



Presentation to Langley Contractor Steering Council

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April 15, 2021

Agenda



- **SACD Overview**
- **E4 Organization Chart**
- **Branch Organizations**
- **Influence / Branch Capabilities**
- **SACD Contractor Support**



Systems Analysis and Concepts (SACD) Overview



- **Vision**

- To be recognized as the preeminent systems analysis provider for NASA.

- **Mission**

- Influence future NASA missions by providing analysis, concepts, tools, & technology assessments to inform decisions across the full spectrum of aeronautics and space systems and portfolios.

- **Definition**

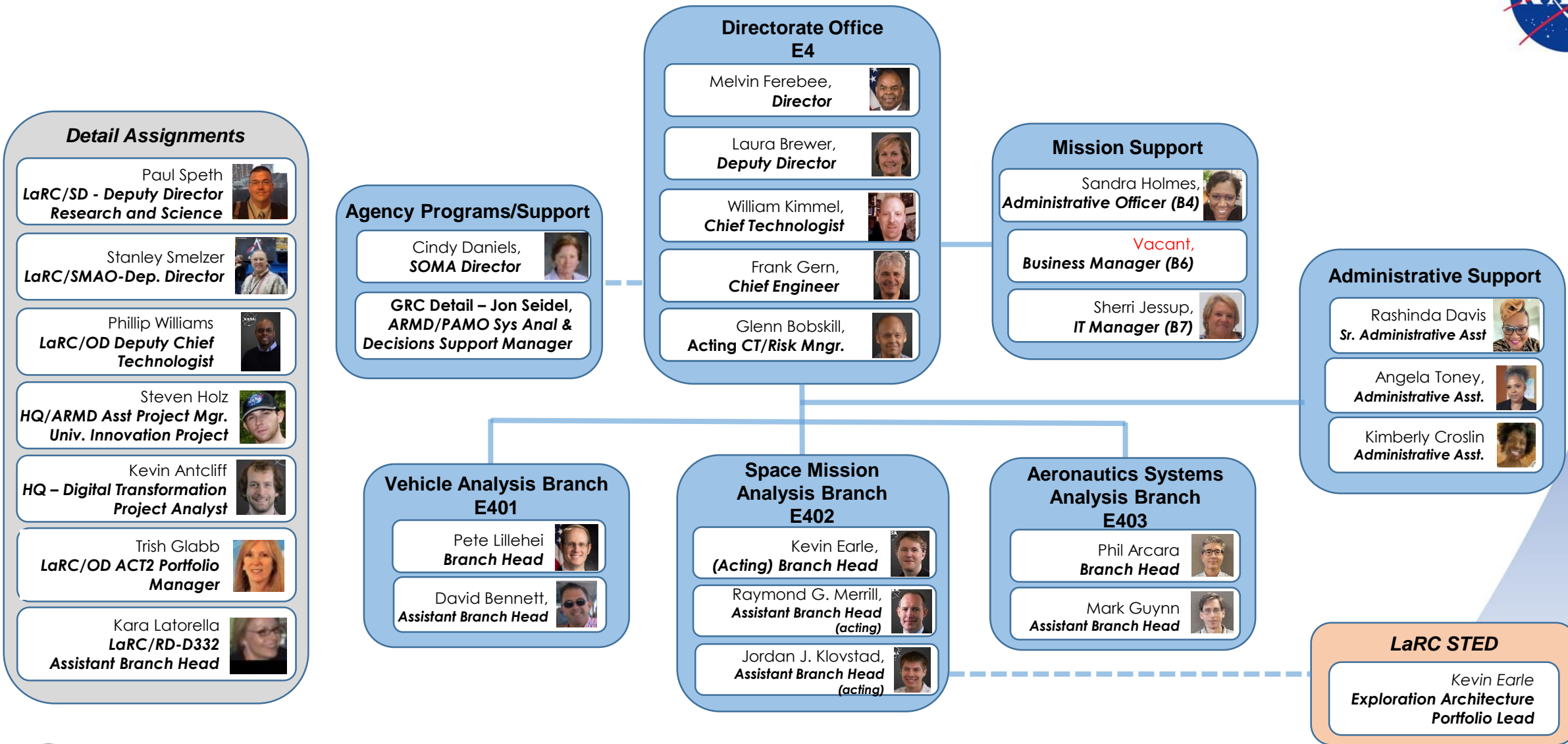
- Systems Analysis is an integration, analysis, or conceptual design process utilizing a variable fidelity analysis methodology in determining an overall definition, feasibility, affordability, performance, or system requirement of an Architecture, Vehicle, or Operational concept within a physics-based multi-disciplinary environment.

- **3 Branch Organizations (incl. Dir. Office) – (115 CS and 40+ Contractors)**

- Vehicle Analysis Branch (E401, CS-37, Contractor-1)
- Space Mission Analysis Branch (E402, CS-40, Contractor-24)
- Aeronautics Systems Analysis Branch (E403, CS-32, Contractor-10)



E4 Organization Chart





SACD Branch Organizations

[\(info in Backup\)](#)

VAB – E401

SMAB – E402

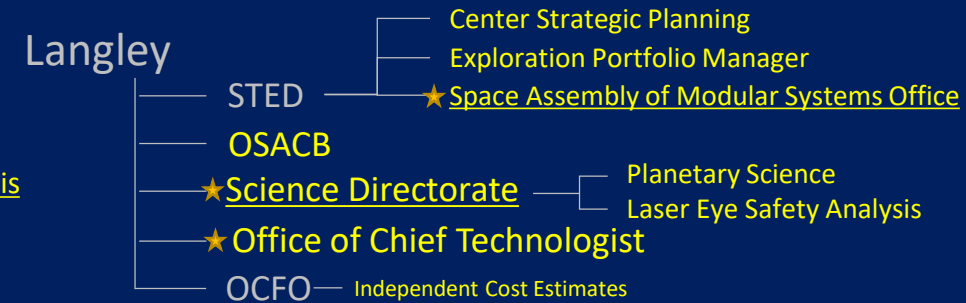
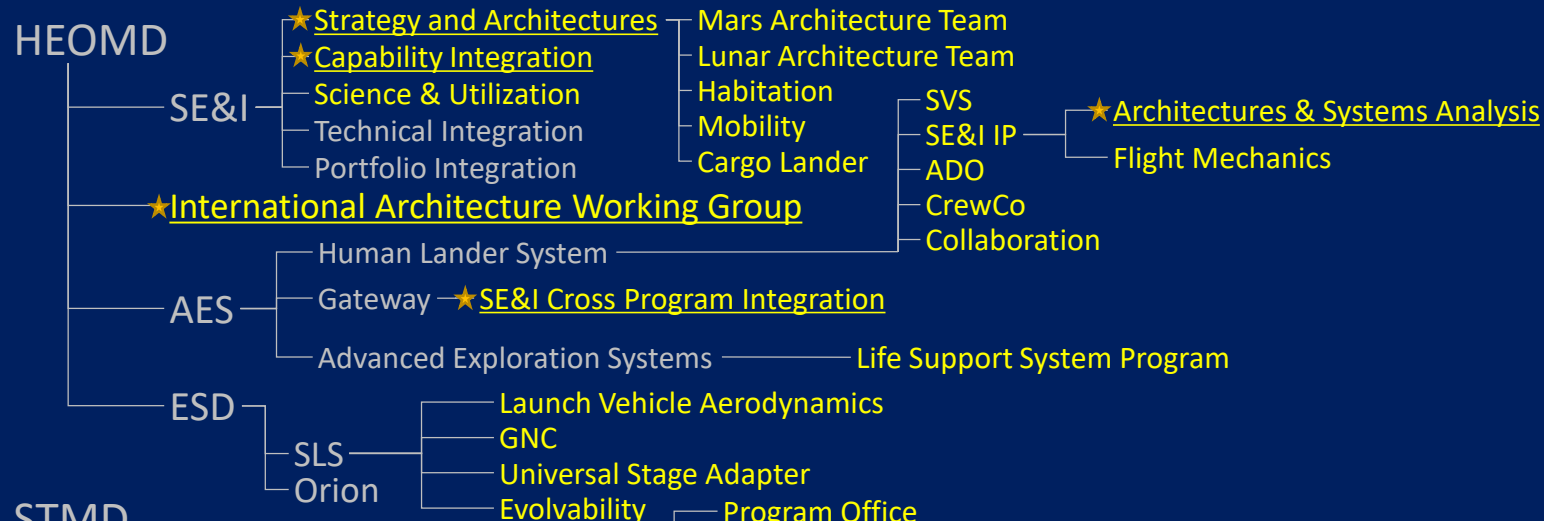
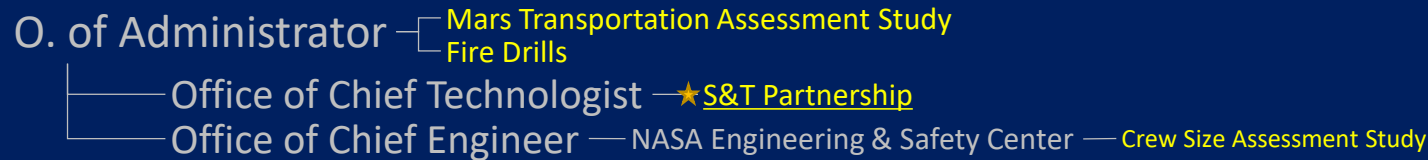
ASAB – E403



