WEBVTT

1
00:00:12.045 --> 00:00:12.335
Okay.

2
00:00:12.335 --> 00:00:14.415
Am I on? Uh, Claude? Yeah. Thank you.

3
00:00:14.925 --> 00:00:16.025
Uh, I'm gonna walk around.

4
00:00:16.345 --> 00:00:17.725
I don't like to stand in the podium.

5
00:00:18.775 --> 00:00:21.165
Being an instructor at National Test Final School in the Air

6
00:00:21.165 --> 00:00:23.155
Force Test, final school, and, uh,

7
00:00:23.515 --> 00:00:25.515
learning all the instructional techniques.

8
00:00:25.895 --> 00:00:27.235
I'm gonna try to practice them,

9
00:00:28.285 --> 00:00:30.545
but, uh, so I'm gonna be walking around

10
00:00:31.625 --> 00:00:35.205
and, uh, not try not trying to read the slides,

11
00:00:35.505 --> 00:00:38.565
but, uh, I may occasionally do that this morning.

12
00:00:39.345 --> 00:00:43.295
The, I always, I always consider safety to be made up

13
00:00:43.295 --> 00:00:47.855
of two components, uh, predictive.

14
00:00:47.875 --> 00:00:50.535
Now, it used to be proactive, but now it's predictive,

15
00:00:52.155 --> 00:00:53.375
and then reactive.

16
00:00:54.125 --> 00:00:56.055
This morning we saw the reactive part.

17
00:00:57.095 --> 00:00:59.395
You need to have the reactive part.

18
00:00:59.425 --> 00:01:01.775
It's just essential part of your safety program.

19
00:01:02.115 --> 00:01:03.795
Fortunately, we have to have it.

20
00:01:04.975 --> 00:01:07.395
So great examples on how to do it this morning.

21
00:01:07.455 --> 00:01:11.605
So afternoon, we're gonna do part of the predictive part.

22
00:01:11.795 --> 00:01:16.315
It's one part. And, uh, safety assurance is something that

23
00:01:16.375 --> 00:01:21.035
to me was for a long time, kind of a mystery.

24
00:01:21.795 --> 00:01:23.235
'cause it's not very clear what,

25
00:01:23.385 --> 00:01:25.275
what safety assurance really is.

26
00:01:27.155 --> 00:01:32.085
And Tom ud it to, uh, just now some of the things

27
00:01:32.085 --> 00:01:34.645

that, uh, safety assurance entails.

28
00:01:36.075 --> 00:01:38.015
I'm gonna get a little bit deeper into that.

29
00:01:43.285 --> 00:01:47.005
So, what I'm going to present is what I consider

30
00:01:47.005 --> 00:01:50.605
to be a safety assurance one on one from,

31
00:01:51.575 --> 00:01:54.825
from the, uh, just general terms perspective.

32
00:01:56.225 --> 00:01:59.005
And then this afternoon, we're gonna have an exercise.

33
00:01:59.825 --> 00:02:04.575
Enjoy it. So the four pillars of, uh,

34
00:02:04.635 --> 00:02:07.895
of, uh, an SMS management system are, three

35
00:02:07.895 --> 00:02:10.055
of them are pretty clear and we're used to having it,

36
00:02:10.055 --> 00:02:12.415
but safety assurance to me, has always been a mystery.

37
00:02:13.535 --> 00:02:15.785
What is it? How do you do safety assurance?

38
00:02:20.335 --> 00:02:23.405
So safety assurance is really the feedback

39
00:02:23.435 --> 00:02:24.885
loop in your safety program.

40
00:02:25.625 --> 00:02:27.915
It's where you check to see how well you're doing.

41
00:02:29.045 --> 00:02:32.905
Um, where has the program been? Where is the program going?

42
00:02:33.665 --> 00:02:35.285
And what's keeping the program from being

43
00:02:35.365 --> 00:02:36.405
a, in a desired state?

44
00:02:36.665 --> 00:02:39.715
It's where you check and, uh, and, and, and refine.

45
00:02:42.805 --> 00:02:44.665
So what are we looking for? All these things.

46
00:02:46.615 --> 00:02:49.475
Safety, data compliance policies, procedures,

47
00:02:49.545 --> 00:02:53.495
risk management practices, sign of a safety culture.

48
00:02:53.555 --> 00:02:55.455
And we're gonna get into that a little bit later.

49
00:02:56.145 --> 00:02:57.165
Uh, a couple of times.

50
00:02:58.565 --> 00:03:01.565
Uh, safety performance of, uh, employees,

51
00:03:02.345 --> 00:03:03.615
goals that are being met.

52
00:03:04.445 --> 00:03:05.915
Those are the kinds of things we're looking

53
00:03:06.215 --> 00:03:07.475
for in safety assurance.

54
00:03:09.495 --> 00:03:11.915

We are trying to get to the predictive part

55
00:03:11.915 --> 00:03:13.625
of the SMS program.

56
00:03:13.765 --> 00:03:17.255
Notice that we used to be, uh, proactive,

57
00:03:17.955 --> 00:03:19.455
but is now it's predictive.

58
00:03:19.715 --> 00:03:21.775
So it's better than proactive.

59
00:03:22.805 --> 00:03:24.455
This is where we wanna be in the, in the,

60
00:03:24.455 --> 00:03:25.835
uh, safety program.

