# Spectrum Frequencies

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# Topics of Discussion

A STATUS AND A STATUS

- Florida Defense Alliance/Legislative Affairs
- What is frequency spectrum
- Who/what uses the freq spec
- What is 5G and why do people want it
- How crowded is the freq spec in Florida
- Who controls the freq spec assignments
- Why is the govt selling off parts of the spec and what parts are being sold
- Who are the buyers
- Is there a potential impact on military operations with the selling of the freq spec (positive and negative)



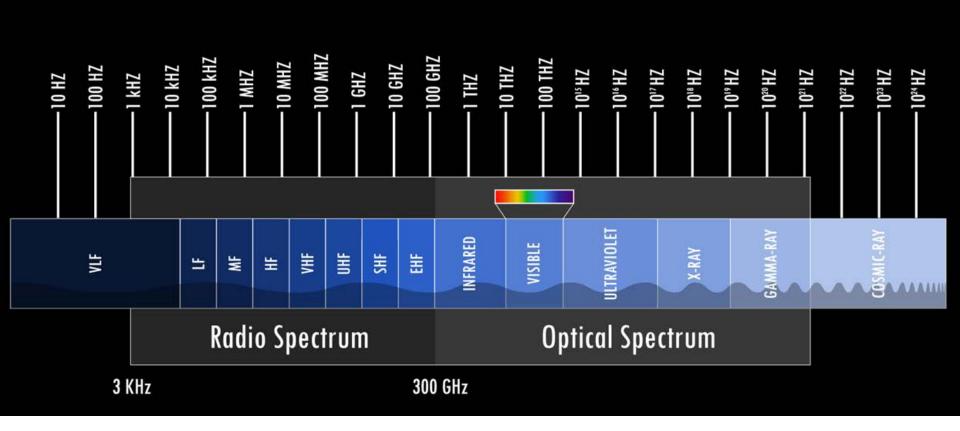
# What is frequency spectrum



- The radio spectrum is the part of the electromagnetic spectrum with frequencies from 30 Hertz to 300 GHz
- Electromagnetic waves in this frequency range, called radio waves, are extremely widely used in modern technology, particularly in telecommunication.
- The basic building block of radio communications is a radio wave
  - Like waves on a pond, a radio wave is a series of repeating peaks and valleys. The entire pattern of a wave, before it repeats itself, is called a cycle.
  - The wavelength is the distance a wave takes to complete one cycle. The number of cycles, or times that a wave repeats in a second, is called frequency
  - Frequency is measured in the unit hertz (Hz), referring to a number of cycles per second. One thousand hertz is referred to as a kilohertz (KHz), 1 million hertz as a megahertz (MHz), and 1 billion hertz as a gigahertz (GHz). The range of the radio spectrum is considered to be 3 kilohertz up to 300 gigahertz.



# What is Frequency Spectrum







# Who/what uses the Frequency Spectrum



- Who Uses spectrum:
  - Everyone of us every day of our life
  - RF Spectrum is a defined natural resource that is not seen-it is invisible
  - It is controlled in the US by the authority of the President to the Dept. of Commerce
- What uses RF Spectrum
  - Military Mission
  - Civilian daily life
  - Household items
  - Automobiles
  - Personal Items
  - Industrial Applications
  - Medical
  - Transportation
  - And the list goes on



### What is 5G and Why do People Want It

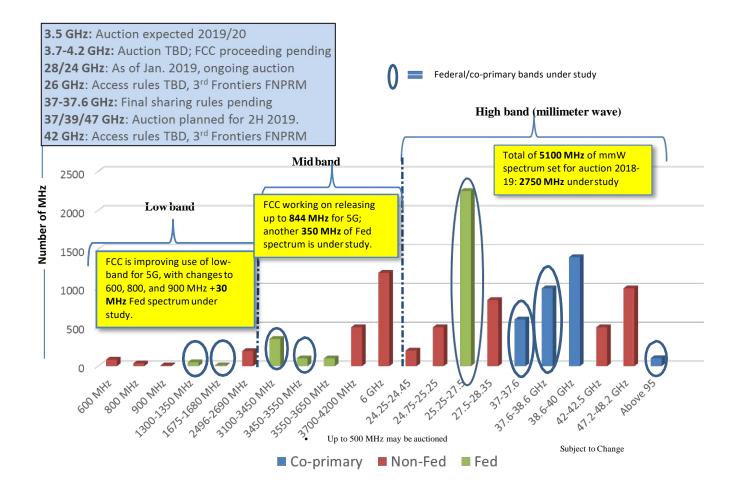


- 5G > Fifth Generation global telecommunications standards
  - 1G > Cell phone talk only
  - 2G > Provided text messages
  - 3G > Transported on Line
  - 4G > Video downloads (20 Mbps)
  - 5G > Wideband high resolution video (2 Gbps)
  - Driven by Gamers who desire immediate online interaction
- 5G Benefits
  - High Resolution Video
  - No buffering of streaming
  - Devices can talk to each other
  - Uses a network application to improve data rate/flow
  - Connect everyone with everything all the time
  - Mainly used in metro areas with high population density
- 5G Notes
  - Not yet available
  - Once deployed, will cause high battery drain



## All Spectrum Bands in US Pipeline for 5G Today





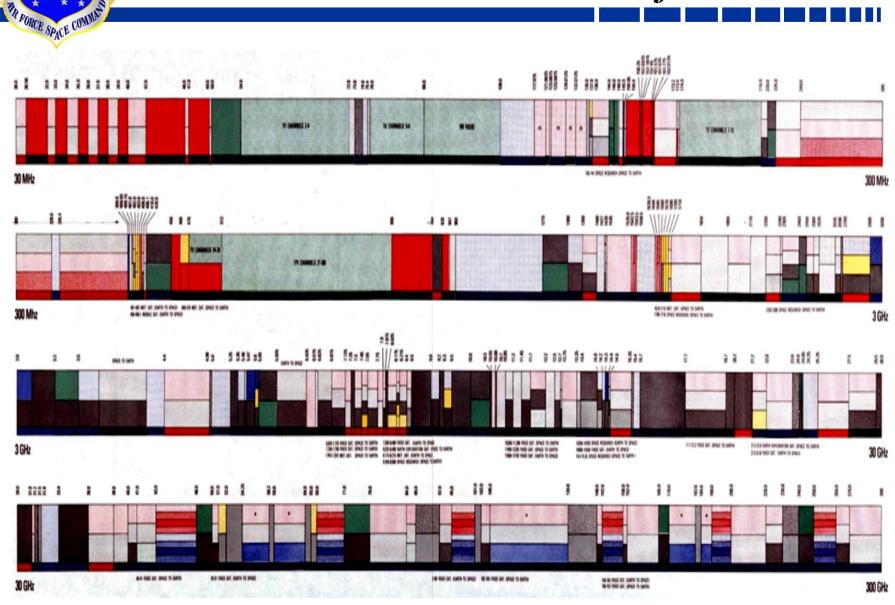


How crowded is the Frequency Spectrum in Florida



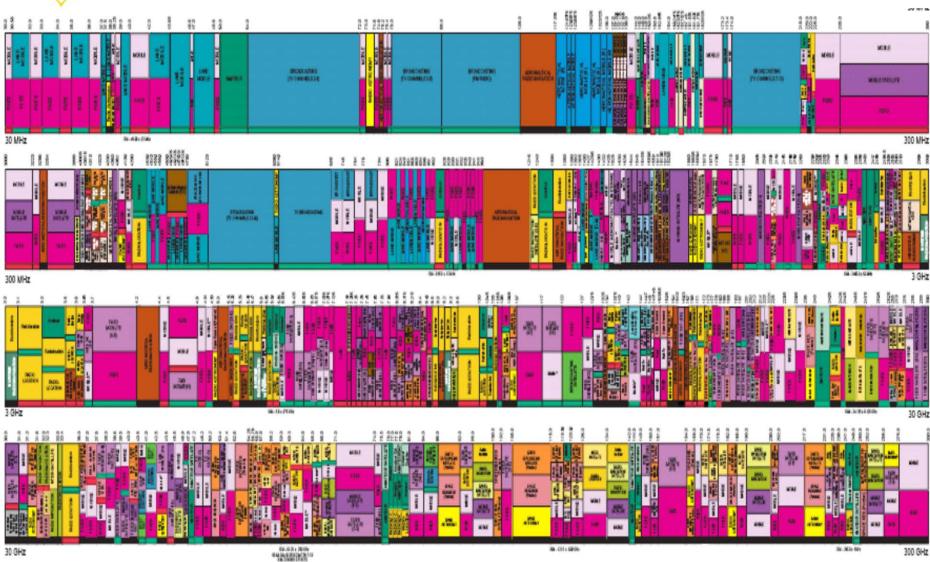
- Within Florida the RF spectrum is heavily used
  - Federal assignments exceed 30,000 assignments
  - Civil use is unknown due to the extreme number of unlicensed devices used within the state
  - Most residents or visitors in Florida will use 10-12 different RF devices in a single day

## **1975 US Table of Allocations**





# **2008 US Table of Allocations**



DOD CIO UNCLASSIFIED



## **U.S. Table of Frequency Allocations**



### UNITED STATES FREQUENCY ALLOCATIONS THE RADIO SPECTRUM





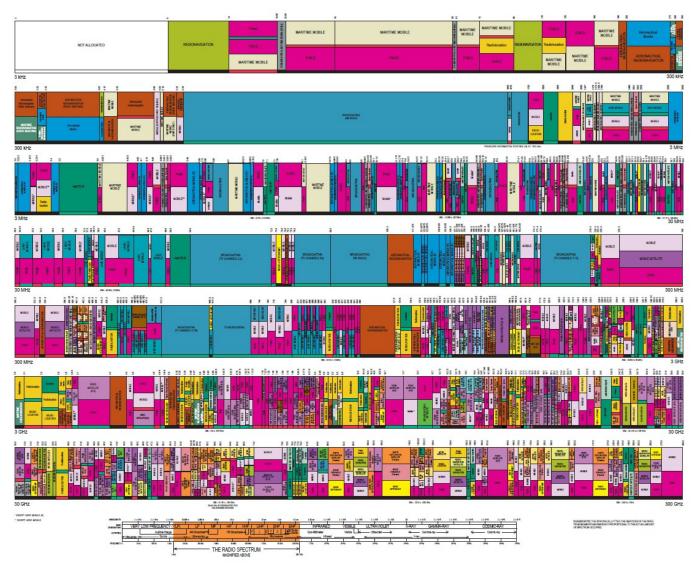
 SERVICE
 DESCRIPTION

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 Secondary
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U.3. DEPARTMENT OF COMMERCE National Telecommunications and Informati Office of Spectrum Management October 2003



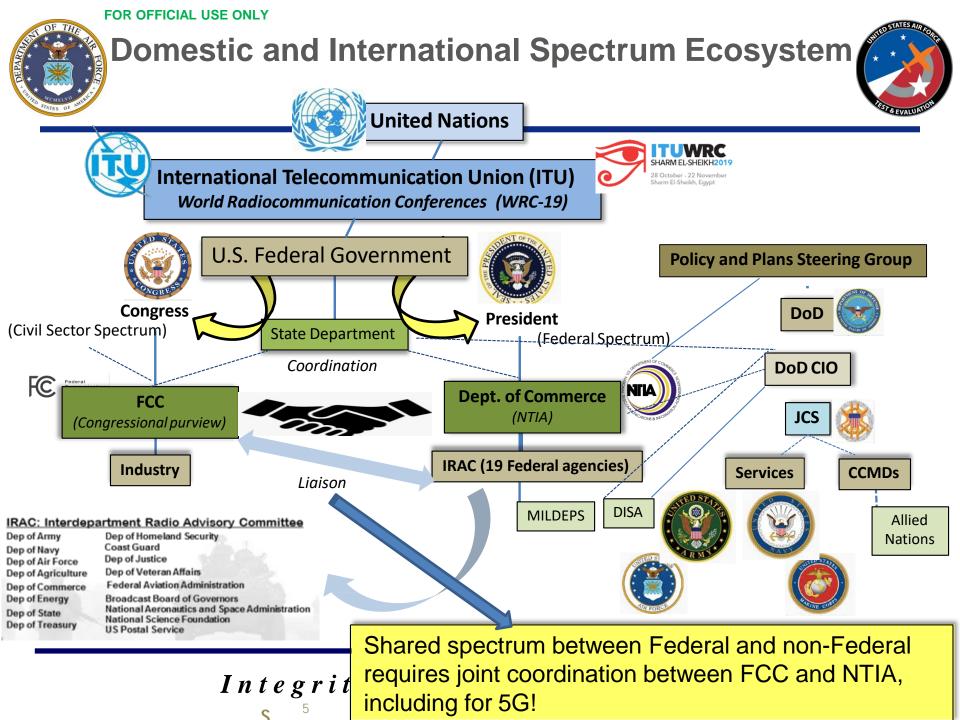
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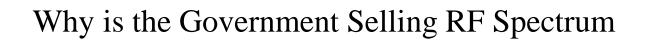
Who Controls Frequency Spectrum in the US



- Authority: The Communications Act of 1934 as amended
  - Identifies the authority of Spectrum Management is vested to the President
  - Identifies the Dept. Commerce as the responsible authority to the President for Spectrum Management regulatory matters
  - Identifies two agencies within the Department to manage the spectrum
    - Federal Communication Commission for Civil matters
      - Two classes of licenses: Licensed and unlicensed
    - National Telecommunications Informational Agency for Federal Agency matters









