



KENNEDY SPACE CENTER

GO

Robert D. Cabana
Center Director



REACH
— NEW —
HEIGHTS

BENEFIT
— ALL —
HUMANKIND

REVEAL
— THE —
UNKNOWN



JOURNEY TO MARS



HUBBLE SPACE TELESCOPE

INTERNATIONAL SPACE STATION

SPACE LAUNCH SYSTEM

ORBITERS

LANDERS

TECHNOLOGY
EXPLORATION
SCIENCE

DEIMOS
PHOBOS

MARS TRANSIT HABITAT

COMMERCIAL CARGO AND CREW

ORION CREWED SPACECRAFT

DEEP SPACE HABITAT

SOLAR ELECTRIC PROPULSION

ASTEROID REDIRECT MISSION

MISSIONS: 6-12 MONTHS
RETURN: HOURS

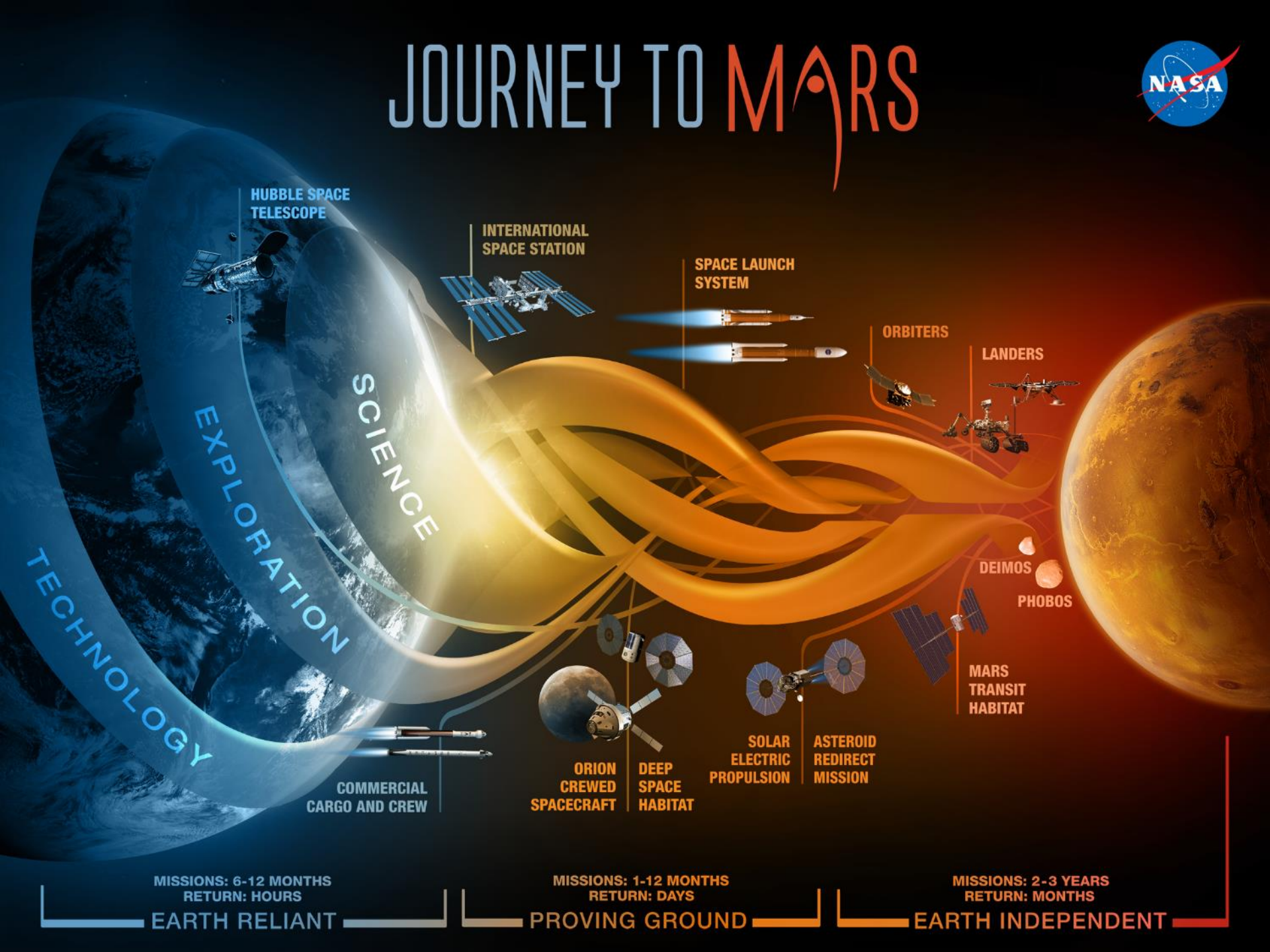
EARTH RELIANT

MISSIONS: 1-12 MONTHS
RETURN: DAYS

PROVING GROUND

MISSIONS: 2-3 YEARS
RETURN: MONTHS

EARTH INDEPENDENT



KSC Objectives



1) Maximize NASA Mission Success

- a) Provide ground ops and integration capabilities for exploration