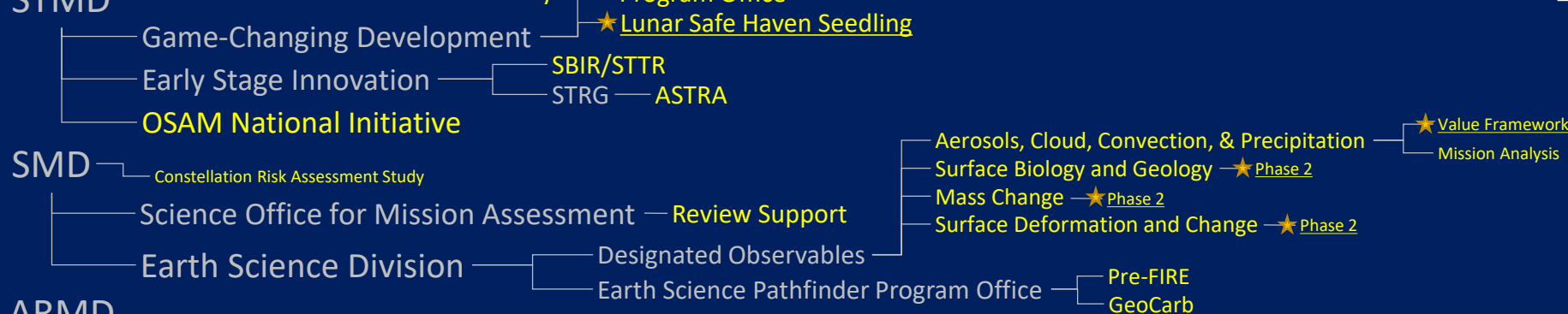


Influence / Capabilities





Points of Engagement



★ Lead and/or Deputy

VAB Technical Areas and Capabilities

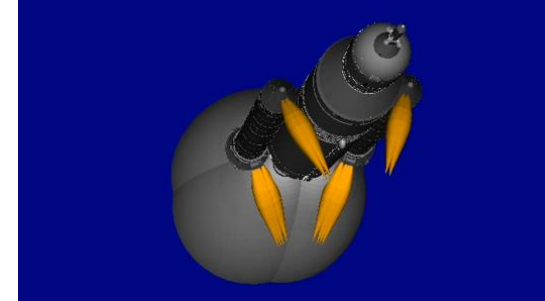
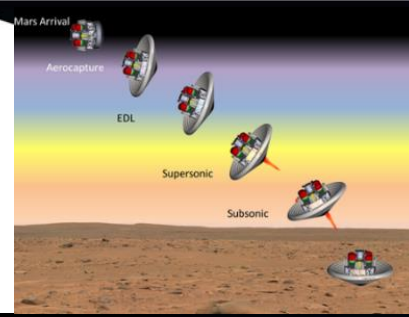


Technical Areas:

- Conceptual design/systems analysis of space exploration vehicles, hypersonic vehicles, and launch vehicles
- Identify high pay-off technologies and synergies between different technologies
- Determine technology maturation effects on vehicle design and mission success
- Identify trade space, systems performance, system requirements, and research objectives
- Assist stakeholder decision making through sensitivity analyses and design space exploration

Capabilities:

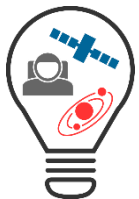
- Develop and maintain innovative tools/methods for systems analysis/technology assessment
 - Aero / Aerothermodynamics
 - Propulsion
 - Reliability, Risk, Cost, UQ
 - Structures
 - Flight mechanics/trajectories
 - Vehicle Design, Configuration, Closure, CAD/Geometry
- Develop variable fidelity systems analysis frameworks and suites
- Provide subject matter expertise and multi-disciplinary technology interaction assessments



SMAB Mission and Products



Our Mission: We enable NASA leadership to effect meaningful change through well-informed decision-making by performing concept development, analysis, and integration of complex aerospace systems.



Strategic Analysis

Framework structures, strategy development, market analysis, **portfolio formulation** & evaluation decision support

Multi-mission planning over extended periods of time to accomplish objectives

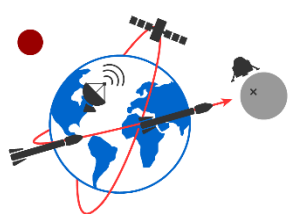
Highly integrated architectures developed to support a campaign or multiple missions

End-to-end planning for space missions; strong space trajectory analysis capability

Space **vehicle design**, sizing, and configuration

Portfolio characterization and **prioritization facilitation**, process development, data visualization

Characterization of **technology and capability needs** vs. state-of-the-art



Concept Design, Analysis, and Assessment of

Campaigns



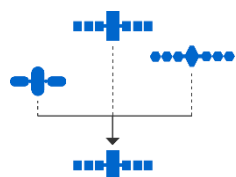
Integrated Architectures



Missions/Flights



Vehicles



Decision Analysis



Technology Assessment



Aeronautics Systems Analysis Branch

Exploring advances to aeronautical concepts today for our transportation future...



TACP/TTT **AOSP/ATM-X**
TACP/CAS **AOSP/SWS**

AAVP/AATT
AAVP/CST **IASP/FDC(X-57)**
AAVP/RVLT **IASP/LBFD(X-59)**
 IASP/AMIO

LaRC/IRAD **ARMD/PAMO**

Capabilities

Concepts

Customers



ASAB's mission is to ideate advanced air transportation concepts, perform impartial aviation systems analysis, conduct aeronautics research strategic planning, and develop enhanced design and analysis methods. We foster an engaging culture that values innovation and diversity of thought to attract and nurture exceptional personnel.

Key Partners

Who can provide resources to support our activities?

- Agency Mission Directorates
- LaRC Office of the Director
- LaRC Product Unit Directorates
- LaRC Core Resource Units
- LaRC Mission Support Directorates
- LaRC OCT
- OGA's, Aerospace Industries

Key Resources

Who/what is needed to produce and deliver our value?

- Multi-disciplinary Engineers with systems analysis / integration perspective
- Organizational Line Management
- Administrative assistants
- Systems Administration / Software
- NASA Contractor / Intern support
- Chief Technologist & Engineer
- Senior Directorate Management

Key Activities

What do we do to produce and deliver our value?

- Sys. Analysis Technical Capabilities
- Aeronautics Systems Analysis
 - Aerodynamics
 - Aeroacoustics
 - Autonomy
 - Certification
 - Concept-to-Flight / Test
 - Cost Analysis
 - Flight Dynamics
 - Integrated Vehicle Design

Aeronautics Systems Analysis

- MDAO
- Modeling & Simulation
- Portfolio Analysis
- Propulsion Integration
- Risk / Safety Analysis
- Structures & Materials
- Transportation System Modeling
- Uncertainty Quantification

Space Mission Analysis

- Campaign Analysis
- Capability Assessment
- Comm. & Telemetry / Security
- Cost Analysis
- Decision Analysis
- Flight Mechanics
- Habitation/Human Sys. Integration
- Instrument Design & Analysis
- Integrated Architectures
- Mission Analysis
- Modeling & Simulation
- Strategic Analysis
- Supportability
- Systems Engineering
- Uncertainty Quantification
- Vehicle Sizing

Vehicle Analysis

- Advanced Concepts
- Aerodynamics
- Aeroheating
- Astrodynamics
- Control Systems
- Cost Analysis
- Entry, Descent & Landing
- Flight Dynamics
- Flight Mechanics
- Load Estimation
- Modeling & Simulation
- Propulsion
- Risk Management & Analysis
- Structures & Materials
- Uncertainty Quantification
- Vehicle Sizing

Value Proposition

What value do we provide?

