WEBVTT

1
00:00:07.535 --> 00:00:08.385
Well, these are labeled.

2
00:00:08.565 --> 00:00:13.185
Yes. So that works better. Works better. Thanks, Tom.

3
00:00:13.225 --> 00:00:16.125
I appreciate it. Uh, good afternoon everybody.

4
00:00:16.345 --> 00:00:18.925
Um, again, my name is Ken Neubauer, as Tom said

5
00:00:19.955 --> 00:00:21.525
here this morning from, uh,

6
00:00:21.525 --> 00:00:22.725
beautiful Williamsburg, Virginia.

7
00:00:23.735 --> 00:00:26.995
Um, with, uh, due respect

8
00:00:26.995 --> 00:00:29.375
to Rod, Dr.

9
00:00:29.375 --> 00:00:31.815
Reason, I think one

10
00:00:31.815 --> 00:00:34.135
of the great things about education in a,

11
00:00:34.135 --> 00:00:37.115
in an environment like this is if you want

12
00:00:37.115 --> 00:00:38.275
to get down into the meat of it,

13
00:00:38.275 --> 00:00:40.815
present a different point of view.

14
00:00:42.215 --> 00:00:46.195
So I'm going to, I won't, I'm going to cover some of

15
00:00:46.195 --> 00:00:49.435
what Rod had just covered, but with a twist.

16
00:00:50.785 --> 00:00:54.705
'cause there are some aspects of safety, climate, safety,

17
00:00:54.775 --> 00:00:58.105
culture that I take a little slightly different view,

18
00:00:58.485 --> 00:01:02.085
and we'll see, uh, see how it works with you, see, uh, see

19
00:01:02.085 --> 00:01:03.965
what you think, and then we'll present some ideas

20
00:01:03.965 --> 00:01:05.445
that maybe we can have a discussion on.

21
00:01:05.705 --> 00:01:08.935
So this is, uh, my background, as you said, uh,

22
00:01:10.055 --> 00:01:12.675
as I grew up, uh, flying, actually, uh,

23
00:01:12.905 --> 00:01:14.675
that was not my first aircraft.

24
00:01:14.815 --> 00:01:17.915
I'm one of the last of the Navy, F four pilots,

25
00:01:18.215 --> 00:01:21.195
active F four pilots flying on aboard, uh,

26
00:01:21.195 --> 00:01:23.035
what is now a museum in San Diego.

27
00:01:23.175 --> 00:01:25.035

So if you have a chance to see my old ship out there,

28
00:01:25.035 --> 00:01:28.415
that's a, that's a fun, fun tour of USS midway.

29
00:01:29.135 --> 00:01:32.115
But I got into safety, uh, after my command tour.

30
00:01:32.275 --> 00:01:36.495
I would've never, ever, ever guessed

31
00:01:36.645 --> 00:01:38.135
that in my later life

32
00:01:38.385 --> 00:01:39.935
after being Eon Fighter pilot,

33
00:01:40.115 --> 00:01:41.655
I'd be involved in aviation safety.

34
00:01:42.965 --> 00:01:45.505
It was something that was actually forced on me a little

35
00:01:45.505 --> 00:01:48.105
bit, but I found that it became a great passion.

36
00:01:49.125 --> 00:01:52.905
And for those of you that are involved in aviation safety in

37
00:01:52.965 --> 00:01:55.725
any respect, uh, it's an area

38
00:01:55.735 --> 00:01:58.685
where you can make tremendous difference, I think.

39
00:01:59.455 --> 00:02:02.595
And I learned that at the, in Monterey, California, at the,

40
00:02:02.595 --> 00:02:04.055
uh, school of Aviation Safety,

41
00:02:04.055 --> 00:02:05.535
where I was director there for three years.

42
00:02:06.325 --> 00:02:07.905
Really crummy part of the world.

43
00:02:08.305 --> 00:02:09.665
I wouldn't recommend living there,

44
00:02:09.765 --> 00:02:12.895
but, uh, if you have to spend three years, you might

45
00:02:12.895 --> 00:02:14.175
as well do it in Pebble Beach, right?

46
00:02:15.205 --> 00:02:17.225
Um, so I bring this up

47
00:02:17.295 --> 00:02:20.265
because, uh, one of my old shipmates, so she animates

48
00:02:20.845 --> 00:02:23.655
here at Gulfstream, uh, chip King and I,

49
00:02:23.715 --> 00:02:25.815
and it, we invented a joke at lunch,

50
00:02:26.515 --> 00:02:30.085
and the joke goes like this for you, Gulfstream, guys,

51
00:02:30.085 --> 00:02:31.285
you'll probably hear about this,

52
00:02:31.345 --> 00:02:33.895
but how many Tomcat guys does it take

53
00:02:33.895 --> 00:02:35.415
to open a packet of mayonnaise?

54
00:02:36.665 --> 00:02:40.065

And it turns out the answer is two, as long

55
00:02:40.065 --> 00:02:42.185
as you have a flight test engineer who's able

56
00:02:42.185 --> 00:02:43.705
to actually execute the procedure.

57
00:02:45.235 --> 00:02:49.055
And it really helps if that FTE is a, uh, is, uh,

58
00:02:49.055 --> 00:02:51.375
from the UK and is a Man United fan,

59
00:02:51.415 --> 00:02:52.775
even though I'm an Everton guy,

60
00:02:52.795 --> 00:02:55.725
and we won't talk about the last Everton man

61
00:02:55.725 --> 00:02:57.335
United, we won't.

62
00:02:57.725 --> 00:03:01.175
Okay? Anyways, uh, had a little difficulty with that.

63
00:03:01.195 --> 00:03:03.695
But, uh, I've gone on, I've been with Tron now for about

64
00:03:04.805 --> 00:03:06.445
14 years, almost 14 years now,

65
00:03:07.415 --> 00:03:11.235
and, uh, have stayed in aviation safety now for, uh, about,

66
00:03:12.425 --> 00:03:16.725
uh, about 18 years, solid, 18, 19 years of my aviation crew.

67
00:03:17.945 --> 00:03:20.815
And when I give briefs, think,

68
00:03:20.815 --> 00:03:22.775
do I wanna give the full thing

69
00:03:22.795 --> 00:03:25.295
or do I want to just give the Reader's Digest version?

70
00:03:25.515 --> 00:03:28.135
So we'll start with the Reader's Digest version

71
00:03:28.195 --> 00:03:29.335
of what is safety.

72
00:03:29.515 --> 00:03:33.635
So as you're sitting there in your chairs, one of the themes

73
00:03:33.895 --> 00:03:35.555
of this briefing is going to be

74
00:03:35.555 --> 00:03:37.755
to have you answer for yourself.

75
00:03:37.855 --> 00:03:41.575
Or maybe I can help. What does safety mean to you?

76
00:03:45.185 --> 00:03:46.445
If somebody were to come up to you

77
00:03:46.465 --> 00:03:49.565
and ask you for a definition of safety, what would it be?

78
00:03:53.115 --> 00:03:56.375
And after that, here's a follow on question is,

79
00:03:56.555 --> 00:04:00.195
how do I measure how I'm doing

80
00:04:02.325 --> 00:04:03.745
or how my organization is doing?

81
00:04:04.625 --> 00:04:06.905

What kind of data do I need? Where do I get that data?

82
00:04:08.155 --> 00:04:10.695
Are the people, I get that data willing to gimme that data?

83
00:04:13.075 --> 00:04:17.045
Safety assurance, safety monitoring, safety measurements.

84
00:04:17.045 --> 00:04:19.045
So we'll dig into some of those topics,

85
00:04:19.045 --> 00:04:20.765
because this is a learned audience.

86
00:04:21.245 --> 00:04:23.905
You guys are into numbers, you're into flight test,

87
00:04:23.905 --> 00:04:25.305
you're into solving problems.

88
00:04:26.375 --> 00:04:29.475
But in reality, it all be boiled down to this,

89
00:04:30.505 --> 00:04:32.875
What is the most inspiring thing I ever said to you?

90
00:04:33.655 --> 00:04:35.445
Don't be an idiot. Changed my life.

91
00:04:37.485 --> 00:04:39.125
Whenever I'm about to do something, I think,

92
00:04:39.415 --> 00:04:40.645
would an idiot do that?

93
00:04:40.985 --> 00:04:43.485
And if they would, I do not do that thing.

94
00:04:45.495 --> 00:04:47.675
And given that 85%

95
00:04:47.735 --> 00:04:50.475
of all mishaps have a human factors component,

96
00:04:50.695 --> 00:04:52.075
you're really just looking for

97
00:04:53.425 --> 00:04:57.365
or pre preventing the, if an idiot would do that,

98
00:04:57.565 --> 00:04:58.885
I just don't do that thing.

99
00:04:58.885 --> 00:05:00.805
And then we'd never have any crashes again,

100
00:05:01.315 --> 00:05:02.865
since it's all about human factors,

101
00:05:03.305 --> 00:05:04.635
it's all about organization, right?

102
00:05:05.865 --> 00:05:06.965
So do we need to go any farther,

103
00:05:07.025 --> 00:05:08.845
or you just want to talk and we'll go into the work?

104
00:05:08.945 --> 00:05:11.565
No, we'll keep going. We got me down here.

105
00:05:11.565 --> 00:05:16.015
So let's keep, so I wanna do is give a little more

106
00:05:16.595 --> 00:05:19.055
of the safety management,

107
00:05:19.235 --> 00:05:22.095
safety management system side of this,

108
00:05:22.685 --> 00:05:25.455

because as, uh, as Tom had alluded to,

109
00:05:26.275 --> 00:05:30.165
I've been involved in SMS now for a, a number of years,

110
00:05:30.375 --> 00:05:33.665
since about 2010, 2009.

111
00:05:35.565 --> 00:05:38.105
But it's been in the airport world.

112
00:05:39.815 --> 00:05:41.915
And as Tom and I had discussed on the phone

113
00:05:41.935 --> 00:05:44.675
before coming down here on a couple of occasions,

114
00:05:45.035 --> 00:05:47.095
talked about the status of where it,

115
00:05:47.185 --> 00:05:50.455
where is the safety management system effort

116
00:05:50.755 --> 00:05:52.015
within flight test.

117
00:05:52.155 --> 00:05:56.135
And we kind of came to the conclusion that it's sort of

118
00:05:56.145 --> 00:06:00.045
where it, it is with the airport world, with part 1 39,

119
00:06:00.615 --> 00:06:03.485
where the concepts are out there, it's understood,

120
00:06:03.635 --> 00:06:04.725
it's not mandated.

121
00:06:05.915 --> 00:06:07.525
Like the commercial air carriers.

122
00:06:07.805 --> 00:06:11.285
Airports are not required to have an SMS.

123
00:06:11.315 --> 00:06:14.925
They've been threatened with regulations since 2010,

124
00:06:15.345 --> 00:06:16.685
and it hasn't happened yet.

125
00:06:17.235 --> 00:06:20.625
But there have been some forward-leaning airports

126
00:06:20.625 --> 00:06:21.945
that have moved forward

127
00:06:22.535 --> 00:06:26.225
with developing their systematic approach to safety.

128
00:06:26.905 --> 00:06:28.165
And we've been involved in that.

129
00:06:28.305 --> 00:06:31.565
My company and other colleagues, uh, are amongst a handful

130
00:06:31.705 --> 00:06:35.255
of consultants that have been working with airports

131
00:06:35.875 --> 00:06:37.055
to develop SMS.

132
00:06:37.235 --> 00:06:40.855
So my experience in development of it comes from trying

133
00:06:40.855 --> 00:06:42.175
to implement it in the field

134
00:06:42.205 --> 00:06:45.415
with San Francisco International, uh, Seattle,

135
00:06:45.595 --> 00:06:49.015

Tacoma International, Indianapolis International, uh,

136
00:06:49.015 --> 00:06:51.375
small airports like Peoria, uh,

137
00:06:51.375 --> 00:06:54.935
international in providing them with some ideas.

138
00:06:54.995 --> 00:06:57.375
And it's a real challenge, like it probably is

139
00:06:58.005 --> 00:07:00.065
and will be with a lot of your organizations.

140
00:07:00.285 --> 00:07:03.535
There's a saying that some of you may be familiar

141
00:07:03.535 --> 00:07:07.125
with in the airport world, when you go in with a, uh,

142
00:07:07.275 --> 00:07:08.725
with a concept and try

143
00:07:08.725 --> 00:07:11.125
and introduce something new into the airport world.

144
00:07:12.185 --> 00:07:15.005
The old saying crops up when you've seen one airport,

145
00:07:16.405 --> 00:07:18.135
seen one airport.

146
00:07:18.795 --> 00:07:21.495
And there are so many variances

147
00:07:22.145 --> 00:07:25.665
in which each airport has between their,

148
00:07:25.675 --> 00:07:27.105
their runway configuration,

149
00:07:27.105 --> 00:07:29.345
their terminal configuration, how many tenants.

150
00:07:29.345 --> 00:07:33.875
There's big difference between, between Chicago O'Hare

151
00:07:34.835 --> 00:07:35.935
and Charleston.

152
00:07:37.045 --> 00:07:39.665
And then when you get down into the, uh, GA airports,

153
00:07:39.895 --> 00:07:42.485
there are some that are very active, like at Teterboro,

154
00:07:42.505 --> 00:07:44.645
and there's others that have a couple of flights a day.

155
00:07:45.265 --> 00:07:46.845
So there's a lot of differences,

156
00:07:46.905 --> 00:07:50.355
but there are common elements that you, you can rely upon.

157
00:07:50.455 --> 00:07:51.955
So what do we mean and

158
00:07:51.955 --> 00:07:54.275
what do we tell them when we're talking safety

159
00:07:54.275 --> 00:07:56.255
management from the FAA?

160
00:07:56.285 --> 00:08:00.525
It's understanding and making decisions, taking actions

161
00:08:00.585 --> 00:08:01.645
to lower risk.

162
00:08:02.275 --> 00:08:04.855

And a lot of it is about the lowering of risk.

