New episodes every month!

Episode 25:
Lessons of Loss: 35th Anniversary of Challenger Accident

January 2021

@NASAKennedy
#NASARocketRanch

1
00:00:00,160 --> 00:00:04,800
And it has cleared the tower.
35 years ago, the 10th flight\h\h

2
00:00:04,800 --> 00:00:10,160
of Space Shuttle Challenger ended, when\h
it broke apart 73 seconds after liftoff.\h\h

3
00:00:10,720 --> 00:00:15,920
All seven crew members, five NASA astronauts\h
and two payload specialists,` were killed.\h

4
00:00:16,560 --> 00:00:20,080
We have a report from a flight dynamics\h
officer that the vehicle has exploded.\h

5
00:00:21,680 --> 00:00:28,160
On this episode of the Rocket Ranch Podcast, we\h
remember Challenger, her crew and their survivors,\h\h

6
00:00:28,160 --> 00:00:33,120
and how we carry forward the lessons NASA\h
learned with the director of the Apollo\h\h

7
00:00:33,120 --> 00:00:38,640
Challenger Columbia Lessons Learned Program.
EGS program chief engineer verifying no\h\h

8
00:00:38,640 --> 00:00:43,840
constraints to launch. Three, two,\h
one, and lift off. Welcome to space.\h

9
00:00:49,040 --> 00:00:54,320
Michael Cianilli is the director of\h
NASA's Apollo Challenger Columbia program.\h\h

10
00:00:54,320 --> 00:00:59,120
During our conversation, he shares how he was\h
received by the Challenger families, and how\h\h

11
00:00:59,120 --> 00:01:05,040
lessons learned from the Challenger accident still\h
affect people both inside and outside the agency.\h\h

12
00:01:05,600 --> 00:01:11,360
He also remembers, like many who were alive\h
then, exactly what he was doing that day and how\h\h

13
00:01:11,360 --> 00:01:15,760
the accident stayed with him when he eventually\h
started working for the space shuttle program.\h\h

14
00:01:18,160 --> 00:01:21,040
Mike, thanks for joining us today.
And Derrol, thank you so much for\h\h

15
00:01:21,040 --> 00:01:26,000
the invitation to be here. I appreciate that.
We'll talk a little bit about the program, your\h\h

16
00:01:26,000 --> 00:01:31,440
involvement in the NASA Apollo Challenger Columbia\h
Lessons Learned Program, in just a bit. But I want\h\h

17
00:01:31,440 --> 00:01:41,040
to start by going back to January 28th, 1986. What\h
were you doing? Where were you when it happened?\h

18
00:01:41,600 --> 00:01:45,840
Wow. It really brings you back. It was\h
35 years ago, as you mentioned Derrol,\h\h

19
00:01:45,840 --> 00:01:50,640
but it seems like it was yesterday in some ways.\h
I was actually a freshman in college. I was going\h\h

20
00:01:50,640 --> 00:01:58,880
to the Florida Institute of Technology, and as\h
circumstances would have it, as a freshman I\h\h

21
00:01:58,880 --> 00:02:05,680
just had got out of a physics test; and I stepped\h
outside and I'll never forget the moment I did.\h\h

22
00:02:06,640 --> 00:02:11,520
I stepped outside and almost simultaneous\h
with that, another student came up to me\h\h

23
00:02:12,560 --> 00:02:18,560
and mentioned, "Look in the sky. Look in\h
the sky. The shuttle had exploded." I says,\h\h

24
00:02:18,560 --> 00:02:23,760
"Don't ever joke about that." That was my\h
first... And I was pretty upset, I remember, of\h\h

25
00:02:24,320 --> 00:02:31,760
somebody even suggesting that. It just got to my\h
core, and I chided him for saying such a thing.\h

26
00:02:32,480 --> 00:02:40,160
And I remember walking from there over to where\h
we picked up our mail as students and thinking\h\h

27
00:02:40,160 --> 00:02:45,040
about that, saying, "How could somebody be\h
that callous to say something like that?"\h\h

28
00:02:45,040 --> 00:02:49,040
not really realizing. And then perhaps\h
once walking in the mail room, I heard\h\h

29
00:02:49,040 --> 00:02:55,040
they had televisions playing, and you could\h
hear the comments being made of contingency\h\h

30
00:02:55,040 --> 00:03:01,200
forces being deployed and things like that. And\h
that's when I really, the pit of my stomach,\h\h