- Selloff history
  - First selloff was in 1994-
  - Second selloff was in 2004
  - Third selloff was in 2008
  - Fourth sell off was in 2015
  - Fifth selloff-ongoing
  - Next selloff-2022
- Why
  - RF Spectrum is worth \$B--It is a Cash cow for the Federal Government
  - Spectrum is often referred to as the lifeblood of the wireless industry because it is
  - Commercial demands as a result of user desires
  - Spectrum can be obtained only through a government auction or by acquiring through a company with spectrum holdings



Who are the Buyers of the RF Spectrum







### Impact to Military Operation by Selloff

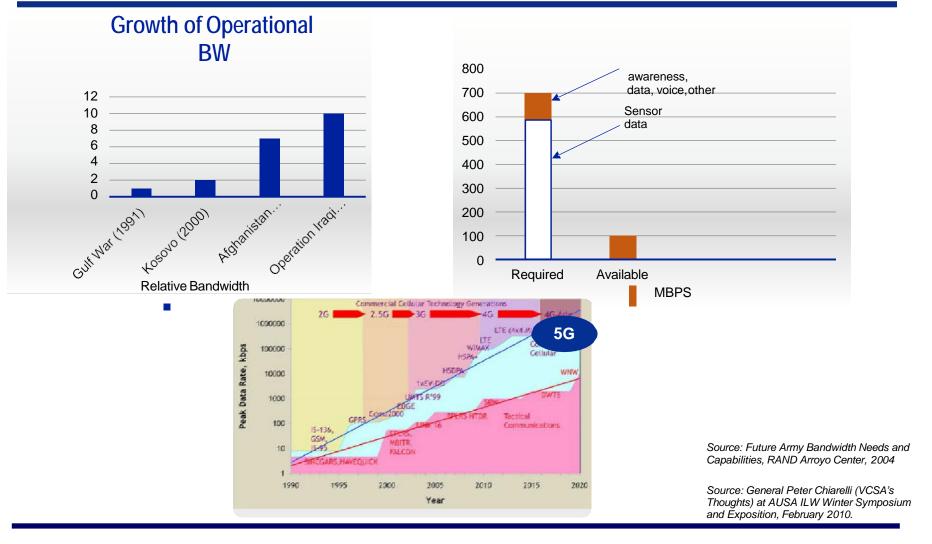


- The Good
  - Requires new designs of state-of-the-art equipment to be designed and manufactured
  - Causes constant analysis of sharing challenges
- The Bad
  - Reduced number of missions that can co-exist
  - Limits the data that can be provided per each mission—causes more missions to be run to collect all the required data
  - Caused operational military equipment to be obsolete prior to its anticipated date
- The Ugly
  - Pushing physics past its know points

### Bandwidth Demand Exceeds Supply

#### **Demand Exceeds Supply**

Situational





#### Federal or shared bands (140 MHz total) <u>340.5 MHz</u> already made available: o 40 MHz from 1695-1710/1755-1780 MHz 245 megahertz made available (prior to 2016) o 100 MHz from 3.5 GHz (3550-3650 MHz) 11.5 megahertz from 2483.5-2495 MHz (Dec 2016) Non-federal bands (105 MHz total) 84 megahertz from incentive auction (Mar 2017) o 30 MHz from 2305-2320, 2345-2360 MHz o 10 MHz from 1915-1920, 1995-2000 MHz <u>Additional 2619.5 MHz under consideration:\*</u> o 40 MHz from 2000-2020, 2180-2200 MHz o 25 MHz from 2155-2180 MHz 896-901/935-940 MHz -1680-1695 MHz 1300-1350 MHz 2020-2025 MHz Federal or shared bands (1065 MHz total) 1350-1390 MHz 2700-2900 MHz 20 MHz from 1675-1680/1680-1695 MHz 0 Up to 75 MHz from 5850-5925 MHz 0 2496-2690 MHz 2900-3100 MHz 30 MHz from MSS L-band 0 3700-4200 MHz 3100-3550 MHz 90 MHz from 1300-1350, 1350-1390 MHz 0 850 MHz from 2700-2900, 2900-3100, 3100-0 MSS L-band\*\* 5850-5925 MHz 3550 MHz 1675-1680 MHz 5925-7125 MHz **Non-Federal bands** (1254 to 1554 MHz total) 10 MHz from 896-901/935-940 MHz 0 194 MHz from 2496-2690 MHz 0 200-500 MHz from 3.7-4.2 GHz 0 850 MHz (unlicensed) from 5925-7125 MHz 0 \*Sources: NTIA PPSG deck, FCC 5G FAST Plan \*\*L-band: 1526-1536, 1627.5-1637.5, 1646.5-1656.5 MHz

### **DoD Has Given at the altar!!!**

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# QUESTIONS????



# Tyndall Update Florida Defense Alliance 5-15-2019

www.baydefense.org



Bay Defense Alliance



- 1. Tyndall AFB Why USAF will Rebuild
- 2. Emergency Supplemental Status

2.8B Milcon + 1.2B FSRM

- 3. Current Missions & Status
- 4. Future Missions and Growth
- 5. Planning Process and Build Plan



# **Emergency Supplemental Status**

- 1. <u>H.R. 268</u> was successfully placed on the calendar and approved by the house on January 22, 2019.
- The bill, with amendments offered by Senate Minority Leader <u>Chuck Schumer</u> and Sen. <u>Patrick</u> <u>Leahy</u> (D-Vt.), included aid for Midwestern states damaged by flooding this year.
- 3. On April 1, 2019, a motion to invoke closure requiring a 3/5 majority failed with a 46-48 vote at 6:14PM.
- 4. <u>H.R. 2157</u> (\$17B) Supplemental Appropriations Act, 2019 – 10 amendments heard – passed
- 5. Sr. Staffers and Key players suggest there will be a supplemental passed by Memorial Day.
- 6. May 1 2019 SECAF imposed new work stop

Bay Defense Alliance

# Tyndall AFB – 2018



# Why USAF will rebuild Tyndall

# **Military Value**

- ✓ Gulf Test & Training Range Direct Access
- ✓ <u>5<sup>th</sup> Generation Fighter Aircraft Culture</u> and access to supersonic airspace corridors
- ✓ <u>Unmanned systems</u> and weapons evaluation culture; decades of experience
- ✓ <u>Unique facilities</u> to support AFCEC east
- ✓ <u>AFNORTH / CONR</u> headquarters and Air and Space Operations Center



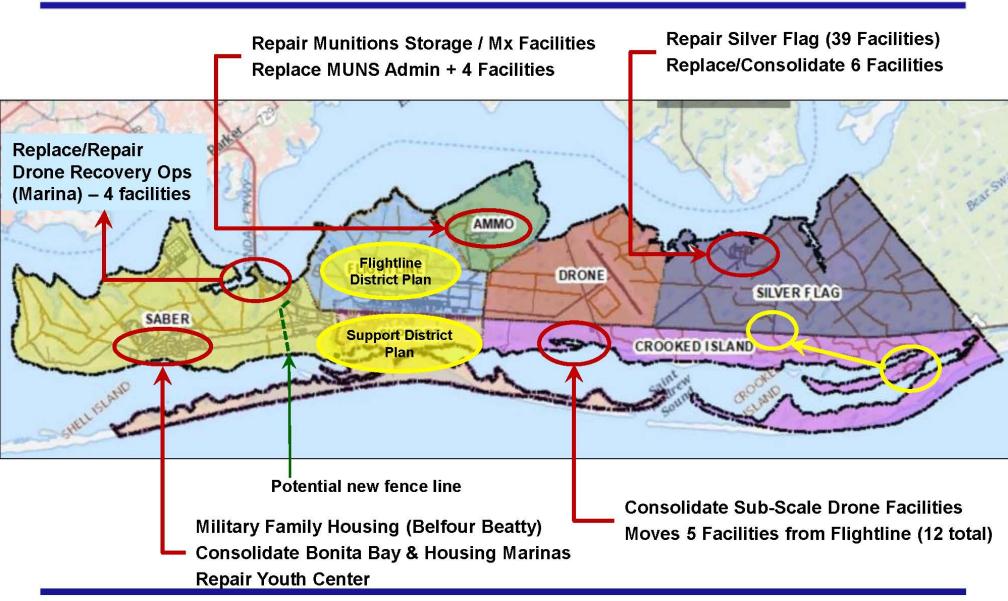
# Tyndall AFB – Today



# Tyndall AFB of Tomorrow









## Installation Development Plan Flightline District







# Installation Development Plan Support District







## Installation Development Plan Crooked Island District: AFCEC RDT&E Facility







- Consolidates 20 Facilities
   into 4 Facilities
- A Consolidated Lab Facility
- B Ballistics Lab
- C Vehicle Maintenance Facility
- D Robotics / UAS Range
- E Material Testing Runway
- F Energy Tent City
- G EOD Robotics Maintenance
- H Vehicle / Equipment Open Storage



# **Installation Development Plan**



### Installation of the Future

- Designed to meet today's rebuild requirements while allowing for evolving missions in the near future; flexibility for additional growth over time
- Cost effective / cost efficient
  - Minimize the Total Cost of Ownership

### Right-sized, consolidated facilities

- Replace obsolete and inefficient facilities
- Reducing operating & management costs

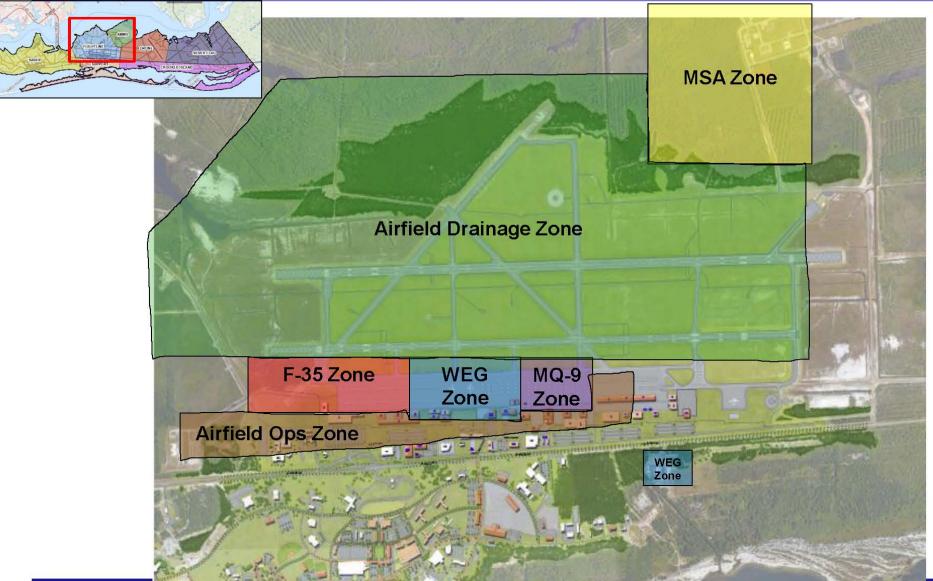
### Improved land use

- Save the flightline for the flying missions (CE & Logistics)
- Consolidate spread out functions (dorms & lodging)
- Campus organizations Mission & Support
  - Encourage walking & 'one-stop shop'
  - Reduce reliance on the auto
- Connected campus encourage bicycle & other alternative means of transportation
- Maximized use of smart & resilient buildings



# Flightline District Construction Zones







# **Acquisition Strategy Overview**



## Requirement: Massive program...award & execute quickly

- Aggregate 200+ Pre-Hurricane facilities into 44 projects (1391s) for Installation of the Future
- Need date: first F-35 arrival (planning) September 2023

## <u>Complexity</u>:

- Uncertain pace of Appropriation
- Near-simultaneous construction on much of the base
  - Swing space, road cuts, laydown areas, base access, contractor site de-confliction, local workforce, sequencing...
- Airfield will be open & operational throughout construction period

## Solution:

- Package most construction into significant 'zones'
- Program Manager / Design Integrator



# **Flightline District**

### **WEG Zone Construction Projects**

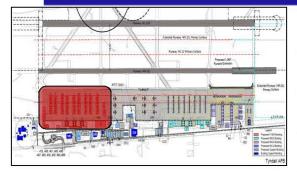


WEG Zone MILCON Total = \$ Medium		
FY	Project	
20	WEG Hangar	
20	WEG Headquarters	
20	53 WEG - Consolidate Subscale Drone Facilities	
WEG Zone FSRM Total = \$12,000,000		
19/20	Repair WEG Flightline Facilities	
19/20	Repair WEG Dock	
19/20	Repair WEG Support Facilities	
19/20	Construct WEG Boat Maintenance	
19/20	Renovate WEG Headquarters	
19/20	Renovate WEG Drone Maintenance	
19/20	Construct WEG Drone Boat Maintenance	



# **Flightline District** F-35 Zone Construction Projects





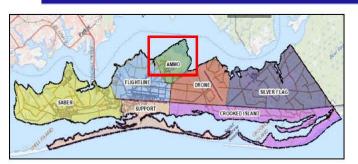
F-35A 🔄	
Lightning	
Length	51.4 ft
Height	14.4 ft
Wingspan	35 ft
Weight (empty)	29,300 lbs
Weight (max)	70,000 lbs

F-35 Zone MILCON Total = \$ Big		
FY	Project	
20	Aircraft Parking Apron	
20	F-35 Operations Aircraft Maintenance Hangar 1	
20	F-35 Operations Aircraft Maintenance Hangar 2	
20	F-35 Operations Aircraft Maintenance Hangar 3	
20	F-35 Squadron Maintenance Facility	
20	F-35 Airfield Maintenance Fuel Cell	
20	F-35 Aircraft Washrack	
20	Non-Destructive Inspection (NDI) Lab	
20	F-35 Weapons Load Training Hangar	
20	F-35 Aerospace & Ops Physiology Facility	
20	F-35 Operations & Maintenance Group HQ	



