenges and opportunities. We partner with government agencies, municipalities, private sector companies and leading environmental organizations to safely clean-up legacy liabilities for redevelopment, and deliver proven industry expertise on new infrastructure development, sustainability, resilience, and environmental health and safety initiatives around the globe.

- Air Quality & Noise Monitoring, Modeling & Compliance
- Biology/Ecology Surveys & Permitting
- Climate Adaptation & Resiliency
- Closure/Redevelopment Strategy
- Decommissioning, Decontamination, Demolition & Disposal
- Disaster Planning, Mitigation, Response & Recovery
- Drinking Water & Reuse
- Emerging Contaminants (PFAS) Investigation & Remediation
- Environmental Data Lifecycle Planning, Management & Analysis
- Environmental, Health & Safety Auditing & Compliance
- Environmental Impact Assessments
- Multi-media Investigation & Monitoring
- Natural Capital & Social Value Analysis
- Remedial System Design, Construction, Operations & Maintenance
- Siting, Feasibility Studies, Routing & Alternatives Analyses
- Sustainability Consulting
- Threat Reduction & Public Health Security
- Waste Solutions & Circular Economy
- Water Resources & Wastewater



## Energy Solutions

Some of the defining challenges of our age revolve around energy use and resiliency. Jacobs helps our federal clients develop and implement energy strategies to lessen impacts on the planet, improve overall resiliency, and maintain mission effectiveness. We can identify and quantify critical mission energy requirements, find cost-effective solutions that emphasize longevity and sustainability, ensure adequate and redundant access to required energy sources, and implement systems that reduce environmental footprint now and into the future. We provide the full suite of consulting, design, and construction management services.

- Alternatives Analysis
- Asset Optimization
- Alternative Financing Project Technical Support
- Business Case Analysis
- Combined Heat & Power
- Central Utility Plants
- Cybersecurity of Facility Related Controls Systems
- Commissioning
- Distributed Generation
- Energy Resiliency Planning
- Energy Modeling & Efficiency Improvement
- High Performance Buildings
- Industrial Control Systems
- Lifecycle Cost Analysis
- Mission Assurance Assessments
- Microgrids
- On-site Generation Solutions
- Renewable Energy Systems
- Retro-Commissioning
- Utilities Privatization

# Industrial Control System Cybersecurity



Cybersecurity is a household word in this age of digital automation, yet the world's critical infrastructure remains unprotected and vulnerable. Our cybersecurity services focus on Industrial Control Systems (ICS) and Operational Technology (OT) to provide operational resilience, governance, risk, and compliance in accordance with industry-specific and evolving standards for control systems in buildings, transportation, public utilities, and many others.

- Critical Infrastructure
- DoD RMF FRCS Package Preparations
- DoD Risk Management Framework (RMF) Lifecycle Compliance
- DoD Smart Grid & Microgrid
- Data Centers & Advanced Facilities
- Facility-Related Control Systems (FRCS)
- Industrial Control System Cybersecurity Analysis & Planning
- ICS Cybersecurity Design Services
- ICS Cybersecurity Risk Management
- ICS Vulnerability Assessments
- Operational Technology





## Disaster Resilience, Response & Recovery

In the aftermath of any disaster, the most pressing issue is the return to normal life and operations. To help reduce the impact of both current and future events, we help governments and communities prepare for—and quickly recover from—natural and manmade disasters. Our staff stands ready to mobilize on a moment's notice to support emergency response and recovery operations for major/catastrophic disasters, and following through with concrete, actionable plans for rehabilitation, revitalization, and resilience. Whether preparing for future events or responding to recent disasters, we help communities stay safe, prepare for the worst, and rebuild in the wake of unexpected events.

- Build, Maintain & Provide Analytics for Emergency Operations Centers
- Coastal Protection
- Critical Infrastructure Assessments
- Design Support for Recovery & Mitigation
- Design & Build of Temporary Housing Unit Sites
- Emergency Management Planning
- Emergency Management Planning & Preparedness
- FEMA Project Development
- Hazard Mitigation
- Immediate Mobilization
- Initial Emergency & Contingency Assessments
- Immediate Mobilization of Resources, Materials & Equipment
- Logistical Analysis
- Mass Care (immediate shelter, food and other care to disaster survivors)
- Program Management
- Risk Assessment
- Resiliency Planning
- Staff Augmentation



## New Los Angeles Federal Office Building and Courthouse Los Angeles, California

*"(Jacobs staff) are solid, knowledgeable, and have taken 100% ownership of the project. They demonstrate professionalism, respect, and integrity."*

**Duane Allen, GSA Project Manager**



We provided comprehensive Construction Management and Engineering Consulting services for the new 10-story, 633,000-square-foot United States Courthouse in downtown Los Angeles. The new facility contains 24 courtrooms, 32 judicial chambers and a variety of sustainable features, including a rooftop photovoltaic array intended to generate 507,000 kWh of renewable energy annually, helping achieve LEED® Platinum certification and meeting the U.S. General Services Administration's 2020 energy objective. Our work was recognized with a CMAA National Chapter 2017 Project Achievement Award in the >100M category.