61
00:03:29.085 --> 00:03:32.425
It is where we try to find the latent failures in our,

62
00:03:32.485 --> 00:03:35.395
in our process, in our flight testing, in our system.

63
00:03:36.355 --> 00:03:37.655
We want to get to the bottom so

64
00:03:37.655 --> 00:03:40.215
that we don't experience the things that happen on the top.

65
00:03:43.525 --> 00:03:47.315
Uh, so there's a lot of, uh, material here.

66
00:03:47.535 --> 00:03:51.675
And this is a shopping laundry list of the kinds of things

67
00:03:51.745 --> 00:03:54.115
that you need to think about doing in your,

68
00:03:54.335 --> 00:03:57.285
in your safety in SMS system, in the part

69
00:03:57.285 --> 00:03:58.445
of safety assurance.

70
00:03:58.465 --> 00:04:00.945
You know, I'm not, I'm not gonna read 'em

71
00:04:00.945 --> 00:04:02.195
because it's, there's so many,

72
00:04:02.195 --> 00:04:06.625
but this is the kinds of things you can cherry pick, uh, to,

73
00:04:06.725 --> 00:04:10.785
to make a robust safety assurance element of your SMS.

74
00:04:12.325 --> 00:04:14.385
And you can read 'em. I highlighted some of the things

75
00:04:14.385 --> 00:04:16.865
that are, I think are, are more important than others.

76
00:04:23.025 --> 00:04:25.295
Safety audits. Okay?

77
00:04:25.355 --> 00:04:27.095
So if you want to tailor your,

78
00:04:27.125 --> 00:04:31.295
your safety assurance program from a industry type airline,

79
00:04:31.295 --> 00:04:34.375
kind of, kind of a program to a flight test, there is,

80
00:04:34.425 --> 00:04:35.855
these are the, some, some of the things

81
00:04:35.855 --> 00:04:36.895

that you can, you can do.

82
00:04:36.915 --> 00:04:41.655
And audits are an integral part of safety assurance,

83
00:04:41.795 --> 00:04:46.515
uh, internal or external.

84
00:04:48.565 --> 00:04:53.465
So reporting incidents and tests. Uh, pilot exceedances.

85
00:04:54.525 --> 00:04:56.465
And you can do that by sse.

86
00:04:57.375 --> 00:04:58.215
'cause everybody know what an

87
00:04:58.375 --> 00:05:03.375
SSK, I'm

88
00:05:05.195 --> 00:05:09.135
Um, SSE stands for safety significant event

89
00:05:09.695 --> 00:05:13.155
of the incident Reporting system safety,

90
00:05:13.155 --> 00:05:14.635
significant accident.

91
00:05:14.635 --> 00:05:17.335
It could be an incident or some safety significant

92
00:05:17.665 --> 00:05:21.075
that you have a reporting form that you,

93
00:05:21.145 --> 00:05:22.435
that you re you fill out

94
00:05:22.455 --> 00:05:24.195
and you turn it into your safety officer

95
00:05:25.185 --> 00:05:27.365
can do a data analysis, uh, later on.

96
00:05:27.425 --> 00:05:32.295
And we are gonna get into that exercise on forms,

97
00:05:33.415 --> 00:05:36.275
cvs, FDRs, data Acquisition Systems and telemetry.

98
00:05:36.655 --> 00:05:40.035
And you look for exceedances or anything you really want.

99
00:05:43.445 --> 00:05:44.825
And then you create a database

100
00:05:49.035 --> 00:05:50.095
for safety assurance.

101
00:05:50.935 --> 00:05:55.115
If you use a, uh, when I do safety audits, when I get

102
00:05:55.115 --> 00:05:59.225
to the, uh, safety assurance part, I look for this.

103
00:05:59.715 --> 00:06:01.605
This comes right out of his bowel.

104
00:06:05.235 --> 00:06:06.535
Is there a process

105
00:06:06.755 --> 00:06:09.095
or junior to validate the effectiveness

106
00:06:09.095 --> 00:06:10.375
of the safety risk control

107
00:06:11.505 --> 00:06:14.165
to establish safety performance indicators and targets?

108
00:06:14.185 --> 00:06:17.185

Is there a process? And then what we look for is

109
00:06:18.725 --> 00:06:21.145
to be considered effective, which is the,

110
00:06:21.525 --> 00:06:23.475
the highest level you can get, excuse

111
00:06:30.555 --> 00:06:32.215
Are safety targets being achieved?

112
00:06:32.905 --> 00:06:35.125
Is there a means to measure and monitor trends

113
00:06:35.585 --> 00:06:37.005
and take appropriate actions?

114
00:06:38.035 --> 00:06:40.405
Have the controls of the safety risk being evaluated?

115
00:06:41.125 --> 00:06:43.705
Are the results of the internal audits used

116
00:06:43.765 --> 00:06:45.465
to measure safety performance.

117
00:06:46.165 --> 00:06:48.505
If you do that, then you then, from an auditor,

118
00:06:48.845 --> 00:06:50.595
you get the, the highest rating.

119
00:06:58.955 --> 00:07:01.495
So when you decide, when you designing a,

120
00:07:01.605 --> 00:07:03.455
when you design a data monitoring system,

121
00:07:03.515 --> 00:07:04.655
here's what you're looking for.