# **Flightline District** MSA Zone Construction Projects





MSA Zone MILCON Total = \$ Small			
FY	Project		
20	Munitions Storage Area Facilities		
	MSA ZONE FSRM Totals: FY19 = \$500,000; FY19/20 = \$3,700,000		
MSA ZC	ONE FSRM Totals: FY19 = \$500,000; FY19/20 = \$3,700,000		
1	<b>NE FSRM Totals: FY19 = \$500,000; FY19/20 = \$3,700,000</b> Repair Lightning Protection Systems - FUNDED		



## **Flightline District**



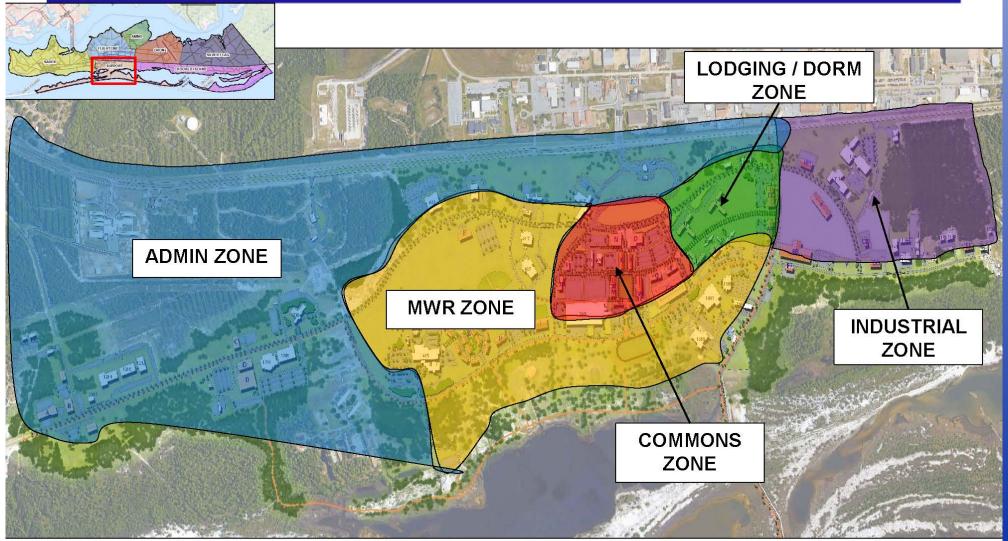
#### **Ops & Drainage Zones Construction Projects**

Flighli	Flighline Operations Zone MILCON Total = \$ Medium				
FY	MILCON Project				
20	Crash Fire Rescue Station				
20	Logistics Readiness Aircraft Parts & Deployable Spares Storage Facility				
20	Special Purpose Vehicle Maintenance				
20	Operational Support Squadron Facility				
20	Cyber Operations Center				
20	Deployment Center / Flightline Dining / AAFES				
Flightli	ne Operations Zone FSRM Total = \$13,000,000				
19/20	Repair Flightline & Flightline Support Facilities				
19/20	Repair Aircraft Engine Shop				
19/20	Renovate Fighter Operations & Training Facilities				
19/20	Renovate Aircraft Maintenance Shops				
19/20	Repair Fuels Maintenance Facilities				

Flighlin	e Drainage Zone MILCON Total = \$ Small
FY	MILCON Project
20	Airfield Drainage

## Support District Construction Zones





## Support District Admin Zone MILCON Construction Projects





Admin Zone MILCON Total = \$ Medium		
FY	Project	
20	Security Forces Mobility Storage Facility	
20	Emergency Operations Center / Alternate Command Post	
20	325 <sup>th</sup> Fighter Wing Headquarters	
20	Air Battle Manager Simulator Facility	
20	Fire Station #2	
20	Small Arms Range	
20	Tyndall AFB Gate Complexes	

### Support District MWR Zone Construction Projects





MWR Zo	ne MILCON Total = \$ Small		
20	Heritage Park Facilities		
20	New Ballfield Complex		
20	Outdoor Recreational Facility & Marina		
MWR Zone FSRM Total = \$10,000,000			
19/20	Repair Dining Facility		
19/20	Renovate Horizons Community Center		
19/20	Repair Track and Field		
19/20	Repair FAMCAMP		
19/20	Repair Marina & Basewide Docks		



## **Support District**

#### Infrastructure Zone Construction Projects



Infrastru	Infrastructure Zone MILCON Total = \$ Medium					
FY	Project					
20	Base-Wide Site Development & Utilities					
Infrastru	ucture Zone FSRM Totals: FY19 = \$4,000,000; FY19/20 = \$46,000,000					
19	Repair Utility Systems - FUNDED					
19	Repair Basewide Communications Towers, Phase 1 - FUNDED					
19/20	Construct Basewide Information Transfer Nodes Locations					
19/20	Erect Asset Protection Shelters					
19/20	Repair Basewide Communications Towers, Phase 2					
19/20	Repair HVAC Systems					
19/20	Convert Overhead Lines to Underground Basewide					
19/20	Repair Gates/Pass & ID/ Welcome Center					
19/20	Repair Basewide Perimeter Fencing					
19/20	Construct Batch Plant					
19/20	Demo Facilities					
19/20	Tree Clearing / Forestry Cleanup					

## Silver Flag District Silver Flag / Test Training Area Zone Construction



Silver Fla	Silver Flag / Test Training Area Zone MILCON Total = \$ Medium				
FY	Project				
20	Silver Flag - Fire Station #4				
20	Silver Flag - Replace and Consolidate 6 Facilities				
20	AFCEC RDT&E Facilities & Gate				
Silver Flag / Test Training Area Zone FSRM Total = \$5,800,000					
19/20	Repair Silver Flag Facilities				
19/20	Repair AFCEC CEMIRT Facilities				
19/20	Repair 1700 Area Facilities				



## **EUL Solicitation**



- Utilize a "FAR-like" process
  - Competitive process to define project requirements and select a qualified lessee
  - Objectives include consideration optimization
  - Offerors instructed via RFQ to demonstrate project feasibility, relevant experience and financial capability
- EUL opportunity solicitations are posted on Federal Business Opportunities (FedBizOpps.gov)
- AF may select one or more Qualified Offerors (QO) to engage in lease term negotiations
  - QOs ranked during source selection evaluation
  - Initiate exclusive negotiations with top ranked QO; intent to reach agreeable terms culminating in a signed lease





- Why the call?
- Unique opportunity
- Strong desire to infuse commercial/ industry tech
- FBO Call for White Papers on 22 Feb

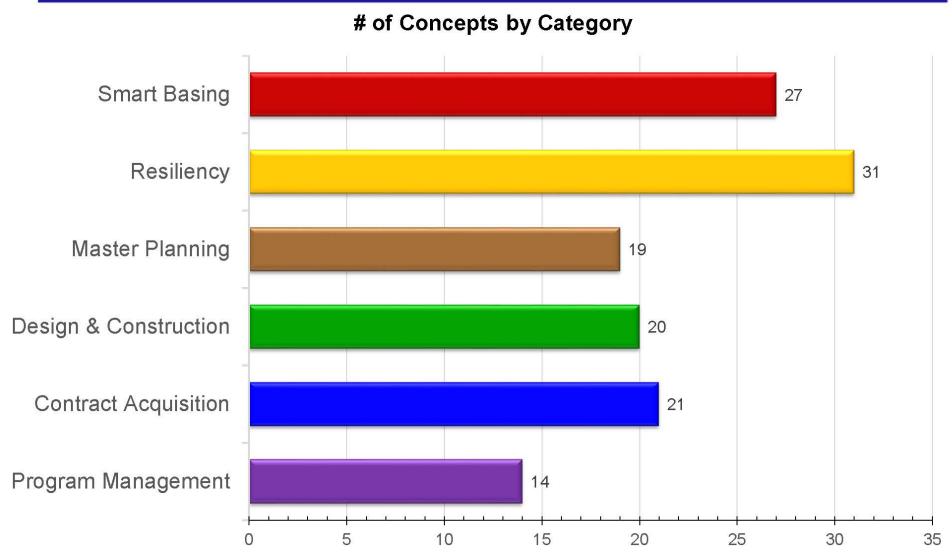
## GREAT RESPONSE!!



## White Paper Analysis

#### **Initial Categorization**







### White Paper Analysis Detailed Analysis – Resiliency







## HPV Concepts:

- Underwater tidal turbines
- Smart Grid technology
- Designing innovations for flood/wind hazards
- Utility corridors

Repair, Reshape, and Rebuild...Tyndall AFB

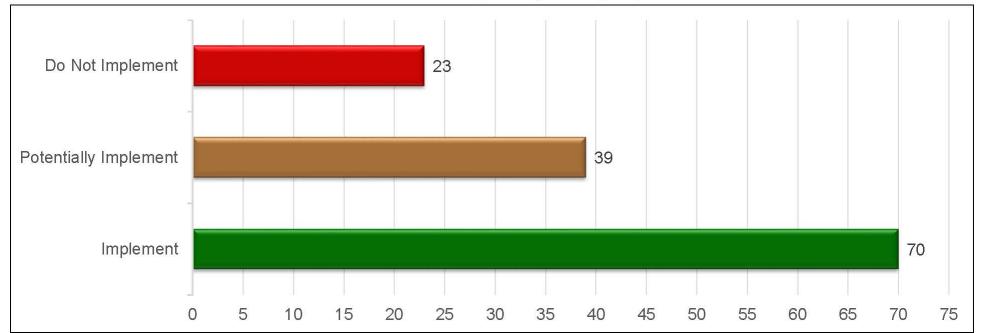


## White Paper Analysis

#### **Detailed Analysis Results**

TIR FORCE INSC

# of Concepts by Category



Disposition	Applicability
Do Not Implement	Concept does not apply well to Tyndall reconstruction
Potentially Implement	Concept could possibly be applied to Tyndall reconstruction but risk is high and/or reward low
Implement	Concept applies well to Tyndall reconstruction and risk is low and/or reward high



### Acquisition Strategy Options Non-Traditional Authorities



## WILDCARDS

## Non-traditional authorities to build the Installation of the Future

- Other Transaction Agreements (OTAs)
- Middle Tier Acquisition Authority (Section 804)
- Commercial Solutions Openings (CSOs)

Base of the Future Pitch Day utilizing Small Business Innovative Research (SBIR) fund

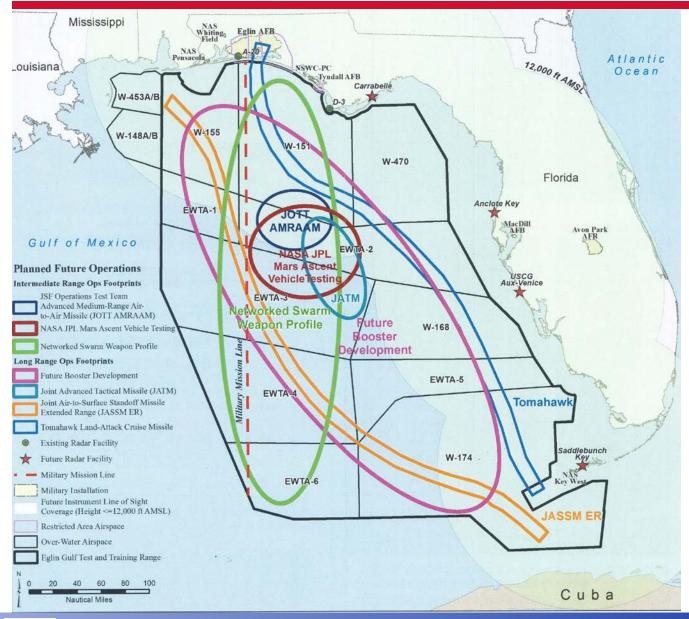
Aggressively exploring options for broad use of OTAs in one or more Zones

## **Community Primary Objectives**

- (1) <u>Support Returning Airman</u>: Community commitment to housing, medical, schools, quality of life issues. (community capacity analysis- FSU-PC)
- (2) <u>Funding</u>: Pass adequate supplemental through congress
- (3) **Design & Reconstruction**: (redesign opportunity)
- (4) <u>Schools</u>: Resolve on-base school issue (gate is moving)
- (5) Engage Partners: Request Florida defense (grants)
- (6) Mitigate Employment Gap: Minimize employment gap.
- (7) Additive Missions: Focus on MQ9 Base Y bed down;
- (8) <u>Open Communication</u>: Keep CODEL and MIL leadership fully informed of progress.



### **Future Gulf Test Range Operations**



#### Planned Operational Requirements

- Joint Strike Fighter Advanced Medium Range Air to Air (JOTT AMRAMM)
- NASA JPL Mars Ascent Vehicle Testing
- Networked Swarm Weapon Profile
- ✓ Future Booster Development
- ✓ Joint Advanced Tactical Missile (JATM)
- ✓ Joint Air to Air Stand-off missile (JASSM ER)



Bay Defense Alliance





# Legislative Update

Update to Florida Defense Alliance May 15, 2019













2019 Legislation

Military Friendly –

#### SB 212 – Interstate Compact for Military Children

Renews Florida membership in the Interstate Compact on Educational Opportunity for Military Children.

Passed by the Legislature, but not yet signed into law by the Governor

#### SB 620 – Military Friendly Initiatives

- -- Adds SOUTHCOM and NSA Orlando to a list of MBP installations
- -- Allows easements, to survive property tax deed sales
- -- Allows military to register children in school based on official military orders
- -- Protects in-state tuition rates for Florida military members who receive orders after family members have been accepted to college.

