1
00:00:00,350 --> 00:00:03,449
A new record for our mission to the Sun …

2
00:00:03,449 --> 00:00:06,620
The end of an era for a prolific planet hunter
…

3
00:00:06,620 --> 00:00:13,300
And our next mission to Mars is closing in
on its destination … a few of the stories

4
00:00:13,300 --> 00:00:16,810
to tell you about – This Week at NASA!

5
00:00:16,810 --> 00:00:21,910
Our Parker Solar Probe is the new record holder
for closest approach to the Sun by a human-made

6
00:00:21,910 --> 00:00:22,910
object.

7
00:00:22,910 --> 00:00:28,830
According to calculations by the Parker Solar
Probe team, on Oct. 29, the spacecraft passed

8
00:00:28,830 --> 00:00:34,840
the current record of 26.55 million miles
from the Sun’s surface, set by the Helios

9
00:00:34,840 --> 00:00:37,989
2 spacecraft in April 1976.

10
00:00:37,989 --> 00:00:42,989
When it makes its final closest approach in
2024, Parker Solar Probe is expected to be

11
00:00:42,989 --> 00:00:48,039
just 3.83 million miles from the Sun’s surface.

12
00:00:48,039 --> 00:00:53,069
After nine years in deep space, we are ending
the science operations of our Kepler space

13
00:00:53,069 --> 00:00:54,129
telescope.

14
00:00:54,129 --> 00:00:59,350
Data collected by Kepler have helped us discover
there are more planets than stars in our galaxy.

15
00:00:59,350 --> 00:01:04,729
The telescope has discovered more than 2,600
planets during its mission, many of which

16
00:01:04,729 --> 00:01:07,310
could be promising places for life.

17
00:01:07,310 --> 00:01:12,729
Kepler will be retired into a safe orbit away
from Earth.

18
00:01:12,729 --> 00:01:18,561
After our Dawn spacecraft missed several communications
sessions with our Deep Space Network, mission

19
00:01:18,561 --> 00:01:23,259
managers ended the historic mission – concluding
that the spacecraft has finally run out of

20
00:01:23,259 --> 00:01:26,210
the fuel it uses to orient itself in space.

21
00:01:26,210 --> 00:01:31,670
Launched 11 years ago, it became the first
mission to go into orbit around two destinations

22
00:01:31,670 --> 00:01:37,539
beyond Earth – visiting the two largest

objects in the main asteroid belt – Vesta,

23
00:01:37,539 --> 00:01:40,770
and Ceres, the dwarf planet it is currently
orbiting.

24
00:01:40,770 --> 00:01:47,140
Dawn is expected to remain in orbit around
Ceres for at least 20 years.

25
00:01:47,140 --> 00:01:52,149
Mission managers previewed the InSight mission
to Mars during an Oct. 31 briefing at NASA

26
00:01:52,149 --> 00:01:53,429
headquarters.

27
00:01:53,429 --> 00:01:58,299
The InSight lander is scheduled to touch down
on the Red Planet on Nov. 26.

28
00:01:58,299 --> 00:02:02,899
Its suite of instruments will study marsquakes,
and other activity deep below the Martian

29
00:02:02,899 --> 00:02:08,540
surface to help us better understand how all
rocky planets formed – including Earth and

30
00:02:08,540 --> 00:02:09,540
its Moon.

31
00:02:09,540 --> 00:02:13,840
“On Mars the atmosphere is thick enough
to burn you up on entry.”

32
00:02:13,840 --> 00:02:20,090
Our new eight-episode podcast, “On a Mission”
takes you with Insight on its mission to Mars.

33
00:02:20,090 --> 00:02:24,790
Episode One lays out the odds of actually
reaching the surface safely – fewer than

34
00:02:24,790 --> 00:02:27,080
half of Mars missions make it.

35
00:02:27,080 --> 00:02:33,790
The first two episodes are available online
at nasa.gov/podcasts, the InSight website,

36
00:02:33,790 --> 00:02:38,030
SoundCloud and Apple Podcasts.

37
00:02:38,030 --> 00:02:43,170
On Oct. 31, engineers at our Stennis Space
Center in Mississippi conducted another ‘hot

38
00:02:43,170 --> 00:02:48,320
fire’ test of an RS-25 engine controller,
for use on a future flight of our new Space

39
00:02:48,320 --> 00:02:51,000
Launch System or SLS rocket.

40
00:02:51,000 --> 00:02:58,000
SLS will use four RS-25s to launch astronauts
in our Orion spacecraft to deep space destinations,

41
00:02:58,000 --> 00:03:02,640
including to the vicinity of the Moon and
Mars.

42
00:03:02,640 --> 00:03:07,500
Urban Air Mobility was the focus of an industry
day on Nov. 1 in Seattle.

43
00:03:07,500 --> 00:03:12,820
Urban Air Mobility is defined as a safe and

efficient system for passenger and cargo air

44
00:03:12,820 --> 00:03:16,360
transportation in and around an urban area.

45
00:03:16,360 --> 00:03:21,090
We are working with industry, academia and
the Federal Aviation Administration to test

46
00:03:21,090 --> 00:03:27,840
concepts and technologies necessary to help
move this industry forward.

47
00:03:27,840 --> 00:03:33,560
Engineers recently tested a sub-scale model
of our X-59 Quiet SuperSonic Technology X-plane,

48
00:03:33,560 --> 00:03:37,380
in a wind tunnel at our Langley Research Center
in Virginia.

49
00:03:37,380 --> 00:03:42,780
The X-59 will demonstrate quiet supersonic
technologies in straight and level flight

50
00:03:42,780 --> 00:03:44,620
over a large area.

51
00:03:44,620 --> 00:03:49,620
Data from this project could be the path for
new commercial markets in supersonic flight

52
00:03:49,620 --> 00:03:51,780
in the United States and internationally.

53
00:03:51,780 --> 00:03:55,760
That’s what’s up this week @NASA …