122
00:07:07.185 --> 00:07:10.085
Uh, choose which data you want to, you want to track,

123
00:07:11.955 --> 00:07:14.635
you're able to track sign the metrics.

124
00:07:15.515 --> 00:07:17.605
Metrics should be traceable, trackable,

125
00:07:17.965 --> 00:07:19.095
monitor your metrics.

126
00:07:19.995 --> 00:07:22.835
You need a database. And then you need to normalize.

127
00:07:22.835 --> 00:07:25.395
So you need to compare your, your, what you're analyzing

128
00:07:25.505 --> 00:07:27.275
with, uh, with other organizations

129
00:07:28.215 --> 00:07:32.135
or just a basic standard company goals,

130
00:07:32.135 --> 00:07:34.705
historical trends, and then reporting.

131
00:07:34.705 --> 00:07:37.915
When you report metrics to your staff, they have

132
00:07:37.915 --> 00:07:39.035
to be believable.

133
00:07:39.135 --> 00:07:40.715
You, they have to have a buy-in.

134
00:07:40.715 --> 00:07:43.435
Otherwise, you're just not being very effective

135
00:07:43.435 --> 00:07:44.945

in communicating.

136
00:07:51.275 --> 00:07:55.305
Anybody know what this is? Have you ever seen one?

137
00:07:57.365 --> 00:08:02.135
No, not, not now. Before in, in real life,

138
00:08:03.915 --> 00:08:05.235
I hadn't until I took this picture.

139
00:08:06.185 --> 00:08:06.845
Excuse me,

140
00:08:15.815 --> 00:08:18.935
I happen to be in China in, and I,

141
00:08:18.955 --> 00:08:22.045
and I saw a group of, um, white swans,

142
00:08:22.845 --> 00:08:25.545
and then I kept walking and then, then I saw this.

143
00:08:26.265 --> 00:08:27.455
Can't believe this. I'm seeing

144
00:08:27.555 --> 00:08:29.135
for the first time a black swan.

145
00:08:29.155 --> 00:08:30.255
So I took a picture of it.

146
00:08:32.795 --> 00:08:34.885
Does this have anything to do with safety assurance?

147
00:08:35.605 --> 00:08:38.405
Probably not. Maybe, but,

148
00:08:38.825 --> 00:08:41.845
but actually I saw a lot of people here falling asleep.

149
00:08:43.245 --> 00:08:44.785
And this will, this kind of a nice,

150
00:08:48.165 --> 00:08:50.865
so you wanna, you wanna measure safety culture?

151
00:08:53.115 --> 00:08:56.045
How many organizations represented here have

152
00:08:56.605 --> 00:08:58.835
measured safety culture?

153
00:09:04.805 --> 00:09:07.145
Good. I'm gonna show you how to do it.

154
00:09:09.805 --> 00:09:13.065
Uh, and I, uh, really promote this, uh, organization called,

155
00:09:13.125 --> 00:09:15.065
uh, global Aviation Information Network.

156
00:09:16.975 --> 00:09:18.195
The background here is here.

157
00:09:18.895 --> 00:09:21.475
Uh, it is, it started with the FAA

158
00:09:21.615 --> 00:09:24.115
and it's now part of the Flight Safety Foundation.

159
00:09:28.725 --> 00:09:30.585
And there's a flight safety handbook.

160
00:09:31.125 --> 00:09:34.915
And I encourage you to look at this handbook downloaded,

161
00:09:35.515 --> 00:09:37.085
just Google, uh, game.

162
00:09:39.175 --> 00:09:43.235

And in appendix three, I believe there is a, uh, how

163
00:09:43.235 --> 00:09:45.865
to measure safety culture, appendix A.

164
00:09:46.285 --> 00:09:46.505
And

165
00:09:57.575 --> 00:10:00.935
what it has is, uh, a survey form that you hand out

166
00:10:00.935 --> 00:10:02.455
to your employees because you wanna measure

167
00:10:02.995 --> 00:10:05.095
not your management perception of safety culture,

168
00:10:05.235 --> 00:10:09.525
but your, your entire organization's safety culture.

169
00:10:09.545 --> 00:10:10.685
So they have these questions,

170
00:10:12.155 --> 00:10:15.305
and these questions actually came from, from, uh,

171
00:10:15.405 --> 00:10:16.705
Jay Maron himself.

172
00:10:18.015 --> 00:10:19.875
So, uh, kind of hard to see.

173
00:10:19.935 --> 00:10:21.915
So I've assigned some people that read 'em.

174
00:10:22.205 --> 00:10:23.275
Who's got number one?

175
00:10:33.335 --> 00:10:36.245
Who's got number two? I We give, we give some numbers.

176
00:10:36.355 --> 00:10:39.725
Then who's got number three?

177
00:10:47.415 --> 00:10:50.875
Okay, we need a mic es to follow with me.

178
00:10:54.605 --> 00:10:55.825
Can I get a mic clog?

179
00:10:58.015 --> 00:11:00.345
Pete, can you, can you, uh, run the mic?

180
00:11:09.685 --> 00:11:12.535
Who's got number four? Uh, just a second.

181
00:11:12.535 --> 00:11:13.335
We'll, we'll get the mic

182
00:11:22.755 --> 00:11:23.365
over here.