## CMAA Project Achievement Award







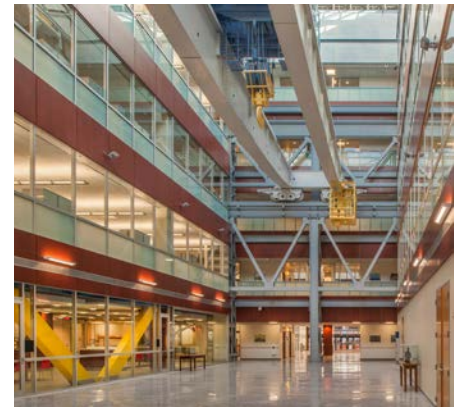
Following the tragic event at the Washington Navy Yard, Jacobs rapidly responded. We immediately performed essential building repairs, provided conceptual designs for the complete renovation of the Naval Sea Systems Command (NAVSEA) Headquarters, and oversaw the design-build of the preferred design solution. Within 12 months, we renovated this 650,000 SF operations facility, using an expedited design-build/commission/fit-out delivery approach. We designed and managed

the total restoration, working with NAVSEA, NAFVAC, and our construction contractor to modernize facility systems and infrastructure to meet mission needs far into the future. With a focus on rapid resiliency—returning 2,800+ NAVSEA HQ personnel to worldwide naval operations—we created a transformation in the buildings themselves, but also for the people who work there, bringing them back to work in fresh, new facilities representing a whole new outlook for the Washington Navy Yard.


## NAVSEA Headquarters Rehabilitation, Washington Navy Yard, Washington, DC

*"This project is the model of partnership between the NAVSEA, NAVFAC, and the contractor. We should hold it up as the example of how to do projects."*

**Captain Tony Edmonds, NAVFAC Washington**







## Design and Implementation of Groundwater Remediation for PFAS, Vermont Air National Guard, Burlington ANG, Vermont

*"...your company is a household name on Base. The Command Group is always impressed with the professionalism and results. Takes a huge load off their plate -and ours - when it's one less thing to intensively manage."*

**Shannon Kelly, Environmental Manager, VT ANG**



When a groundwater collection trench, discharging to the publicly-owned treatment works, was found to contain per- and polyfluoroalkyl substances (PFAS), Jacobs implemented a time-critical, expedited removal action for the Vermont Air National Guard at Burlington Air National Guard Base. By designing modifications to an existing horizontal soil vapor extraction line and installing a groundwater treatment system, we rapidly prevented further discharge of PFAS into the public drinking water system.





## 176th Wing Relocation Program, National Guard Bureau, Joint Base Elmendorf-Richardson, AK

*"Superb facilities! The 176th Wing Relocation is on budget and on time... In a recent briefing to the BRAC Commission, the members indicated they are extremely pleased with this program from beginning to end. Great job!!"*

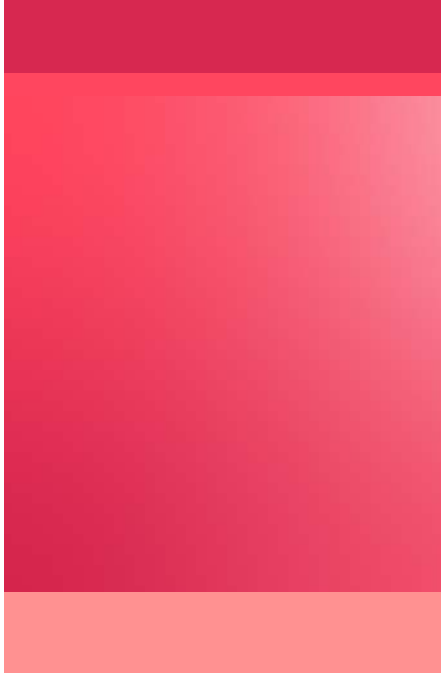
**Donna J. Lee-Harrell, PE, LEED AP, Project Manager**



When the National Guard Bureau decided to undertake the largest-ever relocation program—moving the 176th Wing in Korea—they called on Jacobs as a trusted partner. In addition to overall program management, we provided planning, programming, project management, A/E design, and services during construction on this \$14.1M program. Our delivery team prepared design-build RFPs and full design packages for 17 facility and infrastructure projects, ranging from \$400K to \$20M+ in construction value, and totaling 385,000 SF. Facilities include administrative, maintenance, hangar, training, medical, warehouse, fire, supply, and pararescue. We delivered 14 concurrent designs for renovated and new facilities, providing five in-house design teams and in-depth cross-coordination to maintain schedule, quality, and cost control.