- We **CREATE** the structure to allow decision makers to make informed decisions
- We **ENABLE** robust discussions to identify drivers and challenges
- We **CHALLENGE** constraints to create innovative solutions
- We **IDENTIFY** a diversity of alternative solutions over optimizing to point solutions
- We **EXPLORE** the art of the possible for aerospace systems

Products/Services

- **Deliver on NASA Mission**
 - NASA Program / Project milestone deliverables
 - Studies & Assessments
 - OGA technical collaborations
- **LaRC Tech. Council Support**
 - Agency / Center strategic efforts
 - Langley Technology Council
 - SBIR / STTR efforts
 - Center technical quality review / assessment panels
 - CAS & NIAC innovative ideas
 - Emerging and disruptive technology efforts

Systems Analysis
(Branch Capability Summary)

Customer Relationships

How do we maintain a relationship with our customers?

- Person-to-Person conversations
- Attending Agency approved Events
 - Professional conferences
 - Technical workshops
 - Public outreach forums
- Email communication
- Approved digital data transfer & communication
- Meetings
 - Directorate weekly staff
 - Directorate/Branch monthly tag ups
 - Center CLC/CMC/MIF
 - Product Unit Integration / Pre-CMC's

Channels

How do we deliver value to customers?

- Approved NASA Project data transfer processes
- Individual requests for documents
- Person-to-Person Conversations
- Meetings
- Office 365 Teams
- Conferences
- Systems Analysis website
- Sharepoint
- @LaRC Website
- Email communication

Customer Segments

Who do we serve?

- Agency HQ / Mission Directorates
 - Office of the Administrator
 - ARMD
 - HEOMD
 - STMD
 - SMD
 - OCE / NESC
 - Program Leadership
- LaRC Senior Leadership
 - Office of the Director (OD)
 - Product Unit Directorates
 - Core Resource Directorates
 - Mission Support Directorates
- LaRC OCT
 - Langley Technology Council
 - Langley Strategic Technology Investment Plan (LSTIP)
 - OD Center Investments
 - CIF, IRAD, NIAC, ECI, SBIR/STTR
- LaRC researchers, technologists, engineers
- NASA Centers
 - All Space, Science, and Research Centers
 - Agency Project Leadership
- OGAs
 - NRO, DARPA, FAA, NOAA
- Aerospace / Defense Industries
 - Senior Leadership
 - Business Development
 - Technical Experts
- General Public



SACD Contractor Support



SACD Contractor Support – (FY21)

- TEAMS 3 - Technology, Engineering, and Aerospace Mission Support 3
 - *Analytical Mechanics Associates (AMA) Inc – (30)*
 - *Binera Inc. – (1)*
- LAMPS 2 - Langley Administrative, Media, and Professional Services 2
 - *Alutiiq Fusion Joint Venture – (3)*
- NEST - NASA End-user Services & Technologies
 - *Leidos Inc. – (2)*
- NIA – National Institute of Aerospace – (1)
- Bryce Space and Technology (HEOMD/AES) – (1)



TEAMS 3 (Discipline 12)



- Systems Analysis and Concepts Development – (25+ TDN's FY21)
- Discipline 12 involves studies to enable informed technical, programmatic and budgetary decisions. This work requires proficiency in the development of systems analysis products including, but not limited to:
 - System concepts and requirements; mission architectures; system integration; campaign analysis; mission analysis;
 - Vehicle analysis and design; system and technology trades; life cycle analyses (cost, reliability, operations, affordability, risk); configuration design, layout and packaging;
 - Aerodynamics and aerothermodynamics; thermal analysis and thermal protection systems; structures; propulsion systems; trajectory/flight mechanics; stability and control; emissions, noise;
 - Extra-vehicular activities; avionics; software systems; communications; environmental control life support systems; and tools and methods.
 - The facilities include, but are not limited to, the Advanced Concepts Laboratory, Integrated Design Center, and computer laboratories.



SACD Contractor Capability Gaps – (Predicted)



- HEOMD
 - Exploration Mission Analysis
- SMD
 - Science Mission Analysis
- ARMD
 - Aircraft Certification
 - Air Transportation Operations
 - Aerodynamics
 - Uncertainty Quantification
 - Modeling and Simulation
 - Risk Assessment
 - UAM Forecast Modeling / Scenario Generation



Closing Remarks



- SACD continues to acquire excellent contractor support
 - Across all technical, administrative, and IT system administration support areas
 - Technical task ratings have routinely been rated as Very Good/Exceptional
 - Across all Aeronautics, Exploration, and Space Technology portfolios areas
 - Average about 30+ Technical Direction Notices (TEAMS3 TDN's) during the FY
 - CS Task Leads provide exceptional impact statements (CPARS, Phased Award fee periods)
- Technical contractor personnel earn lead responsibilities within Branches
- Contractor knowledge/skillsets are valued (CS Hiring opportunities)
- SACD will continue to engage with the LaRC Contractor support community



The image is a composite graphic. The top half features a black space background with various celestial and technological elements: a large satellite with solar panels in the top left, a rocket with a blue flame in the top center, a lunar lander on the moon in the top middle, an asteroid in the top right, and a Mars-like planet in the far top right. The bottom half shows a bright blue sky with white clouds and a university campus with modern buildings and green lawns. Various aircraft are depicted in flight: several fighter jets, a large white commercial-style aircraft, a small white drone, and a small propeller plane. In the bottom left foreground, a large white quadcopter drone is on the ground. The text "Thank you for your time" and "Questions?" is centered in the sky area in a yellow, sans-serif font.

Thank you for your time

Questions?

