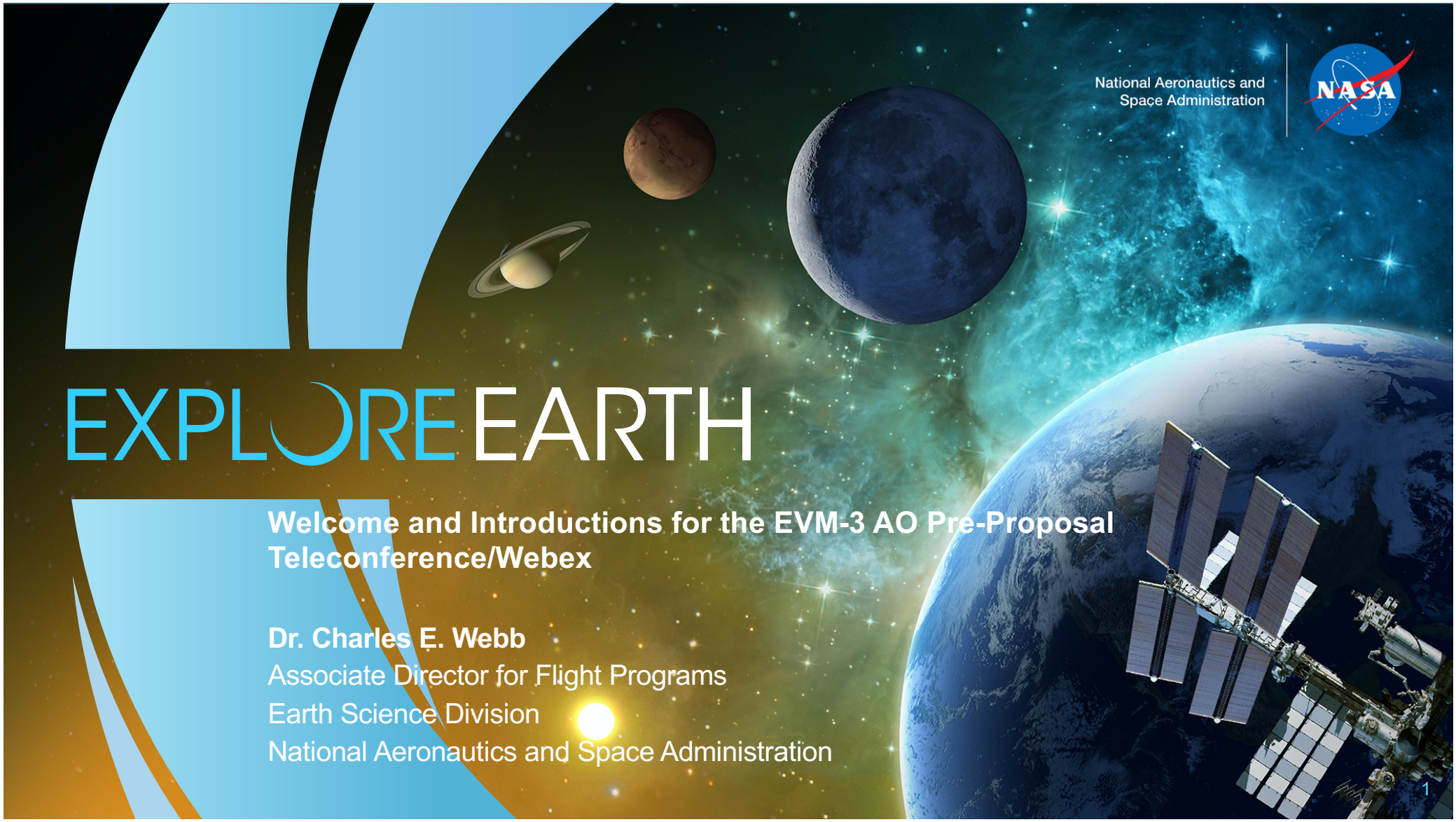

National Aeronautics and
Space Administration
NASA
EXPLORE EARTH
Welcome and Introductions for the EVM-3 AO Pre-Proposal Teleconference/Webex
Dr. Charles E. Webb
Associate Director for Flight Programs
Earth Science Division
National Aeronautics and Space Administration
1

