Energy Resiliency Through Community Partnerships

Florida Defense Alliance

March 15, 2017 Tallahassee, Florida

Dave Robau, Executive Director

Gulf Coast Energy Network

GULF COAST ENERGY NETWORK

About Us...

Gulf Coast Energy Network (GCEN) is a Florida based 501(c)(3) non-profit coalition of energy and sustainability professionals for across all industry sectors.

- We promote energy/water/carbon reduction strategies and the expansion of alternative forms of sustainable energy,
- We work with our industry partners to promote technical workshops, seminars and tradeshows along the Gulf Coast, and
- We work to strengthen research, development, testing, and evaluation of disruptive technologies at military installations from Florida to Texas.

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GCEN Signs MOU with Eglin AFB

Under this MOU, we formed the *Eglin/Hurlburt Energy Innovation Working Group* to develop/enhance strategic partnerships between Eglin AFB, utility partners, private-sector companies, state/federal agencies, and Florida Colleges/Universities to expand and promote RDT&E, training initiatives, and technical workshops to support the military mission.

GCEN Signs MOU with Eglin AFB/Hurlburt Field

- Assist community stakeholders in matching their potential solutions with Air Force mission requirements,
- Assist in the preparation/coordination documentation/submittals,
- Establish a local clearinghouse for evaluating new technologies,
- Maintain a searchable database of ideas, solutions, and lessons learned,
- Assist in demonstrations of energy solutions or best management practices,
- Coordinate with Florida Colleges/Universities to organize energy educational programs to support the Air Force mission, and
- Evaluate the use government real property, facilities and/or equipment to demonstrate new technologies and management methods that improve energy/water efficiencies.

USAF/USDOE Collaboration (and GCEN)

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Eglin/Gulf Power 30MW of Solar PV Array

Navy/Air Force/Gulf Power Partnership = 30MW Solar Array

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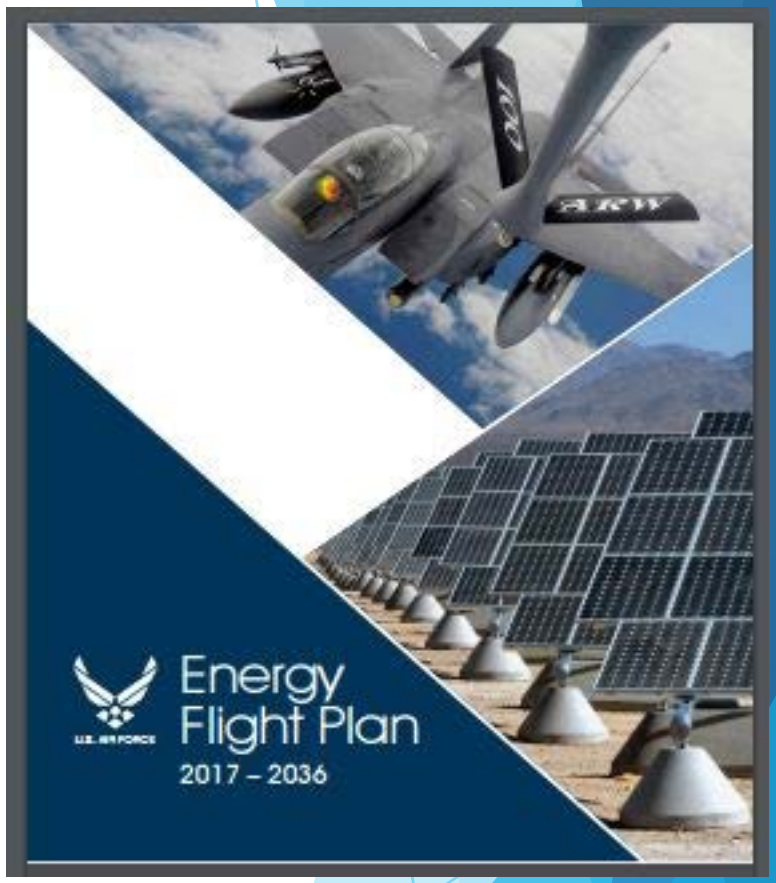
Following the direction established by the Air Force 30 Year Strategy and the Strategic Master Plan, the Energy Flight Plan identified a long-term vision for the Air Force to enhance mission assurance through energy assurance.

“This plan, along with our recent policies, codifies the importance energy resiliency has to the Air Force mission and identifies how we are going to move forward,” Ballentine said. “We need to take a holistic approach to energy projects to provide resilient, cost-effective, cleaner energy solutions to ensure we can continue to operate when our energy supplies are interrupted.”



Eglin's Energy Vision & Objective

- Eglin Energy Vision
  - Lead with awareness/technology
- Eglin Goals
  - Sustain conservation & efficiency
  - Consider energy in all that we do
- Eglin Objectives
  - Reduce demand
  - Increase supply
  - Improve resiliency
  - Promote energy awareness

Eglin's Installation Overview

- Eglin spent $22M in FY15 for 96 TW utilities ($39M total when including reimbursable tenants)
  - 40% of 96 TW O&M budget spent on utilities
- 44 organizations
  - Major users:
    - 1 SOW Hurlburt Field: 30% of electric consumption: $9.5M
    - 919 SOW & 7th SFG (Army): 6% of electrical consumption: $2.1M
    - 20 SPCS (Site C-6): 3% of electric consumption: $1.1M

Mission Assurance Through Energy Assurance

So…. How Do We Get There?

- Create symbiotic relationships with key government agencies.
- Create a cohesive network of statewide utility providers.
- Leverage relationship with regional installations (Tyndall AFB, NAS Pensacola and Whiting Field) and other Florida installations.
- Create a supportive environment that encourages and focuses on technology commercialization.
- Market and co-op energy technologies and ideas through public/private partnerships (P3 and P4).
- Increase opportunities for internships, jobs, and exposure.
- Use POWER UP workshops and conferences to work more collaboratively and promote energy research within Florida.

POWER UP ENERGY EXPO

From Tragedy to Opportunity

$2,000,000,000 coming to the State of Florida

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http://www.gulfcoastenergynetwork.org/aetc/

More Opportunities for Partnerships….

SERDP and **ESTCP** are the Department of Defense's environmental research and demonstration programs, harnessing the latest science and technology to improve DoD's environmental performance, reduce costs, and enhance and sustain mission capabilities.

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Let's Partner Up!

www.GulfCoastEnergyNetwork.org

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GULF COAST ENERGY NETWORK

POWER UP ENERGY EXPO

Office of Energy

Florida Defense Alliance 2017 Forum

March 15, 2017

Functions & Responsibilities

- Legislatively designated state energy policy development office within Florida
- Evaluate energy related studies, analyses, and stakeholder input
- Promote and advocate for the development and use of renewable energy resources and energy efficiency technologies
- Use available state and federal funds to develop and manage energy efficiency, renewable energy, and energy education programs
- Produce an Annual Energy Report
- Serve as the State clearinghouse for all energy information

Florida Building Commission

- In May 2016, the Office of Energy was appointed to the Florida Building Commission by Governor Rick Scott, per Section 553.74(1)(x), Florida Statutes. The appointment is subject to Senate confirmation.
- The Florida Building Commission:
  - Modifies the existing Florida Building Code every three years through rulemaking workshops.
  - Incorporates any legislative changes when needed, through rulemaking workshops.
  - Reviews requests for Accessibility Waivers across the state.
  - Develops Declaratory Statements to clarify questions regarding codes.
  - Approves products and applications for building code trainers and courses.

Areas of Focus

- Renewable Energy
- Transportation
- Energy Efficiency
- Education

and

- What's ahead

Renewable Energy

- Florida Renewable Efficiency Demonstration (FRED)
- Renewable Energy and Energy Efficiency Technologies (REET)
- Bioenergy Demonstration Grant

Farm Renewable and Efficiency Demonstrations (FRED)

- Promotes the adoption of technologies and practices that increase energy efficiency and renewable energy use in Florida agriculture.
  - $1 million from U.S. Department of Agriculture, Natural Resources Conservation Service
  - $2 million from Farm to Fuel
- Will provide Florida farmers with energy evaluations and help them implement the recommendations with up to $25,000 for eligible projects including energy efficient lighting and water pumps, fuel efficient tractors and generators, and small scale renewable energy generation such as solar or biomass.
- Notice of Funding Availability for farmers to apply for the FRED program was released in September 2016.

Renewable Energy and Energy Efficiency Technologies (REET)

- The REET Grant Program is a competitive grant program designed to provide funding for projects to conduct demonstration, commercialization, research, and development projects relating to renewable energy technologies and innovative technologies that significantly increase energy efficiency for vehicles and commercial buildings.
- Eligibility: municipalities and county governments, established for-profit companies licensed to do business in the state of Florida, universities and colleges, utilities located and operating within the state of Florida, and not-for-profit organizations.
- Funding Award: Maximum of $400,000 per applicant and minimum of $50,000 per applicant.

Renewable Energy and Energy Efficiency Technologies (REET)

- **University of Central Florida** – "Unlocking the High Efficiency Potential of Bifacial Silicon Solar Cells by Advanced but Simplified Techniques" – Grant Funds $400,000
- **Florida Agricultural and Mechanical University** - "Enhancing sustainable production of algal biofuels using electromagnetic field energy" – Grant Funds $399,038
- **Florida Institute of Technology** – "Demonstration of a Cost-Effective, Scalable Zero-Energy Commercial Building Design for Florida Climates" – Grant Funds $282,008
- **Florida Atlantic University** – "Demonstrating Technology Enhancements to Achieve Economic Competitiveness of Gulf Stream Electricity Production" – Grant Funds $400,000
- **University of Florida** – "Self-running buildings: An autonomous system for reducing energy consumption and increasing demand flexibility of commercial buildings in hot-humid climates" – Grant Funds $400,000.

Bioenergy Demonstration Grants

- Provided bioenergy grants for research, development, and commercialization relating to bioenergy technologies and innovative technologies that significantly reduce fossil fuel consumption for transportation and/or electric generation.
- Projects optimized cultivation of certain biofuel feedstocks for production in Florida.
- Researchers explored the suitability and potential of algae, pine terpenes, oilseed crops such as carinata, sweet potatoes, and sugar beets for drop-in biofuels and processing into ethanol and jet fuel.
- One project utilized a pilot scale biorefinery in northern Florida to test various cellulosic feedstocks for ethanol production.
- Six grantees were awarded a total of $3.9 million. Project work on all of these grants has been completed as of 2016.

Transportation

- Natural Gas Fuel Fleet Vehicle Rebate Program
- Initiative for Resiliency in Energy through Vehicles (iREV)
- Drive Electric Orlando
- Biofuels Infrastructure Partnership (BIP)

Natural Gas Fuel Fleet Vehicle Rebate Program

- Provides $6 million in recurring funds per program year.
- Applicants can receive rebates up to $25,000 per vehicle, with a maximum of $250,000 per year.
- Applies to the purchase, lease, or conversion of a natural gas vehicle.
- Vehicles put into service on or after July 1, 2013 are eligible

Year	Rebates Provided	Vehicles	Jobs	Economic Contribution
FY 2013-14	$3.9 million	272	382	$128 million
FY 2014-15	$5.2 million	518	627	$147.4 million
FY 2015-16	$5.8 million	598	632	$158.3 million

Natural Gas Fuel Fleet Vehicle Rebate Program

Fiscal Year 2016-17

- 1054 applications received
- 416 approved applications
- $685,504.32 available
  - $563,161.62 available for commercial applications
  - $122,342.70 available for government applications
- Applications will be accepted until June 30, 2017
- Between June 1 and June 30; if funds are available, applicants that have met the program maximum of $250,000 may apply for additional funds for vehicles that have not received a rebate, for a maximum rebate of $25,000 per vehicle up to a total of $250,000. Governmental applicants have preference.

iREV

- Collaborated with the National Association of State Energy Officials and national stakeholders to develop iREV.
- iREV is a national effort to catalyze state and local acceptance and deployment of alternative fuel vehicles and infrastructure in preparing for and responding to manmade and natural disasters and emergency situations.
- Focuses on alternative fuels such as biodiesel (B100), propane, natural gas, and electricity.
- iREV will educate, coordinate, and provide the emergency management community with data, tools, and resources they need to make optimal fleet investment decisions in their jurisdictions.

For more information: www.naseo.org/irev

Drive Electric Orlando

- Using a $400,000 award from the U.S. DOE Clean Cities to work with the Electrification Coalition and the Central Florida Clean Cities Coalition promote Drive Electric Orlando.

- Drive Electric Orlando offers:
  - An option to rent an electric vehicle in Orlando, Florida.
  - Incentives for renting an electric vehicles including:
  - VIP treatment at Epcot's Test Track ride
  - free valet parking,
  - preferred parking spots,
  - ample charging stations,
  - free three-month membership to CLEARLane Access which allows travelers to skip the identification check point at the airport and head straight to the physical screening

Drive Electric Orlando

- Program partners include:

- Since the program launched in October 2015:
  - 1,019 electric vehicle rentals with over 342,000 miles driven.
  - Trained over 250 rental car company employees to help ensure renters have a seamless and superior rental experience.

Biofuels Infrastructure Partnership (BIP)

- Received a $16 million, Biofuels Infrastructure Partnership award from the U.S. Department of Agriculture.
- Goal is to increase the availability of infrastructure capable of dispensing higher blends of biofuels.
- Retrofits under this program began in May 2016. From May through December 2016, there have been 135 blender pumps and two dedicated E85 pumps installed at a total of 29 fuel station locations in Florida.
- Post-installation data collection and reporting will continue for approximately five years after retrofit work is completed.

Energy Efficiency

- Farm Energy and Water Efficiency Realization (FEWER)
- Multifamily Demonstration Projects
- Multifamily Energy Retrofit Revolving Loan Program

Farm Energy & Water Efficiency Realization (FEWER) Program

- Pilot program in Suwannee County provides on-site energy and water audits to farms.
- FEWER also provides farmers with a 75% cost share (up to $25,000) to implement the recommendations.
- Eligible measures include upgrades to center pivots, diesel pumps, upgrades from a diesel pump to an electric pump, solar pumps, lights, and cooling equipment. The program opened on June 25, 2015.
- Since the program launched on June 25, 2015:
    - 220 applications received
    - 169 audits complete
    - 115 cost share approvals
    - $1,629,526.26 paid to farmers

Multifamily Energy Demonstration Projects

- Based on the recommendations in the Florida Multifamily Energy Efficiency Opportunities Study.
- FDACS OOE partnered with two housing authorities to implement energy related shallow retrofits - West Palm Beach HA and Pinellas County HA.
- 320 units were retrofitted: 84 units at Robinson Village in West Palm Beach, and 236 units at Crystal Lakes Manor in Pinellas Park.
- Retrofits included R-38 ceiling insulation, air duct insulation, 18 SEER air conditioning units, energy efficient lighting, and energy efficient hot water heaters.
- Energy data was collected for 12 months prior to and following installations.
- Initial data analysis shows daily kilowatt hour usage decreased 8% in Pinellas County and 25% in West Palm Beach. Analysis continues.

Multi-family Energy Retrofit Program (MERP)

- FDACS OOE has partnered with the Florida Housing Finance Corporation (FHFC), for the operation of the $8.3 million Multi-family Energy Retrofit Program (MERP) revolving loan fund.
- This program provides low-interest loans to multi-family housing owners for energy and water efficiency improvements.
- In Fall 2016, five of the first round of applicants to be approved accepted loan offers.
- The approved applicants are currently in credit underwriting.
- Loans should be dispersed in Fall 2017 and retrofits are expected to begin at that time.

Education Projects

- Energy Clearinghouse of Information
- Energy Education Kits for Public Schools

Florida Energy Clearinghouse

www.FreshFromFlorida.com/Energy/Florida-Energy-Clearinghouse

- Continues to host, update, and expand the Florida Energy Clearinghouse in accordance with Section 570.0741, Florida Statutes.
- Designed to be a consumer-friendly portal to compare energy-saving technologies and learn more about energy usage, energy production, renewable energy technologies, and research being conducted in Florida.
- My Florida Home Energy is a major component of the Florida Energy Clearinghouse.
  - Takes users on an interactive home tour and offers tips for how they can improve its energy efficiency.
  - Uses information provided by the homeowner and publicly accessible data to provide a customized report which identifies energy efficient products, services, and potential energy and monetary savings.
  - Even includes all available financial incentives in the area.

Energy Education Kits for Public Schools

- Provided K-12 public schools with 244 energy education kits.
- Designed to:
  - Develop teamwork and problem-solving abilities,
  - Investigate environmental issues, and
  - Gain hands-on science, technology, engineering and mathematics (STEM) skills.
- Kits include materials such as solar panels and electric motors which provide opportunities for hands on STEM education.
- An estimated 79,400 children will have the opportunity to learn from these kits.

What's Ahead

- Provide an Annual Energy Report to the Governor and Legislature
- Continue to seek Federal funding for energy efficiency programs critical for Florida and local governments
- Continue to administer current programs and develop new programs
- Work with the Legislature and Governor's office to collectively advance Florida's energy policy
- Work with the Florida Energy Systems Consortium to expand energy research at Florida's universities

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Ingenuity for life

Like Smart Cities, Military Bases Can Be Smart Bases

March 15, 2017

Siemens Industry, Inc. – Building Technologies Division

Agenda

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- What does it mean to be a smart city?
- How do cities become secure and resilient?
- What are the major difficulties in achieving security and resiliency?
- How can the military apply these lessons to become more secure and resilient?

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What does it mean to be a Smart City?

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- Effective and efficient operational and maintenance strategies
- Integrated planning, digitalization and communications
- **Transformative innovation** through integrated, scalable smart systems that **drives higher outcomes** through **place-based strategies**
- **Technological collaboration** and **risk sharing** between public and private sectors, including financial institutions

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What does it mean to be a Smart Base?

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- Effective and efficient operational and maintenance strategies
- Integrated planning, digitalization and communications
- **Transformative innovation** through integrated, scalable smart systems that **drives higher outcomes** through **place-based strategies**
- **Technological collaboration** and **risk sharing** between public and private sectors, including financial institutions

What steps do we take to be a Smart Base?

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- “Make no small plans.” – Think big and eat the elephant a bite at a time
- Use the tools and funds at your disposal – there are programs out there designed to leverage your assets when funds aren’t in the budget
- Demand-side energy efficiency projects are just the tip of the iceberg
- Infrastructure and resiliency projects need to be bundled with energy efficiency projects and additional funding when possible to be realized

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National Naval Aviation Museum benefits from UESC and Siemens' Demand Flow®

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Challenge	Solution
No funds to pay for replacing aging HVAC equipment	Over $500,000 in annual cost savings
Chiller plant capacity with Flight Academy and new Museum Hangar being added	Siemens Demand Flow® chiller plant optimization solution
(3) new 600-ton chillers, (1) new 600-ton cooling tower, (19) new rooftop air handling units	$7 million in new HVAC equipment

550 tons

increase in chiller plant capacity (1,250 tons to 1,800 tons)

25%

reduction in annual energy costs

$511,000

first year energy savings through Demand Flow® chiller optimization control solution

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NAS Whiting Field Utilizes Utility Energy Savings Contract (UESC) to reduce costs

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Challenge	Solution
No funds for implementing energy efficiency projects	Over $800,000 in annual cost savings
EMCS communications limited to intermittent DSL.	Current project provides for Ethernet connection using existing copper.
Aging boilers, chillers, DX units in isolated plants could be connected to increase energy efficiency	$10 million total in equipment upgrades in two projects

$10 million

in lighting upgrades, water conservation upgrades, HVAC/EMCS upgrades and electrical transformers

32%

reduction in annual energy costs

$800,000

total annual energy savings through both UESC projects

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Energy Resiliency Through Distributed Energy System (DES)

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Cogeneration / Combined Heat & Power

Description
Combined generation of electricity behind the meter and heat near the point of use

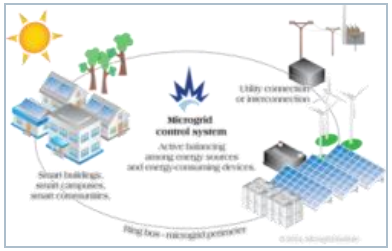
Value
- Delivers lower cost electricity and thermal energy, independently from utilities
- Increased energy efficiency

Small-scale power generation

Description
Generation assets <100MW connected to the MV/HV grid for flexibility of supply delivery

Value
- Power supply where grid may be unreliable unavailable or expensive
- Reduced cost of electricity

Microgrids



Description
Grid operating independently or in conjunction with the main utility grid

Value
- Integrates various generation components; manages energy demand
- Enables low cost, independent supply

Energy Storage

Description
Storage of energy, producing electricity on demand, connected to grid, microgrid or generation source

Value
- Reduces peak generation needs, enables load shifting
- Reduces cost and increases reliability of electricity supply

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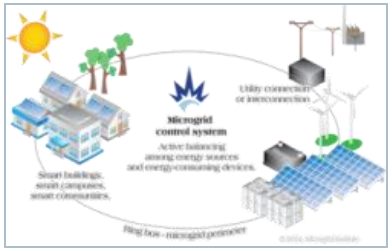

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Microgrids – the key to DES value

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A **microgrid** is:

- a group of **interconnected loads**,
- and **distributed energy resources**
- in a **clearly defined geographic area**
- that **can connect to or disconnect from the grid**.