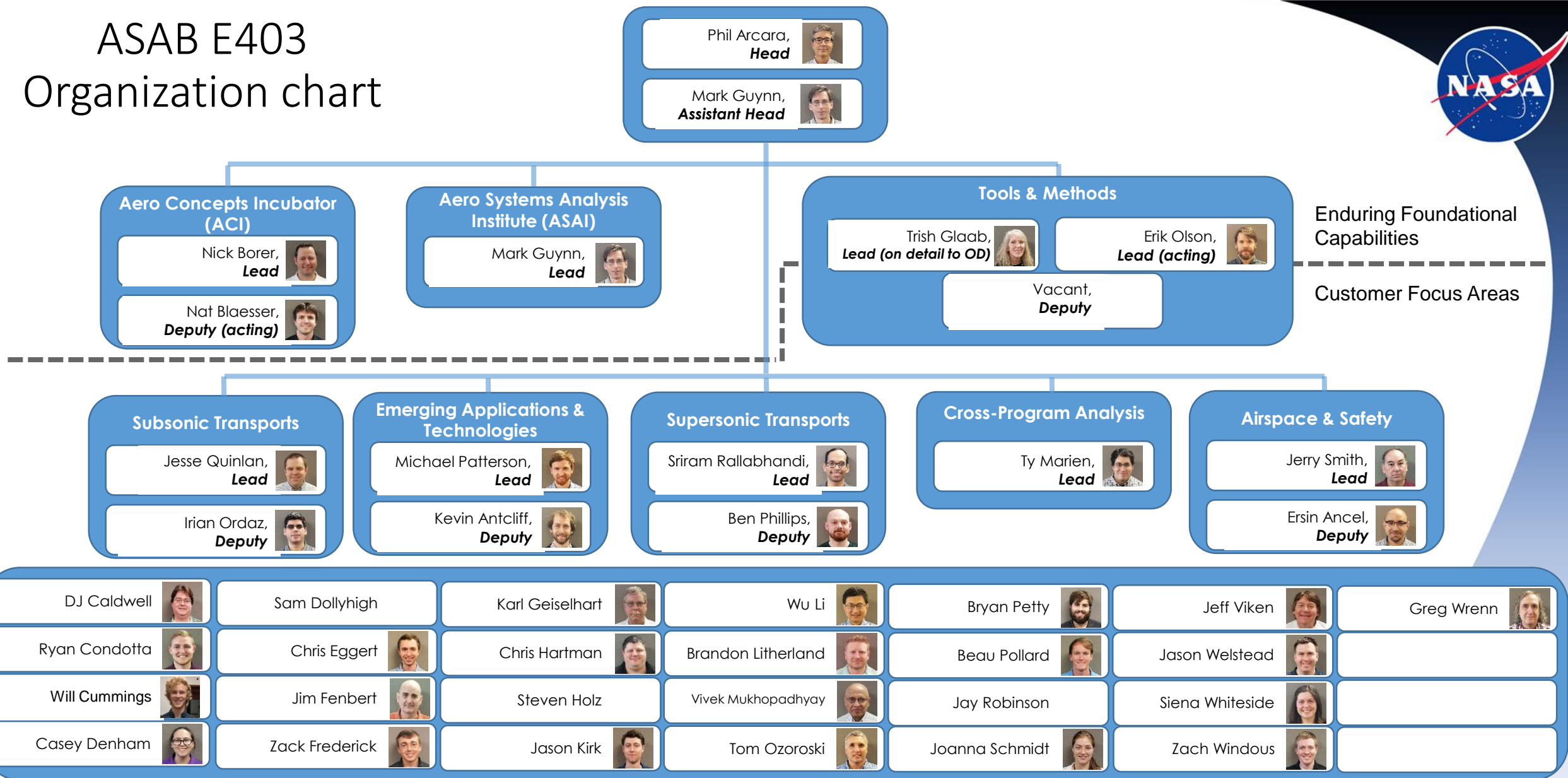


Backup



ASAB E403

Organization chart



Looking Back – FY20 Technical Accomplishments



- **ASAB Capabilities**

- Aero Concepts Incubator (ACI) – ACI Rapid Concept Development Environment (JPL-like “Team-X”) Proof of Concept Completed
- Aeronautics Systems Analysis Institute (ASAI) – Completed Year 1 of Systems Analysis 101 Lectures, Year 2 Kicked Off
- Tools & Methods (T&M) – ASAB Tools & Methods Development Roadmap, Leveraged Program Investments for Gaps

- **Aeronautics Research Mission Directorate (ARMD)**

- Airspace Operations and Safety Program (AOSP)
 - ❖ *Air Traffic Management-eXploration (ATM-X) – 7 Completed Milestones/Key Deliverables*
 - ❖ *UAS Traffic Management (UTM) – 2 Completed Milestones/Key Deliverables*
 - ❖ *System Wide Safety (SWS) – 10 Completed Milestones/Key Deliverables*
- Advanced Air Vehicles Program (AAVP)
 - ❖ *Advanced Air Transport Technology (AATT) – 14 Completed Milestones/Key Deliverables*
 - ✓ *L2 – High Aspect Ratio Wing (HARW) Tech Integration Study*
 - ❖ *Revolutionary Vertical Lift Technology (RVLT) – 1 Completed Milestone/Key Deliverable*
 - ❖ *Commercial Supersonic Technology (CST) – 17 Completed Milestones/Key Deliverables*
 - ✓ *L2 - Prediction Validation Tools (ProViT) Capability Review*
- Integrated Aviation Systems Program (IASP)
 - ❖ *Flight Demonstrations and Capabilities – X-57 (FDC) – 2 Completed Milestones/Key Deliverables*
 - ❖ *Advanced Air Mobility (AAM) – Michael Patterson serving in AAM (formerly UAM) Agency Leadership*
 - ❖ *Low Boom Flight Demonstrator – X-59 (LBFD) – See CST*
- Transformative Aero Concepts Program (TACP)
 - ❖ *Convergent Aeronautics Solutions (CAS) – 3 Completed Milestones/Key Deliverables*
 - ❖ *CAS Incubation – 1 Completed Milestone/Key Deliverable*
 - ❖ *Transformational Tools & Technologies (TTT) – 15 Completed Milestones/Key Deliverables*
 - ✓ *L2 – Advanced Vehicle Modeling and Analysis, Mature Capabilities for LEAPS*
- HQ Portfolio Analysis & Management Office (PAMO)
 - ❖ *Cross Program Operations/Integrated Systems Analysis & Assessment Capability (CPO/ISAT) – 3 Completed Milestones/Key Deliverables*

- **LaRC Innovation Call**

- Center Innovation Fund (CIF) – 3 Awards, 5 Completed Milestones/Key Deliverables

- **Deep Space Exploration Systems**

- Human Landing Systems – Vivek Mukhopadhyay



Looking Ahead – ASAB Current Customers for FY21



- **Aeronautics Research Mission Directorate (ARMD, 28 FTE)**

- Airspace Operations and Safety Program (AOSP, 2.75 FTE)
 - ❖ *Air Traffic Management-eXploration (ATM-X, 1.75 FTE), System Wide Safety (SWS, 1.0 FTE)*
- Advanced Air Vehicles Program (AAVP, 14.25 FTE)
 - ❖ *Advanced Air Transport Technology (AATT, 6.75 FTE), Revolutionary Vertical Lift Technology (RVLT, 2.0 FTE), Commercial Supersonic Technology (CST, 5.5 FTE)*
- Integrated Aviation Systems Program (IASP, 3.7 FTE)
 - ❖ *Flight Demonstrations and Capabilities – X-57 (FDC, 1.7 FTE), Advanced Air Mobility – Mission Integration Office and Critical Commitment (AAM, 1.5 FTE), Low Boom Flight Demonstrator – X-59 (LBFD, 0.5 FTE)*
- Transformative Aero Concepts Program (TACP, 4.25 FTE)
 - ❖ *Convergent Aeronautics Solutions (CAS-HEATHER, 0.25 FTE), CAS Incubation (AAM Demonstrator Study, 0.75 FTE), Transformational Tools & Technologies (TTT, 3.25 FTE)*
- HQ Portfolio Analysis & Management Office (PAMO, 3.0 FTE)
 - ❖ *Cross Program Operations/Integrated Systems Analysis & Assessment Capability (CPO/ISAT, 3.0 FTE)*

- **LaRC Innovation Call (0.7 FTE)**

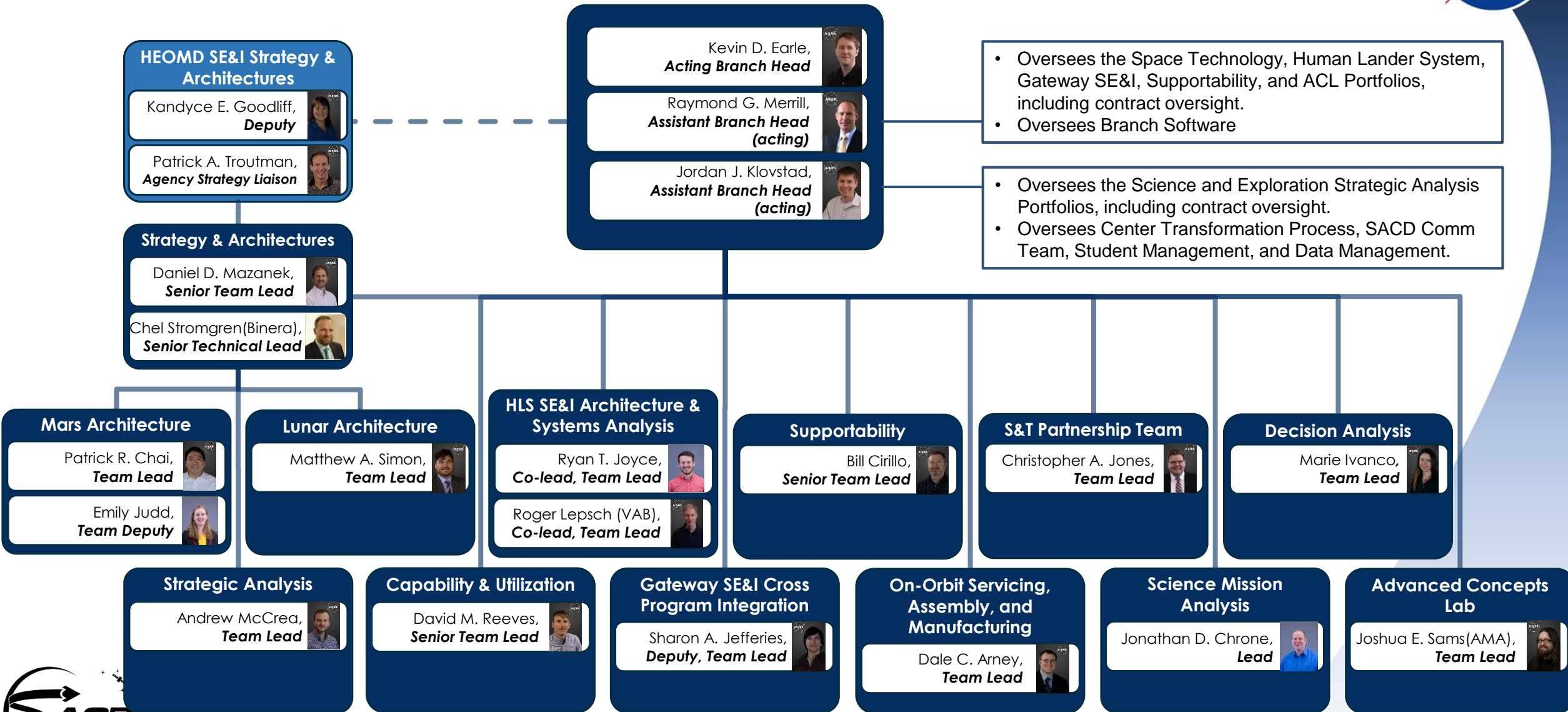
- Center Innovation Fund (CIF, 0.7 FTE)

