WEBVTT

1
00:00:01.315 --> 00:00:04.335
So very briefly, we have a fic I have

2
00:00:04.895 --> 00:00:08.775
invented a fictional aircraft for you, the CEC Falcon.

3
00:00:09.845 --> 00:00:13.335
It's a, uh, yeah, I can see a few people worked out

4
00:00:13.335 --> 00:00:14.375
what the reference is there.

5
00:00:14.995 --> 00:00:19.655
Um, it's a part 23 twin turboprop empty way of two

6
00:00:19.695 --> 00:00:22.055
and a half tons max takeoff weight of four tons,

7
00:00:23.105 --> 00:00:25.615
50 knot stall two 20 knot v

8
00:00:25.615 --> 00:00:28.895
and e, the maximum 180 knots in level flight

9
00:00:28.895 --> 00:00:33.335
with a 25,000 foot ceiling and a 1200 liter fuel capacity.

10
00:00:34.405 --> 00:00:35.935
It's got, if you can visualize this,

11
00:00:35.965 --> 00:00:38.535
it's got large side doors, both sides suitable

12
00:00:38.595 --> 00:00:40.255
for both gunnery and air calgo.

13
00:00:41.165 --> 00:00:43.855
It's got a partially retractable tricycle nose gear,

14
00:00:44.195 --> 00:00:46.335
and it's made from a light alloy airframe

15
00:00:46.365 --> 00:00:47.495
with composite doors

16
00:00:47.595 --> 00:00:51.925
and fairings, CEC, conveniently,

17
00:00:51.925 --> 00:00:53.045
it's based here in Tris.

18
00:00:54.545 --> 00:00:56.165
Um, they've developed the aircraft.

19
00:00:57.275 --> 00:01:00.925
They have diver, got some decent orders around the world,

20
00:01:01.305 --> 00:01:03.845
but the site has become too small to reach,

21
00:01:03.995 --> 00:01:05.205
meet their order book.

22
00:01:06.345 --> 00:01:10.085
Um, there is also a political need for local production

23
00:01:10.085 --> 00:01:13.365
and staff, and they're setting up three satellite sites

24
00:01:13.555 --> 00:01:16.165
with central management here in Triste.

25
00:01:16.425 --> 00:01:19.205
One will be in Kyiv, one will be in Bangalore,

26
00:01:19.465 --> 00:01:21.005
and one will be in Sao Paulo.

27
00:01:22.345 --> 00:01:23.725

Um, they're going to need

28
00:01:23.725 --> 00:01:28.045
to set up a production flight test organization at each site

29
00:01:28.975 --> 00:01:32.045
using pre local staff capable

30
00:01:32.185 --> 00:01:34.565
of doing normal production flight test

31
00:01:34.705 --> 00:01:39.645
and managing ERA level three modifications to the aircraft.

32
00:01:40.435 --> 00:01:43.685
They're probably going to each handle a predicted two

33
00:01:43.705 --> 00:01:46.685
to three airplanes per month per site.

34
00:01:48.605 --> 00:01:50.865
I'm gonna split the room up into five groups,

35
00:01:52.885 --> 00:01:56.785
and you're gonna have the next 20 minutes to,

36
00:01:56.895 --> 00:01:59.145
depending upon your group, come up

37
00:01:59.145 --> 00:02:00.785
with a very brief outline.

38
00:02:00.855 --> 00:02:03.825
It's gonna have to be brief on five tasks.

39
00:02:05.095 --> 00:02:07.745
Firstly, how will you go about recruiting

40
00:02:07.745 --> 00:02:10.585
and selecting the engineer and engineers

41
00:02:10.585 --> 00:02:12.745
and pilots, um,

42
00:02:13.045 --> 00:02:16.545
and developing your facilities at your satellite site.

43
00:02:17.545 --> 00:02:20.865
Secondly, how will you go about training your FTEs?

44
00:02:22.255 --> 00:02:25.545
Thirdly, assuming that they're experienced pilots with

45
00:02:26.335 --> 00:02:28.065
time on type or something similar,

46
00:02:28.565 --> 00:02:29.985
but not test pilots,

47
00:02:30.245 --> 00:02:32.705
how are you gonna train your production tps?

48
00:02:33.925 --> 00:02:36.305
Fourth, what's your production test plan

49
00:02:36.305 --> 00:02:37.465
generally gonna look like?

50
00:02:38.685 --> 00:02:41.705
And finally, how are you going to manage the data?

51
00:02:42.765 --> 00:02:45.185
Um, that's being generated at all four sites

52
00:02:45.285 --> 00:02:49.985
and ensuring everybody's got access to knowledge about

53
00:02:50.765 --> 00:02:55.185
the aircraft, the ongoing flight test issues, um, that

54
00:02:55.325 --> 00:02:57.825

for example, if an issue is cropped up in an aircraft

55
00:02:57.845 --> 00:03:01.445
and Bangalore, how you will then make sure that if

56
00:03:01.445 --> 00:03:04.925
that crop issue crops up six months later in Sao Paulo

57
00:03:05.235 --> 00:03:07.045
that the team there were aware of it.