163
00:08:07.265 --> 00:08:09.565
You can do that, as Rod had alluded to,

164
00:08:09.565 --> 00:08:13.325
and you've been aware of now with the components of the SMS,

165
00:08:13.325 --> 00:08:16.085
the components that are espoused by the FAA

166
00:08:16.705 --> 00:08:20.045
are really no different than they are by IKO other than

167
00:08:20.625 --> 00:08:24.205
safety policy and objectives from I-K-O-F-A-A just says

168
00:08:24.205 --> 00:08:26.125
safety objectives or safety policy.

169
00:08:27.385 --> 00:08:31.405
But if you go into these different components of the SMS

170
00:08:33.725 --> 00:08:36.345
as, uh, as, uh, rod had alluded to,

171
00:08:36.355 --> 00:08:38.585
there are core operational elements.

172
00:08:38.945 --> 00:08:41.935
Where do you take action? Where do you get your information?

173
00:08:42.345 --> 00:08:44.335
Where do you analyze that information?

174
00:08:44.425 --> 00:08:47.935
Where do you develop the strategies to make improvements?

175
00:08:48.035 --> 00:08:51.495
And they reside primarily within the safety risk management

176
00:08:51.495 --> 00:08:55.465
component and the safety assurance probe proponent component

177
00:08:56.055 --> 00:08:57.675
safety risk management, uh,

178
00:08:57.675 --> 00:08:59.675
from my understanding in this venue last

179
00:08:59.675 --> 00:09:01.355
year is what you talked about.

180
00:09:01.375 --> 00:09:02.875
And then there's a lot of folks in the room

181
00:09:02.875 --> 00:09:06.075
that are very familiar with, uh, risk management,

182
00:09:06.075 --> 00:09:08.195
whether it be operational risk management,

183
00:09:08.195 --> 00:09:10.395
safety risk management, project risk management,

184
00:09:10.395 --> 00:09:11.515
enterprise risk management.

185
00:09:11.975 --> 00:09:16.585
All of these processes to include what goes on at nasa, uh,

186
00:09:17.405 --> 00:09:22.145
are have same very similar elements, very similar processes

187
00:09:22.365 --> 00:09:25.355
and principles and very similar steps

188
00:09:25.615 --> 00:09:27.155
of the risk management process.

189
00:09:27.815 --> 00:09:29.915

So that's fairly well understood.

190
00:09:31.285 --> 00:09:33.345
Go ahead and identify the hazards. I analyze the risk.

191
00:09:33.785 --> 00:09:35.785
I, I go ahead and put in controls

192
00:09:35.785 --> 00:09:37.785
and I, I monitor is, uh,

193
00:09:37.785 --> 00:09:39.745
basically the core elements of that.

194
00:09:40.425 --> 00:09:42.085
But that safety assurance piece,

195
00:09:42.085 --> 00:09:43.885
and I do agree with Rod wholeheartedly.

196
00:09:44.365 --> 00:09:46.095
This is the one aspect.

197
00:09:46.095 --> 00:09:48.735
This is the one component that is probably

198
00:09:50.625 --> 00:09:53.245
the most difficult and the most challenging

199
00:09:53.245 --> 00:09:54.485
to get your arms around.

200
00:09:56.235 --> 00:09:57.985
Where do you get safety information?

201
00:09:59.105 --> 00:10:01.855
Oftentimes you're waiting for something really bad to happen

202
00:10:02.315 --> 00:10:03.655
and then you get the information.

203
00:10:04.395 --> 00:10:05.775
But where do you get the information

204
00:10:05.835 --> 00:10:07.255
before something bad happens

205
00:10:07.425 --> 00:10:10.635
before that undesirable outcome actually takes place?

206
00:10:10.635 --> 00:10:12.315
And that's what we want to try and drive for.

207
00:10:12.615 --> 00:10:16.875
So each of these components does not live by itself.

208
00:10:18.395 --> 00:10:20.285
It's not a silo unto itself.

209
00:10:21.675 --> 00:10:23.685
Each one can be broken down into

210
00:10:24.245 --> 00:10:26.485
layman's terms from the policy side,

211
00:10:26.485 --> 00:10:28.325
what is expected by my leadership?

212
00:10:28.715 --> 00:10:32.325
What sign is expected by the people that work,

213
00:10:32.355 --> 00:10:34.525
that lead the organization, by the per people

214
00:10:34.525 --> 00:10:35.965
that work within the organization.

215
00:10:36.755 --> 00:10:38.925
From the risk management side, you're trying to analyze,

216
00:10:38.955 --> 00:10:41.845

well, what could go wrong within these processes

217
00:10:42.235 --> 00:10:45.205
that I have, uh, that work within my organization?

218
00:10:45.825 --> 00:10:49.605
Moving into how do I monitor it, how do I measure it?

219
00:10:49.665 --> 00:10:52.285
How do I make sure that they're working properly to,

220
00:10:52.785 --> 00:10:56.325
how do I communicate what safety is and what the results are

221
00:10:56.325 --> 00:10:57.405
and what we're doing about it

222
00:10:58.025 --> 00:10:59.235
from the leadership perspective.

223
00:10:59.935 --> 00:11:02.755
So each of these has a, has a specific purpose,

224
00:11:03.785 --> 00:11:05.845
has a specific goal behind it.

225
00:11:06.665 --> 00:11:08.885
But they don't work silently.

226
00:11:08.885 --> 00:11:12.365
They don't work independently, they don't work in series.

227
00:11:12.865 --> 00:11:14.875
They're working more in parallel.

228
00:11:15.645 --> 00:11:18.145
And each one feeds the other.

229
00:11:19.535 --> 00:11:21.185
Each one can feed the other.

230
00:11:22.125 --> 00:11:25.025
If I'm discovering in the safety risk management component

231
00:11:25.025 --> 00:11:26.985
that I have identified hazards

232
00:11:27.325 --> 00:11:30.105
and it carries with it an unacceptable level

233
00:11:30.105 --> 00:11:32.615
of risk, what do I do with that?

234
00:11:33.515 --> 00:11:36.205
Well, I'm probably gonna develop some sort of a control

235
00:11:37.235 --> 00:11:39.805
that may then feed back into policy.

236
00:11:40.185 --> 00:11:42.645
We have this control, we're gonna make this part

237
00:11:42.645 --> 00:11:43.765
of the way we do business.

238
00:11:44.105 --> 00:11:45.725
So we're gonna work that into the policy

239
00:11:46.455 --> 00:11:49.105
once it gets working, now you get into the safety assurance

240
00:11:49.105 --> 00:11:50.305
side and figure how is it working?

241
00:11:50.605 --> 00:11:53.565
If it's working well, then we want to communicate that

242
00:11:53.565 --> 00:11:55.965
through our promotion efforts to the rest

243
00:11:55.965 --> 00:11:58.685

of the organization, which then can, again,

244
00:11:58.835 --> 00:12:01.405
when you get feedback from the people in your organization,

245
00:12:02.715 --> 00:12:05.125
they can then perhaps influence policy,

246
00:12:06.195 --> 00:12:09.025
give you the policy changes, then you reassess

247
00:12:09.025 --> 00:12:10.185
what new hazards do we have?

248
00:12:10.515 --> 00:12:13.625
Maybe what we put into place created new hazards

249
00:12:13.705 --> 00:12:14.705
that we didn't have before.

250
00:12:15.125 --> 00:12:17.905
And now I have to assess the risk of those and round

251
00:12:18.045 --> 00:12:19.625
and around and around we go.

252
00:12:20.005 --> 00:12:21.425
And it does not stop.

253
00:12:21.895 --> 00:12:26.625
So this is the systematic approach to safety system.

254
00:12:26.925 --> 00:12:27.945
It is a system.

255
00:12:30.055 --> 00:12:32.165
Where do you fit within your system

256
00:12:32.625 --> 00:12:34.725
as this all moves forward?

257
00:12:35.355 --> 00:12:40.235
So I wanna make an analogy to see what the system is

258
00:12:41.215 --> 00:12:42.475
and what you're doing and

259
00:12:42.545 --> 00:12:45.235
what you do about these two elements

260
00:12:45.925 --> 00:12:47.865
within most organizations.

261
00:12:49.405 --> 00:12:51.625
The people that are pri trying to do the flying,

262
00:12:51.695 --> 00:12:55.545
perhaps you're producing aircraft, your manufacturing

263
00:12:56.145 --> 00:12:59.185
aircraft, you have a product to put out in the field,

264
00:12:59.895 --> 00:13:01.435
and they're the production side

265
00:13:02.005 --> 00:13:05.675
where then you have the safety Nazis, the safety guys

266
00:13:06.145 --> 00:13:08.555
that want to be right behind you saying, well,

267
00:13:09.485 --> 00:13:11.545
in the old days of safety, it's don't do that.

268
00:13:11.675 --> 00:13:13.545
Don't do that. Don't run with scissors.

269
00:13:13.545 --> 00:13:15.705
You could get hurt, right?

270
00:13:16.755 --> 00:13:19.445

So there's this often, this tension,

271
00:13:20.115 --> 00:13:22.925
perhaps a productive level of tension

272
00:13:23.475 --> 00:13:27.505
between meeting production goals while also

273
00:13:28.135 --> 00:13:30.905
backing up and ensuring your protection goals are met.

274
00:13:31.545 --> 00:13:32.845
You wanna meet production goals,

275
00:13:32.945 --> 00:13:34.245
but you don't wanna hurt anybody

276
00:13:34.265 --> 00:13:35.765
or break anything while you're doing it.

277
00:13:36.135 --> 00:13:37.995
That's the goals. And this friction,

278
00:13:37.995 --> 00:13:39.475
this pull can be very good,

279
00:13:40.245 --> 00:13:43.825
but then it can also impact be impacted by the culture.

280
00:13:44.565 --> 00:13:47.795
Who's got the stronger person on one end of this rope?

281
00:13:48.255 --> 00:13:50.395
Are there more people on one end than on the other?

282
00:13:51.215 --> 00:13:54.915
And you work from that. So with that in mind,

283
00:13:55.785 --> 00:13:56.875
from production

284
00:13:57.695 --> 00:14:01.035
and protection, perhaps you've heard this brief

285
00:14:01.665 --> 00:14:03.115
between your safety manager

286
00:14:03.175 --> 00:14:05.875
and your flight test guys, your FTEs on

287
00:14:05.875 --> 00:14:06.955
what is more important.

288
00:14:10.325 --> 00:14:12.285
Can't get through there. Safety guys.

289
00:14:12.305 --> 00:14:14.085
No, I can do this. I just chip out.

290
00:14:14.605 --> 00:14:17.485
I can get through there. Just chip it out.

291
00:14:18.155 --> 00:14:19.935
No, I can get through there. Watch. Okay.

292
00:14:26.405 --> 00:14:27.855
Yeah, you're right. I guess I should have.

293
00:14:30.845 --> 00:14:32.025
You don't wanna be in that.

294
00:14:32.095 --> 00:14:34.385
Well, it didn't work, so maybe I shouldn't have done that.

295
00:14:35.295 --> 00:14:38.035
If you've seen this, this is, this is some of the, uh, some

296
00:14:38.035 --> 00:14:39.195
of the dilemma that you have.

297
00:14:40.205 --> 00:14:43.185

You've got that, you've got that data point, you've got

298
00:14:43.185 --> 00:14:45.985
that flight test point, you've got that one measure

299
00:14:46.015 --> 00:14:47.065
that you have to get.

300
00:14:48.275 --> 00:14:50.175
But what are the risks in getting there now?

301
00:14:51.755 --> 00:14:53.375
Now let's expand that a little bit

302
00:14:54.065 --> 00:14:55.725
and look at the safety system.

303
00:14:56.695 --> 00:14:59.195
And when you're looking at what you do as a system,

304
00:14:59.305 --> 00:15:00.995
what bounds your system?

305
00:15:02.935 --> 00:15:04.565
Where do the bad things happen?

306
00:15:06.285 --> 00:15:07.945
So as Tom

307
00:15:07.945 --> 00:15:09.185
and I were discussing on the phone,

308
00:15:09.245 --> 00:15:11.975
we talked about this analogy, we'll go back

309
00:15:11.975 --> 00:15:13.255
to my military flying days

310
00:15:13.595 --> 00:15:16.005
and look at it from a flight test perspective.

311
00:15:17.995 --> 00:15:22.125
In my world, my past world, almost all

312
00:15:22.125 --> 00:15:24.125
of the effort in the training

313
00:15:24.185 --> 00:15:27.485
and the education in trying to gather knowledge

314
00:15:28.175 --> 00:15:31.315
was really wrapped around probably 80% of

315
00:15:31.315 --> 00:15:34.635
what we did was wrapped around this perhaps three

316
00:15:34.695 --> 00:15:39.615
to five minute part of a could be a multi-hour mission.

317
00:15:39.635 --> 00:15:41.335
You're looking at that three

318
00:15:41.335 --> 00:15:43.255
to five minute win minute window.

319
00:15:43.285 --> 00:15:46.505
When you're in a threat envelope, you're dealing with how,

320
00:15:46.695 --> 00:15:49.865
what weapons do I use to take out the target?

321
00:15:49.935 --> 00:15:51.585
What weapons are they gonna use to try

322
00:15:51.585 --> 00:15:53.025
and prevent me from getting to the target?

323
00:15:53.285 --> 00:15:56.385
How do I get in? How do I get out? Who do I have with me?

324
00:15:56.795 --> 00:15:58.305

Who's suppressing the defenses

325
00:15:58.305 --> 00:16:00.225
and the like, it's all happening within that three

326
00:16:00.225 --> 00:16:02.585
to five minute where you execute this mission.

327
00:16:02.815 --> 00:16:05.305
Perhaps it's the same within the test world.

328
00:16:05.325 --> 00:16:08.105
You get out there, the telemetry is all set up, you want

329
00:16:08.105 --> 00:16:09.705
to hit this point, you gotta hit this altitude,

330
00:16:09.725 --> 00:16:11.265
hit this air speed, hit this angle of attack,

331
00:16:11.605 --> 00:16:14.905
get this information so that you meet the test objectives

332
00:16:15.345 --> 00:16:16.725
and you're focused on that.

333
00:16:18.825 --> 00:16:21.125
But where do the most of the bad stuff actually happen

334
00:16:22.545 --> 00:16:24.195
happens outside of that?

335
00:16:25.985 --> 00:16:28.525
And how much time do you put into, well, we gotta man up,

336
00:16:28.705 --> 00:16:30.055
we gotta make sure the airplane's right?