## 2019 Legislation (cont.)

#### SB 292 -- Education

Protects the ability of a public school student to wear a military uniform to graduation.

#### Adopted by the Legislature

HB 1379 and SB 1820 – Gulf of Mexico Range Complex Resolutions These resolutions that assert the State of Florida maintain a united front in supporting an indefinite extension of the current moratorium on drilling in the Gulf of Mexico east of the MML.

#### Adopted by the Florida House of Representatives

#### HB 1281 – US Space Command and United States Space Force A memorial to the Congress of the United States urging Congress to support the creation of the United States Space Force and the establishment of the Space Force and the US Space Command in Florida.

## 2019 Legislation (cont.)

Veterans –

## SB 1518 – Alternative Treatment Options for Veterans

Authorizes FDVA to contract for alternative treatment options for veterans with PTSD or TBI.

### HB 427 – Honor and Remember Flag

Provides for flag to be displayed at state buildings and locations on certain days including Veterans Day, Gold Star Mothers Day, etc.

## 2019 Budget

## Task Force -- \$2 million

## DIG -- \$1.6 million DRG -- \$850,000 MBP -- \$150,000

# Note: Budget not yet signed by the Governor.

## 2019 Legislation

# Questions ?





# Florida Defense Support Task Force

Update to Florida Defense Alliance May 15, 2019













## TF Member Update

- Rep. Jay Trumbull Chair House
- Senator Doug Broxson Senate
- Tom Neubauer Vice Chair Senate
- Maj Gen (ret) Richard Haddad Senate
- Lt Col (ret) Bill Dudley Senate
- Brig Gen (ret) Chip Diehl House
- Rep. Thad Altman House
- Col (ret) Jim Heald -- House
- Admiral (ret) Mark Fitzgerald Governor
- Representative Holly Raschein Governor
- Commissioner Barbara Stewart Governor
- Amy Gowder Governor
- MG James Eifert Governor's Personal Rep. (T)

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

## Task Force Items of Interest

- Top Priorities
  - Tyndall Rebuild
  - Space Command
  - Protection of the Gulf Range Complex
- TPG Contract
- Matrix Contracted for New Economic Impact Study
   Defense Factbook Due in December 2019
- 2019 Military Friendly Guide Being updated with changes from Legislative Session – Due in Sept 2019

## Task Force Items of Interest (cont.)

- GI LAW pro bono legal assistance to military and family members on FDA web site
- Space Command Summit May 9<sup>th</sup> in Orlando
- 2019 Strategic Plan will be updated later in 2019
- Governor's Base Commander Meeting June 12, 2019 at Camp Blanding
- FL Chamber Military, Defense, Veterans
   Opportunities Summit in Jacksonville August 13-14, 2019

## FY 19 - 20 Task Force Grants

- Four applications received for FY19-20 cycle worth ~ \$900 K to be reviewed and voted on tomorrow
- Expecting to have about \$850K available for next years' Grant Program possibly more if no Principi contract.

## Florida Defense Support Task Force

# Questions ?

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## STRATEGIC BASING AND KEY ISSUES

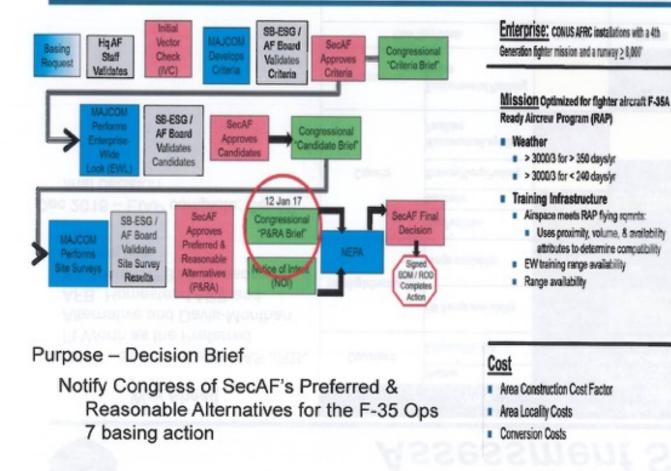
GROUP

20 November 2019

#### From AF 12 Jan 2017 Brief to Congress



## F-35 Ops 7 P&RA Congressional Brief



#### Capacity (1 x 24 PAA squadron)

- Ops facilities
  - Ops/AMU facilities
- Simulator facilities
- Ramp/Parking
- Logistics facilities
- Hangars
- Backshop functions
- LRS Supply
- LRS POL
- Corrosion control capability
- Munitions Storage Area

#### Environmental

- Air Quality
- Environmental Impact
- Noise
- Encroachment
- Land Use

Breaking Barriers ... Since 1947



Pre-decisional Not for Public Dissemination

From AF 12 Jan 2017 Brief to Congress

## **Assessment Summary**

F-35 Ops 7

	Criteria	Davis-Monthan (A-10 FTU)	Homestead (F-16B30)	NAS JRB Ft Worth (F-16830)	Whiteman (A-10)
State and a second	Weather				
Operations	Airspace/Ranges				
	EW Range availability				
Training Infrastrucure	Range availability				
	Ops Facilities				
	Simulator				
Capacity	Runway/Ramp/Parking				
	Maintenance/Logistics Facilities			e	
Environmental	Environmental Planning Rollup				
One-Ti	me Costs	\$95.14M	\$23.08M	\$13.35M	\$37.58M
Recurring Costs (Manpower + BOS)		\$2.64M (10 O's + 50 E's + 8 Civ)	-\$3.20M (-3.078 - 147 E'8 + 13 Civ)	-\$4.78M (-2 O's - 148 E's + 3 Civ)	\$0.87M (-5 0's - 18 E's - 3 Ch

Breaking Barriers ... Since 1947 Source: AF 12 Jan 17 Congressional Rollout Briefing



## **Stage Setter**

#### U.S. AIR FORCE

Action	Host	ΡΑΑ	FAA	P&RA	
ІТС	AETC	24	May-11	Eglin	
PTC #1-1,2,3	AETC	72	Feb-14	Luke	
Ops #1-1,2,3	ACC	72	Sep-15	Hill	
PTC # -4,5,6	AETC	72	Jan-18	Luke	
Ops #2	ANG	18	Sep-19	Burlington	
OPS #3-1,2	PACAF	48	Apr-20	Eielson	
Ops #4-1,2	USAFE	48	Oct 21	Lakenheath	
Ops #5	ANG	18	Apr 23	Winter 2017/2018	
Ops #6	ANG	18	Dec 23	Winter 2017/2018	
Ops #7	AFRC	24	Feb 24	NAS JRB Ft. Worth	

#### PURPOSE

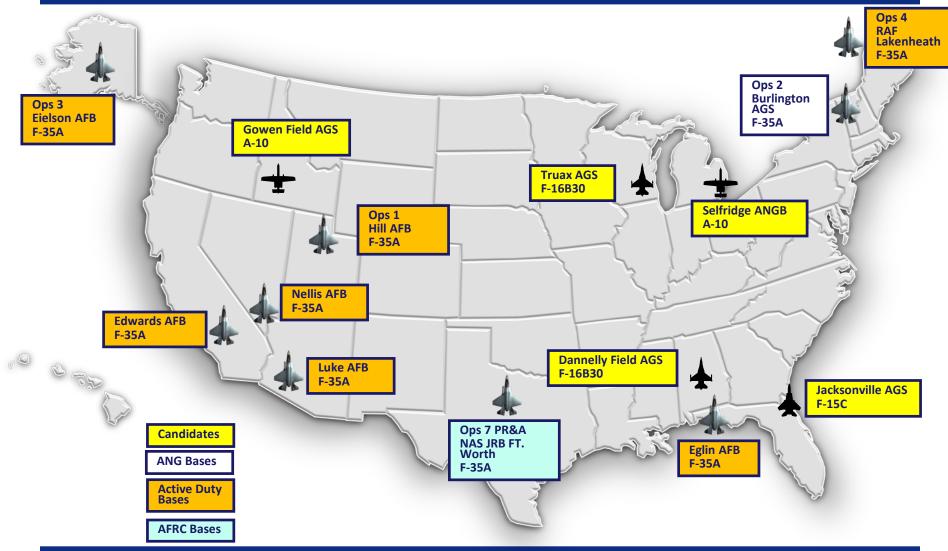
 Notify Congress of SecAF's Preferred and Reasonable Alternatives for F-35A Ops 5&6 (ANG)

#### STRATEGIC NARRATIVE

- F-35A Program of Record purchases 1,763 aircraft
  - Planned fleet basing strategy includes ACC, ANG, AFRC, AETC, OCONUS locations
- Ops 5&6 are the 2<sup>nd</sup> and 3<sup>rd</sup> ANG locations
- 1 x 18 PAA squadron plus 2 BAI; replaces current aircraft

#### From AF 21 Dec 2017 Brief to Congress Current F-35A Bases & Ops 5&6 Candidates





Integrity - Service - Excellence

From AF 21 Dec 2017 Brief to Congress



### F-35 Ops 5 & 6 Site Survey Criteria

#### U.S. AIR FORCE

<ul> <li>Enterprise: CONUS ANG installations with a 4th Generation fighter mission and a runway ≥ 8,000'</li> <li>Mission Optimized for fighter aircraft F-35A Ready Aircrew Program (RAP)</li> <li>Weather <ul> <li>&gt; 3000/3 for &gt; 350 days/yr</li> <li>&gt; 3000/3 for &lt; 240 days/yr</li> </ul> </li> <li>Training Infrastructure <ul> <li>Airspace meets RAP flying rqmnts</li> <li>Uses proximity, volume, &amp; availability attributes to determine compatibility</li> <li>EW training range availability</li> <li>Range availability</li> </ul> </li> </ul>	<ul> <li>Capacity For 1 × 18 PAA sqd</li> <li>Ops facilities <ul> <li>Ops/AMU facilities</li> <li>Simulator facilities</li> </ul> </li> <li>Ramp/Parking</li> <li>Logistics facilities</li> <li>Hangars</li> <li>Backshop functions</li> <li>LRS - Supply</li> <li>LRS - POL</li> <li>Corrosion control capability</li> <li>Munitions Storage Area</li> </ul>
Cost Area Construction Cost Factor Area Locality Costs Conversion Costs	Environmental <ul> <li>Air Quality</li> <li>Encroachment</li> </ul>

**U.S. AIR FORCE** 

# Assessment Summary

	Criteria	Dannelly F-16 B30	Gowen A-10	Jacksonville F-15C	Selfridge A-10	Truax F-16B30
	Weather					
0	Airspace					
Operations	EW Range availability					
	Range availability					
	Ops and simulator facilities					
Capacity	Runway/Ramp/Parking					
	Maintenance & Logistics Facilities					
Environmental	Planning Support Rollup					
Environmental	Potential Impacts Rollup					
Other costs	Communications	\$0.63M	\$0.56M	\$0.61M	\$0.61M	\$0.58M
Total Cost		\$19.29M	\$19.45M	\$28.24M	\$22.04M	\$25.12M
Manpower	Active Association (Recurring Costs)	\$0	\$4.9M	\$4.2M	\$4.9M	\$0

From AF 21 Dec 2017 Brief to Congress

Integrity - Service - Excellence

#### 6



#### F-35 Ops 5&6 Basing SecAF Decision

#### U.S. AIR FORCE

- Ops 5 Preferred Alternative Truax Field, WI
- Ops 6 Preferred Alternative Dannelly Field, AL
  - While each candidate location has sufficient infrastructure and weather to meet the F-35A Ready Air Crew Program requirements:
    - Truax and Dannelly Fields both have funded active duty associations
    - Both meet all mission requirement at the lowest one-time coupled with recurring costs





- December 2017: SecAF selects Truax Field and Dannelly Field as the Preferred Alternatives for F-35 Ops 5&6, respectively, and Gowen Field, Jacksonville Air Guard Station, and Selfridge Air National Guard Base as Reasonable Alternatives
- **Spring 2019:** Environmental analysis complete, SecAF final decision
- Calendar Year 2023: First Aircraft Arrival for Ops 5 and 6

#### TRG Update:

- Final EIS public comment period 9 August through 1 Nov
  - City of Madison sent 22 page letter to AF asking them to reconsider placing the F35s at Truax
  - Many in community opposed to noise
- AF finalizing EIS
- Wil then go back through AF Strategic Basing Process up to SECAF for final decision ... 60-90 days?

## Tyndall AFB: Ops 8

- Tyndall AFB hit by Category 5 Hurricane Michael on 8 Oct 2018
- Secretary of the Air Force Heather Wilson, 8 Dec 2018: "We have recommended that the best path forward to increase readiness and use money wisely is to consolidate the operational F-22s formerly at Tyndall in Alaska, Hawaii and Virginia, and make the decision now to put the next three squadrons of F-35s beyond those for which we have already made decisions at Tyndall"
- Estimated beddown 2023

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# What's Next F-35 Basing?

- Ops 9-11 basing expected to kick off soon
- Key Issues:
  - F15C continues to degrade...average age over 38 years
    - Lakenheath, Barnes, Jacksonville, Klamath Falls, New Orleans
  - F15X vs F35 buy
  - How does Strategic Basing process link to Air Superiority Flight Plan and Fighter Roadmap?

