1
00:00:01,101 --> 00:00:04,371
>> Two, one, booster ignition.

2
00:00:10,877 --> 00:00:24,557
>> [Music]

3
00:00:25,392 --> 00:00:29,362
>> Gemini Four was the first
time that this center was in

4
00:00:29,362 --> 00:00:31,064
charge of the mission.

5
00:00:31,064 --> 00:00:32,665
That made a statement
at that time.

6
00:00:32,665 --> 00:00:35,869
It said okay, by golly
we're ready to go.

7
00:00:36,603 --> 00:00:39,973
>> I think the control center
would be the symbol of what we

8
00:00:39,973 --> 00:00:42,409
did in the human space program.

9
00:00:42,409 --> 00:00:46,279
It was our place where we came
in to execute the missions that

10
00:00:46,279 --> 00:00:47,046
we had planned.

11
00:00:47,647 --> 00:00:50,483
>> Mission Control is at
the heartbeat of any space

12
00:00:50,483 --> 00:00:51,384
operations program.

13
00:00:53,119 --> 00:00:58,725
>> It's a place full of giants,
and I will tell you why.

14
00:00:58,725 --> 00:01:03,196
The last man on the moon, Gene
Cernan, often referred to the

15
00:01:03,196 --> 00:01:05,498
men and women in Mission Control
and the people around Mission

16
00:01:05,498 --> 00:01:06,299
Control.

17
00:01:06,933 --> 00:01:10,937
>> We were riding and
standing on their shoulders.

18
00:01:10,937 --> 00:01:14,040
And they indeed are giants
in American history.

19
00:01:14,841 --> 00:01:18,645
>> One of the things that was
done very early was Gene Kranz

20
00:01:18,645 --> 00:01:22,916
brought the team together and
told everybody, "I want you to

21
00:01:22,916 --> 00:01:26,686
go back to your offices, I want
you on your black boards to put

22
00:01:26,686 --> 00:01:29,155

tough and competent.

23
00:01:29,155 --> 00:01:30,657
And I don't want you to
erase those two words."

24
00:01:31,624 --> 00:01:33,460
>> We're programming
our culture.

25
00:01:33,460 --> 00:01:34,894
And that's what our culture is.

26
00:01:34,894 --> 00:01:36,663
It's achievement
through excellence.

27
00:01:36,663 --> 00:01:37,464
It's leadership.

28
00:01:37,464 --> 00:01:38,798
It's teamwork.

29
00:01:38,798 --> 00:01:41,501
It's being part of a bigger team
and your contribution to that

30
00:01:41,501 --> 00:01:42,035
team.

31
00:01:42,869 --> 00:01:44,904
>> When we face challenges we
need to leverage the entire team

32
00:01:44,904 --> 00:01:45,905
in order to overcome
those challenges.

33
00:01:47,106 --> 00:01:49,642

>> You've got to maintain
vigilance throughout the entire

34
00:01:49,642 --> 00:01:52,111
time of doing this
very risky business.

35
00:01:52,111 --> 00:01:54,781
We've had three major
accidents in this business.

36
00:01:54,781 --> 00:01:57,550
Apollo One fire.

37
00:01:57,550 --> 00:02:00,954
We had the loss of Challenger.

38
00:02:00,954 --> 00:02:04,991
We had the loss of Columbia.

39
00:02:04,991 --> 00:02:06,493
You can't set
those things aside.

40
00:02:06,493 --> 00:02:08,862
But if you do set them aside for
a little bit and you think about

41
00:02:08,862 --> 00:02:14,467
all the other missions that
we have flown humans in space.

42
00:02:14,467 --> 00:02:16,769
There hasn't been a single
mission flown that there wasn't

43
00:02:16,769 --> 00:02:21,841
something that had to be done
differently during the mission.

44
00:02:21,841 --> 00:02:23,176
We've had to change plans.

45
00:02:23,176 --> 00:02:27,113
Some of them were major,
some were more minor.

46
00:02:27,113 --> 00:02:31,484
But in all cases the team on the
ground, in Mission Control and

47
00:02:31,484 --> 00:02:34,487
around Mission Control, and the
international partners when they

48
00:02:34,487 --> 00:02:36,222
were involved as well.

49
00:02:36,222 --> 00:02:39,759
Every time there was a problem
on these missions we have found

50
00:02:39,759 --> 00:02:42,695
a way to solve the problem
and complete the mission.

