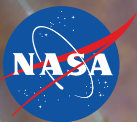
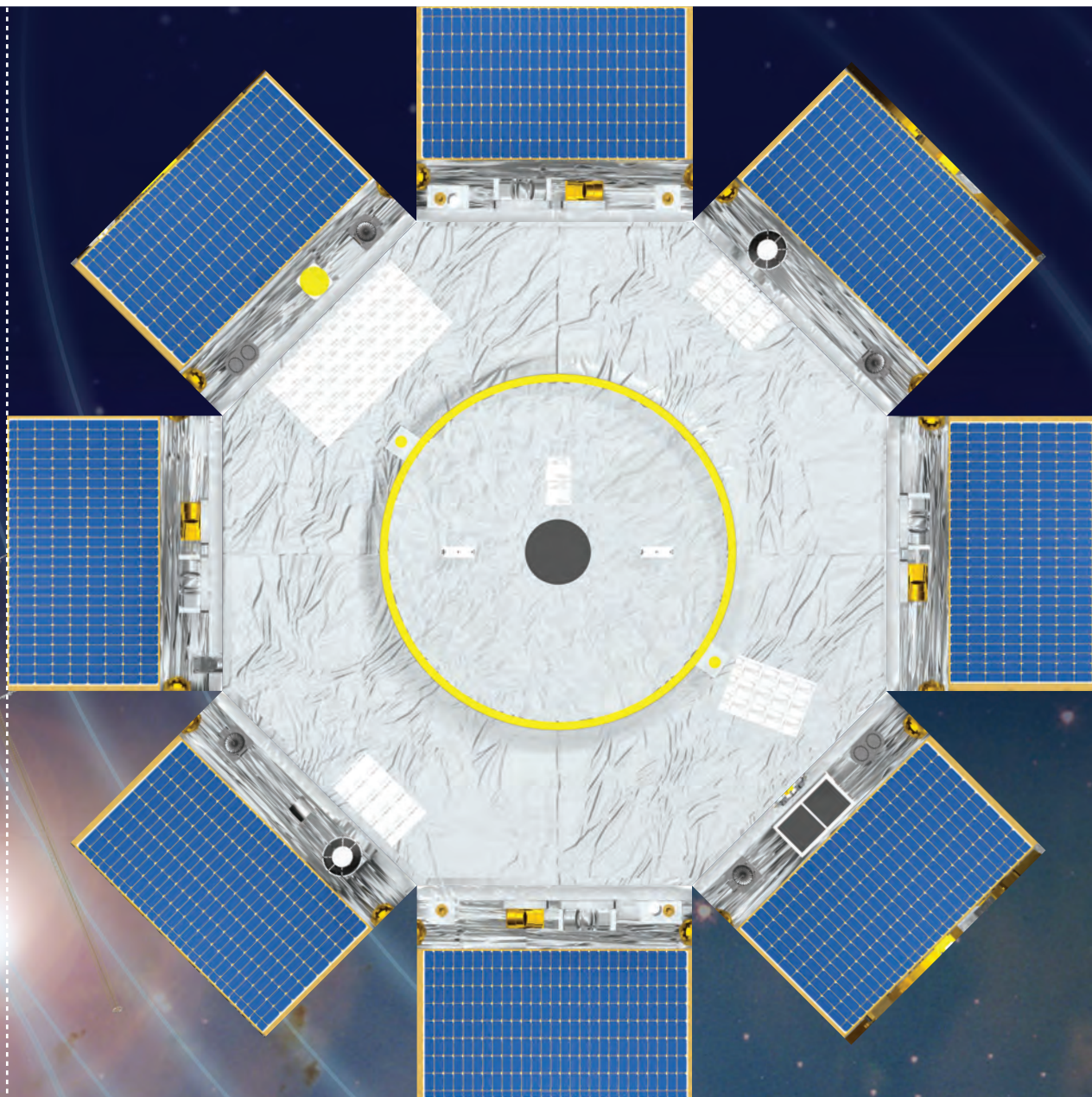


MMS

Magnetospheric
Multiscale
Mission

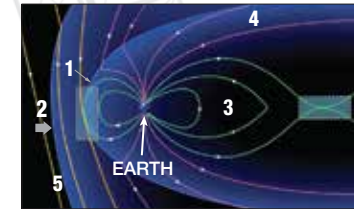


National Aeronautics and
Space Administration



MMS

The MMS mission is composed of four identical instrumented spacecraft that will use the Earth's magnetic field as a laboratory in which to study a fundamental plasma process known as reconnection. *Scan the codes to learn more.*



MMS will use a two-phase orbit strategy to explore two different regions where magnetic reconnection often occurs, one on the day side and the other on the night side of Earth. (Refer to the colored boxes in the image above.)

KEY: 1: Dayside Magnetopause 2: Solar Wind
3: Plasmasheet 4: Magnetotail 5: IMF

Scan the code or visit mms.gsfc.nasa.gov to learn more.

