



The DoD Siting Clearinghouse

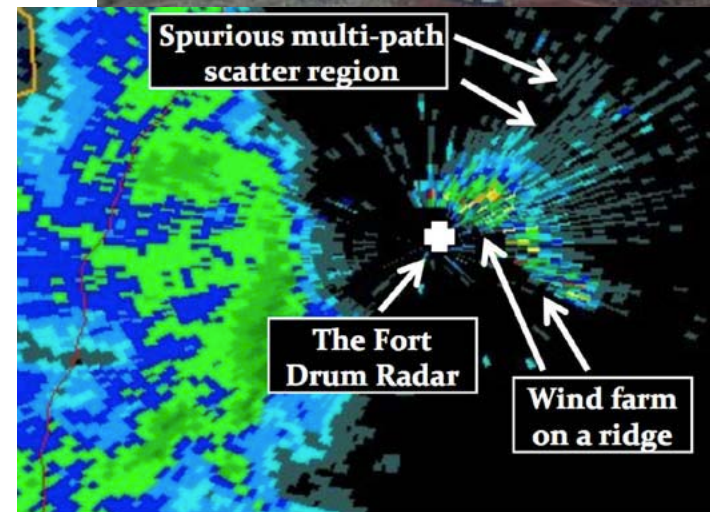


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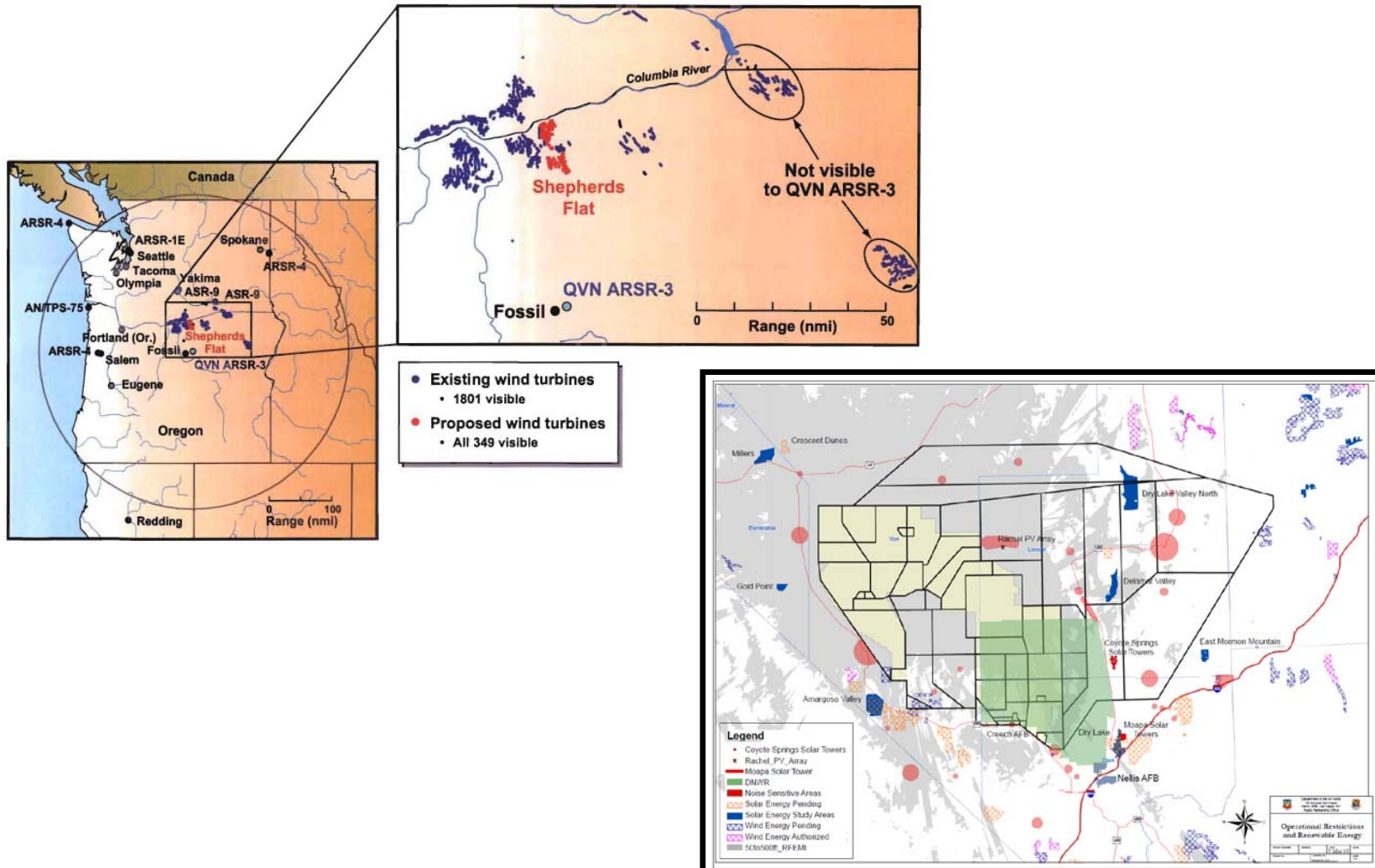
The Nexus of National Security & Renewable Energy

