

The Florida Senate
COMMITTEE MEETING EXPANDED AGENDA

**MILITARY AND VETERANS AFFAIRS, SPACE, AND
DOMESTIC SECURITY**

**Senator Wright, Chair
Senator Harrell, Vice Chair**

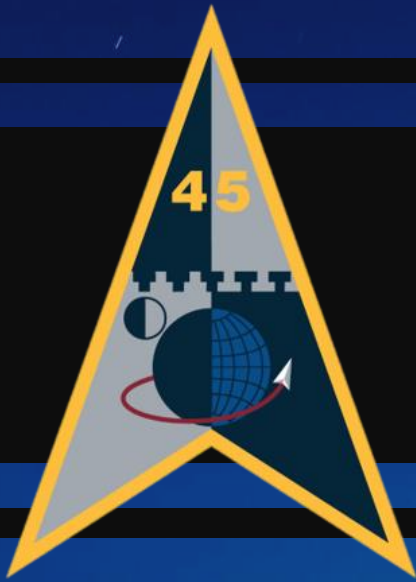
MEETING DATE: Wednesday, September 22, 2021

TIME: 10:15—11:15 a.m.

PLACE: Pat Thomas Committee Room, 412 Knott Building

MEMBERS: Senator Wright, Chair; Senator Harrell, Vice Chair; Senators Burgess, Cruz, Gibson, Rodriguez, and Torres

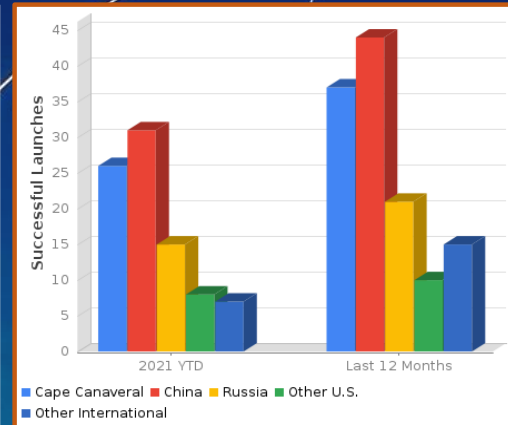
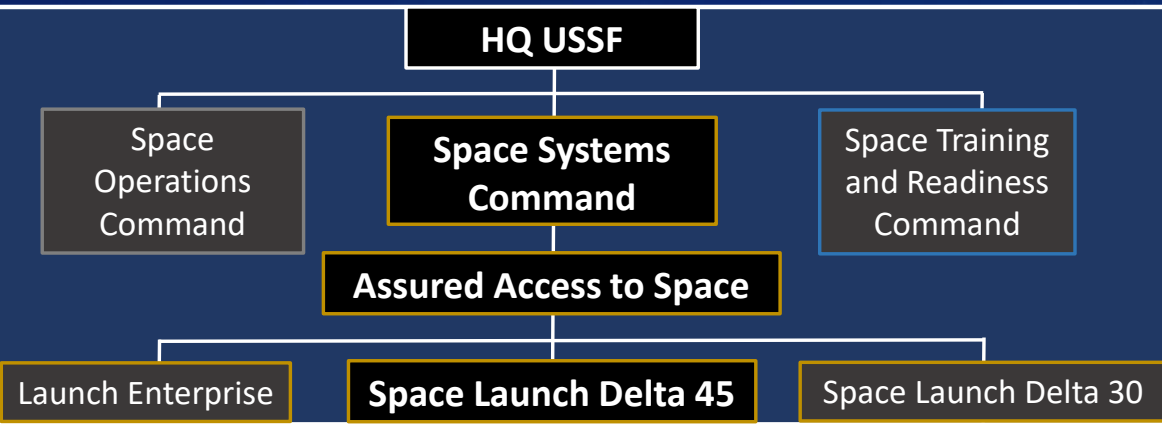
TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1		Presentation on the United States Space Force by Stephen "Birddog" Purdy, Jr., Brigadier General, United States Space Force Commander, Space Launch Delta 45 (SLD 45), and Director, Eastern Range and Director of Launch and Range Operations (SSC/S3), Space Systems Command.	Presented
2		Presentations by Frank DiBello - Space Florida President and Chief Executive Officer, Todd Romberger - Space Florida Senior Vice President, Spaceports Business Unit, and Mark Bontrager - Vice President, Spaceport Operations, updates on Space Florida.	Presented
Other Related Meeting Documents			



