1
00:00:00,290 --> 00:00:03,980
A new resupply mission arrives at the Space Station…

2
00:00:03,980 --> 00:00:07,790
A closer look at dwarf planet, Ceres…

3
00:00:07,790 --> 00:00:13,460
And the Parker Solar Probe is ready for the heat … a few of the stories to tell you

4
00:00:13,460 --> 00:00:15,639
about – This Week at NASA!

5
00:00:15,639 --> 00:00:21,410
The SpaceX Dragon cargo spacecraft arrived at the International Space Station on July

6
00:00:21,410 --> 00:00:25,300
2 – three days after being launched from Florida.

7
00:00:25,300 --> 00:00:30,110
The Dragon delivered more than 5,900 pounds of research, crew supplies and hardware to

8
00:00:30,110 --> 00:00:32,210
the orbiting laboratory.

9
00:00:32,210 --> 00:00:37,800
After about a month, it will return to Earth with about 3,800 pounds of cargo and research,

10
00:00:37,800 --> 00:00:44,290
including investigations on DNA sequencing and cancer therapy.

11
00:00:44,290 --> 00:00:49,900
Since being dropped into its final and lowest-ever

orbit – about 22 miles above the surface

12
00:00:49,900 --> 00:00:56,160
of dwarf planet Ceres, our Dawn spacecraft
has been returning thousands of stunning images

13
00:00:56,160 --> 00:00:57,570
and data.

14
00:00:57,570 --> 00:01:02,720
The low-altitude observations will help shed
new light on the origin of the materials found

15
00:01:02,720 --> 00:01:08,290
across the surface of Ceres, including the
largest deposits of carbonates observed thus

16
00:01:08,290 --> 00:01:12,530
far outside Earth, and possibly Mars.

17
00:01:12,530 --> 00:01:18,490
This animation demonstrates how deformation
in the icy surface of Europa could transport

18
00:01:18,490 --> 00:01:21,450
subsurface ocean water to the moon’s surface.

19
00:01:21,450 --> 00:01:28,250
This is just one of several simulated behaviors
reported in a new study performed by scientists

20
00:01:28,250 --> 00:01:30,740
at our Jet Propulsion Laboratory.

21
00:01:30,740 --> 00:01:36,210
The study focused on linear features called
“bands” and “groove lanes” found on

22
00:01:36,210 --> 00:01:39,880

Jupiter’s moons Europa and Ganymede.

23
00:01:39,880 --> 00:01:46,250
Scientists have used the same numerical model
to solve mysteries about motion in Earth’s

24
00:01:46,250 --> 00:01:47,860
crust.

25
00:01:47,860 --> 00:01:53,170
Our Parker Solar Probe spacecraft has been
outfitted with the revolutionary heat shield

26
00:01:53,170 --> 00:01:58,479
designed to protect it from the extreme temperatures
it will encounter on its historic mission

27
00:01:58,479 --> 00:02:00,010
to the Sun.

28
00:02:00,010 --> 00:02:05,010
At closest approach the spacecraft will pass
within 4 million miles of the Sun’s surface

29
00:02:05,010 --> 00:02:08,399
– where temperatures reach nearly 2,500
degrees Fahrenheit.

30
00:02:08,399 --> 00:02:13,609
But the heat shield is made from materials
that will keep everything within its shadow

31
00:02:13,609 --> 00:02:16,349
to about 85 degrees Fahrenheit.

32
00:02:16,349 --> 00:02:20,189
The mission is targeted to launch in August.

33
00:02:20,189 --> 00:02:26,080

A new study using data from our NuSTAR space telescope shows that Eta Carinae, the most

34
00:02:26,080 --> 00:02:31,650
luminous and massive stellar system within 10,000 light-years, is accelerating particles

35
00:02:31,650 --> 00:02:36,739
to high energies — some of which may reach Earth as cosmic rays.

36
00:02:36,739 --> 00:02:42,680
Located about 7,500 light-years away, the system contains a pair of massive stars whose

37
00:02:42,680 --> 00:02:47,689
eccentric orbits bring them unusually close every 5.5 years.

38
00:02:47,689 --> 00:02:52,989
They pass about 140 million miles apart at their closest approach – about the average

39
00:02:52,989 --> 00:02:57,550
distance separating Mars and the Sun.

40
00:02:57,550 --> 00:03:02,819
Researchers are looking for more data from citizen scientists to help track mosquitoes

41
00:03:02,819 --> 00:03:08,790
known to carry and spread diseases like Zika, West Nile Virus and malaria.

42
00:03:08,790 --> 00:03:14,769
These data are combined with NASA Earth satellite observations to create new forecast models

43
00:03:14,769 --> 00:03:18,290
that can predict the spread of mosquito-carrying

diseases.

44
00:03:18,290 --> 00:03:24,099
You can help track mosquitoes by downloading
the GLOBE Observer app from your device’s

45
00:03:24,099 --> 00:03:29,620
app store, and then collect data over the
summer using the Mosquito Habitat Mapper tool

46
00:03:29,620 --> 00:03:30,620
in the app.

47
00:03:30,620 --> 00:03:34,129
That’s what’s up this week @NASA …