58
00:03:09.135 --> 00:03:13.595
So, Um, this is,

59
00:03:13.595 --> 00:03:15.595
this was your session introduction.

60
00:03:16.895 --> 00:03:21.115
Um, if anybody has any immediate questions about the task,

61
00:03:21.575 --> 00:03:25.475
you can ask them now then in your groups.

62
00:03:25.575 --> 00:03:28.115
And I'll come out and I'll divide the tables into groups

63
00:03:28.335 --> 00:03:30.355
and give you some copies of the brief.

64
00:03:31.455 --> 00:03:34.865
Uh, you've got about 20 minutes to,

65
00:03:36.645 --> 00:03:40.945
um, come up with your bit if anybody wants to use it,

66
00:03:40.945 --> 00:03:42.985
there's a flip chart and pens here.

67
00:03:43.805 --> 00:03:46.505
And then what I'll ask is each of the five groups

68
00:03:46.805 --> 00:03:49.905
to nominate a spokesman and to come up

69
00:03:50.045 --> 00:03:52.305
and you've got three minutes to present your

70
00:03:53.305 --> 00:03:55.545
findings decisions to the room,

71
00:03:55.725 --> 00:03:58.945
and about two minutes to field questions from the

72
00:03:59.495 --> 00:04:02.425
extremely knowledgeable audience that you have here.

73
00:04:02.925 --> 00:04:07.065
And then we'll have about five minutes at the end to wash up

74
00:04:07.605 --> 00:04:10.265
and for any of the experts from people like Airbus

75
00:04:10.265 --> 00:04:12.145
and Leonardo to give us all some feedback.

76
00:04:13.365 --> 00:04:17.865
So no pressure, but at least you'll stay awake before lunch.

77
00:04:19.285 --> 00:04:21.585
Um, does anybody have any immediate questions?

78
00:04:24.685 --> 00:04:27.185
Um, as soon as I hand out these pieces of paper.

79
00:04:29.655 --> 00:04:34.625
Yeah, the back here. Uh, what is the budget?

80
00:04:35.045 --> 00:04:35.985
Be imaginative.

81
00:04:39.415 --> 00:04:40.505

Okay, that will do.

82
00:04:40.885 --> 00:04:42.545
So I'm gonna come out

83
00:04:44.235 --> 00:04:45.465
These three Tables.

84
00:04:45.765 --> 00:04:48.065
If you could work together, you are one.

85
00:04:51.395 --> 00:04:52.695
We already have a communication,

86
00:23:19.845 --> 00:23:21.025
So you've got two minutes.

87
00:23:21.565 --> 00:23:23.385
So you wanna be collating your ideas

88
00:23:23.525 --> 00:23:25.625
and make sure you know who your spokesman is.

89
00:24:40.595 --> 00:24:44.865
Okay? Okay. Time is up.

90
00:24:46.165 --> 00:24:50.305
So if you want to return to your seated positions

91
00:24:51.805 --> 00:24:56.705
and if the five spokesmen could head up this direction.

92
00:25:35.975 --> 00:25:38.155
So group one, who is your spokesman,

93
00:25:42.885 --> 00:25:45.795
folks at the back, do you want to, um, take your places?

94
00:25:53.975 --> 00:25:55.195
So you've got three minutes

95
00:25:55.335 --> 00:25:57.835
to give your outline views and then

96
00:25:57.835 --> 00:25:58.835
They can ask you a few questions? Yeah, I

97
00:25:58.835 --> 00:26:00.635
think it will not take long. Hi everyone.

98
00:26:05.235 --> 00:26:06.575
Hi everyone. I will start.

99
00:26:06.675 --> 00:26:09.375
My name is Julia Gor from Leonardo Aircraft.

100
00:26:09.475 --> 00:26:11.735
Uh, a few years in flight testing,

101
00:26:12.435 --> 00:26:14.175
but still a junior flight test engineer.

102
00:26:14.675 --> 00:26:19.375
So in my group, we decided that we will centralized, uh,

103
00:26:19.555 --> 00:26:22.815
the process of selecting people by, um,

104
00:26:23.115 --> 00:26:25.055
having a headquarter interested.

105
00:26:25.805 --> 00:26:27.775
This will keep the standards quite high

106
00:26:27.835 --> 00:26:29.655
as we can rely on nasaa.

107
00:26:30.395 --> 00:26:34.775
And, um, we will select people that are already qualified.

108
00:26:35.005 --> 00:26:39.695

This will, uh, improve the quality of, uh, our candidates.

109
00:26:40.235 --> 00:26:45.085
We also mentioned we could do some, um, training to get,

110
00:26:45.695 --> 00:26:47.645
let's say, um, on the job training

111
00:26:47.785 --> 00:26:49.525
to match the standard of the colleagues.