337
00:16:30.055 --> 00:16:31.415
We gotta make sure the equipment's right.

338
00:16:31.415 --> 00:16:32.785
We got taxi, we gotta take off.

339
00:16:33.205 --> 00:16:35.465
We have to go out to the operating area.

340
00:16:35.645 --> 00:16:38.865
In my case, you probably had to hit a tanker or two

341
00:16:38.965 --> 00:16:41.045
or three on the way out.

342
00:16:41.105 --> 00:16:43.565
You have to get rendezvous, you gotta check your systems.

343
00:16:44.185 --> 00:16:46.325
Now you go into that place, that window

344
00:16:46.415 --> 00:16:49.125
where you're really focused, you get everything done.

345
00:16:49.185 --> 00:16:51.795
And now what do you gotta do? Now I gotta get back home.

346
00:16:52.215 --> 00:16:54.385
So I gotta get back. I gotta get outta the theater.

347
00:16:54.625 --> 00:16:56.225
I maybe gotta get back to the tanker.

348
00:16:56.425 --> 00:16:58.265
I gotta get more gas, check the weather,

349
00:16:58.385 --> 00:16:59.505
I gotta make sure I'm in line.

350
00:17:00.005 --> 00:17:01.545
That's where the bad stuff happens.

351
00:17:01.645 --> 00:17:03.465

But we spend very little time at it.

352
00:17:03.485 --> 00:17:05.105
So what are the bounds of your system?

353
00:17:05.905 --> 00:17:07.445
Are you looking at the entire system

354
00:17:07.465 --> 00:17:09.485
or are you just looking at a small window of it?

355
00:17:09.995 --> 00:17:13.655
Do you play in your role a piece in a larger system,

356
00:17:14.195 --> 00:17:16.655
but you're only focused on part of the system?

357
00:17:17.535 --> 00:17:20.195
So that's something to ask yourselves as you move forward,

358
00:17:21.125 --> 00:17:25.495
what is your function within the system in the test world?

359
00:17:25.635 --> 00:17:27.895
Are you only concerned with your flying side?

360
00:17:27.915 --> 00:17:29.575
Are you only concerned about getting

361
00:17:29.575 --> 00:17:33.175
that flight test data down to the engineers, down to those

362
00:17:33.175 --> 00:17:35.575
that could make changes in your equipment?

363
00:17:36.835 --> 00:17:39.815
Or do you have responsibilities outside of that?

364
00:17:39.995 --> 00:17:41.415
Are your eyeballs out

365
00:17:41.475 --> 00:17:44.935
and around looking at the environment in which you operate?

366
00:17:44.935 --> 00:17:47.895
Looking at the ramp area, looking at the maintenance effort,

367
00:17:48.565 --> 00:17:50.380
looking at what's going on?

368
00:17:50.380 --> 00:17:51.835
Are they doing it right? Do I

369
00:17:51.835 --> 00:17:52.955
know if they're doing it right?

370
00:17:53.055 --> 00:17:54.995
If I don't know, where do I find the answers?

371
00:17:55.705 --> 00:17:57.125
How do you bound that system?

372
00:17:57.145 --> 00:17:59.005
And then what is your function within it?

373
00:17:59.655 --> 00:18:03.275
And then finally, what is the focus of the system?

374
00:18:04.485 --> 00:18:05.745
Are you worried, are you part

375
00:18:05.745 --> 00:18:07.465
of just your flight department?

376
00:18:08.565 --> 00:18:12.905
Are you part of a larger company that has another focus

377
00:18:12.955 --> 00:18:14.505
where you're a piece of that?

378
00:18:15.125 --> 00:18:17.145

And what is the focus of that system?

379
00:18:17.405 --> 00:18:19.825
Is it to get this product out the door

380
00:18:21.935 --> 00:18:25.155
or do, are you looking at it as a holistic system?

381
00:18:25.695 --> 00:18:28.795
It was reminded me when the question came up about NASA's,

382
00:18:29.455 --> 00:18:30.995
uh, safety culture effort.

383
00:18:31.915 --> 00:18:35.475
I will say that, uh, the first project that I came in

384
00:18:36.245 --> 00:18:40.375
when I came into tron, uh, straight out of the Navy was

385
00:18:40.375 --> 00:18:43.335
with the, with was with NASA's Office of Safety

386
00:18:43.395 --> 00:18:48.075
and Mission Assurance after the Columbia mishap, uh, in,

387
00:18:48.375 --> 00:18:50.035
uh, in the early two thousands.

388
00:18:51.475 --> 00:18:54.135
It happened while I was at this on active duty at the School

389
00:18:54.135 --> 00:18:55.735
of Aviation Safety in Monterey.

390
00:18:57.055 --> 00:19:00.875
And, uh, following that mishap, uh, some of the folks at uh,

391
00:19:01.195 --> 00:19:04.275
OSMA, they gave us a call out in Monterey

392
00:19:04.275 --> 00:19:06.405
and say, you guys have been doing a lot

393
00:19:06.405 --> 00:19:07.525
of good stuff in the Navy

394
00:19:07.525 --> 00:19:10.365
and the Marine Corps with looking at safety culture,

395
00:19:10.625 --> 00:19:12.405
how it's impacted the way you do business.

396
00:19:12.735 --> 00:19:15.285
Let's trade notes. Let's try and organize and,

397
00:19:15.505 --> 00:19:18.125
and have a joint effort and perhaps an education effort.

398
00:19:18.735 --> 00:19:21.355
Uh, it didn't transpire until I left active duty,

399
00:19:21.375 --> 00:19:22.875
but then we got going in Tron

400
00:19:22.875 --> 00:19:24.995
and helped in the initial establishment

401
00:19:25.255 --> 00:19:27.515
of this safety culture shaping process

402
00:19:27.625 --> 00:19:29.235
that NASA continues to use.

403
00:19:29.775 --> 00:19:33.155
Our first pilots were done at Goddard Space Center

404
00:19:33.215 --> 00:19:35.875
and at Langley Research Center on the East coast

405
00:19:35.925 --> 00:19:37.915

where there was another question about that.

406
00:19:38.655 --> 00:19:40.915
How do you get information

407
00:19:40.915 --> 00:19:43.395
and how do you prime the pump for getting this information?

408
00:19:44.545 --> 00:19:46.095
We'll talk about some surveys

409
00:19:46.095 --> 00:19:48.535
as well in a little different take on the safety.

410
00:19:50.125 --> 00:19:52.095
I'll, I'll leave it at safety survey

411
00:19:52.815 --> 00:19:54.535
'cause I have a different way of looking at it.

412
00:19:55.455 --> 00:19:56.475
But what is the focus?

413
00:19:56.535 --> 00:19:59.155
And you have to know what leadership says about it.

414
00:19:59.875 --> 00:20:02.735
So part of the process that was started at NASA was

415
00:20:02.735 --> 00:20:06.305
to educate leaders on what does safety culture mean?

416
00:20:06.965 --> 00:20:09.945
How do you measure it? How does it impact the entire

417
00:20:10.135 --> 00:20:12.545
operation of what you're trying to achieve?

418
00:20:12.965 --> 00:20:15.465
So a lot of these within the system, we ha have

419
00:20:15.465 --> 00:20:19.295
to take a look at it as a system, as a systematic approach,

420
00:20:19.595 --> 00:20:22.295
but know what the bounds are and know what your role is

421
00:20:22.315 --> 00:20:24.175
and know where your focus is will really help

422
00:20:24.595 --> 00:20:25.615
as you move forward.

423
00:20:25.795 --> 00:20:29.075
And look at this in the context

424
00:20:30.155 --> 00:20:32.615
safety assurance of monitoring.

425
00:20:35.065 --> 00:20:36.285
So we'll go back to this

426
00:20:37.655 --> 00:20:41.475
in the IKO Safety Management manual, which is long and,

427
00:20:41.495 --> 00:20:43.315
but it's got a lot of good information in it.

428
00:20:43.595 --> 00:20:45.485
They'll talk about safety management

429
00:20:45.665 --> 00:20:49.065
as hazard identification and safety risk management.

430
00:20:49.095 --> 00:20:52.865
That one SRM component as being the core

431
00:20:53.535 --> 00:20:55.725
processes of an SMS.

432
00:20:55.955 --> 00:20:57.965

Well, if that's the core, then

433
00:20:58.055 --> 00:21:01.385
where does safety assurance fit in there?

434
00:21:02.805 --> 00:21:03.935
What is safety assurance

435
00:21:04.075 --> 00:21:06.775
and why should I care about it from your perspective?

436
00:21:08.245 --> 00:21:11.975
From that same safety assurance brings processes

437
00:21:11.975 --> 00:21:13.975
and activities to determine whether it's working.

438
00:21:14.435 --> 00:21:18.015
It involves continuous monitoring of the processes.

439
00:21:18.795 --> 00:21:23.295
So how can you continuously monitor safety processes?

440
00:21:23.855 --> 00:21:25.465
That can be a complexed way to go.

441
00:21:25.485 --> 00:21:29.425
But the goal is to make sure you're finding these changes,

442
00:21:29.495 --> 00:21:33.625
finding these deviations which may introduce safety risks

443
00:21:33.815 --> 00:21:35.385
into your operation that you don't want

444
00:21:35.685 --> 00:21:38.665
or that you have to control to some level to allow you

445
00:21:38.665 --> 00:21:41.885
to move the FAA goes a little bit farther

446
00:21:41.985 --> 00:21:43.245
to say, here are some of the goals.

447
00:21:43.245 --> 00:21:44.605
Here's what safety assurance does.

448
00:21:45.435 --> 00:21:48.905
Watch what's going on, review what it is, monitor, measure,

449
00:21:49.015 --> 00:21:50.945
make sure your objectives are met.

450
00:21:54.235 --> 00:21:57.785
Go straight back to leadership and policy.

451
00:21:58.755 --> 00:22:01.805
What are your organization's safety goals?

452
00:22:02.435 --> 00:22:06.065
What are your safety objectives? Are they enumerated?

453
00:22:06.365 --> 00:22:09.225
Are they communicated? Do people understand them?

454
00:22:09.615 --> 00:22:11.585
That will help to ensure

455
00:22:11.585 --> 00:22:14.065
that your safety assurance processes are

456
00:22:14.065 --> 00:22:15.185
doing, are meeting them.

457
00:22:15.885 --> 00:22:18.425
And then if you're monitoring, you can find out

458
00:22:18.425 --> 00:22:21.765
where you need to correct where corrections are needed,

459
00:22:21.765 --> 00:22:23.725

where controls will have the most in.

460
00:22:26.315 --> 00:22:27.775
So now what I'd like to do with that

461
00:22:27.775 --> 00:22:29.695
as a little bit additional background to

462
00:22:29.695 --> 00:22:30.815
what we had a little bit earlier.

463
00:22:31.815 --> 00:22:34.195
How can you link this to safety culture?

464
00:22:34.455 --> 00:22:38.285
How do you link safety assurance monitoring, measuring

465
00:22:39.295 --> 00:22:41.795
to what the culture is all about?

466
00:22:42.745 --> 00:22:44.305
I want to talk two different terms.

467
00:22:44.925 --> 00:22:46.885
I want to talk culture and I want

468
00:22:46.885 --> 00:22:50.565
to talk climate safety culture and safety climate.

469
00:22:51.155 --> 00:22:54.045
They are related, but they're not synonyms.

470
00:22:55.035 --> 00:22:59.695
And this is the slightly different twist on

471
00:22:59.695 --> 00:23:01.975
what came out from the gain handbook

472
00:23:01.975 --> 00:23:04.855
that Flight Safety Foundation is, is putting out.

473
00:23:04.855 --> 00:23:06.415
And I'd recommend that as well.

474
00:23:07.115 --> 00:23:08.435
A lot of good information came out.

475
00:23:08.445 --> 00:23:10.695
Again, start with culture.

476
00:23:12.305 --> 00:23:15.475
This is not out of the FAA, this is not out of IKO,

477
00:23:15.475 --> 00:23:18.035
but this is a, this is a definition of

478
00:23:18.655 --> 00:23:21.635
organizational culture that I think kind

479
00:23:21.635 --> 00:23:22.875
of boils it all down.

480
00:23:22.895 --> 00:23:25.235
Shared values and beliefs that interact

481
00:23:25.235 --> 00:23:26.755
with an organization, structures

482
00:23:26.755 --> 00:23:30.155
and control systems to produce behavioral norms.

483
00:23:30.835 --> 00:23:32.415
That's organizational culture.

484
00:23:32.795 --> 00:23:35.935
So in the layman's terms, it's what's important

485
00:23:36.235 --> 00:23:37.255
to the organization.

486
00:23:37.685 --> 00:23:39.455

What do we really care about here?

487
00:23:40.075 --> 00:23:44.215
How things work within the organization that reflect that

488
00:23:44.885 --> 00:23:46.645
and how it produces

489
00:23:47.875 --> 00:23:49.485
this is the way things are done around here.

490
00:23:51.015 --> 00:23:55.255
Culture is deep seated. It develops over time.

491
00:23:55.395 --> 00:23:57.015
It isn't something you plug in.

492
00:23:57.555 --> 00:24:00.255
And oftentimes you'll walk into a new organization

493
00:24:00.355 --> 00:24:02.695
and you have to adapt to that culture.

494
00:24:04.555 --> 00:24:05.895
You adapt to that culture.

495
00:24:07.005 --> 00:24:09.945
Now, one thing, and you can take this definition

496
00:24:10.045 --> 00:24:11.905
and apply it to a safety culture

497
00:24:12.125 --> 00:24:15.745
by just plugging in shared values and beliefs about safety.

498
00:24:15.925 --> 00:24:19.955
And they may different a little bit than the beliefs,

499
00:24:20.555 --> 00:24:22.495
values about the organization as a whole,

500
00:24:23.165 --> 00:24:24.745
or they may be a little more in detail.

501
00:24:24.745 --> 00:24:28.295
So what are they aspects of a culture?

502
00:24:28.365 --> 00:24:30.295
This comes straight from James reason.

503
00:24:31.015 --> 00:24:33.215
A safety culture can be broken down into

504
00:24:33.215 --> 00:24:34.535
five elements as well.

