
LAUNCH SERVICES PROGRAM
NASA
Jarmaine Ollivierre
NASA, Mission Analyst

1
00:00:10,780 --> 00:00:15,920
Hi, my name is Martha and I work here
at NASA, in the Launch Services Program.

2
00:00:15,930 --> 00:00:22,039
I'm excited to have you here today to explore
one of the many fascinating jobs here at NASA.

3
00:00:22,039 --> 00:00:25,380
To experience what it's like to be a NASA
employee,

4
00:00:25,420 --> 00:00:30,999
you first have to speak our language.
I've been told we speak a lot of acronyms

5
00:00:30,999 --> 00:00:33,660
in our
conversations. With that being said,

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00:00:33,660 --> 00:00:38,260
I'm going to let you be the judge.
Hey, Rex.

7
00:00:38,260 --> 00:00:40,070
Hey, Smitty.
Has the LSIM scheduled the OCO-2 GOR yet

8
00:00:40,070 --> 00:00:44,880
in the O and C building?
Yes, the PHSF HVAC INT is A-OK,

9
00:00:44,880 --> 00:00:49,340
and the OD WILCO's are due PDQ.
I'll let you know ASAP as soon as I hear the rest of it.

10
00:00:49,340 --> 00:00:51,340
Huh?!

11

00:00:51,360 --> 00:00:55,720
The acronym we're going to learn today is LSP.

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00:00:55,720 --> 00:00:58,960
Can anybody tell me what LSP stands for?

13
00:00:58,969 --> 00:01:03,600
I'll give you a hint:
I mentioned it earlier in our conversation,

14
00:01:03,600 --> 00:01:06,820
and, it's where I work.

15
00:01:06,820 --> 00:01:10,020
You got it: Launch Services Program.

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00:01:10,020 --> 00:01:13,940
Congratulations! You are now part of the NASA
team.

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00:01:13,940 --> 00:01:19,430
And now that you're part of the NASA family,
I have someone that I'd like for you to meet.

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00:01:19,430 --> 00:01:24,140
>Hello, my name is Jarmaine Ollivierre.
And I also work in the NASA Launch Services

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00:01:24,140 --> 00:01:28,180
Program
in Flight Analysis as an Aerospace Engineer.

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00:01:28,180 --> 00:01:32,370
Before I started working at NASA,
I went to college at Tuskegee University,

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00:01:32,370 --> 00:01:36,270
earning degrees in both Aerospace Engineering
and Physics.

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00:01:36,270 --> 00:01:42,050
At NASA, my job is Mission Design.
Other engineers and I work together to ensure

23
00:01:42,050 --> 00:01:45,890
the spacecraft is placed in the correct orbit.
Right now, I'm working on

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00:01:45,890 --> 00:01:50,300
the Orbiting Carbon Observatory, or OCO-2.

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00:01:50,300 --> 00:01:53,660
On July 1, this mission launched aboard a Delta II rocket

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00:01:53,660 --> 00:01:59,040
to study the carbon dioxide, or CO2,
in the Earth's atmosphere.

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00:01:59,040 --> 00:02:04,160
NASA chose to launch OCO-2
from Vandenberg Air Force Base in California

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00:02:04,160 --> 00:02:07,880
because this location is the best for
launching into a Polar Orbit.

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00:02:07,880 --> 00:02:11,790
It also provides a shorter distance for spacecraft
to travel

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00:02:11,790 --> 00:02:16,170
minimizing the fuel needed
and saving money for the people of America.

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00:02:16,170 --> 00:02:20,830
In order for OCO-2 to get into space,
my job in Mission Design is to

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00:02:20,830 --> 00:02:23,840

provide the trajectory, that is the path of
flight,

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00:02:23,840 --> 00:02:27,730
to safely place the spacecraft in a low earth,
polar orbit

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00:02:27,730 --> 00:02:32,060
and calculate the exact timing to insert it
into the Earth Observing Satellite

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00:02:32,060 --> 00:02:37,640
afternoon train, or the 'A-Train'.
The A-Train is a group of NASA Satellites

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00:02:37,640 --> 00:02:40,140
that
follow each other along an imaginary track

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00:02:40,140 --> 00:02:43,870
in space
just like a train does on Earth.

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00:02:43,870 --> 00:02:49,910
The A-Train circles our planet every 98 minutes,
crossing the equator at 1:30pm Solar Time

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00:02:49,910 --> 00:02:55,090
every day.
The first satellite in the A-Train is GCOM-W1.

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00:02:55,090 --> 00:02:59,060
My job is to calculate inserting OCO-2 in
front of

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00:02:59,060 --> 00:03:02,930
GCOM-W1.
OCO-2 will be looking for the largest concentrations

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00:03:02,930 --> 00:03:07,590

of CO2 on Earth.
By combining the data from these satellites

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00:03:07,590 --> 00:03:14,080
scientists will be able to gain a better understanding of the important boundaries related to climate change.

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00:03:14,080 --> 00:03:17,980
Riding the A-Train is like taking
a scenic train ride across

45
00:03:17,980 --> 00:03:20,420
the countryside of the atmosphere.

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00:03:21,720 --> 00:03:23,540
I hope that meeting Jarmaine today