- b) Execute crewed missions to ISS via new commercial crew transportation systems
- c) Continue to acquire commercial launch services for NASA while maximizing success
- d) Sustain and fully utilize ISS
- e) Provide an R&T portfolio to align Agency needs and core capabilities

2) Operate the Multi-User Spaceport

- a) Be proactive to remain the Nation's pre-eminent multi-user spaceport supporting government and commercial operations

3) Enhance Our Core Capabilities

- a) Optimize the KSC workforce
- b) Provide cost effective and efficient center services to support the Agency mission



Ground Systems Development and Operations Program

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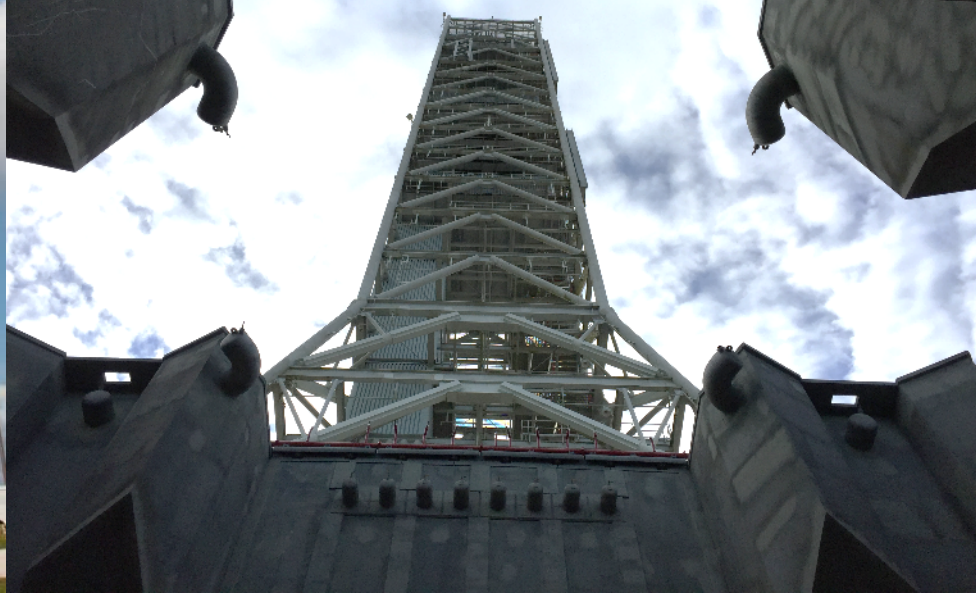
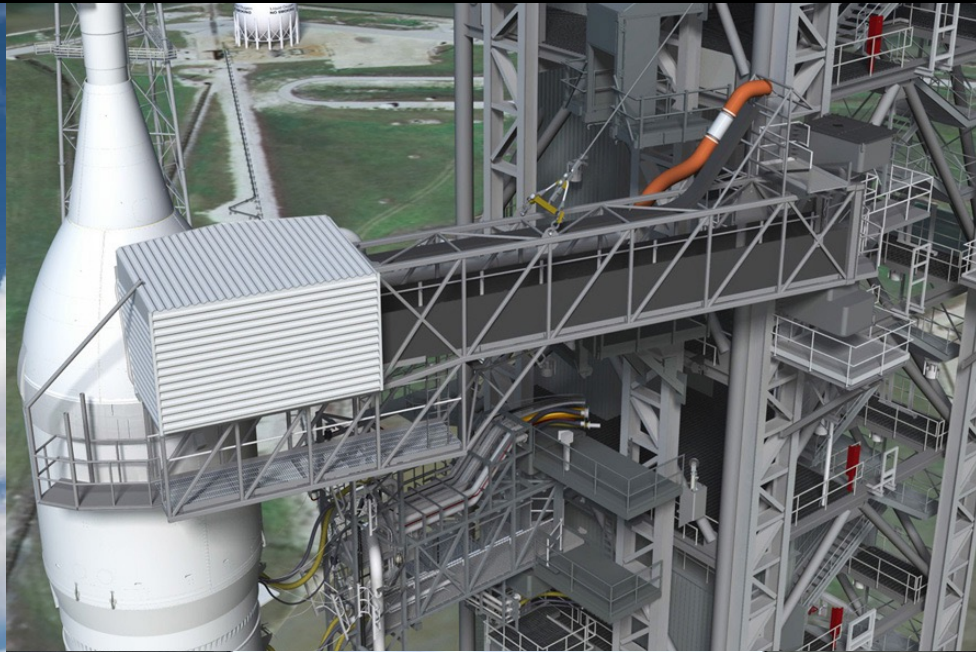
O&C High Bay