505
00:24:36.255 --> 00:24:38.755
Safety culture includes a just culture

506
00:24:38.805 --> 00:24:41.875
where people are treated well, they, uh, know

507
00:24:41.875 --> 00:24:45.635
that they can report things without being punished for them.

508
00:24:46.305 --> 00:24:49.915
That a just culture leads to a reporting culture

509
00:24:50.005 --> 00:24:51.195
where people are willing

510
00:24:51.215 --> 00:24:53.035
to bring forward safety information.

511
00:24:53.755 --> 00:24:56.255
The reporting culture then breeds a learning culture

512
00:24:56.265 --> 00:24:58.935
where you take that information, you apply it,

513
00:24:59.275 --> 00:25:01.055

and then are able to make improvements.

514
00:25:01.685 --> 00:25:04.745
And then that brings up a flexible culture where the people

515
00:25:04.745 --> 00:25:08.425
that are most influential, that have the best information,

516
00:25:10.305 --> 00:25:12.135
often the ones that are on the flight line,

517
00:25:12.665 --> 00:25:14.285
are on the lower levels of the organization,

518
00:25:14.345 --> 00:25:17.925
are flexible enough to make decisions at that level.

519
00:25:18.935 --> 00:25:20.435
And then those decisions

520
00:25:20.495 --> 00:25:23.555
and the lessons that you learn come back in and be,

521
00:25:23.575 --> 00:25:24.715
and the organization becomes.

522
00:25:25.915 --> 00:25:28.855
So this is how a safety culture can develop

523
00:25:29.195 --> 00:25:31.495
and what feeds it in a positive way.

524
00:25:32.155 --> 00:25:35.135
So oftentimes when you look at the model

525
00:25:35.155 --> 00:25:38.815
of an SMS in the early models of an SMS that was put out

526
00:25:38.835 --> 00:25:42.785
by a KO and by the FAA safety culture

527
00:25:43.485 --> 00:25:47.105
was pigeonholed within the safety promotion component.

528
00:25:48.895 --> 00:25:52.465
And sometimes you'll see that written still.

529
00:25:53.465 --> 00:25:54.985
I take a different view.

530
00:25:55.665 --> 00:26:00.105
I view that the safety culture, as Rod had also alluded to,

531
00:26:00.445 --> 00:26:03.625
is the foundation upon which the SMS resides

532
00:26:03.845 --> 00:26:07.345
and upon which the SMS actually functions with a

533
00:26:08.145 --> 00:26:09.385
positive safety culture.

534
00:26:09.925 --> 00:26:13.465
The SMS can work for the betterment of the organization

535
00:26:13.605 --> 00:26:16.415
for the excellence of the organization.

536
00:26:16.845 --> 00:26:20.335
Okay, well I like to see you have to have these, this

537
00:26:20.935 --> 00:26:24.005
sound safety culture in which you actually have an SMS work.

538
00:26:24.215 --> 00:26:26.875
That's how I view it. So we've taught culture.

539
00:26:28.075 --> 00:26:29.775
So what is this climate thing?

540
00:26:30.965 --> 00:26:32.825

As I said, culture is deep seated

541
00:26:33.125 --> 00:26:36.145
and can take a long time to change.

542
00:26:37.255 --> 00:26:40.545
Uh, there are, there's research

543
00:26:40.545 --> 00:26:42.605
or there's information put out

544
00:26:42.605 --> 00:26:45.885
that a large organization in order to change the culture

545
00:26:46.465 --> 00:26:51.425
can take as long as seven years actually impact the culture

546
00:26:51.525 --> 00:26:53.665
to a degree where it actually changes.

547
00:26:54.715 --> 00:26:56.535
You may not have seven years to do it.

548
00:26:58.525 --> 00:27:00.825
How can you maybe manage that a little bit better?

549
00:27:01.325 --> 00:27:05.185
So what is organizational climate? I like this definition.

550
00:27:05.185 --> 00:27:07.105
This is one that was developed by one

551
00:27:07.105 --> 00:27:09.065
of the faculty out in Monterey when I was there.

552
00:27:09.705 --> 00:27:10.965
Organizational climate.

553
00:27:11.065 --> 00:27:12.205
The extent to which members

554
00:27:12.205 --> 00:27:13.845
of the organization share positive

555
00:27:13.945 --> 00:27:17.495
or negative views about the organization in terms

556
00:27:17.555 --> 00:27:21.855
of leadership resources, quality of the environment,

557
00:27:23.095 --> 00:27:25.555
system of rewards, how people are treated

558
00:27:25.895 --> 00:27:29.635
and the influence these views have on shaping the patterns

559
00:27:29.635 --> 00:27:31.835
of life, how things are perceived

560
00:27:31.835 --> 00:27:33.115
and how people like doing

561
00:27:33.145 --> 00:27:35.395
what they're doing within the organization.

562
00:27:36.005 --> 00:27:38.185
And you can take that again and change that

563
00:27:38.285 --> 00:27:40.345
or adapt it to a safety culture.

564
00:27:40.835 --> 00:27:43.265
We're talking about perceptions,

565
00:27:44.605 --> 00:27:46.255
talking about perceptions

566
00:27:46.395 --> 00:27:50.255
of the people within the organization that give you

567
00:27:51.245 --> 00:27:53.705

information as a leader.

568
00:27:54.155 --> 00:27:57.295
From the safety side, you're looking at

569
00:27:57.395 --> 00:28:00.475
how leadership impacts safety, how the use

570
00:28:00.475 --> 00:28:05.085
of resources impacts safety, how your reward system

571
00:28:06.505 --> 00:28:09.685
can impact how people view their role

572
00:28:11.025 --> 00:28:12.245
in your safety management.

573
00:28:15.155 --> 00:28:17.335
So safety culture and safety climate.

574
00:28:19.635 --> 00:28:23.815
One thing that, uh, I disagree with, with the gain survey

575
00:28:24.435 --> 00:28:26.555
and what's put out, I don't believe you can

576
00:28:26.705 --> 00:28:28.755
measure safety culture.

577
00:28:32.525 --> 00:28:37.485
I hold that you can assess the attributes of your culture.

578
00:28:39.055 --> 00:28:40.305
What are the norms?

579
00:28:41.355 --> 00:28:44.205
What are the values that your organization has?

580
00:28:44.645 --> 00:28:46.545
And you can assess them, you can determine them.

581
00:28:47.165 --> 00:28:48.195
Let's take the military.

582
00:28:48.195 --> 00:28:51.095
What are some aspects of the military culture?

583
00:28:51.435 --> 00:28:56.065
And I've heard people say discipline, uniform, saluting

584
00:28:57.605 --> 00:29:01.285
a chain of command are all elements of a military culture.

585
00:29:02.015 --> 00:29:04.455
A lot of those are real. Are, uh, also applicable

586
00:29:04.455 --> 00:29:05.775
to a civilian culture.

587
00:29:06.785 --> 00:29:08.005
Can you measure those?

588
00:29:09.325 --> 00:29:12.775
I'll argue that you can't measure them objectively or,

589
00:29:14.115 --> 00:29:16.255
or readily measure those.

590
00:29:16.795 --> 00:29:21.545
But if you take a look at that climate definition, again,

591
00:29:21.995 --> 00:29:26.155
back to that the effectiveness in me ship,

592
00:29:26.155 --> 00:29:27.595
whether you have resources

593
00:29:27.695 --> 00:29:30.475
and these perceptions of the quality environment,

594
00:29:30.775 --> 00:29:33.035

the perceptions of how people are treated,

595
00:29:33.495 --> 00:29:34.675
you can measure that.

596
00:29:35.295 --> 00:29:36.435
And that's

597
00:29:36.435 --> 00:29:39.315
where the survey tool really can make a difference.

598
00:29:39.735 --> 00:29:43.035
So if you're looking at these aspects of climate

599
00:29:43.255 --> 00:29:44.355
and you measure it

600
00:29:45.325 --> 00:29:48.585
and then you analyze the results of your management,

601
00:29:49.005 --> 00:29:52.545
you take some action to improve it, you monitor

602
00:29:52.935 --> 00:29:54.145
what those actions do,

603
00:29:54.165 --> 00:29:55.865
and then you go back and measure again.

604
00:29:56.365 --> 00:29:59.065
You can get into the systematic approach of

605
00:30:00.145 --> 00:30:01.905
managing safety climate.

606
00:30:02.165 --> 00:30:04.625
And if you manage safety climate,

607
00:30:05.325 --> 00:30:07.705
you can shape safety culture.

608
00:30:11.555 --> 00:30:15.305
If you manage your climate, do something

609
00:30:15.325 --> 00:30:17.705
to manage the perceptions of your people.

610
00:30:19.435 --> 00:30:21.695
You can impact their behaviors

611
00:30:22.275 --> 00:30:25.715
and values, which will ultimately help

612
00:30:26.755 --> 00:30:28.035
positively shape the culture.

613
00:30:30.205 --> 00:30:33.745
Okay. So we call it, I call it safety climate management

614
00:30:33.845 --> 00:30:36.065
as a way of shaping the culture.

615
00:30:37.685 --> 00:30:41.395
This was done early on in my days in the Navy.

616
00:30:41.455 --> 00:30:42.995
We had a seminal mishap.

617
00:30:43.455 --> 00:30:46.265
The navy guys may remember a, an F 14

618
00:30:46.855 --> 00:30:49.745
that was on a cross country in the nineties

619
00:30:50.015 --> 00:30:53.265
that went into Nashville, took off in bad weather.

620
00:30:54.225 --> 00:30:57.975
The pilot got disoriented trying to impress family members

621
00:30:57.995 --> 00:31:00.985

and friends on the flight line, high performance takeoff

622
00:31:01.895 --> 00:31:06.485
into IMC, got disoriented, thought he was still climbing,

623
00:31:06.485 --> 00:31:07.805
started bunting the nose down

624
00:31:08.145 --> 00:31:09.925
and ended up flying straight into the

625
00:31:09.925 --> 00:31:12.125
ground, uh, killing himself.

626
00:31:12.305 --> 00:31:14.205
And somebody on the ground just so happens

627
00:31:14.225 --> 00:31:16.255
to be in the vice president's state

628
00:31:16.315 --> 00:31:17.475
of Tennessee at the time.

629
00:31:18.645 --> 00:31:20.705
So that brought out some, uh, the big guns

630
00:31:20.765 --> 00:31:23.505
and what the results were when then naval aviation is okay.

631
00:31:23.765 --> 00:31:26.865
We, in the mishap investigation discovered

632
00:31:28.265 --> 00:31:31.055
there was a lot of people that knew about these aircrew

633
00:31:31.195 --> 00:31:33.455
and what they were doing and their capabilities,

634
00:31:33.635 --> 00:31:34.855
but never said anything.

635
00:31:35.995 --> 00:31:38.095
It was inherent or is part of that culture

636
00:31:38.205 --> 00:31:39.375
that we don't rat out.

637
00:31:39.715 --> 00:31:41.975
The climate was such that people didn't wanna bring

638
00:31:42.275 --> 00:31:43.375
the information out.

639
00:31:43.445 --> 00:31:44.935
Climate is transitory.

640
00:31:45.555 --> 00:31:48.175
It can change day to day culture is deep seated.

641
00:31:48.355 --> 00:31:51.255
That's why you can measure and shape climate a lot easier.

642
00:31:51.985 --> 00:31:55.055
So a way of measuring the climate,

643
00:31:55.445 --> 00:31:59.205
assessing the current safety climate was developed in the

644
00:31:59.205 --> 00:32:01.925
course of a survey, which is not unlike what Rod

645
00:32:02.525 --> 00:32:03.895
just showed you, but it's more

646
00:32:04.055 --> 00:32:05.495
adaptable to the organization.

647
00:32:06.015 --> 00:32:08.305
Purpose is a measure of the organization's ability

648
00:32:08.325 --> 00:32:10.385

to safely conduct, uh, maintenance

649
00:32:10.385 --> 00:32:13.845
and flight operations in terms of leadership, uh,

650
00:32:13.845 --> 00:32:15.645
culture policy standards and the like,

651
00:32:15.665 --> 00:32:18.945
and examine the climate to measure it.

652
00:32:19.655 --> 00:32:21.795
In terms of human factors framework,

653
00:32:21.975 --> 00:32:24.715
the original surveys were brought up within

654
00:32:25.375 --> 00:32:29.235
the high reliability organizational characteristics.

655
00:32:29.775 --> 00:32:33.575
It has morphed over time into using the HVACs.

656
00:32:33.575 --> 00:32:36.295
If you're familiar with the human factors analysis

657
00:32:36.295 --> 00:32:41.065
and classification system, HVAC is now the backbone to

658
00:32:41.065 --> 00:32:44.625
what a lot of organizations in aviation are using, uh,

659
00:32:44.685 --> 00:32:45.945
to measure their climate.

660
00:32:46.735 --> 00:32:48.555
But it still looks at the same aspects.

661
00:32:49.105 --> 00:32:51.525
You're still trying to get information on these

662
00:32:51.525 --> 00:32:52.645
and what the perceptions are.

663
00:32:53.195 --> 00:32:56.085
Call it an organizational, uh, check engine light.

664
00:32:58.785 --> 00:32:59.885
So you're driving down the road

665
00:32:59.945 --> 00:33:04.165
and if you drive old cars like me, up until just recently,

666
00:33:04.745 --> 00:33:07.685
the uh, newest car we had on my driveway had

667
00:33:07.725 --> 00:33:09.525
125,000 miles on it.

668
00:33:10.095 --> 00:33:13.115
So you had this light check engine check in.

669
00:33:13.145 --> 00:33:15.905
Okay, well what, what are you telling me?

670
00:33:16.215 --> 00:33:19.865
Well, just check your engine. Didn't gimme any details.

671
00:33:20.185 --> 00:33:23.695
I take it someplace. So perhaps this is your

672
00:33:23.835 --> 00:33:25.855
organizational check engine light.

673
00:33:26.925 --> 00:33:28.865
If you're looking at what people are seeing,

674
00:33:30.505 --> 00:33:31.935
maybe they'll tell you where to go.