183
00:11:24.535 --> 00:11:28.165
Uh, Pete's, Pete's got the mic now. He's a mic runner.

184
00:11:34.555 --> 00:11:38.455
So number four is managers often discuss safety,

185
00:11:39.455 --> 00:11:41.075
uh, safety issues with him.

186
00:11:43.225 --> 00:11:43.625
Number

187
00:11:45.085 --> 00:11:50.085
5, 6 6.

188
00:11:54.475 --> 00:11:56.075
Everyone is given sufficient opportunity

189
00:11:56.135 --> 00:11:58.555

to make suggestions regarding safety issues.

190
00:11:59.935 --> 00:12:00.285
Seven.

191
00:12:07.485 --> 00:12:10.045
Employees do all they can to prevent, oh, I'm sorry.

192
00:12:10.595 --> 00:12:12.715
Employees often encourage each other to work safely.

193
00:12:14.185 --> 00:12:14.535
Eight.

194
00:12:22.315 --> 00:12:23.435
Managers are aware

195
00:12:23.455 --> 00:12:25.675
of the main safety problems in the workplace.

196
00:12:27.945 --> 00:12:30.745
Nine. All new employees are

197
00:12:30.945 --> 00:12:32.465
provided with sufficient safety training

198
00:12:32.525 --> 00:12:33.665
before commencing work.

199
00:12:34.925 --> 00:12:35.145
10

200
00:12:39.765 --> 00:12:42.925
Managers often praise employees they see working safely.

201
00:12:45.405 --> 00:12:49.225
11, 12. Wait a minute.

202
00:12:50.995 --> 00:12:51.415
11.

203
00:12:59.245 --> 00:13:01.285
Everyone is kept informed of any changes

204
00:13:02.275 --> 00:13:03.425
which may affect safety.

205
00:13:05.395 --> 00:13:05.815
12

206
00:13:10.115 --> 00:13:12.635
Employees follow safety rules almost all the time.

207
00:13:14.255 --> 00:13:15.835
And I've got 13 as well. Okay.

208
00:13:15.835 --> 00:13:17.795
Safety within this company is better

209
00:13:17.825 --> 00:13:19.115
than in other companies.

210
00:13:20.825 --> 00:13:22.265
I was also told there'd be a prize for this.

211
00:13:23.435 --> 00:13:24.025
There will be

212
00:13:26.205 --> 00:13:28.995
13, 14, 14.

213
00:13:29.075 --> 00:13:31.275
Managers do all they can to prevent accidents.

214
00:13:32.825 --> 00:13:33.315
15

215
00:13:37.135 --> 00:13:37.975
Accident investigations.

216
00:13:37.975 --> 00:13:39.375

Attempt to find the real cause

217
00:13:39.375 --> 00:13:42.375
of accidents rather than just blame the people involved.

218
00:13:43.725 --> 00:13:48.555
16. How far did you go? 17.

219
00:13:48.735 --> 00:13:50.195
All 18. 17.

220
00:13:51.645 --> 00:13:53.285
17. Any defects or hazards that are

221
00:13:53.845 --> 00:13:55.485
reported are rectified promptly?

222
00:13:57.405 --> 00:14:02.045
18. Did we go that far? Ah,

223
00:14:02.565 --> 00:14:03.565
18. There are mechanisms

224
00:14:03.565 --> 00:14:06.045
in place in my work for me

225
00:14:06.045 --> 00:14:07.765
to report safety deficiencies.

226
00:14:09.555 --> 00:14:09.845
Dean,

227
00:14:15.865 --> 00:14:16.865
I'm wrong. It's not

228
00:14:16.865 --> 00:14:17.315

229
00:14:20.275 --> 00:14:21.275
Tough. Oh yeah, I know. I'm

230

00:14:21.275 --> 00:14:21.915
just saying it's, you know,

231
00:14:22.035 --> 00:14:23.635
to everybody else, I'm sure it's blur.

232
00:14:23.695 --> 00:14:26.195
Uh, managers stop. Unsafe operations or activities.

233
00:14:27.395 --> 00:14:32.255
20. That

234
00:14:32.275 --> 00:14:33.695
may be hard to read from over there.

235
00:14:38.895 --> 00:14:40.215
After an accident has occurred,

236
00:14:40.215 --> 00:14:41.535
appropriate actions are usually

237
00:14:41.535 --> 00:14:42.735
taken to reduce the chance of

238
00:14:44.955 --> 00:14:45.955
Recurring one.

239
00:14:54.625 --> 00:14:56.105
I feel like I'm at the flight surgeon's office.

240
00:14:57.465 --> 00:14:58.945
Everyone is given sufficient feedback

241
00:14:58.945 --> 00:15:00.825
regarding this company's safety performance.

242
00:15:02.355 --> 00:15:07.075
Many two, three

243
00:15:14.345 --> 00:15:16.525
Safety audits are carried out frequently.

244
00:15:18.645 --> 00:15:23.645
4 24

245
00:15:23.665 --> 00:15:24.105
are we here?

246
00:15:31.025 --> 00:15:34.005
Safety within the company is generally well committed.

247
00:15:34.045 --> 00:15:35.205
I think it says, well,

248
00:15:38.095 --> 00:15:40.875
25 last one.

