



1
00:00:03,300 --> 00:00:09,240

[Music]

2
00:00:16,029 --> 00:00:11,850

you know as I was getting ready and

3
00:00:18,730 --> 00:00:16,039

preparing for this talk I was sitting in

4
00:00:20,109 --> 00:00:18,740

school and this is one of my associates

5
00:00:23,050 --> 00:00:20,119

came up to me and asked me what I was

6
00:00:24,880 --> 00:00:23,060

doing and I said well I'm preparing a

7
00:00:26,920 --> 00:00:24,890

talk he says what's it about

8
00:00:28,540 --> 00:00:26,930

nice it's gonna be on premonitions and

9
00:00:30,260 --> 00:00:28,550

he says I don't believe that stuff and I

10
00:00:38,580 --> 00:00:30,270

said I know you'd say that

11
00:00:45,220 --> 00:00:42,100

okay well that's that was just a joke so

12
00:00:48,280 --> 00:00:45,230

here here's a real question that was

13
00:00:49,870 --> 00:00:48,290

proposed by a student I have a couple

14

00:00:54,780 --> 00:00:49,880

classes and I am was stuck my neck out

15

00:00:59,350 --> 00:00:54,790

in the last week of the semester I have

16

00:01:01,960 --> 00:00:59,360

what I call psychic phenomena and we

17

00:01:04,980 --> 00:01:01,970

talk about mostly the things which are

18

00:01:09,700 --> 00:01:04,990

have really good science behind him and

19

00:01:13,179 --> 00:01:09,710

I had this one student kind of a crusty

20

00:01:17,859 --> 00:01:13,189

old construction guy probably a framer

21

00:01:20,590 --> 00:01:17,869

or something like that and he raises his

22

00:01:24,609 --> 00:01:20,600

hand and this is what he said what's the

23

00:01:28,389 --> 00:01:24,619

point and he said why are we learning

24

00:01:32,379 --> 00:01:28,399

about this stuff and so I think we've

25

00:01:34,870 --> 00:01:32,389

all heard people express that and so

26

00:01:36,999 --> 00:01:34,880

what I hope to do today is to probably

27

00:01:40,599 --> 00:01:37,009

provide some answer to that and I had a

28

00:01:43,690 --> 00:01:40,609

good answer for him but we'll we'll move

29

00:01:45,340 --> 00:01:43,700

on oh I talked about reliability and

30

00:01:47,889 --> 00:01:45,350

reliability engineering so we just need

31

00:01:51,249 --> 00:01:47,899

to make a definition reliability is just

32

00:01:54,219 --> 00:01:51,259

the attribute the system has to continue

33

00:01:55,319 --> 00:01:54,229

to give you the functions for which it

34

00:01:58,089 --> 00:01:55,329

was designed

35

00:01:59,949 --> 00:01:58,099

that's pretty simple right if we buy a

36

00:02:00,870 --> 00:01:59,959

car we want it to continue to go down

37

00:02:05,639 --> 00:02:00,880

the road

38

00:02:13,510 --> 00:02:08,290

see how do I use this thing like that

39

00:02:16,920 --> 00:02:13,520

there we go it's got a nasty definition

40

00:02:19,809 --> 00:02:16,930

called coordinated holistic proactive

41

00:02:22,930 --> 00:02:19,819

approach to improving asset availability

42

00:02:25,900 --> 00:02:22,940

now the assets that we have

43

00:02:28,510 --> 00:02:25,910

the people we work with the physical

44

00:02:31,090 --> 00:02:28,520

plants and things that we have and the

45

00:02:33,360 --> 00:02:31,100

knowledge that we have and we all want

46

00:02:37,150 --> 00:02:33,370

those to be able to improve the

47

00:02:39,100 --> 00:02:37,160

availability of those actions and to

48

00:02:42,430 --> 00:02:39,110

protect the humans that interact with

49

00:02:44,500 --> 00:02:42,440

them now part of the reliability

50

00:02:47,230 --> 00:02:44,510

engineering is a sub concept called

51
00:02:50,290 --> 00:02:47,240
situational awareness and situational

52
00:02:51,670 --> 00:02:50,300
awareness is very important we all need

53
00:02:54,190 --> 00:02:51,680
to keep track of what's going on around

54
00:02:55,690 --> 00:02:54,200