675
00:33:32.865 --> 00:33:34.305

They'll plug in that, uh,

676
00:33:34.305 --> 00:33:37.865
digital unit into your little receptacle underneath the, uh,

677
00:33:37.865 --> 00:33:39.265
underneath the steering wheel

678
00:33:39.405 --> 00:33:42.025
and it's gonna pop up with some information.

679
00:33:42.335 --> 00:33:44.305
Okay, I can act on that ad information,

680
00:33:44.925 --> 00:33:47.545
but you have to have some sort of indication that that in

681
00:33:47.545 --> 00:33:50.105
that information is there first.

682
00:33:50.675 --> 00:33:53.015
So let's talk about how you get that information.

683
00:33:53.695 --> 00:33:55.365
There are a number of different surveys

684
00:33:55.365 --> 00:33:58.765
and again, as Tom said, I will now tip my hat

685
00:33:58.765 --> 00:34:01.165
to my former colleague at the Naval Postgraduate School.

686
00:34:01.625 --> 00:34:05.045
Dr. Robert Flock, who I've worked with on this.

687
00:34:05.225 --> 00:34:08.005
He was a, he played a role in our original, uh,

688
00:34:08.075 --> 00:34:09.245
NASA pilot studies.

689
00:34:09.395 --> 00:34:12.045
He's, he, we've also used this tool, uh,

690
00:34:12.145 --> 00:34:14.125
to measure safety climate

691
00:34:14.225 --> 00:34:17.645
and do some safety culture shaping with, with the MSC

692
00:34:17.705 --> 00:34:20.205
for the logistics skies in the Navy driving the ships

693
00:34:20.205 --> 00:34:22.005
and bringing mail and food

694
00:34:22.265 --> 00:34:24.045
and parts out to the ships at sea.

695
00:34:24.985 --> 00:34:27.235
This is the model I'll use, uh, just

696
00:34:27.235 --> 00:34:28.355
to kinda give you an idea of

697
00:34:28.355 --> 00:34:29.835
what the Marine Corps has done with it.

698
00:34:30.295 --> 00:34:33.745
Uh, but there are a number of different organizations

699
00:34:33.745 --> 00:34:37.375
that use very similar surveys from the Veterans

700
00:34:37.375 --> 00:34:39.095
Administration is now using this.

701
00:34:39.475 --> 00:34:43.575
As we said, NASA uses this type of climate survey tool.

702
00:34:43.995 --> 00:34:47.215

The Royal Air Force is a new ad to those

703
00:34:47.215 --> 00:34:48.935
that are using this approach.

704
00:34:49.515 --> 00:34:50.735
Air Force has brought it on,

705
00:34:50.735 --> 00:34:52.655
army has brought it on the surface.

706
00:34:52.845 --> 00:34:54.455
Navy started in naval aviation,

707
00:34:54.455 --> 00:34:56.495
but even, even our brothers driving the ships

708
00:34:56.675 --> 00:34:57.695
are, are using it now.

709
00:34:58.525 --> 00:35:00.825
Uh, Naval Aviation has been very, very,

710
00:35:00.895 --> 00:35:03.545
very forward leaning in the use of, uh,

711
00:35:03.545 --> 00:35:04.705
safety culture shaping.

712
00:35:05.165 --> 00:35:08.345
And Marine Corps has also taken it another step to go beyond

713
00:35:08.985 --> 00:35:10.345
aviation and into ground

714
00:35:10.405 --> 00:35:14.215
and into the overall climate of the Marine Corps

715
00:35:14.275 --> 00:35:15.495
as an entire organization.

716
00:35:16.075 --> 00:35:20.615
All of these tools use the same foundation.

717
00:35:22.755 --> 00:35:25.835
All of these tools gather the information

718
00:35:26.055 --> 00:35:29.305
and have a third party look at it

719
00:35:30.635 --> 00:35:32.775
rather than somebody within the organization.

720
00:35:32.965 --> 00:35:34.055
Because there's a couple

721
00:35:34.055 --> 00:35:36.005
of important aspects of that that talk.

722
00:35:36.355 --> 00:35:38.735
Talk to what do you do when your people

723
00:35:38.735 --> 00:35:40.015
take a survey like this?

724
00:35:40.405 --> 00:35:43.545
This is online rather than the paper survey.

725
00:35:44.725 --> 00:35:47.755
Fill out some demographic information, which

726
00:35:48.415 --> 00:35:50.075
it gets genericized and,

727
00:35:50.255 --> 00:35:52.915
and uh, compiled into a whole bunch of numbers

728
00:35:52.985 --> 00:35:54.395
that the leader or whoever's

729
00:35:54.395 --> 00:35:55.595

getting the information can see.

730
00:35:56.675 --> 00:35:59.525
They fill out some likes. I strongly disagree to.

731
00:35:59.565 --> 00:36:00.565
I strongly agree.

732
00:36:01.775 --> 00:36:05.395
And, uh, then there's also within this tool,

733
00:36:06.815 --> 00:36:09.215
'cause the question was asked, how do you get context

734
00:36:09.915 --> 00:36:11.095
to some of these questions?

735
00:36:12.195 --> 00:36:13.605
Well, this offers you the chance

736
00:36:13.605 --> 00:36:16.205
to not only answer some on the, the respondent

737
00:36:16.205 --> 00:36:20.115
to not only answer some open-ended questions, some

738
00:36:20.115 --> 00:36:23.355
of which are standard, but this tool also allows the

739
00:36:23.355 --> 00:36:25.395
organization to say, you know,

740
00:36:25.975 --> 00:36:28.915
I'm really con I'm really interested to know

741
00:36:28.945 --> 00:36:31.355
what my line guys think and how they're operating.

742
00:36:31.375 --> 00:36:33.515
So maybe in the man up stage

743
00:36:33.535 --> 00:36:35.755
or in the pre-tax, pre-flight stage,

744
00:36:36.275 --> 00:36:38.715
I wanna ask a certain question about

745
00:36:39.105 --> 00:36:40.875
what are the issues on the flight line?

746
00:36:41.015 --> 00:36:42.715
And that can be entered into the tool.

747
00:36:43.135 --> 00:36:47.615
Now you have some focused, uh, some focused queries

748
00:36:48.315 --> 00:36:50.925
that might address some specific issues

749
00:36:50.925 --> 00:36:52.565
that your organization has.

750
00:36:53.305 --> 00:36:54.725
The other thing about this tool,

751
00:36:55.055 --> 00:36:58.085
which has been added over time was not there originally,

752
00:36:58.585 --> 00:37:03.335
was each of these liker items, they're not really questions.

753
00:37:03.335 --> 00:37:05.345
They're items they relate to.

754
00:37:05.665 --> 00:37:08.865
I see this or in my organization does this

755
00:37:08.965 --> 00:37:10.265
or my department does that.

756
00:37:10.545 --> 00:37:12.065

A lot of the questions are very similar.

757
00:37:12.995 --> 00:37:14.455
You can also add context

758
00:37:14.675 --> 00:37:17.185
or add comments on every single one

759
00:37:17.185 --> 00:37:18.985
of these if they so desire.

760
00:37:22.035 --> 00:37:23.405
This tool also has the ability

761
00:37:23.405 --> 00:37:25.325
to see who's taking it seriously or not.

762
00:37:25.805 --> 00:37:27.285
'cause there's a timer built into it

763
00:37:28.075 --> 00:37:29.895
and they determine that if somebody is going

764
00:37:30.225 --> 00:37:34.455
3, 3, 2, 2, 3, 3, 2, 2, 3, 3 all the way down, they said

765
00:37:34.455 --> 00:37:36.135
that takes about three minutes.

766
00:37:37.375 --> 00:37:39.555
So if I've got two and a half, three minutes

767
00:37:39.615 --> 00:37:42.355
or below, that might be an input

768
00:37:42.865 --> 00:37:44.835
that maybe doesn't hold a lot of water

769
00:37:45.775 --> 00:37:47.115
and maybe I can discard that.

770
00:37:48.915 --> 00:37:51.535
So some interesting aspects of how you do this.

771
00:37:56.285 --> 00:37:57.905
It doesn't change the weighting.

772
00:37:59.415 --> 00:38:00.835
It can be discarded,

773
00:38:02.455 --> 00:38:05.885
but it, it's kept within the database

774
00:38:05.915 --> 00:38:07.805
because a leader

775
00:38:09.265 --> 00:38:11.645
may get some really valuable information on that.

776
00:38:12.065 --> 00:38:14.125
How many of my guys are taking three minutes

777
00:38:14.185 --> 00:38:15.325
or less to do this survey?

778
00:38:16.115 --> 00:38:18.845
That might be a real strong indication of your climate.

779
00:38:20.365 --> 00:38:23.385
Another survey. Oh my god, how many of these, of my

780
00:38:24.525 --> 00:38:25.725
survey burnout is a big deal.

781
00:38:26.185 --> 00:38:28.335
How do you deal with that as a leader?

782
00:38:29.985 --> 00:38:32.945
I go back, I say if I'm gonna do a survey like this,

783
00:38:33.355 --> 00:38:35.565

especially with it, when it relates to safety,

784
00:38:35.895 --> 00:38:38.125
especially if it relates to safety culture,

785
00:38:39.335 --> 00:38:42.565
I'm gonna preface taking the survey by me

786
00:38:43.545 --> 00:38:46.525
as the chief test, pilot as the CEO,

787
00:38:47.105 --> 00:38:49.005
as the military commanding officer.

788
00:38:49.465 --> 00:38:51.845
Say folks, okay, I know we've taken a lot of surveys,

789
00:38:52.235 --> 00:38:55.605
this one's important because this is information I get.

790
00:38:56.795 --> 00:38:58.925
This isn't for the board, this isn't

791
00:38:58.925 --> 00:39:00.165
for the commandant of the Marine Corps.

792
00:39:00.395 --> 00:39:02.445
This is for me at our local level.

793
00:39:02.475 --> 00:39:05.285
This is for me as a leader, so I know what you're thinking

794
00:39:05.305 --> 00:39:06.405
so I can have an impact.

795
00:39:07.625 --> 00:39:10.035
Tell me what you think and this is your vehicle to do it.

796
00:39:10.225 --> 00:39:11.755
Then maybe they take eight

797
00:39:11.755 --> 00:39:14.275
or nine minutes to do it instead of two and a half minutes.

798
00:39:15.135 --> 00:39:17.555
So there's ways that you can manage this.

799
00:39:27.655 --> 00:39:29.785
Yeah, the the response, if you didn't hear that,

800
00:39:29.805 --> 00:39:32.505
the best way is to take action on the results.

801
00:39:32.645 --> 00:39:33.865
And I will add to that

802
00:39:34.705 --> 00:39:37.325
and communicate what actions you took.

803
00:39:39.075 --> 00:39:41.805
Exactly. 'cause if the leader actually implements

804
00:39:42.325 --> 00:39:45.395
a control measure based on what they found or an

805
00:39:45.535 --> 00:39:47.315
or a change strategy

806
00:39:47.855 --> 00:39:50.925
and doesn't tell anybody that's been done, then

807
00:39:51.185 --> 00:39:52.925
how do they know to make input again?

808
00:39:54.165 --> 00:39:56.505
And if they say, I got this idea

809
00:39:56.505 --> 00:39:59.905
because one of you find individuals actually told me

810
00:39:59.905 --> 00:40:01.905

what was going on, this made sense.

811
00:40:02.355 --> 00:40:03.505
We're making a change.

812
00:40:03.645 --> 00:40:05.185
And now that person's back there going,

813
00:40:05.185 --> 00:40:06.745
Hey, I made a difference.

814
00:40:07.275 --> 00:40:09.745
Feeling pretty good. Maybe I'll do that again.

815
00:40:10.235 --> 00:40:14.455
Maybe I'll write 5, 6, 7, 8 hazard reports 35 minutes.

816
00:40:17.035 --> 00:40:17.455
Not yet.

817
00:40:27.985 --> 00:40:32.245
Yeah, right.

818
00:40:44.605 --> 00:40:46.425
You're right. I I won't argue that.

819
00:41:04.535 --> 00:41:04.825
Yeah,

820
00:41:15.085 --> 00:41:16.865
the attitude can quickly erode.

821
00:41:16.965 --> 00:41:19.865
It can be used as a tool because I gotta do it.

822
00:41:20.425 --> 00:41:23.955
Especially if you're, if you're in a compliance realm,

823
00:41:24.375 --> 00:41:28.115
if you are, if you have to uh, comply with osha, you have

824
00:41:28.115 --> 00:41:31.235
to comply with local safety requirements.

825
00:41:31.565 --> 00:41:34.750
State safety requirements, federal safety requirements.

826
00:41:34.825 --> 00:41:36.445
My God, they're just on the ending.

827
00:41:38.945 --> 00:41:40.245
It can be used for that.

828
00:41:40.345 --> 00:41:43.835
And I would say the, the organizations

829
00:41:43.835 --> 00:41:45.275
that are not forward leaning

830
00:41:45.415 --> 00:41:48.595
or have this strong safety culture may use it like that.

831
00:41:48.995 --> 00:41:52.155
I have to take a survey. Here's a good tool. Out we go.

832
00:41:53.785 --> 00:41:56.855
I will argue though, that there are ways

833
00:41:56.855 --> 00:41:58.055
around survey burnout

834
00:41:59.445 --> 00:42:02.185
and its leadership's responsibility to actually

835
00:42:02.745 --> 00:42:03.795
take advantage of that.

836
00:42:04.685 --> 00:42:08.685
Um, and using a tool like this

837
00:42:08.835 --> 00:42:11.725

that can also be impact individuals' lives

838
00:42:12.305 --> 00:42:15.935
and better the organization, as long as that's communicated,

839
00:42:16.155 --> 00:42:18.135
you can have a better impact.

840
00:42:19.105 --> 00:42:22.665
And it may take some time, it may take some time.

841
00:42:23.345 --> 00:42:24.925
How often do you do something like this?

842
00:42:24.995 --> 00:42:26.035
Getting a little ahead of myself,

843
00:42:27.625 --> 00:42:29.305
I was out giving a brief at, uh,

844
00:42:29.485 --> 00:42:31.385
out in Seattle at the Seattle Tacoma,

845
00:42:31.565 --> 00:42:32.745
uh, international airport.