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# The Future of Tyndall

- Tyndall AFB will be first-purposed built 5<sup>th</sup> Generation Fighter Base in the world! Host of up to 3 F35 squadrons adding +175 military and their families above F-22 levels.
- Tyndall still preferred alternative for MQ-9 Wing...will bring an additional 1600 military and their families to Tyndall.
- The AF will build Tyndall as "Base of the Future": a 21<sup>st</sup> Century installation
  - Build to meet today's mission and future mission not yet known
  - Smart, resilient and sustainable facilities
  - Estimated cost: \$4B+
  - Rebuild not fully funded....need to still support Air Force's need for funding to rebuild Tyndall

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# **Key Events**

- VPOTUS Mike Pence visits Tyndall October 25, 2018": "We will rebuild Tyndall Air Force Base. President Trump and I are committed to provide the resources necessary to rebuild Tyndall Air Force Base so that it can continue to be a vital and critical part of our national defense".
- SECAF Wilson on December 7, 2018, recommended to permanently move Tyndall's operational F-22s to other Raptor bases and Tyndall Air Force Base would become the home for up to three F-35 squadrons and is AF F-35 Ops location 8. Aircraft to arrive in 2023...but Air Force needs to do full environmental analysis.
- President Trump visits Bay County May 8, 2019 " and promised to build Tyndall bigger and better than it was before. "We'll have many more people working at Tyndall than you had before the Hurricane, so get ready for that," said President Trump.
- President Trump signed package June 6, 2019 that delivers \$19.1 billion in disaster relief to communities across the country that were still recovering from catastrophic hurricanes, wildfires and flooding. Included \$670M for Tyndall and Offutt.

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# Vice President Mike Pence



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After Hurricane Michael destroyed Tyndall Air Force Base in October, I promised, on behalf of @realDonaldTrump, that our Admin would rebuild @TeamTyndall. I'm proud to announce we can rebuild the F35s by 2023! This is how we keep America's great @usairforce lethal & ready!

♡ 4,024 11:11 AM - Aug 6, 2019

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# Air Force Actions Post Hurricane Michael

#### **Overall Notional Timeline**





GROUP



#### **Tyndall Update**

- ✓ All Permanent Missions are FOC (Full Operational Capability)
- ✓ Dorm Occupancy is @ 86% Lodging is at 63% -
- ✓ Design Firm has created 12 Zones contractors selected
- ✓ 1391s have been completed and sent to Congress
- ✓ First Two MILCON projects are in progress
- ✓ F-35s will arrive in 2023 (Hill AFB, is western operational base, three OPS squadrons, 3 OPS squadrons at Tyndall)
- ✓ Family Housing Delivery begins in Q2 2020
- ✓ Bay County Committed to K-8 School on installation
- ✓ The "Base of the Future" concept is being promoted AF wide
- ✓ Resiliency strategies, energy, structural integrity, fiber, 5G
- ✓ F-35 EIS Launched September
- ✓ RPA Base Y EIS Launched September
- ✓ JLUS Program Launched September
- RISKS: Congress, passes another CR (Continuing Resolution)



### **Key Issues to Watch**

- Key leadership changes at Pentagon
- FY20 National Defense Authorization Act update
- What is Pentagon expecting from communities?
- Specific items for Florida

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# Pentagon Leadership Changes



#### Secretary of Defense Mark Esper

Confirmed by the Senate on July 23, 2019 by a vote of 90–8

Secretary of the Army 2017 to 2019

Served as an infantry officer with the 101st Airborne Division and deployed for the 1990–91 Gulf War - Bronze Star

VP of government relations at Raytheon and was recognized as a top corporate lobbyist by The Hill in 2015 and 2016



#### **Deputy Secretary of Defense David Norquist**

Nominated to the Senate on July 23 and was confirmed by voice vote on July 30, 2019, after having acted in the role for nearly seven months.

He has pledged to shake-up the defense budget and to place a high priority on funding research and development of cutting edge technologies such as hypersonics and artificial intelligence.

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# Pentagon Leadership Changes





#### Acting OSD Comptroller Elaine A McCusker

Deputy Comptroller since Aug 2017, White House signaled intent to nominate on 7 Nov 2019.

Former Director, Resources and Analysis, Headquarters U.S. Central Command, MacDill Air Force Base, Florida.

More than ten years of federal service, including three years on Capitol Hill as a professional staff member on the SASC and five years in the Pentagon

#### **ASD Sustainment Robert McMahon**

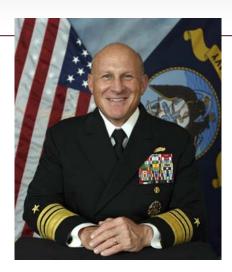
Departing Nov 21, 2019

Expect Mr Pete Potochney, to be in Acting role. No intent to nominate yet announced.

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# Navy Leadership Changes



#### Admiral Michael Gilday - New CNO

- Admiral Gilday confirmed as 32<sup>nd</sup> Chief of Naval Operations
- Surface fleet background commanded Carrier Strike Group 8 – <u>significant experience</u> with Fleet Cyber Command.
- First CNO since ADM Zumwalt to be promoted from 3-star billet due to ADM Moran resigning.
- Will bring a new perspective given his background.



#### Lucian Niemeyer - Acting ASN for Energy, Installations and Environment

- Assumed duties on June 26, 2019. Arranged visit with local leaders during visit to Hampton Roads July 30/31.
- Professional Staff Member, Senate Armed Services
   Committee. Readiness and Seapower Subcommittees.
- Former ASD for Energy, Installations and Environment.
- 15 years of active and 5 years of Virginia Air National Guard. GROUP

# Army Leadership Changes





#### Secretary of the Army Ryan McCarthy

Confirmed by the Senate on Sept. 26, 2019. Served as Under Secretary of the Army since August 2017.

VP for Lockheed Martin's F-35 Joint Strike Fighter program and the company's global security policy.

Served Secretary of Defense Robert Gates, under Presidents Bush and Obama where he served as the secretary's representative to the White House, Congress, National Security Agencies and other Foreign Governments.

#### Army Chief of Staff James C. McConville

Previously served as the Vice Chief of Staff of the Army. Commanding General of the 101st Airborne Division and served as Chief of Legislative Liaison. Master Army Aviator qualified in the OH-58 Kiowa Warrior, the AH-64D Longbow Apache, the AH-6, AH-1 Cobra and other aircraft.

Native of Quincy, Massachusetts and West Point graduate. Master of Science degree in Aerospace Engineering from Georgia Institute of Technology, and was a 2002 National Security Fellow at Harvard University.

## **Status of FY20 Defense Bills**

#### FY20 National Defense Authorization Act:

"Skinny bill" unveiled in Senate – negotiating tactic by Senate that has fallen flat in House. Essentially re-authorizes expiring authorities. Hold-up is over Border Wall funding and authority issues: White House has not weighed in. HASC and SASC members have too many equities in this annual bill - expect in December.

#### FY20 Appropriations:

Still need agreement on top line funding between House and Senate.

Staff has had some level of informal negotiations on provisions in the bills.

Again, Border Wall issues are the key hold-up on the MilCon/VA and DHS bills:

Also holding up agreement to move on broader package of bills. Rising concern about year-long CR and possible impact of impeachment. Next CR is expected

to run through the end of calendar year or into early part of next year.

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# FY20 Legislative Issue: DCIP

- <u>Issue:</u> Significant Congressional interest in the newly (FY19) authorized DCIP program to aid defense communities in building critical infrastructure.
- <u>Significance:</u> This program will be funded and now is a good time to consider projects as OEA receives funding and sets the criteria.
- Action: Consider projects that jointly support your base and community, are close as possible to the known criteria, hopefully not too expensive, and begin outreach to your local agency best equipped to share the cost and apply for the grant.
- <u>Next Steps:</u> Be prepared for the implementation of the FY20 DCIP funding. Stay engaged with OEA.

#### Committee: The Committee recommendation includes an

House Appropriations Defense Sub

additional \$30,400,000 for the Office of Economic Adjustment whose mission is to provide support to communities and states that support the readiness of military installations, ranges, and military supply chains. The Committee understands that the responsibilities of the Office of Economic Adjustment have been expanded and believes that these additional funds, with the addition of two full time equivalents, will enhance its ability to support both community and military missions

#### Senate Appropriations Defense Subcommittee

**\$75M** for DCIP program directly

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# FY20 Legislative Issue: Privatized Housing and Bill of Rights

- Prohibition on reprisal by either the private partner or military chain of command.
- Provision of a housing advocate that is not co-located with or employed by the private partner.
- A dispute resolution mechanism.
- A mechanism for withholding rent payments where appropriate during the dispute resolution process.
- Prompt provision of maintenance by qualified personnel and effective communication regarding the status of their work orders to include access to an electronic work order management system.
- Professional and courteous property management services.
- Information about known and potential hazards at the time of home selection, including mold, lead, rodent infestation, and history of sickened residents.
- Authorizes an additional \$140.8 million to hire civilian personnel to improve oversight and management of military family housing.

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# FY20 Legislative Issue: IGSA

#### **DIRECTIVE REPORT LANGUAGE: IGSA**

The committee is aware that many military instillations have entered into Intergovernmental Service Agreements (IGSA). These IGSAs allow the Department of Defense and State or Local Governments to provide, receive, or share installation support services. The committee is also aware that many of these ISGAs have resulted in millions of dollars in cost savings to DoD. The savings realized by these agreements are not returned to the installation that has used them to reduce costs. Therefore, the committee directs the Secretary of Defense to submit a report to the House Committee on Armed Service by December 31, 2019, on the actual cost savings realized by IGSAs, the feasibility of returning a portion of the savings realized from IGSAs back to the installations, and the overall fiscal impact to the services of IGSAs.

Important step forward in evolution of IGSAs.

Report has potential to incentivize more IGSAs and keep money locally to meet other needs – goal is 25%.

Services support the language but pushback from OSD level over "challenges" of implementation.

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# DoD Installation In the Future: What DoD is Telling Congress.....

- Eliminate waste and maintain what DoD needs
- Advocate for funding to meet mission requirements and address risk to safety and readiness
- Enhance energy security and resiliency
- Develop smarter contracts and manage smartly
- Protect installations from incompatible development
- Provide for safety and welfare through environmental stewardship (PFOS/PFOA)
- Explore opportunities for partnerships
- Enhance collaboration with Defense Communities
- Protect from cyber attacksHE

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# ADC National Summit - June 10-12

#### Education and licensure still important issues!

- Second Lady Karen Pence: National call to action to hire 100,000 military spouses. Employment challenges of moving...spouse unemployment rate is 24%!
- Secretary of the Army, Mark Esper: top installation and community quality of life priorities: quality child care, education, housing, infrastructure, and raising the profile and opportunities for military spouse employment.
- Chief of Staff of the Air Force, General David Goldfein: #1 quality of life issue for airmen is quality schools. Licensure and reciprocity also important.
- Assistant Secretary of Defense for Sustainment, Robert McMahon: DCIP conceptually is very important program but needs money. No new BRAC rounds now. DoD took their eye off ball on Military Family Housing Privatization.

# BRAC or not.....Education and Licenses

Office of the Secretary of the Navy 1051 Navy Pentagon Washington, DC 20350-1051 Office of the Secretary of the Army 101 Army Pentagon Washington, DC 20310-0101

Office of the Secretary of the Air Force 1670 Air Force Pentagon Washington, DC 20330-1670

FEB 2 3 2018

#### MEMORANDUM FOR THE NATIONAL GOVERNORS ASSOCIATION

SUBJECT: Consideration of Schools and Reciprocity of Professional Licensure for Military Families in Future Basing or Mission Alternatives

Thank you for your support of our men and women in the military. We are often asked what communities can do to support those who serve. While focus on the mission is always ou priority, the factors military families cite most frequently as drawbacks to military service include military dependent's difficulty assimilating into local school systems following a duty station transfer, the quality of schools available for their children, and the ability of spouses to obtain jobs and sustain careers. With that in mind, we will encourage leadership to consider the quality of schools near bases and whether reciprocity of professional licenses is available for military families when evaluating future basing or mission alternatives.

Military families relocate frequently. The services endeavor to schedule transfers to minimize impact on the academic year, but this is not always possible. As a result, incoming students face difficulties transferring credits between school systems, adjusting to varied curriculum, and joining sports teams or clubs after the start of the school year. Exclusion from extra-curricular activities is particularly challenging for our military children, as they are critical to social development and self-esteem. Some school systems recognize this and accommodate Thank you for your help and attention. We look forward to continuing to work with you and thank you again for your support of our men and women in the military.