us especially if we're driving you know

55
00:02:57,340 --> 00:02:55,700
you don't want to have people running

56
00:03:00,070 --> 00:02:57,350
into you or you running into someone

57
00:03:03,790 --> 00:03:00,080
else and so situational awareness is

58
00:03:06,270 --> 00:03:03,800
knowing what's going on around you now

59
00:03:09,040 --> 00:03:06,280
if you have poor situational awareness

60
00:03:13,030 --> 00:03:09,050
your consciousness doesn't have a good

61
00:03:15,700 --> 00:03:13,040
grip on on what's going on and the

62
00:03:18,880 --> 00:03:15,710
project of the prospects for that is

63
00:03:22,660 --> 00:03:18,890

that the safety and the integrity and of

64

00:03:26,520 --> 00:03:22,670

the human the physical and the knowledge

65

00:03:29,050 --> 00:03:26,530

systems you have it's doubtful okay

66

00:03:31,330 --> 00:03:29,060

so what a premonitions got to do with

67

00:03:34,420 --> 00:03:31,340

any of this let's kind of shift gears

68

00:03:38,020 --> 00:03:34,430

now and talk about something a little

69

00:03:41,320 --> 00:03:38,030

bit related we get information and this

70

00:03:45,330 --> 00:03:41,330

is kind of the realm of thye we get

71

00:03:47,500 --> 00:03:45,340

information from the past comes to us

72

00:03:50,560 --> 00:03:47,510

near-death experiences past life

73

00:03:52,420 --> 00:03:50,570

recollections things through mediums and

74

00:03:54,550 --> 00:03:52,430

and things like that

75

00:03:56,710 --> 00:03:54,560

we also get information from the remote

76

00:03:59,110 --> 00:03:56,720

present and we've talked in here there

77

00:04:00,970 --> 00:03:59,120

in this meeting about remote viewing and

78

00:04:03,699 --> 00:04:00,980

messages from others without hardware

79

00:04:05,290 --> 00:04:03,709

things like that and then we get

80

00:04:08,530 --> 00:04:05,300

information from the future and that's

81

00:04:10,600 --> 00:04:08,540

premonitions or precognition so we have

82

00:04:13,990 --> 00:04:10,610

all of these kinds of information that

83

00:04:16,060 --> 00:04:14,000

come to us now they're all transfers of

84

00:04:19,210 --> 00:04:16,070

information these are all in the SCI

85

00:04:23,140 --> 00:04:19,220

realm and they help us to be more

86

00:04:24,870 --> 00:04:23,150

situationally aware know better about

87

00:04:27,370 --> 00:04:24,880

what's going on around us so that we can

88

00:04:29,680 --> 00:04:27,380

be aware of all the facts that are

89

00:04:31,690 --> 00:04:29,690

relevant to the safety of the people we

90

00:04:33,880 --> 00:04:31,700

deal with the physical plant we have and

91

00:04:35,590 --> 00:04:33,890

the knowledge that we contain and this

92

00:04:37,810 --> 00:04:35,600

is especially true with regard to

93

00:04:40,940 --> 00:04:37,820

premonitions

94

00:04:43,220 --> 00:04:40,950

now here's probably something somebody's

95

00:04:44,630 --> 00:04:43,230

gonna wonder about I'm saying that

96

00:04:48,130 --> 00:04:44,640

premonitions and other well-established

97

00:04:51,830 --> 00:04:48,140

sigh things where we have good tech

98

00:04:54,740 --> 00:04:51,840

science behind it has become a knowledge

99

00:04:57,980 --> 00:04:54,750

base and is therefore technology now

100

00:05:00,200 --> 00:04:57,990

technology really some people think the

101
00:05:02,750 --> 00:05:00,210
only thing technology means is computers

102
00:05:04,550 --> 00:05:02,760
I get this at school a lot you know

103
00:05:06,980 --> 00:05:04,560
because I'm in technology management

104
00:05:09,920 --> 00:05:06,990
program when we we deal with all kinds

105
00:05:12,200 --> 00:05:09,930
of things not just computers and I don't

106
00:05:17,030 --> 00:05:12,210
deal with the computers and then

107
00:05:20,500 --> 00:05:17,040