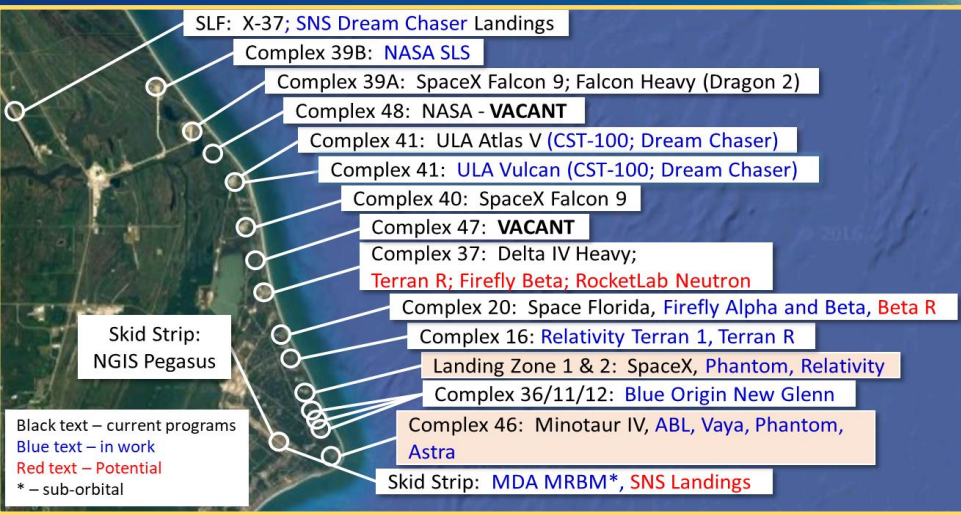
Space Launch Delta 45

Florida Senate Committee Military and Veterans
Affairs, Space, and Domestic Security Presentation
Sept 2021

Brig Gen Stephen G. Purdy Jr.
Commander, SLD 45
Director, Eastern Range



2021 ER Launch Snapshot	
2 NSS Dedicated	
8 Crew Members	
6 US Navy Missiles	
ER Commercial Launches	
CY2020	CY2021
65%	81%



Launch and Scheduling Metrics: Past 12 Months				
Requested Launch Opportunities	Approved Launch Opportunities	Counts Entered	Scrubs in Count	Launches
274	212	55	20	37

Multi-Use/Clean Pads
LC-46, LC-47, LC-48 (7 vehicles interested)

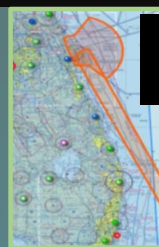
Potential Future Multi-Use Pads
LC-20 (small), LC-37 (3 vehicles interested)
LC-37 can support small or medium LVs
LC-20 Available in 2022, LC-37 in 2024

Vehicles Interested in the ER			
Small	Medium	Clean Pad Vehicles	Pads Available
7	3	2	2



Achieving SLD 45 Vision Elements

USG Lead (DoD & NASA)



General aviation contour reductions

Expanded weekly Cape Status w/ LSPs & partners

SLD 45 engaged w/ USN and FAA to increase launch opportunities

Accept 10x risk increase;
Launch opportunities increased by 80%;
Saves SLD 45 ~1,100 hrs/yr;
Returns ~400 USN operating hrs/yr

Lightning range rings reduction

5nm to 4nm;
Reduced work stoppage time by 20%

Polar launch from ER

Rapid commercial customer on-boarding

CLSRB Modifications

Range Safety T-X work

Airport-Style Operations

SLD 45 has visited local airports with more visits planned



Range Hub: Ops deconfliction process

Used to coordinate/implement approval for FAA-licensed launch – consistent with FAA 450 rules

Enabled polar launch while NSS flight hardware was on the Cape

SLD 45 ROTF: Architecture Implementation

Quicker transition between missions and/or simultaneous ops (driven by AFSS)

Autonomous Flight Safety/Monitoring

Commodities for simultaneous and high-flow ops

New CFO-type structure and contractor support

Developed Cost Catalog based on historical data

Identified areas where SLD 45 can possibly charge based on Commercial Space Launch Act definition