51
00:02:43,696 --> 00:02:46,099
>> Since the retirement of
shuttle, the completion of space

52
00:02:46,099 --> 00:02:49,536
station, we've transitioned into
a mode where our station is an

53
00:02:49,536 --> 00:02:52,939
operating outpost rather than
just being in maintenance mode.

54
00:02:52,939 --> 00:02:56,142

We're definitely utilized in
space station every day, every

55
00:02:56,142 --> 00:02:56,776
weekend even in many cases.

56
00:02:58,144 --> 00:03:00,980
>> The operations environment in
which we work is significantly

57
00:03:00,980 --> 00:03:02,315
different.

58
00:03:02,315 --> 00:03:07,153
When you're trying to maintain
a permanent human presence and a

59
00:03:07,153 --> 00:03:11,090
laboratory in space as opposed
to a vehicle that is launched

60
00:03:11,090 --> 00:03:13,393
into orbit to execute
a very short mission.

61
00:03:13,993 --> 00:03:15,328
>> Space station is a team.

62
00:03:15,328 --> 00:03:17,630
And you know, it's almost a
little more of a difficult team

63
00:03:17,630 --> 00:03:20,633
then what folks just in your
own home country are used to.

64
00:03:20,633 --> 00:03:22,168
Because on the station you've
got an international team.

65
00:03:23,102 --> 00:03:25,238
>> There are a number of
different Mission Control

66
00:03:25,238 --> 00:03:28,908
centers that must communicate
and work well together in order

67
00:03:28,908 --> 00:03:30,243
to support the
International Space Station.

68
00:03:31,311 --> 00:03:37,450
>> ESA, JAXA, Russia, Canada,
our science center in Marshall

69
00:03:37,450 --> 00:03:42,055
Space Flight Center, and
all providing input into MCC

70
00:03:42,055 --> 00:03:43,389
Houston.

71
00:03:43,389 --> 00:03:45,892
And the job, the core job of
Houston is obviously protecting

72
00:03:45,892 --> 00:03:47,927
the astronauts, protecting the
vehicle, achieving the mission

73
00:03:47,927 --> 00:03:48,561
objective.

74
00:03:49,162 --> 00:03:50,597
>> And as an astronaut it
makes you feel really good.

75
00:03:50,597 --> 00:03:53,433

Because you feel like someone
is looking at every little tiny

76
00:03:53,433 --> 00:03:54,534
number all the time.

77
00:03:55,001 --> 00:03:56,803
>> Whether it's the piece of
equipment, whether it's the crew

78
00:03:56,803 --> 00:04:00,373
inside or the tasks that are out
in front of them, are all being,

79
00:04:00,373 --> 00:04:03,276
all the details are being
thought, well some guy or gal is

80
00:04:03,276 --> 00:04:04,277
executing.

81
00:04:04,744 --> 00:04:07,080
>> So when you go to sleep at
night you should feel very safe

82
00:04:07,080 --> 00:04:10,149
and very secure that you are
being watched after all the

83
00:04:10,149 --> 00:04:10,683
time.

84
00:04:12,518 --> 00:04:14,454
>> Really bringing different
parts of NASA together.

85
00:04:14,454 --> 00:04:17,724
The science community and the
ops community together to go

86
00:04:17,724 --> 00:04:18,591
accomplish a huge mission.

87
00:04:19,125 --> 00:04:22,262
>> That's way out has
a lot of capability.

88
00:04:22,862 --> 00:04:25,398
>> Such that okay,
it's another platform.

89
00:04:25,398 --> 00:04:28,234
Again these small steps to
get you to your common goal.

90
00:04:28,234 --> 00:04:29,535
And that common goal
is getting to Mars.

91
00:04:31,671 --> 00:04:34,707
>> Going forward, Mission
Control is going to be crucial

92
00:04:34,707 --> 00:04:36,676
to any nature
exploration operation.

93
00:05:02,235 --> 00:05:05,905
>> Houston, Tranquility Base
here, the eagle has landed.

94
00:05:06,706 --> 00:05:07,940
>> Roger Tranquility.

95
00:05:07,940 --> 00:05:09,509
We copy you on the ground.

96
00:05:09,509 --> 00:05:11,577
We've got a bunch of

guys about to turn blue.