criticized for that sometimes so things

108
00:05:24,260 --> 00:05:20,510
like premonitions now were Dean Radin

109
00:05:26,660 --> 00:05:24,270
experiments have p-values that are in

110
00:05:28,850 --> 00:05:26,670
the astronomically known numbers yeah

111
00:05:33,800 --> 00:05:28,860
that's that's technology and that stuff

112
00:05:39,440 --> 00:05:33,810
that we can use technology is what we

113
00:05:42,260 --> 00:05:39,450

have for the benefit of humanity ok now

114

00:05:44,750 --> 00:05:42,270

this got this stuff that I'm talking

115

00:05:48,560 --> 00:05:44,760

about Gus started several years ago back

116

00:05:53,090 --> 00:05:48,570

in the mid 80s there was a professor of

117

00:05:57,950 --> 00:05:53,100

psychology at University of Texas and

118

00:06:00,820 --> 00:05:57,960

there a NASA contract he was given the

119

00:06:09,460 --> 00:06:04,940

research project to study what factors

120

00:06:14,650 --> 00:06:09,470

are common to incidents in systems and

121

00:06:18,290 --> 00:06:14,660

his aim really was to learn to predict

122

00:06:22,790 --> 00:06:18,300

when accidents were imminent that was

123

00:06:24,650 --> 00:06:22,800

that was the NASA project now him Rick

124

00:06:26,840 --> 00:06:24,660

and his associates discovered by things

125

00:06:29,750 --> 00:06:26,850

that enhance situational awareness we're

126
00:06:31,970 --> 00:06:29,760
not going to go over these but these are

127
00:06:35,500 --> 00:06:31,980
the things that people do that will

128
00:06:38,120 --> 00:06:35,510
enhance their situational awareness

129
00:06:39,980 --> 00:06:38,130
spatial orientation is when our kids our

130
00:06:42,530 --> 00:06:39,990
students have a hard time with that just

131
00:06:47,570 --> 00:06:42,540
means where you are in space and time

132
00:06:50,100 --> 00:06:47,580
with your surroundings okay so but more

133
00:06:52,920 --> 00:06:50,110
importantly what they did discover

134
00:06:55,529 --> 00:06:52,930
we're 11 clues that situational

135
00:06:58,439 --> 00:06:55,539
awareness had been lost

136
00:06:59,550 --> 00:06:58,449
they studied several thousand I don't

137
00:07:02,700 --> 00:06:59,560
know exactly what they studied

138
00:07:05,279 --> 00:07:02,710

incidentally I've tried to find his

139

00:07:07,740 --> 00:07:05,289

research and I can't find it I actually

140

00:07:09,450 --> 00:07:07,750

had a funk had a conversation with him I

141

00:07:13,170 --> 00:07:09,460

went and visited him when we were

142

00:07:16,020 --> 00:07:13,180

working with this and I don't know where

143

00:07:19,860 --> 00:07:16,030

it is and what I got I was working with

144

00:07:22,469 --> 00:07:19,870

flight safety international and failure

145

00:07:25,980 --> 00:07:22,479

announced associate Stu to use this

146

00:07:28,920 --> 00:07:25,990

technology in in industrial locations

147

00:07:31,409 --> 00:07:28,930

but these are the 11 clues that tells

148

00:07:34,589 --> 00:07:31,419

you you're out of it you don't know what

149

00:07:37,439 --> 00:07:34,599

you're doing and we won't go over all of

150

00:07:39,899 --> 00:07:37,449

them just maybe like departure from a

151
00:07:41,580 --> 00:07:39,909
standard operating procedures now an

152
00:07:43,649 --> 00:07:41,590
operating procedure that you have you

153
00:07:45,779 --> 00:07:43,659
alright procedures at one time another

154
00:07:47,990 --> 00:07:45,789
in your life and when you're doing

155
00:07:50,339 --> 00:07:48,000
something at a safety critical industry

156
00:07:51,959 --> 00:07:50,349
you want the best thinking of the best

157
00:07:54,990 --> 00:07:51,969
minds on that subject to make the

158
00:07:58,279 --> 00:07:55,000
procedure right ok but when you depart

159
00:08:02,159 --> 00:07:58,289