Next step: Develop Spaceport Cost Model to operate and sustain the Eastern Range



Policy/Law: Change required to move to a Spaceport Model: Change Commercial Space Act Title 51

Change Needed: DOD support to Commercial Space activities will be charged/treated IAW DOD FMR Vol 11a Ch 12

True multi-use pads unlike any before

Launch Complex allocation process for property distribution

Maximize access to launch complexes by multiple launch providers

Dedicated Pad vs. Multi-Use Pad Concept

COA 1 – Source Select 7 potential vehicles; 1 selected per vacant pad

LC-46, LC-47, LC-48 (7 vehicles interested)

COA 2 – Multi-Use Pad Concept 7 potential vehicles; Up to 7 selected

LC-20 – Future multi-use pad; Available in 2022

LC-37 – Future multi-use pad Available in 2024 (3 med vehicles interested)

Thank You



The World's Premier Gateway to Space

The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

Presented by Zoom
US Space Force
Bill Number or Topic

09.22.2021

Meeting Date

Military Affairs

Committee

Name Brig Gen Stephen Purdy, Jr.

Phone _____

Address _____

Email _____

Street

Patrick Space Force Base, FL

City

State

Zip

Speaking:

☐

For

☐

Against

☒

Information

OR

Waive Speaking:

☐

In Support

☐

Against

PLEASE CHECK ONE OF THE FOLLOWING:

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I am appearing without
compensation or sponsorship.

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representing:

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(travel, meals, lodging, etc.),
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S-001 (08/10/2021)



Space Florida Update

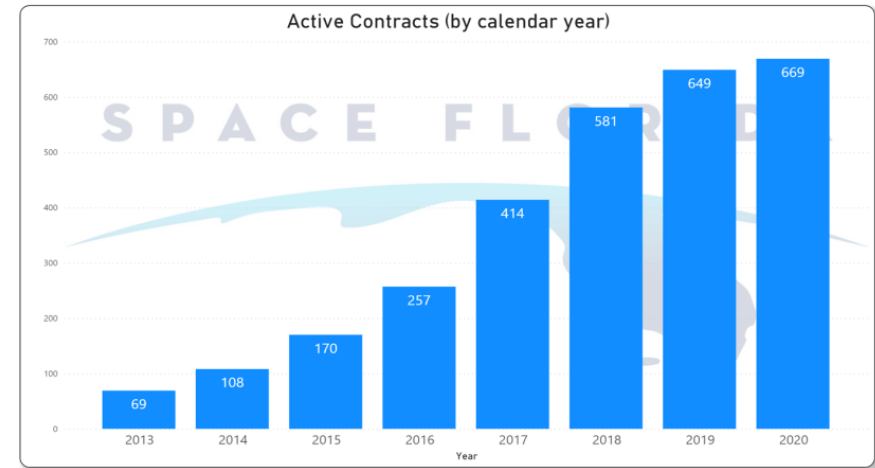
September 22, 2021

Senate Committee on Military and Veterans Affairs,
Space, and Domestic Security

Frank DiBello	President & CEO
Todd Romberger	SVP, Spaceports Business Unit
Mark Bontrager	VP, Spaceport Operations

Growth Statistics ... 2015 – 2020

- **Deal Log: Validated Opportunities**
 - Doubled ... 40 avg. → 80+
- **Balance Sheet Growth (Asset Value)**
 - \$144.1 M → \$320.8 M
- **Value of Infrastructure Portfolio**
 - → \$2.7 B
- **Pipeline of New Infrastructure**
 - → \$2.87 B



- **Number of New Contracts Opened / year**
 - 76 → 314
- **Number of Financial Transactions / year**
 - 272 → 838



