

National Aeronautics and Space Administration



*Goddard*  
SPACE FLIGHT CENTER

# NASA Goddard's Outlook Supply Chain 2018 Conference

Chris Scolese, GSFC Director

October 23, 2018



# Goddard: NASA's first, and oldest, space center





# Key Science Themes



**Discovering the Secrets of  
the Universe**

**Translate the knowledge and technologies derived from these  
areas of exploration to practical applications today.**

**Searching for Life  
Elsewhere**

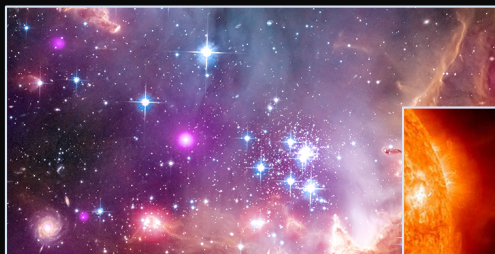
**Safeguarding and  
Improving Life on Earth**



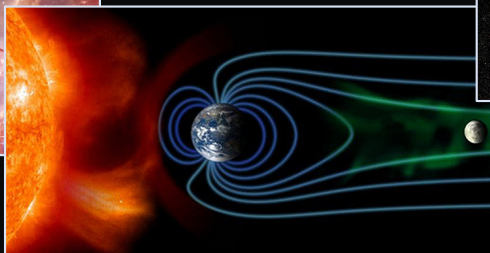
# Our Lines of Business



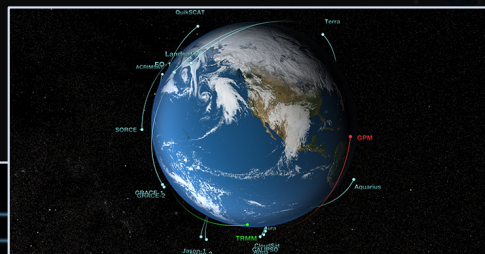
**Astrophysics**



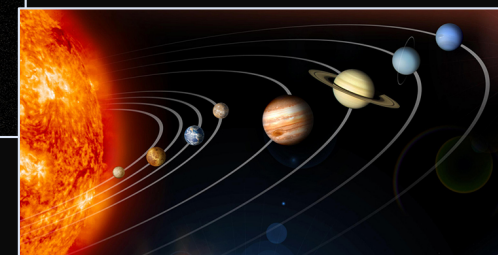
**Heliophysics**



**Earth Science**



**Planetary & Lunar Science**



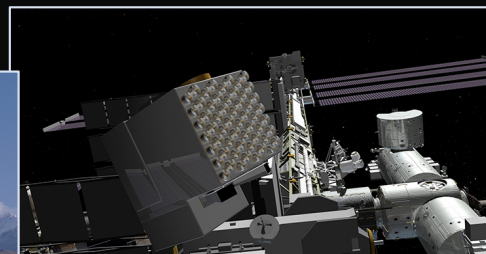
**Human Exploration & Operations**



**Suborbital Platforms**



**Cross Cutting Technology And Capabilities**

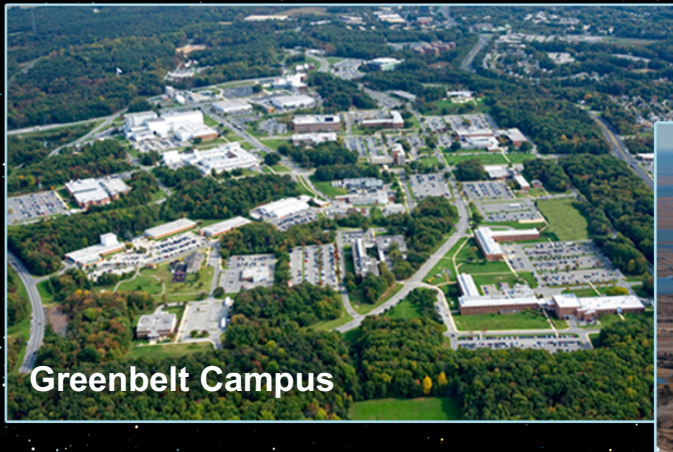


**Communications & Navigation**





# Goddard Installations Across the Country







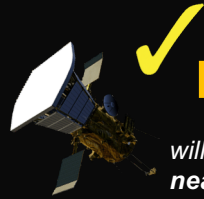


# What We're Looking Forward to in 2018



## TESS

*will search for planets outside of our solar system while monitoring the brightness of more than 200,000 stars*