- MMS Updates
- Science Information
- Spacecraft Information
- Images, Videos and Vodcasts
- Educational Activities and Lessons



www.nasa.gov

NP-2012-8-326-GSFC

stats

Width:	3.15 m
Height:	1.23 m
Weight:	1,250 kg
SDP-Wire	
Booms (x4):	60 m
ADP-Antenna	
Mast (x2):	14.75 m
Magnetometer	
Booms (x2):	5 m

fact

The four identically instrumented spacecraft fly in an adjustable pyramid-like formation that enables the 3-D structure of magnetic reconnection.

fact

MMS investigates how the sun's and Earth's magnetic fields connect and disconnect, explosively transferring energy from one to the other – a process that occurs throughout the universe, known as magnetic reconnection.

activity 2

A stack of 5 pennies represents a 1/164 scale model of an MMS spacecraft. At this scale the four MMS spacecraft orbiting in a pyramid-like formation would still be over 60 yards (or ~55 meters) apart! Scan the code on panel 4 to learn more.

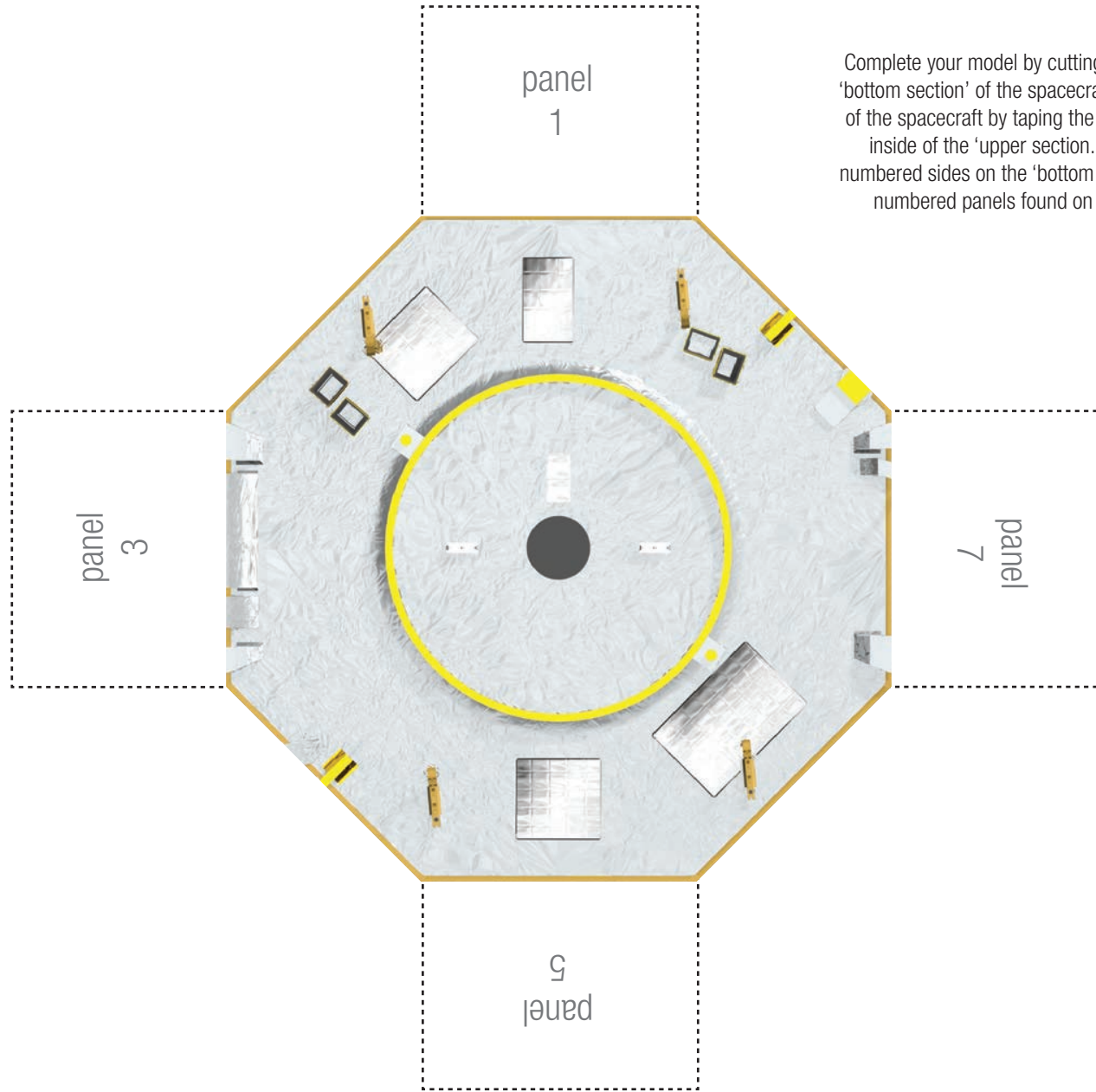
activity 1

Punch out this 1/31 scaled model of the MMS spacecraft. Fold down and tape the sides of each panel together. At this scale the wire booms would still be ~2 meters each! For more details and ideas related to this activity, scan the code on panel 4.

scan

Scan each QR code for more information about the MMS mission including: science and engineering updates, the latest spacecraft images, extended educational activities, vodcasts and our growing social network.





Complete your model by cutting out and attaching this 'bottom section' of the spacecraft to the 'upper section' of the spacecraft by taping the four 'panel' tabs to the inside of the 'upper section.' Make sure that the numbered sides on the 'bottom section' match with the numbered panels found on the 'upper section.'