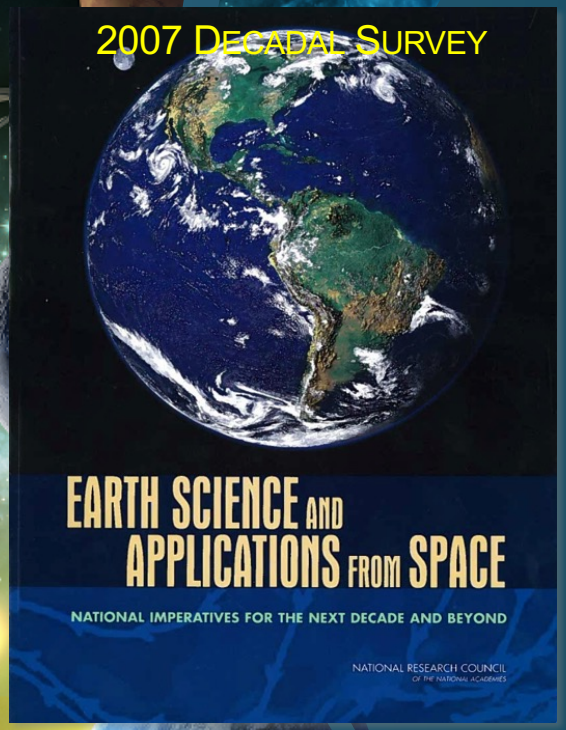
Presenters

Charles Webb	Associate Director, Flight Programs, ESD	NASA Headquarters
Ken Jucks	EVM-3 Program Scientist	NASA Headquarters
Waldo Rodriguez	EVM-3 TMC Evaluation	NASA SOMA
Kim Hurst	International Participation	NASA Headquarters
Ken Hodgdon	Export Control	NASA Headquarters
John Hudiburg	Communications Services	NASA Headquarters
Garrett Skrobot	AO-provided Access to Space	NASA Launch Services Program
Diane Hope	ESSP Program Management	ESSP Program Office

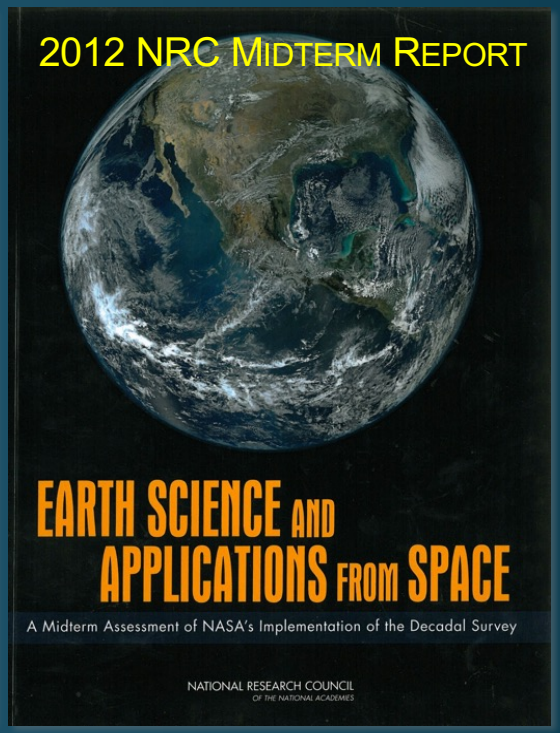
Agenda

11:00 AM	Welcome and Introduction	Charles Webb
11:15 AM	Ground Rules	Ken Jucks
11:25 AM	EVM-3 AO Science Evaluation	Ken Jucks
11:55 AM	EVM-3 AO TMC Evaluation	Waldo Rodriguez
12:15 PM	International Participation	Kim Hurst
12:35 PM	Export Control	Ken Hodgdon
12:55 PM	Break	
1:10 PM	Communication Services	John Hudiburg
1:25 PM	Access to Space Options	Ken Jucks
1:40 PM	AO-provided Access to Space	Garrett Skrobot
2:00 PM	ESSP Program Management	Diane Hope
2:15 PM	Questions and Answers	
2:30 PM	Adjourn	