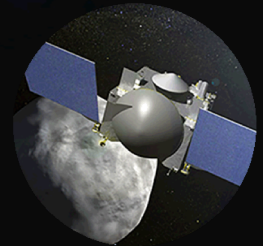


## Parker SPP

*will repeatedly sample the near-Sun environment*

## OSIRIS-REx

*will rendezvous with the asteroid Benu in 2018 and return a sample to Earth in 2023*



2018



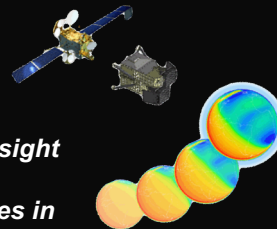
## GOES-S

*will significantly improve the detection and observation of environmental phenomena*



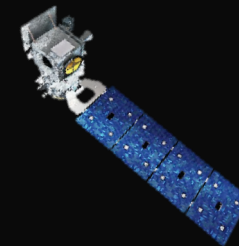
## GOLD

*will give unprecedented insight into the temperature and composition of neutral gases in the the thermosphere*



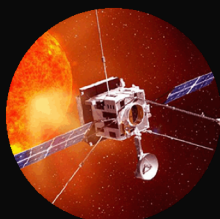
## ICESat-2

*will provide unprecedented measurement of sea ice thickness and global vegetation biomass*



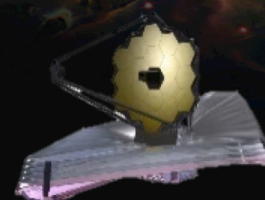


# What We're Looking Forward to in 2018 - 2020



## SOC

*will make in-situ measurements of the solar wind plasma, fields, waves, and energetic particles*



## JWST

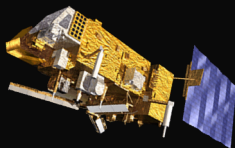
*this premier infrared observatory will use innovative technology to study every phase in the history of our Universe and serve thousands of astronomers worldwide*

2018

2019

2020

## MetOp-C



*will provide reliable global environmental measurements of Earth*

## LCRD



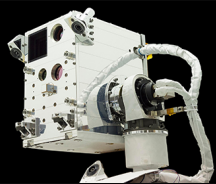
*will support the next generation of NASA's space communications network*



# Goddard Missions to the International Space Station

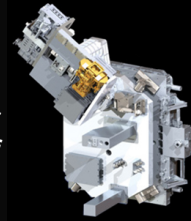


## RAVEN

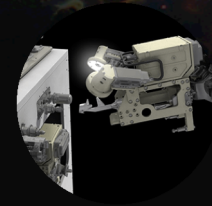


*helps NASA test key elements of a new spacecraft autopilot system*

## TSIS



*provides absolute measurements important for accurate scientific models of climate change and solar variability*

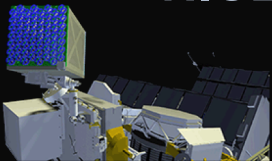


## RRM-3

*will show how future robots could service and refuel satellites in space*

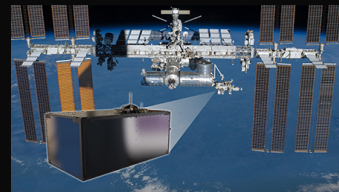
2017

## NICER



*tests for the first time in space technology that uses pulsars as navigation beacons*

## ISS-CREAM



*the first cosmic ray instrument designed to detect higher energy ranges over an extended duration in space*

2018

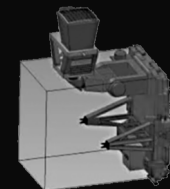
## GEDI



*will be the first instrument to systematically probe the depths of the forests from space*

