1
00:00:01,919 --> 00:00:04,551
Well, were the final preparation before

2
00:00:04,586 --> 00:00:07,446
we get to ignite Ares Demonstration Motor

3
00:00:07,481 --> 00:00:10,506
number two, which is a large five segment

4
00:00:10,541 --> 00:00:13,381
solid rocket motor which we have been

5
00:00:13,416 --> 00:00:16,459
preparing for this test for well over a year.

6
00:00:16,494 --> 00:00:18,839
One of the interesting objectives of this

7
00:00:18,874 --> 00:00:21,273
test is we want to demonstrate how this motor

8
00:00:21,308 --> 00:00:23,784
preforms at cold temperatures. So, were here

9
00:00:23,819 --> 00:00:26,347
in the middle of the summer in Utah, where it's

10
00:00:26,382 --> 00:00:28,812
a hundred degrees outside and Shyla Quinn,

11
00:00:28,847 --> 00:00:31,018
one of our young mechanical engineers has had

12
00:00:31,053 --> 00:00:32,978
an assignment for the last year to figure out

13
00:00:33,013 --> 00:00:35,250

a way to chill this motor down to fourty degrees

14
00:00:35,285 --> 00:00:37,760
so when we static test it, we will be actually

15
00:00:37,795 --> 00:00:40,269
demonstrating our rocket as if it were launching

16
00:00:40,304 --> 00:00:42,530
in the winter time in Florida. Basically, we

17
00:00:42,565 --> 00:00:44,822
have been asked to cool down the PMBT, which is

18
00:00:44,857 --> 00:00:46,871
the propellent mean bulk temperature about fourty

19
00:00:46,906 --> 00:00:49,164
degrees lower than what is would normally be.

20
00:00:49,199 --> 00:00:51,791
We have 2 two hundred ton chillers, it can go all

21
00:00:51,826 --> 00:00:54,676
the way down to negative ten degrees. Were putting

22
00:00:54,711 --> 00:00:58,328
in any where from 15 degrees air into that building

23
00:00:58,363 --> 00:01:02,010
and we are actually able to, as of a week ago, get

24
00:01:02,045 --> 00:01:05,025
down to thirty seven degrees on our PMBT, so we

25
00:01:05,060 --> 00:01:07,319
actually made our goal ahead of schedule. So on

26
00:01:07,354 --> 00:01:09,844
test morning, the motor will be fourty degrees or

27
00:01:09,879 --> 00:01:12,724
below, we'll be able to meet out test objectives

28
00:01:12,759 --> 00:01:15,793
and we'll be able to release twenty two million

29
00:01:15,828 --> 00:01:18,571
horse power at fourty degrees in the middle of

30
00:01:18,606 --> 00:01:20,531
summer in Utah. It's amazing, it's like as soon

31
00:01:20,566 --> 00:01:23,039
as you walk in the door, you kind of get hit with

32
00:01:23,074 --> 00:01:25,883
this wave of cold and it almost instantly takes

33
00:01:25,918 --> 00:01:28,919
your breath away but you quickly get aclimated to

34
00:01:28,954 --> 00:01:31,310
it but you do get shocked when you're out in this

35
00:01:31,345 --> 00:01:33,712
bright sun, shining down on you, a hundred degrees,

36
00:01:33,747 --> 00:01:36,038
you walk in and you're like "whoa!", that was a

37
00:01:36,073 --> 00:01:38,580
little cold. Poor operators having to work in there,

38
00:01:38,615 --> 00:01:41,821

we're all in cold weather gear and like Kevin was

39
00:01:41,856 --> 00:01:45,063
saying, were at ninety degrees a hundred, degrees

40
00:01:45,098 --> 00:01:47,713
outside and you walk in and everyone is in their

41
00:01:47,748 --> 00:01:50,226
hats and their cold weather gear, working away.

42
00:01:50,261 --> 00:01:52,517
I did have a couple of operators tell me that they

43
00:01:52,552 --> 00:01:55,156
kinda hated me a little bit for making it cold.

44
00:01:55,191 --> 00:01:57,407
They gave me the nickname of being the ice queen

45
00:01:57,442 --> 00:01:59,206
obviously because were getting it so cold and I

46
00:01:59,241 --> 00:02:01,220
told them I'd rather be a cool lady than a hot one,

47
00:02:01,255 --> 00:02:05,365
so nice and cool. So on test morning, the motor

48
00:02:05,400 --> 00:02:08,759
will be fourty degrees or below and we will be able

49
00:02:08,794 --> 00:02:11,591
meet out test objectives and we'll be able to