Microgrid controllers are:

- sophisticated digital software systems that orchestrate the microgrid's energy supply from several possible on-site energy sources, such as:
  - the central grid
  - solar
  - wind
  - reciprocating engines
  - combined heat and power (CHP)
  - energy storage

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Microgrids – the key to DES value

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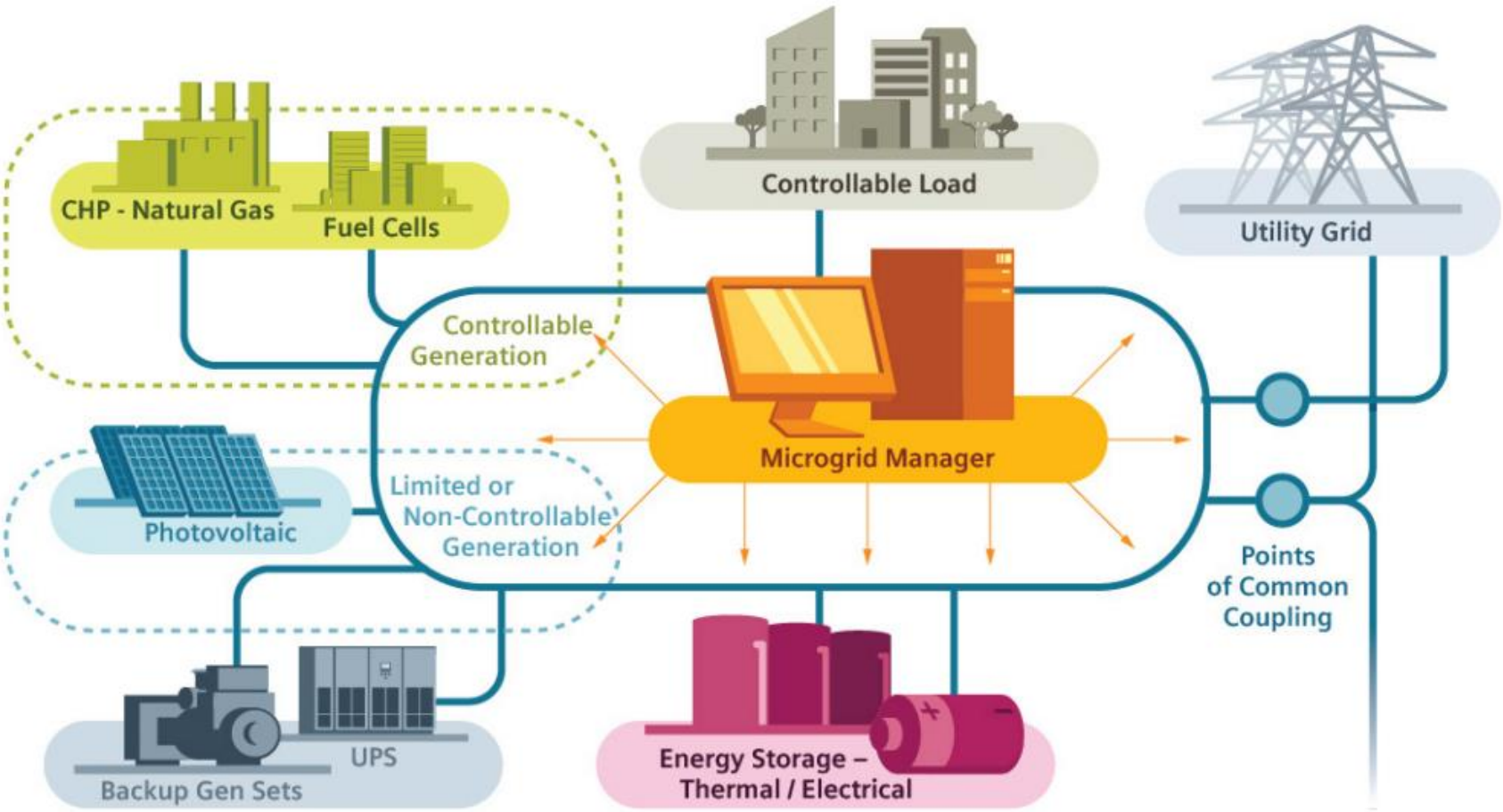

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Utility companies must be involved

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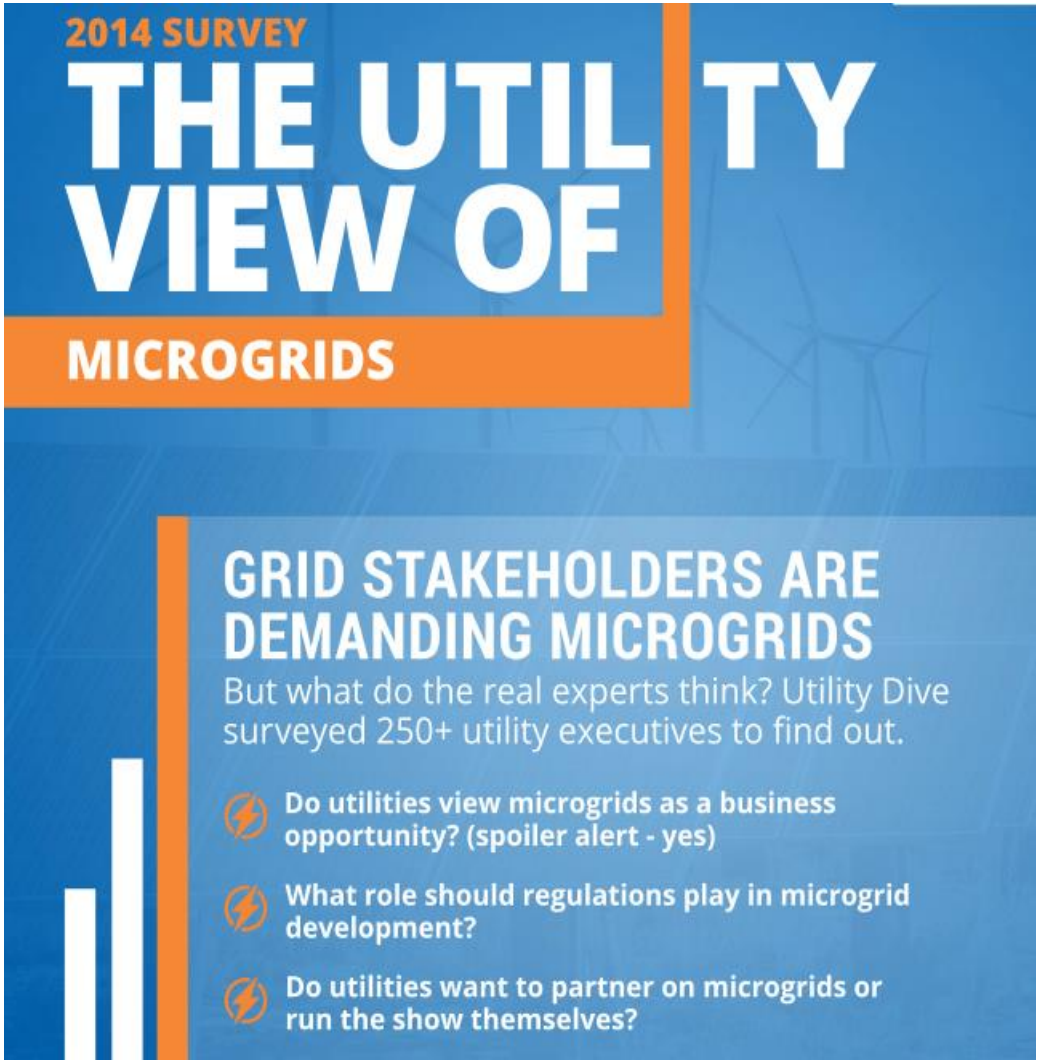

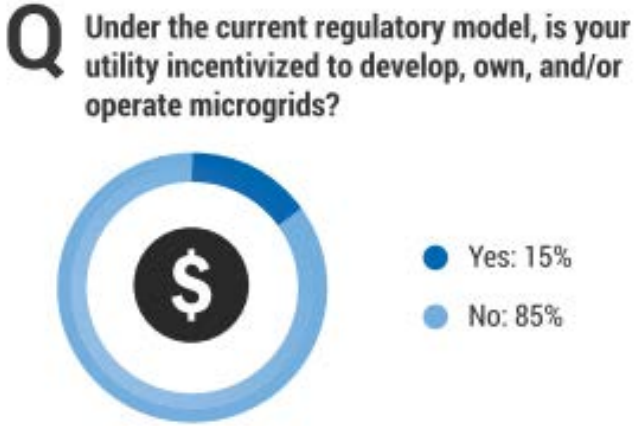

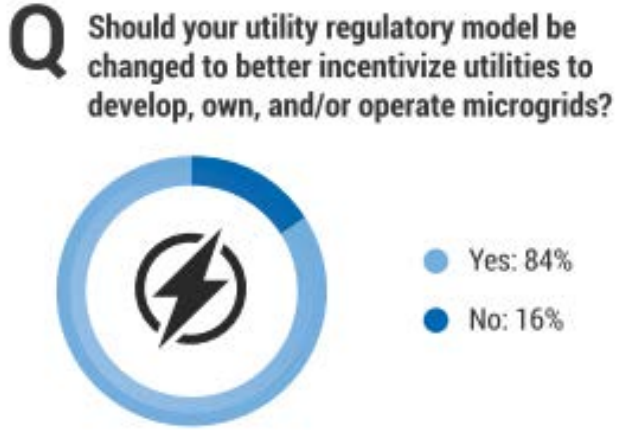

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Utility companies must be involved

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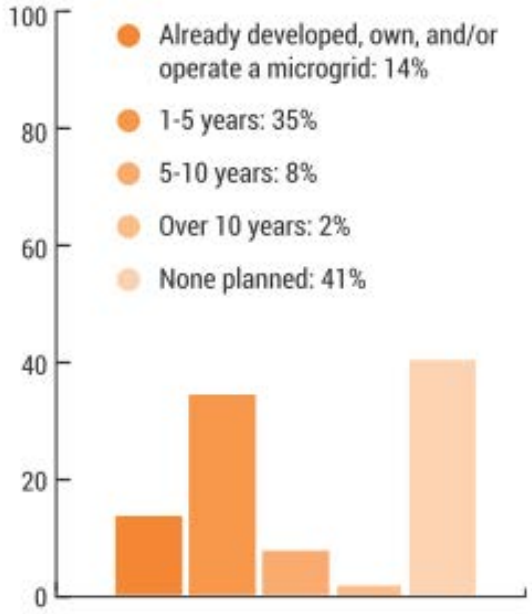
Q When does your utility plan to develop, own, and/or operate any microgrids?



Q Does the existence of multiple grid-connected microgrids heighten the risk of central grid failure within a service territory?

Q Should microgrids and distributed energy resources be coordinated by a central entity, akin to the way ISOs/RTOs coordinate the bulk power market?

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What are difficulties in achieving resiliency?

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It's easier to do nothing *- Cities (and military bases) make decisions only after extensive deliberation and often resist change as long as possible.*

John Chambers, who spent 20 years at the helm of Cisco, offers three suggestions for leaders based on his experience running the networking giant:

1) Disrupt or be disrupted;
2) Have a bold vision, and
3) Move fast, but with discipline.

"Today we're at an inflection point as the world moves into the Digital Age, and one in which the ability to think boldly and then move with speed is absolutely critical. With a vision, no-fail attitude and discipline, leaders can move at the speed and scale necessary to come out on top."

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What are difficulties in achieving resiliency?

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It's challenging to obtain funding *- Power plants or energy efficiency programs offer straightforward project value: energy or energy savings. Funding energy resiliency infrastructure is much more difficult.*

- Difficult to monetize the benefits for investment
- Difficult to establish relative value of resiliency failures
- No microgrid design standard complicates valuation for investors
- Conflicting short term strategies with utility providers

"Every solar company can now quickly crank out a project's value based on a few parameters and price a PPA for a customer. The microgrid industry would benefit tremendously from a similar model. Establishing a ubiquitous way to determine ROI would go a long way in helping the financing community develop such a model. "

Sally Jacquemin, Siemens Microgrid Business Manager

How can the military apply lessons learned?

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How can the military apply lessons learned?

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Value energy reliability *– a microgrid's ability to keep power flowing when the central grid fails is one of the most important, and most difficult values to prove.*

- At the University of Texas, energy reliability is valued highly because 80% of the campus is dedicated to research worth about $500 million. Its microgrid boasts 35 MW electric capacity (62 MW peak) and 1.2 million lb/hr steam generation (300K peak).
- Data centers, supermarkets and industrial customers risk steep losses from power outages - can be estimated based on historical data.
- Military bases tend to focus on securing energy for critical missions.

The National Renewable Energy Laboratory (NREL) analyzed the value of electrical energy security at Fort Belvoir military base and pegged it at $2.2 million to $3.9 million annually.

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Algonquin College benefits from Siemens comprehensive energy services

Challenge	Solution
Water and energy reduction measures	$3.2M in annual cost savings
Fuel management and optimization, energy supply planning, utility bill management	Siemens Advantage Navigator
CHP project development: cogen, solar PV, power storage, EV charging and microgrid energy management	$52 million in improvements

2MW
reciprocating engine

24%
reduction in annual fuel costs

$232,000
annual savings through rate optimization and Improved contract structure

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Small CHP power system saves Wesleyan University $1,000 per day

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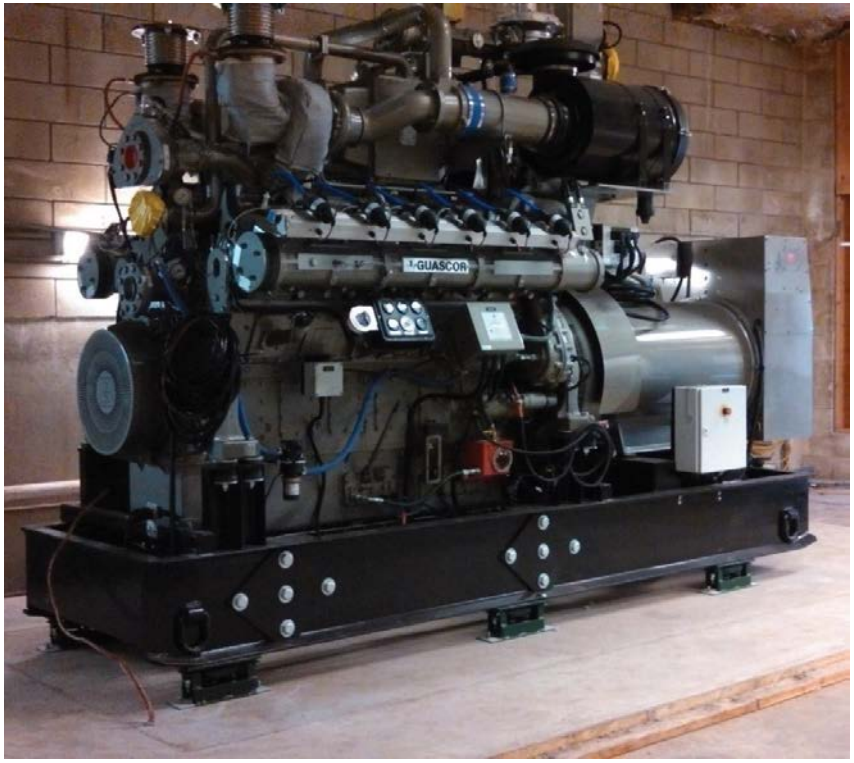

WESLEYAN UNIVERSITY

Challenge	Solution
Need for reliable source of power and heat	676 kW Guascor reciprocating engine
Lower power rates yet assure reliable source	CHP gas-fired solution integrated into a microgrid project saves $1,000 / day
CHP project maintenance a must	Siemens partner maintenance team access assured

676 kW

reciprocating engine is CHP solution for athletic facility

95%

availability achieved

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Thank You

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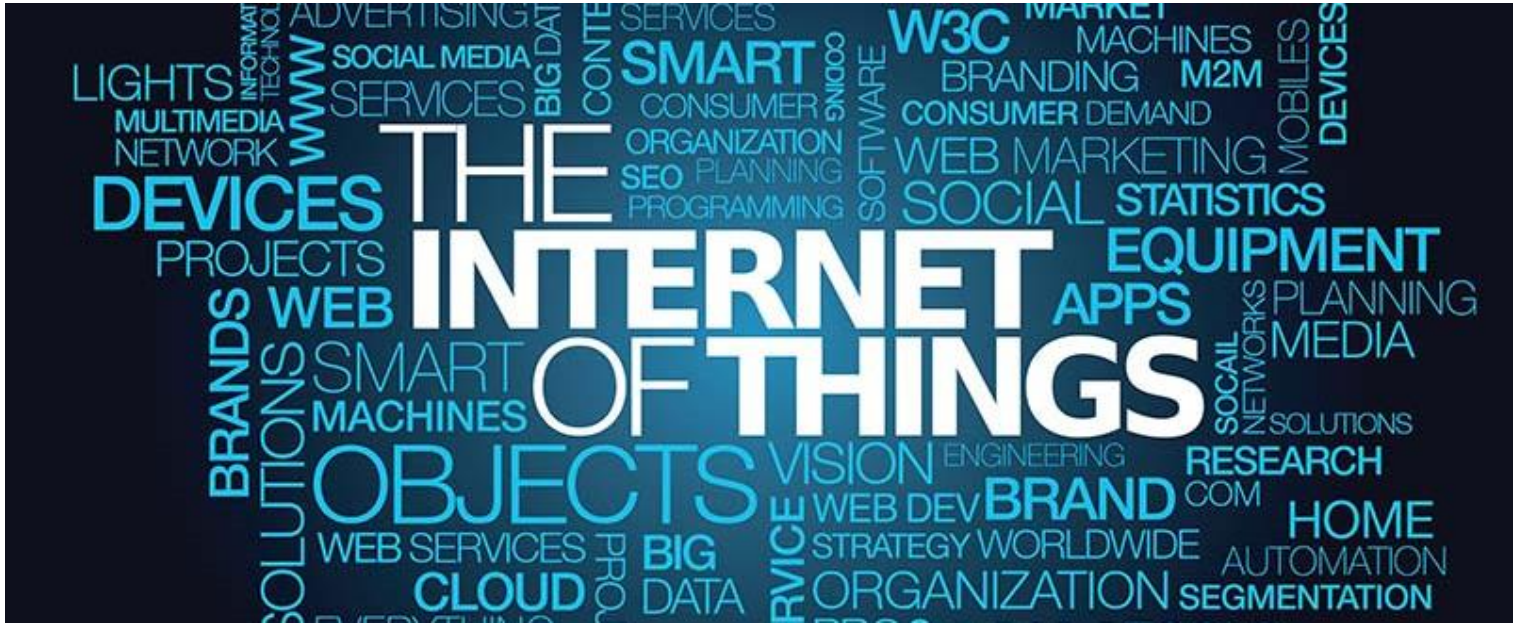
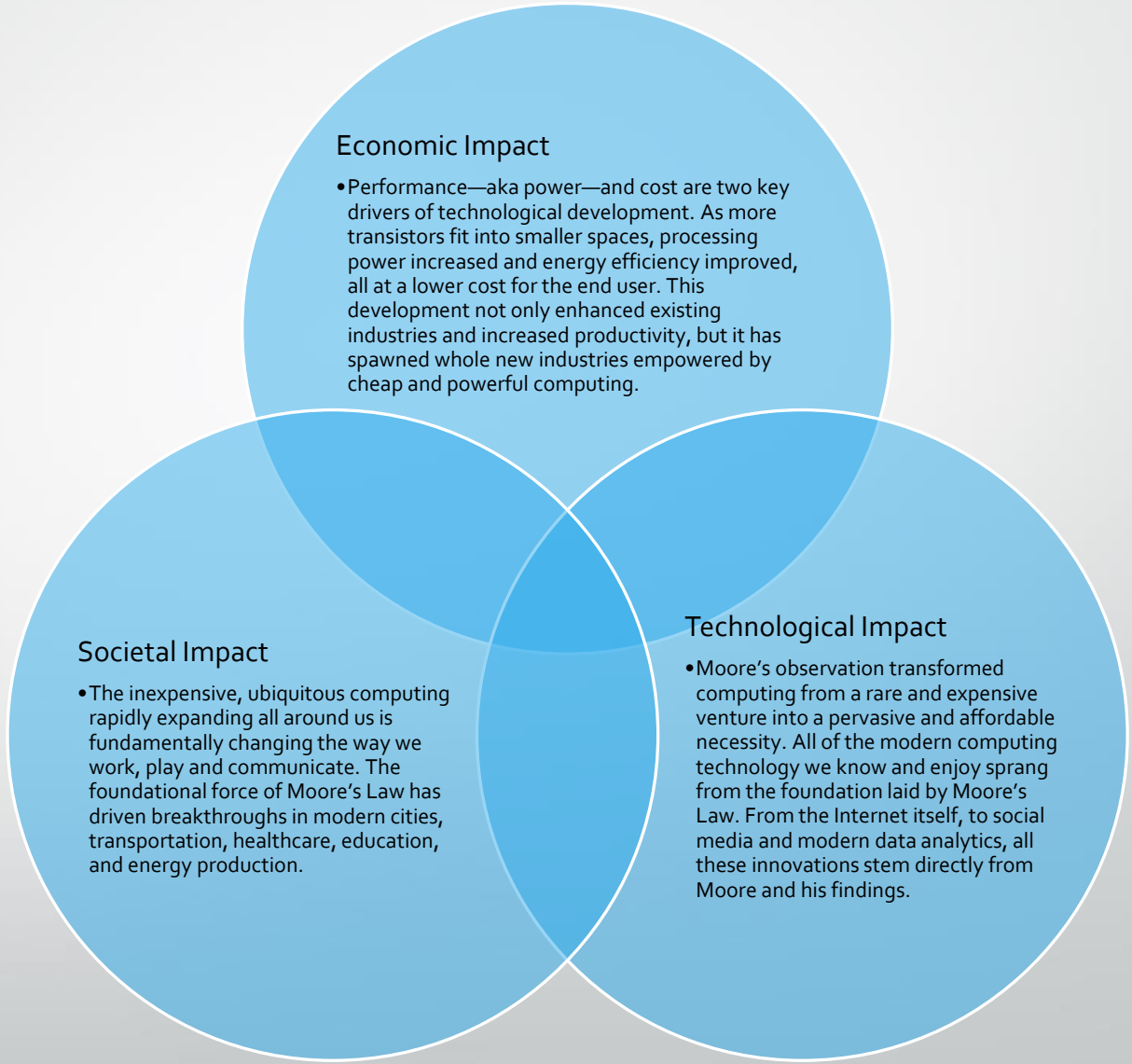


