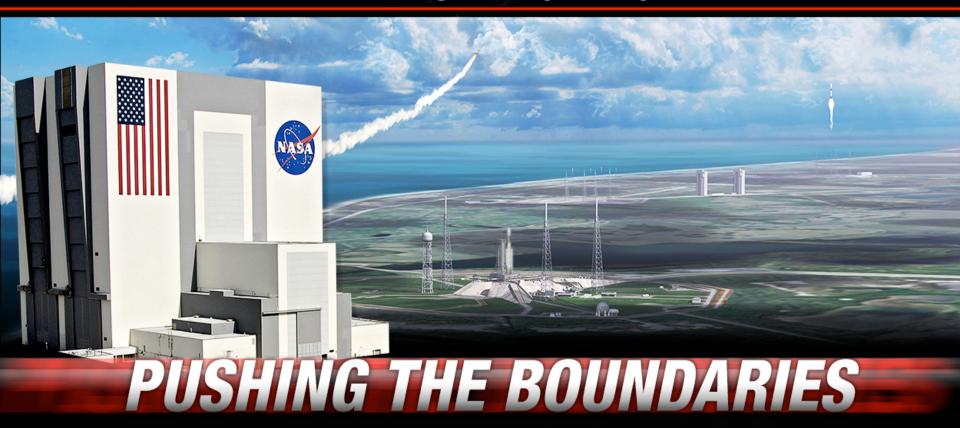


#### KENNEDY SPACE CENTER



Robert Cabana
Director

www.nasa.gov

## KSC's VISION





KSC is the world's preeminent launch complex for government and commercial space access, enabling the world to explore and work in space.

### **NASA CURRENT PRIORITIES**

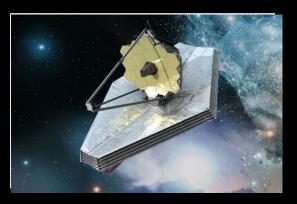




Space Launch System / Orion



**International Space Station** 



**James Webb Space Telescope** 

## **KSC PROGRAMS AND PROJECTS**



**Ground Systems Development and Operations Program** 



**Program** 



**Launch Services Commercial Crew Program** 



**ISS Ground Processing** and Research **Project Office** 



**Space Technology** 



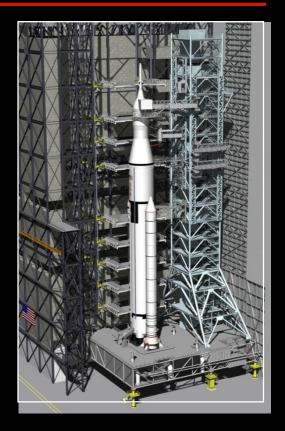
**Advanced Exploration Systems** 

## THE FUTURE - SPACE LAUNCH SYSTEM/ORION





Updated Launch Control Room



SLS on the mobile launcher

Orion

SLS on the mobile launcher at the launch pad



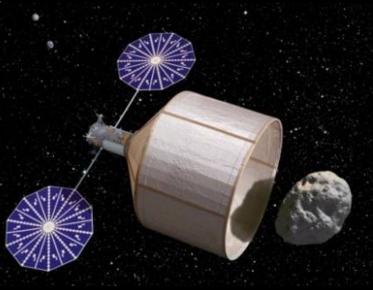
### **ASTEROID MISSION: THREE SEGMENTS**



#### **Identify**



#### Redirect



#### **Explore**



Ground and space based NEA target detection, characterization and selection

Solar electric propulsion (SEP) based asteroid capture and maneuver to trans-lunar space

Orion and SLS based crewed rendezvous and sampling mission to the relocated asteroid