- **Deep Space Exploration Systems (1 FTE)**

- Human Landing Systems (1.0 FTE)
 - ❖ *Human Landing System (HLS, 1.0 FTE)*

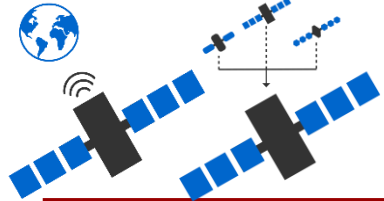


Space Mission Analysis Branch (SMAB, E402)



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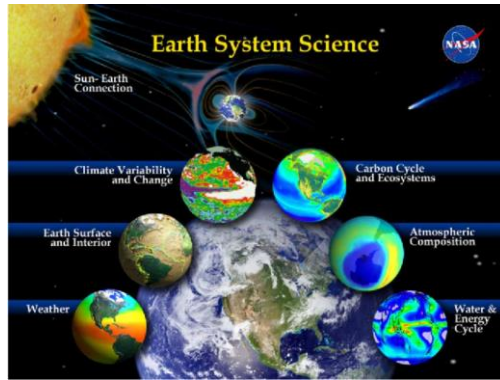


Science

Science Mission Analysis and ACCP Value Framework



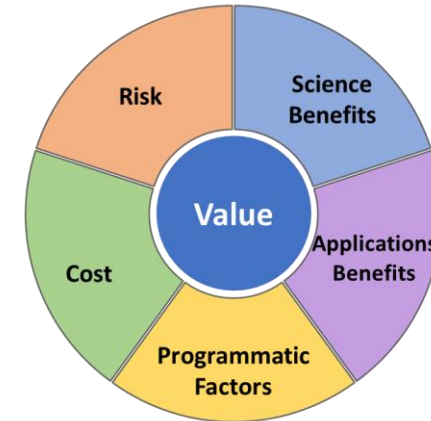
SMAB Science Team provided mission analysis and Value Framework in support of the Earth Science Division Designated Observables Studies



- **SMAB Science Mission Analysis team provided leadership in the development and evaluation of each DO study's architectural concepts**

FY 2020 in Review:

- **Facilitated organization and execution of 11 different engineering design sessions**
- **Team received high praise for efforts leading to architecture downselect briefing for Surface Biology and Geology study**

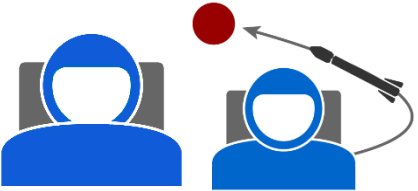


- **SMAB ACCP Value Framework team led the definition and application of a value framework to assess mission concepts with respect to benefit, cost, and risk**

FY 2020 in Review:

- **Structured the assessment of nine candidate Observing Systems, notionally capped at \$1.6B**
- **In coordination with science assessment teams produced Science Benefit scores that aggregate over 9 million data points per Observing Systems**
- **Interact with every team in the study at working level, developing and refining assessment approaches, and identifying cross-team disconnects early**

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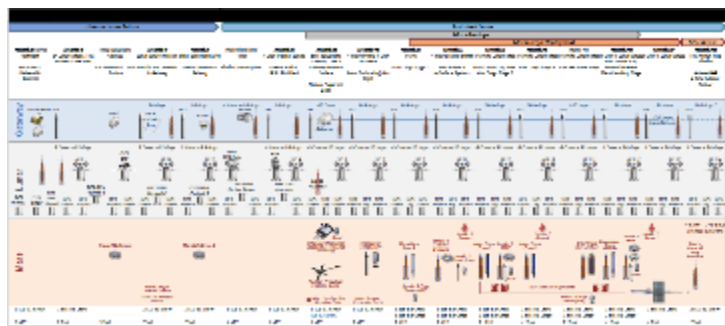


Human Exploration Strategic Analysis

HEO SE&I Strategy and Architectures, Mars Architecture Team, IAWG

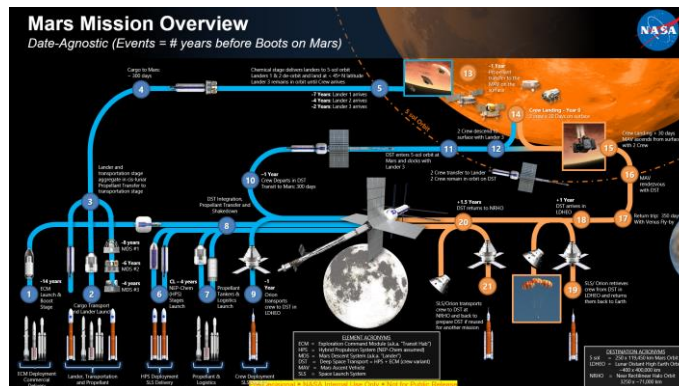


SMAB Human Exploration Strategic Analysis team informed Agency strategy for the human exploration of the Moon and Mars



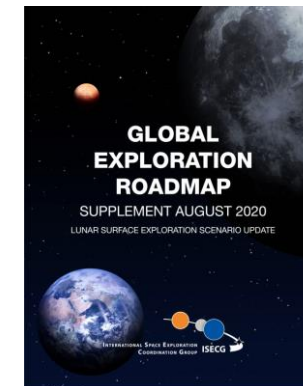
The SMAB HEO SE&I Strategy and Architectures team defined the Agency's Point of Departure (POD) integrated Moon and Mars architecture and campaign plans.

- Established and documented the POD exploration campaign, including integration of all the Moon and Mars architecture team activities into the campaign
- Hosted four strategic assessment "sync-points" with a detailed memorandum published and circulated to HEO management



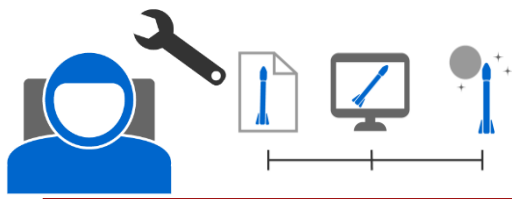
The SMAB Mars Architecture team led the in-space transportation analysis capability in support of human Mars mission definition and helped shape the agency's long-term Mars exploration vision

- Supported Agency level study on nuclear propulsion technology options for human Mars missions as part of the administrator's effort to foster cross-agency partnership
- Led cross-program effort to develop atmosphere analysis to identify disconnects across programs



The SMAB IAWG team led development of the lunar surface exploration scenario for the Global Exploration Roadmap (GER)

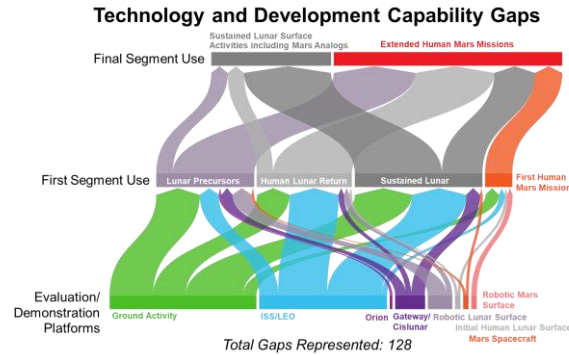
- The GER Supplement released by the International Space Exploration Coordination Group (ISECG) presents a shared international vision for human and robotic space exploration of the lunar surface from the ISECG agencies



Supportability & Exploration Capabilities Development Team



The SMAB Supportability and Exploration Capabilities Development Teams inform investment, risk reduction, architecture and decisions . Technology portfolio valuation – Inform agency senior management

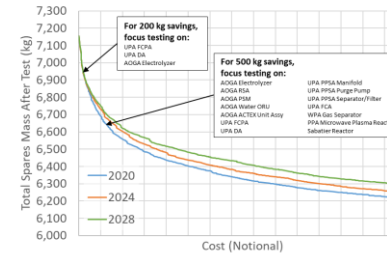


- The SMAB Capabilities Integration Team serves as the connection between the Agency capability and architecture teams, providing updates on the current architectures and adjudicating differences between the two teams.