Richard V. Spencer Secretary of the Navy

Heather Wilson Secretary of the Air Force

Mark Mark T. Esper

Secretary of the Army

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#### Base Y (MQ-9 LRE + MCE) SecAF Approved Criteria (24 Mar 16)

<ul> <li>ENTERPRISE AD AF installation in CONUS/AK/HI with ≥ 8,000 ft runway that does not have an MQ-9 Wing</li> <li>MISSION (47 pts)</li> <li>Training (38 pts)</li> <li>Training Infrastructure access within 200 nm: (20)</li> <li>RPA allowable airspace (Restricted, Warning, (MOA/ATCAA with FAA COA) (6)</li> </ul>	CAPACITY (33 pts) Operations Facilities & Support (6 pts) SCIF Space PL-2 (69,000 sq ft) (2) WG/GP/OSS/LR/Simulator (42,000 sq ft) (1) Admin/Training (9,000 sq ft) (1) One Load bearing pad for 2 MGCS (1) Commercial Power & HVAC to support (1)
<ul> <li>ASR 11 Radar (2)</li> <li>Access to air-to-surface range (6)</li> <li>Overwater airspace; for AIMT mission (Warning/Restricted) (6)</li> <li>Ability to train: (18)</li> <li>Co-located Flying Wing/Gp in RPA Core Competencies (ISR, AI, CAS, PR, DT, SCAR) (6)</li> <li>External Partner operation in RPA airspace/range (3)</li> <li>VFR pattern compatible: (AM/PM operating hours) (5)</li> <li>Ability to support 12 local lines per day (4)</li> <li>Weather (9 pts) Meets minimum weather criteria:</li> <li>Icing – no icing conditions ≥ 67% of time (3)</li> </ul>	<ul> <li>Maintenance Facilities (6 pts)</li> <li>Hangars (131,000 sq ft) (2)</li> <li>GP/Storage/Support (110,000 sq ft) (2)</li> <li>Ramp for 18 MQ-9 (10,000 sq yards) (2)</li> <li>Communication Requirements (16pts)</li> <li>External Base Comms Architecture (1)</li> <li>Intra-Base Comms Architecture (1)</li> <li>BOS Comm (NIPR/SIPR/Telephone) with 24/7 (1)</li> <li>JWICS access with 24/7 support (1)</li> <li>Available C-Band spectrum (12)</li> </ul>
<ul> <li>Crosswinds &lt; 15 knots ≥ 80% of time (3)</li> <li>Ceiling/visibility ≥ 1,500'/3nm ≥ 75% of time (3)</li> </ul>	<ul> <li><u>Base Support/Quality of Life (5 pts)</u></li> <li>Medical, Dorms, Fitness, CDC, Dining Facility (1 ea)</li> </ul>
COST (10 pts) Area Construction Cost Factor: (2) Area Locality Costs: (8) BAH Rate (6) GS Locality (2)	<ul> <li>ENVIRONMENTAL (10 pts)</li> <li>Air Quality Standards (2)</li> <li>Environmental Impact (2)</li> <li>Incompatible Development (2)</li> <li>Encroachment (2)</li> <li>Land Use Controls (2)</li> </ul>

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# Installation Energy Plans (IEP) / ERCIP

#### Installation Energy Plans (IEP) Guidance - Energy Resilience and Cybersecurity Update

- Comprehensive planning document addresses multiple aspects of energy & water management
- Deliberate focus on energy/water resilience and cybersecurity
- IEPs required for ALL installations: Priority installations and critical support infrastructure first
- ER requirements defined by mission owner
- Solutions developed and implemented by installation
  - > Leverages energy data to inform optimum solutions
  - > Informed by stakeholders: mission owners, installation leadership, communities, industry
  - > Prioritized on critical missions
- Energy performance measures inform updates to IEPs and future investments
- IEPs leverage all DoD authorities to maximize benefit to mission readiness
  - > Includes funding/acquisition strategy (ERCIP, MILCON, ESPC/UESC, UP,...)
  - > Creates synergy between current initiatives and future projects
    - > Optimizes use of distributed energy to improve installation energy security and lower costs

#### Drives long term strategic view and plan sevel t

# Climate Change

- Florida has 8 military installations at risk due to climate change •
  - AF ranked by decreasing vulnerability
    - Vandenberg AFB, Calif. 1.
    - Eglin AFB, Fla. 2.
    - Hurlburt Field, Fla. 3
    - Patrick AFB, Fla. 4
    - Joint Base Charleston, S.C. 5.
    - Dover, Dela. 6.
    - Homestead AFB, Fla. 7.
    - Macdill AFB, Fla. 8.
    - Tyndall AFB, Fla. 9.
    - Joint Base Langley-Eustis, Va. 10.
  - Navy unranked included Naval Air Station Key West, Fla. •
  - Marine Corps unranked included Marine Corps Support Facility Blount Island, Fla. •
- GAO report said DOD "installations have not consistently assessed risks from extreme • weather and climate change effects or consistently used projections to anticipate future climate conditions. They "may be investing in facilities projects without considering potential risks, such as potential future damage and degradation, which are associated with additional costs and reductions in capability."
- •

What should State of Florida be doing? Roosevelt

group

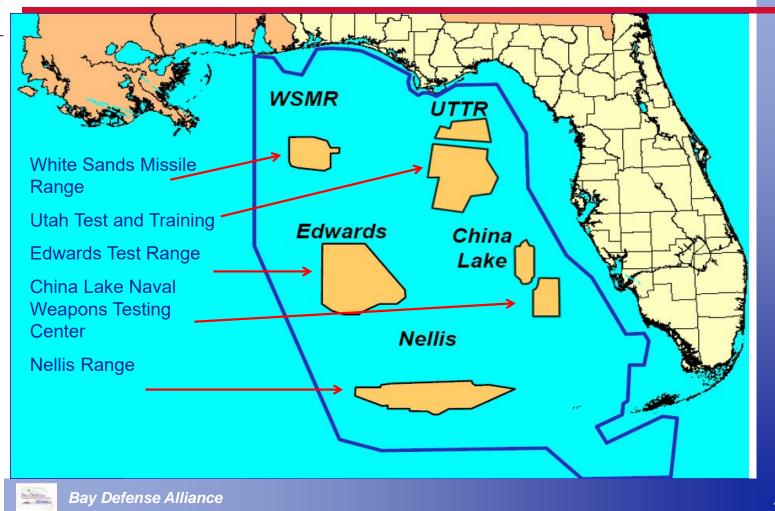
# **Military Mission Line**

- Gulf of Mexico Range Complex (GOMEX Range Complex) stretches from the Florida Panhandle (commonly referred to as the Military Mission Line) south to Key West and is the largest military testing and training range in the United States.
- MML was established by the 2006 GOMESA law to delineate the military testing area as being off limits to oil exploration. This moratorium will expire in June 2022 unless extended.

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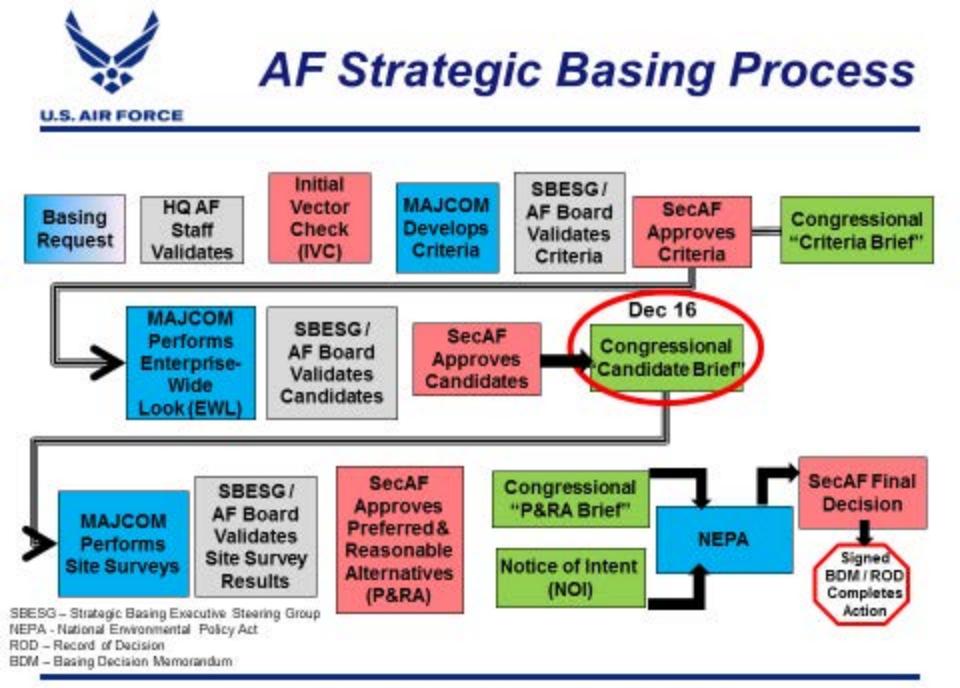
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#### **Other Leading U.S. Ranges**



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# Hillsborough County Public Schools & MacDill AFB

#### *Education is a top priority to a transitioning military family.*

Robert Bhoolai – Principal, Robinson High School Kim Sukach – District Military Liaison Rachel Walters – Principal, Tinker K-8



MacDill Council for Educational Excellence – MCEE

#### **Purpose:**

To enhance the educational experience of military-connected students enrolled in Hillsborough County Public Schools (HCPS).

#### **Meeting Format**

- MCEE meetings are held in January, April, July and October.
- 1st Hour- Council Leadership ~ 2nd Hour
   Parent and Community
- Chair: Vice-Wing Commander (MAFB)
- Vice Chair- Deputy Superintendent, Instructional (HCPS)

## MacDill Council for Educational Excellence (MCEE)

**Education Strategy Key Points** 

- Collaborative effort between base officials and HCPS Superintendent
- Creates opportunities for excellence in military students' education
- Partnership between base/local school officials will determine success of desired outcome
- Assists parents in navigating through our school systems
- Enables on/off base partners to work in unison to support military families



# School Choice and Enrollment

Families that transition during the school year can apply for Magnet and School Choice upon arrival.

Online application system allows active duty transitioning families to apply without a local address.

Allow 10th and 11th-grade students of transitioning active-duty members, to apply for International Baccalaureate (IB).

Established a process for families with a child with special needs to send Individual Education Plans (IEPS) prior to arrival for review.

Families are able to start the year at attendance area school during home buying or rental process. (Including Base Housing)

#### Graduation

#### Weighted Grade Point Average (GPA) for Transfer Students

- Beginning with the 2015-16 ninth grade cohort, the following criteria must be met for transfer courses to receive Hillsborough County honors points.
  - The course must be designated as honors in the state or district course code directory.
- The course must be designated as honors on the official transcript from the sending school.

For students who entered ninth grade prior to the 2015-16 school year, the official transcript must reflect a weighted grade for the designated honors course, in addition to the requirements above.

# End of Course (EOC) Concordant/Comparative Scores for Graduation

Training of High School Counselors on Military Interstate Children's Compact (MIC3)

# Collaboration

Adding programs to schools that serve the installation. (International Baccalaureate (IB), Modeling & Simulation, and Leader in Me.)

Utilization of Military Child Education Coalition Programs including Student 2 Student, Parent 2 Parent and Professional Development.

Partnering with MAFB on STEAM (Science, Technology, Engineering, Arts, Math) Day allowing students to experience STEAM related Air Force careers.

Conversion of on base school from an elementary to a K-8.

Military Family Life Counselors (MFLC) at 5 sites.

# Tinker K-8

#### Military Family Life Couselor (MFLC)

#### Student to Student

Wishing you well, Bell Ceremony

Relationship with MAFB Leadership

Military Immersion Training

# Robinson High School

Military Child Education Coalition – NTS Student 2 Student

Month of the Military Child

Site-Based Military Liaison

Military Family Life Counselor (MFLEC)

Exploring Advanced Placement (AP) International Diploma

# UNITED WAY

# **PROUDLY SERVING THOSE WHO HAVE SERVED**









**United Way Suncoast** 





# **A BETTER WAY FOR OUR VETERANS**

More than 40,000 nonprofit organizations provide services exclusively to veterans, service members and their families. With such an overwhelming and fragmented space, knowing where to start can be a daunting task. **MISSION UNITED™** makes these services easier to navigate by providing a coordinated care network with a simple entry point through 2-1-1.

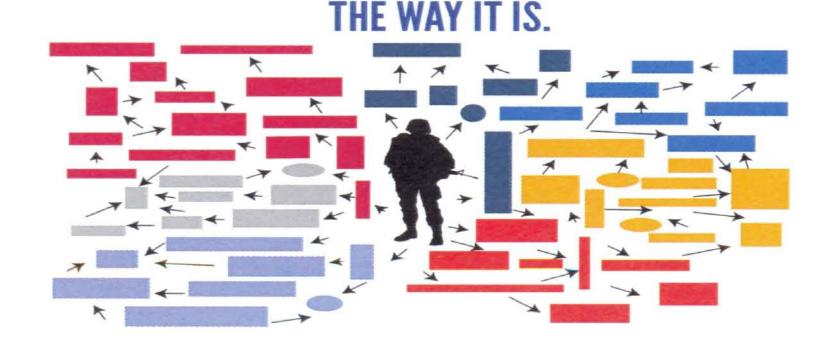
### MISSION UNITED™, through 2-1-1, connects veterans to resources to help with:

GET CONNECTED • EMPLOYMENT • EDUCATION HOUSING • LEGAL ASSISTANCE • TRANSITION • BENEFITS FAMILY AND CAREGIVERS

#### **Working Together for our Military and Veteran Community**

In addition to ensuring our military and veteran community can easily access the services and benefits they have earned, MISSION UNITED™ partners work together to advocate and organize around 5 key areas:

> Transition to Civilian Live – It is a process, not an event. Employment - Veterans fulfilling a new role, outside of their uniform. Benefits - Veteran benefits are earned. Family & Caregivers - Our military strength starts at home. Changing the Narrative for our military and veteran community