846
00:42:32.745 --> 00:42:35.465
And we had the whole leadership team in there from the

847
00:42:35.465 --> 00:42:38.615
airport manager to members of the board, uh,

848
00:42:38.835 --> 00:42:40.935
and, uh, all of their key individuals.

849
00:42:42.385 --> 00:42:43.445
And we talked about this

850
00:42:43.805 --> 00:42:45.325
'cause the briefing was on safety culture.

851
00:42:45.705 --> 00:42:47.245
And at the end of the briefing, one

852
00:42:47.245 --> 00:42:48.565
of the individuals came up to me

853
00:42:48.565 --> 00:42:52.445
and said, um, uh, yeah, we we,

854
00:42:52.585 --> 00:42:53.725
we did a safety assessment.

855
00:42:53.825 --> 00:42:56.325
We did a safety survey and a while back we, we take a look,

856
00:42:56.325 --> 00:42:57.885
took at our culture and said, okay,

857
00:42:57.945 --> 00:42:59.205
how long ago did you do that?

858
00:42:59.705 --> 00:43:01.445
Oh, we took one. Yeah, we had one

859
00:43:01.445 --> 00:43:02.685
and we took it seven years ago.

860
00:43:06.335 --> 00:43:08.075
How many things can change in seven years?

861
00:43:08.135 --> 00:43:09.915
Now I came from a military organization

862
00:43:10.755 --> 00:43:14.145
where our organization wasn't the same seven months later,

863
00:43:14.255 --> 00:43:15.665
much less seven years later.

864
00:43:16.535 --> 00:43:19.985

Your organization is always changing. What's your turnover?

865
00:43:20.795 --> 00:43:23.335
How often should you use a tool like that?

866
00:43:24.735 --> 00:43:25.905
Most of the DOD

867
00:43:26.255 --> 00:43:31.095
because of the turnover, a lot of 'em are required

868
00:43:31.195 --> 00:43:34.275
to use this tool once a year

869
00:43:35.405 --> 00:43:38.785
and within three months after a change of leadership.

870
00:43:40.355 --> 00:43:42.175
So the new leader can get an assessment of

871
00:43:42.175 --> 00:43:45.885
what they're dealing with and you can get a sense of,

872
00:43:46.105 --> 00:43:47.325
are the changes happening?

873
00:43:47.845 --> 00:43:50.745
Are things actually progressing in the way I want?

874
00:43:52.055 --> 00:43:54.475
But these assessments, as Rod alluded to,

875
00:43:54.845 --> 00:43:57.475
individual anonymity is paramount.

876
00:43:57.655 --> 00:43:59.155
You want people to feel free

877
00:43:59.155 --> 00:44:02.435
that they can give their perceptions and write 'em down.

878
00:44:03.315 --> 00:44:05.615
And if you're in an organization

879
00:44:05.785 --> 00:44:08.615
where there are multiple parts of that organization

880
00:44:09.165 --> 00:44:12.625
or multiple organizations working together, you want

881
00:44:12.625 --> 00:44:14.545
to de-identify that organization.

882
00:44:16.755 --> 00:44:20.805
Uh, from the military construct, you have a,

883
00:44:20.965 --> 00:44:25.395
I came grew up with a carrier air wing, which has eight,

884
00:44:26.135 --> 00:44:30.055
nine squadrons and they report to a single leader.

885
00:44:31.335 --> 00:44:33.065
What we didn't want to have happen was

886
00:44:33.965 --> 00:44:36.215
that single leader be able to identify

887
00:44:37.015 --> 00:44:38.355
for the entire air wing.

888
00:44:38.775 --> 00:44:41.705
Uh, that's just my F 14 squadron.

889
00:44:42.675 --> 00:44:45.475
I know how nutty those guys are anyways,

890
00:44:45.535 --> 00:44:46.975
so I'll just discount them.

891
00:44:46.995 --> 00:44:48.175

You want the overall picture.

892
00:44:48.635 --> 00:44:50.685
You might be able to tell, but then again, might not.

893
00:44:51.365 --> 00:44:54.945
And you want, uh, restricted assets to the results to those

894
00:44:54.945 --> 00:44:55.945
who can actually take some.

895
00:44:56.905 --> 00:44:59.205
So I'll put up, here's some things

896
00:44:59.235 --> 00:45:02.645
that can be used in some results of what, uh,

897
00:45:02.795 --> 00:45:05.525
what the survey can actually tell after you've taken it.

898
00:45:05.875 --> 00:45:09.785
This particular tool can give you an idea on who took it, at

899
00:45:09.785 --> 00:45:11.745
what levels within the organization.

900
00:45:11.745 --> 00:45:13.065
There were, what levels

901
00:45:13.125 --> 00:45:15.705
of experience have they been here three years, five years,

902
00:45:15.705 --> 00:45:17.895
25 years, something like that.

903
00:45:18.305 --> 00:45:20.135
Total time, total flight time.

904
00:45:20.525 --> 00:45:23.335
Give you a summary of all the results of each

905
00:45:23.435 --> 00:45:26.775
of the survey items as an aggregate for the organization.

906
00:45:27.565 --> 00:45:30.215
Give you individual survey items.

907
00:45:30.725 --> 00:45:32.815
What were the responses to that?

908
00:45:33.555 --> 00:45:36.125
Um, for example, this one,

909
00:45:36.125 --> 00:45:38.525
item 31 morale in my unit is high.

910
00:45:39.025 --> 00:45:41.725
And this is an organizational climate question.

911
00:45:42.125 --> 00:45:44.185
As I said, this is based on the HVACs.

912
00:45:44.715 --> 00:45:46.855
So you're measuring four different categories

913
00:45:46.855 --> 00:45:50.455
of the organization, which are organizational processes

914
00:45:50.475 --> 00:45:54.695
and the deep red, uh, organizational climate in the magenta

915
00:45:54.695 --> 00:45:57.615
or purple, the, uh, uh, resources,

916
00:45:57.675 --> 00:45:59.535
how you can use the resources in the gold.

917
00:45:59.835 --> 00:46:03.655
And then the far, uh, and then the blue is, uh, supervision.

918
00:46:05.035 --> 00:46:08.215

Yeah, sure.

919
00:46:17.425 --> 00:46:19.435
Tell the problem was with the F 14 squadron.

920
00:46:19.685 --> 00:46:22.885
Yeah, suppose that is really the where the problem is.

921
00:46:22.985 --> 00:46:26.125
And if you start implementing a fix across the air wing,

922
00:46:26.885 --> 00:46:29.625
fixing a problem that most of the organization doesn't have.

923
00:46:30.005 --> 00:46:32.725
That's a great point. Uh, what if you're dealing

924
00:46:32.755 --> 00:46:35.045
with different types of organizations

925
00:46:35.145 --> 00:46:37.665
and one is the problem child, uh,

926
00:46:40.325 --> 00:46:43.395
the leader probably knows that to start with.

927
00:46:43.975 --> 00:46:47.355
But in this, in this particular tool, this was,

928
00:46:47.505 --> 00:46:52.125
this tool was designed for an individual unit.

929
00:46:54.195 --> 00:46:57.615
So this was designed for an F 14 Squadron Co

930
00:46:58.155 --> 00:47:01.375
to get the pulse of that F 14 squatter.

931
00:47:02.215 --> 00:47:05.035
And then what can be done, uh,

932
00:47:05.335 --> 00:47:06.555
and I can show that in a minute.

933
00:47:06.905 --> 00:47:10.915
What can be done is then compare the results of your unit

934
00:47:11.555 --> 00:47:15.025
with like units other F 14 squatters

935
00:47:15.325 --> 00:47:17.985
or East Coast Naval Aviation,

936
00:47:18.465 --> 00:47:20.325
or the Navy as a whole.

937
00:47:21.635 --> 00:47:25.815
It also gives that organizational leader,

938
00:47:26.075 --> 00:47:27.415
the Air Wing commander

939
00:47:28.195 --> 00:47:31.395
or perhaps the commander of Naval Air Force as the,

940
00:47:31.585 --> 00:47:36.185
the admiral a look at the entire organization as a whole.

941
00:47:36.685 --> 00:47:39.485
So the idea is

942
00:47:39.545 --> 00:47:43.325
to let the unit level leaders take the action.

943
00:47:44.615 --> 00:47:46.315
And, but it's a great question.

944
00:47:46.665 --> 00:47:48.435
What if that unit is the problem?

945
00:47:50.295 --> 00:47:52.465

What was instituted within naval aviation

946
00:47:52.555 --> 00:47:54.665
after a time, and this is where Dr.

947
00:47:54.835 --> 00:47:57.825
Flock and I had some pretty strong DCU discussions

948
00:47:58.195 --> 00:47:59.505
while I was on active duty.

949
00:47:59.745 --> 00:48:01.505
'cause I had come from squadron command.

950
00:48:01.905 --> 00:48:04.025
I was dealing with Squadron cos I was

951
00:48:04.025 --> 00:48:05.145
dealing with air wing commanders.

952
00:48:05.725 --> 00:48:06.855
What do you do about that?

953
00:48:07.035 --> 00:48:11.175
And then the di the edict came down from the three star

954
00:48:12.455 --> 00:48:14.425
thou shalt use this tool.

955
00:48:15.275 --> 00:48:18.055
And not only shall you use this tool,

956
00:48:18.355 --> 00:48:21.335
but you're gonna report out to your boss about it,

957
00:48:21.875 --> 00:48:23.865
which we had a big heartburn about to start.

958
00:48:24.715 --> 00:48:26.255
So what was the solution to that?

959
00:48:26.525 --> 00:48:29.615
Well, we offered up, here's a way

960
00:48:29.615 --> 00:48:31.575
that you could do it as a commander.

961
00:48:32.265 --> 00:48:37.245
Rather than making the raw data available to the boss,

962
00:48:38.525 --> 00:48:42.065
it, the three star just said, report results to your boss.

963
00:48:42.455 --> 00:48:44.545
Okay, well, I'm gonna take the results.

964
00:48:44.725 --> 00:48:47.385
I'm gonna study 'em as a, as a unit level leader,

965
00:48:48.745 --> 00:48:50.005
I'm gonna aggregate it.

966
00:48:50.065 --> 00:48:51.365
I'm gonna tell 'em where my prob,

967
00:48:51.365 --> 00:48:53.205
where I perceive my problems are.

968
00:48:54.125 --> 00:48:56.185
I'm gonna tell 'em what some of my solutions are,

969
00:48:56.605 --> 00:48:57.865
and then I'm also gonna tell 'em,

970
00:48:57.865 --> 00:48:59.105
here's where I need some help.

971
00:48:59.655 --> 00:49:02.875
So that you can get that interchange between senior

972
00:49:03.055 --> 00:49:05.035

and junior and have that

973
00:49:05.665 --> 00:49:09.325
you can foster a cooperative effort for the betterment

974
00:49:09.525 --> 00:49:11.165
of the entire organization.

975
00:49:12.115 --> 00:49:15.545
And then the higher level leader may say, well,

976
00:49:15.545 --> 00:49:18.305
I didn't know that, or you didn't tell me about this.

977
00:49:18.405 --> 00:49:20.225
Let me tell you what my perception is

978
00:49:20.225 --> 00:49:22.105
and we can have a give and take.

979
00:49:22.565 --> 00:49:25.765
So there was a way of dealing with that.

980
00:49:26.305 --> 00:49:30.085
But this tool in particular was dealt with unit level,

981
00:49:30.935 --> 00:49:33.285
small level safety climate,

982
00:49:34.385 --> 00:49:36.805
and then using leadership to take action on that.

983
00:49:40.955 --> 00:49:43.935
Um, so this gives the unit level leader a number

984
00:49:43.935 --> 00:49:45.455
of different ways of looking at the results.

985
00:49:45.715 --> 00:49:49.295
But I, I'll point your attention down to the right hand,

986
00:49:49.555 --> 00:49:53.135
the bottom right hand quant, uh, square

987
00:49:55.005 --> 00:49:58.705
quartile, I guess it,

988
00:49:58.735 --> 00:50:02.425
this tool can capture all of the right in responses.

989
00:50:03.545 --> 00:50:06.805
And I tell you what, when we talked about this interaction

990
00:50:07.065 --> 00:50:10.755
of components of the SMS, this is where using this

991
00:50:10.855 --> 00:50:13.775
as a safety assurance tool

992
00:50:14.195 --> 00:50:17.255
of monitoring the temperature of my organization,

993
00:50:17.825 --> 00:50:20.975
monitoring the sa success of my safety programs,

994
00:50:21.465 --> 00:50:23.975
monitoring the effectiveness of my SMS,

995
00:50:24.785 --> 00:50:28.045
you can also get individuals that are gonna identify hazards

996
00:50:28.045 --> 00:50:30.375
for you and they'll write 'em down.

997
00:50:31.565 --> 00:50:35.795
And now you can feed your SRM component based on

998
00:50:35.795 --> 00:50:38.555
what you're getting out of a safety assurance tool.

999
00:50:40.015 --> 00:50:43.105

And I can tell you what if, you know, people are people

1000
00:50:43.565 --> 00:50:45.745
and sailors are people, Marines are people,

1001
00:50:45.885 --> 00:50:47.385
airmen are people, soldiers are people.

1002
00:50:47.725 --> 00:50:50.945
You give 'em a chance to talk, they're gonna freaking talk.

1003
00:50:51.675 --> 00:50:55.765
And they, do you think that in an organization, even one

1004
00:50:55.765 --> 00:50:58.325
that may not have that really,

1005
00:50:58.545 --> 00:51:00.125
really positive safety culture

1006
00:51:00.125 --> 00:51:04.595
or safety climate, you'd be amazed at what you learn

1007
00:51:05.355 --> 00:51:07.965
from people that are in the inner workings of your org.

1008
00:51:09.345 --> 00:51:11.385
Again, it goes back, what's the bounds of your system?

1009
00:51:12.155 --> 00:51:13.335
How do you get that data?

1010
00:51:14.755 --> 00:51:18.135
One like this, this is just a sample since my last CSA,

1011
00:51:18.135 --> 00:51:20.295
which is command safety assessment survey.

1012
00:51:20.405 --> 00:51:22.575
This is, uh, this has been a heavily watched

1013
00:51:22.795 --> 00:51:25.015
and many changes have been put into place, all

1014
00:51:25.015 --> 00:51:26.695
for the betterment of the safety

1015
00:51:26.715 --> 00:51:27.815
and wellbeing of the air crew.