FY2020 in Review:

- Completed 2019 data call and established capabilities gap list for current exploration architecture
- Analysis was used to inform investment decisions through PPBE budget activities

Spares Mass Reduction Sensitivity to Start Year
(Assumes Reliability Growth up to 2030, Testing up to 2038)



- The SMAB Supportability Team working with ECLSS community identifies targeted life support investment opportunities and valuations (objective goal satisfaction, increase in mission success, reduction of lifecycle cost) from an architecture perspective and expanded capabilities and influence across ECLSS community

FY2020 in Review:

- Informed advanced ECLSS – Crew Health and Performance development schedules and investments through testing and architecture level gap analysis (e.g. food hydration linkage to degree of regenerative ECLSS loop closure)
- Developed test projection and optimization capability in order to identify testing gaps to be addressed through enhanced ground testing- emphasis on both reliability growth and uncertainty reduction optimizing for both cost and schedule
- First time testing cost/schedule and reliability/supportability outcomes have been used analytically to influence architecture and technology investment portfolio



Space Technology



SMAB Space Technology Team supports the Space Technology Mission Directorate by leading systems analysis and integration and the Office of Chief Technologist by facilitating collaboration across the federal government for the Science and Technology Partnerships Team and On-orbit Servicing, Assembly, and Manufacturing.



LEAD

*Ensuring American
global leadership in
Space Technology*



Go

*Rapid, Safe, &
Efficient Space
Transportation*



Land

*Expanded
Access to
Diverse Surface
Destinations*



Live

*Sustainable
Living and
Working
Farther from
Earth*



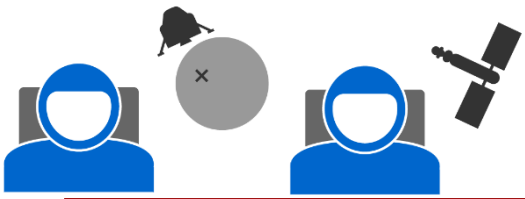
Explore

*Transformative
Missions and
Discoveries*

- Weathered leadership changes and maintains a trusted advisor role with significant growth opportunities in 2021. Established the On-orbit Servicing, Assembly, and Manufacturing National Office and set it on solid footing.

FY 2020 in Review:

- Updated STMD Strategic Framework and Investment prioritization process in support of STMD Chief Architect
- Supported Strategic Technology Architecture Roundtable discussions to improve engagement with centers and technology communities
- Coordinated development of Strategic Technology Plans to support Principal Technologists and Systems Capabilities Leaders
- Leading integration of Moon 2 Mars In Situ Resource Utilization systems analysis to enable sustainable exploration in the future.
- Achieved multi agency buy-in for recommendations centered around enduring goals and programmatic actions to advance space trusted autonomy



Human Exploration Program Support



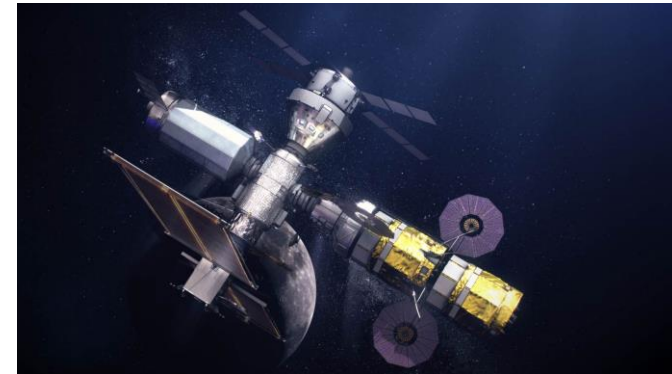
SMAB Human Landing System and Gateway Systems Engineering and Cross Program Integration teams provide insight, support collaboration, and work to enable the next destinations for Human Exploration missions beyond the ISS



SMAB Human Landing System team enabled selection of prime contractors and are critical to success of the Program

FY 2020 in review:

- Provided critical information during development of Request For Proposal and on Source Evaluation Panel
- Leading collaboration with contractors (SpaceX) to improve odds of success
- Providing critical program management material to enable ongoing negotiations with contractors
- Informing potential upcoming cargo lander solicitation
- Providing alternative architectures and rendezvous orbit assessments to ensure all options are on the table to enable human lunar return



The SMAB Gateway Systems Engineering and Cross Program Integration team is helping ensure that NASA's Human Spaceflight programs in development can operate as a team to accomplish their mission once complete.

FY 2020 in review:

- Establishing official processes and procedures to enable cross program integration for both activities and documents.
- Groundwork for Program Agreement Memorandum between Gateway and Orion / HLS multiple Joint Technical Agreement Memorandums across programs for Avionics, Data/software/hardware exchange, Logistics and supplies
- Facilitated of Joint Program Documentation
- Development of Joint Con-ops and Mission Timelines



Vehicle Analysis Branch (VAB – E401)