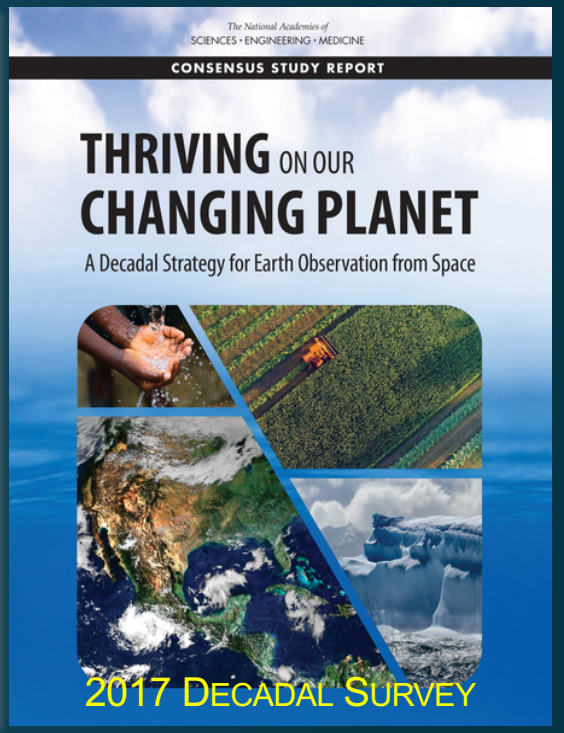
Earth Venture



- Recommended specific missions for implementation
- Assumed legacy missions completed
- **Introduced Earth Venture Class of competed, innovative missions**



- Endorsed NASA's implementation
- Encouraged more rigorous cost control
- **Endorsed additional Venture calls**



- Endorsed the Program of Record
- Identified measurement observables
- **Called for EV Continuity missions**

Earth Venture Opportunities

Mission	Mission Type	Release Date	Selection Date	Major Milestone
EVS-1 (EV-1) (AirMoss, ATTREX, CARVE, DISCOVER-AQ, HS3)	5 Suborbital Airborne Campaigns	2009	2010	Completed KDP-F
EVM-1 (CYGNSS)	Class D SmallSat Constellation	2011	2012	Launched Dec. 2016
EVI-1 (TEMPO)	Class C Geostationary Hosted Instrument	2012	2012	Delivered to storage Dec. 2018
EVI-2 (ECOSTRESS & GEDI)	Class C & Class D ISS-hosted Instruments	2013	2014	Launched June & Dec. 2018
EVS-2 (ACT-America, ATOM, NAAMES, ORACLES, OMG, CORAL)	6 Suborbital Airborne Campaigns	2013	2014	CORAL, NAAMES, ORACLES completed KDP-F
EVI-3 (MAIA & TROPICS)	Class C LEO Hosted Instrument & Class D CubeSat Constellation	2015	2016	Delivery NLT 2021
EVM-2 (GeoCarb)	Class D Geostationary Hosted Instrument	2015	2016	Launch ~2022
EVI-4 (EMIT & PREFIRE)	Class C ISS-hosted Instrument & Class D Twin CubeSats	2016	2018	Delivery NLT 2021
EVS-3 (ACTIVATE, DCOTTS, IMPACTS, Delta-X, SMODE)	5 Suborbital Airborne Campaigns	2017	2018	Passed Initial Confirmation Review, 2 began deployments
EVI-5 (GLIMR)	Class C Geostationary Hosted Instrument	2018	2019	Delivery NLT 2024
EVC-1 (Libera**)**	Class C JPSS-Hosted Radiation Budget Instrument	2018	2020	Delivery NLT 2025
EVM-3	Full Orbital	2020	2021	Launch ~2026
EVI-6	Instrument Only	2021	2022	Delivery NLT 2027
EVC-2	Continuity Measurements	2022	2023	Delivery NLT 2028
EVS-4	Suborbital Airborne Campaigns	2023	2024	N/A
EVI-7	Instrument Only	2024	2025	Delivery NLT 2030
EVM-4	Full Orbital	2024	2025	Launch ~2030
EVC-3	Continuity Measurements	2025	2026	Delivery NLT 2031
EVS-5	Suborbital Airborne Campaigns	2027	2028	N/A

EVS
Sustained sub-orbital investigations
(~4 years)

EVM
Complete, self-contained, small missions
(~4 years)

EVI
Full function, facility-class instruments Missions of Opportunity (MoO)
(~3 years)

EVC
Complete missions or hosted instruments targeting “continuity” measurements
(~3 years)

Open solicitation/In review

Completed solicitation

Earth Venture

Objectives and Characteristics

Objectives:

- Advances science/applications and promotes community involvement through frequent, regular proposal opportunities
- Ensures overall program scientific flexibility and responsiveness through constrained development schedules