- Unintended Consequences
 - Rapid development of renewable technologies
 - Rapidly changing military technology research & development
- Existing Policy and Processes
 - Not up to date with changing technologies
 - Land use decision-making authorities fragmented across all levels of government





From Nellis to Shepherds Flat: Congressional Push for Action





Congressional Response – FY2011 NDAA, Section 358

- Section 358 “Study Of Effects Of New Construction Of Obstructions On Military Installations And Operations”
 - Integrated review process
 - 180-day backlog assessment
 - Identification of mitigation options
 - Comprehensive strategy for addressing military impacts of projects
 - Limited authority to object to projects
 - Ability to accept voluntary contributions for mitigation





32 CFR Part 211: Mission Compatibility Evaluation Process

- Establishes general procedures on how DoD reviews and comments on applications filed pursuant to 49 U.S.C. § 44718
- Provides information on how developers, local officials, or members of the public can engage the Clearinghouse for early consultation on projects
- Will serve as the foundation for a formal DoD Instruction
- Published in Federal Register on October 20, 2011
 - Comment period ends December 19, 2011



DoD Siting Clearinghouse— Concept of Operations

- **A Single DoD Voice**

- Parallel Multi-Service Review
- Timely, Repeatable, Predictable Process
- Promote compatibility between renewable energy & military mission operations
- Oversight and coordination of mitigation negotiation
- Decisions based on empirical data and rigorous science
- Outreach & early consultation with industry, local, state, and Federal stakeholders
- NOT a replacement for OE/AAA, NTIA, or NEPA





DoD Siting Clearinghouse— CONOPs continued

• Impact Analysis & Tools

- Projects assessed by all DoD Components across core missions
- Evaluation Criteria:
 - **Green:** Minor to no impact on military operations
 - **Yellow:** Major impact to military operations but mitigation is possible
 - **Red:** Major impact to military operations that cannot be reasonably mitigated
- Mission Compatibility Awareness Tool (MCAT)
- Operational Impact Assessment Tools
- Preliminary Review: 30 days
- Final Decision: DepSecDef

3 x 3 Impact Analysis Matrix			
	Minor or No Impact	Major Impact, Mitigation Possible	Major Impact, Mitigation NOT Possible
Training & Readiness			
LRR & Surveillance			
Test & Evaluation			





Early Success:

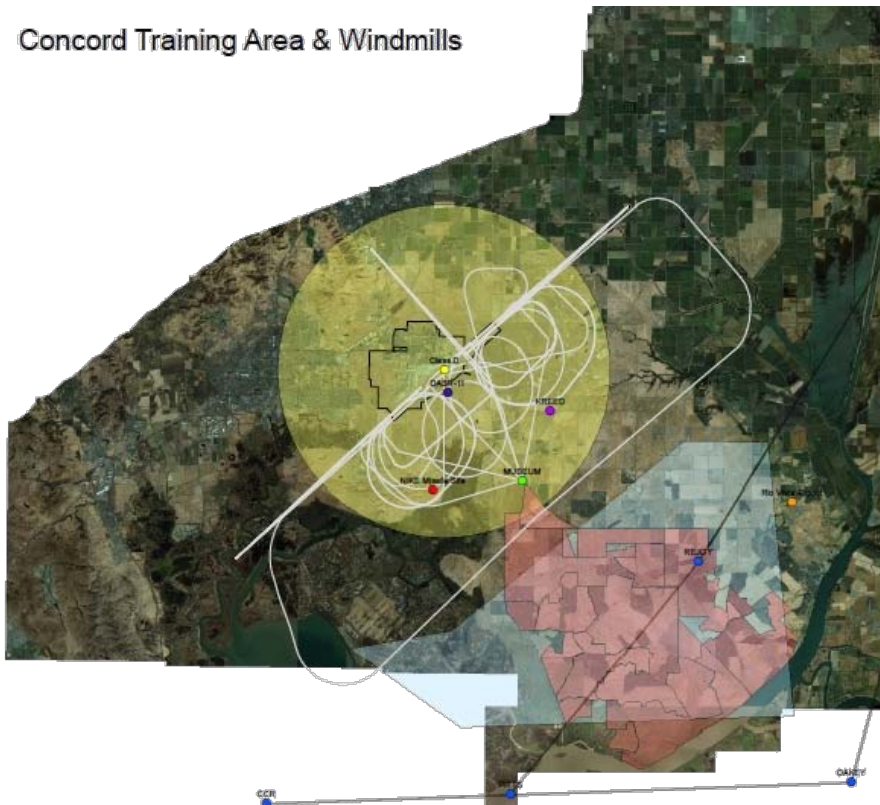


- **249:** Number of projects delayed due to DoD concerns prior to passage of Section 358 in the FY2011 NDAA
- **229:** Number of projects the DoD Siting Clearinghouse and DoD Components found have minor/no impact on military missions
- **20:** Number of projects that may have adverse impacts on military missions and require additional analysis to determine if mitigation is possible
- **>10:** gigawatts of mission-compatible renewable energy electrical generation capacity (6300+ turbines, 30 solar projects)