Blue Origin – Cape Canaveral Spaceport, FL

735+ Total Direct Jobs
\$1.035B Total Capital Investment



CAE Corporate – HQ in Tampa, FL

600-1000 Total Direct Jobs
\$62M Total Capital Investment



AgustaWestland – Hangar, Equipment and Tooling in Milton, FL

50+ Total Direct Jobs
\$35M Total Capital Investment

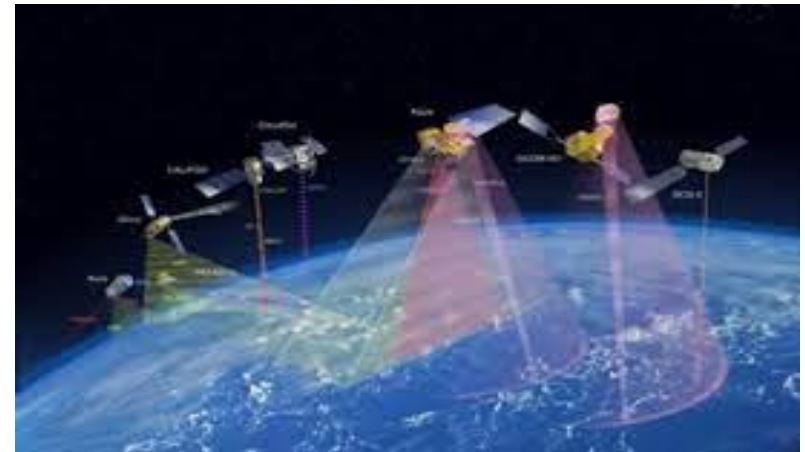


Redwire – HQ in Jacksonville, FL

100+ Total Direct Jobs
Global Corporate Headquarters,
Engineering, and Satellite Manufacturing

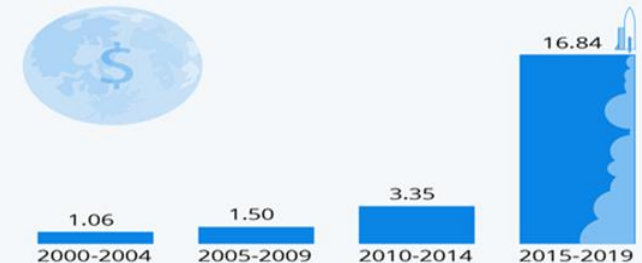
- **Global Space Revenues -- \$450 Billion**
 - US – 9% Growth in 2020
- **Satellite Deployments Tripled – in 2020**
 - 50,000+ New Satellites by 2030
- **Total Global Orbital Launches – 2020 ... 114**
 - 31 of 38 US ... from Florida in 2020
 - YTD ... 25 from Cape – Manifest: 45
- **Unprecedented Capital Markets Focus**
- **Competition from Other States / Nations**

We Are Not Alone!



Investment in Space Blasts Off

Total value of investments in space ventures over 5-year periods since 2000 (in billion USD)