31
00:03:02,240 --> 00:03:07,920
something was wrong, so I ran at full speed from\h
the mail room back to my dorm room to get to the\h\h

32
00:03:07,920 --> 00:03:12,720
television set, which I could watch personally.\h
And then that's when I first saw the images.\h\h

33
00:03:13,440 --> 00:03:20,160
And I think, once again, I can join millions of\h
other folks, I think I sat in stunned silence\h\h

34
00:03:20,800 --> 00:03:27,120
of just not fully taking a grasp of what had\h
happened and praying that your eyes are deceiving\h\h

35
00:03:27,120 --> 00:03:31,840
you and this is exactly what just happened.
And that's what it was for so many people.\h\h

36
00:03:32,480 --> 00:03:40,640
It was uncertain at first. But in the end, as you\h
mentioned, seven lives loss: Commander Francis\h\h

37
00:03:40,640 --> 00:03:46,400
Scobee; Michael Smith, the pilot; Mission\h
Specialists, Ellison Onizuka, Judith Resnik,\h\h

38
00:03:46,960 --> 00:03:52,080
Ronald McNair; and of course the two payload\h
specialists, Gregory Jarvis and Christa McAuliffe,\h\h

39
00:03:52,080 --> 00:03:59,280
the teacher. I want to continue with your story\h
for just a moment and find out, you eventually\h\h

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00:03:59,280 --> 00:04:07,600
went on, graduated, and then went to work for NASA\h
in the space shuttle program. Did you carry that\h\h

41
00:04:07,600 --> 00:04:15,120
tragedy with you when you joined NASA in any way?
That's a great question. I think there was\h\h

42
00:04:15,120 --> 00:04:20,000
something that was really, and again, probably\h
many other folks could say the same thing, is\h\h

43
00:04:20,000 --> 00:04:24,800
it was really indelibly marked in my\h
brain. It was a moment in time that you\h\h

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00:04:24,800 --> 00:04:31,600
never forget. And I remember when I did have\h
the honor to join NASA, to come to Kennedy\h\h

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00:04:31,600 --> 00:04:38,320
Space Center and work on the space shuttle team,\h
that's something I never forgot. And I know during\h\h

46
00:04:38,320 --> 00:04:44,480
the processing of the different vehicles,\h
on the vehicles when they ready for launch,\h\h

47
00:04:44,480 --> 00:04:49,360
and the launch countdowns, you never forgot\h
that. I never forgot those moments of Challenger.\h

48
00:04:50,000 --> 00:04:53,760
And I think it also had a distinct influence\h
on some of my decision decision-making,\h\h

49
00:04:54,960 --> 00:04:58,800
as I'm sure it did many others, on making\h
sure that you're making the right decisions\h\h

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00:04:59,440 --> 00:05:05,520
and that if any pressures are being applied,\h
externally or internally, to be really careful\h\h

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00:05:05,520 --> 00:05:10,640
and mindful of that and remembering back to the\h
lessons of Challenger. And that's a challenge,\h\h

52
00:05:11,280 --> 00:05:16,400
as every year goes by, we mark these solemn\h
milestones, and now at the 35th anniversary\h\h

53
00:05:18,320 --> 00:05:23,200
of this event in American history, it's even\h
more important, I think in some ways, to\h\h

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00:05:23,200 --> 00:05:27,440
really make sure we remember those\h
events, remember them accurately,\h\h

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00:05:28,320 --> 00:05:31,840
so we can take those lessons learned\h
and really reflect upon them.\h

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00:05:32,640 --> 00:05:38,320
And now you're part of this program called the\h
NASA Apollo Challenger Columbia Lessons Learned\h\h

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00:05:38,320 --> 00:05:41,680
Program. What is that, and\h
what does it seek to do?\h

58
00:05:42,640 --> 00:05:47,040
So, this thing kind of organically\h
progressed, and you spend your career\h\h

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00:05:47,040 --> 00:05:51,840
learning the engineering aspects and the lingo\h
and how engineering sees the world, then I had\h\h

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00:05:51,840 --> 00:05:56,800
the honor to be in the ops world, as a NASA\h
test director, an LRD, a land recovery director,\h\h

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00:05:56,800 --> 00:06:01,760
and you understand better how the operations\h
world approaches launching and processing.\h\h

62
00:06:02,640 --> 00:06:05,040
And then moving into more of\h
the safety world, seeing how\h\h