from it you move into a realm that is

160
00:08:05,850 --> 00:08:02,169
outside where the best thinking of the

161
00:08:08,670 --> 00:08:05,860
best minds have considered ok and so

162
00:08:11,730 --> 00:08:08,680
then you have lost situational awareness

163
00:08:14,369 --> 00:08:11,740

because you don't know where you are

164

00:08:15,899 --> 00:08:14,379

no one flying the plane nobody in

165

00:08:18,360 --> 00:08:15,909

control and it might amaze you and

166

00:08:20,999 --> 00:08:18,370

invest real situations I have seen that

167

00:08:23,730 --> 00:08:21,009

happen on numerous occasions there's

168

00:08:25,649 --> 00:08:23,740

nobody monitoring or in control of

169

00:08:27,839 --> 00:08:25,659

anything and that's pretty pretty scary

170

00:08:30,029 --> 00:08:27,849

when you got 200 million dollar piece of

171

00:08:32,939 --> 00:08:30,039

junk sitting out there and and it's at

172

00:08:35,310 --> 00:08:32,949

1,200 degrees and and you got oil in it

173

00:08:40,170 --> 00:08:35,320

and you've got oxygen in it and nobody's

174

00:08:43,500 --> 00:08:40,180

in control ambiguities and big unities

175

00:08:44,970 --> 00:08:43,510

are things that don't make sense you you

176

00:08:47,670 --> 00:08:44,980

have instruments that give you this

177

00:08:50,009 --> 00:08:47,680

information and this information and

178

00:08:53,610 --> 00:08:50,019

they don't they don't mess they don't

179

00:08:56,550 --> 00:08:53,620

mesh those those that means you don't

180

00:09:01,550 --> 00:08:56,560

know what's going on and now down here

181

00:09:03,780 --> 00:09:01,560

the one that they found number 11 an

182

00:09:06,630 --> 00:09:03,790

apprehensive or gut feel

183

00:09:09,360 --> 00:09:06,640

that something is wrong now that's a

184

00:09:13,380 --> 00:09:09,370

pure premonition that gut feeling that

185

00:09:15,360 --> 00:09:13,390

something is wrong so let's move on a

186

00:09:20,340 --> 00:09:15,370

little bit here this is what they

187

00:09:23,610 --> 00:09:20,350

discovered if if you're in some sort of

188

00:09:25,290 --> 00:09:23,620

a operating procedure and and you

189

00:09:29,910 --> 00:09:25,300

discover that four or five of these

190

00:09:32,220 --> 00:09:29,920

clues are present the statistics on

191

00:09:33,960 --> 00:09:32,230

there's a research study by Helmerich so

192

00:09:36,360 --> 00:09:33,970

that an incident was imminent and that

193

00:09:39,930 --> 00:09:36,370

what you should do is put things into

194

00:09:42,690 --> 00:09:39,940

idle go to the safe position and find

195

00:09:45,120 --> 00:09:42,700

out what's wrong the one that I thought

196

00:09:47,010 --> 00:09:45,130

was really interesting was every time

197

00:09:55,860 --> 00:09:47,020

they found somebody had this premonition

198

00:09:58,500 --> 00:09:55,870

that something bad was going on 100% of

199

00:10:03,150 --> 00:09:58,510

the time there was an incident now when

200

00:10:07,260 --> 00:10:03,160

an incident can be doesn't have to hurt

201
00:10:11,940 --> 00:10:07,270
people but it can there's a potential

202
00:10:13,470 --> 00:10:11,950
for hurting people and but a lot of the

203
00:10:16,200 --> 00:10:13,480
times when you have an incident you

204
00:10:18,120 --> 00:10:16,210
don't hurt somebody but you can lose

205
00:10:20,760 --> 00:10:18,130
hundreds and hundreds of thousands of

206
00:10:25,470 --> 00:10:20,770
dollars in just a flash of eyelash

207
00:10:30,750 --> 00:10:25,480
sometimes so you know we have all kinds

208
00:10:32,190 --> 00:10:30,760
of incidents that can happen now one of

209
00:10:35,150 --> 00:10:32,200
the things that I have noticed is that

210
00:10:38,850 --> 00:10:35,160
there there's an exponential factor in

211
00:10:46,710 --> 00:10:38,860