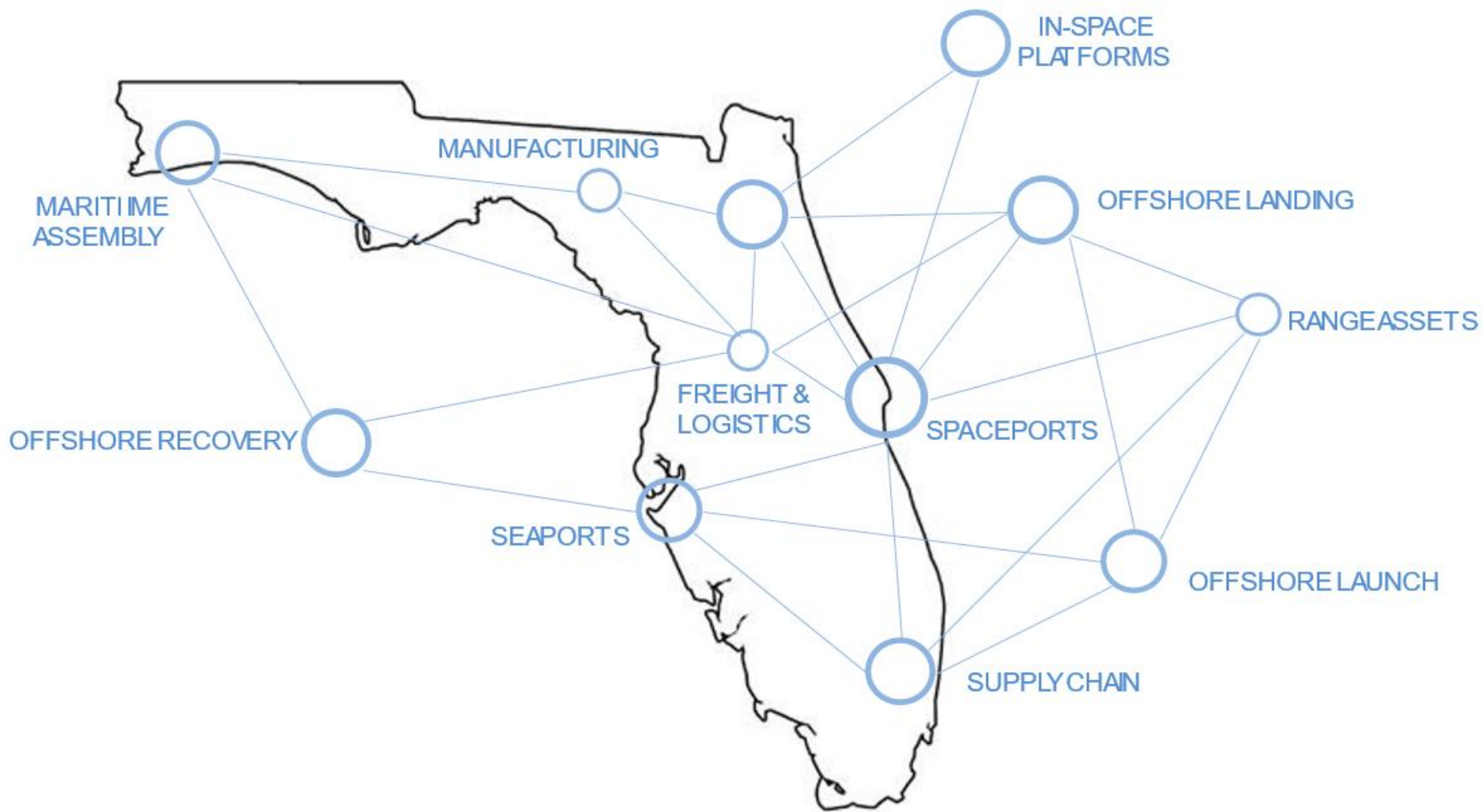


Source: Tauri Group - Start-Up Space 2020



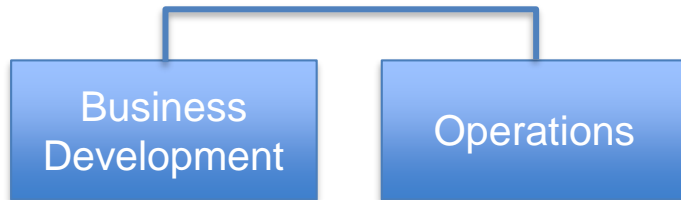
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Florida's Spaceport System

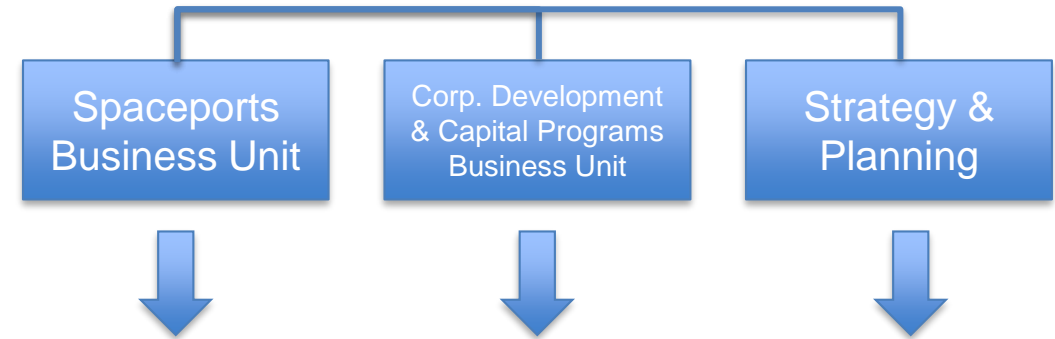


Organizational Realignment to Scale for Growth

FROM



TO



Buildout of key functional areas aligned with Vision, Mission and Objectives

- Establishes two new Business Units with focused objectives + strategy & planning
- Better aligned with Space Florida's offering to the aerospace marketplace
- Start to Finish accountability / responsibility for project success
- Provides framework for growth in key functional areas to achieve objectives