Household Robots, Cybersecurity & Energy Resilience

How did we get here - Moore's Law



Internet of Things (IoT)

- The interconnection via the Internet of computing devices embedded in everyday objects, enabling them to send and receive data
- Everything is connected or getting connected
  - Refrigerator, washer/dryer, baby monitor, robots, coffee machine, TV
  - All controlled through frequency spectrum (wireless)
- Technology advancing faster than security
  - Examples- Bluetooth, 802.11(x), smaller software (think software on your watch)
- Innovative actors
  - Private citizens, corporations & state sponsors
- IoT is making cyber attacks easier

Possible Threats/Attacks

- Bluetooth speakers – can carry malware, viruses
- USB drives
- Drones
- Conventional Phishing attacks
- Careless employees
  - Not changing passwords
  - Surfing the web
- **Complacency**

What Can Be Done

- Scan employees
- Policy
- Check to ensure policy is being followed
- Have a separate closed network
  - Like military SIPRNET
- Stockpile some Bit Coins

Energy Specific

- Best practices from NREL Energy Systems Integration Facility
- Software security scans- check for existing vulnerabilities
- Penetration Test – electronic and physical
- Awareness Training
- Report Incidents
- Risk Mitigation
- Have a plan, practice the plan

Questions

Sample Threats

- **Brute Force:** A malicious actor attempting a large number of possible keywords or password combinations to gain unauthorized access to a system or file.
- **Data Leakage:** The accidental or intentional releasing of information outside its intended audience.
- **Denial of Service:** An attack preventing legitimate users from accessing information on their computer and its network connection, or from a Websites' computers and network.
- **DOMØ Escalation:** A malicious actor breaking out of the virtual environment to gain elevated access to resources that are normally protected from the user.
- **Hyperjacking:** The successful compromise of the Hypervisor (software that manages virtual machines on a physical system) by a malicious actor, thus allowing the malicious actor to gain control of the underlying virtual machines managed by the hypervisor.
- **Phishing:** A social engineering technique soliciting personal information from unsuspecting users. Phishing emails are crafted to appear as if they have been sent from a legitimate organization or known individual.
- **RAM Scraping:** A type of malware designed for monitoring and extracting data from a system during data processing while it is unencrypted.
- **Virtual Machine Escape:** The act of escaping a virtual machine (a virtual system or application that is running inside a physical system) and interacting directly with the virtual machine's hosting environment.

Florida Defense Support Task Force

Update to Florida Defense Alliance
March 15, 2017

TF Member Update

- **Rep. Clay Ingram – Chair – House**
- **Tom Neubauer – Vice Chair – Senate**
- **MG Michael Calhoun, FL TAG – Governor's Personal Rep.**
- **Admiral Mark Fitzgerald – Governor**
- **Barbara Stewart – Governor**
- **Sen. Dana Young – Governor's Personal Rep.**
- **Former FL Senator Mike Bennett – Senate**
- **J.R. McDonald – Senate**
- **Brig Gen Chip Diehl – House**
- **CW5 Derrick Fritts – House**
- **Vacant – Governor**
- **Vacant – Senate**
- **Vacant – House**

Recent Task Force Focus

- Oil Drilling / Military Mission White Paper
  - Military Range Users Support
  - Delivered to FL Congressional Delegation
  - Governor letters in draft
- Southeast Range Complex – Working on courting OSD leadership
- Task Force Strategic Plan Update

FY 16 - 17 Task Force Grants

• Pensacola Chamber	$250,000
• Clay County	$400,000
• Southeast Florida Defense Alliance	$115,000
Total	**$765,000**

FY 17 - 18 Task Force Grants

- Nine applications received for FY17-18 cycle (no decisions until May)

- Limited funding for next year may limit number of grants or amount of awards

Florida Defense Support Task Force

Questions ?

TPG
THE PRINCIPI GROUP, LLC

TSG
THE SPECTRUM GROUP

Florida Defense Alliance

November 15 2017

EXPERIENCE | EXPERTISE | INTEGRITY

Exempt from public disclosure per F.S. 288.985

Our Work for Florida

- **Started With Strategic Assessment of Each Base in 2012**
- **Completed a State-Level Comparative Analysis**
- **Enabled the TF Strategic Plan to Enhance Each Base's Military Value**
- **Assisted in Implementing the Plan**
- **Periodically Reassess and Adapt**

Exempt from public disclosure per F.S. 288.985

Strengths

- Superb ranges, training facilities, and access to unencumbered land, airspace and sea space to facilitate effective testing and realistic training. Units outside the State also take advantage of the test and training ranges within Florida – making those Range facilities a national asset.
- The synergy of many of Florida's base locations allows access to training ranges and facilities of other military bases. There are strong linkages between the units within Florida.
- Many of Florida's military bases are located in a strategic geographical position that allows them not only quick and easy access to training, but also for deployment to mission.
- Weather, although a double edged sword also mentioned in weaknesses, provides a large number of dependable test and training days and excellent conditions.
- Florida has active state and community efforts to prevent encroachment.
- There is strong community support for military activities at the State and local levels for service members and their families.
- Florida has relatively low cost of living and low installation cost of operation for most locations.

Weaknesses

- Information regarding the superior capability, capacity, facilities, and communities of Florida's military bases is sometimes not well known within the military or among senior military leaders.
- DoD lacks a cohesive strategy on how to efficiently and effectively use the Range Space in the Southeast Region across Services and the Test and Training communities.
- In a number of cases, there are infrastructure issues (for example runways, taxiways, family housing) cited as needing repair, certification, or some other improvement.
- Community planning needs improvement in some places so that there are consistent, structured and linked approaches to supporting and increasing the military value of some Florida bases.
- Improvements in primary and secondary level education are needed in places. They will enhance the quality of life factor for the children of military personnel assigned to Florida bases, a key concern across all Services.
- Severe weather sometimes destroys parts of the military's investment in Florida bases, presenting unanticipated and unprogrammed costs and inducing a decision concerning continued activity in the Florida location.

Opportunities

- Florida has significant capacity to grow or absorb additional mission or activities. For example, the importance of unmanned vehicles - air, land, and sea (underwater) and their test, training and development continues to increase. The same is true across the nation for Cyber testing training, and development, much of which is exemplified by work at Team Orlando and other Florida installations.
- Florida's Ranges – land, air, and overwater - are a National asset. In coordination with OSD, these Ranges can become a key solution to the Readiness issues, both Test and Training, being faced by the Nation today.
- Decreasing the operating costs of installations through innovative methods including energy discounts, public-public partnerships for shared services, encouraging public private partnerships, etc.

Threats

- Future encroachment, including noise issues, frequency encroachment, and burgeoning commercial business at ports and at the Cape.
- Consolidation of missions elsewhere within the military.
- Oil and gas development in the Gulf of Mexico could negatively impact the Gulf Ranges.

Overarching Recommendations

- Sustain the State of Florida's multiple level, coherent, and consistent STRATCOM campaign to provide accurate and complete information about the value of Florida's military bases, its supporting communities' programs and those of the State.
- Sustain long term community planning that is collaborative with local military bases, shares key information, and sets the conditions for increased military value.
- Work with military installations to identify ways to help in improving critical infrastructure projects which will increase their military value.
- Sustain joint community and military partnerships in support of environmental issues.
- Create conditions where renewable energy is available to installations in order for them to meet renewable energy goals at minimal costs.
- Continue to improve quality education programs in public schools adjacent to all military bases.

Overarching Recommendations

- Continue to address concerns on quality of life issues for service members and families through state legislation and other state programs.
- Synchronize common goals between local military R&D efforts and adjacent academic institutions.
- Continue to advocate for the DoD's Gulf Range Enhancement program.
- Work with DoD to develop a cohesive strategy on how to efficiently and effectively use the Range Space in the Southeast Region across Services and the Test and Training communities.
- Develop a State master plan for the complementary use of Cape Canaveral and Port Canaveral.
- Actively advocate with senior, national level government officials for new missions and new technology.
- Sustain the aggressive and well supported programs to counter airspace, land, and radio frequency encroachment

Conclusions

Florida has and will continue to have a strong and enduring military presence because of a number of key factors:

- Geographic location.
- Large, relatively un-encroached base locations that allow for training of air, land, sea, and special operations forces.
- The joint synergy of a number of bases whose capability ensures the "whole is more than the sum of its parts".
- Strong community and political support.

Despite the advantages that Florida has there are challenges that make retention of military presence at current levels unassured as the Department of Defense (DoD) reduces budgets and consolidates activities and bases.

Florida Defense Alliance

Ivan G. Bolden
Chief of Army Partnerships,
Strategic Initiatives Group, ACSIM

Agenda

- Then and Now: Army Community Partnership Program
- ACP and Partnerships: Tools for Installations and Communities
- What now?
- Strategic Focus and Outreach
- Next Steps
- Final Thoughts

Partnership Continuum

NDAA 1995 → NDAA 2005 → NDAA 2013 → **NDAA 2015**

Presidio of Monterey

- Special legislation to establish installation service partnerships
- Gold Standard led to pilot legislation

Authorized Municipal Services

- Refuse collection
- Recreation
- Facility M&R
- Library services
- Utilities

Two Utilized:

- Ft. Huachuca (Library Services)
- Ft. Gordon (Wastewater Treatment)

Intergovernmental Support Agreements (IGSAs)

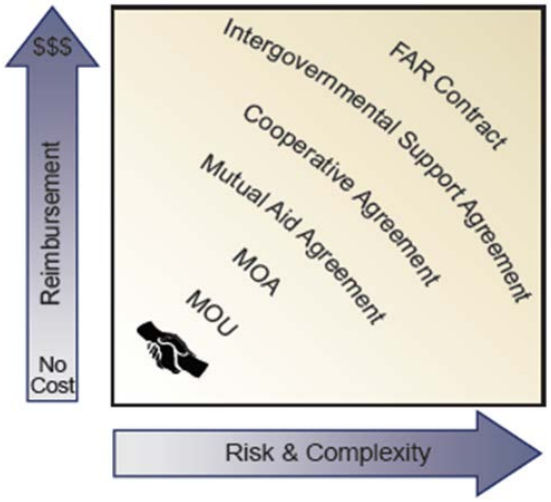
- Defined parameters
- Broadened Partnership Scope and Opportunities

Clarification of IGSA Authorities

- Moved from Acquisition to Real Property
- No FAR contract mandate
- IGSA defined as a separate, legal instrument

Partnership Authorities

- Florida Defense Community has already taken advantage of many partnership opportunities
  - REATs, Housing Partnerships, privatized utilities
- **What's next?**
  - Leverage full spectrum of partnership authorities.
    - Intergovernmental Support Agreements (IGSA)
    - Joint Services Partnerships
    - Regional Partnerships
    - Enhanced Use Leases
    - Cooperative Agreements
    - Etc.



  - RAND is conducting study of benefits of these authorities to create innovative partnerships

Partnership Spotlight

Fort Hunter Liggett (FHL) Bryson-Hesperia Fuel Reduction MOU

FHL, the Fire Safe Council of Monterey County (FSCMC), and the South Monterey County Emergency Response Team Association (SMERTA) partnered for fuel reduction activities such as, clearing fire breaks and constructing an escape route through the installation.

- Increased installation accessibility by CALFIRE and first responders
- Enhanced egress routes for residents
- Improved overall public safety
- Greater wildfire protection for previously vulnerable infrastructure

Partnership Spotlight

Fort Polk Waste Management/Refuse Collection IGSA

Fort Polk and Vernon Parish entered into an Intergovernmental Support Agreement (IGSA) to enable Vernon Parish to assume the collection of solid waste for the installation.

- Reduced contract management time and manpower requirements
- Saved the installation approximately $2M/year ($10M/5 years)
- Produced an economy of scale
- Served as a catalyst for the installation and community to partner on additional installation support services

Partnership Spotlight

Fort Benning Graduate Studies Partnership

Fort Benning partnered with Auburn University to recruit graduate students to conduct endangered species reports and natural resource assessments on the installation.

- Saved the installation $30-$40K per report
- Provided meaningful projects for Auburn graduate students
- Served as a potential recruitment tool for the Army

Partnership Spotlight

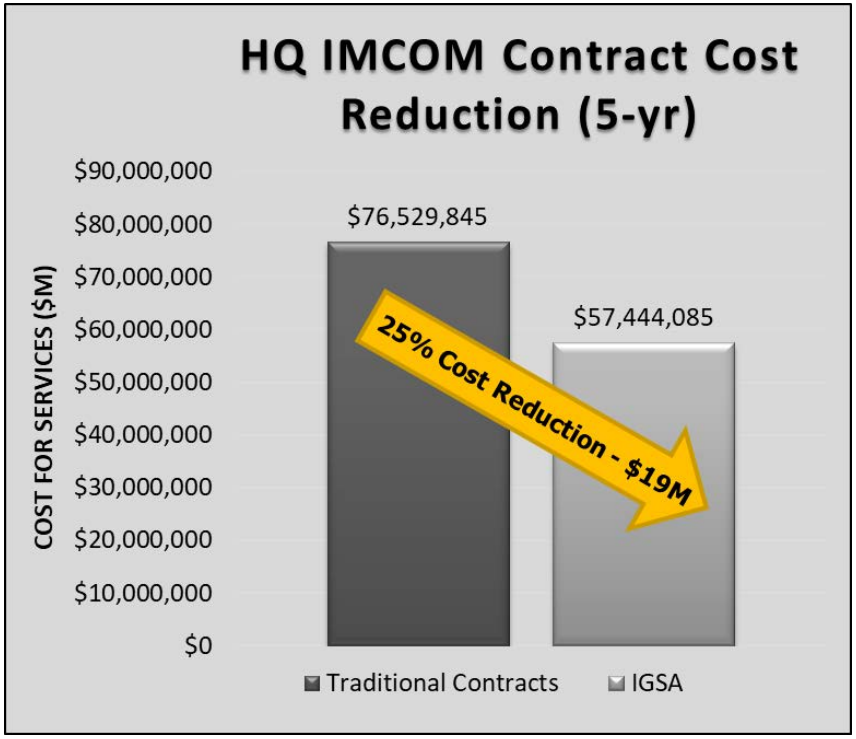
Fort Wainwright Emergency Services Partnership

Fort Wainwright and the City of Fairbanks partners to allow the installation to join the city emergency dispatch system.

- Removed the installation need to maintain a duplicate system on the installation
- Minimized emergency dispatch operational costs to $17k for licensing fees
- Enhanced the installation emergency services capabilities
- Improved emergency response times

Intergovernmental Support Agreement

- IGSAs demonstrate significant cost reduction when converted from traditional contracts
- IGSAs could yield even greater cost savings when replicated enterprise-wide
  - Expecting to see $19M cost reduction over 5 years for 13 active IGSAs



New Developments in IGSAs

- Joint Services Partnership Committee
  - Quarterly meeting to discuss partnerships successes, roadblocks, and lessons learned
  - Congressional Outreach
- Delegation of Authority
- Draft NDAA includes language to increase 5-year term limit to 10 years
- A-76 challenges
- Recycling/minor construction

Army Reserve (ARIMD) P4 Program

Waterford, MI Landscaping

The 88th RSC has reached an agreement to procure landscaping services from Oakland County using an IGSA. This partnership will resolve a property lease issue and reduce the cost of services by more than $10K annually.

Base Operations Partnership with the Village of Elwood, IL

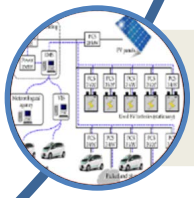
The Village of Elwood would provide landscaping and snow removal services at Joliet Training Area in Illinois, replacing existing contracts costing $412K annually with in-kind payment in the form of a property lease.

Base Operations Partnership with Cambria County Airport Authority

The Cambria County Airport Authority would provide snow removal and other municipal services to the adjacent Army Reserve airfield. Potential savings range between $200 and $500K annually.

Utility purchase and billing consolidation

The 99th RSC procures electricity as a commodity from private firm in the 11 deregulated states and eliminate almost 800 utility invoices. $400K in annual manpower and utility savings possible.



Advanced Battery Testbed at Moffet Field, CA

The 63rd RSC provides space for secure battery testbed pads to public and private researchers in return for resilient energy during emergencies. This partnership could save $500K annually as well as support continuity of operations.

Installation of the Future

- What will an installation look like in 10 years?
  - Partnerships are critical to achieve installations of the future
  - Installations need to leverage underutilized assets
  - Community and installation planners should engage now and integrate master planning initiatives
- Partnerships drive Installation of the Future by:
  - Enabling Installations to shed non-mission critical services
  - Incorporating proven community and industry technologies and best practices to do Army business
  - Reducing complex and burdensome procurement processes, and realizing revenue from underutilized, excess assets

Military and Community Engagement

- Sustained engagement is critical for the military and community in the current environment.
  - Army has a history of leveraging community partnerships
  - Budget Control Act and Sequestration require Military Services to seek innovative solutions
- Develop strong relationships with civilian personnel
- Look to Army Reserve and National Guard
  - “Army of the Community”
  - Less turnover and deeper ties to the community
  - Florida National Guard – Camp Blanding was one of the first installations to execute Army ACP strategic engagement process
  - Air Force piloted community partnership at Air National Guard bases
- Consider future grant opportunities (e.g. office of economic adjustment

Strategic Engagement and Outreach

- December 4th, 2017 Army to Recognize seven Installations and Communities
  - To recognize Army and Community partnerships that improve Army readiness and resilience
  - To increase participation in the Army Community Partnership program
- Association of Defense Communities
  - Installation Innovation Forum (February 12-14, 2018 in San Diego)
  - Defense Communities National Summit (June 18-20, 2018 in Washington, D.C.)