Multi-Payload Processing Facility



Mobile Launcher



Mobile Launcher Swing Arms at LETF



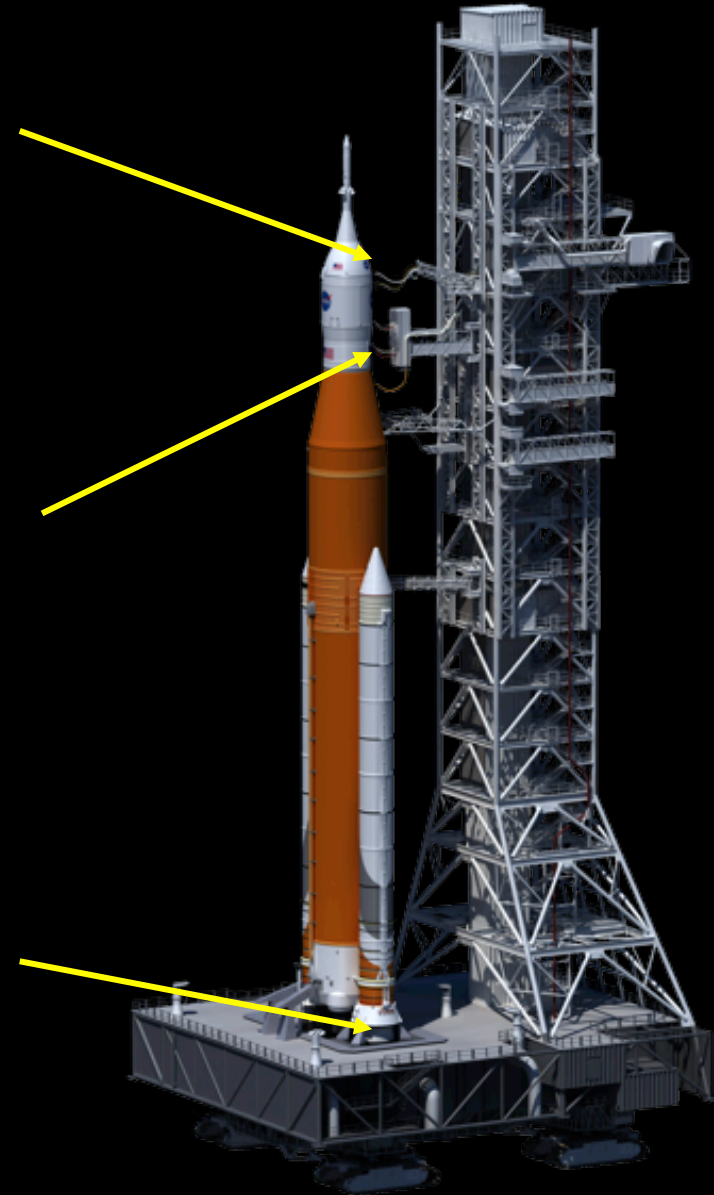
**Orion Service
Module
Umbilical**



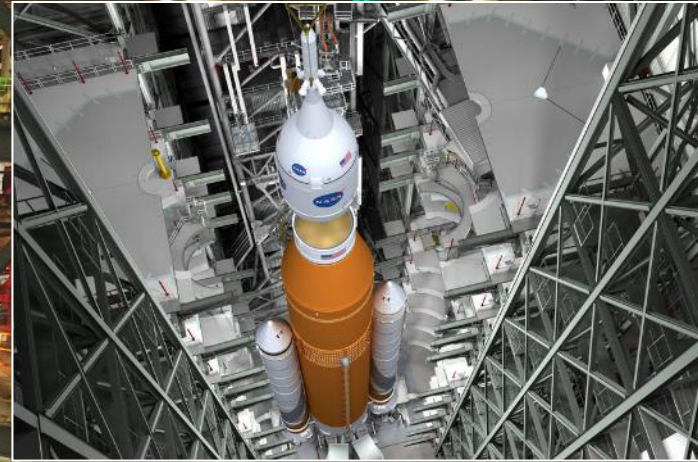
**Interim
Cryogenic
Propulsion
Stage Umbilical**



