



National Aeronautics and  
Space Administration

# AI for Science: Beyond Data Management

Space Science Week

March 25, 2026

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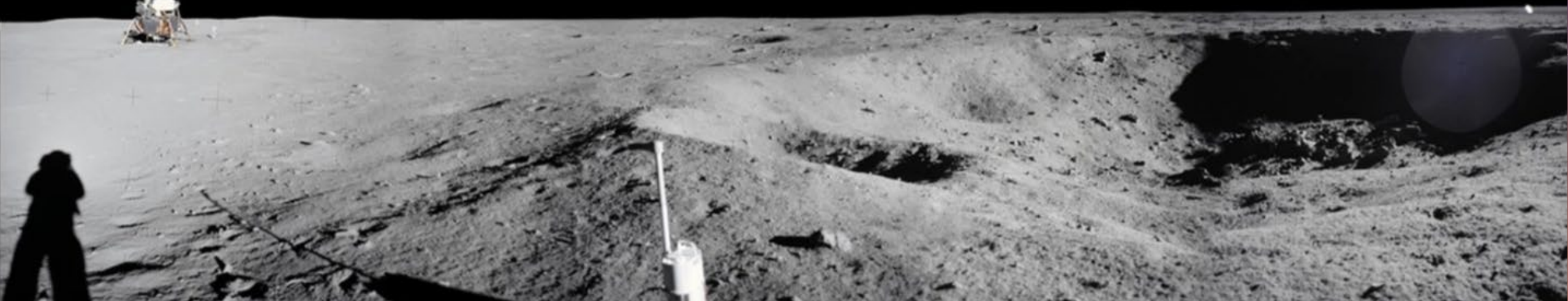
# AI and Autonomy are Deeply Intertwined

PROTECT & IMPROVE  
LIFE ON EARTH &  
IN SPACE

SEARCH FOR LIFE  
ELSEWHERE

DISCOVER SECRETS  
OF THE UNIVERSE

HUMANITY'S RETURN TO THE MOON



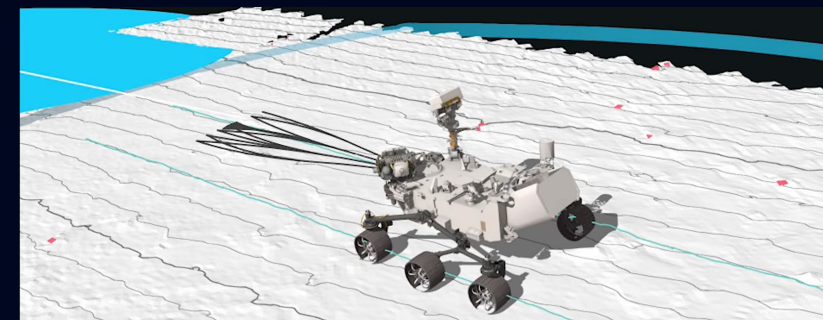
# Mars Rover Operations: Perseverance



Guarded drive stops  
rover before rock sol 107  
(June 8, 2021)

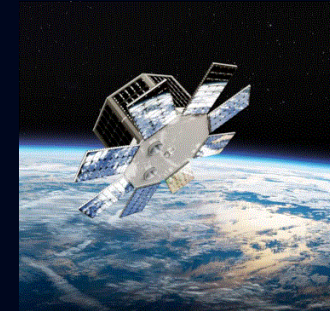
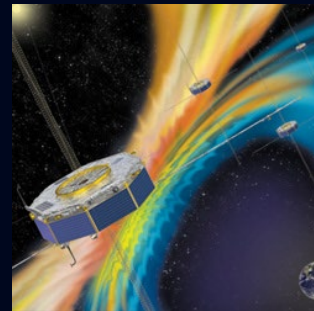
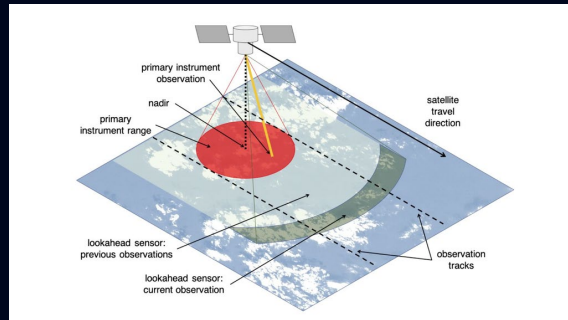


AutoNav diverts rover around  
hazards sol 753 (April 3, 2023)