112
00:26:50.305 --> 00:26:53.765
And then we will have a bare minimum of, uh,

113
00:26:53.765 --> 00:26:56.805
infrastructure in, uh, local places, uh,

114
00:26:56.825 --> 00:26:58.205
as a standard flight ops.

115
00:26:58.905 --> 00:27:02.685
Um, so this is very simple. Should be cost effective.

116
00:27:03.065 --> 00:27:04.365
The airplane is not so big.

117
00:27:04.385 --> 00:27:07.405
So we also, uh, consider we wouldn't need, uh,

118
00:27:07.405 --> 00:27:08.485
flight test engineers,

119
00:27:08.785 --> 00:27:12.285
but if that would be the case, we would select, uh, cut two

120
00:27:12.285 --> 00:27:15.085
and cut one candidates from, uh,

121
00:27:15.085 --> 00:27:16.245
qualified flight test schools.

122
00:27:17.285 --> 00:27:19.605
I think the rest of the time is for questions.

123
00:27:21.985 --> 00:27:24.405
So Anybody got any questions for group one?

124
00:27:29.275 --> 00:27:30.335
You've got off lightly.

125
00:27:30.725 --> 00:27:32.775
Well, uh, good. That's good. That's good.

126
00:27:33.155 --> 00:27:35.575
Uh, I think some of the questions that may arise,

127
00:27:35.635 --> 00:27:38.375
so I will make them by myself, is how do you,

128
00:27:38.595 --> 00:27:42.615
how do you manage to get people to go to locations

129
00:27:42.965 --> 00:27:44.975
that they may not like so much?

130
00:27:45.555 --> 00:27:47.815
And how do you get them to match with the culture

131
00:27:47.995 --> 00:27:49.815
of the place where you send them?

132
00:27:50.975 --> 00:27:53.855
I don't know. I don't have a que ans word for this ones.

133
00:27:54.085 --> 00:27:56.535
It's something that the hiring managers will have to face,

134
00:27:57.075 --> 00:28:00.175
but this can be a problem if you have a company

135
00:28:00.405 --> 00:28:01.815

that has many locations.

136
00:28:01.925 --> 00:28:04.695
I've seen this while working for other companies.

137
00:28:04.755 --> 00:28:06.735
We had people sent from

138
00:28:06.845 --> 00:28:09.615
outside in a place which was not matching

139
00:28:10.705 --> 00:28:12.455
their natural environment.

140
00:28:12.995 --> 00:28:15.015
And on the long term, this may create problems.

141
00:28:15.605 --> 00:28:18.935
Also, if the places where you decide to test are isolated,

142
00:28:19.485 --> 00:28:20.615
this can also be a problem.

143
00:28:21.355 --> 00:28:23.055
So I make questions for myself,

144
00:28:23.075 --> 00:28:25.055
but also for yourselves. Thank you.

145
00:28:25.995 --> 00:28:26.485
Well done.

146
00:28:31.015 --> 00:28:31.685
Group two.

147
00:28:41.735 --> 00:28:44.435
Aha. There. Um, Mark Holland from the Royal Air Force.

148
00:28:44.495 --> 00:28:45.635
Uh, so it was in group two

149
00:28:45.635 --> 00:28:47.275
and we had the question, uh,

150
00:28:47.375 --> 00:28:51.235
for our engineers without a flight test background, uh,

151
00:28:51.345 --> 00:28:53.595
they are, uh, C ENG engineers.

152
00:28:54.145 --> 00:28:56.355
They'll be required to do production flight tests

153
00:28:56.355 --> 00:28:57.435
at these various locations.

154
00:28:57.855 --> 00:29:00.035
And er, so level four modifications.

155
00:29:00.345 --> 00:29:02.715
What would we do about our training plan

156
00:29:02.735 --> 00:29:04.275
to bring these engineers up to speed?

157
00:29:04.815 --> 00:29:05.875
So the first thing we spoke about

158
00:29:05.875 --> 00:29:06.995
in the group was licensing.

159
00:29:07.215 --> 00:29:09.915
So it, it talks about er, a licensing here at trist,

160
00:29:09.915 --> 00:29:12.955
but we have organizations or locations all around the world.

161
00:29:13.255 --> 00:29:15.635
Uh, would we be using ERA, um,

162
00:29:16.015 --> 00:29:17.675

as a regulatory body throughout,

163
00:29:17.935 --> 00:29:22.075
or would local, um, countries require extra requirements?

164
00:29:22.075 --> 00:29:25.115
So we'd find out what, what training requirements there are

165
00:29:25.115 --> 00:29:27.395
for flight test engineers, um, under those regimes.

166
00:29:27.735 --> 00:29:30.355
Um, looking at er, so we had a quick look at the rules, um,

167
00:29:30.355 --> 00:29:32.355
and based on the aircraft mass, um,

168
00:29:32.535 --> 00:29:35.515
and the fact that it's post-production flight test, um,

169
00:29:35.575 --> 00:29:39.675
and, uh, cap four, then IT training could be on the job.