63
00:06:05,840 --> 00:06:10,880
the safety aspects are... And I say that because\h
there's really, as all of us in different careers,\h\h

64
00:06:11,600 --> 00:06:16,880
different disciplines, they see the world\h
differently. Right? How engineering sometimes see\h\h

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00:06:16,880 --> 00:06:21,120
things is a little bit different. It's almost like\h
an accent for a language. It's the same language,\h\h

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00:06:21,120 --> 00:06:24,960
we're launching the same rocket, but we have\h
different perspectives and viewpoints at times.\h\h

67
00:06:25,680 --> 00:06:29,040
So, I think it's important to\h
see the whole operation together,\h\h

68
00:06:29,840 --> 00:06:35,120
in this case a launch activity, from the different\h
points of view, perhaps understanding what the\h\h

69
00:06:35,120 --> 00:06:38,320
concerns and thoughts are and the vantage\h
points that those different disciplines are.\h

70
00:06:38,320 --> 00:06:41,840
So, the attempt is to put those\h
different viewpoints together,\h\h

71
00:06:42,480 --> 00:06:46,240
focused on a program called the Apollo\h
Challenger Columbia Lessons Learned Program,\h\h

72
00:06:46,800 --> 00:06:54,560
and really look back at our major accidents and\h
incidences, which is Apollo 1, 1967, Apollo 13,\h\h

73
00:06:56,160 --> 00:06:59,360
space shuttle Challenger and\h
space shuttle Columbia losses.\h\h

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00:06:59,360 --> 00:07:05,520
And in addition to other near misses, as well,\h
and the good times. We could learn also from\h\h

75
00:07:05,520 --> 00:07:10,000
the good flights. But taking a look primarily\h
at the four times we've had major incidences,\h\h

76
00:07:10,560 --> 00:07:14,480
and really going back and looking what were the\h
catalysts, what were the contributing factors.\h

77
00:07:15,520 --> 00:07:21,360
So, we look at those, and it's not just, Derrol,\h
from a historical perspective, it's really from\h\h

78
00:07:21,360 --> 00:07:26,880
a perspective of understanding them because, as we\h
all know, history has a habit of repeating itself.\h\h

79
00:07:27,520 --> 00:07:34,640
And if we're not careful, we're certainly able to\h
fall prey to the mistakes and errors of the folks\h\h

80
00:07:34,640 --> 00:07:39,840
that came before us. So, we want to make sure that\h
we learn from the missteps we made in the past,\h\h

81
00:07:40,400 --> 00:07:45,040
and then as we're going forward and doing our\h
operations today and into the future, if we\h\h

82
00:07:45,040 --> 00:07:51,600
see those warning signs, if we see similar things\h
starting to happen, we can use history as a guide\h\h

83
00:07:51,600 --> 00:07:57,360
and say, "Okay, it's time to stop or to maybe\h
revisit decisions, or looking at things so we can\h\h

84
00:07:57,360 --> 00:08:02,080
make those alterations and course corrections so\h
we don't follow that same path in a negative way."\h

85
00:08:03,440 --> 00:08:06,320
And who are you sharing\h
these lessons learned with?\h

86
00:08:07,200 --> 00:08:11,840
Well, that's the exciting part. The easiest\h
answer is one word, and that's everyone.\h\h

87
00:08:13,600 --> 00:08:19,040
The program focuses on different areas.\h
So, we certainly want to make sure that the\h\h

88
00:08:19,040 --> 00:08:23,520
NASA team and our contractor partners and our\h
commercial partners that are coming on board,\h\h

89
00:08:24,160 --> 00:08:30,640
that we strongly share this with them, so it\h
becomes ingrained in the culture. Because we're\h\h

90
00:08:30,640 --> 00:08:35,120
all working together, even if it's commercial.\h
These days, NASA is ingrained with our great\h\h

91
00:08:35,120 --> 00:08:38,560
new partners, so we want to make sure that\h
we're sharing this with all of our partners\h\h

92
00:08:38,560 --> 00:08:44,080
in the aeronautics and astronautics fields.
What's interesting in the last couple of years,\h\h

93
00:08:44,080 --> 00:08:48,880
there's been really a large amount\h
of interest coming outside of NASA.\h\h

94
00:08:48,880 --> 00:08:54,640
And even outside of aerospace altogether. And\h
it's a wonderful opportunity for us in the NASA\h\h

95
00:08:55,440 --> 00:09:03,040
world to share these lessons to industries as far\h
field as the maritime industry, sports industries,\h\h

