

**COUNTDOWN  
TO T-ZERO**

**READY TO ROLL**



1  
00:00:00,290 --> 00:00:01,749  
Launch controller: ROC, report range status.

2  
00:00:01,749 --> 00:00:02,749  
Launch controller: Range green.

3  
00:00:02,749 --> 00:00:09,040  
Launch commentator: T-minus five, four, three, two, one.

4  
00:00:09,040 --> 00:00:11,020  
Go for main engine start.

5  
00:00:11,140 --> 00:00:12,920  
Zero and liftoff.

6  
00:00:17,480 --> 00:00:21,360  
2 weeks to T-0.

7  
00:00:21,370 --> 00:00:25,730  
Today is another huge milestone for NOAA's GOES-S mission.

8  
00:00:25,730 --> 00:00:28,910  
"So today we start something called encapsulation.

9  
00:00:28,910 --> 00:00:32,800  
By encapsulation we actually put a container around the satellite it's called a payload

10  
00:00:32,800 --> 00:00:33,800  
fairing.

11  
00:00:33,800 --> 00:00:37,160  
That payload fairing is going to protect the satellite for the first three and a half minutes

12  
00:00:37,160 --> 00:00:38,160

of mission.

13  
00:00:38,160 --> 00:00:41,650  
That sounds like a very short period of time,  
but in fact, you know that's when we would

14  
00:00:41,650 --> 00:00:45,860  
have the maximum aerodynamic and acoustic  
loads on the satellite, so we're trying to

15  
00:00:45,860 --> 00:00:46,930  
protect the satellite.

16  
00:00:46,930 --> 00:00:50,390  
Right now we really have tested everything  
we need to do to make sure this satellite

17  
00:00:50,390 --> 00:00:51,390  
is ready for launch.

18  
00:00:51,390 --> 00:00:53,440  
Next time we'll see this satellite is on orbit."

19  
00:00:53,440 --> 00:00:57,750  
Shooting off the launch pad like a bullet,  
this vehicle will rocket past the speed of

20  
00:00:57,750 --> 00:01:00,579  
sound in just over thirty seconds.

21  
00:01:00,579 --> 00:01:05,440  
If not protected, the Earth's atmosphere  
will rip GOES-S to pieces.

22  
00:01:05,440 --> 00:01:11,250  
But for a satellite – designed to only live  
in the vacuum of space - life on Earth can

23  
00:01:11,250 --> 00:01:13,840

be just as dangerous.

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00:01:13,840 --> 00:01:20,510

Any exposure to dust or moisture could contaminate the satellite and destroy the mission.

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00:01:20,510 --> 00:01:24,170

That's why this fairing is more than just a suit of armor.

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00:01:24,170 --> 00:01:28,430

It's also a portable clean room.

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00:01:28,430 --> 00:01:33,040

With encapsulation complete, it's time to call in the KAMAG.

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00:01:33,200 --> 00:01:40,040

This 72-wheel transport vehicle has what it takes to get this massive payload to the pad.

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00:01:40,050 --> 00:01:46,540

"Spacecraft hoist and mate to the launch vehicle today is a huge milestone for the whole operation.

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00:01:46,540 --> 00:01:49,270

And this is the biggest integrated operation that we've had so far.

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00:01:49,270 --> 00:01:55,200

It goes all day and all night from transport and then hoist and mate, and it will go into

32

00:01:55,200 --> 00:01:57,950

the evening tonight as they finish close-outs."

33

00:01:57,950 --> 00:02:03,490

After working through the night, LSP and ULA are almost there.

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00:02:03,490 --> 00:02:06,479

Just 150 feet to go...Straight up.

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00:02:06,479 --> 00:02:14,069

"Obstacles, we do have obstacles on the decks, on the KAMAG, so watch your step, walking

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00:02:14,069 --> 00:02:19,480

area, trip hazards, and then remember about your hard hats, chin straps.

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00:02:19,480 --> 00:02:20,630

Any questions?

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00:02:21,940 --> 00:02:23,480

Alright, let's go do this."

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00:02:23,489 --> 00:02:29,029

"There's a lot of moving parts involved with processing a spacecraft, processing a rocket,

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00:02:29,029 --> 00:02:31,540

and bringing them together for a launch.

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00:02:31,540 --> 00:02:34,060

There are a lot of people involved and there are a lot of moving parts.

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00:02:34,060 --> 00:02:38,220

There are a lot of hard time lines that we have to meet, and deadlines that we have to

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00:02:38,220 --> 00:02:42,059

meet, and everybody works as hard as they can to meet those deadlines, sometimes you

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00:02:42,059 --> 00:02:43,849

have to work around the clock to meet those."

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00:02:43,849 --> 00:02:48,309

We've reached a critical point on the road to T-Zero.

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00:02:48,309 --> 00:02:50,959

GOES-S is now mated to the Atlas V.

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00:02:50,959 --> 00:02:54,790

"We're working for several years integrating this thing, and we've completed that now.

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00:02:54,790 --> 00:02:58,400

We've got the satellite on top and we're ready to go."