170
00:29:39.855 --> 00:29:41.965
You wouldn't necessarily need to go to a recognized school.

171
00:29:42.545 --> 00:29:44.485
Um, so that was the assumption that we were working on.

172
00:29:45.065 --> 00:29:47.605
On that though, we did say that our instructors

173
00:29:47.625 --> 00:29:50.085
for our on-the-job training would probably need some

174
00:29:50.485 --> 00:29:51.605
training from a recognized school.

175
00:29:51.945 --> 00:29:54.685
So someone with an experience in flight test,

176
00:29:54.685 --> 00:29:56.245
certainly post-production flight test.

177
00:29:56.425 --> 00:30:00.165
Um, having been through NTPS, for example, to come with

178
00:30:00.165 --> 00:30:01.765
that knowledge to be able to pass on the knowledge

179
00:30:01.765 --> 00:30:04.525
to others, Uh, one

180
00:30:04.525 --> 00:30:05.605
of the things we did mention is the

181
00:30:05.605 --> 00:30:06.845
importance of having someone local.

182
00:30:06.945 --> 00:30:08.045
And it was interesting, it came up

183
00:30:08.045 --> 00:30:10.285
with the first group there of trying our best

184
00:30:10.285 --> 00:30:12.565
to hire someone locally that will stay there

185
00:30:12.565 --> 00:30:14.205
and be that mentor for many years

186
00:30:14.425 --> 00:30:15.885
to pass on their knowledge to others.

187
00:30:16.305 --> 00:30:19.085
So looking internally in those countries for the people

188
00:30:19.085 --> 00:30:22.895
with those qualifications to begin with, Uh,

189
00:30:23.075 --> 00:30:26.055

we then briefly spoke about the construct where that,

190
00:30:26.055 --> 00:30:27.815
where the, on the job training would happen.

191
00:30:28.475 --> 00:30:29.735
Um, and we rapidly come

192
00:30:29.735 --> 00:30:32.175
to the conclusion being it's the same aircraft type being

193
00:30:32.415 --> 00:30:33.615
produced in four different countries,

194
00:30:33.615 --> 00:30:36.335
that we should probably have centralized training on how

195
00:30:36.335 --> 00:30:37.975
to flight test this aircraft

196
00:30:38.495 --> 00:30:39.975
probably here in Tris at the headquarters.

197
00:30:40.475 --> 00:30:42.255
And once that centralized training's complete,

198
00:30:42.475 --> 00:30:43.735
we would need TOPUP training

199
00:30:44.195 --> 00:30:46.255
for the nuances of each of the locations.

200
00:30:46.635 --> 00:30:48.215
So there'd be a centralized course here

201
00:30:48.215 --> 00:30:49.895
for flight test engineers to learn how

202
00:30:49.895 --> 00:30:51.655
to become a flight test engineer, then go back

203
00:30:51.655 --> 00:30:54.335
to their respective countries to learn any nuances, whether

204
00:30:54.335 --> 00:30:57.575
that is air traffic or their organization or language.

205
00:30:59.075 --> 00:31:01.015
The internal training course, we had to talk about

206
00:31:01.205 --> 00:31:03.175
what should be in the internal training course,

207
00:31:03.515 --> 00:31:05.055
and we thought it'd be fairly simple,

208
00:31:05.085 --> 00:31:06.975
just copy what's out there already.

209
00:31:07.195 --> 00:31:09.495
So look at what the schools, the big schools teach

210
00:31:09.495 --> 00:31:10.495
for flight test engineers,

211
00:31:10.675 --> 00:31:12.215
but also the regulatory requirements.

212
00:31:12.595 --> 00:31:15.295
So we had a quick look at the ER ERSA rules, um,

213
00:31:15.355 --> 00:31:18.215
and it broke down five categories of, uh, topics

214
00:31:18.525 --> 00:31:21.775
that flight test engineers understand performance, stability

215
00:31:21.795 --> 00:31:24.375
and control systems, test management

216
00:31:24.475 --> 00:31:25.775

and safety risk management.

217
00:31:25.915 --> 00:31:27.615
So we thought we'd just copy those titles,

218
00:31:27.795 --> 00:31:29.975
but probably teach it at a lower level than you need

219
00:31:29.975 --> 00:31:31.215
for class one or class two.

220
00:31:31.595 --> 00:31:32.895
Uh, flight test engineering.

221
00:31:33.795 --> 00:31:34.815
And then the final, uh,

222
00:31:34.815 --> 00:31:36.695
discussion point we had is once the system's up

223
00:31:36.695 --> 00:31:39.095
and running the need for standardization, uh,

224
00:31:39.095 --> 00:31:40.975
there'd be four locations, uh,

225
00:31:41.295 --> 00:31:42.335
opposite sides of the planets.

226
00:31:42.335 --> 00:31:45.055
It'd be very easy for the organizations to diverge rapidly.