96
00:09:03,040 --> 00:09:09,200
oil and gas, energy, medical industries, and other\h
ones. And it's amazing how much synergy there is\h\h

97
00:09:09,200 --> 00:09:14,480
between, how many connections we can make between\h
what we do launching rockets and doing high-tech\h\h

98
00:09:14,480 --> 00:09:19,360
research, and share that with organizations\h
that may do something completely different,\h\h

99
00:09:20,080 --> 00:09:24,080
but the core components can be transferred\h
so they can learn from our missteps\h\h

100
00:09:24,080 --> 00:09:27,520
and hopefully have greater mission success\h
and save lives in their endeavors, as well.\h

101
00:09:28,240 --> 00:09:32,080
But in other industries that you\h
say you are sharing this with,\h\h

102
00:09:32,080 --> 00:09:36,800
you're able to make these lessons come across.\h
Wouldn't they be saying, "Well, I don't have any\h\h

103
00:09:36,800 --> 00:09:41,360
lives on the line, how does this apply?"
Yeah. No, you're exactly right.\h\h

104
00:09:43,280 --> 00:09:48,080
I find it very interesting because when either I\h
reach out or an organization reaches out to me,\h\h

105
00:09:49,440 --> 00:09:53,360
the first initial phases I always\h
find very interesting because\h\h

106
00:09:54,480 --> 00:09:58,880
it's the seeking of common ground. And just\h
like you said, you may think initially,\h\h

107
00:09:59,920 --> 00:10:05,520
when you talk to the medical community and say,\h
"Boy, you're in medicine, we're in launching\h\h

108
00:10:05,520 --> 00:10:09,840
rockets, what's the connection?" But then when you\h
dig a little deeper, it doesn't take very long,\h\h

109
00:10:11,040 --> 00:10:14,160
the connections become very apparent.
So, I'll give you a quick example for that.\h\h

110
00:10:15,120 --> 00:10:21,360
When you look at, say, a surgical team in an\h
operating room, and you look at the surgical\h\h

111
00:10:21,360 --> 00:10:26,400
team that has high stakes, you have a patient\h
that's counting on them to save their life,\h\h

112
00:10:27,120 --> 00:10:33,040
you have very quick decision-making, very\h
likely little room for error in your technique\h\h

113
00:10:33,040 --> 00:10:38,480
and execution of your tasks. You have a very\h
close knit team of nurses and doctors and other\h\h

114
00:10:38,480 --> 00:10:44,160
professionals in the operating room that have to\h
work together seamlessly and as a cohesive team,\h\h

115
00:10:45,200 --> 00:10:48,800
where communication is paramount. If\h
you take that environment, Derrol, and\h\h

116
00:10:49,520 --> 00:10:56,560
you match it up to a firing room for a launch\h
activity, you almost have a carbon copy. You have\h\h

117
00:10:58,240 --> 00:11:03,360
a team with high performance. You have a team that\h
has perhaps different disciplines or tasks in that\h\h

118
00:11:03,360 --> 00:11:07,360
room, but they're all coming together for the\h
same goal, which is launch the rocket successful.\h\h

119
00:11:08,000 --> 00:11:12,320
Communication is essential to be clear\h
and crisp and all understand each other.\h\h

120
00:11:12,320 --> 00:11:16,000
And you have to have a great team dynamic.
So, when you start peeling back and\h\h

121
00:11:17,280 --> 00:11:21,040
take off the, maybe the jacket and the\h
tie in the firing room, and take off the\h\h

122
00:11:21,040 --> 00:11:26,880
lab coat or the doctors uniform, it becomes\h
the same experience. So, our lessons\h\h

123
00:11:27,840 --> 00:11:32,560
really reflect very closely to what those folks\h
deal with as well, and I say that because when\h\h

124
00:11:32,560 --> 00:11:36,720
you looked back at the Rogers Commissioner Report\h
for Challenger, when you look back at the Columbia\h\h

125
00:11:36,720 --> 00:11:41,920
Accident Investigation Board Report for Columbia,\h
or even the Apollo 204 Report for Apollo 1,\h\h

126
00:11:42,720 --> 00:11:48,080
there's so many examples throughout the reports\h
where folks just didn't connect the dots. People\h\h

127
00:11:48,080 --> 00:11:54,080
misunderstood in some ways what the other team\h
or person was saying. Perhaps they thought the\h\h