249
00:15:53.175 --> 00:15:55.715
Uh, employees usually report any dangerous

250
00:15:55.715 --> 00:15:57.115
work practices they see,

251
00:15:59.085 --> 00:16:01.415
Okay, so 25 questions

252
00:16:02.485 --> 00:16:04.705
and you rate 'em one through five, you hand 'em out

253
00:16:04.705 --> 00:16:07.025
to your employees, you then you collect the

254
00:16:07.025 --> 00:16:08.825
numbers and then you rate 'em.

255
00:16:09.305 --> 00:16:11.925
And what they recommend, the gain recommends, by the way,

256
00:16:12.035 --> 00:16:15.545
gain is, uh, was made up for,

257

00:16:15.615 --> 00:16:20.545
from about 2020 plus industry, mostly airlines.

258
00:16:22.235 --> 00:16:24.855
So it comes from a pretty good database, uh,

259
00:16:25.245 --> 00:16:26.775
very credible organizations.

260
00:16:27.075 --> 00:16:31.605
And they have come up with a, with a, uh, guidance on, on

261
00:16:31.605 --> 00:16:32.645
how to use this survey.

262
00:16:34.345 --> 00:16:36.615
Could be a, a benchmark for safety culture.

263
00:16:37.695 --> 00:16:39.735
A means of comparing views of management

264
00:16:39.735 --> 00:16:40.855
with the, with the staff.

265
00:16:44.115 --> 00:16:46.775
If you have any changes in your company, this is a good,

266
00:16:46.805 --> 00:16:49.095
good time to do a another safety survey.

267
00:16:51.255 --> 00:16:52.715
And then if you see any ones

268
00:16:52.715 --> 00:16:55.895
and twos, they're flagged immediately for you

269
00:16:55.895 --> 00:17:00.825
to take action, then, uh,

270
00:17:00.885 --> 00:17:04.465
you want to compare yourself with other departments.

271
00:17:07.325 --> 00:17:09.545
So they have come up with a numbering system,

272
00:17:10.145 --> 00:17:11.425
a rating scale if you will,

273
00:17:12.035 --> 00:17:14.145
where when 93 is considered the minimum,

274
00:17:15.405 --> 00:17:16.565
anything lower than 93,

275
00:17:16.585 --> 00:17:17.885
you don't have a good safety culture.

276
00:17:18.475 --> 00:17:23.025
93 is, is the target, but 93 and higher is better.

277
00:17:24.485 --> 00:17:26.905
And you have, uh, categories of poor safety culture,

278
00:17:26.905 --> 00:17:29.665
bureaucratic safety culture, positive safety culture.

279
00:17:30.295 --> 00:17:33.715
And the poor safety culture is, is something like this

280
00:17:40.105 --> 00:17:42.765
bureau bureaucratic safety culture or something like this.

281
00:17:45.995 --> 00:17:47.295
So make sure it may be ignored.

282
00:17:53.810 --> 00:17:57.265
Dissemination is law, but discouraged, things like that.

283
00:17:57.605 --> 00:17:59.345
And then if you have a good safety culture

284

00:17:59.875 --> 00:18:04.395
and you want to have this, all these are good things.

285
00:18:12.115 --> 00:18:16.625
So at the end you want to, you want

286
00:18:16.625 --> 00:18:17.665
to test not

287
00:18:17.775 --> 00:18:20.265
what your management thinks is the safety culture,

288
00:18:21.335 --> 00:18:23.915
but what this survey tells you is your service.

289
00:18:24.585 --> 00:18:27.345
Believe me, you'd be surprised

290
00:18:27.915 --> 00:18:30.885
because if you do this, you'll find out.

291
00:18:32.665 --> 00:18:34.395
Unfortunately, you'll find out the truth.

292
00:18:35.315 --> 00:18:36.855
And the truth is not always good,

293
00:18:38.605 --> 00:18:39.865
but you, you want to do it.

294
00:18:41.975 --> 00:18:46.725
Okay? So with this, uh, I highly recommend

295
00:18:46.725 --> 00:18:50.965
that you use it because one time at, at least in, in,

296
00:18:51.385 --> 00:18:54.965
in one organization where we did this on the safety survey

297
00:18:56.015 --> 00:18:59.995
company was surprised to see a pretty high

298
00:19:00.675 --> 00:19:01.865
level of safety culture.

299
00:19:01.965 --> 00:19:02.185
And

300
00:19:06.845 --> 00:19:09.585
so, uh, if you haven't done it, do it and use this method.

301
00:19:09.735 --> 00:19:11.625
There's other methods you can look online

302
00:19:12.585 --> 00:19:13.645
and, uh, you'll find that.

303
00:19:13.645 --> 00:19:15.365
But this is, this is probably, uh,

304
00:19:15.365 --> 00:19:16.605
the best one that I found in.

305
00:19:18.445 --> 00:19:20.765
So, uh, are there any comments

306
00:19:20.865 --> 00:19:22.925
or questions so far on safety assurance?

307
00:19:23.605 --> 00:19:28.095
I mean, you want to add anything,

308
00:19:28.475 --> 00:19:29.655
any personal experiences?

309
00:19:32.735 --> 00:19:33.025
Mike

310
00:19:43.205 --> 00:19:44.105
coming right here.

311

00:19:50.095 --> 00:19:51.125
There go. So, uh,

312
00:19:51.385 --> 00:19:53.445
NASA's been pursuing this for a number of years.