Next Steps

- Engage broadly, early, and often
  - Work together on planning initiatives to help move towards the “installation of the future”
    - For example, in the future we can rely on city partners to assure energy supply through building retrofit of solar panels and power generation backup technologies to achieve energy resiliency.
- Consider Partnerships first (shifting mindset)
  - Re-examine all expiring contracts
  - Take advantage of new developments that make it easier to partner (delegation of authority, NDAA 15, HQDA Partnership Office)
  - Utilize new resources (website, examples of successful partnerships, templates, etc.)

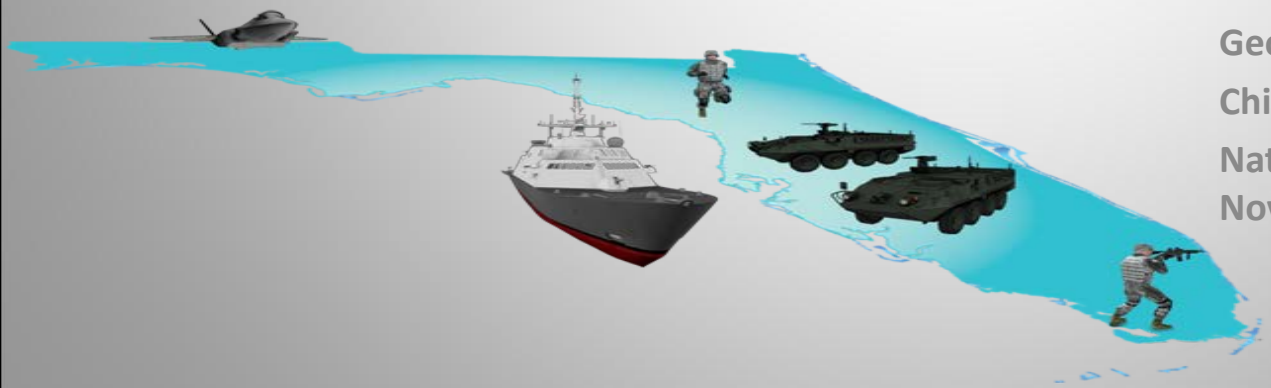
Final Thoughts

- TJAG Meetings
  - Online forums, webinars, and Training
- IMCOM Garrison Commander's Conference
  - Discussion of case studies and legal challenges – Fort Polk
- Committed to improving the lives of soldiers and their families
- Keep up the fight and my door is always open!
- Contact me:
  - Telephone:703-545-2538
  - Email: ivan.g.bolden.civ@mail.mil

THE NATIONAL CENTER FOR SIMULATION

Orlando/Central, FL—the epicenter of the world's Modeling, Simulation & Training (MS&T) Industry

" Team Orlando--A Unique Collaboration of Academia, Industry & Smart Government Dedicated to Improving Human Performance Through Simulation"



George E. Cheros

Chief Operating Officer

National Center for Simulation (NCS)

November 15, 2017

THE NATIONAL CENTER FOR SIMULATION

Florida's Simulation Cluster

From humble beginnings in **1965**

to

today's **$6.0 billion** Industry!

Academia, Industry & Smart Government have all played a pivotal role to foster consistent Industry growth over the past **52+ years**!

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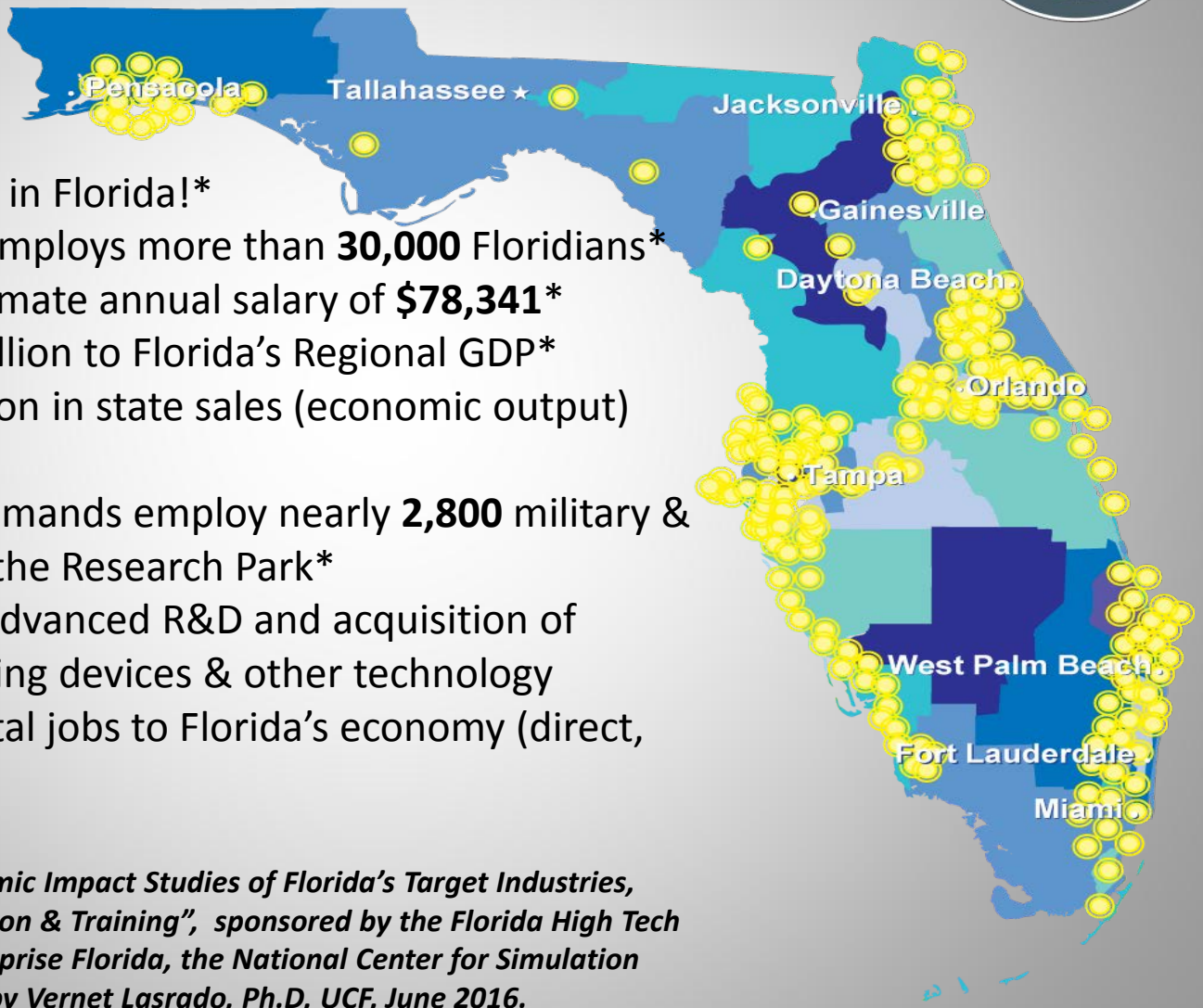
Industry's Economic Impact in Florida



- MS&T is big business in Florida!*
  - Sector directly employs more than **30,000** Floridians*
  - Average approximate annual salary of **$78,341***
  - More than **$6** billion to Florida's Regional GDP*
- More than **$11.6** billion in state sales (economic output) activity*
- "Team Orlando" Commands employ nearly **2,800** military & civilian personnel in the Research Park*
  - All dedicated to advanced R&D and acquisition of simulation & training devices & other technology
- More than **73,802** total jobs to Florida's economy (direct, indirect & induced)*

***Source:** "Statewide Economic Impact Studies of Florida's Target Industries, Volume 01: Modeling, Simulation & Training", sponsored by the Florida High Tech Corridor Council (FHTCC) , Enterprise Florida, the National Center for Simulation (NCS) and CAE USA. Prepared by Vernet Lasrado, Ph.D, UCF, June 2016.*

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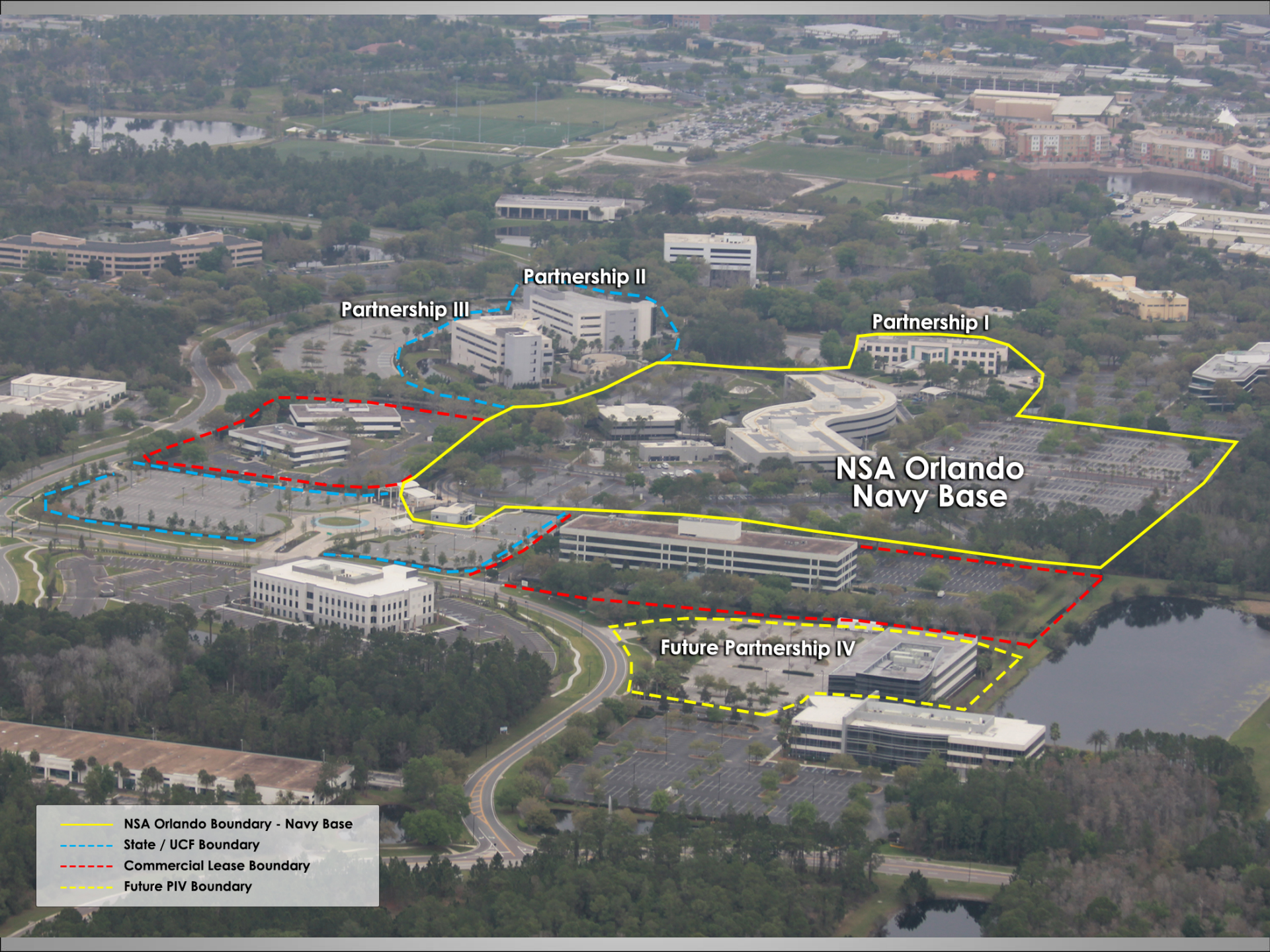
Why Orlando's Research Park?

- **City, County & State Government** have promoted cluster growth with political, infrastructure & educational support
- **40 acres in the Research Park** were given to the U.S. Navy (1984) to build the DeFlorez Complex & create a MS&T Center of Excellence (COE)
- **Consistent Federal Government & DoD funding** has attracted Industry in big numbers **(>100)**
- **Research Park is adjacent to UCF**—second largest University in the U.S.
- Home for the **MS&T acquisition organizations** for all the Services except the U.S. Air Force
- **Proximity facilitates synergy** between Academia, Industry & Government found no where else in the world
- **Partnership, collaboration & teamwork** lower program risk and are good for America & the warfighter


Partnership II
Partnership III
Partnership I
NSA Orlando
Navy Base
Future Partnership IV
NSA Orlando Boundary - Navy Base
State / UCF Boundary
Commercial Lease Boundary
Future PIV Boundary

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But…with success comes challenges!!!

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The threat of Base Realignment & Closure (BRAC)?

- President Obama's **FY 2012 Budget** set in motion **$500B** in cuts to defense and included a request for two rounds of **BRAC**
- Neither the House or the Senate have supported annual requests for rounds of **BRAC** since **FY 2012**
- Additional cuts to defense due to **sequestration** (an additional **$5.2B** over same 10 year period) made **BRAC** even more important to the individual military services

State level preparations given the threat of BRAC

- Governor Scott formed the Florida Defense Support Task Force (FDSTF) with a mission to mitigate the risk of **BRAC** to all **20** Florida military installations
- A SWOT Analyses of those Installations informed a strategic plan that has guided the State's efforts over the past **4+ years**

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The threat of Base Realignment & Closure (BRAC) Cont'd?

- Each round of **BRAC** represents a **challenge** and an **opportunity**
- But Team Orlando overcrowding and reliance on **200,000 sq. ft. of rented office space** at a cost of **$5.4 million annually** is a critical BRAC vulnerability!!!
- The State's SWOT analyses projected NSA Orlando to be the **most at risk installation in Florida** during the next round of BRAC

Local Community BRAC mitigation preparations

- The **Metro Orlando Defense Task Force (MODTF)** was formed (2012) with a mission to mitigate the risk of **BRAC** to NSA Orlando & Team Orlando Non-Navy Tenant Organizations
- A **broad cross section of Stakeholders** joined forces to **promote, protect and set the conditions to grow** the MS&T Industry in Florida
- Each stakeholder identified a target financial contribution to help fund local **BRAC mitigation** efforts
- Orange County Mayor Teresa Jacobs also formed a **MS&T Blue Ribbon Commission** to strengthen civic leader support for the **MODTF**

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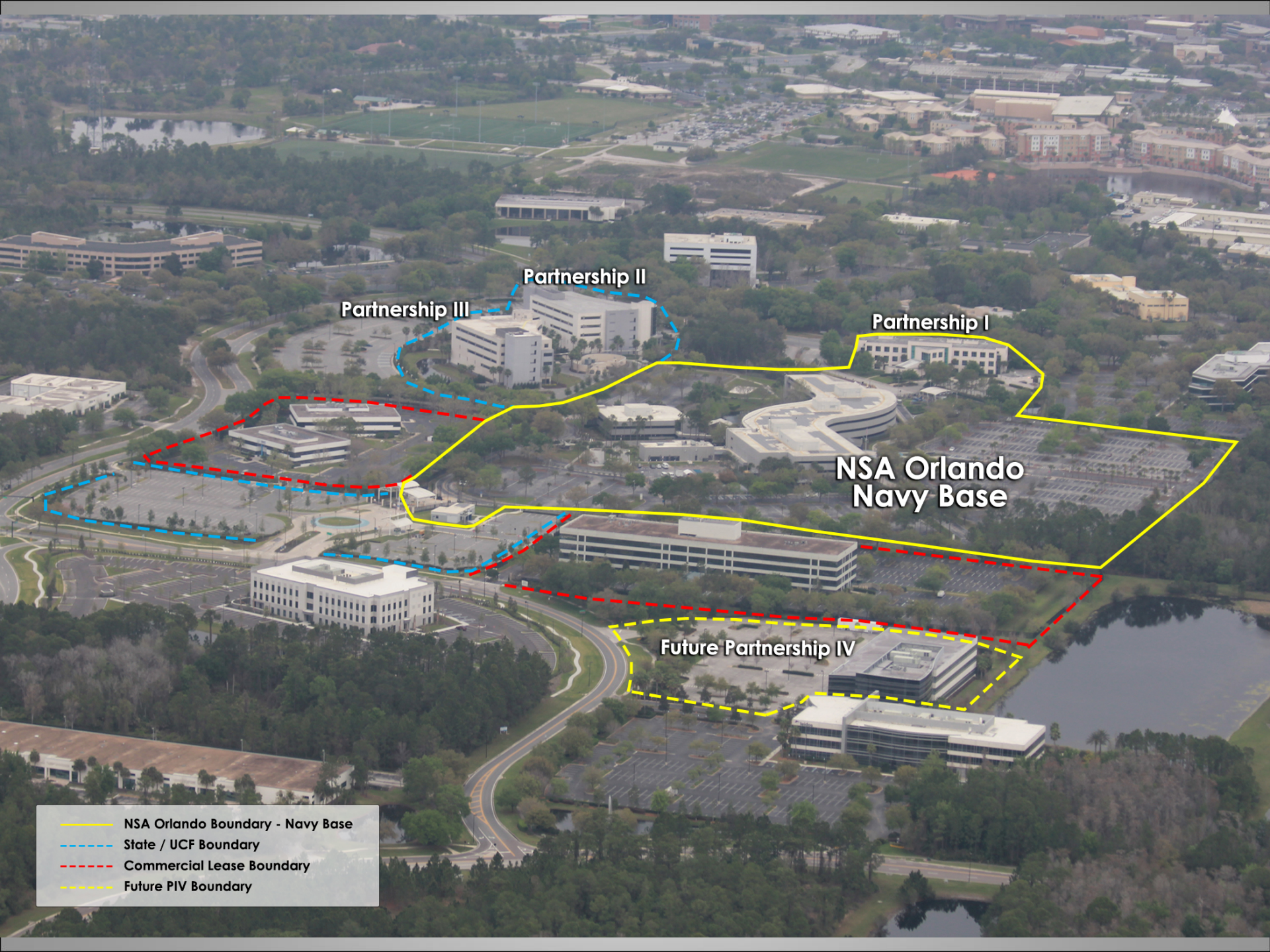
Local Community BRAC mitigation Preparations Cont'd

- **MODTF Stakeholders:**

  Office of the Orange County Mayor & County Commission
  Office of the Orlando Mayor & City Commission
  Metro Orlando Economic Development Commission (EDC)
  Central Florida Partnership (CFP)
  Florida High Tech Corridor Council (FHTCC)
  University of Central Florida (UCF)
  Central Florida Research Park (CFRP)
  National Center for Simulation (NCS)—**Chair**

- **MODTF Successes over the past 4+ years:**
  - **$42 million** in state appropriations to expand the Partnership complex
  - **Partnership IVa** (former SAIC building) acquired in Feb 2016 (84,000 sq. ft.)
  - **Partnership IVb** (Resource Square II building) acquired Oct 2017 (123,000 sq. ft.)
  - Once Team Orlando moves are complete, their cost of occupancy will be reduced by **80%** and save America **$4 million** annually in rent
  - This 4+ year effort will likely **mitigate any risk** of adverse Team Orlando realignments in a future round of **BRAC**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Future Partnership IV
NSA Orlando Boundary - Navy Base
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Commercial Lease Boundary
Future PIV Boundary

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Exploding Simulation Opportunities Beyond Defense

- Medical/ Healthcare
- Education
- Transportation
- Architecture/Engineering/Construction
- Manufacturing
- **Cyber**
- Energy
- Digital Media
- Serious Games

"Lake Nona's Medical City"

"UCF Downtown Campus, CANVS & Creative

University of Central Florida

Team Orlando and Cyber Security

Michael Macedonia, Ph.D.