227
00:31:45.555 --> 00:31:48.415
So you would need a chief flight test engineer, someone

228
00:31:48.555 --> 00:31:50.255
to be able to go round the locations

229
00:31:50.255 --> 00:31:51.535
to keep standardization.

230
00:31:51.865 --> 00:31:54.375
You'd have to have a standardized set of training manuals

231
00:31:54.375 --> 00:31:56.215
and procedures to make sure that, uh,

232
00:31:56.215 --> 00:31:57.655
there was standardization amongst them.

233
00:31:58.315 --> 00:31:59.415
So That's what the group came up with.

234
00:31:59.415 --> 00:32:01.015
I'll be happy to take any questions you have.

235
00:32:06.795 --> 00:32:08.995
I might get away with it. Well done. Thank you.

236
00:32:14.595 --> 00:32:18.655
So group three is somebody coming up? Excellent.

237
00:32:19.765 --> 00:32:21.255
Over to you, sir. Yeah.

238
00:32:27.205 --> 00:32:29.065
Uh, first of all, thank you professor.

239
00:32:29.215 --> 00:32:32.345
Everybody's quite happy to have, uh, such an exercise.

240
00:32:32.785 --> 00:32:34.545
Probably not expected at all.

241
00:32:35.245 --> 00:32:38.465
So our, um, our task was, uh,

242
00:32:39.435 --> 00:32:41.895
we should assume to have 1,005.

243
00:32:43.125 --> 00:32:46.655

Okay. Sorry to establish a training

244
00:32:46.915 --> 00:32:49.495
for pilots not ready test pilots,

245
00:32:49.495 --> 00:32:52.895
because as you said, my colleague, um, level three,

246
00:32:52.895 --> 00:32:56.935
level four doesn't require a proper, uh, test pilot,

247
00:32:57.755 --> 00:32:59.235
Uh, Training,

248
00:33:01.645 --> 00:33:02.825
um, course.

249
00:33:03.805 --> 00:33:06.185
And we assume 1000 hours,

250
00:33:06.965 --> 00:33:11.865
at least 50 hours on type, we have to consider that the,

251
00:33:12.525 --> 00:33:15.225
uh, the type will be with the modification.

252
00:33:15.685 --> 00:33:17.265
So we expecting someone

253
00:33:17.805 --> 00:33:21.545
who is having already some experience has a background.

254
00:33:21.725 --> 00:33:24.745
So mainly, so for eye drop

255
00:33:24.765 --> 00:33:27.985
and gunnery, probably military experience.

256
00:33:28.285 --> 00:33:31.705
As a background, we thought about three crew

257
00:33:32.445 --> 00:33:34.065
spread in three location.

258
00:33:34.765 --> 00:33:38.145
We think about the flight test activity in-house,

259
00:33:38.965 --> 00:33:41.985
and, um, timeline for each site,

260
00:33:43.175 --> 00:33:44.845
basic training and emergency.

261
00:33:45.195 --> 00:33:49.085
That means, uh, we had to consider also a, for a sim, uh,

262
00:33:49.085 --> 00:33:53.045
simulator trainer, uh, which require for the crew,

263
00:33:53.185 --> 00:33:55.405
but also for feature customer.

264
00:33:56.025 --> 00:33:58.245
We consider almost 20 flight hours

265
00:33:59.575 --> 00:34:01.125
every six months for pilot.

266
00:34:02.225 --> 00:34:06.965
And we assume 5,000 euros for flight hour.

267
00:34:07.745 --> 00:34:11.555
And that means, uh, three test pilots,

268
00:34:13.875 --> 00:34:16.055
uh, for the three crew member.

269
00:34:16.475 --> 00:34:21.295
So that means seven pilots, 25 towers over every

270
00:34:21.885 --> 00:34:23.335

half a, uh, half a year.

271
00:34:24.185 --> 00:34:28.275
That means almost 1,500

272
00:34:29.495 --> 00:34:31.965
Euros, euros, uh, a year.

273
00:34:32.755 --> 00:34:36.105
That is. Any

274
00:34:36.305 --> 00:34:41.275
questions? No.

275
00:34:41.285 --> 00:34:42.515
Thank you. Well done.

276
00:34:58.365 --> 00:34:59.465
All right. So group four.

277
00:34:59.485 --> 00:35:01.105
So we're already behind the power curve

278
00:35:01.105 --> 00:35:03.665
because we decided to send up the rotary wing guy

279
00:35:03.685 --> 00:35:05.345
to do part 23 inas.

280
00:35:05.345 --> 00:35:07.345
So here we go. All right.

281
00:35:07.345 --> 00:35:10.185
So Mark Ward, I'm from Sikorsky, who don't know me.

282
00:35:10.245 --> 00:35:13.665
So, uh, basically what we would look at is, um, for

283
00:35:13.975 --> 00:35:16.705
what we're task to do is to develop a flight test, uh,

284
00:35:16.935 --> 00:35:19.585
plan outline to, uh, do the, the falcon.