# unitedwaysuncoast.org/missionunited

Mission United serving Hillsborough County

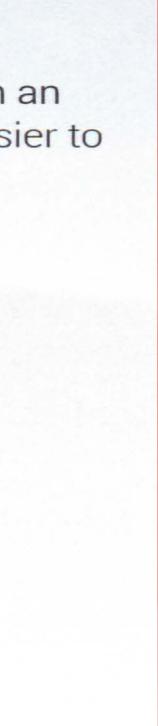


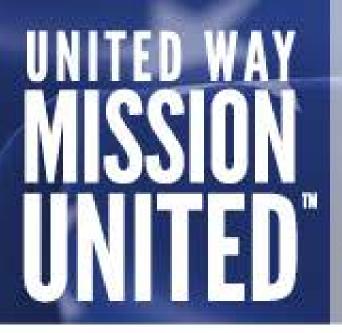


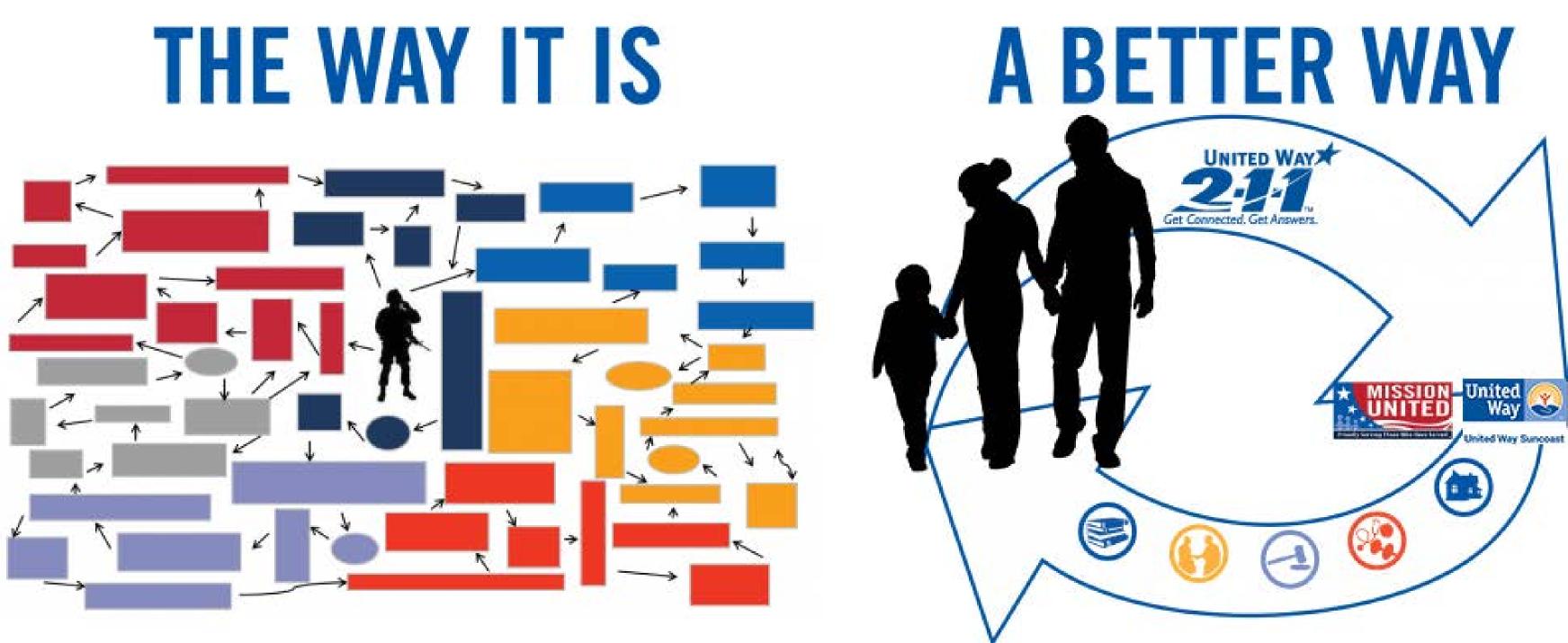




**United Way Suncoast** 























































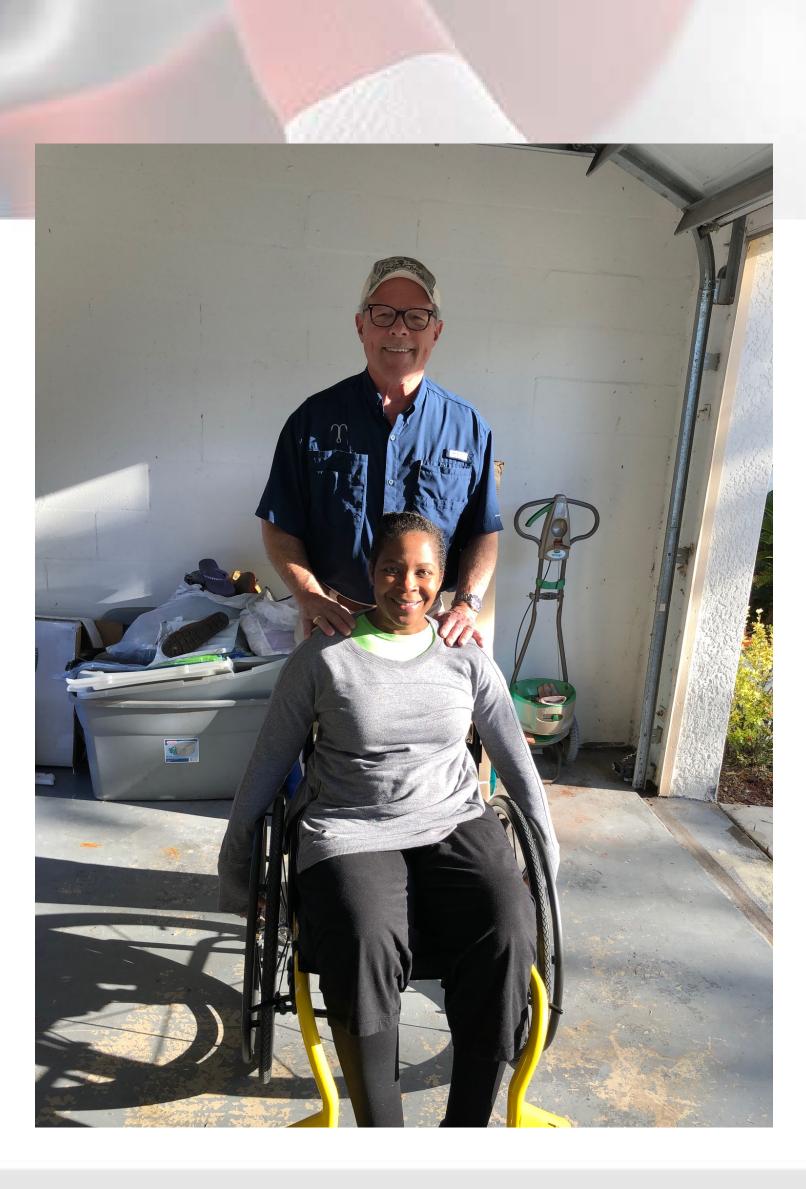


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United Way Suncoast

# UNITED WAY MISSION UNITED "







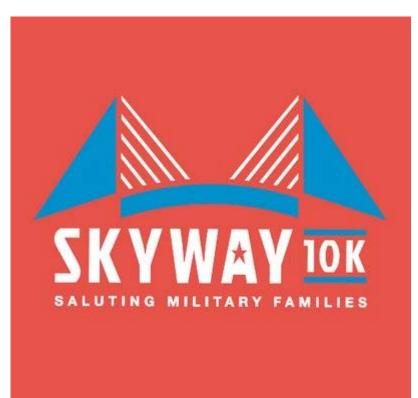




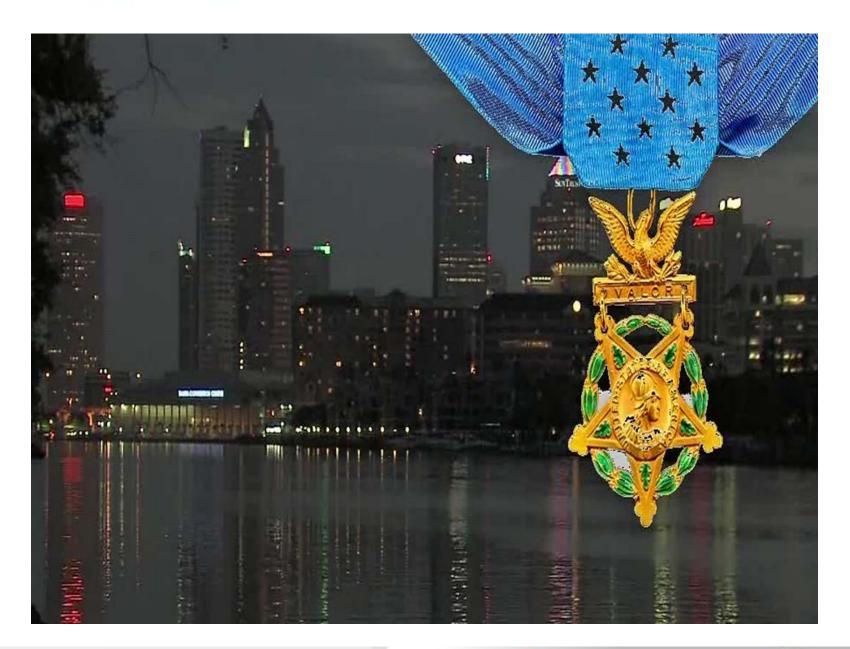




# UNITED WAY MISSION UNITED "







# DOWHAT LOVE VOULOVE WHAT DO





















# UNITED WAY

# **PROUDLY SERVING THOSE WHO HAVE SERVED**









**United Way Suncoast** 





# **Comprehensive Veterans Support Map**

# **FL CVEB- Current**

Orlando	Heart of Florida Mission United	
St. Petersburg	Bay Pines Community Engagement Board	
Pensacola	Pensacola Veterans Support Organizations Network	
Ft. Lauderdale	Mission United of Broward County	
West Palm Beach	Palm Beach County Veterans Coalition	
Татра	Mission United of Tampa/ Hillsborough County	
Jacksonville	Northeast Florida Veterans Advocacy Board	

10

Pensacola

Apalachicola

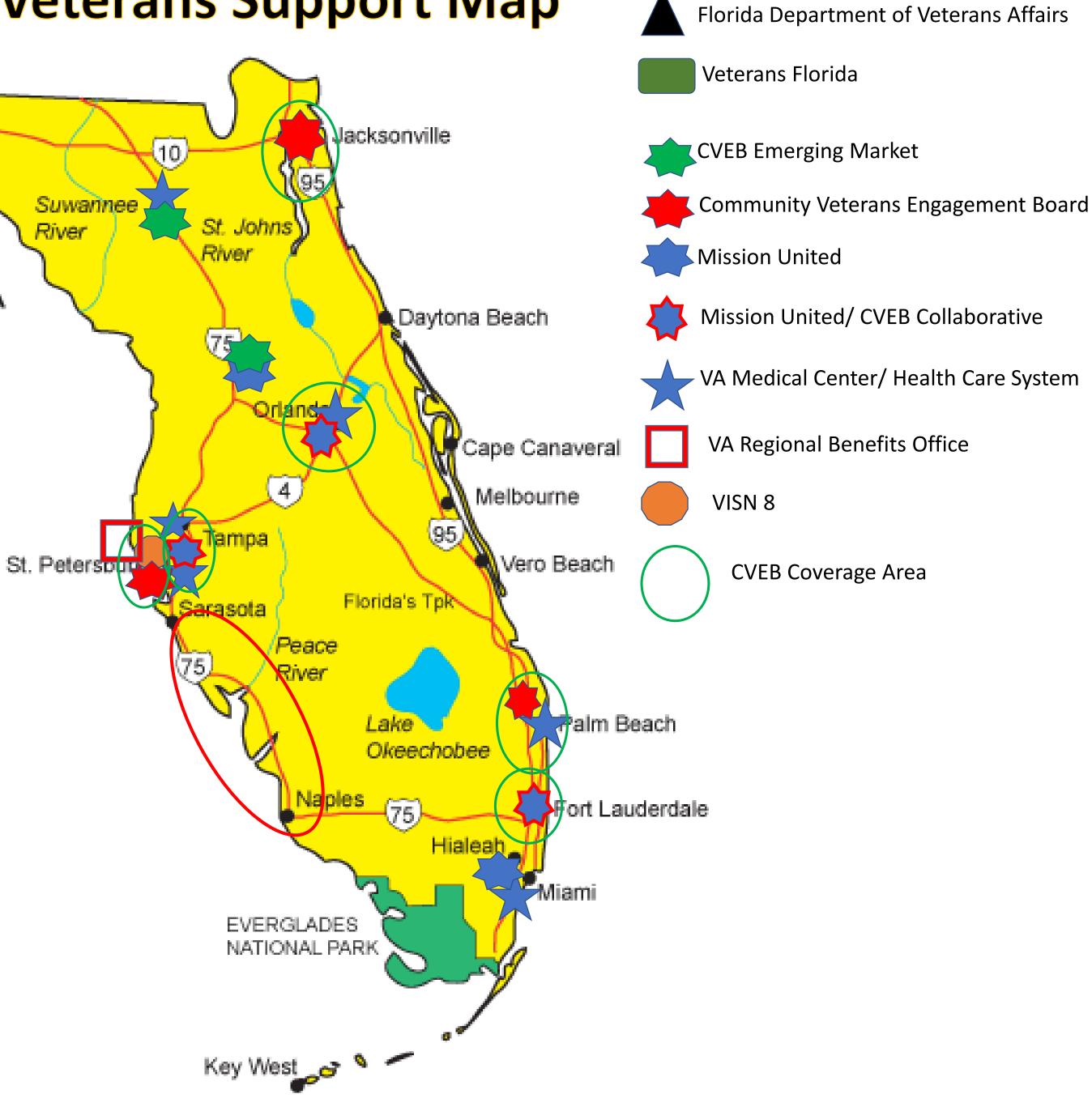
Rive

Tallahassee

**FLORIDA** 

# **FL CVEB- Future**

Tallahassee	TBD
Gainesville	TBD
The Villages	TBD











# Florida's Support of Military and Defense

## Florida Defense Alliance November 20, 2019



#### Florida's Military Presence

- 20 major military installations.
- Defense contributions to state economy:
  - \$84.9 Billion annual impact from military and defense business presence.
  - 801,747 direct and indirect jobs.
  - 2<sup>nd</sup> largest economic driver
- Optimum training environment; extensive ranges.