**Aft Skirt
Electrical
Umbilical**



Vehicle Assembly Building



Crawler Transporter



Launch Pad 39B



Launch Control Center – Firing Room 1



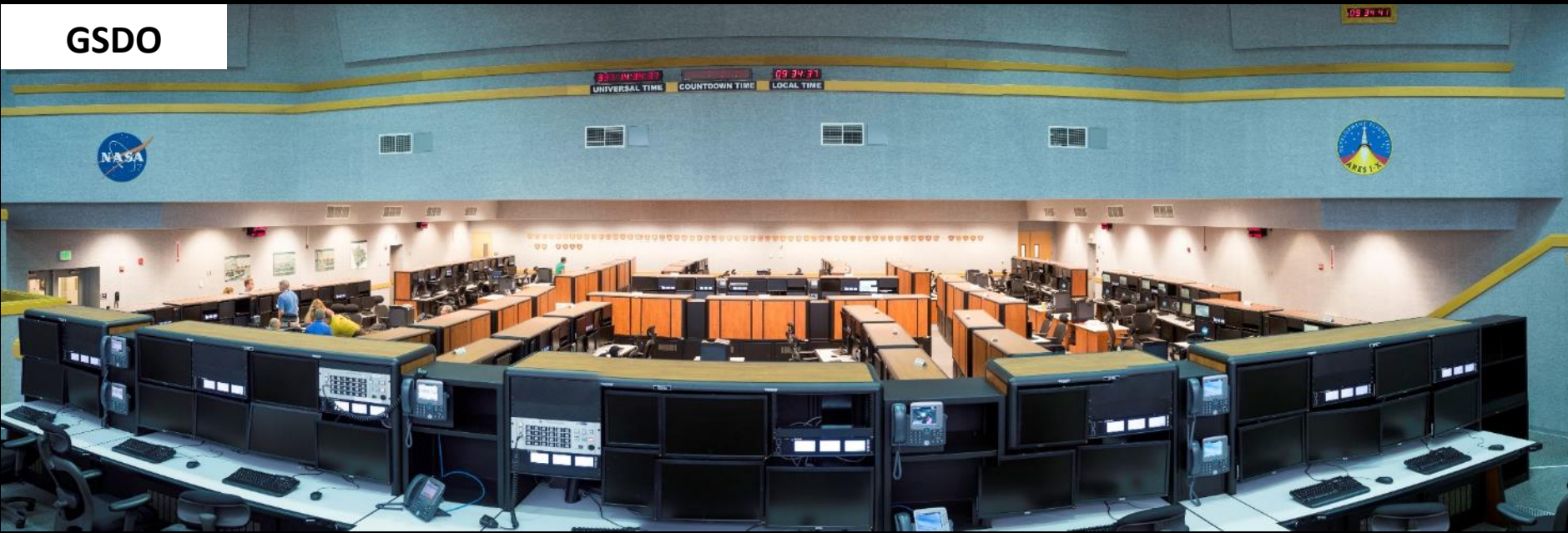
Apollo



Shuttle



GSDO



Building to Exploration Mission-1



Now until launch: 2016–2018

2/2016 Crew Module Pressure Vessel on Dock at Kennedy Space Center



1/2017 European Service Module Delivery to Kennedy Space Center

1/2017 Crew Module Initial Power On at Kennedy Space Center

3/2017 Vehicle Assembly Building High Bay 3 Construction Complete

3/2017 Launch Pad Flame trench Construction Complete

5/2017 Mobile Launcher Ground Support Equipment Install Complete

7/2017 Crew Module and Service Module Mate at Kennedy Space Center

1/2018 Booster Stacking in Vehicle Assembly Building

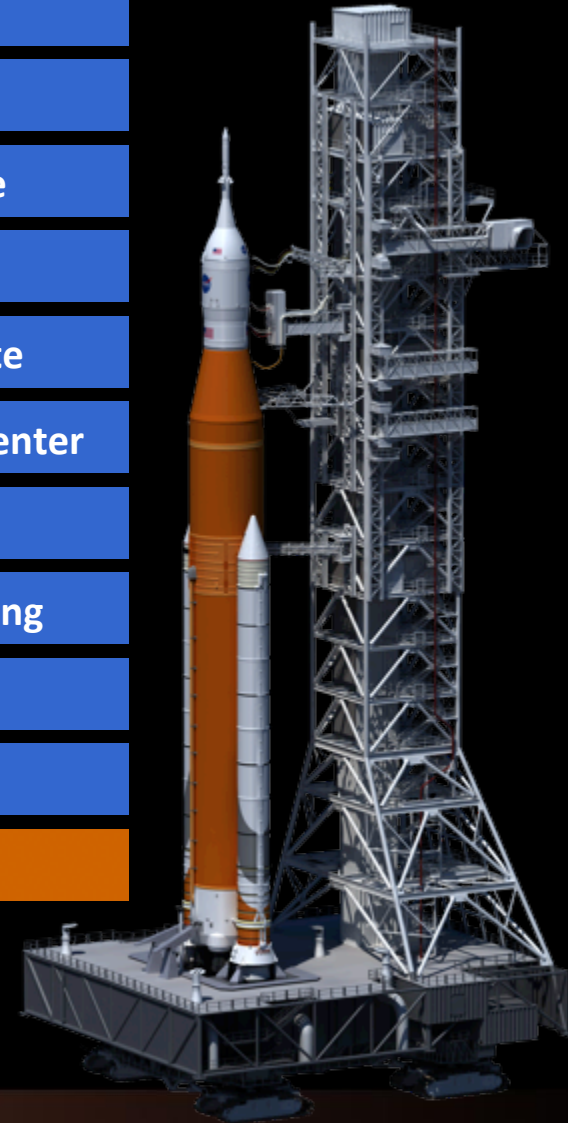
4/2018 Core Stage stacking with Boosters in Vehicle Assembly Building

6/2018 Orion mating with SLS in Vehicle Assembly Building

8/2018 Wet Dress Rehearsal at Launch Pad

11/2018 EM-1 LAUNCH

ESD PROGRAM MILESTONES



Commercial Crew Program

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Launch Pad 39A – Present



SpaceX Crew Dragon