Vehicle Analysis Branch

Branch Head, *Pete Lillehei*



Assistant Branch Head, *David Bennett*



**Human Landing
Systems**

Roger Lepsch

**Hypersonic
Technology Project**

*Jeff Robinson &
Andrea Storch*

**Aero/Aerothermal
Discipline Lead**

Janet Ross

**Structures Discipline
Lead**

Lloyd Eldred

**Flight Mechanics
Discipline Lead**

Paul Tartabini

**Hypersonics
Discipline Lead**

Jeff Robinson

Vehicle Mass/Sizing

Roger Lepsch

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VAB Mission

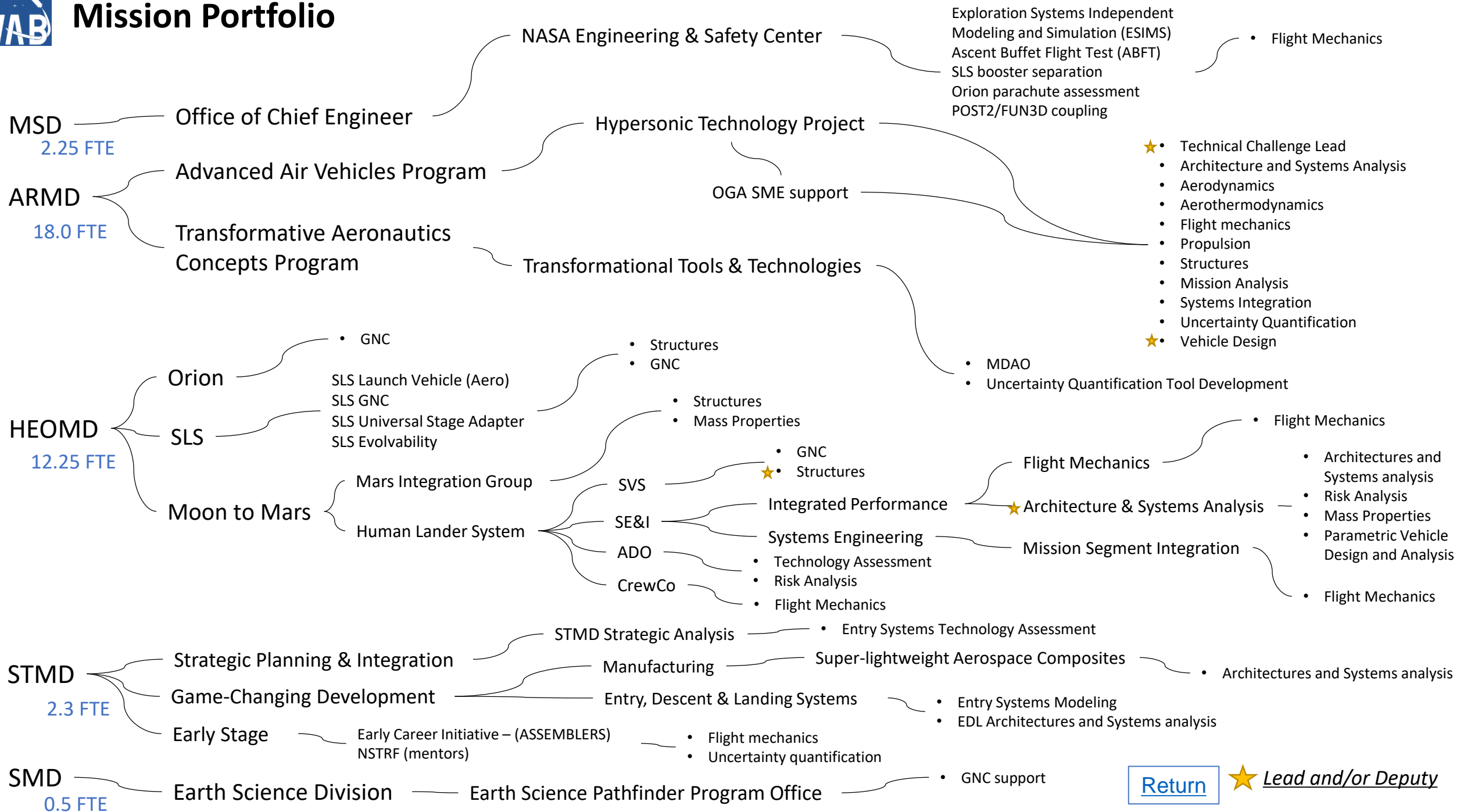


- The Vehicle Analysis Branch applies its system-level expertise of high-speed atmospheric flight and end-to-end space transportation systems, combining appropriate technologies with innovative system solutions that enable LaRC Strategic Thrusts to support NASA Mission Goals.
- We maintain and utilize physics-based, multidisciplinary, variable fidelity tools & methods in order to provide timely, insightful analyses of system concepts and related technologies from the point of origin to the final destination and over the entire life cycle.





Mission Portfolio





Other LaRC Org Charts



Langley Aeronautics Research Directorate



Project Support

*Business Manager – Shatonda Douglas
 *Media Specialist – David Meade
 C&DM – Barbara Kimbell
 Education & Outreach – Liz Ward
 Graphics – Kenna Macauley
 IT – Tom Harris
 IT – Michael Bullock
 Scheduler – Leslie Letzinger

Directorate Office

Director – Mary DiJoseph
 Deputy Director – Dana Gould
 Deputy Director for Projects – Steve Velotas
 *Deputy Director for PP&C – Chascydy Smith
 Lead Systems Engineer-Bryan Barmore
 Executive Assistant – Tami Croom
 *Administrative Officer – Sandy Johnson
 Lead Secretary – Debra Lunsford
 Secretary – Alicia Dudley
 Proj Coord – Happy Witt

Strategy and New Business

Bus Dev Manager – Dave Hinton
 Center Agreements Manager – Jennifer Viudez
 Agreement Specialist – Amanda Levy
 Supv. & Reimb PM – Mike Paraska
 Agreement Specialist – Chascydy Smith
 Agreement Specialist – Ronda McMullen
 Agreement Specialist – Olivia Parker
 Reimb Proj. Resource Analyst – *Marquetta Allen
 Proj Coord – Happy Witt
 Scheduler – Leslie Letzinger

Program/HQ Support

AAVP – LBFD Mission Mgr Peter Coen
 AAVP - Process Adv Paul Krasa
 AVP Technical Advisor Rich Wahls
 AOSP Tech Adv Autonomy Irene Gregory
 AOSP Sys Analysis Ann Shih
 AOSP AD Flight Strategy Fay Collier
 AOSP Integ. Mgr Sheri Brown
 TACP Technical Adv Mark Ballin
 TACP Act Deputy PD Sharon Monica Jones
 AETC Dep. Portfolio Mgr Chris Mouring

AAVP

CST

PM – Lori Ozoroski
 APM – Steve Alperin
 SPM- Gautam Shah
 *LaRC Analyst – Angela Williams
 C&DM – Barbara Kimbell
 Proj Coord -
 Risk Support - Jennifer Rabulan
 Scheduler – Leslie Letzinger

HTP

PM – Chuck Leonard
 APM – S. Ferlemann
 SPM - Harry Belvin
 SPM –*Security – Steve Sanders
 *Lead Analyst – Laura Evans
 Proj Coord - Nikki Newcomb

RVLT

PM – Susan Gorton
 SPM - Benny Lunsford
 *Lead Analyst – Angela Williams
 C&DM – Barbara Kimbell

AATT

DPM-Melinda Cagle
 DPM – Daniel Williams
 SPM(HARW) – Susan Wilz
 SPM – James Moore
 SPM - Marisol Garcia
 *LaRC Analyst – Pamela Stacy
 C&DM – Barbara Kimbell
 Proj Coord – Keshia Newsome
 Scheduler – Leslie Letzinger

HICAM

PM – Richard Young
 DPM – Robert Martin
 Communication Lead – Tami Croom
 *Lead Analyst – Pamela Stacy
 C&DM – Barbara Kimbell
 Proj Coord - Denise Stefula
 Risk Mgr– Michael Ruf
 Scheduler- April Albert

HyTEC

LSE – Mike Alexander

AOSP

ATM-X

*DPM - Kirk Swieringa
 APM – Taumi Daniels
 *SPM Rosa Osegura-Lohr
 *LaRC Analyst – Brenda McKay
 Scheduler – Donna Gilchrist

SWS

PM – Misty Davis
 DPM – Kyle Ellis
 APM-
 Project Scientist – Paul Miner
 *Senior Tech Advisor – Lawrence Prinzel
 *SPM – Steve Young
 *SPM – Terry Morris
 *Lead Analyst – Paula Chambers
 C&DM – Lynn Ashley
 Comms Liaison – Kaitlyn Fox
 Proj Coord – Laura Bass
 Risk Mgr – Bethany Welstead
 Risk Support – Kaitlyn Fox
 Scheduler – Bonnie Lahiff

UTM

*APM – Maria Consiglio
 *Larc Analyst – Paula Chambers

IASP

FDC

X-57 dSPM – Vince Schultz
 *LaRC Analyst – Yolanda Keiller
 C&DM – Barbara Kimbell
 Scheduler - Donna Gilchrist
 Risk Manager – Jeff Flory

LBFD

PM – Craig Nickol
 DPMT – David Richwine
 APM – Steve Alperin
 DPTY for Execution-Sarah Waechter
 *LaRC Analyst – Robert Lowe
 C&DM – Victoria Bates
 IT Management – Marcus Richardson
 Proj Coord – Kathryn Gullede &
 Scheduler - Dawn Lomax &
 Jennifer Wrenn

AAM

PM – Michael Guminsky
 DPM Tech-Kenneth Goodrich
 APM – Steve Alperin
 SPM - Mary Stringer
 *LaRC Analyst – Tracey Frisby

EPFD

Mission Manger – Fayette Collier
 PM – Gaudy Bezoz-Oconnor
 LaRC POC – Mike Alexander
 *Lead Analyst – Rachel Buckman
 C&DM – Lynn Ashley
 Proj Coord - Andrea McAlister
 Risk Mgr – Kiara Graf
 Risk Support – Kemo Dassau
 Risk Support – Michaela Britt
 Scheduler – Barbara Guilmette

TACP

CAS

CPL - Natalia Alexandrov
 Exec Mgr – Debbie Martinez
 *Liaison- Natalia Alexandrov
 *LaRC Analyst – Yolanda Keiller
 C&DM – Lynn Ashley
 Proj Coord - Amy Tarnowski
 Scheduler – Donna Gilchrist

TTT

APM - Joe Morrison
 SPM - Melissa Rivers
 SPM - Vanessa Aubuchon
 *LaRC Analyst – Tracey Frisby
 C&DM – Barbara Kimbell