313
00:19:53.985 --> 00:19:58.075
Um, I found out that uh, some

314
00:19:58.075 --> 00:20:00.595
of the communities resistant to change their equation,

315
00:20:00.685 --> 00:20:03.755
their questions so that they want consistency

316
00:20:03.755 --> 00:20:06.635
of data over the years and not change that.

317
00:20:06.695 --> 00:20:08.275
So you have to make sure when you start

318
00:20:08.275 --> 00:20:09.995
that you got a really good set of questions.

319
00:20:10.115 --> 00:20:11.595
I look back a couple of slides

320
00:20:11.695 --> 00:20:14.725
and some of those questions can be misleading.

321
00:20:14.725 --> 00:20:16.845
In other words, when you say everyone knows

322
00:20:16.845 --> 00:20:17.965
this, how do I know that?

323
00:20:18.325 --> 00:20:20.565
Everyone knows that. I'd recommend

324
00:20:20.565 --> 00:20:23.045
that people focus questions on work centers,

325
00:20:23.185 --> 00:20:24.565
people that are around you.

326
00:20:24.805 --> 00:20:26.645
'cause that's where you'll get your best information

327
00:20:26.665 --> 00:20:29.085
and you'll be able to pull if you're in a large

328
00:20:29.085 --> 00:20:32.565
organization, demographics of those individuals in

329
00:20:32.565 --> 00:20:33.685
that particular work center.

330
00:20:34.345 --> 00:20:36.185
And then you'll be able to focus in on

331
00:20:36.185 --> 00:20:37.265
where the problems are.

332
00:20:37.945 --> 00:20:41.605
Uh, I found that management sometimes wants

333
00:20:41.625 --> 00:20:43.645
to discount some of the negative sides.

334
00:20:44.375 --> 00:20:49.245
They'll prejudge what they think might be behind some

335
00:20:49.245 --> 00:20:54.065
of those negative responses and, uh, narrow that

336
00:20:54.685 --> 00:20:58.225
or disenfranchise that as a small collective that they

337
00:20:58.905 --> 00:21:01.325
in some regards don't wanna spend their time dealing with.

338

00:21:02.055 --> 00:21:04.955
And there might be a tendency when you get into the higher,

339
00:21:05.575 --> 00:21:08.035
I'm a positive culture, that you ignore some of those

340
00:21:08.665 --> 00:21:10.115
when in fact those may be some

341
00:21:10.115 --> 00:21:11.675
of the best answers you're getting on

342
00:21:11.675 --> 00:21:12.835
what you really need to work on.

343
00:21:14.135 --> 00:21:17.115
Um, in the end, uh,

344
00:21:17.145 --> 00:21:20.515
this just scratches the surface is, uh, what I've learned.

345
00:21:20.575 --> 00:21:22.595
You, you're gonna have to go another level deeper.

346
00:21:23.305 --> 00:21:25.145
This only gives you an indication

347
00:21:25.245 --> 00:21:26.545
of maybe where the problems are.

348
00:21:26.605 --> 00:21:29.265
You're probably gonna have to do more surveying

349
00:21:29.265 --> 00:21:31.625
and I would recommend one-on-one surveys

350
00:21:31.825 --> 00:21:33.465
'cause that's the best way to get an answer.

351
00:21:33.465 --> 00:21:37.025
Everybody will interpret these questions differently, right?

352
00:21:37.165 --> 00:21:39.385
As much as you try to write them in a language

353
00:21:39.385 --> 00:21:41.985
that you think every person will understand.

354
00:21:42.195 --> 00:21:44.705
It'll be different between air crew and maintainers

355
00:21:45.245 --> 00:21:48.105
and other folks of how they interpret those questions.

356
00:21:48.725 --> 00:21:50.875
Especially if you talk about supervision

357
00:21:50.875 --> 00:21:52.435
or authority or those kind of things.

358
00:21:52.815 --> 00:21:54.675
And if you have contractors involved.

359
00:21:54.815 --> 00:21:55.905
So, um,

360
00:21:56.285 --> 00:21:58.545
and then, uh, use that as a way to say,

361
00:21:58.615 --> 00:21:59.985
this is an area we need to look at

362
00:22:00.005 --> 00:22:02.625
and then start digging deeper so you can really figure out.

363
00:22:02.865 --> 00:22:05.345
'cause this is just really a superficial,

364
00:22:05.655 --> 00:22:07.585
superficial understanding of

365

00:22:07.585 --> 00:22:08.945
where some of the problems may lie.

366
00:22:16.965 --> 00:22:18.665
Little bit, kind of like along the lines of

367
00:22:18.665 --> 00:22:20.065
what the gentleman here said.

368
00:22:20.095 --> 00:22:21.825
Like, I'm wondering too in terms of

369
00:22:22.245 --> 00:22:24.545
before you administer the survey, does it need

370
00:22:24.545 --> 00:22:28.355
to be couched in some training or preparation?

371
00:22:28.955 --> 00:22:30.595
I, I can think at least my company,

372
00:22:30.595 --> 00:22:34.035
there's very clear union versus salary lines,

373
00:22:34.795 --> 00:22:36.115
supervision versus workers.