Spaceports Business Unit

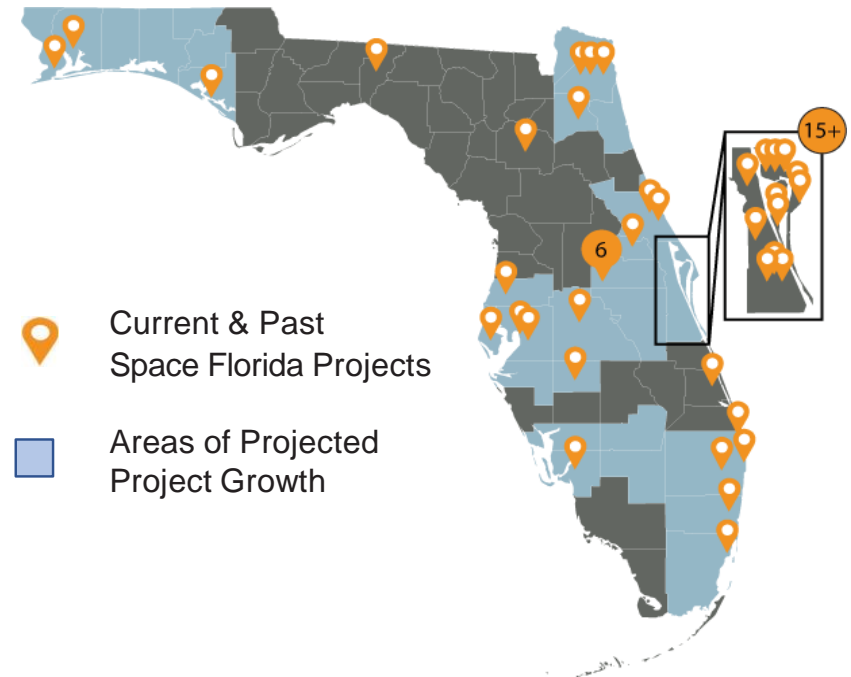
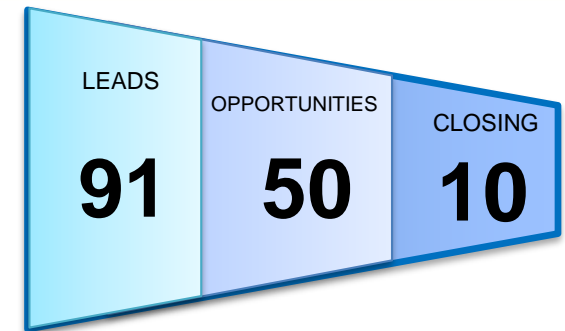
Maximize Capacity and Capability of Florida's Spaceport System

- Sales
- Development
- Operations
- Facilities

Corporate Development & Capital Programs Business Unit

- Corporate Development Initiatives
- Expanding Capital Access
- Extending Statewide Reach
- Managing Portfolio

\$2.87 Billion in
conduit finance
in pipeline



1. **Grow Space Florida's Infrastructure / Investment Portfolio**
... from \$2 B → \$10 B by 2030.
2. **Move Florida's Rank among States for Aerospace / Space Workforce**
... from 7TH place → to 4th on better.
3. **Drive / Achieve both Market Perception and Reality of Florida**
... as an Aerospace Capital Center
... → significantly Expanded Capital Base.

