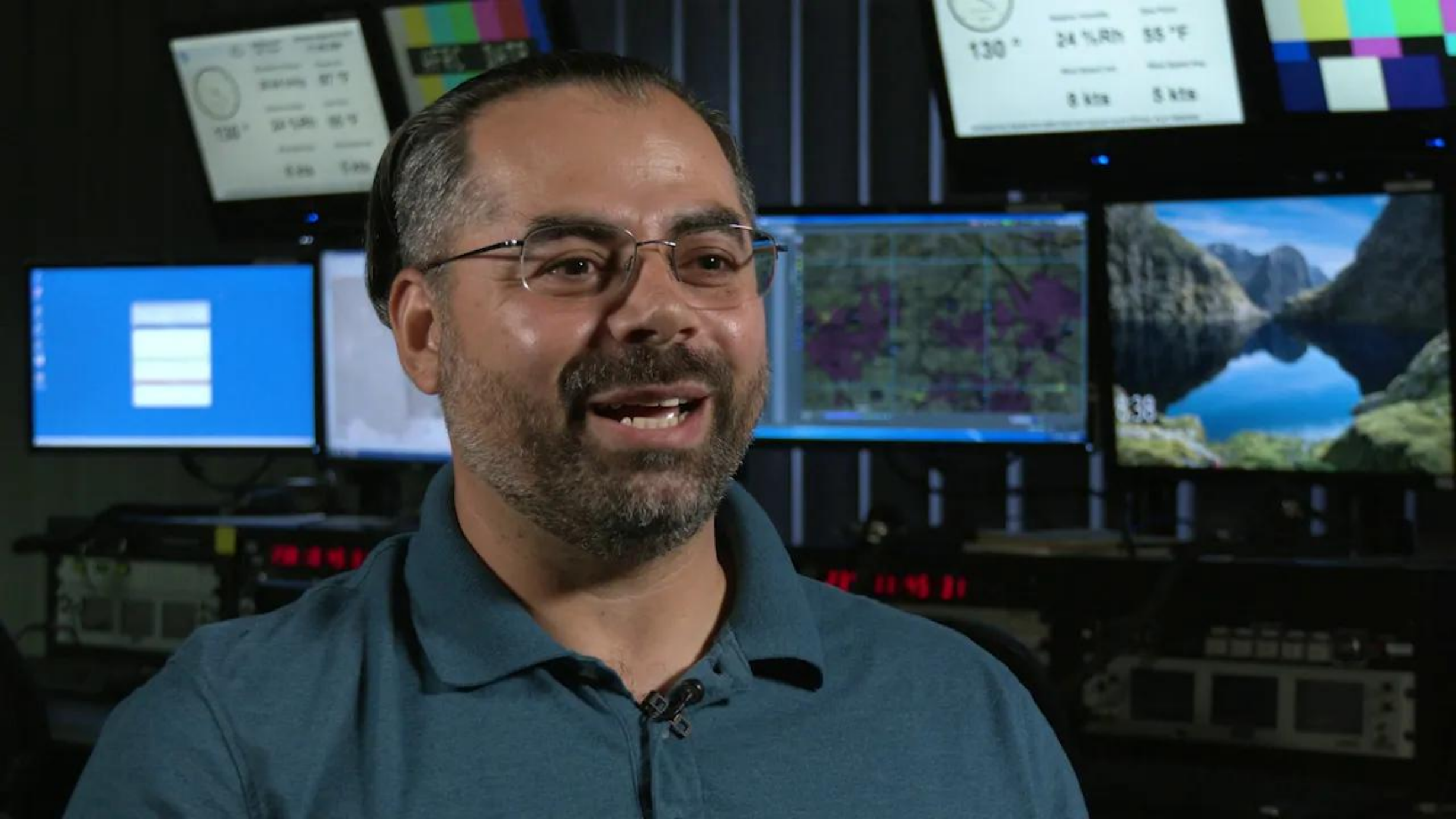

1
00:00:00,506 --> 00:00:09,546
[Music]

2
00:00:10,046 --> 00:00:11,926
>> So I actually arrived
in the United States

3
00:00:11,926 --> 00:00:12,796
when I was eight years old.

4
00:00:12,796 --> 00:00:14,096
So I actually did go

5
00:00:14,096 --> 00:00:15,896
to elementary school
in my home country.

6
00:00:15,896 --> 00:00:17,536
Which is Nicaragua,
Central America.

7
00:00:17,986 --> 00:00:20,516
And I entered second
grade, I went to school

8
00:00:20,516 --> 00:00:21,696
in the San Fernando Valley.

9
00:00:22,006 --> 00:00:24,576
You know, we would huddle
around and watch the shuttle.

10
00:00:25,126 --> 00:00:26,866
We were just fascinated
with the fact

11
00:00:26,866 --> 00:00:30,676
that these giant rocket ships
are going out of this world.

12
00:00:31,016 --> 00:00:33,966
And, you know, as you grow up,
you have that sense of you want

13
00:00:34,196 --> 00:00:36,006
to explore that and
see what that's like.