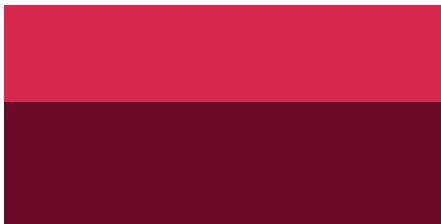


The rapid rate of advancement in military technology and ever-changing missions means functional requirements evolve constantly. This is exemplified in the Distributed Common Ground Station (DCGS) weapon system, a globally dispersed, wide-area network of fixed and mobile ground processing systems for ISR data collected from manned aircraft, unmanned aerial vehicles, and satellites. To support this mission, Jacobs worked with the US Army Corps of Engineers to plan state-of-the-art reconfigurable facilities to accommodate evolving missions and future technologies. We have worked together on design and construction of five DCGS sites for the US Air Force 480th ISR Wing, located throughout the world.

## U.S. Air Force Intelligence, Surveillance, and Reconnaissance (ISR) Wing Intelligence Operations Facilities, Multiple Locations, Worldwide

*"...Our partnership has resulted in highly efficient, flexible, and sustainable construction projects that currently support the World Wide ISR mission. Each facility has exceeded the advertised expectation in all areas."*

Cyril A. Craig, 480th ISR Wing, Civil Engineering







## FEMA: Hurricanes Irma/Maria Response, Puerto Rico and USVI

*"We will be working in coordination with FEMA and the community to support the rebuild of Puerto Rico's critical infrastructure. Helping families, communities, schools and businesses return to normalcy is very rewarding and we are grateful for the opportunity to support this important task"*

Jacobs Senior Vice President & Global Environmental Market Director Jan Walstrom



Each year, natural disasters impact the lives of millions of people around the world. As a trusted contractor to FEMA since 2005, we have consistently met the agency's mission objectives, responding to a variety of disasters across the U.S. and its territories, including hurricanes, tornadoes, earthquakes, flooding, landslides, and wildfires. Our FEMA team had boots on the ground immediately following the hurricane events. We collaborated with the governments of PR and the US Virgin Islands (USVI) to develop scopes and cost estimates for restoring damaged infrastructure and providing cost-effective hazard mitigation measures. With the island

communities still recovering from the devastation caused by the 2017 storms, we are providing supplemental federal disaster grant assistance for debris removal, emergency protective measures and the repair, replacement and restoration of disaster-damaged facilities and infrastructure.

Under our PA TAC IV contract, Jacobs is supporting disaster operations in FEMA Region II: New Jersey, New York, Puerto Rico, Virgin Islands; Region VII: Iowa, Kansas, Missouri, Nebraska; Region IX: Arizona, California, Hawaii, Nevada, Pacific Islands; and Region X: Alaska, Idaho, Oregon, Washington.





On October 10, 2018, Hurricane Michael, a Category 5 and one of the strongest recorded hurricanes to ever hit the continental U.S. directly struck Tyndall Air Force Base (AFB). The eye of the storm passed right over the military installation causing a total of \$5 billion in damage and destroying approximately 95% of the structures.

As devastating as this was to the Florida Panhandle and the base, it gave the Air Force the opportunity to rebuild Tyndall as a prototype for future installations. Jacobs is developing the program requirements and standards that will transform the AFB into a visionary Installation of the Future (lotF). The key definitional solutions include robust cybersecurity, SMART

ownership systems, high performance buildings, resilient and redundant energy systems, high wind load structural solutions and resilient utility systems.