2022

## ISS-TAO

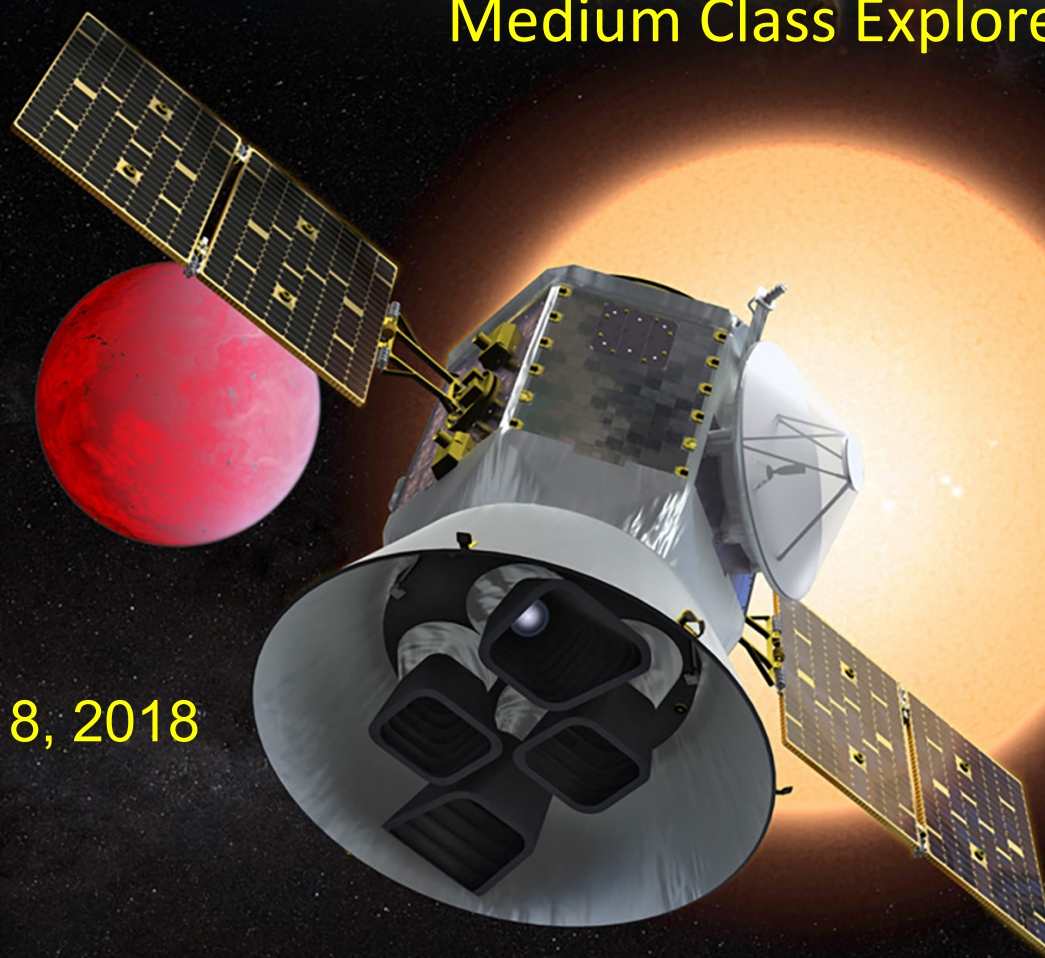


*will monitor the sky in search of transient X-rays and gamma rays*

# Transiting Exoplanet Survey Satellite (TESS)

Medium Class Explorer

Launched April 18, 2018





# NASA GSFC Leadership Team



**Chris Scolese**  
Director



**George Morrow,**  
Deputy Director



**Nancy Abell,**  
Associate Director



**Christyl Johnson,**  
Deputy Director For Technology and  
Research Investments



**Crystal Gayhart,**  
Director,  
Office of Human Capital  
Management



**Steve Shinn,**  
Chief Financial  
Officer



**Ray Rubilotta,**  
Director,  
Management  
Operations  
Directorate



**Richard Barney,**  
Director,  
Safety and Mission  
Assurance



**David F. Mitchell,**  
Director,  
Flight Projects  
Directorate



**Felicia Jones-Selden,**  
Director,  
Engineering and  
Technology  
Directorate



**Mark Clampin,**  
Director,  
Sciences and  
Exploration  
Directorate



**Dennis Vandertuig,**  
Director,  
Information Technology  
and Communications  
Directorate



**Bill Wrobel,**  
Director,  
Suborbital and Special  
Orbital Projects and WFF



**Phillina Tookes**  
Government and  
Community Relations  
Manager



**Dan Krieger,**  
Special Assistant  
for Diversity



**Margareth Bennett,**  
Chief,  
Equal Opportunity  
Programs Office



**Mark Hess,**  
Chief,  
Office of  
Communications



**Andrew Falcon,**  
Chief  
Counsel



**Bob Gabrys,**  
Director,  
Office of Education  
Programs



**Greg Blaney,**  
Director,  
Independent  
Verification and  
Validation Facility WV



**Mike McGrath,**  
Director,  
Office of Procurement

\* Reports directly  
to NASA  
Headquarters


# Supply Chain Management

Goddard Space Flight Center



## Mission Performance

Spacecraft, Science Instruments, Ground Systems

-  = Safety & Mission Assurance
-  = Flight Projects Management
-  = Engineering & Technology
-  = Procurement

## Outcomes

- Quality Products and Services
- On-Time Delivery at Acceptable Cost
- Innovative Problem-Solving / Continual Improvements
- Risk Reduction

## Core Functions



### Supplier Development

- Technology Investments
- Procurement Policy
- Small Business Program / Outreach

### Acquisition

- Acquisition Strategy
- Proposal Team Building
- Procurement (direct and indirect)

### Performance Management

- Project Management / Contract Oversight
- Mission Assurance Requirements
- Surveillance, Inspections and Alerts
- Parts to System-level Testing

### Evaluation & Risk Management

- Project Lifecycle Reviews
- Internal Management System Assessments
- Supply Chain Assessments, Research & Analyses
- Project and Enterprise Level Risk Management

Meta and other Information Systems for Process / Data Management and Informed Decision-Making