14
00:00:36,006 --> 00:00:37,176
And really want to
find out what's

15
00:00:37,556 --> 00:00:39,576
out there besides
what's in our world.

16
00:00:40,106 --> 00:00:43,526
And that's what my fascination
with NASA really grew.

17
00:00:44,336 --> 00:00:46,076
NASA airport three, NASA one.

18
00:00:46,556 --> 00:00:47,086
>> Go ahead.

19
00:00:48,256 --> 00:00:49,676
>> We got word from PI that the.

20
00:00:49,716 --> 00:00:53,406
I'm Oscar Mejia, lead F-18
flight operations engineer.

21
00:00:53,566 --> 00:00:54,346
And I work for NASA.

22
00:00:54,986 --> 00:00:56,226
>> Okay, I'll be ready.

23
00:00:56,596 --> 00:00:57,656
>> But continue with
the wait point.

24
00:00:57,986 --> 00:01:00,596
So normal engineering
takes about five,

25
00:01:00,596 --> 00:01:01,806
six years to complete
the degree.

26
00:01:01,806 --> 00:01:04,276
I actually spent ten
years getting my degree.

27
00:01:05,096 --> 00:01:07,216
And that was influenced
because, as I was going

28
00:01:07,216 --> 00:01:11,256
through my community college
where we were getting ready

29
00:01:11,256 --> 00:01:13,436
to transfer, the terrorist
attacks of 9/11 hit.

30
00:01:13,876 --> 00:01:16,226
That actually put all
my education on hold.

31
00:01:16,636 --> 00:01:20,056
Because I felt that the nation,
you know, was in a situation

32
00:01:20,056 --> 00:01:21,566
where it needed my assistance.

33
00:01:21,566 --> 00:01:24,866
And I felt like a burden on
me say, you know, I need help

34
00:01:24,866 --> 00:01:27,046
and do something other
than just stand still.

35
00:01:27,046 --> 00:01:28,866
And so I disengaged
from education.

36
00:01:29,126 --> 00:01:31,446
Went to the military and served.

37
00:01:31,706 --> 00:01:34,266
We are ready for a third pass.

38
00:01:34,266 --> 00:01:36,966
As an officer and engineer,
my job is to make sure

39
00:01:36,966 --> 00:01:40,816
that we get all the data
we need for our scientists.

40
00:01:41,936 --> 00:01:44,276
And bring the pilots
home safely.

41
00:01:45,026 --> 00:01:48,466
And as your executing the
test cards, I mean, you know,

42
00:01:48,466 --> 00:01:50,996
I get little goose bumps
because it really is exciting.

43
00:01:50,996 --> 00:01:52,546

You're going through
a step maneuver.

44
00:01:52,746 --> 00:01:53,726
You know, someone.

45
00:01:53,966 --> 00:01:54,716
>> [inaudible] is turning in.

46
00:01:54,836 --> 00:01:56,516
>> Forty thousand
feet in the air,

47
00:01:56,516 --> 00:01:59,306
going 4, 500 miles per hour.

48
00:01:59,306 --> 00:02:01,216
And you're navigating them
and telling them okay,

49
00:02:01,216 --> 00:02:01,736
this is what we're doing.

50
00:02:01,736 --> 00:02:03,626
At the same time you're
keeping them safe.

51
00:02:03,686 --> 00:02:06,026
Because there's other
awareness that we have

52
00:02:06,026 --> 00:02:07,976
about the airspace
or what's going on.

53
00:02:07,976 --> 00:02:09,076
Or even the aircraft.

54
00:02:09,306 --> 00:02:10,726

They're consumed with
the maneuvers themselves.

55
00:02:10,726 --> 00:02:12,346
And we're consumed with
the safety and integrity

56
00:02:12,346 --> 00:02:13,746
of the aircraft and
instrumentation.

57
00:02:14,076 --> 00:02:16,146
Of course, the airspace
around him as well.

58
00:02:16,486 --> 00:02:19,816
That when you safely
do your maneuvers

59
00:02:19,856 --> 00:02:22,606
and you accomplish your
campaign, you're just, overall,

60
00:02:22,606 --> 00:02:24,316
you're like, man,
that was exciting.

61
00:02:24,756 --> 00:02:26,226
And then you wait
for the next one.

62
00:02:26,836 --> 00:02:28,746
Okay, with a few
modifications you're approved

63
00:02:28,746 --> 00:02:29,636
to begin building.

64
00:02:29,866 --> 00:02:32,606
Go. Ultimately, as

ambassadors of our profession,

65
00:02:33,016 --> 00:02:35,436
when you reach the point in your
life you come back and you say.

66
00:02:35,476 --> 00:02:36,376
You got your two astronauts.

67
00:02:36,646 --> 00:02:39,546
Hey, everybody, it's
through all of your support

68
00:02:39,906 --> 00:02:41,326
that I've been able
to accomplish some

69
00:02:41,326 --> 00:02:42,656
of the goals that
I set out to do.