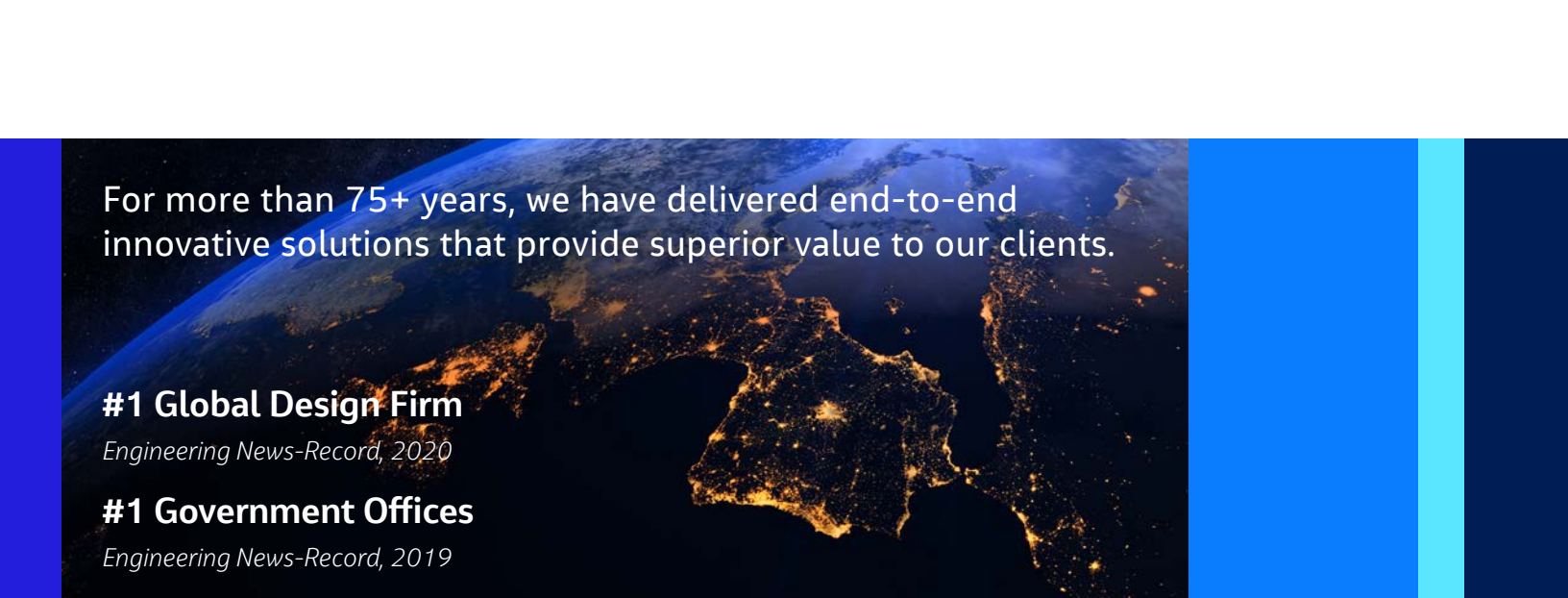
With rapid deployment, our team transitioned the master planning effort into zone development plans and completed 42 program requirements packages which comprise the \$2.8 billion Military Construction Program funding request to the U.S. Congress. Additionally, Jacobs is tasked with updating the installation's facility standards to be consistent with lotF requirements, developing a master program schedule, conducting analysis for delivery methods and preparing reoccurring risk and opportunity planning in support of the Project Management Office.

## Program Validation and 1391 Development and Charrettes for Reconstruction of Tyndall AFB, Florida

*"Jacobs, since day one on site at Tyndall AFB, has exceeded all job performance expectations and scope requirements with professional, dedicated, forward-thinking and engaged personnel. Jacobs assembled a global team of SMEs in a very short period of time at Tyndall AFB to meet the challenging and continuously evolving requirements and deadlines. Overall, very pleased with their performance at Tyndall AFB!"*

**Christopher Schulze, KBR**





For more than 75+ years, we have delivered end-to-end innovative solutions that provide superior value to our clients.

## #1 Global Design Firm

*Engineering News-Record, 2020*

## #1 Government Offices

*Engineering News-Record, 2019*

## #1 Aviation Firm

*Engineering News-Record*

## #1 Transportation Firm

*Engineering News-Record*

## #2 Environmental Firm

*Engineering News-Record*

## #1 Engineering Firm

*MEP Giants/Consulting-Specifying Engineer*

## #1 Engineering Firm

*Commissioning Giants/  
Consulting-Specifying Engineer*

## #3 Architecture Firm

*Architectural Record*

# 55,000+

Employees Worldwide

# 5,000+

Company-wide Cleared Professionals

# 2,730+

Federal Projects Currently Worldwide

# \$1B+

Productivity & Efficiency Savings

# 400+

Locations Worldwide

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