Model for Success

Concord Training Area & Windmills



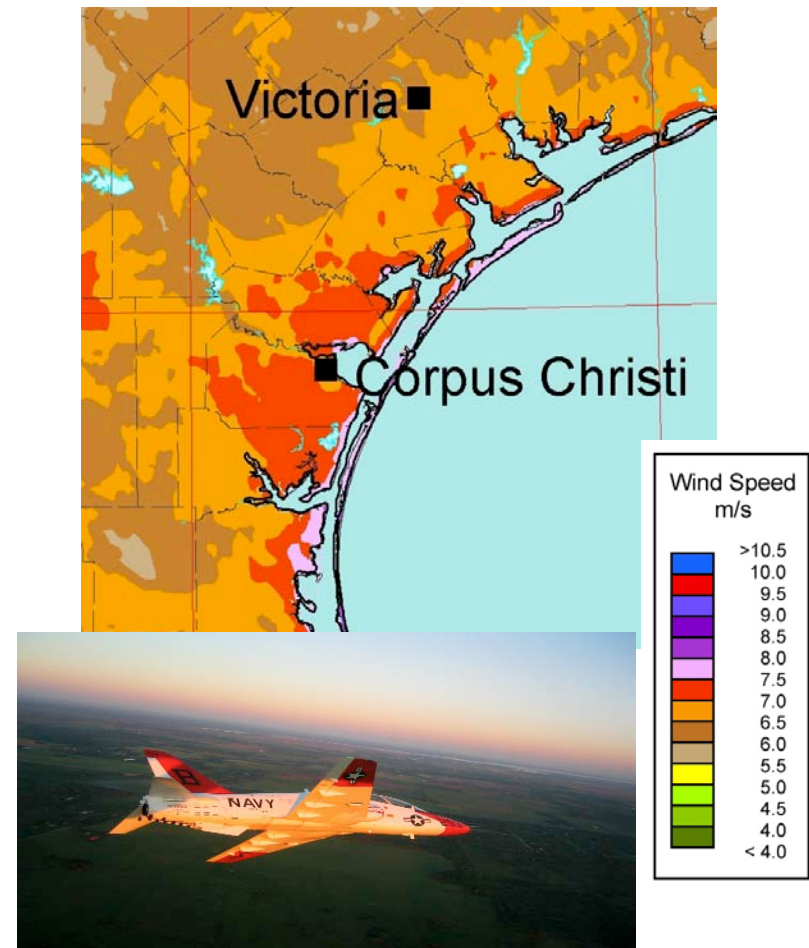
- Travis AFB CRADA

- Siting of Turbines created radar tracking issues
- Cooperative Research and Development Agreement (CRADA)
- Multiple Partners including Air Force, utility provider, wind developer, and consultants, plus multiple supporting organizations
- Sensor fusion greatly reduces radar interference
- A partnership is in place to better address future siting issues



South Texas Model

- At least 6 onshore, 2 offshore projects built or proposed
- Multiple impacts on Navy radars and training
- FAA controllers and radar also impacted
- OSD and Dept of Navy team is reaching out to developers





Mitigation Response Teams

- Evaluate mitigation options for projects that were deemed to have an impact on military operations, and negotiate implementation with industry and other stakeholders
- Comprised of representatives from all affected DoD Components
- Report to the Mitigation Oversight Committee – Senior Staff from all Clearinghouse Components.





Research & Development

- Wind-Radar Interagency Field Test & Evaluation
 - Multi-agency partnership led by DOE, DoD, DHS, & FAA
 - Through MIT Lincoln Labs and Sandia National Laboratory
 - RFI Closes October 31, 2011
 - Multiple Off-The-Shelf Technologies
 - Baseline radar systems, including air traffic control and homeland defense
 - Test multiple OTS mitigation technologies
 - Tests begin April 2012
- DHS-led Radar Modeling Tool Development
 - Goal: Improve modeling of the effects of wind-turbines on radar systems
 - Focus primarily on Raytheon CARSR & ARSR-11
 - Two-year program expecting December 2012 delivery
 - 3-dimensional models for scatter, clutter and false targets.





DoD Energy Partnerships



- Multiple Goals
 - Energy Security
 - National Renewable Energy Goals
 - Mission Sustainability
- Multiple Authorities:
 - Power Purchase Agreements (PPAs)
 - Up to 30 years – 10 U.S.C. § 2922a
 - Enhanced Use Lease (EUL)
 - Consistent with 10 U.S.C § 2662 and 10 U.S.C § 2911
 - Energy Savings Performance Contracts (ESPCs)
 - Utility Energy Service Contracts (UESCs)
 - Contracts signed by Services/Installations
- More Information:

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Backup Slides



America's Military Missions

We train...