## **GSDO - PREPARING KSC FOR THE FUTURE**





Move Operations with Crawler Transporter



Launch Operations at Pad 39B



**Vehicle Assembly Building** 

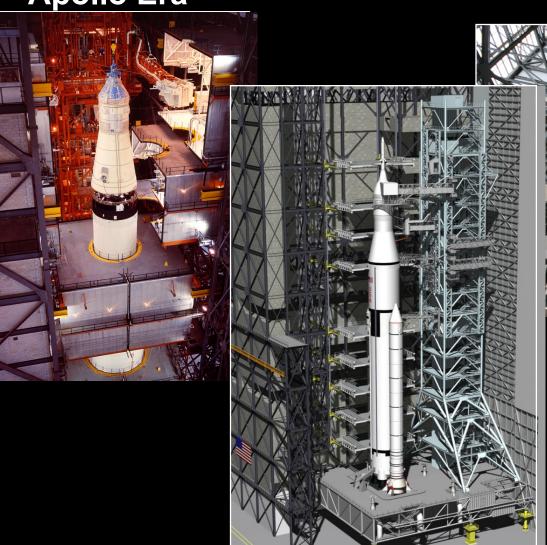
Planning and Studies to Support Small Class Vehicles

Vehicle Access and Servicing via Mobile Launcher

# **VAB TRANSFORMATION**



### **Apollo Era**



#### **Shuttle Era**



The Future Assembly of the
SLS in the VAB

## **MOBILE LAUNCHER TRANSFORMATION**



Apollo 11 Saturn V space vehicle moving to Pad 39A





New Mobile Launcher

# LAUNCH COMPLEX 39 TRANSFORMATION



#### **Apollo/Saturn V Era**



**Space Shuttle Era** 



The Future – SLS Rocket on the Pad



# LAUNCH CONTROL CENTER - FIRING ROOM 1



#### **Apollo Program**

#### **Space Shuttle Program**





21st Century Ground Systems Program



# **O&C HIGHBAY TRANSFORMATION**



### **Apollo Era**



**Orion Era** 



## RIGHT-SIZING INFRASTRUCTURE











NASA Dedicated Use

Shared NASA / Non-NASA Use

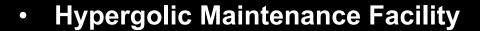
Non-NASA Dedicated Use

**Demolished** 

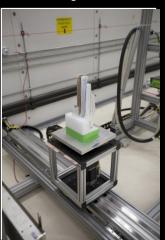
## SUCCESSFUL PARTNERSHIPS







- Hangar 'N'
- Space Shuttle Logistics Depot
- Orbiter Processing Facility 3
- Shuttle Processing Equipment
- Clean Room Labs
- SLSL
- Exploration Park





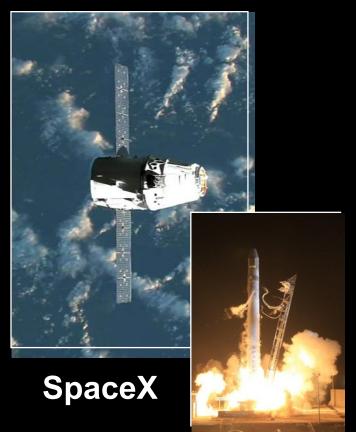






# COMMERCIAL CREW PROGRAM







Sierra Nevada







Blue Origin

### LSP ROLE IN HUMAN SPACEFLIGHT



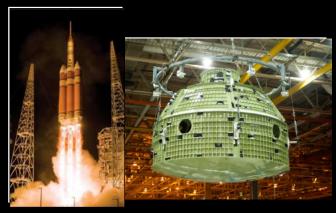
Risk Mitigation Advice for 2 New launch vehicles



Commercial Resupply Services (CRS) for the International Space Station



Aerodynamics, loads and autopilot experience



Exploration Flight
Test-1 Gathers data
for Space Launch
System (SLS)

Synergy through common launch vehicles



Commercial Crew Program

#### SUMMARY



- We have made human spaceflight feasible
  - Executed every human US launch into space since the first flight 50 years ago
- We are doing everything we can to make human spaceflight more efficient and affordable
  - Enable & leverage commercial capabilities where they exist
  - Leverage government capabilities where commercial capabilities don't exist
- We are transforming into a multi-user spaceport

# **KSC VISITOR COMPLEX**