Increasing Capital Management / Investment Responsibilities

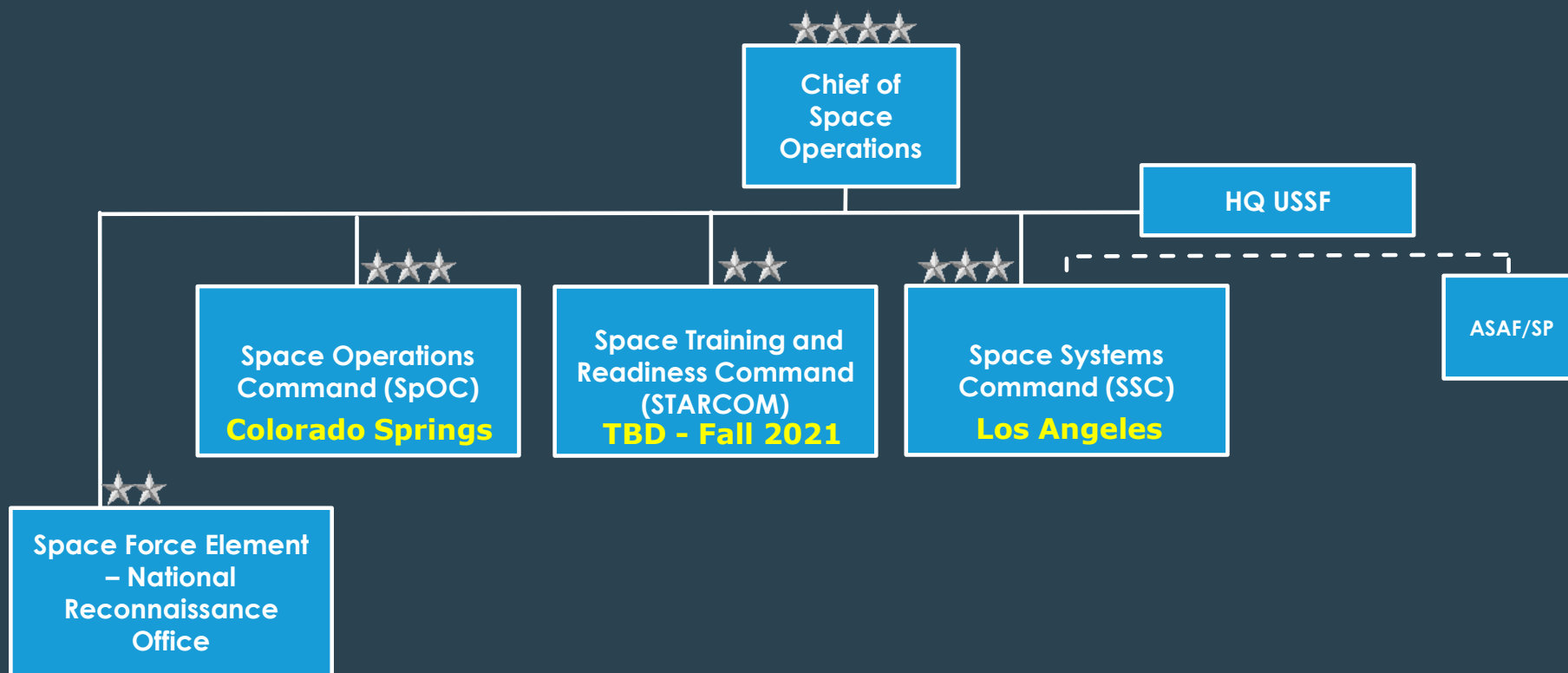


UNITED STATES
SPACE FORCE

- **SIXTH BRANCH OF US ARMED FORCES**
- **UNITED STATES SPACE FORCE SIGNED INTO LAW 20 DECEMBER 2019**
- **AS DESCRIBED IN THE UNITED STATES SPACE FORCE ACT, IT WILL BE ORGANIZED, TRAINED, AND EQUIPPED TO:**
 - **PROVIDE FREEDOM OF OPERATION FOR THE UNITED STATES IN, FROM, AND TO SPACE**
 - **PROVIDE PROMPT AND SUSTAINED SPACE OPERATIONS**



USSF ORGANIZATIONAL CHART





MISSION

STARCOM will prepare the USSF to prevail in competition and conflict through innovative education, training, doctrine, and test

SUBORDINATE UNITS

Space Delta 1 – Training (Vandenberg Space Force Base, CA)
 Space Delta 10 – Doctrine & Wargaming (TBD)
 Space Delta 11 – Range & Aggressor(TBD)
 Space Delta 12 – Test & Evaluation (TBD)
 Space Delta 13 – Education (TBD)