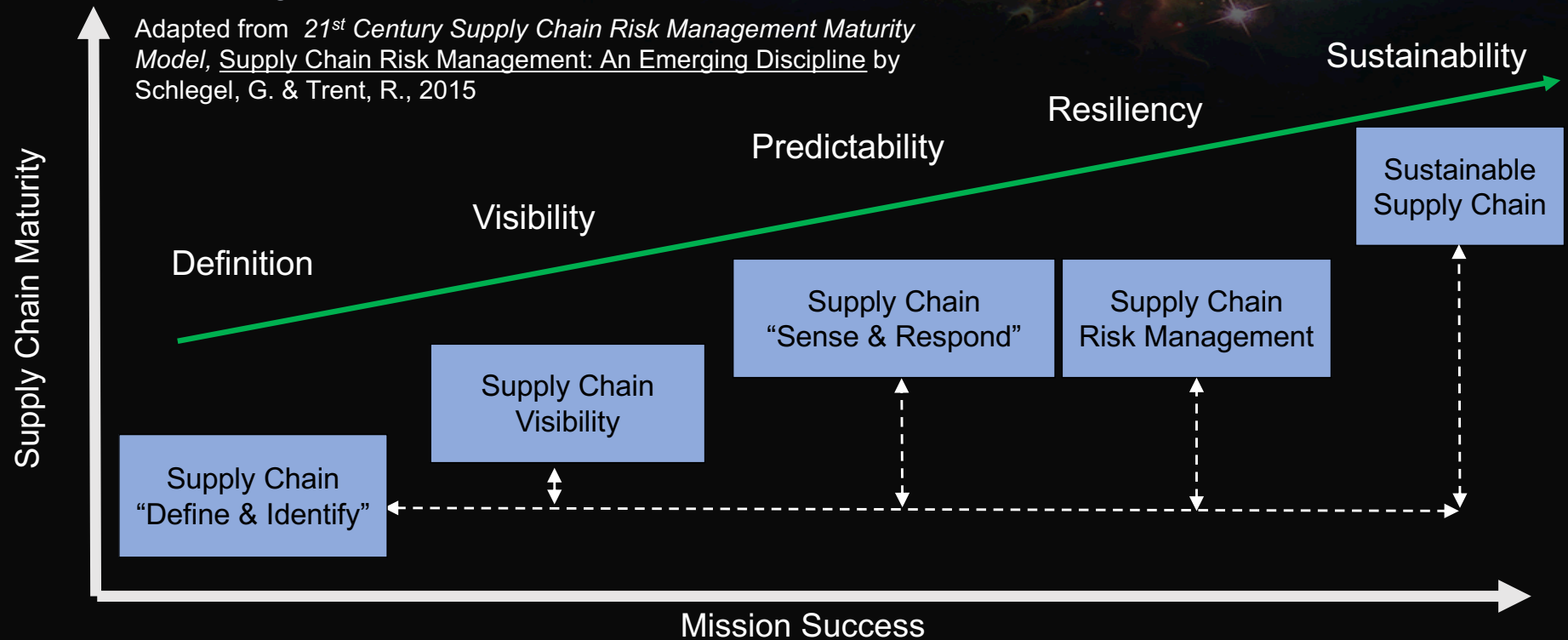


# Supply Chain Risk Management

Goddard Space Flight Center



Adapted from *21<sup>st</sup> Century Supply Chain Risk Management Maturity Model*, *Supply Chain Risk Management: An Emerging Discipline* by Schlegel, G. & Trent, R., 2015



- *Project Management & Procurement*
- *Project Lifecycle Reviews*
- *Internal Management System Assessments*
- *Supply Chain Assessments, Research & Analysis*

- *Supply Chain Mapping & Analytics*
- *Integrated Risk Management*
- *Meta Information System*
- *Digital Transformation*



