



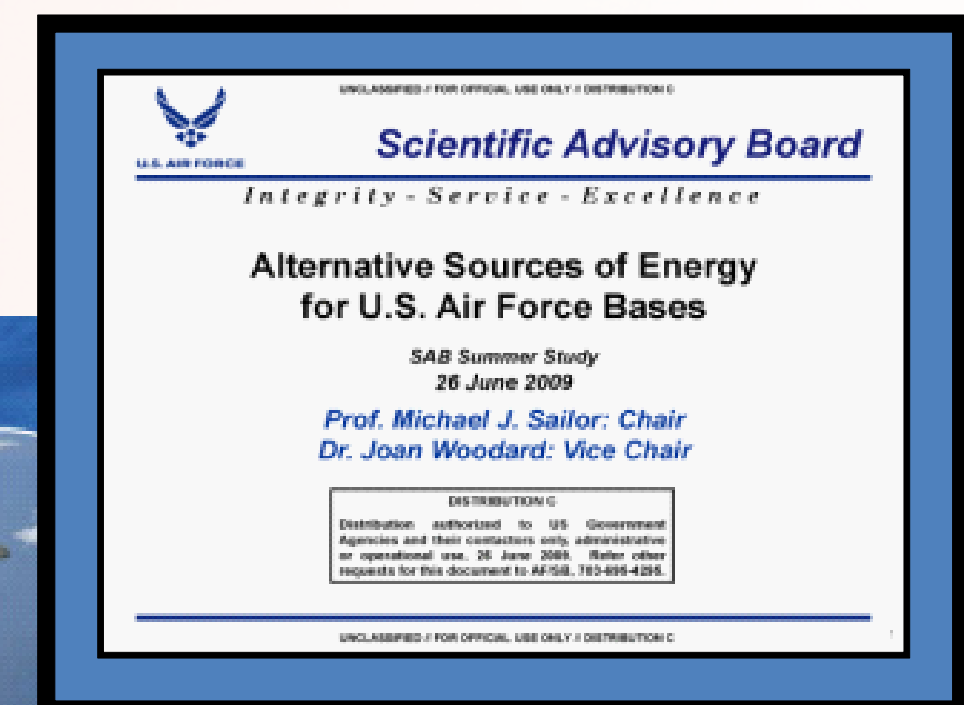
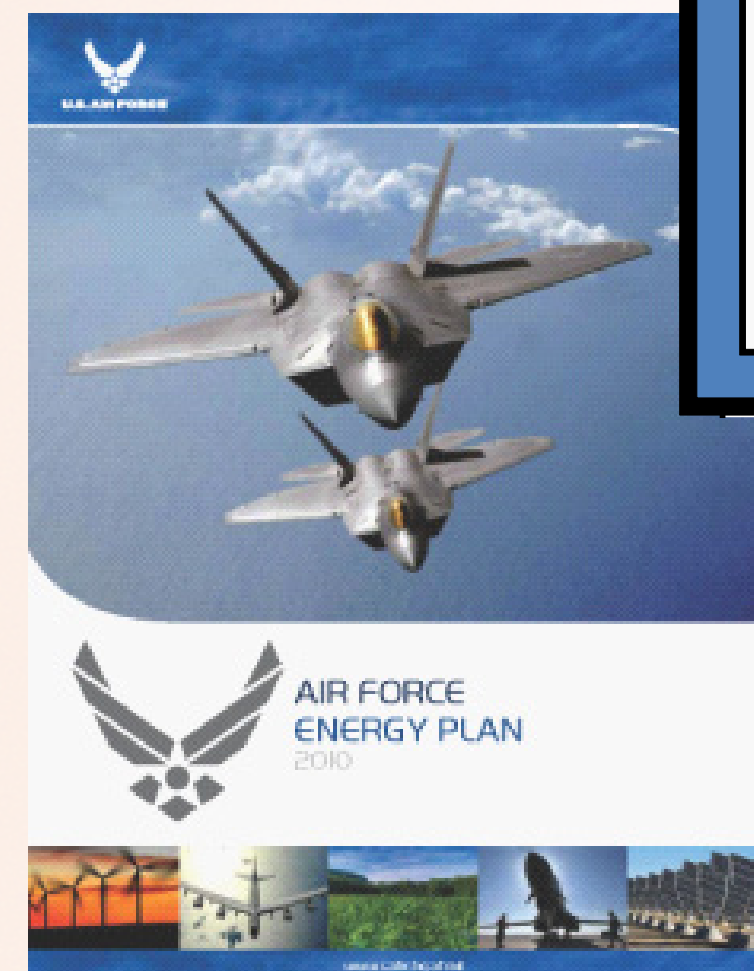
**Sandia
National
Laboratories**