1016
00:51:27.955 --> 00:51:31.495
So that's an indication for me that some of the control

1017
00:51:32.175 --> 00:51:36.765
measures, some of the risk controls, the culture, uh,

1018
00:51:37.465 --> 00:51:40.005
the culture shaping strategies put into place.

1019
00:51:40.265 --> 00:51:41.605
People were seeing that.

1020
00:51:42.615 --> 00:51:44.515
And now I can communicate that as a leader.

1021
00:51:45.355 --> 00:51:47.285
What else can you see? Here's the big picture,

1022
00:51:47.385 --> 00:51:49.845
the summary graph for this particular tool.

1023
00:51:50.315 --> 00:51:52.885
This is the unit results, which are these bars,

1024
00:51:52.885 --> 00:51:54.685
these colored bars are, here's

1025
00:51:54.685 --> 00:51:56.805
what my unit is telling me from a,

1026
00:51:56.915 --> 00:51:58.885

from a Likert scale on the left, one

1027
00:51:58.885 --> 00:52:01.345
to five, this is a comparison.

1028
00:52:02.005 --> 00:52:04.545
Uh, the mean of your comparison group.

1029
00:52:05.285 --> 00:52:09.075
All f fourteens in this, perhaps in this case, all

1030
00:52:10.165 --> 00:52:11.575
test organizations within

1031
00:52:12.575 --> 00:52:15.095
business aviation that could exist.

1032
00:52:15.975 --> 00:52:20.035
Uh, and then if you go outside of a half standard deviation,

1033
00:52:20.615 --> 00:52:22.115
or if you're within that bounds

1034
00:52:22.115 --> 00:52:23.435
of one half standard deviation

1035
00:52:23.435 --> 00:52:25.155
of the mean, there is no flag.

1036
00:52:25.155 --> 00:52:27.795
You get a yellow flag if you're outside, if you're, uh,

1037
00:52:27.795 --> 00:52:31.345
outside of a half standard deviation, uh, and a red flag

1038
00:52:31.445 --> 00:52:34.105
or within the half standard deviation, but below the mean.

1039
00:52:34.525 --> 00:52:36.425
And then if you're below the mean,

1040
00:52:36.525 --> 00:52:39.785
but outside one half standard deviation, you get a red flag.

1041
00:52:39.895 --> 00:52:43.465
Well, it tells me red, bad, yellow, uh, I gotta watch it.

1042
00:52:44.335 --> 00:52:46.665
There's no green, but the no flag is a green.

1043
00:52:46.725 --> 00:52:49.175
So what are some of the results?

1044
00:52:49.715 --> 00:52:53.675
You can compare your organization to

1045
00:52:53.675 --> 00:52:55.155
where it was last time you took.

1046
00:52:56.265 --> 00:52:59.165
Here's the current results, the top of the colored bars.

1047
00:52:59.665 --> 00:53:00.885
Here's the past results,

1048
00:53:01.675 --> 00:53:04.485
which was a pretty bad one this time we took it.

1049
00:53:06.015 --> 00:53:09.155
So the, the leader can look at that. Here's a typical unit.

1050
00:53:09.165 --> 00:53:11.835
You'd say, well, 3.0 that's, uh, average,

1051
00:53:12.255 --> 00:53:14.805
but no surveys being what they are.

1052
00:53:14.805 --> 00:53:16.285
People tend to inflate their views.

1053
00:53:16.815 --> 00:53:19.875

But this is an average one, which is, uh, plus three

1054
00:53:19.935 --> 00:53:22.795
to three and a half is about the standard response

1055
00:53:22.795 --> 00:53:24.275
that we see from organizations.

1056
00:53:25.465 --> 00:53:29.735
And, uh, here's an above average unit way up there.

1057
00:53:29.955 --> 00:53:32.455
You can see. So what do you do with this?

1058
00:53:35.655 --> 00:53:40.055
What do you do with, maybe

1059
00:53:40.805 --> 00:53:42.855
this is your submission for a safety ward,

1060
00:53:43.075 --> 00:53:44.815
or at least can point you to the things

1061
00:53:44.815 --> 00:53:46.135
that you really wanna highlight.

1062
00:53:46.405 --> 00:53:47.855
This is what we're doing really well.

1063
00:53:48.475 --> 00:53:50.495
Or maybe you take some of the really high ones

1064
00:53:50.495 --> 00:53:54.195
and say, okay, that's not why is why

1065
00:53:55.015 --> 00:53:56.075
that's really high.

1066
00:53:56.655 --> 00:53:58.115
The perceptions out there the same

1067
00:53:58.135 --> 00:54:00.825
as my perceptions in the front office.

1068
00:54:01.965 --> 00:54:04.025
And maybe you can take a look at that and investigate.

1069
00:54:04.375 --> 00:54:05.515
We actually tried to do that when

1070
00:54:05.515 --> 00:54:06.595
I was at the safety center one time.

1071
00:54:06.755 --> 00:54:08.475
I, we weren't having many mishaps

1072
00:54:08.475 --> 00:54:10.035
and we had professional investigators

1073
00:54:10.035 --> 00:54:12.355
that we're gonna a couple of offices behind us

1074
00:54:12.455 --> 00:54:13.795
and they were kind of sitting on their,

1075
00:54:14.025 --> 00:54:16.715
sitting on their thumbs, which was a really good thing.

1076
00:54:18.025 --> 00:54:20.075
Said, well, let's put you guys to work.

1077
00:54:20.095 --> 00:54:23.835
And I said, since we're in Norfolk, go to Oceana.

1078
00:54:24.925 --> 00:54:27.185
Here's a really, here's a Hornet Squadron

1079
00:54:27.185 --> 00:54:29.345
that has a really good safety reputation.

1080
00:54:30.085 --> 00:54:34.915

Go investigate why they're so good. We tried it once.

1081
00:54:35.075 --> 00:54:37.155
I don't think they kept it going. It was a tough task.

1082
00:54:38.045 --> 00:54:39.745
It was a really tough investigation.

1083
00:54:40.045 --> 00:54:42.025
Got a few things, some things that you'd figured,

1084
00:54:42.165 --> 00:54:43.625
but maybe you can take a look

1085
00:54:43.625 --> 00:54:44.665
at what you're doing real well.

1086
00:54:44.965 --> 00:54:46.385
How about when you're not doing so well?

1087
00:54:47.065 --> 00:54:49.075
Well, we got a whole bunch of yellow, a few reds.

1088
00:54:49.095 --> 00:54:53.155
Now you can now, now you get into risk assessment.

1089
00:54:55.005 --> 00:54:56.975
What are the highest risk elements?

1090
00:54:57.695 --> 00:55:00.165
Where do I need to dedicate resources?

1091
00:55:01.925 --> 00:55:03.865
Can I dedicate resources to all of them?

1092
00:55:04.485 --> 00:55:06.265
Do I have some that are low hanging fruit

1093
00:55:06.265 --> 00:55:08.505
and I can just, uh, you know, communicate a message?

1094
00:55:09.205 --> 00:55:11.265
Do I have to ask for some money and make some changes?

1095
00:55:13.355 --> 00:55:16.095
How about, uh, here's one that Bob put in there.

1096
00:55:16.275 --> 00:55:17.735
Bob Flock said, use this one.

1097
00:55:17.735 --> 00:55:20.455
This is the most favor favorable unit he had ever seen.

1098
00:55:21.695 --> 00:55:24.635
Pretty good. What do you do if I'm the leader,

1099
00:55:24.735 --> 00:55:27.265
my hair on the back of my neck is standing up

1100
00:55:27.325 --> 00:55:29.145
and uhoh we're too damn good.

1101
00:55:29.755 --> 00:55:31.845
Something's gotta go wrong. What do I do?

1102
00:55:32.225 --> 00:55:33.685
How do I get information from this

1103
00:55:34.065 --> 00:55:36.125
and make sure I use it proactively?

1104
00:55:38.815 --> 00:55:41.695
Yeah, that could be, that's a north well put.

1105
00:55:41.695 --> 00:55:43.695
That's, that's a North Korean survey actually.

1106
00:55:43.695 --> 00:55:46.415
That's every unit in North Korea. That's their service.

1107
00:55:48.535 --> 00:55:51.075

How about the biggest improvement by a single leader?

1108
00:55:51.685 --> 00:55:53.185
The white ones are where they were.

1109
00:55:53.645 --> 00:55:55.805
The white marks are where they were.

1110
00:55:55.905 --> 00:55:57.365
And this is within a year period.

1111
00:55:57.985 --> 00:56:01.165
The perceptions had really, really turned around.

1112
00:56:01.905 --> 00:56:05.085
So that can have a big, uh, a big impact

1113
00:56:06.035 --> 00:56:10.145
can have a big impact by getting this information.

1114
00:56:10.165 --> 00:56:11.465
How about if you have a mishap,

1115
00:56:15.525 --> 00:56:19.415
post mishap post mishap.

1116
00:56:21.415 --> 00:56:23.865
Now you have to dig out where do you start?

1117
00:56:24.675 --> 00:56:26.975
What's the most important things to take action on?

1118
00:56:26.985 --> 00:56:28.495
Where do I dedicate my resource?

1119
00:56:30.455 --> 00:56:33.855
So you're monitoring, monitoring, measuring

1120
00:56:35.105 --> 00:56:37.695
measurement tools, safety measurement.

1121
00:56:37.915 --> 00:56:41.575
One of the pieces of data you can get in a very, very

1122
00:56:42.175 --> 00:56:45.975
challenging arena in what data indicates good safety.

1123
00:56:47.205 --> 00:56:51.385
That's leading, leading the effort, not trailing,

1124
00:56:52.435 --> 00:56:56.395
not waiting for the investi of a bad, bad event.

1125
00:56:59.155 --> 00:57:00.175
Why do I care about this?

1126
00:57:02.015 --> 00:57:03.615
I put that caveat up there

1127
00:57:04.145 --> 00:57:07.355
because I know I come from a, a different demographic.

1128
00:57:08.955 --> 00:57:12.255
So my boss right now actually used to work for me

1129
00:57:12.965 --> 00:57:14.255
when I was on active duty.

1130
00:57:14.315 --> 00:57:15.495
We both have the same passion.

1131
00:57:16.095 --> 00:57:19.135
I was in oh six, he was an oh three, just made oh four.

1132
00:57:19.775 --> 00:57:22.155
And we started talking about what you got you into flying?

1133
00:57:23.355 --> 00:57:26.595
I said, well, I watched Apollo eight launch from beach at

1134
00:57:26.685 --> 00:57:30.955

Cocoa Beach in, uh, December of 19 67, 19 68.

1135
00:57:30.955 --> 00:57:33.795
That was what really, really motivated me.

1136
00:57:33.975 --> 00:57:36.315
And then watching the moon landing Apollo mission, he said,

1137
00:57:36.315 --> 00:57:39.095
oh yeah, yeah, I guess that was fake, wasn't it?

1138
00:57:39.195 --> 00:57:40.245
Moon landing? That was fake.

1139
00:57:40.705 --> 00:57:43.645
He had grown up after all this happened.

1140
00:57:43.665 --> 00:57:45.165
So he didn't have the same perspective.

1141
00:57:45.505 --> 00:57:48.005
So for those of you in the audience, that is Neil Armstrong,

1142
00:57:48.025 --> 00:57:51.625
the first one that you may have seen the movie Anyways.

1143
00:57:51.885 --> 00:57:53.865
Why do you care about this stuff?

1144
00:57:55.015 --> 00:57:56.795
Why do you care about measuring climate?

1145
00:57:56.905 --> 00:57:59.485
Well, there's been a couple of studies,

1146
00:57:59.705 --> 00:58:01.805
and it's been a while and it hasn't been done again.

1147
00:58:01.945 --> 00:58:04.965
But when we were at the Naval Postgraduate School, Dr.

```
1148
00:58:05.135 --> 00:58:08.245
Flock and I and his, his, uh, Mike Shemp, who works

1149
00:58:08.305 --> 00:58:11.005
for Bob out in Monterey right now, we, we got together

1150
00:58:11.065 --> 00:58:14.135
and said, what can we do

1151
00:58:14.195 --> 00:58:16.255
to convince people that this is important?

1152
00:58:16.315 --> 00:58:20.495
So we said, let's see if we can correlate organizations

1153
00:58:20.525 --> 00:58:24.455
that have mishaps to their scores on safety climate.

1154
00:58:25.305 --> 00:58:27.965
So we basically looked at, we had enough results

1155
00:58:28.225 --> 00:58:29.805
of climate scores over time.

1156
00:58:30.385 --> 00:58:34.155
We took mishaps gu

1157
00:58:34.295 --> 00:58:37.745
how many mishaps each individual unit had had

1158
00:58:38.755 --> 00:58:42.925
a's B Cs from least, uh, severe to most severe.

1159
00:58:45.085 --> 00:58:46.225
And then said, okay,

1160
00:58:46.295 --> 00:58:49.305
what was the safety climate measurement a year

1161
00:58:49.365 --> 00:58:50.585
```

before that mishap?

1162
00:58:51.725 --> 00:58:54.045
We didn't want to take the climate

1163
00:58:54.395 --> 00:58:56.005
studies right after the mishap.

1164
00:58:56.005 --> 00:58:58.725
We wanted to look at what might have led up to that mishap

1165
00:58:58.745 --> 00:58:59.845
and here were the results.

1166
00:59:01.825 --> 00:59:04.925
Uh, and this was done with three different data sets

1167
00:59:05.065 --> 00:59:06.885
and they all came out basically the same.

1168
00:59:06.985 --> 00:59:10.715
And it turned out that the organizations with the most

1169
00:59:11.275 --> 00:59:13.435
positive climate had the fewest mishaps.

1170
00:59:13.775 --> 00:59:16.515
The ones with the poorest climate scores had the most

1171
00:59:16.795 --> 00:59:19.835
mishaps to the tune of about two and a half to three to one.

1172
00:59:20.135 --> 00:59:23.180
So, so that's the return on investment.

1173
00:59:24.045 --> 00:59:26.185
And again, this was three different data sets

1174
00:59:26.525 --> 00:59:28.065
for three different periods of time,

1175
00:59:28.365 --> 00:59:29.985
and they all came out about the same.

