
060

1
00:00:01,190 --> 00:00:05,730
George Diller/Launch Commentator: This is Atlas Launch Control at T-2 hours and holding.

2
00:00:05,730 --> 00:00:12,830
We're in a planned built-in hold at this time on the launch of the Juno spacecraft aboard an Atlas V rocket.

3
00:00:12,830 --> 00:00:19,830
We are now two hours, 32 minutes, 32 seconds away from the liftoff of the Atlas V.

4
00:00:19,830 --> 00:00:24,730
Liftoff is from Launch Complex 41 at Cape Canaveral.

5
00:00:24,730 --> 00:00:29,940
The Juno spacecraft will provide the most detailed observations to date of Jupiter,

6
00:00:29,940 --> 00:00:32,830
the solar system's largest planet.

7
00:00:32,830 --> 00:00:37,860
Additionally, as Jupiter was most likely the first planet to form,

8
00:00:37,860 --> 00:00:44,130
Juno's findings will shed light on the history and evolution of the entire solar system.

9
00:00:44,130 --> 00:00:53,390
The launch window today extends from 11:34 a.m. to 12:43 p.m. EDT, a duration of 69 minutes.

10
00:00:53,390 --> 00:00:58,930
Following a five-year cruise to Jupiter, which will include a gravity assist Earth flyby,

11
00:00:58,930 --> 00:01:01,810
Juno will enter into a polar orbit around the planet,

12
00:01:01,810 --> 00:01:06,290
completing 33 orbits during its science phase before being commanded to

13
00:01:06,290 --> 00:01:10,460

enter Jupiter's atmosphere to complete the mission.

14
00:01:10,460 --> 00:01:15,780
Juno will orbit the planet every 11 days, coming as close as 3,100 miles to Jupiter's

15
00:01:15,780 --> 00:01:19,680
cloud tops while measuring magnetic and gravity fields,

16
00:01:19,680 --> 00:01:26,230
atmospheric composition, and performing infrared, ultraviolet and visible light photography.

17
00:01:26,230 --> 00:01:29,300
The Juno spacecraft is unique in several ways.

18
00:01:29,300 --> 00:01:35,250
It's the first solar-powered spacecraft to perform operations this far from the sun.

19
00:01:35,250 --> 00:01:40,030
To accomplish this, Juno is equipped with three very large solar arrays,

20
00:01:40,030 --> 00:01:45,930
which, when extended, bring the spacecraft to a total diameter of 66 feet.

21
00:01:45,930 --> 00:01:50,820
To combat its exposure to radiation during its year-long orbit of Jupiter,

22
00:01:50,820 --> 00:01:56,890
most of Juno's electronics have been housed inside a titanium vault in the center of the spacecraft.

23
00:01:56,890 --> 00:02:07,260
Juno will be spin stabilized throughout its mission in order to maximize the scientific observations.

24
00:02:07,260 --> 00:02:14,450
We've had a weather forecast from our Launch Weather Officer Clay Flinn and forecast is essentially

25
00:02:14,450 --> 00:02:18,230
unchanged from what we've been watching all week.

26
00:02:18,230 --> 00:02:23,230
There is just a 30 percent chance of not meeting the launch weather criteria.

27
00:02:23,230 --> 00:02:28,760
There will be a chance for some isolated showers, winds will be out of the southeast at around 12