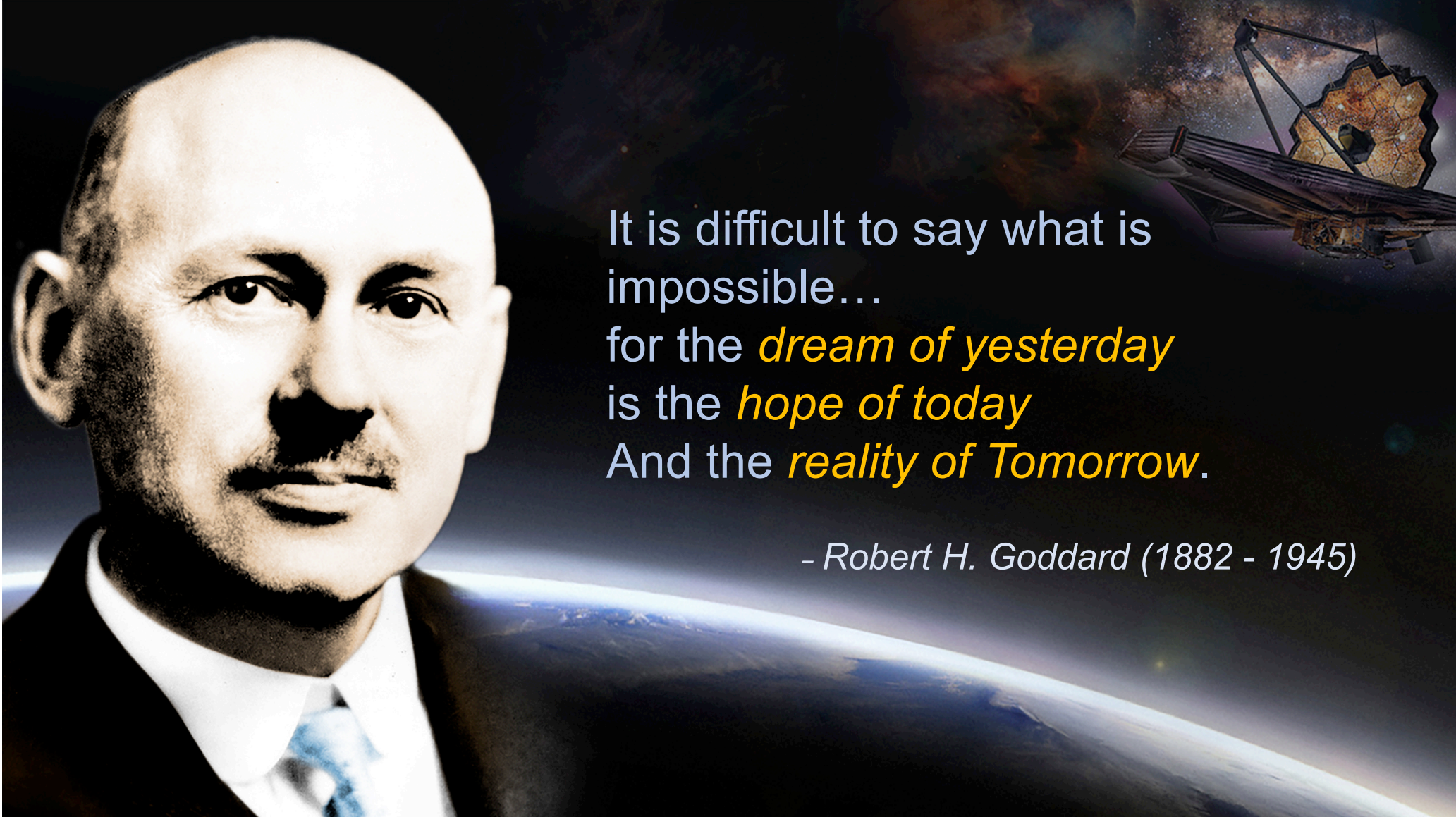


National Aeronautics and Space Administration



INSPIRING THE NEXT GENERATION

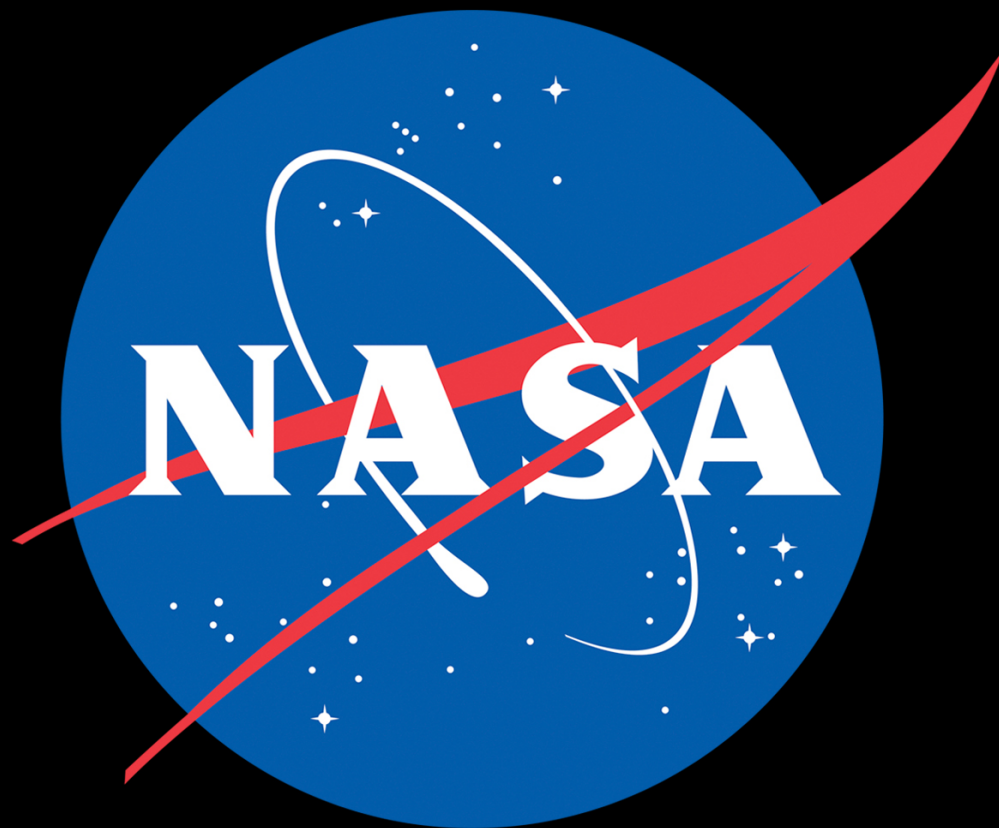




It is difficult to say what is impossible...  
for the *dream of yesterday*  
is the *hope of today*  
And the *reality of Tomorrow*.

- Robert H. Goddard (1882 - 1945)





For more information, please visit our web site:  
[www.nasa.gov/goddard](http://www.nasa.gov/goddard)