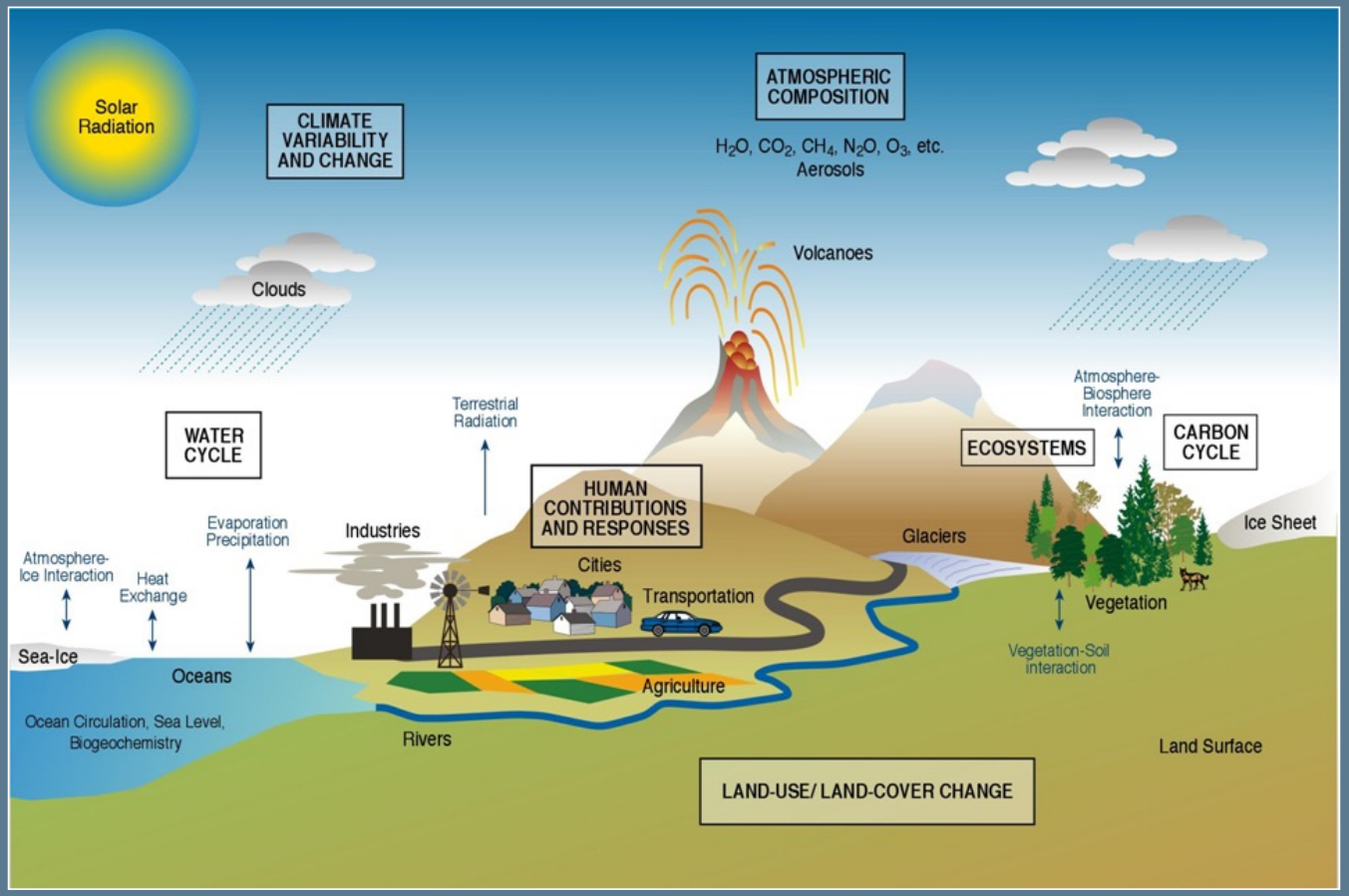
Characteristics:

- Science-driven, involving sustained (> seasonal) data acquisition
  - Technology development/demonstration are not sufficient justifications
- Frequent, regular solicitations
- Competitively selected, PI-led
- Cost and schedule constrained
  - Explicit total cost caps per investigation defined in each solicitation
  - 5-year development time-to-launch for space missions – all science requirements must be achieved within nominal (typically 1-3 year) mission

2020 Science Plan

- Building an **entrepreneurial ventures-based perspective** not only enables us to achieve a fundamentally new understanding of our home planet and the star that sustains us, but also propels **significant improvements in predictive capability** that protects life, health, and property.
- Working closely with partners around the world, our strategy drives both **innovative technology and science** to synergistically **address global challenges** that no one nation or organization can address on their own.

Earth as a Complex Inter-related System



NASA Earth Science supports basic and applied research on the Earth system and its processes.

Characterize, understand, and improve predictions of the Earth system to advance knowledge and benefit society.

Earth System Science: Requires quantitative understanding of *interactions between processes* to define the Earth system – nonlinearities link spatial and temporal scales


EXPLORE EARTH
YOUR HOME, OUR MISSION
Good Luck!