285
00:35:20.045 --> 00:35:22.865
And we basically divided it up into two sorties, uh,

286
00:35:23.465 --> 00:35:25.865
preceded probably by some groundwork that we would do.

287
00:35:26.605 --> 00:35:29.145
Uh, sorti one we decided would be

288
00:35:29.865 --> 00:35:31.785
actually here we had a differing of opinion here.

289
00:35:31.805 --> 00:35:34.105
We had acceptance flight test.

290
00:35:34.135 --> 00:35:37.885
We'd start with some slow taxi, go to a high speed taxi

291
00:35:37.985 --> 00:35:40.845
to reject and takeoff at VMCG.

292
00:35:41.545 --> 00:35:44.205
Uh, for the flight tests, we would do two sorties,

293
00:35:44.205 --> 00:35:47.885
basically looking at, um, first would be the,

294
00:35:47.985 --> 00:35:50.125
the maximum takeoff weight due to the fact

295
00:35:50.125 --> 00:35:53.405
that it is possibly a cargo configured aircraft mission set.

296
00:35:54.185 --> 00:35:58.765
Uh, we'd look at FCG, uh, BMCV stall for the first,

297
00:35:59.105 --> 00:36:03.885

and then for the second piece, uh, we would look at, um,

298
00:36:05.245 --> 00:36:06.085
actually we'd probably start in the

299
00:36:06.085 --> 00:36:07.245
mid CG for the first flight.

300
00:36:07.265 --> 00:36:10.445
For the second flight would be FCG, looking at the

301
00:36:11.065 --> 00:36:13.645
flight control verification and any missions

302
00:36:14.025 --> 00:36:15.845
and core performance elements.

303
00:36:16.235 --> 00:36:20.005
High speed performance, VMO, uh, MMO, check flight controls,

304
00:36:20.035 --> 00:36:22.565
high a OA, any, uh, utility

305
00:36:22.625 --> 00:36:25.605
and safety issues that we would come across, uh,

306
00:36:25.625 --> 00:36:26.925
for our customer requirements.

307
00:36:27.345 --> 00:36:31.165
Of course, there's also the, uh, weapons, uh, possibility

308
00:36:31.165 --> 00:36:32.645
of mission systems, if

309
00:36:32.645 --> 00:36:34.205
that was at the request of the customer.

310
00:36:34.625 --> 00:36:36.245
And of course, uh, approach and landing.

311
00:36:38.085 --> 00:36:40.345
Uh, I think that's pretty much all we had. Any questions?

312
00:36:42.055 --> 00:36:43.055
Thank you.

313
00:36:51.005 --> 00:36:53.185
Hi, my name is Alan Jasper with Gulfstream.

314
00:36:53.365 --> 00:36:55.745
We had the fifth question, which was to create a data plan

315
00:36:55.745 --> 00:36:58.785
for two purposes, making sure

316
00:36:58.785 --> 00:37:01.345
that the crews could access the range

317
00:37:01.345 --> 00:37:03.425
of performance handling and systems function data,

318
00:37:03.925 --> 00:37:05.625
and then also with known deficiencies

319
00:37:05.645 --> 00:37:07.745
how they might rectify those deficiencies.

320
00:37:09.225 --> 00:37:11.885
So first thing we thought about was just making sure

321
00:37:12.125 --> 00:37:15.205
that we had a range of acceptable data quality parameters

322
00:37:15.205 --> 00:37:17.765
and tolerances established that we had some sort

323
00:37:17.765 --> 00:37:19.965
of flight test instrumentation, whether it's GoPro,

324
00:37:20.035 --> 00:37:21.965

some commercial off the shelf system, perhaps

325
00:37:22.835 --> 00:37:25.565
also a squawk database for unexpected results.

326
00:37:25.665 --> 00:37:27.165
So some mechanism to record that

327
00:37:27.225 --> 00:37:29.125
and then promulgate that to the other test sites.

328
00:37:29.785 --> 00:37:32.365
Any lessons learned databases, uh,

329
00:37:32.595 --> 00:37:34.485
that could be shared on anything

330
00:37:34.485 --> 00:37:35.885
that was unexpected as well.

331
00:37:36.545 --> 00:37:37.965
And then a common data system

332
00:37:38.025 --> 00:37:40.005
or common architecture for recording data.

333
00:37:41.235 --> 00:37:42.765
Also unified data reduction.

334
00:37:42.765 --> 00:37:44.885
So everybody's reducing the data the same way,

335
00:37:44.885 --> 00:37:46.485
highlighting the test points especially.

336
00:37:47.465 --> 00:37:49.005
And then making sure that the test cards,

337
00:37:49.165 --> 00:37:51.485
whether it's digital and written, um,

338
00:37:51.545 --> 00:37:52.965
are captured and shared.