Commercial Crew & Cargo Processing Facility



Launch Complex 41



Boeing CST-100 Starliner



Artist concept of
Boeing's
CST-100 Starliner
on Atlas V

Launch Services Program

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Launch Services Program Manifest Outlook



2016



OSIRIS-Rex - Origins
Spectral Interpretation
Resource Identification
Security Regolith
Explorer



GOES-R – Geostationary
Operational
Environmental Satellite



CYGNSS- Cyclone
Global Navigation
Satellite System

2017



JPSS-1 – Joint
Polar Satellite
System
(Vandenberg)



ICON –
Ionospheric
Connection
Explorer
(Kwajalein)



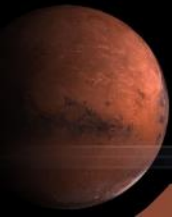
TESS –
Transiting
Exoplanet
Survey
Satellite



TDRS-M –
Tracking
and Data
Relay
Satellite



ICESat-2 –
Ice, Cloud
and Land
Elevation
Satellite-2
(Vandenberg)



Multi-User Spaceport

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Launch Complex 36



Exploration Park & Space Life Sciences Lab



Launch Control Center – Firing Room 4



Columbia



Challenger



Discovery



Atlantis



Endeavour

209 12 48 5
0 40 56 00 00 00 00 00 00 00
LOCAL TIME WINDOW REMAINING FULLY LOADED (MAXIMUM ELAPSED TIME) HOLD TIME REMAINING