70
00:02:43,696 --> 00:02:47,256
We were able to put a parachute
lander program for the kids

71
00:02:47,256 --> 00:02:48,766
where they actually got to test.

72
00:02:48,766 --> 00:02:51,356
Design. And even present
their particular lander.

73
00:02:51,816 --> 00:02:53,616
And tell us how they did it.

74
00:02:53,776 --> 00:02:55,676
And some of the challenges
they encountered.

75

00:02:55,676 --> 00:02:56,836
Oh, how fast was that?

76
00:02:56,836 --> 00:02:58,996
Okay. They love the
hands-on portion.

77
00:02:58,996 --> 00:03:00,506
They love exploring
their thought.

78
00:03:00,996 --> 00:03:03,216
And I saw them really engage
with each other and try

79
00:03:03,216 --> 00:03:07,156
to figure out how to solve
a problem and together.

80
00:03:07,236 --> 00:03:09,836
Wow, that is an interesting
design, okay.

81
00:03:10,516 --> 00:03:13,886
I'm presently working on X-59
sub-efforts that allowed us

82
00:03:13,916 --> 00:03:16,106
to test a lot of the
technologies that are going

83
00:03:16,106 --> 00:03:18,516
to be used on the X-59
when it rolls out.

84
00:03:18,886 --> 00:03:20,426
>> This is day one QSF flight.

85
00:03:20,786 --> 00:03:25,346
>> The goal of X-59 is to go out

there through different states

86
00:03:25,476 --> 00:03:30,976
and test the communal response
to its sonic boom signature.

87
00:03:30,976 --> 00:03:31,076
[Jet Sounds]

88
00:03:31,076 --> 00:03:34,836
To figure out what is an
acceptable level of boom?

89
00:03:34,876 --> 00:03:36,826
And what is the acceptable way

90
00:03:36,876 --> 00:03:40,256
to measure what people feel is
an acceptable level of boom?

91
00:03:40,756 --> 00:03:41,796
Copy one minute.

92
00:03:41,796 --> 00:03:44,226
And this is going to
lead into us being able

93
00:03:44,226 --> 00:03:46,216
to commercially fly supersonic.

94
00:03:46,216 --> 00:03:49,346
And really reduce the time it
takes to go from coast to coast

95
00:03:49,346 --> 00:03:50,936
or from ocean to ocean.

96
00:03:51,256 --> 00:03:52,466
>> Stay with wait point three.

97
00:03:52,656 --> 00:03:53,206
Wait point three.

98
00:03:53,266 --> 00:03:56,846
>> Rolling in three, two, one.

99
00:03:56,846 --> 00:03:59,556
>> So in order for us to
get the same signature boom

100
00:03:59,716 --> 00:04:02,486
that the X-59 would
actually produce,

101
00:04:02,776 --> 00:04:04,986
there's a very specific
technique and maneuver

102
00:04:04,986 --> 00:04:08,386
that the pilots will do that
allows them to put the rumbles

103
00:04:08,836 --> 00:04:12,336
or thumps, if you will,
across the landscape

104
00:04:12,766 --> 00:04:15,976
that would mimic what
the X-59 would produce.

105
00:04:15,976 --> 00:04:20,636
In an inverted pull down,
you know, back to wings level

106
00:04:20,636 --> 00:04:23,986
and pull up to create
recreate that signature

107

00:04:24,056 --> 00:04:25,296
that the X-59 will have.

108
00:04:25,646 --> 00:04:27,616
>> Okay, complete.

109
00:04:27,616 --> 00:04:29,656
>> I know I'm part
of a bigger picture.

110
00:04:29,746 --> 00:04:33,876
It really is a multi-billion
dollar industry

111
00:04:33,876 --> 00:04:38,606
that we're putting forward for
all the private sector people.

112
00:04:38,606 --> 00:04:40,596
And it's just a lot
of job creation.

113
00:04:40,596 --> 00:04:43,316
And, so even though we're
testing our technologies

114
00:04:43,316 --> 00:04:45,196
with what we have
now, I have no doubt

115
00:04:45,196 --> 00:04:47,176
in my mind the private sector
will come up with a way

116
00:04:47,176 --> 00:04:49,196
to make it more efficient
based on the guidance

117
00:04:49,196 --> 00:04:51,966
and rules we've already set up.

118
00:04:51,966 --> 00:04:55,666
So, yeah, I look forward to
what these future materials will

119
00:04:57,456 --> 00:04:56,206
look like.

120
00:04:57,886 --> 00:05:00,486
What type of super
cool composites,

121
00:05:00,486 --> 00:05:02,296
electric hybrid planes
they have.

122
00:05:02,786 --> 00:05:05,636
It's all going to come out
of what we're doing here now.

123
00:05:06,406 --> 00:05:08,936
And, ultimately, we're all
going to benefit from the fact

124
00:05:09,006 --> 00:05:10,826
that we get to where
we need to go faster.