## Florida Defense Support Task Force

#### Mission (from F.S. 288.987):

- Make recommendations to preserve, protect and enhance Florida's military missions and installations.
- Increase the defense industry in Florida.
- Improve the military-friendly environment for service members, families, retirees and businesses that bring military-related jobs to the state.

## Florida Defense Support Task Force Members

- Senator Doug Broxson Chair Senate
- Mr. Tom Neubauer Vice Chair Senate
- Representative Thad Altman House
- RADM, USN (ret.) Stan Bozin Governor
- Brig Gen, USAF (ret.) Chip Diehl House
- Lt Col, USAF (ret.) William Dudley Senate
- Maj Gen, USAF James O. Eifert FLNG Gov's Personal Rep.
- Ms. Amy Gowder Governor
- Maj Gen, USAF (ret.) Richard "Beef" Haddad Senate
- Col, USAF (ret.) James Heald House
- Captain, USN (ret.) Keith Hoskins– Governor
- Representative Mel Ponder House
- Rep. Holly Raschein Governor

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



# **Top Priorities**

- Tyndall AFB rebuild
- Protection of the Gulf Range
- Space Command/Space Force

# Major Issues

- Prevent encroachment/incompatible development.
- Military family quality of life concerns
  - Spousal employment
  - Schools.
- Resiliency.
- Influence Pentagon decisions on basing.

Mission Sustainment & Development Program

- Tyndall AFB rebuild
- Protection of the Gulf Range
- Space Command/Space Force







# Florida's Support of Military and Defense

## Florida Defense Alliance November 20, 2019



# UNIVERSITY of WEST FLORIDA

#### **University Industry Collaborations**

Christopher A. Middleton University President's Military Liaison

#### **West Florida Defense Alliance**

November 20, 2019

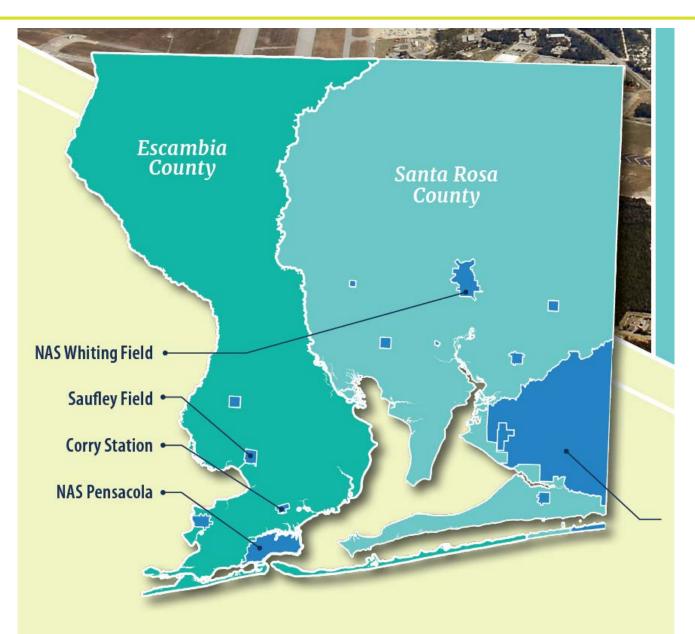
# Pensacola >

劉 Matrix

NEST /

ALIN











## **Defense concentration**

The West Florida Defense Alliance is part of a defense ecosystem that reaches across the state. In Northwest Florida alone, this ecosystem generates over 182,000 jobs and \$22 billion in economic impact. Approximately 40% of those impacts are realized in Escambia and Santa Rosa counties.

#### Northwest Florida Northeas Florida North Central Florida East Central Florida Number of Jobs Per Region Tampa Bay 182,449 Northwest Florida 166,406 **Fast Central** South Central 163,071 **Tampa Bay** Florida Southeast 127,832 Southeast Florida Northeast 115,965 Southwest Southwest 23,625 Florida 19,074 North Central South Central 3,325

**Total Employment Impacts of Defense Activities** 





latrix

#### **Economic Impacts of Defense Spending**

#### Escambia County

- Total Job Supported: 60,500
- Total Economic Impact: \$7.6 B (GRP)
- Share of County Labor Force: ≈39%

#### Santa Rosa County

- Total Job Supported: 16,000
- Total Economic Impact: \$1.4 B (GRP)
- Share of County Labor Force: ≈38%

In addition to the nine major military installations located throughout Northwest Florida, the region is also home to the highest concentration of veterans and military retirees in the state at nearly 172,000 veterans, of which 46,000 are military retirees.

#### **Escambia County**

- Veterans: 41,500
- Military Retirees: 11,000
- Santa Rosa County
- Veterans: 24,500
- Military Retirees: 8,000

#### Concentration of Veterans and Military Retirees by Region, 2016

		N <u>ØRTHW</u> EST
		NORTHEAST
		EAST CENTRAL
		NORTH CENTRAL
		TAMPA BAY
		SOUTHWEST
		STATE (FLORIDA)
		SOUTH CENTRAL
	Vet Quotient 📕 Retiree	Quotient
	A value greater than 1 indicates a populatio concentration of veterans and military retire	n with a higher ees than the nation. SOUTHEAST
1.	0 2.0 3	.0 4.0 5.0

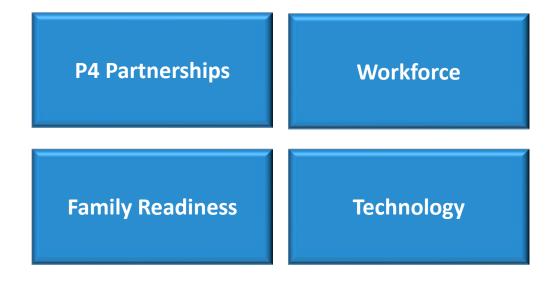






#### West Florida Defense Alliance Mission Statement

To actively facilitate community and government support to sustain and enhance current military missions, pursue future missions, and promote the region's contributions to the nation's defense.







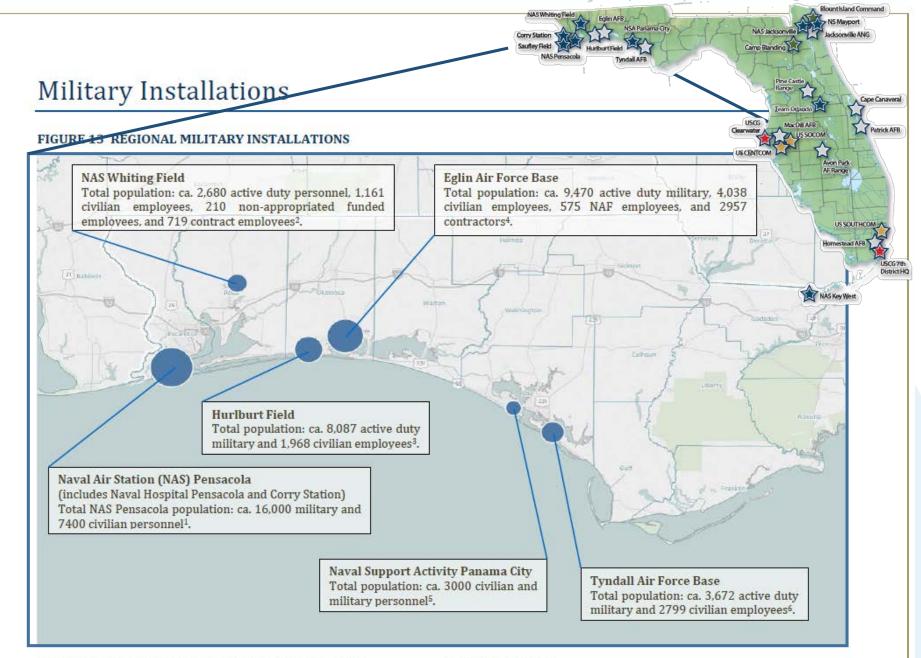
# UNIVERSITY of WEST FLORIDA

#### **University Industry Collaborations**

Christopher A. Middleton University President's Military Liaison

#### Florida's Military Installations, Missions, and Key Organizations





<sup>1</sup>http://www.cnic.navy.mil/regions/cnrse/installations/nas\_pensacola.html <sup>2</sup>http://www.cnic.navy.mil/regions/cnrse/installations/nas\_whiting\_field.html <sup>3</sup>http://www.hurlburt.af.mil/ <sup>4</sup>http://www.eglin.af.mil/ <sup>5</sup>http://www.cnic.navy.mil/regions/cnrse/installations/nsa\_panama\_city.html <sup>6</sup>http://www.tyndall.af.mil/

# Florida's State University System

- Large state system
- The state college system hosts an additional 28 campuses
- FL SUS has over 281,000 undergrads 68,000 graduate students 60,000 faculty and staff

Total force: 409,000 personnel

Access system not just a site



# **University of West Florida**

- Co-located with Federal presence, defense contractors and classified work
  - AFSOC, Eglin AFB, AFRL, AFLCMC
  - NETC, CNATT, CIWT
  - DHS and NSA
  - Plus significant health presence
    - Hospitals: VA's JACC, Active Duty, Baptist Health, Sacred Heart (Ascension), West Florida Hospital (HCA)
  - Plus research partners:
    - Institute for Human Machine Cognition (IHMC)
- Colleges of Science and Engineering, Business and Health, two ROTC units, 13K students, 2.3K faculty and staff, downtown offices, career services, contract office

# **National Security Innovation Base**

 The security environment is also affected by rapid technological advancements and the changing character of war. The drive to develop new technologies is relentless, expanding to more actors with lower barriers of entry, and moving at accelerating speed. New technologies include advanced computing, "big data" analytics, artificial intelligence, autonomy, robotics, directed energy, hypersonics, and biotechnology - the very technologies that ensure we will be able to fight and win the wars of the future.

# **National Security Innovation Base**

- New commercial technology will change society and, ultimately, the character of war. The fact that many technological developments will come from the commercial sector means that state competitors and non-state actors will also have access to them, a fact that risks eroding the conventional overmatch to which our Nation has grown accustomed. Maintaining the Department's technological advantage will require changes to industry culture, investment sources, and protection across the National Security Innovation Base.
- The Department will also continue to explore streamlined, nontraditional pathways to bring critical skills into service, expanding access to outside expertise, and devising new public-private partnerships to work with small companies, start-ups, and universities.

## **Discussion on collaborations**

- "Realizing the Value of Industry-University Innovation Alliances: Universities and corporate partners should implement five key practices to get the most from industry-university innovation alliances." Donald P. McConnell and Stephen E. Cross, Research-Technology Management (March-April 2019)
- Five key practices universities and corporate partners can implement to support successful, sustained industry-university innovation alliances:
  - The alliance must be aligned with both company and university strategy.
  - The industry partner and the university must be prepared to collaborate across the full innovation life cycle.
  - The industry partner and the university must be able to leverage resources across the university to meet the company's needs.
  - The university must have dedicated partner liaisons who understand the partner's strategic priorities.
  - The university should be prepared to tailor education programs to provide support for industry partners' innovation needs

## **Discussion on collaborations**

- In response to increasing market pressures over the past decade, corporate expectations for measurable results from engagement with universities have climbed.
- The trend has developed away from one-off cooperation with individual researchers <u>and toward sustained cross-institutional</u> <u>collaborations that produce research that is integrated into the full span of the corporate innovation process</u>.

# **Initiating Industry Collaborations**

- Leveraging university portfolio
  - Value to the company and reduced R&D costs
  - Commercialization benefits
    - IP protection
    - Established, enduring locations, staff and labs
  - Cyber, Engineering, Business and Innovation Institute
- How to access an example of a military office
  - Office of Military Engagement
  - Security clearance pathways, veteran hiring, credentialing, research centers
  - Requirements, capabilities, Federal engagement, strategic alignment and economic development

## **Necessary** actions

- Engage a military office or a peer office at another institution
- Use a Defense Alliance or Defense Community center point
  - Permissions, approvals
- Understand the 'lift' required
  - Contracts
  - Career office
  - Base access
  - Agreements (i.e. NDAs, tech transfer)
- Accelerate Florida growth, research and job initiatives by combining efforts and increasing access

# **Examples**

- Talent pipeline
- Veteran spouses
- Data sources and analysis
- Specific job growth or employee development solutions
- Security clearance pathways
- LearnX
- Costing

## **Example outcome - talent**

- Expand and accelerate a value-added pipeline of students, researchers and collaborators to support missions growth and mission sustainment
  - Meet demands for hire-ready talent
  - Subjects such as cybersecurity, science and engineering are natural areas
  - A university partner is proposed to contribute to the innovation value chain by identifying and accelerating early-stage requirements for a pipeline of cyber security, business and multi-disciplinary students
  - Identified adjustments to talent acquisition marketspace must be scalable and repeatable
  - Endstate: Deliver a scalable, competitive advantage in access to talent, regional research capabilities and open-innovation partners

# **Veteran Spouses**

- Skilled, educated, active in community
- Experienced students, parents, employers
- Routine, global skill and job selection from varied training and education sources
- Exposure to Federal environment, deployment and job performance
- Exposure to military transition resources
- Area of study Military to Civilian Transition (MCT)



## Areas for discussion

- Tech transfer
- Data and subscription databases available
- Commercialization
- Low cost prototyping
- Access to researchers
- Access to assets for single or limited transaction
- Access to land, labs, waterfront or buildings
- Low cost, high expertise students and faculty



# Office of Military Engagement UNIVERSITY of WEST FLORIDA

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