1
00:00:00,789 --> 00:00:05,150
“Here’s some of the stories trending This
Week at NASA!”

2
00:00:05,150 --> 00:00:12,160
Forty years ago, on July 20, 1976, Viking
1 became the first U.S. spacecraft to successfully

3
00:00:12,160 --> 00:00:13,660
land on Mars.

4
00:00:13,660 --> 00:00:18,690
To celebrate the anniversary of the historic
robotic feat and to highlight NASA’s effort

5
00:00:18,690 --> 00:00:24,489
to send humans to Mars in the 2030s, Langley
Research Center, in Hampton, Virginia hosted

6
00:00:24,489 --> 00:00:26,779
a two-day “Viking at 40” event.

7
00:00:26,779 --> 00:00:32,040
On July 19, NASA’s Chief Historian Bill
Barry moderated a history discussion about

8
00:00:32,040 --> 00:00:36,330
the Viking program and its contribution to
Mars exploration.

9
00:00:36,330 --> 00:00:41,980
The next day, a 40th anniversary symposium
called, “From NASA’s First Soft Landing

10
00:00:41,980 --> 00:00:47,660
to Humans on Mars” included a host of programs
and featured Chief Scientist Ellen Stofan

11
00:00:47,660 --> 00:00:52,470

and other NASA experts discussing the agency's
Journey to Mars.

12
00:00:52,470 --> 00:00:57,940
Later that evening, NASA Administrator Charlie
Bolden was on hand at Nationals Park in Washington,

13
00:00:57,940 --> 00:01:03,760
as Viking 1 and the Apollo 11 moon landing
anniversaries were recognized during a celebration

14
00:01:03,760 --> 00:01:06,380
of significant American firsts.

15
00:01:06,380 --> 00:01:12,560
These momentous events both happened on July
20, seven years apart.

16
00:01:12,560 --> 00:01:17,130
Astronomers using NASA's Hubble Space Telescope
have conducted the first search for atmospheres

17
00:01:17,130 --> 00:01:21,390
around temperate, Earth-sized planets beyond
our solar system.

18
00:01:21,390 --> 00:01:27,240
The search found indications that two of those
exoplanets, TRAPPIST-1b and TRAPPIST-1c, located

19
00:01:27,240 --> 00:01:32,479
about 40 light-years away, probably don't
have thick, hydrogen-dominated atmospheres

20
00:01:32,479 --> 00:01:37,340
usually found on gaseous worlds not considered
habitable.

21
00:01:37,340 --> 00:01:42,010
Scientists say this finding increases the

chances the two planets might have atmospheres

22
00:01:42,010 --> 00:01:45,950
that are habitable to life as we know it.

23
00:01:45,950 --> 00:01:50,810
NASA announced July 18 that an international
team of astronomers using NASA's Kepler

24
00:01:50,810 --> 00:01:57,770
spacecraft on its K2 mission has confirmed
104 new planets, out of 197 initial planet

25
00:01:57,770 --> 00:02:01,310
candidates found outside our solar system.

26
00:02:01,310 --> 00:02:07,299
Among the confirmed new exoplanets is a planetary
system comprising four promising worlds that

27
00:02:07,299 --> 00:02:08,429
could be rocky.

28
00:02:08,429 --> 00:02:14,439
They're all between 20 and 50 percent larger
than Earth by diameter and orbit the M dwarf

29
00:02:14,439 --> 00:02:19,810
star K2-72, 181 light years away.

30
00:02:19,810 --> 00:02:24,810
Things were busy for the crew aboard the International
Space Station thanks to two back-to-back cargo

31
00:02:24,810 --> 00:02:26,000
deliveries.

32
00:02:26,000 --> 00:02:31,049
On July 18, a Russian Progress cargo ship

docked with more than three tons of food,

33
00:02:31,049 --> 00:02:32,590
fuel, and supplies.

34
00:02:32,590 --> 00:02:38,299
Two days later, a SpaceX Dragon cargo spacecraft
arrived at the station with almost 5,000 pounds

35
00:02:38,299 --> 00:02:43,579
of supplies, including critical materials
to support dozens of groundbreaking science

36
00:02:43,579 --> 00:02:46,739
and research investigations on the station.

37
00:02:46,739 --> 00:02:51,349
Also delivered was the first international
docking adapter that will enable future commercial

38
00:02:51,349 --> 00:02:55,669
crew spacecraft to dock to the station.

39
00:02:55,669 --> 00:03:01,129
According to NASA analyses of ground-based
observations and satellite data, two key climate

40
00:03:01,129 --> 00:03:06,359
change indicators -- global surface temperature
and Arctic sea ice extent -- have broken numerous

41
00:03:06,359 --> 00:03:09,809
records through the first half of 2016.

42
00:03:09,809 --> 00:03:13,840
Five of the year’s first six months set
records for the smallest respective monthly

43
00:03:13,840 --> 00:03:19,510

Arctic sea ice extent since consistent satellite records began in 1979.

44
00:03:19,510 --> 00:03:24,930
January to June also was the planet's warmest half-year on record, with an average temperature

45
00:03:24,930 --> 00:03:29,559
about 2.4 degrees Fahrenheit warmer than the late nineteenth century.

46
00:03:29,559 --> 00:03:34,939
While these two key climate indicators have broken records in 2016, scientists say it’s

47
00:03:34,939 --> 00:03:39,709
more significant that these indicators are continuing their decades-long trends of change

48
00:03:39,709 --> 00:03:45,709
– which ultimately are driven by rising concentrations of heat-trapping carbon dioxide

49
00:03:45,709 --> 00:03:49,980
and other greenhouse gases in the atmosphere.

50
00:03:49,980 --> 00:03:55,430
Langley Research Center hosted an event on July 15 to showcase NASA’s Atmospheric Carbon

51
00:03:55,430 --> 00:03:58,019
and Transport-America (ACT-America) campaign.

52
00:03:58,019 --> 00:04:02,549
The study will conduct five airborne campaigns across three regions in the eastern United

53
00:04:02,549 --> 00:04:08,549
States to study the movement of carbon dioxide and methane into and out of the atmosphere,

54
00:04:08,549 --> 00:04:13,389
in hopes of better understanding how these
two powerful greenhouse gases impact climate

55
00:04:13,389 --> 00:04:14,589
change.

56
00:04:14,589 --> 00:04:19,640
The first ACT-America flights from Langley
and NASA’s Wallops Flight Facility in Virginia

57
00:04:19,640 --> 00:04:22,430
are scheduled July 18 through Sept. 2.

58
00:04:22,430 --> 00:04:25,780
And that’s what’s up this week @NASA …