Energy Security

Recommendations and Requirements

AF Scientific Advisory Board Recommendations:

- Adopt a systems approach to implement secure alternative energy at USAF installations.
- Implement current policy guidance on energy security.
- Develop and implement energy storage technologies for alternative energy.
- Make nuclear energy a part of the USAF energy planning future.



DoD Policies:

- DoDD 3020.40/DoDI 3020.45
- Defense Critical Infrastructure Program
- DoDI 4170.11 Installation Energy Management
- AF Policies
- AFD 90-17 Energy Management
- AFI 90-1701 Energy Management

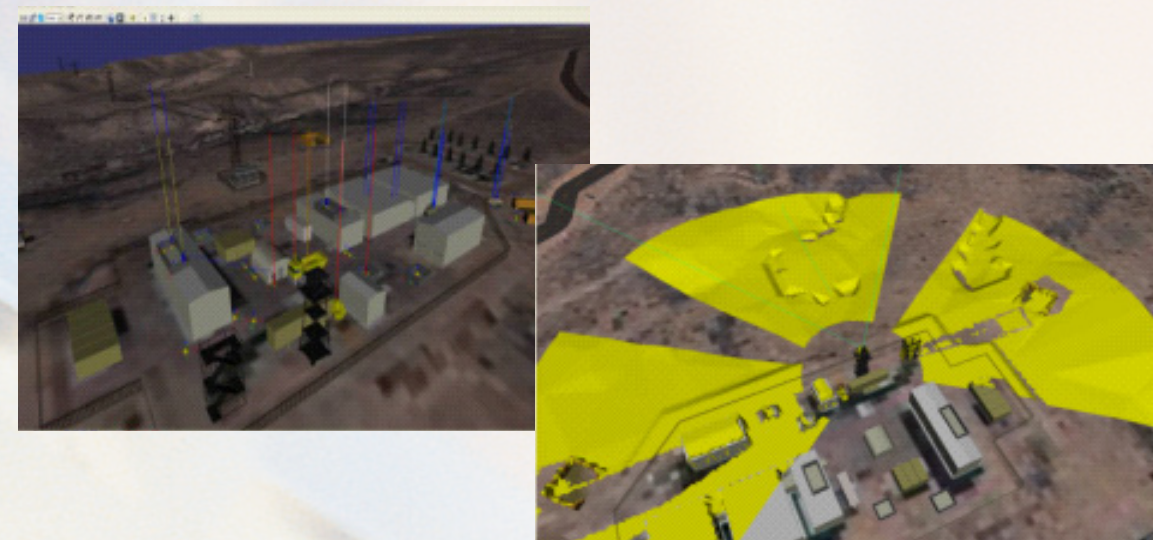
Sandia Labs has Vast Experience in Energy Security

Sandia's Goals for our Energy Security Customers:

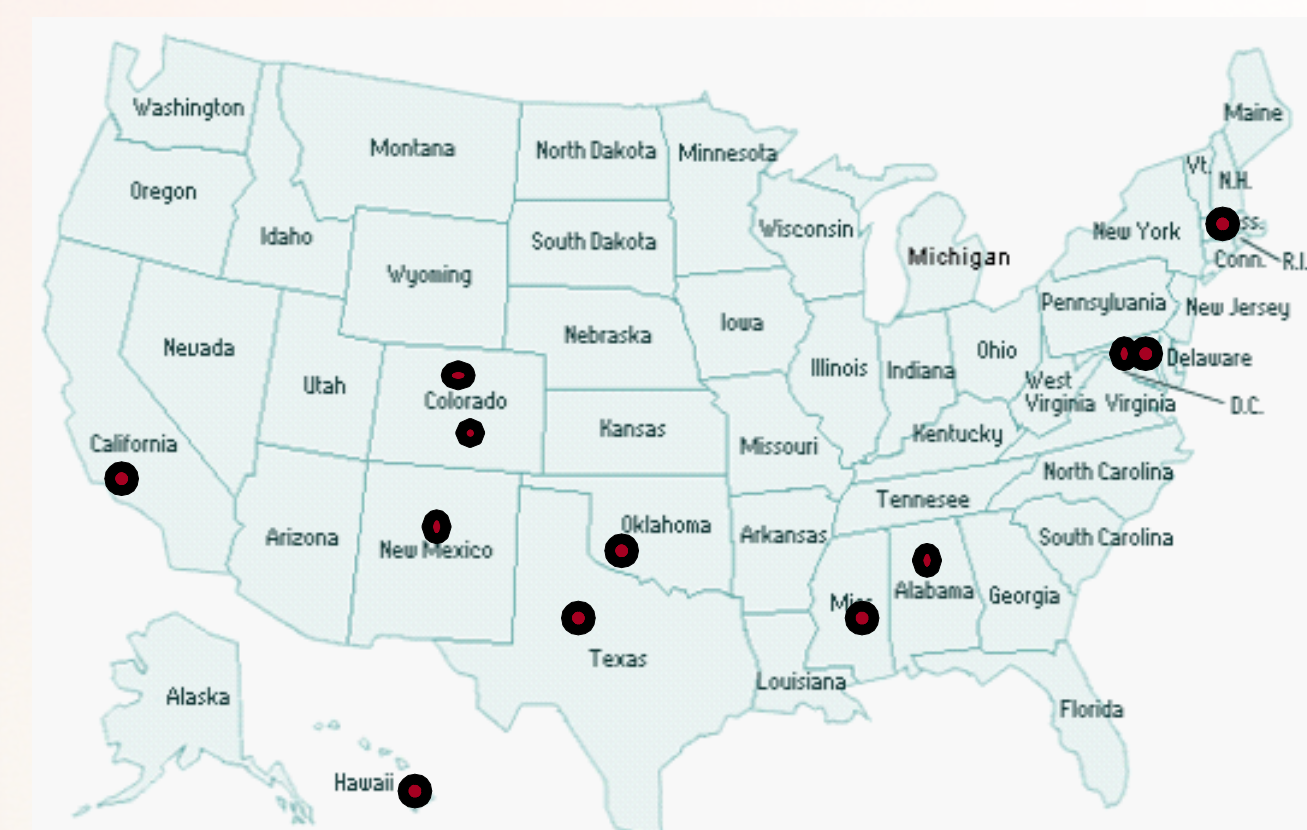
- Assure Power to All Missions in the Presence of all Threats
- Assure Access to Renewables/Alternative Energy Sources
- Reduce the Cost of Assured and Routine Power
- Improve Cyber Security