AVP Research

University of Central Florida

mrm@ucf.edu

Team Orlando

- NCS
- UCF
- Military Services
- Industry
- Federal Agencies

UCF Cyber Security Cluster

- $5 million investment
- 10 Core faculty
- 5 new tenure-track faculty
  - 3 faculty hired
  - Leader + 1 more being hired this year
- Space allocated in new interdisciplinary and Partnership IV buildings

Long Range Goals For UCF Cyber Cluster

- Develop fundamental breakthroughs and transition technology
- Economic development of cyber industry
- Give expert advice and consulting to Team Orlando
- Provide talented and well-educated workforce to meet the needs of Florida and DoD

National Centers of Academic Excellence in Cyber Defense (CAE-CDE) Education Program

- Sponsored by the National Security Agency (NSA) and the Department of Homeland Security (DHS)

- Goal: reduce vulnerability in our national information infrastructure by promoting higher **education and research** in Cyber Defense (CD) and to produce a growing number of professionals with expertise in CD disciplines.

- Vision: Establish a process that will:
  - Provide programs that commit to excellence in the field of Cyber Defense education at the graduate and undergraduate levels.
  - **Provide the Nation with a pipeline of qualified students poised to become CD professionals.**

- Over 200 universities -- UCF, UAH, UTSA, Miss St., FSU, UF, USF, West Point, US Air Force Academy (https://www.iad.gov/nietp/reports/current_cae_designated_institutions.cfm)

Multidisciplinary

- Computer Science and Engineering
  - AI
  - Networking
- Psychology
  - Boils down to people
  - Insiders can circumvent security policies
- Political Science
  - Who gets to set the rules?
  - What is privacy, really?
  - What should the rules/laws/regulations be?
  - OK to do research on how to attack systems?
- Business and Economics
  - Can we make it too expensive for the bad guys?

Affiliated Colleges and Departments

- College of Engineering and Computer Science:
- Computer Science, ECE, IEMS
- College of Science:
- Psychology, Mathematics, Statistics, Political Science
- College of Business Administration:
- Management
- College of Arts and Humanities:
- Philosophy
- College of Health and Public Affairs:
- Legal Studies
- College of Optics and Photonics
- Institute for Simulation and Training

Workforce Development

- UCF has 2400+ computer science students
- Collegiate Cyber Defense Club has over **350** members
  - Highly motivated
  - Won the national CCDC cup in 2014, 2015, 2016!
  - Jobs and internships at MS, Amazon, Google, …
- In 2015, UCF/IST started a first-of-its-kind program in the graduate-level M&S of Behavioral Cybersecurity
- TS Security Clearances

Research Problems and Approaches

- Over $15 million
- Security and Privacy for Internet of Things (IoT)
  - Hardware/Software cooperation
  - NSA and DISA funded
- Social Media Interactions with Cyber
  - DARPA funded
- Tools and Methods for discovering & mitigating
  - Security and Privacy Breaches
  - Insider Threats
  - Privacy Risks and source-based self-censoring
  - IARPA funded
- Infrastructure Protection of Tourism
  - CRADA with DHS

Department of Defense Joint Persistent Training Environment (PTE) for Cyberspace

Constellation of federated, interoperable common training capabilities enabling full spectrum joint training from individual competencies to team, unit, group and force training, exercises, TTP development and mission rehearsal to enable the Cyber Mission Force and DoD Cyberspace Workforce to achieve operational readiness

PTE OV-1

Centralized Order Portal
- Customer entry point for requirements, planning and event design
- Web portal and live support

Master Control (Joint PTE Center)
- Centralized planning, scheduling and direction of training operations
- PTE Mission Operations Center
- Security and risk mgmt

Human Performance Technology
- Expert HPT intervention and analysis
- Leading edge innovation for advanced training

Exercise Control
- Automated and manned white cell functions directing execution of training events
- CAO/FDO for allied and partner integration

Event Design
- Event, course and scenario design from requirements to delivery of vignettes and MSELs
- Adaptation of legacy courses curricula into virtualized classroom environments

Tech Support
- Technical planning, authority to connect and operate, and centralized technical support and integration of federated capabilities

Virtual Cyber Classroom
- Instructors and virtual learning environment
- VR/AR enabled courses

Assessments
- Training assessment tools and capabilities with automated instrumentation for capture and playback using visualization tools
- Live and automated observers and trainers
- Training assessments flow into JTIMS, JLLS & service systems so-output shapes DOTMLPF

Content Library
- Repository of all certified training content (course curriculum, tools, scenarios,, vignettes, planning guides)
- Library of crowdsourced content (videos, scripts, TTP)

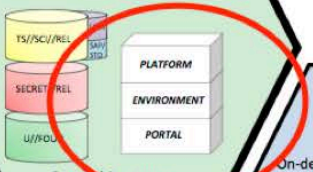
Capability Development
- Identifies and communicates issues to improve PTE capability from observed training operations and outcomes

Intelligence
- Intelligence content, processes and products supporting realistic training
- All source national intel and CI, L/E, open source

OPFOR
- Expert Opposing Force and Aggressors to emulate range of cyber threats
- Live and automated

Tool Management
- Planning, management, configuration and security of cyber tools within the PTE.
- Does not include tool development function.

Event Management Platform and Core Training Environment



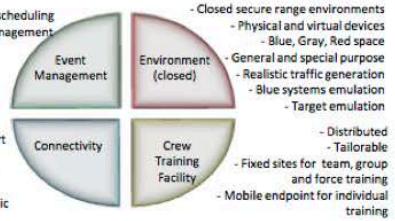
Central Instance

Connectivity (Access)

On-demand reliable, secure global access from distributed nodes through transport layer into PTE.

Joint IO Range · VPN · Other · Other

Connectivity (Access)



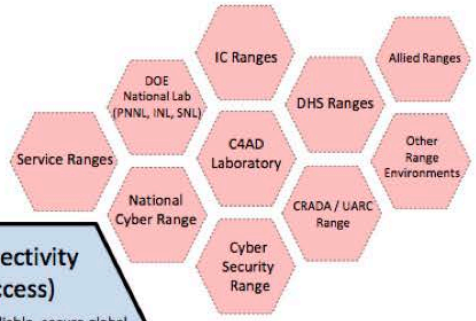
- Event planning, design, scheduling
- Event execution and management
- Realistic scenarios
- Curriculum
- Instructors
- Observer/trainers
- Assessment
- Opposing Force

- Closed secure range environments
- Physical and virtual devices
- Blue, Gray, Red space
- General and special purpose
- Realistic traffic generation
- Blue systems emulation
- Target emulation

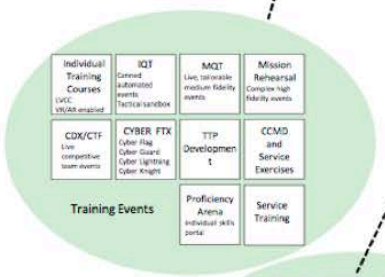
- Secure, reliable transport
- Multiple security layers
- Full integration of capabilities
- Enables broad geographic distribution

- Distributed
- Tailorable
- Fixed sites for team, group and force training
- Mobile endpoint for individual training

PTE Elements



- Realistic U.S. and c network, C2, contro and weapons platfo emulation
- Realistic internet a gray space emulatio including traffic gen and other user simu
- Realistic target em from general to spe purpose class
- Leveraging Joint, A Service and externa capabilities



Training Events

Joint National Cyber OPFOR

Combatant Command, other Joint and Service Crew Training Facilities

Fort Meade / DC

Mission Platform · Crew Training Rooms · Classrooms

USCYBERCOM HQ
JFHQ-DODIN
JFHQ-C FLTCYBER / MOC
JFHQ-C MARFORCYBER
CYBER NATIONAL MISSION FORCE HQ
CMF Teams
USCYBERCOM Joint Cyber Training Center
NSA Washington

Hawaii

Mission Platform · Crew Training Rooms · Classrooms

JFHQ-C FLTCYBER Element
CMF Teams
NSA Hawaii

Fort Gordon

Mission Platform · Crew Training Rooms · Classrooms

JFHQ-C ARCYBER
Army Cyber Center of Excellence
CMF Teams
NSA Georgia

San Antonio

Mission Platform · Crew Training Rooms · Classrooms

JFHQ-C AFCYBER
CMF Teams
NSA Texas

Joint Staff Exercise Facility

Joint Staff J7 South (Suffolk)

Force and Crew Training Rooms

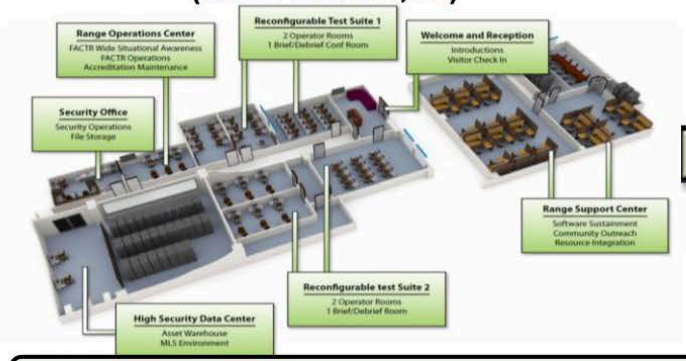
Cyber Mission Force and Joint Cyber HQ Concentration Centers

UNCLASSIFIED

National Cyber Range (NCR) Buildout

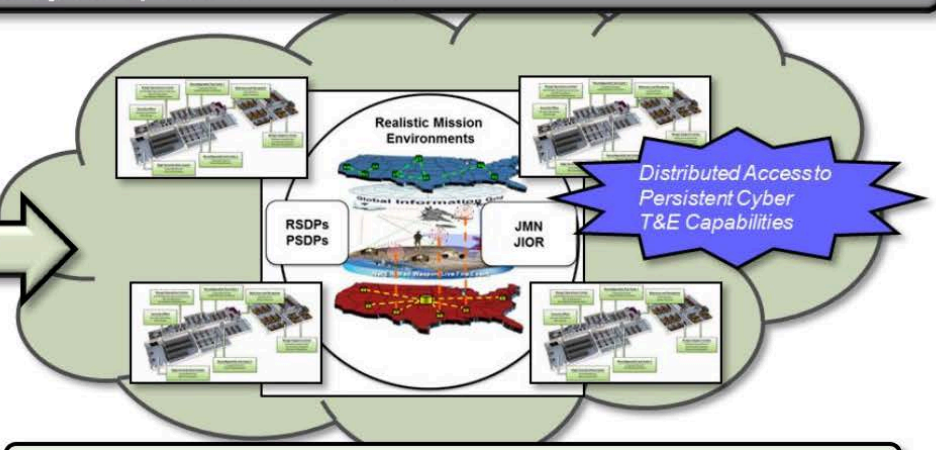
Mission: Improve the mission resiliency of our warfighters in the cyber-contested battlespace by conducting testing and training events in mission-representative cyberspace environments

Current NCR Computing Assets/Facility (LMCO Orlando, FL)



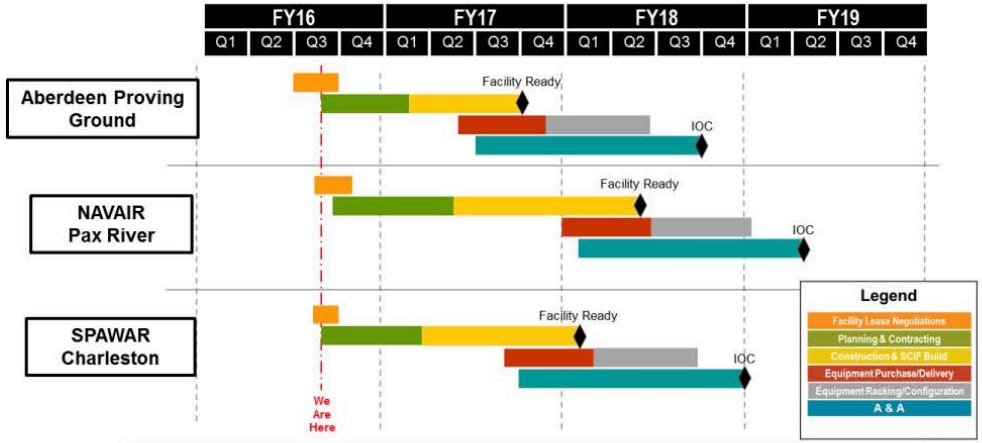
FY16: 5 Test Beds, 55 events/year, Single Location

FY17-FY19



FY19: 32 Test Beds, ~300-400 events/year, 4+ Locations

- **Complete recapitalization of existing NCR facility in Orlando**
  - Use as baseline architecture for capacity expansion
- **Build 3 additional NCR-like facilities at Government locations**
  - Increase technical and concurrent event capacity by 8X+
- **Work with the AF on their requirements for Avionics Cyber Lab**



Estimated Best Case Build-Out Timelines

U.S. ARMY RDECOM

Cyber Battlefield Operating System Simulation Tools for Live-Virtual-Constructive (LVC) Training Simulations

ARL open campus

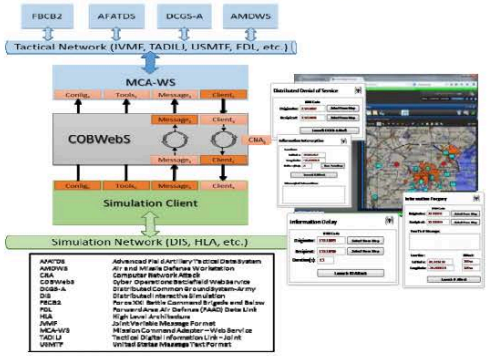
S&T Campaign: Human Sciences
Human Capability Enhancement

Henry Marshall, (407) 384-3820
Henry.A.Marshall.civ@mail.mil

Research Objective

- The Army proponents of Simulation and Training technology have identified Cyber as a major training technology gap.
- Our research proposes to develop prototypes with innovative solutions to train Cyber related tasks using current Army training simulations.

Current training simulations support many training requirements in the battlefield areas such as move, shoot, and communicate. However, the Army simulations lack the capability to train Cyber-related tasks.



The Cyber Operations Battlefield Web Services (COBWebS) is an example of an ARL research prototype designed to provide Cyber Simulation Effects in current training simulations. It produces Cyber operation attack effects like information delay, forgery, interception, and denial of service in Mission Command Systems.

ARL Facilities and Capabilities Available to Support Collaborative Research

- The Advanced Simulation Systems Integration Modeling Interoperability Laboratory and Test Environment (ASSIMILATE) is a lab equipped with an unclassified instance of the Live, Virtual, and Constructive - Integrating Architecture (LVC-IA), selected Core Systems of the Integrated Training Environment (ITE), selected Army Mission Command systems, and a cloud server farm.
- Our most recent paper on COBWebS describes a Concept for a Tactical Cyber Warfare Effect Training Prototype. The document was selected as one of the "Best Papers" for the 2015 Fall Simulation Interoperability Workshop.
- ARL-HRED has unique expertise in simulation and training technologies.
- ARL-HRED prototypes are continuously demonstrated to the Army training community.

Challenges

- Cyber attacks are very asymmetrical which makes it difficult to define the training environment and requirements. Developing approaches that allow for this wide-range of parameter flexibility is also difficult.
- There is a need to define Data Exchange Models for Cyber application in order to allow exchange of Cyber operation information between simulations.
- Solutions must support the Information Assurance requirements that are typically destroyed in attacks.
- Cyber doctrine and requirements in this area are not mature. Our prototypes will generate possible training solutions.

Complementary Expertise/ Facilities/ Capabilities Sought in Collaboration

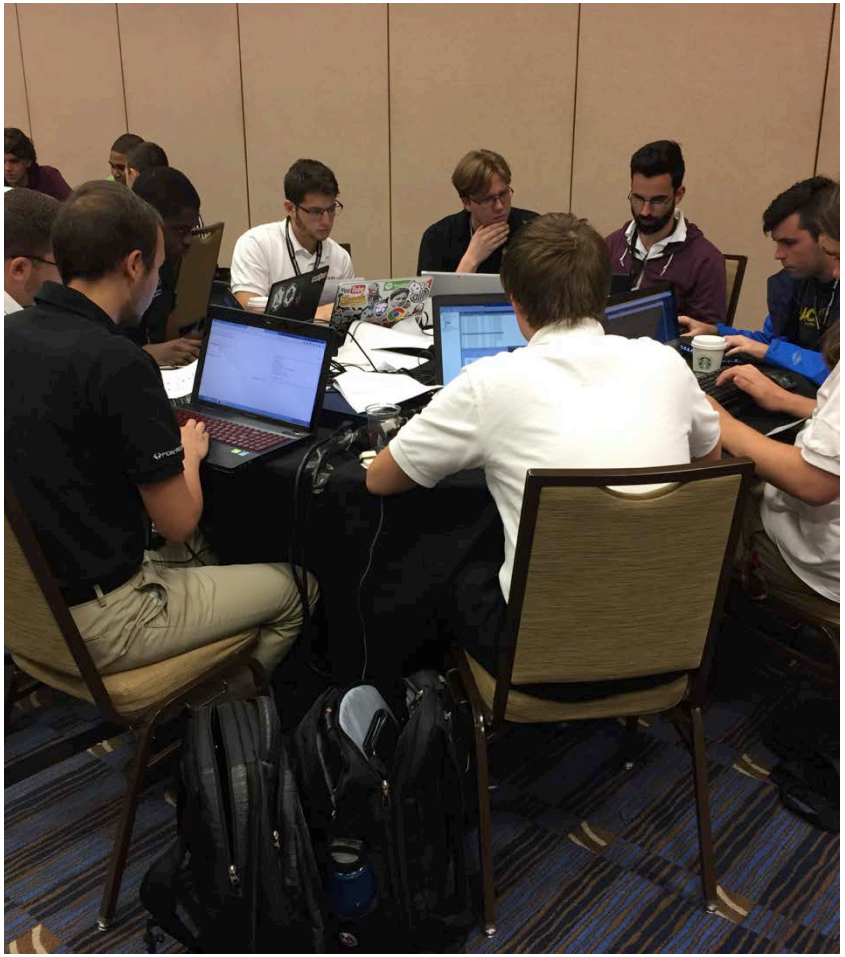
- Innovative approaches to create the effects and training environment for a wide-range of Cyber attacks.
- Ways to best conduct the data exchanges between Cyber models.
- Determine the correct doctrine for response to Cyber attacks at all levels of interaction, from Soldiers and leaders to Cyber protection teams.
- Ideas to integrate into our Cyber prototype so as to support the Army training community. The goal is to show a potential training way-forward to this complex and evolving research area.

Sri Sridharan, managing director and chief operating officer for the Florida Center for Cybersecurity, watches as Naval Air Warfare Center Training Systems Division Orlando Commanding Officer, Capt. Erik Etz, signs an education partnership agreement between the two organizations.

Issues

- ACAT 1 DoD programs
- Funding to support cyber academic programs
- Direct commission standards
- SCIFs
-
- Clearances
- Unclassifed cyber ranges

One Team, One Fight



Building Healthy Military Communities Pilot

Lynn Brannon-State Coordinator

BHMC Pilot

Nature of Briefing	Bottom Line Up Front
Informational Briefing	**The Building Healthy Military Communities (BHMC) pilot aims to improve the readiness, resilience, and well-being of geographically dispersed Service members and their families through increased access to military and community resources that promote well-being.** • The pilot seeks to leverage relationships and networks to build community partnerships. • Senate Report 114-63 provides guidance for the execution of the pilot.[1]
Way Ahead	**Pilot Outcomes**
• Obtain guidance and support • Work to continue moving the pilot forward	• Increased understanding of challenges, gaps, and existing programs to identify and implement measures that improve well-being, readiness, and resilience for Service members and their families • An informed, comprehensive well-being strategy for DoD's geographically dispersed Service members and their families

1. Senate Report 114-63

Pilot Involvement and Support

The BHMC pilot partners and their roles are as follows:

- **OUSD(P&R)**
  - **Readiness, Personnel Risk and Resiliency (PRR):** Provides strategic oversight, coordination, and planning of the Rapid Needs Assessment (RNA), pilot socialization, and interventions for cohesiveness and consistency
  - **Health Affairs (HA), Uniformed Services University of the Health Sciences (USUHS), Consortium for Health and Military Performance (CHAMP):** Develop and execute the measurement and evaluation methodology for the pilot and implement the health technology intervention
- **National Guard Bureau (NGB):** Provide resources and support for pilot communications and implementation of the state coordinator and information campaign intervention
- **Reserve Component (RC) Service Chiefs:** Provide service or regionally specific information and guidance to address geographically dispersed service members
- **Pilot State Points of Contact (POC):** Work together to help establish a strong network, share resources, and increase community capacity

Problem Statement & Background

Problem

DoD lacks a comprehensive plan to improve policies and programs that support the well-being of Service members and families.