374
00:22:36.615 --> 00:22:41.425
Um, and um, there could be a perspective where,

375
00:22:41.495 --> 00:22:43.865
well, nothing that management ever does is right,

376
00:22:43.865 --> 00:22:45.025
then we're gonna show 'em.

377
00:22:45.085 --> 00:22:48.785
And is there a way of being able to, um,

378
00:22:49.705 --> 00:22:51.225
discriminate a little bit

379
00:22:51.285 --> 00:22:53.305
or couch the survey in some way so

380
00:22:53.305 --> 00:22:55.265
that you can eliminate some of that other bias

381
00:22:55.295 --> 00:22:56.745
that might creep into the survey?

382
00:22:58.155 --> 00:22:59.575
The problem with that is, first of all,

383
00:22:59.575 --> 00:23:01.335
this survey is, is sanitized.

384
00:23:01.335 --> 00:23:03.695
Nobody knows who's answering the questions.

385
00:23:04.705 --> 00:23:07.405
So right there you take care of union problems

386
00:23:08.015 --> 00:23:09.835
or anything else, but,

387
00:23:09.895 --> 00:23:14.545
but if you don't get, if you start tailoring the surveys,

388
00:23:14.545 --> 00:23:16.545
then you're, you're missing, you're gonna miss the,

389
00:23:16.545 --> 00:23:17.705
the feedback.

390
00:23:18.345 --> 00:23:20.835
It's gotta be as transparent, as pure as it can.

391
00:23:21.445 --> 00:23:26.225
Well, I would, I would discourage trying to,

392

00:23:26.225 --> 00:23:27.905
because the truth only comes from the,

393
00:23:27.905 --> 00:23:29.585
from the guys in the bottom and the,

394
00:23:29.585 --> 00:23:30.745
and they're in a closed door.

395
00:23:30.745 --> 00:23:33.025
Nobody knows that they're answering a one.

396
00:23:33.775 --> 00:23:35.395
Nobody knows who answered that one.

397
00:23:37.705 --> 00:23:41.965
Thanks Over

398
00:23:41.965 --> 00:23:46.425
here and

399
00:23:51.175 --> 00:23:52.175
Thanks Rod.

400
00:23:52.415 --> 00:23:55.275
So I noticed that the, uh, survey is, um, you know,

401
00:23:55.385 --> 00:23:56.755
basically subjective.

402
00:23:56.935 --> 00:23:58.755
So what, um,

403
00:23:58.895 --> 00:24:02.595
and I didn't see any, uh, areas in the, in the survey for

404
00:24:03.115 --> 00:24:04.755
offering suggestions for improvement.

405
00:24:04.775 --> 00:24:05.955
So what does a company do?

406
00:24:06.735 --> 00:24:10.255
Uh, that gets a, uh, you know, you add a, you tally it up

407
00:24:10.275 --> 00:24:13.375
and it's, you know, something like a a 75

408
00:24:13.595 --> 00:24:15.655
or an 80, then what?

409
00:24:16.985 --> 00:24:20.275
Well then you have to hit your, uh, four pillars of this

410
00:24:21.115 --> 00:24:22.835
sm to figure out which one is failing

411
00:24:24.735 --> 00:24:27.435
because, uh, that SMS covers the four pillars

412
00:24:27.615 --> 00:24:32.465
and target that.

413
00:24:33.395 --> 00:24:34.455
Yes, it's a follow up.

414
00:24:34.455 --> 00:24:35.775
You know, once you do the safety culture,

415
00:24:35.835 --> 00:24:37.695
you find out you're not there, you're not

416
00:24:37.695 --> 00:24:41.965
where you expect it to be, then you need to find out where,

417
00:24:41.965 --> 00:24:42.285
where

418
00:24:49.735 --> 00:24:52.765
maybe maybe hire some, some third party to come

419

00:24:52.765 --> 00:24:56.485
and do a safety survey and they'll tell you where

420
00:24:57.955 --> 00:24:59.365
they'll do a gap analysis.

421
00:24:59.955 --> 00:25:01.475
I do that. My company does that.

422
00:25:03.795 --> 00:25:04.975
Any other comments, questions?

423
00:25:08.235 --> 00:25:09.405
Okay, we short and sweet.

424
00:25:09.555 --> 00:25:13.045
What we're gonna do is, uh, uh, my, the next, uh, person

425
00:25:13.105 --> 00:25:17.125
to speak, uh, is going to talk about, uh, how to manage data

426
00:25:17.785 --> 00:25:21.365
and then, uh, then uh, during the exercise we're going

427
00:25:21.365 --> 00:25:25.405
to actually analyze some real data and, uh,

428
00:25:25.585 --> 00:25:27.685
and we'll break, break up into groups without

429
00:25:29.255 --> 00:25:30.495
section session comes up.

430
00:25:31.595 --> 00:25:34.525
So, Tom, you got it. Thank you very much.

431
00:25:41.855 --> 00:25:42.205
Right,

432
00:25:42.725 --> 00:25:43.725
Right.

433
00:25:46.665 --> 00:25:48.975
Alright. Thought it was important maybe

434
00:25:48.975 --> 00:25:50.775
to get a little different perspective from somebody

435
00:25:50.775 --> 00:25:53.645
that was necessarily outside of our flight to immunity.