University Innovation Challenge

*LaRC Analyst – Brenda McKay

CPO

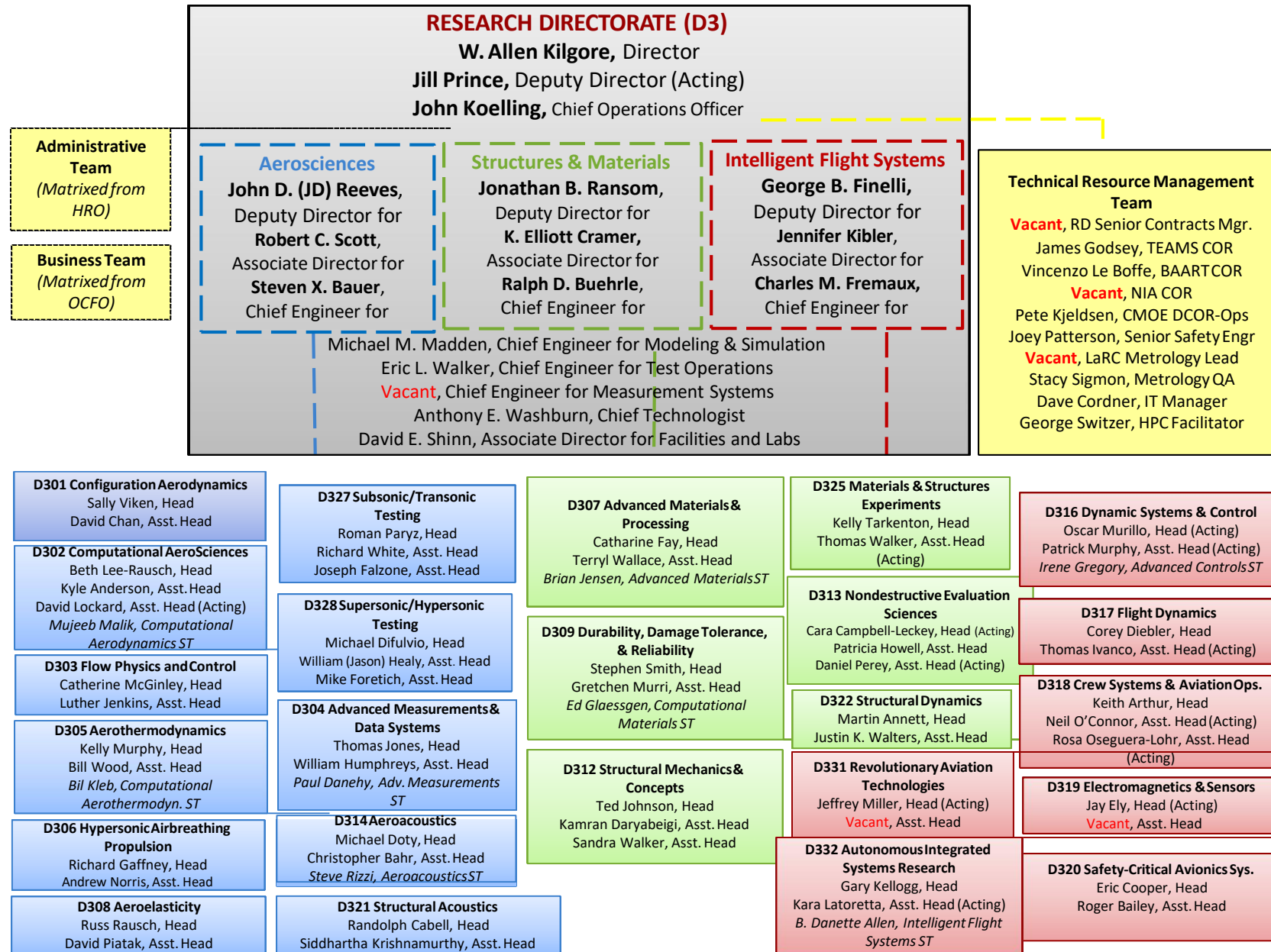
Sharon Monica Jones
 *LaRC Analyst – Brenda McKay

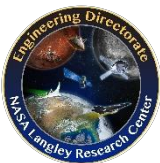
AETC

DPM – Chris Mouring
 *SPM(Main) - Tom Popernack
 LaRC POC – Roman Paryz
 CAT Team – Joni Evans
 *LaRC Analyst – Julie Barbour
 Marketing Specialist – Kim Scarberry
 Risk Mgr. – William Reith

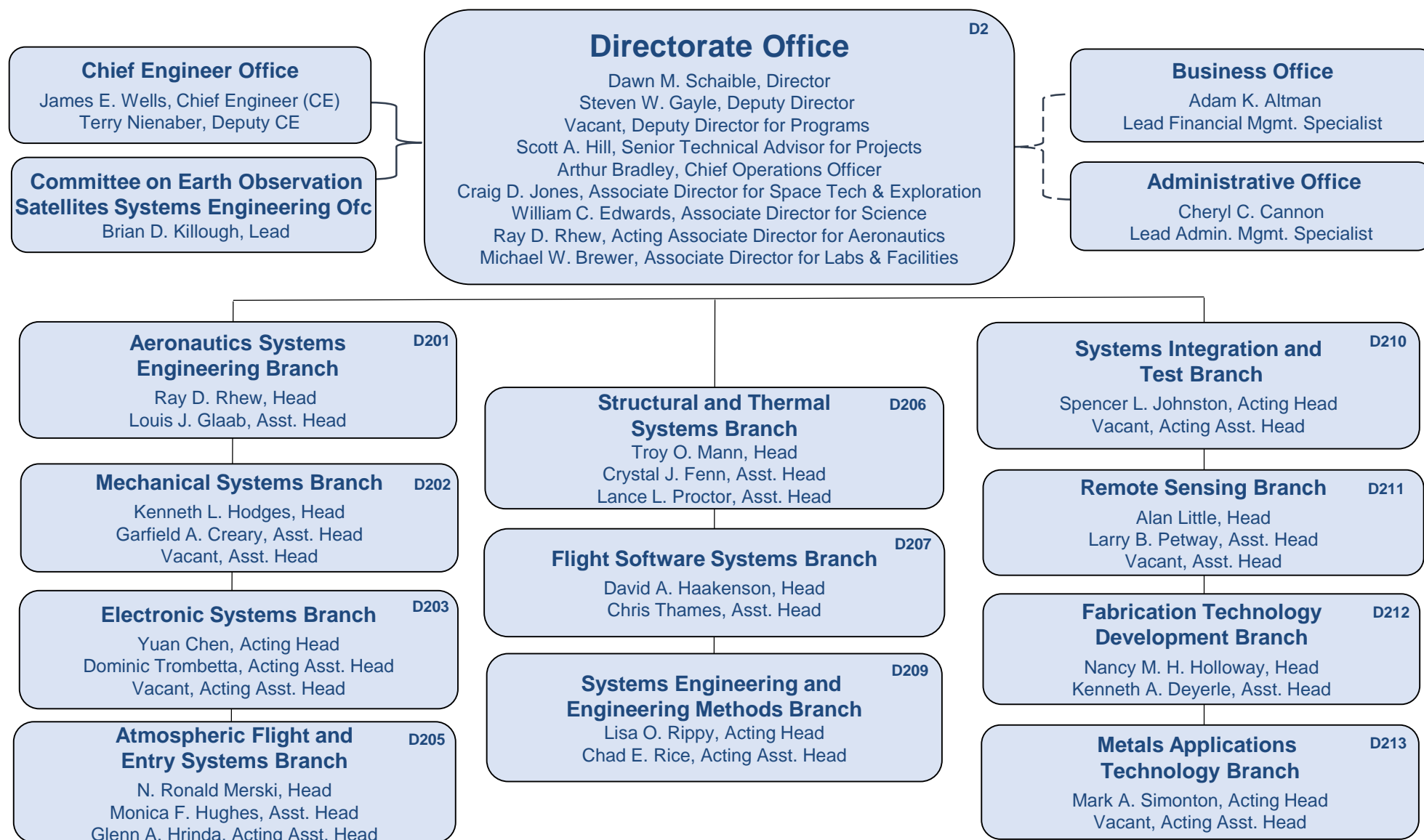
• LaRC positions only
 • Red identifies WYE
 *Identifies employees not formally assigned to org E1/E1A

Note: Last update 03/18/2021





Engineering Directorate



Research Services Directorate