Background and Supporting Evidence

- Despite heavy investment in programs supporting Service members, data suggest the need for **increased support across Total Force Fitness domains for the geographically dispersed Uniformed Services population.**[1]
- **S.R. 114-63 calls for the execution of a pilot to "ensure enhancement of recruitment, retention, readiness and resilience"**.[2]
- DoD increasingly relies on the Reserve Component, consisting of the National Guard and the Reserves, due to factors such as decreasing budgets and personnel and funding reductions.[3,4]

Proposed Solution

- **Design a strategic plan** to coordinate and integrate existing DoD, federal, state, regional, and local efforts in support of Service members and their families.

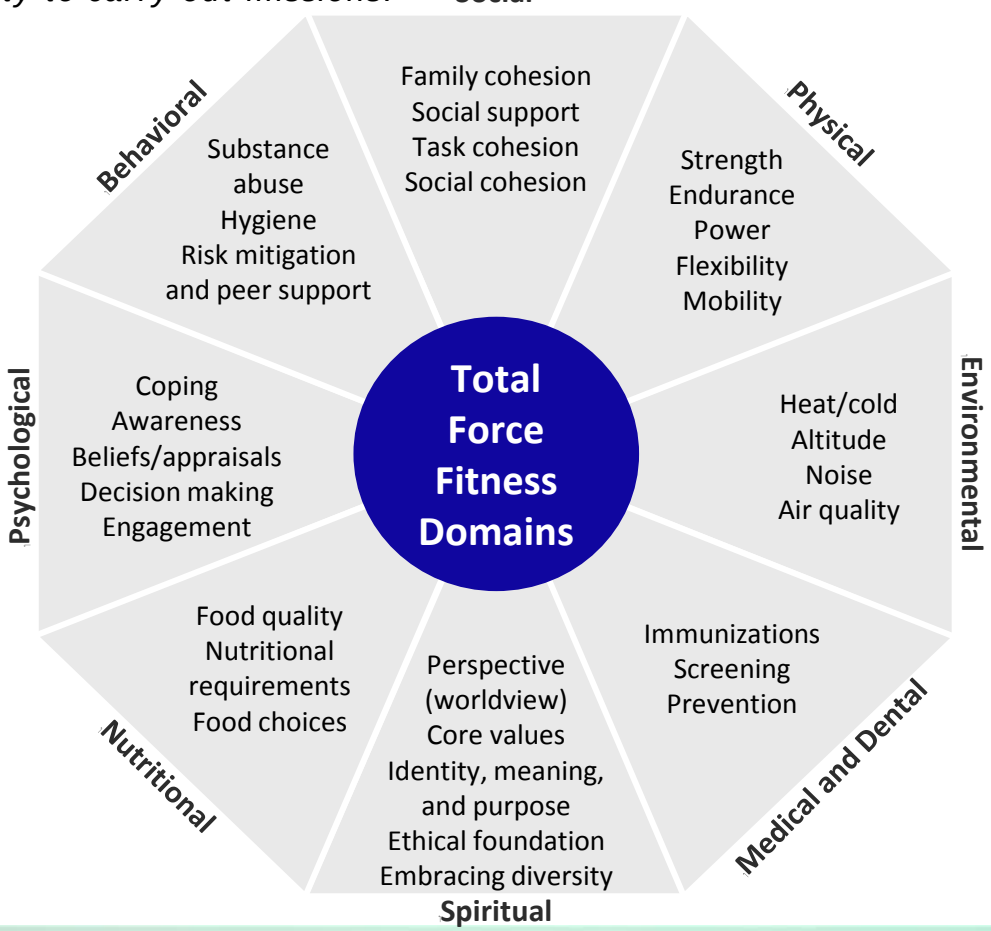
1. See Slides 29 and 30 for more information on TFF
2. Senate Report 114-63
3. RAND Corporation, 2008.
4. U.S. Senate Committee on Armed Services

Total Force Fitness Overview

Total Force Fitness (TFF) is a methodology for understanding, assessing, and maintaining Service members' well-being and sustaining their ability to carry out missions. [1]

Main Points:

- TFF was created by the Joint Chiefs of Staff and became policy in 2011
- TFF is the DoD's 21st century paradigm for improving population health, and includes eight domains of fitness
- TFF is a state in which the individual, family and organization can sustain well-being and performance under all conditions
- The Services are responsible for implementing TFF Programs



1. Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3405.01

Pilot Execution

OCT 2016

BHMC Pilot State Coordinator: Hired a state coordinator for each state **to serve as the state focal point for well-being resources** and begin developing strategic relationships with DoD, national, state, and local resources supporting readiness and well-being.

FY2018

Evaluate Baseline: Leveraging relationships from the State Coordinator, conduct a **Rapid Needs Assessment (RNA)** to determine a baseline understanding of available resources and inform the following interventions:

2019 - Onwards

Intervention 1: State Coordinators Develop a State-Specific Strategic Plan

using collected data to address needs and gaps through targeted community capacity building

Intervention 2: Promote an Information Campaign

to communicate initiatives and resources to Service members and their families

Intervention 3: Utilize Mobile Health Technologies

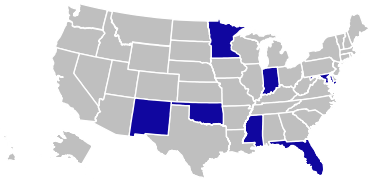
to reduce barriers in accessing information and connecting with resources

The State Coordinator and the BHMC pilot team will launch these three key interventions to **coordinate and align a network of resources** to support geographically dispersed Service members and their families.

Rapid Needs Assessment

As a first step to achieving TFF and optimizing readiness and well-being, the BHMC pilot aims to conduct a Rapid Needs Assessment (RNA). The RNA aims to understand the current state by understanding requirements for supporting readiness and well-being among Service members and their families and programmatic capabilities in the DoD and local communities to meet these needs.

1 Map and Identify Key DoD and non-DoD Partners

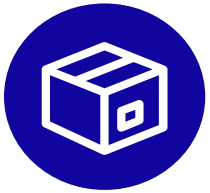


Identify programs within the state in the area of well-being that could provide insight into the strengths and opportunities of the community

2 Engage Stakeholders

Facilitate on-the-ground discussions with stakeholders to gather information on existing resources, challenges, gaps, and understanding of readiness.

3 Compile Qualitative Information



Without identifying organizations or people, main themes will be extracted from interviews and combined with existing well-being data for each state for DoD leadership.

Information Collection

- The BHMC pilot team applied for a Report Control Symbol (RCS) and an Office of Management and Budget (OMB) Control Number to collect information both internal and external to the DoD. Our efforts will also be posted to the Federal Register for public comment.

Type of Collection	Description	Average Timeframe	Status
Department of Defense (DoD) Report Control Symbol (RCS)	The RCS allows components within DoD to collect information from other components. For more information, visit http://www.dtic.mil/whs/directives/collections/int_collect_overview.html	~2 months after submission	In Progress
Office of Management and Budget (OMB) Control Number	The OMB control number allows the DoD to speak with members of the public. For the BHMC pilot, we seek to speak with program managers and those in leadership positions among various well-being programs and initiatives. For more information, visit http://www.dtic.mil/whs/directives/collections/pub_appr_process.html	~9 months after submission	In Progress

- Given timelines, the BHMC pilot may be able to travel to pilot sites as early as Fall 2017.

Pilot Way Ahead

The well-being of Active Duty, National Guard and Reserve components, and future recruits is a critical component of an all-volunteer force of heightened readiness. Recent shifts align the military community more closely with their civilian counterparts and could potentially impact well-being. National Guard and Reserve components have increased their operational tempo, while approximately 70% of Active Duty Service members live off installation.

Major Milestones in Executing the BHMC Pilot

- Finalize Rapid Needs Assessment (RNA) Coordination:
  - Step 1: Complete Institutional Review Board (IRB) approval (Completed)
  - Step 2: Submit package to receive a Report Control Symbol (RCS) for internal DoD information collection (In progress)
  - Step 3: Submit Office of Management and Budget (OMB) Control Number for public information collection, external to the DoD (In progress)
  - Step 4: Coordinate RNA visits
  - Step 5: Execute RNA

- Implement RNA Findings:
  - Step 1: Deliver a final report on the pilot, executed by USUHS/CHAMP
  - Step 2: Formulate a cohesive strategic plan informed by the RNA final report
  - Step 3: Begin execution with DoD, cross-agency, and regional/state/local stakeholders

BHMC Pilot Scope
Target Population and Timeframe

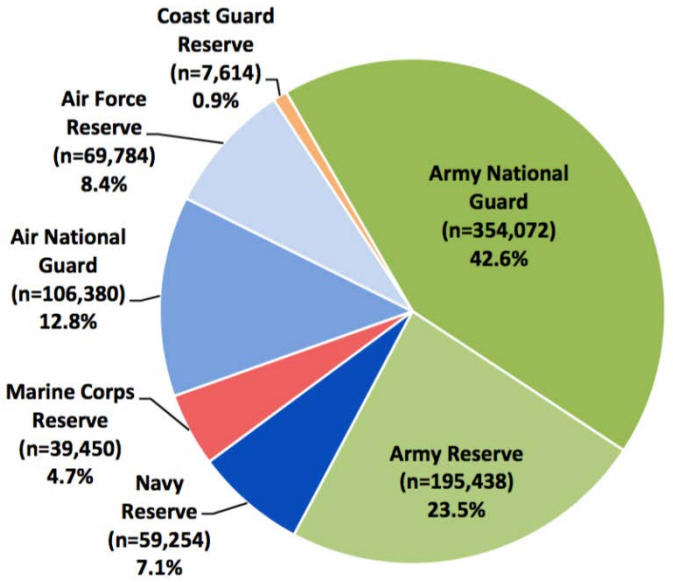
Target Population

All Service members and their families – both AC and RC – will be invited to leverage the key interventions to connect to available resources in their area.

Target sub-populations include:

- AC and RC living 0-30 miles off installation
- AC and RC living 30-50 miles off installation
- AC and RC living 50+ miles off installation

Reserve Component Breakdown[1]



Note: Percentages may not total to 100 due to rounding.
Source: DMDC Reserve Components Common Personnel Data System (September 2014)

Timeframe

The pilot will take place over multiple years to allow sufficient time for meaningful recommendations and measurements. A phased roll-out approach will validate resources. Guidance is available for each site.

1. Military OneSource 2014 Demographics Report.

Total FAC Quick Tracker Contacts

National Guard Family Assistance Centers Quick Tracker visits form a network of approximately 500 points of access across 54 States and Territories.[1]

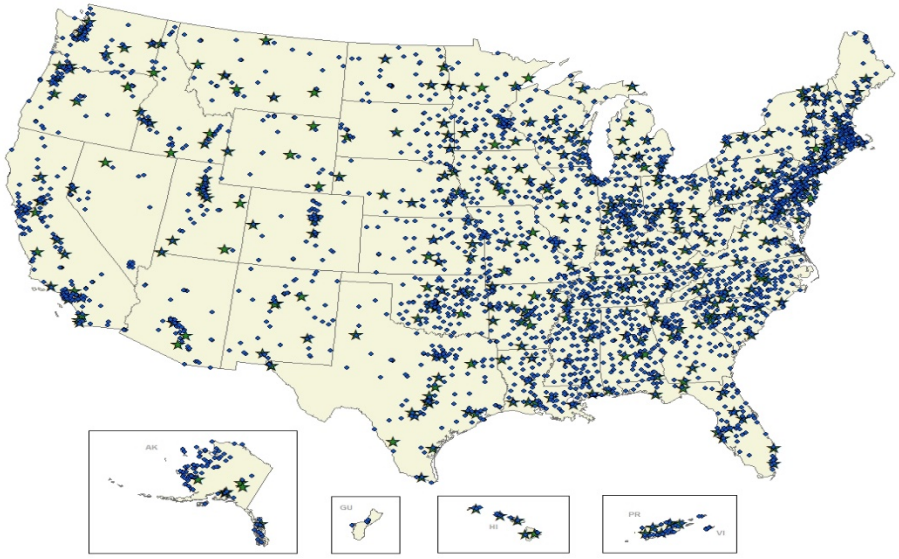
FAC Quick Tracker - Use by Branch				
	FY11	**FY12**	**FY13**	**FY14**
AIR FORCE (Total)	18,524	23,746	29,296	35,815
• Active	2,889	1,734	8,603	15,070
• Reserve	1,984	3,810	1,731	1,187
• National Guard	13,651	18,202	18,962	19,558
ARMY (Total)	2,257,042	2,665,099	2,694,198	3,638,059
• Active	10,546	5,099	24,904	56,626
• Reserve	16,364	19,796	69,209	86,321
• National Guard	2,230,132	2,640,204	2,600,085	3,495,112
COAST GUARD (Total)	771	3,142	3,573	5,635
• Active	736	3,108	2,969	5,274
• Reserve	35	34	604	361
MARINE CORPS (Total)	6,398	13,612	23,994	23,623
• Active	2,758	1,292	14,091	12,221
• Reserve	3,640	12,320	9,903	11,402
NAVY (Total)	12,883	9,994	19,930	32,800
• Active	2,951	2,376	9,043	22,326
• Reserve	9,932	7,618	10,887	10,474
NOAA	286	51	1,388	77
USPHS				21

1. National Guard Bureau. NGB FAC Data Set

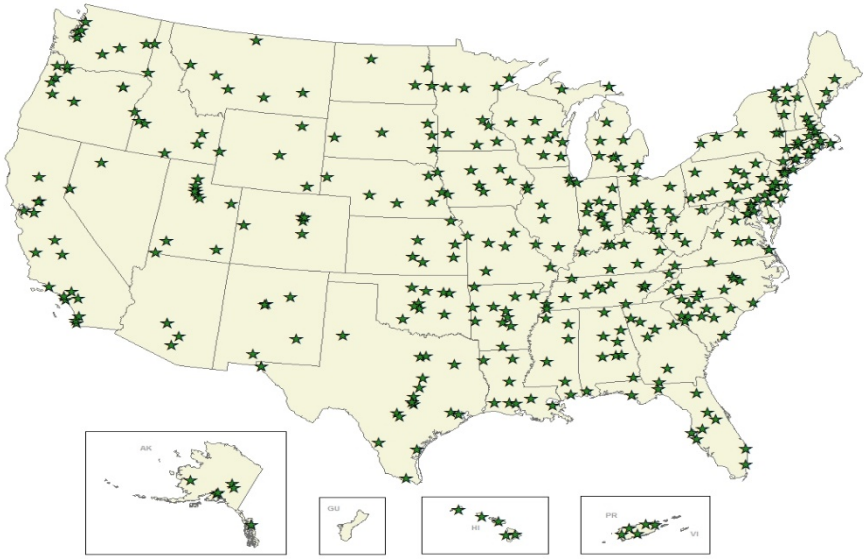
Network of Support

National Guard Assistance Centers form a network of approximately 500 points of access across 54 States and Territories.[1]

NGB Armory, Family Assistance Centers (FAC), and Air National Guard Locations



NGB FACs



Geographic Dispersion Is a Serious Challenge

Expert: "Geographic dispersal is our biggest challenge."
RAND: "Really, even with your hundreds of family centers?"
Expert: "Yes, because it's still a challenge to ensure that the network connects continually. And we may not have the right kind of local experts, like TRICARE experts, at each location."

1. Rand Corporation. 2008

BHMC Pilot State Coordinator Role

To be successful, the BHMC Pilot State Coordinator will identify and address gaps in resources in order to support well-being, readiness, and resilience of Service members and their families.

Key Responsibilities

Assist with conducting a ***Rapid Needs Assessment (RNA)*** in partnership with the BHMC pilot team to assess the current resources available within a state or territory and identify existing gaps

- Coordinate the needs assessments, metrics, and best practices
- Gather/analyze information regarding the issues affecting Service members and their families

Integrate networks by connecting Service members to federal, state, and local resources

- Coordinate with state leadership to develop an outreach strategy model that addresses gaps and integrates capacity building assets

Develop key partnerships to improve coordination on the state and local level

- Support strategic initiatives through the integration of community, state, and federal resources

Recommend program improvements and submit an annual report on State programs

- Implement strategic communication initiatives and projects to increase understanding and access to resources

Inform the strategic plan for the pilot way ahead, including supporting the development and implementation of a strategic communications plan to market programs and initiatives that support Service members and their families

Florida State Coordinator

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Questions

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PRR, Readiness, OUSD(P&R)
Director, Operation Live Well
571-372-3159, Office

BHMC Pilot Inbox
osd.pentagon.ousd-p-r.mbx.bhmc@mail.mil

Sources

1. A National Veterans Strategy: The Economic, Social and Security Imperative. Prepared by: Institute for Veterans and Military Families, Syracuse University and Institute for National Security and Counterterrorism, Syracuse University
2. Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3405.01. “Chairman’s Total Force Fitness Framework.” 01 September 2011
3. 2014 Defense Health Agency Health Related Behaviors Survey of Active Duty and Reserve Component Personnel. November 2016. Prepared by Deloitte
4. Department of Defense Health Related Behaviors Reserve Component Survey. 2010 – 2011. Defense Lifestyle Assessment Program (DLAP). July 2012. Prepared by RTI International
5. Department of Defense Health Related Behaviors Survey of Active Duty Military Personnel, 2011. Feb 2013. Prepared by RTI International
6. Department of Defense Suicide Event Report (DoDSER), 2014 Annual Report. National Center for Telehealth & Technology (T2), Defense Centers for Excellence for Psychological Healthy & Traumatic Brain Injury
7. File, Thom and Camille Ryan. Computer and Internet Use in the United States: 2013, American Community Survey Reports. U.S. Census Bureau. 2014. https://www.census.gov/history/pdf/2013computeruse.pdf
8. Healthy People 2020. Foundation Health Measure Report, Health-Related Quality of Life and Well-Being. November 2010. https:/www.healthypeople.gov/sites/default/files/HRQoLWBFullReport.pdf
9. The Henry J. Kaiser Family Foundation. Population Distribution by Metropolitan Status. 2014. http://www.kff.org/other/state-indicator/metropolitan-distribution/
10. Joining Community Forces (JCF). Our Mission. https://www.jointservicessupport.org/communityforces/

Sources

12. National Guard Bureau. FAC Visits Data Set. 2015
13. Memorandum: Public-Private Partnerships Supporting the DoD Mission. 25 April 2013. http://www.defensecommunities.org/wp-content/uploads/2011/01/OSD004391-13-RES.pdf
14. Military Authority. Military Bases by State. http://www.militaryauthority.com/wiki/military-bases
15. Military One Source. http://www.militaryonesource.mil
16. National Guard Bureau. Data Compiled by LTC Larry Dismore. 18 Dec 2015
17. Military Community & Family Policy. Demographics Profile of the Military Community. 2014. Httm://download.militaryonesource.mil/12038/MOS/Reports/2014-Demographics-Report.pdf
18. Military Medicine. Program Evaluation of Total Force Fitness Programs in the Military. 175, 8:103. (2010). http://publications.amsus.org/doi/pdf/10.7205/MILMED-D-10-00279
19. RAND Corporation. National Defense Research Institute. Deployment Experiences of Guard and Reserve Families: Implications for Support and Retention. 2008
20. RAND Corporation. Improving Medical and Dental Readiness in the Reserve Components. 2012 http://www.rand.org/pubs/research_briefs/RB9670/index1.html
21. Senate Report 114-63 – Department of Defense Appropriations Bill, 2016. 114th Congress (2015-2016) https://www.congress.gov/congressional-report/114/senate-report/63
22. U. S. Census Bureau. Quick Facts. 2014. http://quickfacts.census.gov/qfd/index.html
23. U.S. Census Bureau. State and Local Census Geography. 2010. https://www.census.gov/geo/reference/geoguide.html
24. United States Senate Committee on Armed Services. “Senate Armed Services Committee Completes Markup of National Defense Authorization Act for Fiscal Year 2016.” http://www.armed-services.senate.gov/press-releases/senate-armed-services-committee-completes-markup-of-national-defense-authorization-act-for-fiscal-year-2016

Florida Defense Support Task Force

Update to Florida Defense Alliance
November 15, 2017

TF Member Update

- Senator Doug Broxson – Chair – Senate
- Tom Neubauer – Vice Chair – Senate
- Maj Gen (ret) Richard Haddad – Senate
- Lt Col (ret) Bill Dudley – Senate
- Representative Clay Ingram – House
- Representative Jay Trumbull – House
- Brig Gen (ret) Chip Diehl – House
- CW5 Derrick Fritts – House
- Admiral (ret) Mark Fitzgerald – Governor
- Representative Holly Raschein – Governor
- Commissioner Barbara Stewart – Governor
- Amy Gowder – Governor
- MG Michael Calhoun – Governor's Personal Rep.