128
00:11:54,080 --> 00:12:00,880
information was just information. It wasn't asking\h
for an action to be done, or take it further.\h\h

129
00:12:01,760 --> 00:12:06,480
It's just making sure are we on the same page,\h
because you'd be surprised how many times we just\h\h

130
00:12:07,360 --> 00:12:11,920
sometimes miss it by a little bit, and\h
that can have catastrophic consequences.\h

131
00:12:12,960 --> 00:12:19,760
You know, it's interesting to see the lessons of\h
challengers still being learned today, but the\h\h

132
00:12:19,760 --> 00:12:28,560
challenger accident is now actually back in\h
the public awareness, I think, a lot due to\h\h

133
00:12:29,120 --> 00:12:35,920
the recent Netflix documentary Challenger: The\h
Final Flight, which is the title of it. Did you\h\h

134
00:12:35,920 --> 00:12:45,360
see that? And what were your thoughts about it?
Yeah. I certainly did. And what was amazing to me,\h\h

135
00:12:46,480 --> 00:12:51,120
of course, as we talked a little earlier, I\h
had a personal connection watching the launch,\h\h

136
00:12:51,680 --> 00:12:56,800
and many of the folks listening, perhaps have\h
very direct connections to it and could be\h\h

137
00:12:56,800 --> 00:13:02,400
anywhere in the world listening to it. So, we all\h
had a connection to Challenger in some fashion.\h\h

138
00:13:02,400 --> 00:13:08,240
But there's also, Challenger's at the 35 year\h
anniversary milestone at this point, so there's\h\h

139
00:13:08,240 --> 00:13:13,360
a lot of folks that are working in the space\h
program and alive today, that just, honestly,\h\h

140
00:13:13,360 --> 00:13:19,840
weren't alive during the Challenger accident.
So, being it personal to me and others,\h\h

141
00:13:20,560 --> 00:13:25,200
I think what was very interesting for me was\h
watching the comments that came out of that\h\h

142
00:13:25,200 --> 00:13:32,160
Netflix documentary and seeing the tremendously\h
high level of public interest in the Challenger\h\h

143
00:13:32,160 --> 00:13:36,400
story and learning about the crew and learning\h
about the mission and learning about the lessons.\h\h

144
00:13:37,280 --> 00:13:42,000
That really impacted me, Derrol. It made even\h
more committed to saying, "We really have a\h\h

145
00:13:42,000 --> 00:13:46,720
responsibility to share these lessons learned\h
with these folks that weren't perhaps around,\h\h

146
00:13:46,720 --> 00:13:51,520
either working or born at that time, and we need\h
to share those lessons effectively so they can\h\h

147
00:13:51,520 --> 00:13:56,320
take them and become even better and greater\h
than the generation that came before them."\h

148
00:13:56,960 --> 00:14:05,200
I can imagine that really helps with your overall\h
mission. I want to shift over to the astronauts,\h\h

149
00:14:05,200 --> 00:14:13,840
because I know as you do this, you have to have,\h
or you have had, a cooperation and a relationship\h\h

150
00:14:13,840 --> 00:14:20,640
with some of the survivors, the family\h
members, the loved ones of the Challenger 7.\h\h

151
00:14:22,720 --> 00:14:30,000
Tell me, what can you tell me about\h
how they're doing now 35 years later?\h

152
00:14:30,000 --> 00:14:37,040
I certainly can. I've had a lot of honors in\h
my career that I'm very, very thankful for,\h\h

153
00:14:37,760 --> 00:14:42,080
and one of the greatest, if not one of\h
the greatest honor of my career, has been\h\h

154
00:14:42,640 --> 00:14:47,200
to have had the honor of meeting and getting\h
to know all of the Challenger families and\h\h

155
00:14:47,200 --> 00:14:53,280
Columbia families and Apollo 1 families. About six\h
years ago now, I had the honor to lead the agency\h\h

156
00:14:53,280 --> 00:14:59,200
in creating what we call Forever Remembered. It's\h
the nation's and the agency's memorial to the\h\h

157
00:14:59,200 --> 00:15:04,000
fallen crews of space shuttle Colombia and space\h
shuttle Challenger. And through that experience,\h\h

158
00:15:06,320 --> 00:15:09,360
it was a very emotional experience, right?\h
Because you want to make sure you're paying\h\h

159
00:15:09,360 --> 00:15:15,040
the greatest honor and tribute that you can\h
to these heroes and friends and colleagues,\h\h