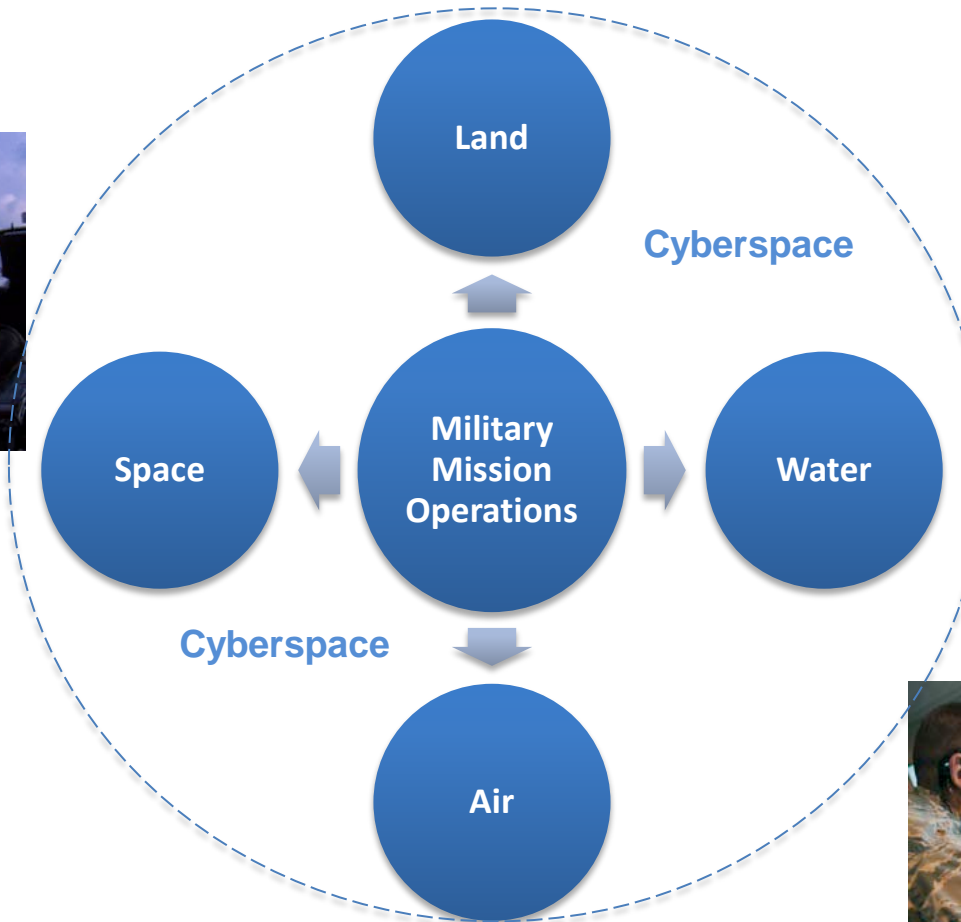
operate...



test...



and defend.





Lessons Learned

- DoD's Response Inadequate
 - Case-by-case basis, steep learning curve, slow responses to requests for review
 - Uneven coordination among installations /Services
 - No single voice
- RESULT: Confusion, Delay, and Frustration for All Stakeholders – and extensive Congressional interest





Renewable Energy: Driving the DoD Siting Clearinghouse

- A Single DoD Voice
 - Timely, repeatable, and predictable process that promotes compatibility between energy independence and military capabilities: two key facets of national security
 - Most projects will be reviewed and cleared by Services in 30 – 45 days
 - Only projects with significant impacts or that need multi-Service coordination will receive full Clearinghouse attention



Annual Report to Congress

- Provides an overview of all DoD Siting Clearinghouse activities to implement provisions of Section 358 of the FY2011 NDAA
- The first DoD Siting Clearinghouse Report to Congress includes:
 - Results of the preliminary review
 - Efforts to assess risks associated with the loss/modification of military training routes and the quantification of such risks
 - Interagency efforts to assess the risks associated with solar power and similar systems as to the effects of glint on military readiness
 - Efforts for evaluating the risks associated with electromagnetic interference on military readiness, test, and evaluation
 - DoD's approach to prescreening applications
 - Request for legislative clarification on intent of law



DoD Siting Clearinghouse— Board of Directors