1176
00:59:31.965 --> 00:59:32.985
So it was deduced

1177
00:59:32.985 --> 00:59:36.265
that safety climate does impact your ability

1178
00:59:36.605 --> 00:59:40.295
to avoid mishaps from the SMS side.

1179
00:59:40.725 --> 00:59:43.455
I'll go back to this. Where can you get it?

1180
00:59:43.525 --> 00:59:46.095
Well, like I said, you can go into these write-in comments

1181
00:59:46.195 --> 00:59:47.935
and now you can see where the issues are.

1182
00:59:48.275 --> 00:59:49.855
You can see where the hazards are.

1183
00:59:50.355 --> 00:59:52.575
You may have this as part

1184
00:59:52.575 --> 00:59:55.015
of your safety risk management process as well.

1185
00:59:55.865 --> 00:59:57.855
Night check is where all the maintenance is done,

1186
00:59:57.855 --> 00:59:59.295
but we don't have nearly as many people

1187
00:59:59.295 --> 01:00:00.415
and we're getting burned out.

1188
01:00:02.895 --> 01:00:06.805

Our organization is first you work first

1189
01:00:07.025 --> 01:00:09.765
and then the organization will say, well, you work first.

1190
01:00:09.785 --> 01:00:11.005
And then they'll see what I can do

1191
01:00:11.005 --> 01:00:12.325
for you to make your life better.

1192
01:00:13.115 --> 01:00:14.695
Mm, maybe there's an indicator of

1193
01:00:14.695 --> 01:00:16.015
where my resources are going

1194
01:00:16.595 --> 01:00:17.975
and where leadership is involved

1195
01:00:18.515 --> 01:00:20.655
or our operational tent, uh, tempo.

1196
01:00:21.115 --> 01:00:22.175
It correlates with the

1197
01:00:22.355 --> 01:00:25.455
and condition the aircraft, making things really difficult

1198
01:00:25.685 --> 01:00:29.965
because we're, uh, doing inherently dangerous work is made.

1199
01:00:29.965 --> 01:00:31.725
So by a lack of experienced people,

1200
01:00:31.945 --> 01:00:34.485
why do I have a lack of experienced people?

1201
01:00:34.545 --> 01:00:37.845
Is it my training? Is it the training before they get to me?

1202
01:00:38.225 --> 01:00:39.365
Is it the experience level?

1203
01:00:39.505 --> 01:00:42.485
Are my seniors not passing on their knowledge

1204
01:00:42.485 --> 01:00:43.605
to the juniors?

1205
01:00:44.395 --> 01:00:46.135
All of these things that gets you into that

1206
01:00:47.135 --> 01:00:49.975
investigative mode, that root cause analysis.

1207
01:00:50.035 --> 01:00:52.455
The five why's. Why is this happening?

1208
01:00:52.555 --> 01:00:54.735
Why is this happening? Why is this happening again?

1209
01:00:55.025 --> 01:00:58.645
Check engine light. What's going on? What's going on?

1210
01:00:58.745 --> 01:01:01.595
So as we wrap up, it's about monitoring,

1211
01:01:01.825 --> 01:01:03.795
capturing the safety, elusive,

1212
01:01:05.095 --> 01:01:07.995
forward-leaning safety data, measuring

1213
01:01:07.995 --> 01:01:10.435
to see if changes are needed, measuring to see

1214
01:01:10.435 --> 01:01:14.265
what controls are working, what aren't working,

1215
01:01:14.725 --> 01:01:16.705

and then digging into that check engine light,

1216
01:01:16.785 --> 01:01:18.905
finding out why it's on and what I can do about it.

1217
01:01:19.085 --> 01:01:23.225
And then there's just times when it's immediate action

1218
01:01:23.225 --> 01:01:24.305
that you have to take.

1219
01:01:24.305 --> 01:01:27.025
You're, you, you know, sometimes it just happens in

1220
01:01:27.025 --> 01:01:29.385
that check ride, in that monitoring flight

1221
01:01:29.385 --> 01:01:31.865
where you gotta take action and see where your climate is.

1222
01:01:34.365 --> 01:01:37.025
Wellby check your final position. I'm gonna take her down.

1223
01:01:37.135 --> 01:01:38.145
Wait a few more minutes, Kevin.

1224
01:01:38.505 --> 01:01:41.145
I say it looks like two I seven. Give a few more minutes.

1225
01:01:41.285 --> 01:01:43.505
I'm already waited. Two long. Here we go.

1226
01:01:44.405 --> 01:01:47.985
Gnarly, don't get a hold of yourself and yell

1227
01:01:55.715 --> 01:01:56.715
Damn test guys. Just

1228
01:01:56.715 --> 01:01:57.965
had to get that point. So

1229
01:02:02.085 --> 01:02:05.115
again, this is a way, this is perhaps a tool

1230
01:02:05.745 --> 01:02:08.315
that you can incorporate into your SMS.

1231
01:02:09.005 --> 01:02:11.365
I will tell you that there are not many organizations

1232
01:02:11.365 --> 01:02:12.365
that take this on,

1233
01:02:12.745 --> 01:02:14.485
and there are a number of reasons for that

1234
01:02:14.485 --> 01:02:15.525
that I can understand.

1235
01:02:15.985 --> 01:02:20.695
One is liability. What do I do if I'm getting information

1236
01:02:20.705 --> 01:02:22.575
about the status of my organization

1237
01:02:23.265 --> 01:02:24.325
and what do I do with it?

1238
01:02:24.325 --> 01:02:27.755
Is it foible? Do can there, are there people

1239
01:02:27.755 --> 01:02:29.315
that can get this information?

1240
01:02:30.125 --> 01:02:33.835
It works well. But there are only a few

1241
01:02:34.465 --> 01:02:37.385
forward-leaning private sector organizations

1242
01:02:37.385 --> 01:02:39.265

that really take this on.

1243
01:02:39.945 --> 01:02:43.565
Now we have yet, I have yet to get an airport to take action

1244
01:02:43.585 --> 01:02:44.725
and use a tool like this.

1245
01:02:45.085 --> 01:02:46.425
But I'm hoping that some

1246
01:02:46.425 --> 01:02:48.995
of the forward leaning ones are the SMS

1247
01:02:48.995 --> 01:02:50.555
that we've found in the airport world.

1248
01:02:50.905 --> 01:02:55.035
That those that are proactive, that show their auditors

1249
01:02:56.685 --> 01:02:58.305
expect what you inspect.

1250
01:02:58.575 --> 01:03:01.665
This gets beyond expect what you inspect.

1251
01:03:03.395 --> 01:03:06.405
This gets into what am I doing to proactively include,

1252
01:03:06.555 --> 01:03:09.325
improve my organization to the point where a lot of organ,

1253
01:03:09.605 --> 01:03:12.925
a lot of airports are now having their underwriters lower

1254
01:03:12.925 --> 01:03:16.665
their insurance premiums, maybe lower their deductibles,

1255
01:03:16.715 --> 01:03:18.425
maybe go to zero deductibles

1256
01:03:18.425 --> 01:03:23.025
because of actions they've taken based on their SMS.

1257
01:03:25.155 --> 01:03:28.855
Not yet based on this information, but having information

1258
01:03:28.855 --> 01:03:32.375
and taking action can have a real positive impact on your

1259
01:03:32.375 --> 01:03:35.455
bottom line for your, so with that,

1260
01:03:35.555 --> 01:03:36.575
do we have time for questions?

1261
01:03:37.135 --> 01:03:38.135
I

1262
01:03:38.965 --> 01:03:40.245
Got one question, sir.

1263
01:03:40.545 --> 01:03:42.525
Ken. So first of all, great presentation.

1264
01:03:42.525 --> 01:03:43.725
Really appreciated it.

1265
01:03:44.395 --> 01:03:47.255
Um, I noticed at the top of some of the, the

1266
01:03:48.035 --> 01:03:49.965
data charts Yeah, the number

1267
01:03:49.965 --> 01:03:52.045
of respondents was in the thousands.

1268
01:03:52.115 --> 01:03:54.905
Yeah. Ranging from two to like nine. Yeah.

1269
01:03:55.285 --> 01:03:56.785

So it wasn't always the same.

1270
01:03:57.585 --> 01:04:00.605
My question kind of surrounds consistency and respondents

1271
01:04:01.215 --> 01:04:03.515
and, and getting complete responses.

1272
01:04:03.695 --> 01:04:07.735
So obviously, yeah, you have the luxury of big organization,

1273
01:04:08.445 --> 01:04:10.585
lots of data, so high fidelity results,

1274
01:04:10.685 --> 01:04:13.365
but it's not always true for all flight test organizations

1275
01:04:13.465 --> 01:04:16.445
to get that many people and that much fidelity

1276
01:04:16.545 --> 01:04:19.365
or even that much response or that percent of response.

1277
01:04:19.485 --> 01:04:21.755
I know if I miss my corporate

1278
01:04:21.755 --> 01:04:23.515
compliance training, they come after me.

1279
01:04:23.515 --> 01:04:25.435
Yeah, yeah. But if you issue a safety survey

1280
01:04:25.575 --> 01:04:29.395
and you only get 30, 40% response, that's what you get.

1281
01:04:29.575 --> 01:04:33.385
So, so I'm also wondering if you have suggestions on how

1282
01:04:33.385 --> 01:04:35.825
to force high participation rates in surveys?

1283
01:04:36.015 --> 01:04:38.025
Well, there, there's a little, uh, it's a great question

1284
01:04:38.125 --> 01:04:40.825
and there's a little bit of context to the number

1285
01:04:40.885 --> 01:04:42.025
of respondents.

1286
01:04:42.055 --> 01:04:44.225
It's probably what you're looking at in the thousands

1287
01:04:44.325 --> 01:04:45.505
is the comparison group.

1288
01:04:46.075 --> 01:04:49.815
So that might have been for all of the type, model, series,

1289
01:04:50.175 --> 01:04:52.325
aircraft, all of those organizations

1290
01:04:52.325 --> 01:04:53.725
that are taking that unit.

1291
01:04:54.005 --> 01:04:56.645
'cause most of these units that you're seeing up there are

1292
01:04:57.865 --> 01:04:59.865
anywhere from 150 to 250.

1293
01:04:59.885 --> 01:05:03.505
So there's a multiple organizations taking it.

1294
01:05:03.685 --> 01:05:06.905
So how do you ensure you get good results out of this?

1295
01:05:06.975 --> 01:05:11.265
Well, from the tool, as it's been used most heavily in DOD

1296
01:05:11.965 --> 01:05:16.475

and since it's managed by a third party, uh,

1297
01:05:16.625 --> 01:05:19.715
they will, will not actually make the results available

1298
01:05:19.775 --> 01:05:24.195
to the CO until they reach a threshold where from a,

1299
01:05:24.585 --> 01:05:29.405
from survey science, you have a 95%, uh,

1300
01:05:30.815 --> 01:05:33.395
95% confidence factor that the,

1301
01:05:33.395 --> 01:05:34.955
that you're getting your results.

1302
01:05:35.995 --> 01:05:40.015
They also limit it to, we won't do any more organizations

1303
01:05:40.015 --> 01:05:41.855
that have 10 or fewer people.

1304
01:05:42.755 --> 01:05:45.455
So you don't try and identify those individuals.

1305
01:05:46.195 --> 01:05:48.695
Uh, and then like I said, if you have a hundred person

1306
01:05:49.765 --> 01:05:51.605
organization, you'd need more people.

1307
01:05:51.605 --> 01:05:54.465
If you have a thousand purpose person organization,

1308
01:05:54.465 --> 01:05:57.425
you're not gonna have to survey as great a percentage,

1309
01:05:57.935 --> 01:05:59.475
but then you get that information

1310
01:05:59.475 --> 01:06:01.885
before you make the results available again,

1311
01:06:02.005 --> 01:06:03.085
I think getting the results

1312
01:06:03.105 --> 01:06:05.765
and making sure that they're usable is more a function on

1313
01:06:06.365 --> 01:06:08.765
leadership's interest in the results.

1314
01:06:09.145 --> 01:06:11.405
And that goes straight, as I said, the interaction

1315
01:06:11.405 --> 01:06:12.645
of the components of the SMS,

1316
01:06:12.785 --> 01:06:16.565
if you're safety promotion component is active

1317
01:06:17.065 --> 01:06:20.365
and leaders are are getting information,

1318
01:06:21.065 --> 01:06:23.485
making their views known to the individuals

1319
01:06:23.485 --> 01:06:26.405
that's gonna spur uh, greater corporations.

1320
01:06:26.505 --> 01:06:28.245
So how do you use this?

1321
01:06:28.355 --> 01:06:32.365
Well, we've used this tool with some organizations outside

1322
01:06:32.425 --> 01:06:35.085
of aviation with some positive success.

1323
01:06:35.895 --> 01:06:40.295

Is there the potential of having multiple organizations like

1324
01:06:41.065 --> 01:06:42.315
CAST for Commercial Air

1325
01:06:42.315 --> 01:06:45.515
where they're all sharing their data within a SCS and other,

1326
01:06:45.515 --> 01:06:47.215
or other vehicles

1327
01:06:47.235 --> 01:06:48.935
and information systems that are out there?

1328
01:06:49.225 --> 01:06:52.495
Could that be something the test community does as a whole

1329
01:06:52.495 --> 01:06:55.775
where you're comparing yourself with similar organizations,

1330
01:06:55.775 --> 01:06:56.895
you're getting more data

1331
01:06:56.895 --> 01:06:58.575
that gives you more meaningful results.

1332
01:06:59.075 --> 01:07:01.215
All of those things will put this up there to say,

1333
01:07:01.555 --> 01:07:02.975
here's some things to think about.

1334
01:07:03.345 --> 01:07:05.955
Here are, here is the realm of the possible.

1335
01:07:06.575 --> 01:07:07.875
How can you use this to better?

1336
01:07:10.445 --> 01:07:12.415
Thank you can

1337
01:07:21.325 --> 01:07:21.845
Appreciate it.

1338
01:07:21.845 --> 01:07:22.485
Appreciate it.

1339
01:07:28.475 --> 01:07:29.505
Great job Ken. And uh.