160
00:15:15,760 --> 00:15:18,560
and you also have to make sure that you're\h
telling the story as accurate as possible.\h

161
00:15:19,360 --> 00:15:24,640
And through that experience, I had the absolute\h
distinct honor of working with the families\h\h

162
00:15:24,640 --> 00:15:30,880
closely, and one thing that I can share with\h
you that surprised me through this process,\h\h

163
00:15:32,000 --> 00:15:39,920
they gave back to me so much grace and so much\h
healing back towards me, that I didn't expect\h\h

164
00:15:39,920 --> 00:15:47,840
that. And it goes to just how absolutely amazing\h
these families are. I could spend days telling\h\h

165
00:15:47,840 --> 00:15:54,320
you stories. But suffice to say what they still\h
gave back to me, what they gave back to NASA,\h\h

166
00:15:55,120 --> 00:16:00,720
and what they gave back to the American people\h
and the world in sharing very difficult stories,\h\h

167
00:16:01,920 --> 00:16:07,280
very, perhaps, difficult poignant reflections\h
about their loved ones back to us,\h\h

168
00:16:07,840 --> 00:16:14,000
with the purpose of making sure that they're still\h
giving, they're still giving of their loved ones\h\h

169
00:16:14,000 --> 00:16:17,360
even though it may be difficult, they're still\h
sharing those stories, they're still going through\h\h

170
00:16:17,360 --> 00:16:22,320
those reflections so we can learn from them\h
and we can take those lessons learned to be\h\h

171
00:16:22,320 --> 00:16:28,720
more safe and successful. So, that unbelievable\h
generosity and graciousness with which they did,\h\h

172
00:16:30,560 --> 00:16:38,560
was honestly just humbling to the whole process.
Wow. And I can only imagine, right? Because such a\h\h

173
00:16:38,560 --> 00:16:46,160
difficult thing to do to go through. Thinking back\h
to the Challenger documentary and June Scobee's\h\h

174
00:16:47,920 --> 00:16:56,720
part in that, you just... And all of the family\h
members, but she had a prominent part of that,\h\h

175
00:16:56,720 --> 00:17:06,320
and it's very difficult and powerful at the same\h
time. So, it's fascinating to hear that they\h\h

176
00:17:07,600 --> 00:17:14,640
handled that with such grace, and it's\h
impressive. Because I imagine, like anybody\h\h

177
00:17:14,640 --> 00:17:19,280
who goes through tragedy or loses somebody very\h
dear to them, that the pain is always there.\h

178
00:17:20,080 --> 00:17:26,400
And that's true, and you can feel that. I think\h
when you see June, and is a wonderful speaker\h\h

179
00:17:26,400 --> 00:17:31,840
she is in her family, a speaker that I think all\h
of us could hope to be as good one day. Right?\h\h

180
00:17:32,720 --> 00:17:38,400
But you can feel the pain and you could feel\h
that, and you can feel it with members of the\h\h

181
00:17:38,400 --> 00:17:43,600
NASA family today. And I sense it when I have the\h
honor to go out and speak around the country or\h\h

182
00:17:43,600 --> 00:17:48,720
I speak at the Kennedy Space Center or virtually\h
now, and I engage with folks, and you can feel it.\h\h

183
00:17:51,200 --> 00:17:56,160
The families, still, are impacted by it.
And one of the things I'll mention quickly,\h\h

184
00:17:56,160 --> 00:18:02,080
as well, which I love the experiences when I have\h
the honor to go out and speak, and you finished\h\h

185
00:18:02,080 --> 00:18:06,320
with your presentation, your speech, you come off\h
stage and sometimes for some folks lined up that\h\h

186
00:18:06,320 --> 00:18:11,840
want to share some things with you. And I love\h
that experience because in so many cases, Derrol,\h\h

187
00:18:12,640 --> 00:18:17,920
what the folks want to share with me is where\h
they were, what they were doing, and what impact\h\h

188
00:18:18,480 --> 00:18:24,480
it had when Columbia or Challenger was lost.\h
And they want to share that. And in many cases,\h\h

189
00:18:24,480 --> 00:18:29,760
these folks don't have any direct connection\h
currently to the space program, perhaps never did,\h\h

190
00:18:30,320 --> 00:18:36,160
but they feel so strongly connected to these\h
seminal events in history. They feel impassioned\h\h