Note: Chair rotates on July 1st annually between Senate and House

Task Force Items of Interest

- Oil Drilling / Military Mission Line (MML)
  - Continue to push for extending MML moratorium
  - House NDAA contains $30M for Gulf Range enhancement
  - FL Senate and House Resolutions Filed
- New Military Friendly Guide – Copies Available
- New Economic Impact Study – Numbers out this Month
- SWOT 2017 – Will be using to revise Task Force Strategic Plan in Early 2018
- Cybersecurity Workshop Tomorrow

FY 17 - 18 Task Force Grants

• Tampa Bay Defense Alliance	$135,000
• Gulf Coast State College	$ 30,000
• InDyne – Gulf Range Instrumentation	$235,000
Total	**$400,000**

FY 17 - 18 Task Force Grants

- Seven applications received for FY18-19 cycle worth ~ $3.1 Million (no decisions until May)

- Planning to have about $800K available for next years' Grant Program

Florida Defense Support Task Force

Questions ?

FDVA

FLORIDA DEPARTMENT OF VETERANS' AFFAIRS

Honoring those who served U.S.

Lt. Col. Steve Murray, USAF (Ret)

Florida Defense Alliance Meeting, Orlando

The Sunshine State

- Nation's 3rd largest veteran population
  - 1,533,000 total veterans
  - 1,139,000 wartime veterans
  - 200,000 retirees (all branches)
  - 773,000 veterans over 65
  - 315,000 service-connected disabled veterans
  - 716,000 enrolled in VA Health Care
  - 48,000 enrolled in GI Bill

Did you know?

Florida veterans bring in more than $17.9 Billion in Federal Dollars to Florida's economy.

FDVA

The Sunshine State

- Demographics
  - 66,000 World War II
  - 144,000 Korean War
  - 497,000 Vietnam War
  - 190,000 Gulf War (1991)
  - 173,000 Afghanistan/Iraq
  - Future trends!

Did you know?

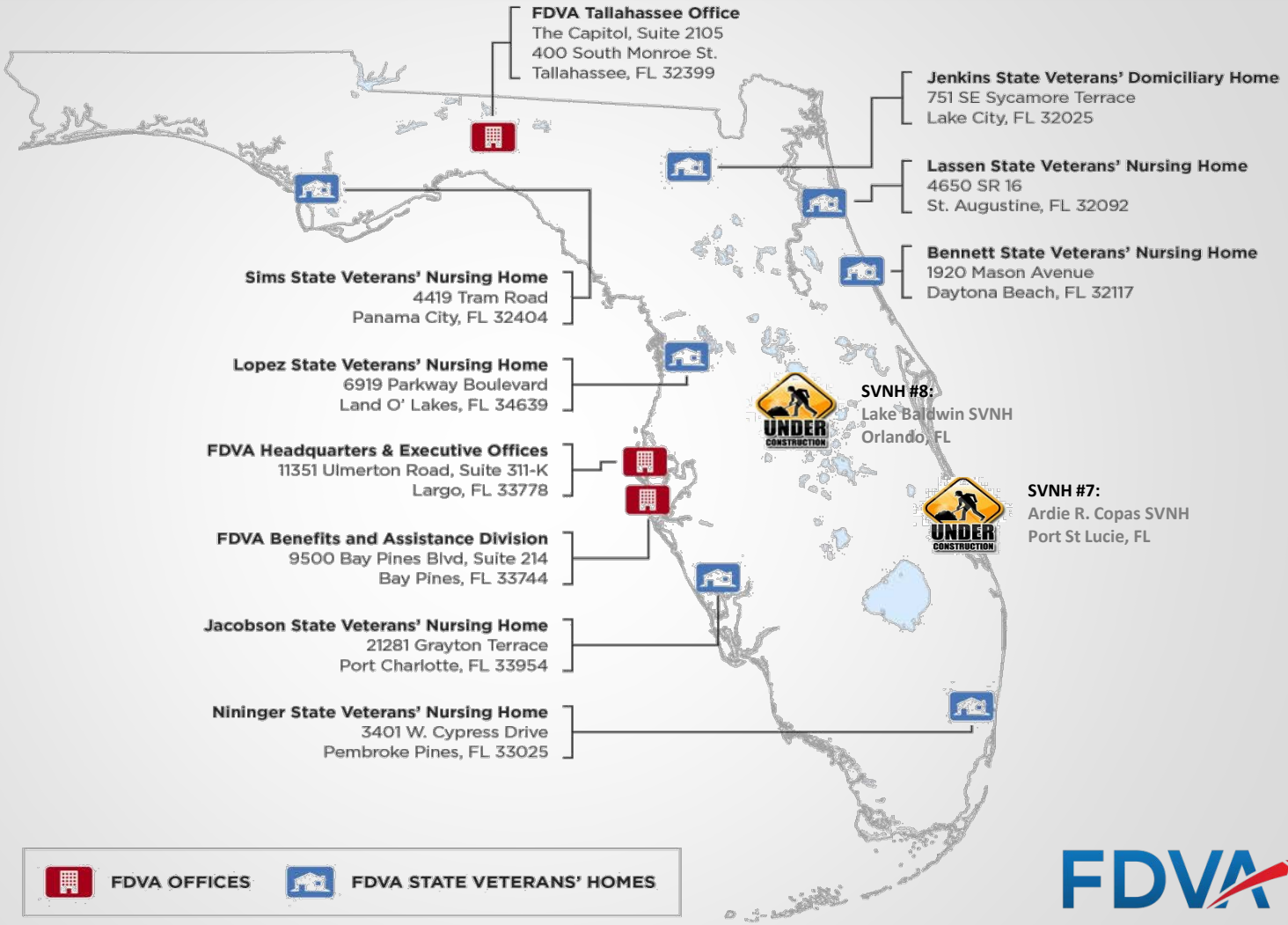
There are approximately 154,000 women veterans in Florida – Nation's fastest growing veteran demographic!

FDVA

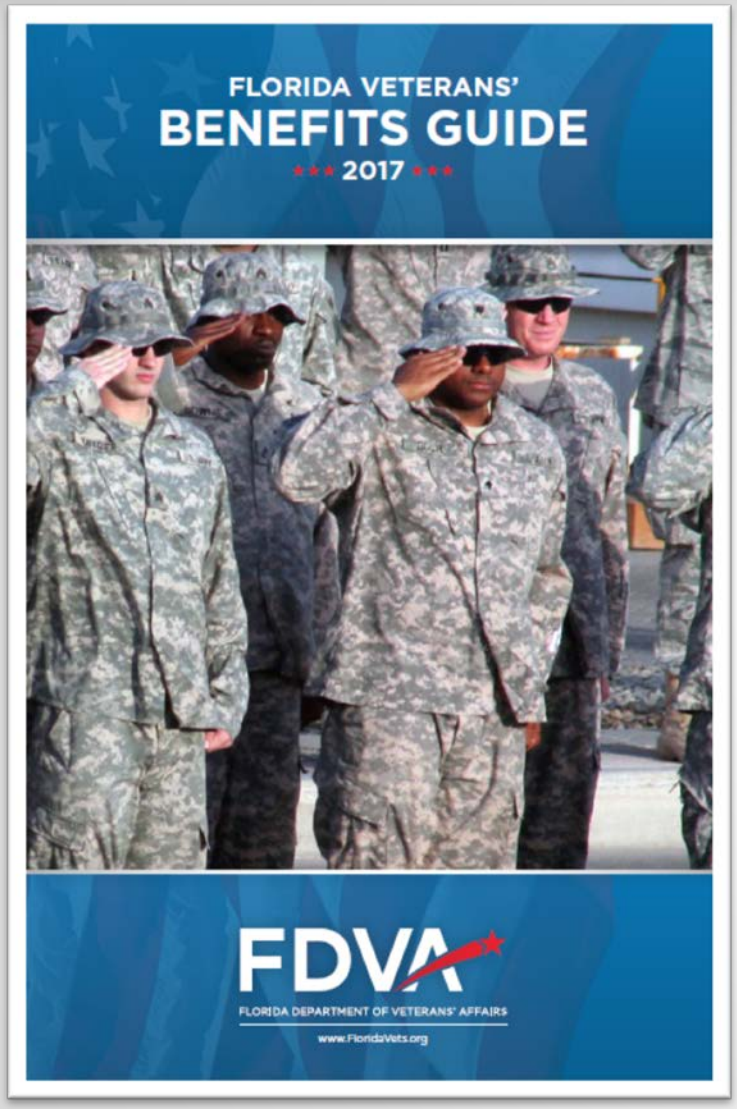
FDVA Key Roles

- State Veterans' Homes Program
- Division of Benefits & Assistance

FDVA Footprint



Florida Veterans' Benefits Guide



- 100,000 copies printed annually, courtesy of the *Florida Veterans Foundation*
- Single copies available through e-mail request on FDVA website
- We ship in bulk from publisher's warehouse at no charge
- Interactive version available online at www.FloridaVets.org

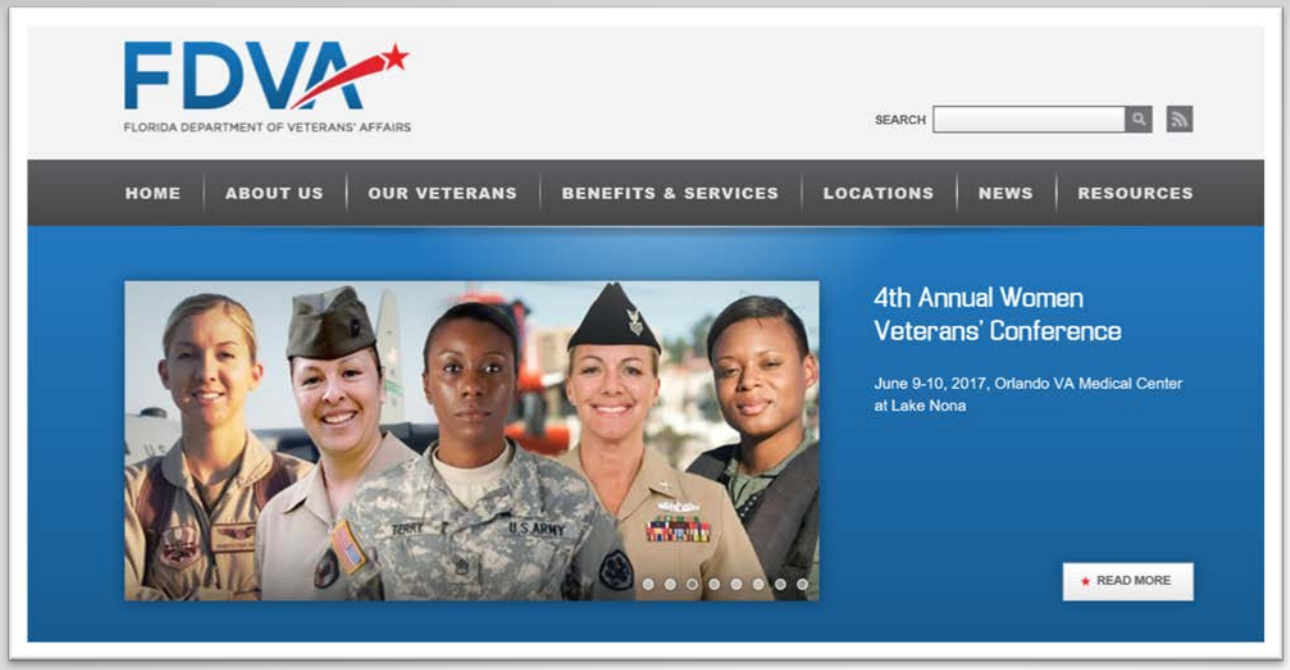
FDVA

Governor's Veterans Service Award

- 12,500 medals presented by Gov. Rick Scott since August 2013
- 2017 - Miramar, Tampa, Tallahassee, Live Oak, Bonita Springs, Brooksville, Panama City, The Villages, Cocoa, Wauchula, Melbourne, West Palm Beach, Crystal River, Eustis

FDVA

Connecting with FDVA



www.FloridaVets.org

FDVA

FDVA

FLORIDA DEPARTMENT OF VETERANS' AFFAIRS

Honoring those who served U.S.

Lt. Col. Steve Murray, USAF (Ret)

Florida Defense Alliance Meeting, Orlando

South Florida Defense Alliance

FIRST THINGS FIRST: UNITING SOUTH FLORIDA

UNITE • CHAMPION • GROW

Why a Defense Alliance

SFDA
SOUTH FLORIDA DEFENSE ALLIANCE

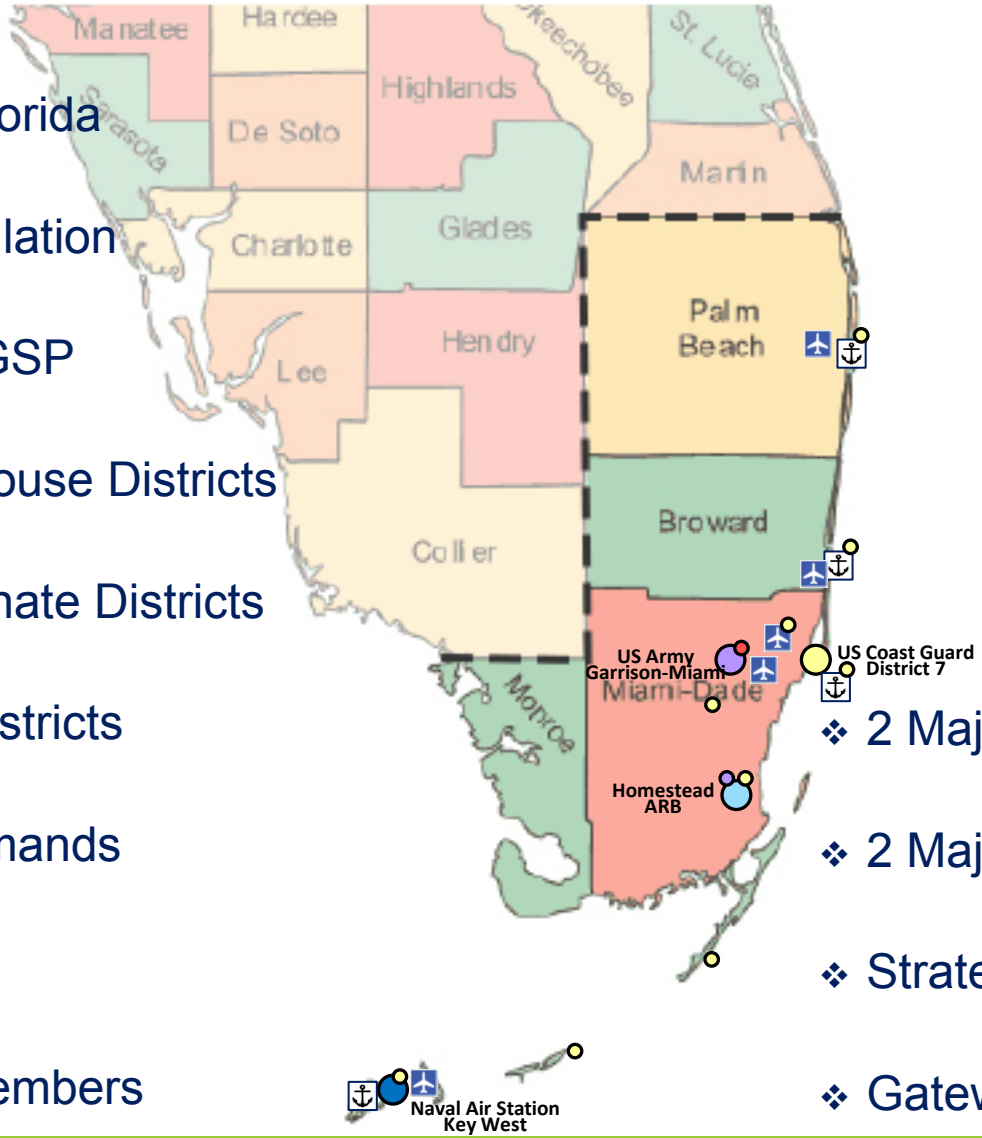
- **Advocate:** 24 Commands and 15 Installations
- **Support:** 56,000 active, reserve, guard service-members, civilians and their families
- **Assist:** Over 230,000 veterans in our 4 counties
- **Grow:** Economic impact of $12.3B and 130K jobs
- **Enhance:** Increased military missions and latest advanced technology and equipment
- **Protect:** Encroachment, realignment or BRAC
- **Champion:** Value of our strategic location, training sites and installations
- **Need:** Strong consistent, single voice to tell our story and change perceptions
- **Essential:** United effort – local, state and federal






Our Strategic Value

- Largest MSA in Florida
- 30% of state population
- 32% of Florida's GSP
- 34 of 120 State House Districts
- 12 of 40 State Senate Districts
- 9 of 27 Federal Districts
- 24+ Military Commands
- 15+ Installations
- 25,000 service-members



- 2 Major Seaports
- 2 Major Airports
- Strategic Defense Location
- Gateway to Americas…

Purpose & Goals

Establish a South Florida Defense Alliance to
Unite, Grow and Champion the South Florida Defense Community

- Create a single unified and consistent voice
- Coalesce community support around our defense community and industries
- Promote, preserve and enhance our local military missions and installations
- Attract, retain, expand defense related industry, academic study and research
- Promote and facilitate compatible community development
- Advocate for our military commands, service-members and their families to enhance their quality of life… making South Florida more “military friendly”

The terms defense and military also include DHS organizations, such as USCG, DEA, ICE, CBP…

Return on Investment

SFDA
SOUTH FLORIDA DEFENSE ALLIANCE

Region's
Focal Point

An Added
Voice

Increased
Political Clout

6.2M
People

Promotion, Protection and Enhancement of Region's Military Assets

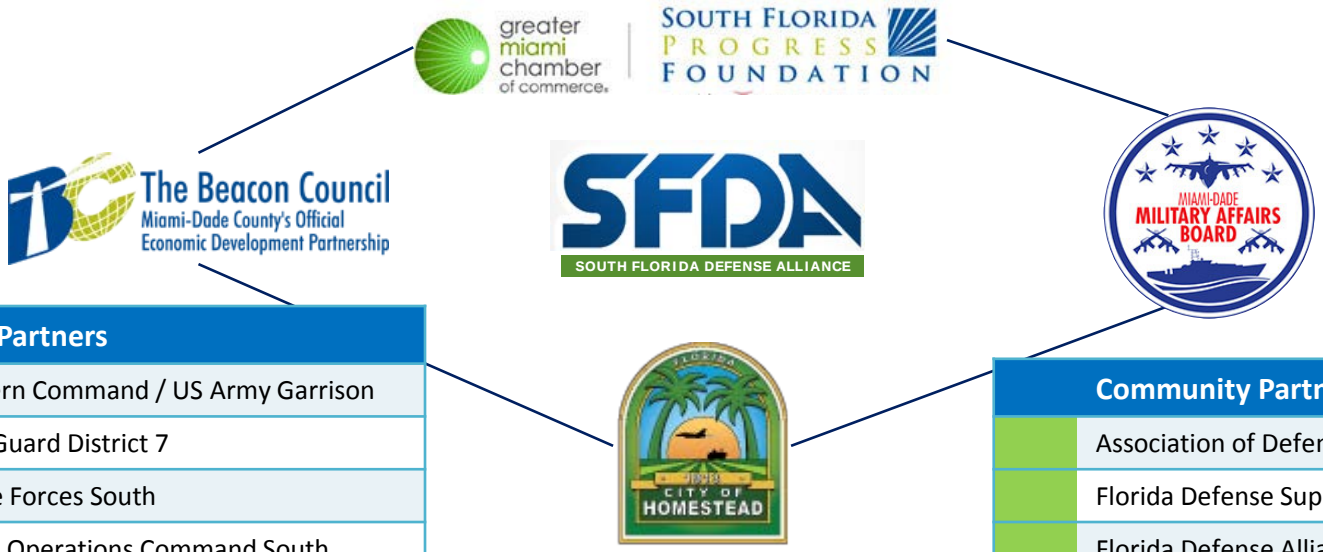
Grow $4.3B Investment
$12.3B Economic Impact
130,000 Jobs