LANDING RECOVERY DIRECTOR CHIEF NASA TEST DIRECTOR ASST. NASA TEST DIRECTOR NASA TEST DIRECTOR ASST. ORBITER TEST CONDUCTOR ORBITER

LAUNCH DIRECTOR

ASST. LAUNCH DIRECTOR

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Institutional Updates



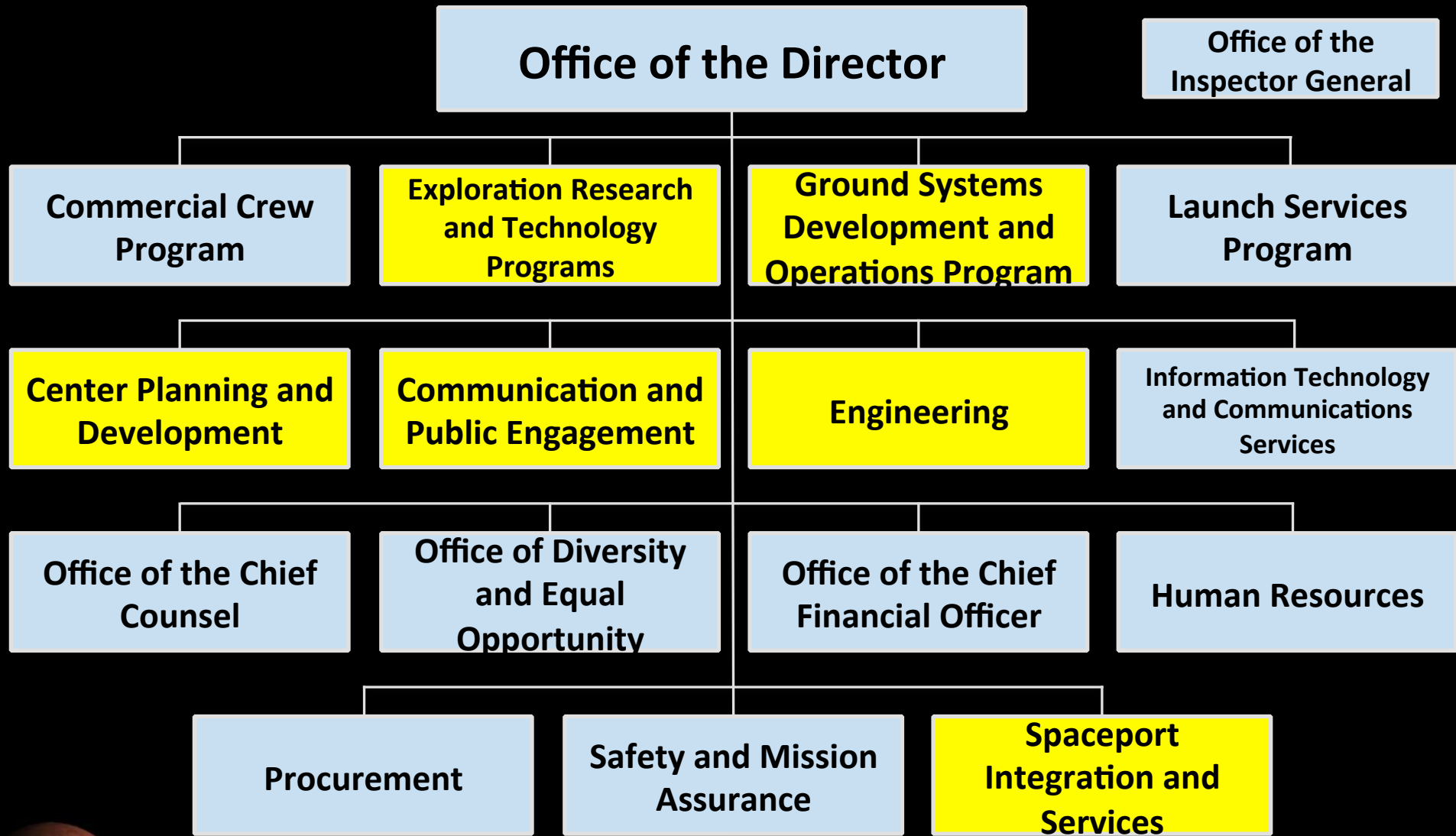
KENNEDY SPACE CENTER


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Central Campus

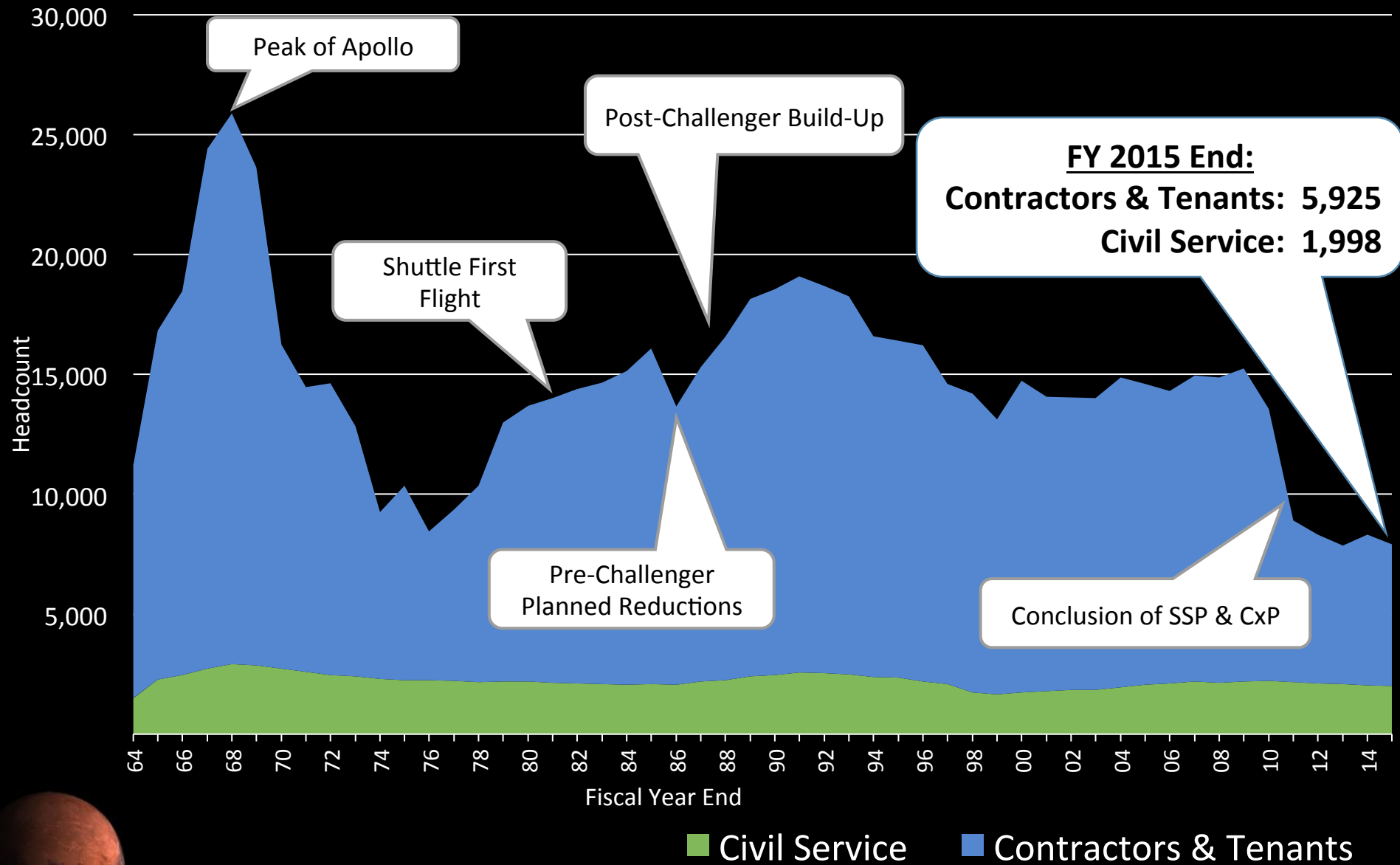


Post 2015 Reorganization



 Significant changes

KSC Historical Workforce Levels



Summary



- We are doing everything we can to make spaceflight more efficient and affordable
 - Enable & leverage commercial capabilities where they exist
 - Leverage government capabilities where commercial capabilities don't exist
- We have transformed into a multi-user spaceport, and are paving the way on NASA's journey to Mars!