Route planned by generative AI  
vision-language model sol 1707  
(Dec 8, 2025)

# 2025 Advances in Autonomy: In-Space Demos



Dynamic Targeting: Earth  
Science / JPL  
(CogniSAT-6 / Ubotica  
Technologies)

MEDOS:  
Heliophysics /  
Aurora  
Engineering  
(on MMS)

Starling : STMD /  
Ames  
(XB1-6U Blue  
Canyon  
Technologies)

ASTRA: ESDMD  
/ Stennis  
(LizzieSat-1 /  
Sidus Space)

# 2025 Advances in Autonomy: Field Demos

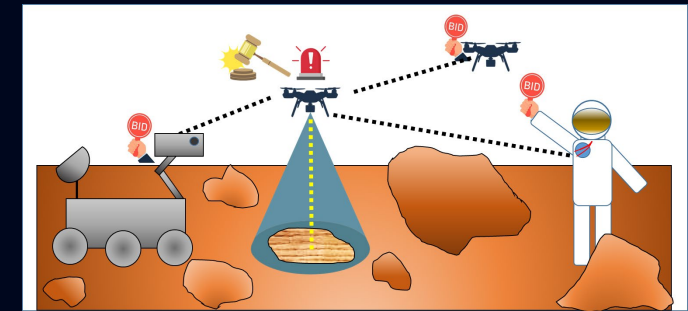
ERA: MEP/JPL



ERA:  
Planetary  
Science / JPL



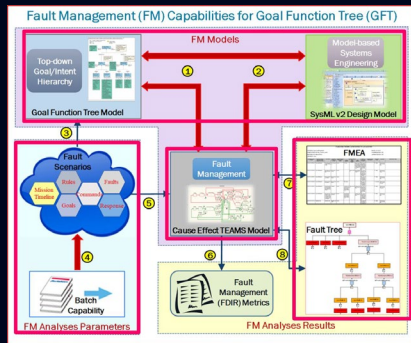
LASSIE-M:  
Planetary Science /  
JSC



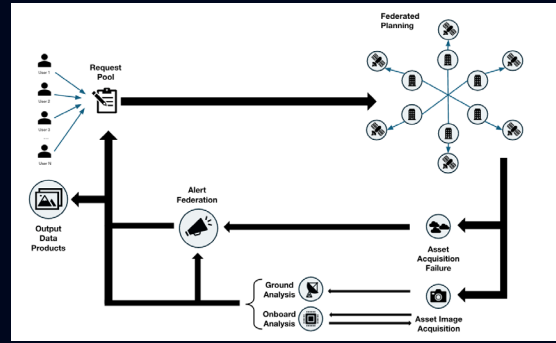
ASTRA:  
GSFC IRAD

# 2025 Advances in Autonomy: Lab Demos

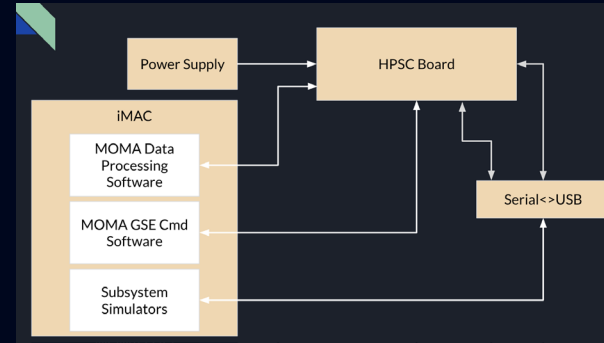
ERA: MEP/JPL



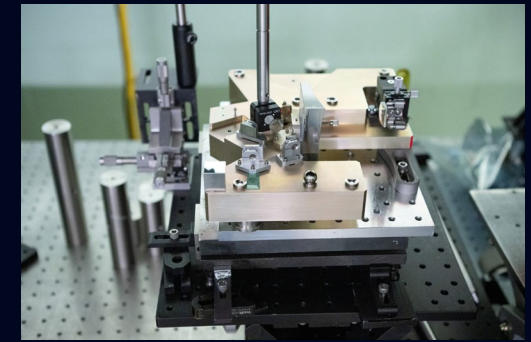
TEAMS-RT: SBIR /  
Qualtech Systems  
Inc.



FAME: Earth Science /  
JPL



MINDSET: Planetary Science /  
GSFC



CUVIS:  
Planetary  
Science / GSFC  
(on DAVINCI)

Questions?