Sandia partnering with NORTHCOM/
PACOM JCTD effort-- SPIDERS

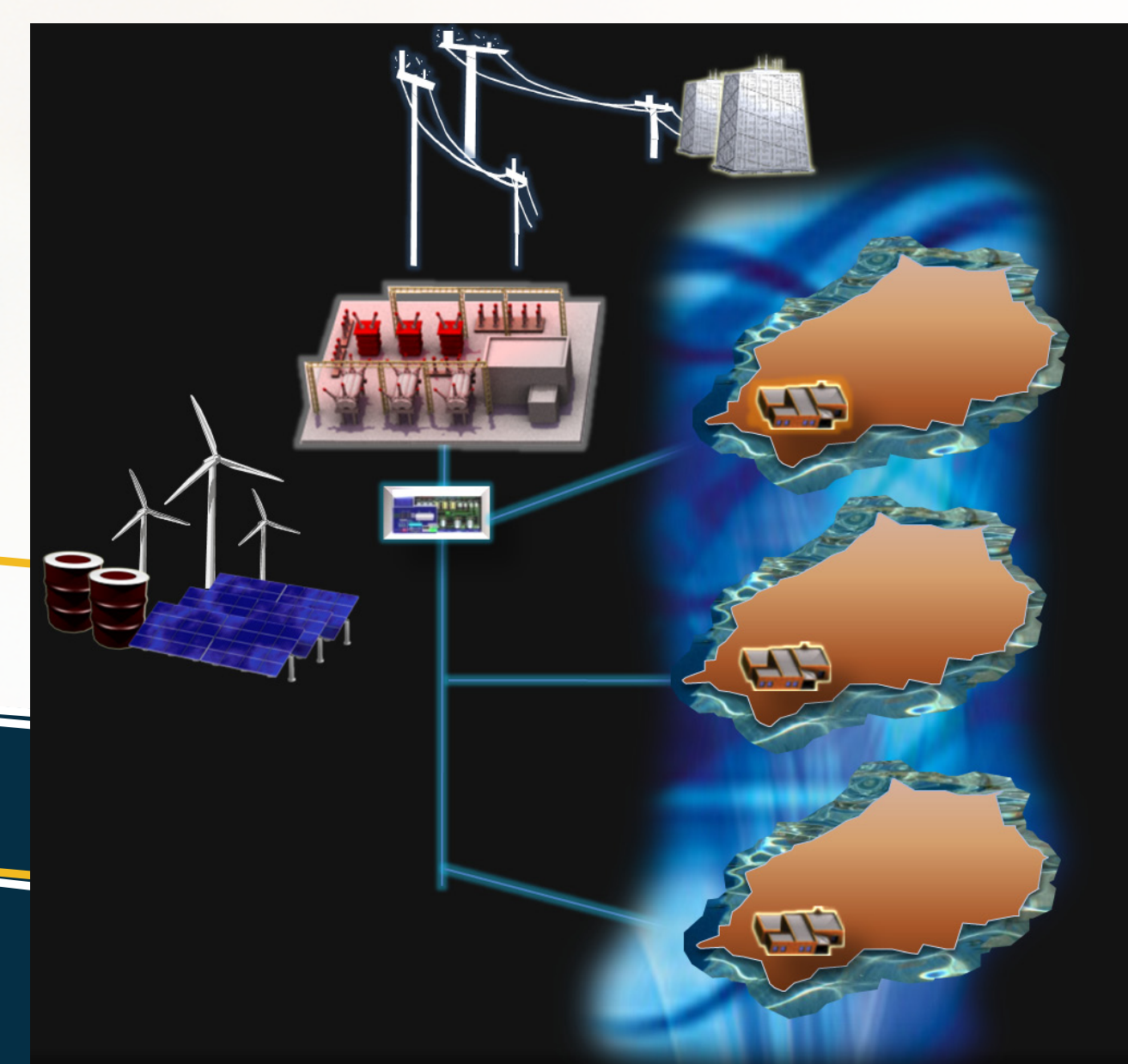
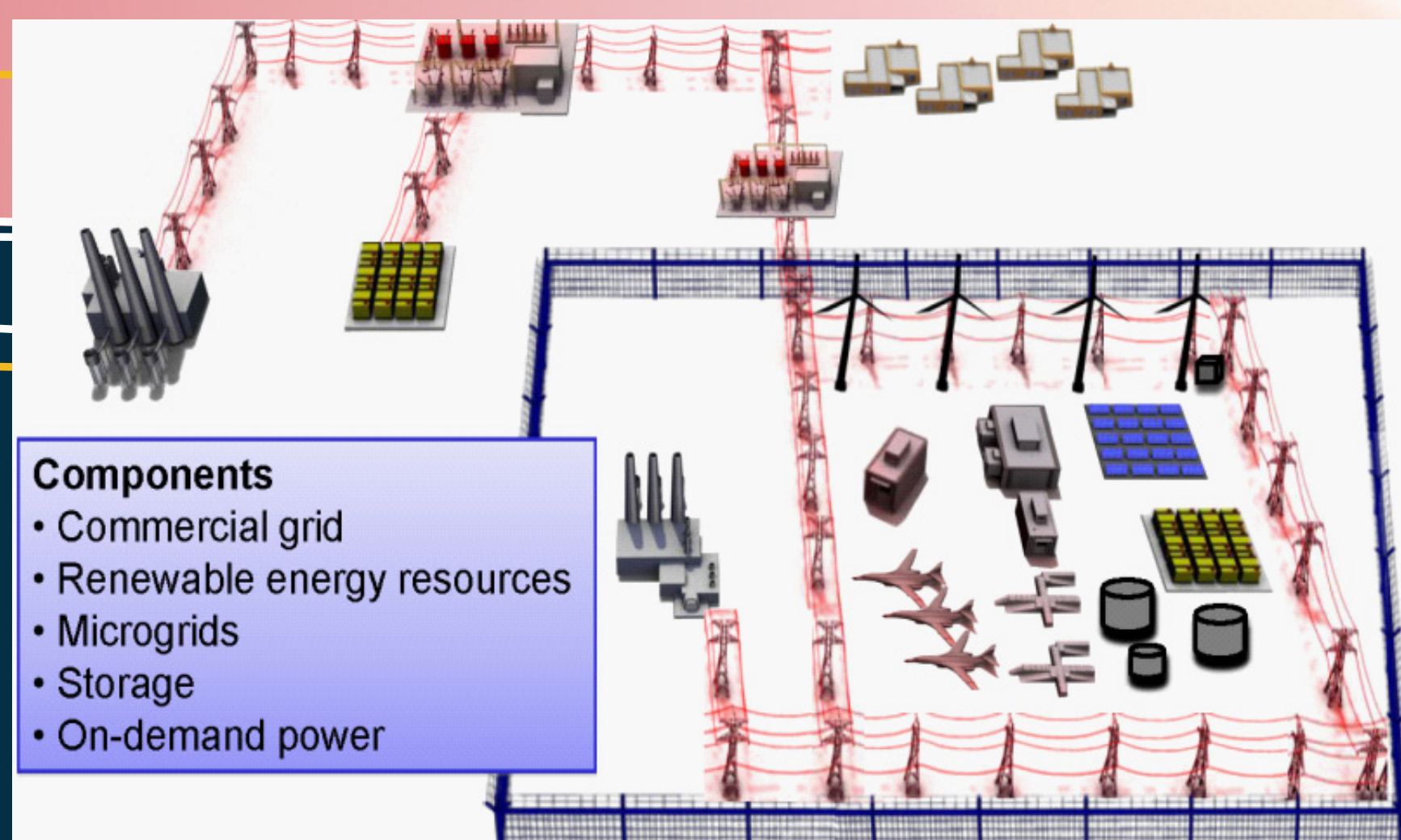


Modeling/Simulation capabilities for
Energy Security



Dots indicate military installations that Sandia
has begun or completed Microgrid projects

A Unique Systems Approach Focused on Mission Assurance



Example of Base Microgrid Energy Security Concept

Sandia National Laboratories... Engineering Solutions to Defend & Protect our Nation