339
00:37:53.735 --> 00:37:56.235
And then also a mechanism for comparing those results

340
00:37:56.335 --> 00:37:58.995
to the regulatory requirements to make sure that the

341
00:37:59.585 --> 00:38:02.115
test plan, the assessment of the data is in alignment

342
00:38:02.265 --> 00:38:04.435
with a regulatory path to compliance.

343
00:38:04.975 --> 00:38:06.675
So that's what we thought about. Any questions for us?

344
00:38:08.495 --> 00:38:09.495
Thanks.

345
00:38:16.185 --> 00:38:18.275
Well done. I think that was a true team effort

346
00:38:18.695 --> 00:38:20.955
and amazingly we've still got five

347
00:38:20.955 --> 00:38:22.115
minutes before it's lunchtime.

348
00:38:23.015 --> 00:38:27.275
So, um, firstly, general question for everybody in the room.

349
00:38:28.775 --> 00:38:29.995
Was that worthwhile?

350
00:38:30.195 --> 00:38:33.905
A sort of thing that we might repeat in future workshops?

351
00:38:36.155 --> 00:38:38.775

Hey guys. Yeah. How would they get longer?

352
00:38:40.325 --> 00:38:43.055
Yeah, I Think a little bit more time.

353
00:38:43.895 --> 00:38:45.935
I, I was, I must admit,

354
00:38:46.055 --> 00:38:48.575
I didn't anticipate nobody would ask any

355
00:38:48.775 --> 00:38:49.855
questions of any of the groups.

356
00:38:50.435 --> 00:38:52.575
If I'd known that, I'd have given you another 10 minutes.

357
00:38:53.995 --> 00:38:57.735
So yeah, I, I, I was working within the hour

358
00:38:58.115 --> 00:39:01.015
and I was anticipating more discussion.

359
00:39:01.155 --> 00:39:02.855
So I think you're absolutely right, Jeff.

360
00:39:07.445 --> 00:39:10.945
Um, in which case, any general questions about the exercise?

361
00:39:12.355 --> 00:39:15.085
What, what was the actual objective if you were asked?

362
00:39:15.905 --> 00:39:19.845
The objective was to have the, basically to bring to,

363
00:39:20.185 --> 00:39:22.485
so the question is what was the objective?

364
00:39:22.565 --> 00:39:25.045
I was after the objective I think we achieved

365
00:39:25.705 --> 00:39:29.245
it was getting everybody together, sharing all

366
00:39:29.245 --> 00:39:32.045
of their knowledge and experience, often cross disciplines

367
00:39:32.745 --> 00:39:35.165
to see how they would solve a problem.

368
00:39:35.425 --> 00:39:39.445
And I think what I particularly hope we illustrated,

369
00:39:39.975 --> 00:39:41.845
we've got military people, we've got civil people,

370
00:39:41.845 --> 00:39:43.165
we've got fixed, we've got rotary,

371
00:39:43.165 --> 00:39:44.205
we've got light, we've got heavy.

372
00:39:44.785 --> 00:39:47.085
And actually, I got the impression pretty much

373
00:39:47.085 --> 00:39:48.685
everybody sees the same problems.

374
00:39:49.915 --> 00:39:51.775
And I think that seems

375
00:39:51.775 --> 00:39:53.575
to have come across quite well in the room.

376
00:39:54.355 --> 00:39:57.135
So yeah, I think what we achieved was,

377
00:39:57.135 --> 00:40:00.055
what I was hoping we would achieve was this joint view

378
00:40:00.635 --> 00:40:03.775

and the collective thinking about, um,

379
00:40:03.985 --> 00:40:05.575
production, flight test

380
00:40:05.575 --> 00:40:10.575
problems. Yeah. The back

381
00:40:11.055 --> 00:40:12.355
Coming there. Do

382
00:40:12.355 --> 00:40:14.795
You have any recommendations on things that we've answered

383
00:40:14.825 --> 00:40:16.675
that you think would be better or maybe,

384
00:40:19.585 --> 00:40:21.605
Um, I think that

385
00:40:24.785 --> 00:40:28.645
It, the one thing that picked, I picked up on

386
00:40:28.835 --> 00:40:31.925
that I thought was probably the wrong answer, um,

387
00:40:32.585 --> 00:40:35.045
was the assumption that you'd be able

388
00:40:35.065 --> 00:40:39.205
to recruit school graduates for around the world,

389
00:40:40.305 --> 00:40:43.045
um, GA type test program.

390
00:40:43.405 --> 00:40:45.165
'cause I think the school graduates are

391
00:40:46.105 --> 00:40:47.125
scarer than you think.

392
00:40:47.845 --> 00:40:49.085
I mean, they're not scarce in this room,

393
00:40:49.465 --> 00:40:53.525
but they probably are scarce in Bangalore and, um, Kyiv.

394
00:40:54.305 --> 00:40:58.965
Um, so in terms of the brief, I was certainly hoping

395
00:40:59.145 --> 00:41:03.125
to have people thinking harder than they possibly did about

396
00:41:03.545 --> 00:41:06.885
the requirement to source your staff locally in places

397
00:41:06.885 --> 00:41:08.285
that might not have people with a,

398
00:41:08.685 --> 00:41:10.565
a flight test background and tradition.