STRATEGIC BASING

Headquarters and Delta locations
 Expected: Fall 2021

Florida Benefit: Focal Point for All Space Force Doctrine and Education

- **Invited by Air Force / Space Force to propose criteria updates for future site selection evaluations**
 - **Summer 2021: Space Florida / Enterprise Florida trip to Washington**
 - **Innovative Commercial Air and Space Capacity as a Force Multiplier**
 - **Demonstrated Community Investment**
 - **Financing Optimization / Flexibility**
 - **Data Source Recommendations**
 - **Effective Evaluation for Greenfield Sites**
- **Engagement with General Services Administration – Florida’s Mission Focused Special Purpose Entity Concept**
- **Developing Statewide and Regional Statement of Capabilities in partnership with Enterprise Florida Military and Defense**
- **Fall 2021: Lead effort to secure STAR Command HQ and Deltas to FL**



Thank You

9/22/21

Meeting Date

The Florida Senate
APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

Space Florida
presentation

Bill Number or Topic

Military + Veterans Affairs

Committee

Amendment Barcode (if applicable)

Name Frank DiBello

Phone 333-268-8282

Address SOS Odyssey Way

Street

Email lpierce@spaceflorida.gov

Expl. Park FL

City

State

32953

Zip

Speaking:

☐

For

☐

Against

☒

Information

OR

Waive Speaking:

☐

In Support

☐

Against

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S-001 (08/10/2021)

The Florida Senate
APPEARANCE RECORD

SACR Florida
Presentation

9/22/21

Meeting Date

MILITARY & VETS AFFAIRS

Committee

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Bill Number or Topic

Amendment Barcode (if applicable)

Name

~~MARK BOMBERGER~~ Todd Romberger

Phone

321-730-5301

Address

505 ODYSSEY WAY

Street

Email

trromberger@spaceflorida.gov

EXPL PK

City

FL

State

32953

Zip

Speaking:

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S-001 (08/10/2021)

The Florida Senate
APPEARANCE RECORD

SPACE FLORIDA
Presentation

9/22/21

Meeting Date

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Bill Number or Topic

MILITARY VETERANS AFFAIRS

Committee

Amendment Barcode (if applicable)

Name

MARK BONTRAGER

Phone

321-730-5301

Address

505 ODYSSEY WAY

Street

Email

mbontrager@spaceflorida.gov

EXPL PK

City

FL

State

32953

Zip

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S-001 (08/10/2021)

CourtSmart Tag Report

Room: KB 412

Case No.: -

Type:

Caption: Senate Military and Veterans Affairs, Space, and Domestic Security Committee

Judge:

Started: 9/22/2021 10:15:05 AM

Ends: 9/22/2021 11:12:00 AM **Length:** 00:56:56

10:15:04 AM Meeting called to order by Chair Wright

10:15:19 AM Roll Call by CAA, Lois Graham

10:15:28 AM Quorum announced

10:15:33 AM Pledge of Allegiance led by Senator Torres

10:16:01 AM Chair Wright with opening comments

10:17:15 AM Tab 1 - Presentation on the United States Space Force

10:17:41 AM Brigadier General Stephen "Birddog" Purdy, Jr., U.S. Space Force Commander presents

10:34:24 AM Senator Gibson with comments

10:34:39 AM Senator Harrell with question

10:34:49 AM General Purdy responds

10:37:01 AM Senator Harrell with follow-up

10:37:08 AM General Purdy responds

10:38:55 AM Chair Wright with question

10:39:02 AM General Purdy responds

10:40:32 AM Chair Wright with comments

10:40:36 AM General Purdy responds

10:40:56 AM Chair with comments

10:41:04 AM Senator Gibson with comments

10:42:02 AM Chair with comments

10:42:09 AM Tab 2 - Presentation by Space Florida

10:42:34 AM Mr. Frank DiBello, Space Florida President and Chief Executive Officer presents

10:52:36 AM Mr. Todd Romberger, Senior Vice-President, Spaceports Business Unit, presents

10:59:13 AM Mr. Mark Bontrager, Vice-President, Spaceport Operations presents

11:04:17 AM Senator Torres with comments

11:05:28 AM Senator Harrell with question

11:05:53 AM Mr. DiBello responds

11:10:45 AM Chair Wright with comments

11:10:59 AM Senator Harrell with comments

11:11:04 AM Chair Wright with comments

11:11:18 AM Senator Burgess with comments

11:11:41 AM Senator Rodriguez moves to adjourn

11:11:48 AM Meeting adjourned