191
00:18:36,160 --> 00:18:41,120
to share those stories with me, which I always\h
feel honored to hear, and what it meant to them.\h

192
00:18:41,120 --> 00:18:46,720
And that just reminds me, all of us in the space\h
program have a duty to do our job the very best,\h\h

193
00:18:46,720 --> 00:18:52,800
because it's far beyond a job, as we know, we're\h
given the responsibility by the American people\h\h

194
00:18:52,800 --> 00:18:57,040
and their hard earned money to do the very best\h
we can to advance American interests in space.\h\h

195
00:18:58,320 --> 00:19:04,720
And that's a big responsibility, and when things\h
don't go the way we want them to, it has a very,\h\h

196
00:19:04,720 --> 00:19:10,320
very strong in potentially negative impact on\h
other folks. And they're also, it hurts them,\h\h

197
00:19:10,320 --> 00:19:14,880
and they're victims as well, in some cases.\h
So, we want to make sure that we have a lot of\h\h

198
00:19:14,880 --> 00:19:19,040
responsibility for the crews, for the families,\h
but also the folks that entrust us with so much\h\h

199
00:19:19,040 --> 00:19:26,160
responsibility, and make us even more impassioned\h
that we learned the lessons and do it right.\h

200
00:19:26,160 --> 00:19:31,680
That's such a great point, Mike, that all\h
of the people who are touched and affected\h\h

201
00:19:32,400 --> 00:19:40,080
by the mission that we carry forward is so\h
important to get it right. And that leads me\h\h

202
00:19:40,080 --> 00:19:49,200
to my last question, which is even now, there\h
is schedule pressure. We're going to the moon\h\h

203
00:19:49,200 --> 00:19:55,760
in a few years. We're currently going back, and\h
we have an exploration program and it's exciting.\h\h

204
00:19:56,480 --> 00:20:03,200
But we're trying to hit certain dates. Do you hear\h
from people at NASA about that schedule pressure?\h

205
00:20:04,320 --> 00:20:11,200
Well, my hope is, what I try to do is create\h
an environment with a program that people feel\h\h

206
00:20:11,200 --> 00:20:16,720
comfortable speaking up. And what's very helpful\h
with the program as well, Derrol, right to your\h\h

207
00:20:16,720 --> 00:20:25,040
point is, be it in NASA or even outside, but this\h
case, as your question was inside, when you can\h\h

208
00:20:25,040 --> 00:20:32,160
share the past and show how missteps were made\h
or how certain cases' schedule pressure or other\h\h

209
00:20:32,160 --> 00:20:38,000
considerations came into being, or had influences\h
on the overall system, when you can share those\h\h

210
00:20:39,040 --> 00:20:45,120
and when you're talking to folks, a couple things\h
can happen. Right? In some cases, you'll see folks\h\h

211
00:20:46,240 --> 00:20:51,280
listen intently. Sometimes folks will nod their\h
heads and say, "Wow, that's happening to me."\h\h

212
00:20:51,280 --> 00:20:58,080
Right? "I sense that's happening to me." And you\h
want that environment because you want folks to\h\h

213
00:20:58,640 --> 00:21:05,200
share. When you look back at the accident reports,\h
you'll see everyone, you'll see there's a number\h\h

214
00:21:05,200 --> 00:21:10,880
of people that did not feel comfortable saying\h
something at the time, either had an intuition,\h\h

215
00:21:12,720 --> 00:21:16,480
had a feeling something was going to happen\h
based on their experience and judgment,\h\h

216
00:21:17,120 --> 00:21:21,360
but perhaps didn't do something\h
with that, for a host of reasons.\h

217
00:21:22,640 --> 00:21:28,480
So, we want to create an environment saying it can\h
be very difficult to step up and say something,\h\h

218
00:21:29,440 --> 00:21:34,960
especially when you don't have all the facts,\h
because in real life, we often don't have...\h\h

219
00:21:34,960 --> 00:21:38,960
right? And life is a gray area pretty much,\h
right? The black and white is easy to deal\h\h

220
00:21:38,960 --> 00:21:43,920
with in all of our lives. Right? We can do that\h
pretty well. But I think most of us live, in all\h\h

221
00:21:43,920 --> 00:21:48,240
of our different lives, home and work lives, it's\h
a gray area. Right? There's the nuances of life.\h\h

222
00:21:48,880 --> 00:21:54,880
And that becomes the harder part to navigate\h
through. So. We try to share with folks our\h\h

