



National Aeronautics and Space Administration

solarsystem.nasa.gov/yss



YEAR OF THE SOLAR SYSTEM

Home

News & Events

Planets

Missions

Science & Technology

Multimedia

People

Kids

Education

HOME | **TOPICS** | ABOUT YSS | GET INVOLVED | DOWNLOADS | MISSIONS | CALENDAR

Background

Featured Missions

Events

Solar System Explorers

Overview

Classrooms

Organizations & Clubs

Featured Activity

Educational Resources

March 2011: Ancient Astronomers / Modern Tools: Celebrating Sun-Earth Day

Search

Follow Us...

Year of the Solar System:



New Worlds
New Discoveries



Artist's depiction of a telescope in orbit around Earth. (Credit: RHESSI)

1
00:00:04,550 --> 00:00:03,429
what's up for march

2
00:00:05,990 --> 00:00:04,560
the sun

3
00:00:08,150 --> 00:00:06,000
and mercury

4
00:00:10,230 --> 00:00:08,160
hello and welcome i'm jane houston jones

5
00:00:12,870 --> 00:00:10,240
at nasa's jet propulsion laboratory in

6
00:00:14,870 --> 00:00:12,880
pasadena california

7
00:00:16,950 --> 00:00:14,880
on march 18th nasa's messenger

8
00:00:19,029 --> 00:00:16,960
spacecraft is scheduled to be inserted

9
00:00:21,349 --> 00:00:19,039
into orbit around mercury

10
00:00:25,429 --> 00:00:21,359
it will be the first spacecraft to orbit

11
00:00:29,750 --> 00:00:27,349
to get there messenger traveled through

12
00:00:33,510 --> 00:00:29,760
the inner solar system flying by earth

13
00:00:35,910 --> 00:00:33,520

once venus twice and mercury three times

14

00:00:38,470 --> 00:00:35,920

the spacecraft used the gravity of venus

15

00:00:41,670 --> 00:00:38,480

to resize and rotate its flight path

16

00:00:43,590 --> 00:00:41,680

closer to mercury's orbit in 2006 and

17

00:00:45,990 --> 00:00:43,600

2007.

18

00:00:48,470 --> 00:00:46,000

messenger experienced many extreme

19

00:00:51,430 --> 00:00:48,480

conditions during its nearly 5 billion

20

00:00:53,670 --> 00:00:51,440

mile journey to mercury

21

00:00:55,670 --> 00:00:53,680

you can see elusive mercury for yourself

22

00:00:57,670 --> 00:00:55,680

this month too

23

00:01:00,389 --> 00:00:57,680

look for mercury next to larger and

24

00:01:02,069 --> 00:01:00,399

brighter jupiter 45 minutes after sunset

25

00:01:04,630 --> 00:01:02,079

all month long

26

00:01:07,109 --> 00:01:04,640

they'll look like two bright stars very

27

00:01:09,350 --> 00:01:07,119

low on the western horizon

28

00:01:11,670 --> 00:01:09,360

on mercury orbit insertion day march

29

00:01:13,670 --> 00:01:11,680

18th you can see mercury to the upper

30

00:01:15,750 --> 00:01:13,680

right of jupiter

31

00:01:18,149 --> 00:01:15,760

and on the 19th join your local

32

00:01:21,830 --> 00:01:18,159

astronomy club or science center as they

33

00:01:27,109 --> 00:01:23,830

this year offers solar observers a

34

00:01:29,350 --> 00:01:27,119

myriad of amazing features

35

00:01:32,069 --> 00:01:29,360

but take care and never look directly at

36

00:01:34,310 --> 00:01:32,079

the sun or you'll damage your eyes

37

00:01:37,670 --> 00:01:34,320

through special solar safe telescope

38

00:01:40,230 --> 00:01:37,680

filters you can see sunspots on the sun

39

00:01:43,670 --> 00:01:40,240

if you see any large sunspot groups try

40

00:01:45,670 --> 00:01:43,680

to observe them over several days

41

00:01:47,830 --> 00:01:45,680

you may be able to see them march across

42

00:01:49,670 --> 00:01:47,840

the sun's photosphere as our star

43

00:01:52,389 --> 00:01:49,680

rotates

44

00:01:54,789 --> 00:01:52,399

flares that explode

45

00:01:57,030 --> 00:01:54,799

and prominences that sometimes erupt

46

00:01:59,590 --> 00:01:57,040

into space from the sun can be seen with

47

00:02:02,149 --> 00:01:59,600

special h alpha filters

48

00:02:04,870 --> 00:02:02,159

these special narrowband filters isolate

49

00:02:06,950 --> 00:02:04,880

only the hydrogen alpha wavelengths

50

00:02:08,869 --> 00:02:06,960

this filter blocks all the other colors

51

00:02:10,710 --> 00:02:08,879

of light and reveals the sun's

52

00:02:12,630 --> 00:02:10,720

chromosphere

53

00:02:14,790 --> 00:02:12,640

you can learn more about sun earth day

54

00:02:17,589 --> 00:02:14,800

events and hands-on activities at

55

00:02:20,830 --> 00:02:17,599

solarsystem.nasa.gov

56

00:02:23,589 --> 00:02:20,840

yss which stands for year of the solar

57

00:02:27,350 --> 00:02:23,599

system and you can learn all about nasa

58

00:02:28,949 --> 00:02:27,360

missions at www.nasa.gov