New Missions
for HARB

Increase
Community Support
and QOL

Holding the Line
on Encroachment

Growing the Coalition



Military Partners
US Southern Command / US Army Garrison
US Coast Guard District 7
US Marine Forces South
US Special Operations Command South
482nd Fighter Wing (USAFR)
324th Combat Support Hospital (USAR)
US Coast Guard Air Station - Miami
US Coast Guard Sector - Miami
US Coast Guard Base – Miami Beach
50th Area Support Group (FLNG)
Army Trauma Training Detachment
841st Engineer Battalion (USAR)
478th Civil Affairs Battalion (USAR)
1-124th Infantry (FLNG)

Key Stakeholders:

- DOD & DHS
- Federal Representatives
- State Representatives
- County Officials & Representatives
- City Officials & Representatives
- Private Industry
- Academia
- Civic Groups
- Key Individuals
- Collaborators

Community Partners
Association of Defense Communities
Florida Defense Support Task Force
Florida Defense Alliance
Miami Dade County Military Affairs Board
Greater Miami Chamber of Commerce
Miami Dade Beacon Council
City of Homestead
Homestead Military Affairs Committee
City of Doral
City of Opa-locka
Florida International University
University of Miami
Miami Dade College

We're on it… Critical and Urgent Issues

SFDA
SOUTH FLORIDA DEFENSE ALLIANCE

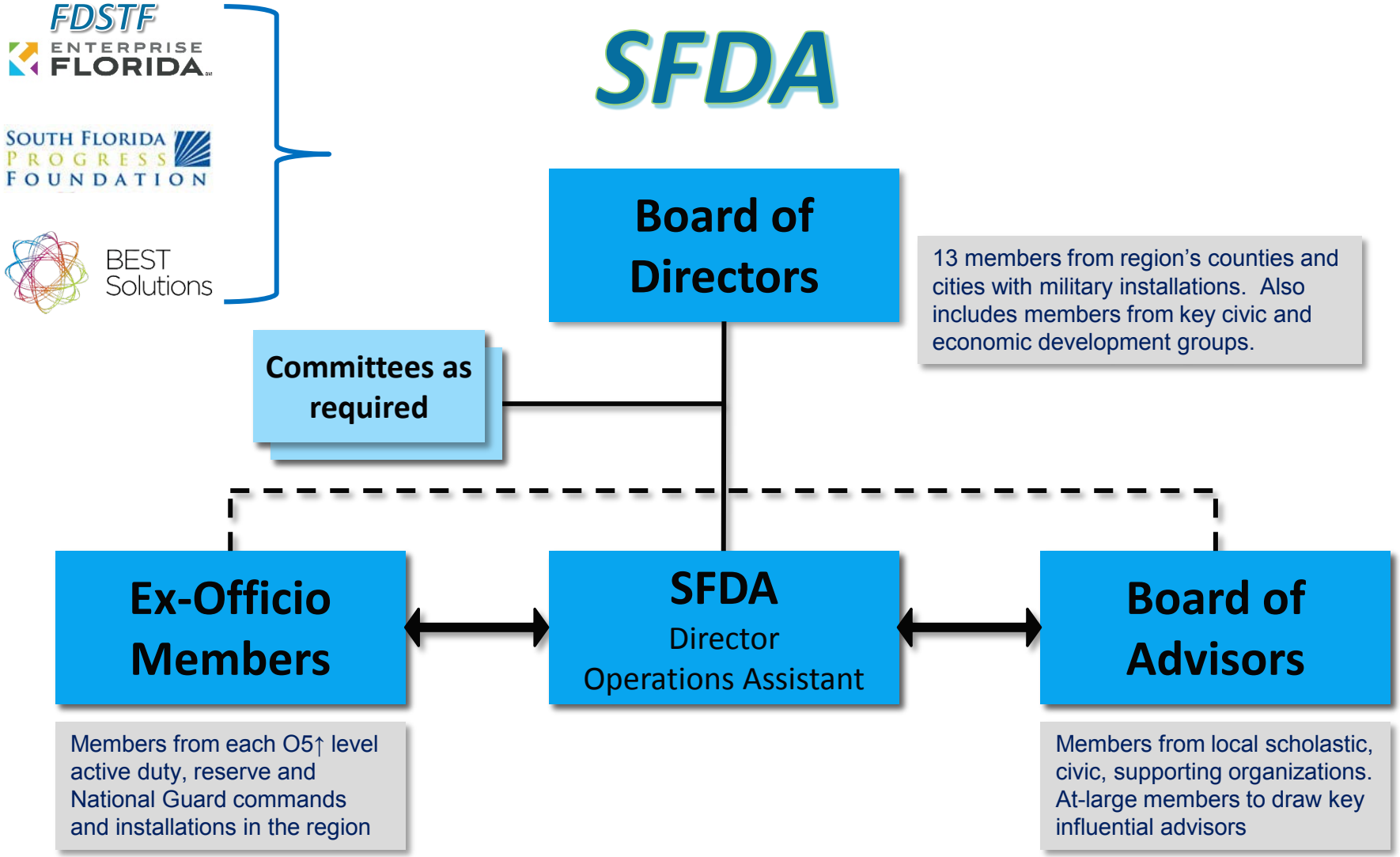
- Promote, preserve and enhance local military missions and installations:
  - ***Increase military missions*** and equipment fielding, such as F-35 Fighters, at Homestead ARB
  - Facilitate SOCSOUTH ***land agreement***
  - Support SOUTHCOM ***permanent housing solutions***

- Attract, retain and expand defense related industry, academic study and research:
  - Work with Beacon Council through Defense Reinvestment Grants to ***grow defense industry***
  - Partner with academia and private industry to ***increase local academic study and research***
  - ***Highlight defense industry*** in GMCC's Economic Summit on January 31, 2018
  - ***Host Association of Defense Communities*** Installation Innovation Conference in March 2019

- Promote and facilitate compatible community development:
  - ✓ Oppose Homestead ***Urban Development Boundary*** change application
  - Address pressing ***encroachment issues*** affecting Homestead ARB

- Address affordability for local commands, service-members and family members:
  - Decrease ***toll expense*** for service-members during work commutes and mission execution
  - Decrease ***upfront rent payment*** for arriving service-members and families

Organizational Structure



Consulting Team

Steven C. Williamson, COL, USA (Ret), Managing Principal, BEST Solutions Consulting Group
Lead Consultant – Steve possesses over 25 years as a senior Army Engineer and subsequent years in the private sector enhancing community-military collaboration. Through broad expertise and experience, he has led community-driven, cooperative strategic plans creating valued and lasting solutions resulting in an effective balance between military readiness, defense capabilities and continued local economic growth.

Rob Polumbo, Maj Gen, USAF (Ret), Executive Consultant
Rob served over 32 years in the Air Force culminating as the Special Assistant to the Commander, Air Force Reserve Command. As an F-16 fighter pilot and First Officer with a major airline, Rob has extensive senior executive experience with Department of Defense and business sector enterprises. He has led and advised organizations to train, organize and equip multi-national and joint-service teams with global objectives. He has extensive knowledge in veteran affairs and the development of strong community-military relationships.

Pamela Berkowsky, Defense Consultant
Pamela is an accomplished senior management executive and Fulbright Scholar who has served in both federal and state governments. Her Pentagon tenure includes service as Assistant Chief of Staff to the Secretary of Defense, Special Assistant to the Under Secretary of the Navy, and Special Assistant to the Under Secretary for Acquisition. She coordinated DOD's WMD preparedness programs and served as its liaison to the National Security Council. She served as Chief of Staff to the Governor of the U.S. Virgin Islands, managing the territory's federal and international affairs and leading initiatives in healthcare, education reform and economic development.

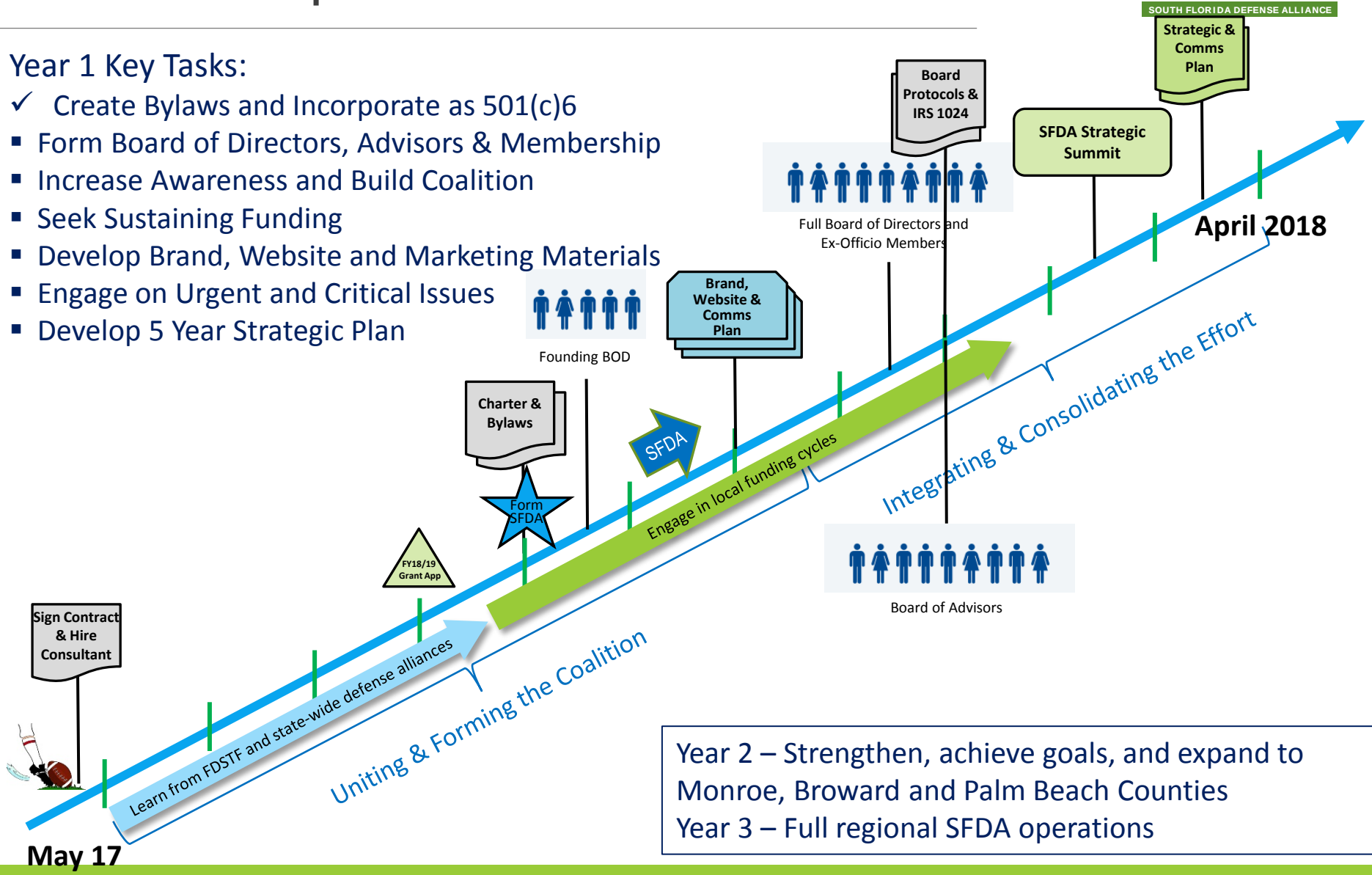
Dennis Daley, Col, USAF (Ret), Operational Consultant
Dennis served 24 years flying the F-4 and F-16 fighter aircrafts with 6 years as the 482nd Fighter Wing Mission Support Group Commander at Homestead Air Reserve Base. He exercised direct command over the installation and facilities, the airfield, 1,400 personnel in 19 organizations, and managed an annual budget exceeding $47 million. Dennis has extensive base-level BRAC experience as well as a firm grasp of the military-public-private role for military, state and congressional programs.

Jack Miller, Lt Col, USAF (Ret), Outreach Consultant
Jack is a Professor of Public Relations at the University of Miami and an Alumni Manager for Wounded Warrior Project for South Florida. He has served as Senior Counsel of Government & Military affairs for rbb Communications and as a public relations officer in the United States Air Force from 1992 to 2014. Within his 26 years of experience he worked for the Secretary of Defense and collaborated with Congress, the White House and the State Department on national defense issues. He has also worked government issues at the state and local levels.

Development Timeline

Year 1 Key Tasks:

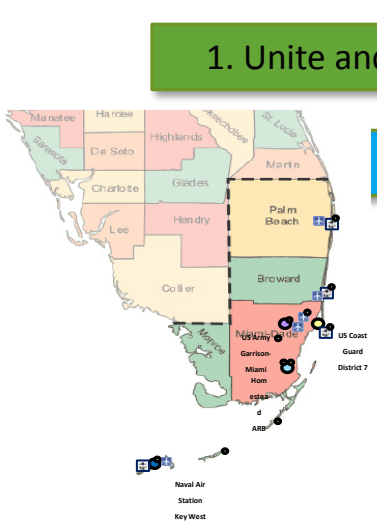
- ✓ Create Bylaws and Incorporate as 501(c)6
- Form Board of Directors, Advisors & Membership
- Increase Awareness and Build Coalition
- Seek Sustaining Funding
- Develop Brand, Website and Marketing Materials
- Engage on Urgent and Critical Issues
- Develop 5 Year Strategic Plan



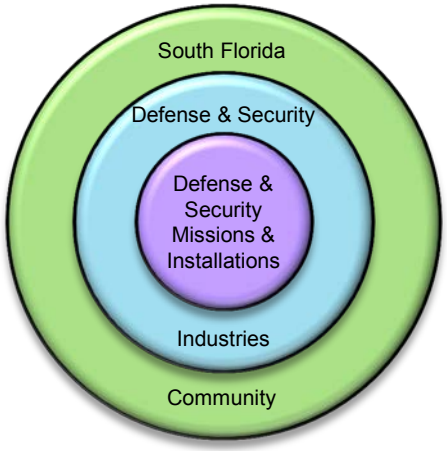
Year 2 – Strengthen, achieve goals, and expand to Monroe, Broward and Palm Beach Counties
Year 3 – Full regional SFDA operations

Where We Are Now

- Formed as a ***non-profit 501(c)6*** to promote and advance the common interests of our industry and geographic members. Enables ability to advocate positions.
- Established bylaws and ***founding Board of Directors.*** Developing board growth strategy.
- Submitted FY18/19 ***FDSTF grant application*** to strengthen and expand operations
- Creating ***brand, marketing materials & website*** with consultant
- Meeting with ***key leaders*** to coalesce local efforts, collaborators and resources
- Developing state-wide ***relationships***
- ***Fundraising*** and creating memberships to sustain continued operations
- Addressing ***critical and urgent issues***



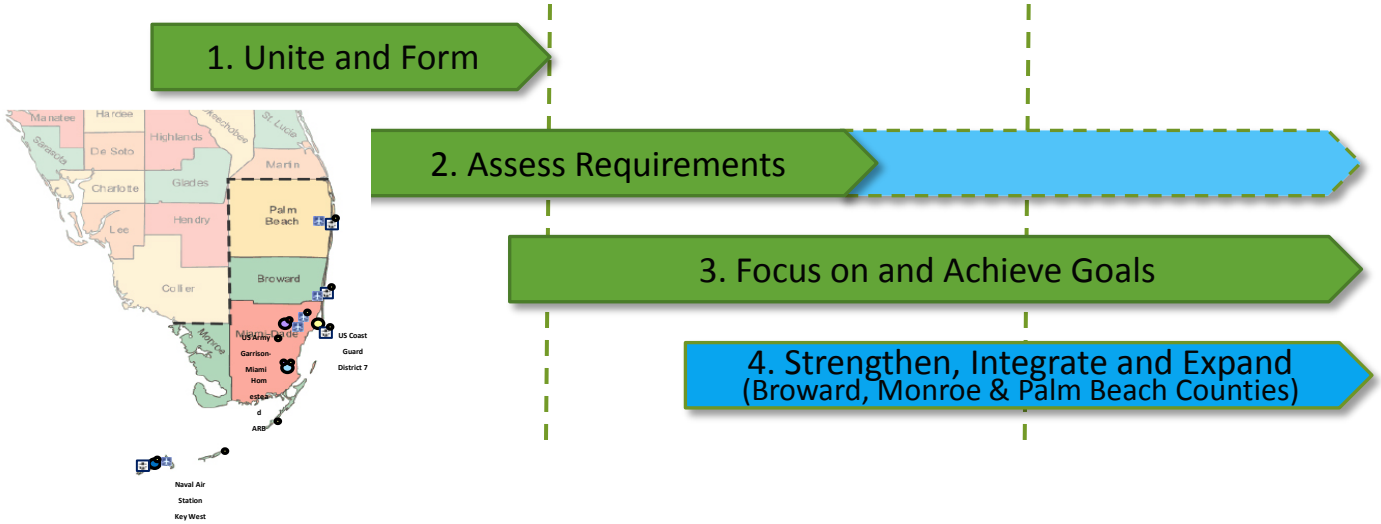
1. Unite and Form
2. Assess Requirements
3. Focus on and Achieve Goals
4. Strengthen, Integrate and Expand
(Broward, Monroe & Palm Beach Counties)

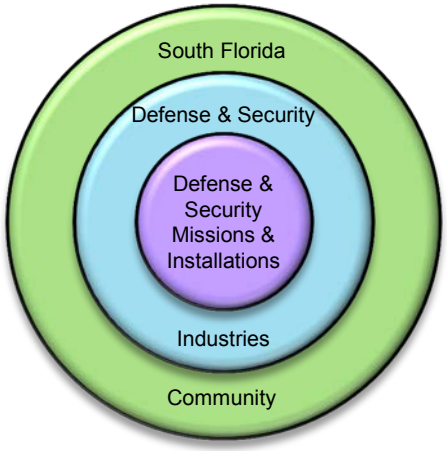


Year 1 End State

Entering into Year 2 (April 18, 2018), the South Florida Defense Alliance will be:

- Incorporated with Bylaws and Members
- Led by a community-based Board of Directors and Advisory Board
- Following a 5 Year Strategic & Communications Plan
- 20% self-sustaining with local sources of funds
- Positioned to ***grow*** our coalition; ***strengthen*** our efforts and message; ***champion*** our regional defense forces, missions and installations; and ***expand*** the industries that support them





Encroachment to Military Installations

Increasing Encroachment Challenges:

There are a growing number of encroachment challenges to military installations in Florida. In some cases, local officials are unaware of the extent of these challenges and how they can negatively impact the ability of the military installation to accomplish training, test, evaluations, development, and operational missions that prepare military units for combat. These encroachment challenges include, but are not limited to:

1. **Sea and Air Space and Land Restrictions**
2. **Airborne Noise**
3. **Urban Growth**
4. **Frequency Spectrum Encroachment** – Competition for finite electromagnetic environment (EME) spectrum resources. This includes the radio frequency spectrum.
5. **Endangered Species/Critical Habitat** - Presence of threatened and endangered species and critical habitats on or within training areas and ranges
6. **Energy Compatibility and Availability** - Onshore and offshore energy development of oil, gas, and renewable as well as associated pipelines and electrical transmission lines
7. **Air Quality**
8. **Water**
9. **Cultural Resources**
10. **Unexploded ordinance and Munitions** – Infringement on explosive safety arcs and footprints (e.g., surface danger zones, weapon danger zones, and electromagnetic and radio frequency radiation).
11. **Marine Resources**
12. **Physical Security**
13. **Proliferation of UAVs, UAS's and drones**
14. **Natural Factors, Weather and Climate**
15. **Light**
16. **Foreign interests, mergers and acquisitions, and development in and around military assets and resources.**

How Encroachment Impacts the Military Mission:

Encroachment may lead to a diminished capability and capacity for US Armed Forces to train for combat.

- **Reduces usage days**
- **Prohibits certain operational, training and testing events**
- **Reduces range access**
- **Segments training and reduces realism**
- **Limits new technologies**
- **Restricts flight altitudes**
- **Inhibits new tactics development**
- **Reduces live fire proficiency**
- **Complicates night and all weather operations and training**
- **Increases personnel tempo**
- **Increases costs or risks**

FLORIDA DEFENSE ALLIANCE

For More Information:

Kellie Jo Kilberg, CCE, IOM • Chairman, Florida Defense Alliance • KJKilberg@hotmail.com

Florida's Military Installations, Missions, and Key Organizations