223
00:21:54,880 --> 00:21:59,280
reflections of the past and really get into the\h
Challenger launch decision, Colombia decisions,\h\h

224
00:22:00,080 --> 00:22:04,000
and say, "Here's what was presented.\h
Here's what the folks had to go on,\h\h

225
00:22:04,000 --> 00:22:13,440
and here's why sometimes making the right decision\h
can be very hard." Because you can have folks see\h\h

226
00:22:13,440 --> 00:22:17,920
from different perspectives, so it's really hard\h
to be observant of that and be cognizant. You've\h\h

227
00:22:17,920 --> 00:22:22,320
got a tough job and your job is to get as good\h
as you could to do your job as best as you can.\h

228
00:22:22,880 --> 00:22:31,120
And I think that's the incredible value of\h
this program, is to keep these lessons learned,\h\h

229
00:22:31,120 --> 00:22:39,680
top of mind, not only for inside NASA, but also\h
outside of NASA. So, thank you so much, Mike.\h

230
00:22:39,680 --> 00:22:44,320
Derrol, thank you so much for the invitation, and\h
we invite everyone to interface with the Apollo\h\h

231
00:22:44,320 --> 00:22:50,080
Challenger Columbia Lessons Learned Program.\h
It's for everyone. And I'll end with this,\h\h

232
00:22:50,080 --> 00:22:56,240
is there's a propensity or potential way\h
of looking at it through a historical\h\h

233
00:22:56,240 --> 00:23:01,120
lens. It's a historical story. In this case, it's\h
Challenger, an event that happened 35 years ago,\h\h

234
00:23:01,120 --> 00:23:06,320
and a reflection of that. And I would humbly\h
suggest perhaps a different way to see that.\h\h

235
00:23:06,320 --> 00:23:12,400
Instead of looking at it as entirely an event\h
historically that happened, I see the Challenger\h\h

236
00:23:12,400 --> 00:23:17,920
story as much a future story as it was a past\h
story, perhaps even more so of a future story.\h

237
00:23:17,920 --> 00:23:22,480
And what I mean by that is the lessons\h
that the crew can still provide us,\h\h

238
00:23:22,480 --> 00:23:27,120
the lessons for the mission and the teams that\h
launched and experienced this. These are real\h\h

239
00:23:27,120 --> 00:23:32,720
lessons that apply equally today to programs\h
such as Artemis coming on board through all of\h\h

240
00:23:32,720 --> 00:23:37,600
our commercial providers and industries around the\h
nation and the world. They're as relevant today,\h\h

241
00:23:37,600 --> 00:23:43,520
if not more relevant, than they were 35 years\h
ago. So, it's really a future story. We're\h\h

242
00:23:43,520 --> 00:23:47,920
excited about taking these lessons and applying\h
it to real time and future projects and programs.\h\h

243
00:23:49,040 --> 00:23:53,040
Please make yourself known, and we're happy\h
to collaborate, and all go forward and do\h\h

244
00:23:53,040 --> 00:23:55,680
great things.
Keep up the great work,\h\h

245
00:23:56,400 --> 00:23:59,840
and thanks for coming on the Rocket Ranch today.
Thank you so much. It's been an honor.\h

246
00:24:01,200 --> 00:24:07,520
A special thanks to Michael Cianilli, director\h
of NASA's Apollo Challenger Columbia Program.\h\h

247
00:24:07,520 --> 00:24:13,120
If you'd like to contact him, well\h
just send us an email at KSC-newsroom,\h\h

248
00:24:14,880 --> 00:24:24,560
that's N-E-W-S-R-O-O-M@mail,\h
M as in Mary, A-I-L.nasa.gov,\h\h

249
00:24:25,360 --> 00:24:30,400
or leave a comment on our Facebook post\h
about the 35th challenger anniversary.\h\h

250
00:24:30,400 --> 00:24:33,600
You can find that on our official\h
Facebook account under the name\h\h

251
00:24:34,240 --> 00:24:40,720
NASA's Kennedy Space Center. And to learn more\h
about everything going on out here at KSC, go to\h\h

252
00:24:40,720 --> 00:24:47,840
nasa.gov/Kennedy. And give our other NASA podcasts\h
a listen if you have the time. Find out what's\h\h

253
00:24:47,840 --> 00:24:56,400
happening at all our centers at nasa.gov/podcast.\h
A special thanks to our producer, John Sackman,\h\h