436
00:25:54.265 --> 00:25:57.195
And that's, uh, Ken Neubauer, he is the director,

437
00:25:57.195 --> 00:25:58.715
technical director, aerospace safety

438
00:25:58.855 --> 00:26:01.355
for Fu Tron Aviation based in Norfolk, Virginia.

439
00:26:02.415 --> 00:26:05.895
Um, I was introduced to, Ken actually reintroduced to Ken.

440
00:26:06.055 --> 00:26:07.495
I didn't know he was in this line of work

441
00:26:07.685 --> 00:26:09.435
until I reached out to Dr.

442
00:26:09.535 --> 00:26:10.965
Bob Flock, uh,

443
00:26:10.985 --> 00:26:13.045
who was very prominent at the Naval Safety Center

444
00:26:13.145 --> 00:26:14.285
in creating surveys.

445
00:26:14.285 --> 00:26:16.045
The guy's a genius at doing surveys.

446

00:26:16.705 --> 00:26:18.645
And so I wanted to bring somebody

447
00:26:18.645 --> 00:26:21.265
that was affiliated in this area, this space,

448
00:26:21.535 --> 00:26:22.585
into the workshop

449
00:26:23.175 --> 00:26:27.465
because at some point I would love to develop some surveys

450
00:26:27.985 --> 00:26:30.875
that flight test organizations can use so

451
00:26:30.875 --> 00:26:32.595
that you can develop your own,

452
00:26:33.135 --> 00:26:34.555
or this would be an offering

453
00:26:34.555 --> 00:26:36.865
that you could use within your organizations.

454
00:26:37.355 --> 00:26:40.255
It does take a, it is especially to create a survey

455
00:26:41.535 --> 00:26:43.355
that ask the pointed questions

456
00:26:43.415 --> 00:26:45.875
and to make sure that the analysis can be done in a way

457
00:26:45.875 --> 00:26:49.725
that's meaningful and you can do some trending, um,

458
00:26:50.715 --> 00:26:51.965
nubs, uh, I think we,

459
00:26:52.025 --> 00:26:55.485
we passed like ships crossing in the night at, at, at one

460
00:26:55.485 --> 00:26:58.245
of our, um, active duty Navy tours on a carrier.

461
00:26:58.585 --> 00:27:02.605
He went on to command an F 14 Tom Kat Squadron, uh,

462
00:27:03.025 --> 00:27:05.645
was director of Aviation Safety Programs at the Naval Safety

463
00:27:05.645 --> 00:27:09.205
Center and was also director of the Naval School

464
00:27:09.205 --> 00:27:10.205
of Aviation Safety.

465
00:27:10.305 --> 00:27:14.565
So you see, he comes from a very rich background in aviation

466
00:27:14.565 --> 00:27:16.125
safety and trust me, Navy

467
00:27:16.125 --> 00:27:19.245
and Marine Corps, we learned a lot, uh,

468
00:27:19.295 --> 00:27:22.195
the hard way in terms of safety, losing a lot

469
00:27:22.195 --> 00:27:23.435
of airplanes and a lot of people.

470
00:27:23.535 --> 00:27:26.395
And we had to make that that go away and, um,

471
00:27:27.235 --> 00:27:31.075
and nubs, I'm sure was, uh, part to of the solution

472
00:27:31.295 --> 00:27:33.735
to make sure that we were operating much more

473

```
00:27:33.735 --> 00:27:35.215
safely out there in the fleet.

474
00:27:35.395 --> 00:27:36.935
And, uh, it's really about the

475
00:27:36.935 --> 00:27:38.095
amount of risk that you accept.

476
00:27:38.095 --> 00:27:40.505
And, and a lot of times we, uh,

477
00:27:40.535 --> 00:27:42.945
have difficulty in really kind of, uh,

478
00:27:43.015 --> 00:27:45.225
dialing back the rheostat operationally in terms

479
00:27:45.225 --> 00:27:46.385
of the risk that we assume.

480
00:27:47.165 --> 00:27:48.905
Um, most recently

481
00:27:49.415 --> 00:27:52.825
nubs has been working in the airport domain on part 1 39.

482
00:27:52.825 --> 00:27:54.105
And this is kind of interesting to me

483
00:27:54.105 --> 00:27:56.225
because he ex just briefly expressed some,

484
00:27:56.575 --> 00:27:59.765
some common themes here with what we're doing in terms

485
00:27:59.925 --> 00:28:02.085
of introducing and implementing SMS

486
00:28:02.085 --> 00:28:03.285
and flight test organizations.
```

487
00:28:03.475 --> 00:28:06.545
Same challenges on the airport side to make sure

488
00:28:06.545 --> 00:28:07.905
that they have a state of readiness

489
00:28:07.975 --> 00:28:09.615
and they understand the power

490
00:28:09.615 --> 00:28:13.135
of SMS once it's done in an effective manner in terms

491
00:28:13.135 --> 00:28:14.535
of making operations safer

492
00:28:14.835 --> 00:28:17.455
and be at a much higher readiness state to respond

493
00:28:17.515 --> 00:28:18.815
to adverse events.

494
00:28:19.245 --> 00:28:20.575
With that, I'm gonna get outta the way

495
00:28:20.575 --> 00:28:23.415
and turn this over to, to, um, Ken Neubauer.

496
00:28:23.475 --> 00:28:24.535
Ken, thanks so much for joining us today.