399
00:41:11.965 --> 00:41:13.145
Um, maybe

400
00:41:13.265 --> 00:41:14.305
A, a few words on this.

401
00:41:14.465 --> 00:41:17.465
I was, uh, in group one, we had the task of the,

402
00:41:17.925 --> 00:41:19.025
the recruitment and training.

403
00:41:19.745 --> 00:41:24.025
A lot of the discussion we had was about having just a few

404
00:41:24.285 --> 00:41:28.465
or one, uh, test pilot, graduate test pilot

405
00:41:29.245 --> 00:41:32.625

and FTE Central here in Trista.

406
00:41:33.455 --> 00:41:36.505
And then having local teams, uh,

407
00:41:36.565 --> 00:41:38.345
not necessarily be graduates,

408
00:41:38.445 --> 00:41:42.305
and then having a centralized, uh, training function

409
00:41:43.215 --> 00:41:46.545
here that would also allow to spread the,

410
00:41:46.555 --> 00:41:48.465
let's say the culture and then follow up

411
00:41:48.465 --> 00:41:51.185
with the various facilities clearly for these volumes.

412
00:41:51.185 --> 00:41:54.705
Maybe this is not necessarily the best business, uh,

413
00:41:55.705 --> 00:41:56.905
situation, but you clearly said,

414
00:41:56.905 --> 00:41:59.185
and I like that it's a political requirement

415
00:41:59.185 --> 00:42:00.385
to have all these things also

416
00:42:00.415 --> 00:42:02.425
that doesn't necessarily make need to make sense.

417
00:42:02.685 --> 00:42:05.865
So yeah. So this was, was the idea there.

418
00:42:06.025 --> 00:42:10.625
I I think it was, uh, um, it was well captured

419
00:42:10.725 --> 00:42:14.805
by the, by the team that you, you know, it's too easy

420
00:42:14.825 --> 00:42:18.485
to just say, I'm gonna grab I know 10 graduates and, and,

421
00:42:18.505 --> 00:42:19.685
and spread them around the world.

422
00:42:22.125 --> 00:42:26.615
Yeah, I think it was really well prepared

423
00:42:27.195 --> 00:42:28.655
and, and good fun as well.

424
00:42:29.275 --> 00:42:32.815
Um, the point is I think you gave us nearly impossible task

425
00:42:32.815 --> 00:42:35.135
forcing us to go very often directly

426
00:42:35.245 --> 00:42:36.735
into possible solutions.

427
00:42:37.475 --> 00:42:40.375
And it, I think it would be very helpful if there's a little

428
00:42:40.375 --> 00:42:43.375
bit more time, and that would be really, let's say focus

429
00:42:43.405 --> 00:42:44.735
what are the problem areas

430
00:42:45.155 --> 00:42:48.975
and leave the entire details a little bit out, uh, and,

431
00:42:48.995 --> 00:42:51.255
and focus, because then we could really share,

432
00:42:51.255 --> 00:42:52.935

because then you could have problem areas

433
00:42:52.985 --> 00:42:55.935
where we can contribute and find the solutions later.

434
00:42:56.475 --> 00:42:58.255
Um, but it, it was a huge task

435
00:42:58.315 --> 00:42:59.655
for the small, for every team.

436
00:42:59.995 --> 00:43:02.695
Uh, and so I think we could have a two step approach if we

437
00:43:02.695 --> 00:43:04.015
have more time for it, but it was

438
00:43:04.015 --> 00:43:05.295
really valuable. Thank you very much.

439
00:43:05.705 --> 00:43:08.935
Thank you. And, and I think that is a really good point.

440
00:43:09.075 --> 00:43:11.295
The, the pulling out the problems first

441
00:43:11.475 --> 00:43:13.255
and then looking for the solution second.

442
00:43:14.035 --> 00:43:15.735
Um, that makes a lot of sense.

443
00:43:15.805 --> 00:43:17.895
Does everybody agree that that was a good point?

444
00:43:18.475 --> 00:43:19.575
If we ever do this again?

445
00:43:20.075 --> 00:43:22.655
Um, and if anybody's stupid enough to ask me to do it again,

446
00:43:23.395 --> 00:43:26.935
um, we'll, um, we'll certainly pick up on that.

447
00:43:27.645 --> 00:43:29.295
Well, I reckon we're bang on midday,

448
00:43:29.795 --> 00:43:31.775
so it must be lunchtime, not

449
00:43:31.775 --> 00:43:32.775
Quite, not quite. Oh,

450
00:43:32.775 --> 00:43:33.555

451
00:43:34.725 --> 00:43:35.725
Okay. It's the end of my

452
00:43:35.725 --> 00:43:37.815
bit anyway. Yeah. So, uh,

453
00:43:38.515 --> 00:43:39.295
For the next Yes.