premonitions now I've got 29 grandkids

212
00:10:48,840 --> 00:10:46,720
as of today and that means I have small

213
00:10:52,200 --> 00:10:48,850

children in my dinner table every once

214

00:10:54,840 --> 00:10:52,210

in a while and if I see a glass of milk

215

00:10:56,880 --> 00:10:54,850

go from out front of the plate where I

216

00:11:00,530 --> 00:10:56,890

put it over here to the edge of the

217

00:11:02,910 --> 00:11:00,540

table I can see it going on the floor

218

00:11:04,770 --> 00:11:02,920

now I've had that happen a lot of times

219

00:11:08,100 --> 00:11:04,780

see now the first time that happened not

220

00:11:12,120 --> 00:11:08,110

likely no well that may not be to safer

221

00:11:13,860 --> 00:11:12,130

place but but what this does is help us

222

00:11:17,610 --> 00:11:13,870

to recognize things and take appropriate

223

00:11:23,640 --> 00:11:17,620

actions and so as we go through the

224

00:11:28,500 --> 00:11:23,650

things here we have the opportunity of

225

00:11:34,410 --> 00:11:28,510

seeing things that are not normal now

226

00:11:36,690 --> 00:11:34,420

what they can do for us then is help us

227

00:11:39,510 --> 00:11:36,700

be trained to recognize the premonitions

228

00:11:49,320 --> 00:11:39,520

because when you see those things we

229

00:11:51,180 --> 00:11:49,330

train people to well they're gone we one

230

00:11:52,800 --> 00:11:51,190

of the things we do to train them as we

231

00:11:56,720 --> 00:11:52,810

go through a training procedure which

232

00:11:59,550 --> 00:11:56,730

trains them to recognize those clues and

233

00:12:02,700 --> 00:11:59,560

they aren't necessarily premonitions in

234

00:12:06,090 --> 00:12:02,710

and of themselves but they are things

235

00:12:08,280 --> 00:12:06,100

that will help you recognize a

236

00:12:11,820 --> 00:12:08,290

premonition and because you've had the

237

00:12:13,350 --> 00:12:11,830

training then it motivates you to do

238

00:12:16,260 --> 00:12:13,360

something about it okay

239

00:12:19,500 --> 00:12:16,270

and that's that's the value of this now

240

00:12:21,630 --> 00:12:19,510

the FAA has required on for a long many

241

00:12:24,990 --> 00:12:21,640

years now that this kind of training be

242

00:12:26,790 --> 00:12:25,000

given to commercial airline crews and

243

00:12:30,930 --> 00:12:26,800

then it includes the stewardesses also

244

00:12:33,120 --> 00:12:30,940

and so you have these and and we often

245

00:12:36,329 --> 00:12:33,130

get religious and spiritual leaders who

246

00:12:40,680 --> 00:12:36,339

are encouraging this to pay attention to

247

00:12:42,930 --> 00:12:40,690

this kind of information so we consider

248

00:12:45,810 --> 00:12:42,940

and we've trained a lot of people now we

249

00:12:50,640 --> 00:12:45,820

spent we had a refinery in southern

250

00:12:52,949 --> 00:12:50,650

Kansas in which we had 420 people

251

00:12:55,769 --> 00:12:52,959

everybody in the plant was given this

252

00:12:58,680 --> 00:12:55,779

training and a few months later on one

253

00:13:00,240 --> 00:12:58,690

of one of the units there was a it

254

00:13:01,560 --> 00:13:00,250

wasn't working very good and there was

255

00:13:03,750 --> 00:13:01,570

below this and that and they were

256

00:13:05,730 --> 00:13:03,760

struggling and turning the knobs and

257

00:13:09,720 --> 00:13:05,740

noting that happening right and one of

258

00:13:12,840 --> 00:13:09,730

the guys said look there's there's five

259

00:13:14,610 --> 00:13:12,850

of those clues the foreman says hit the

260

00:13:18,000 --> 00:13:14,620

panic button and that's an emergency

261

00:13:20,070 --> 00:13:18,010

shutdown they did that they resolved the

262

00:13:22,800 --> 00:13:20,080

issues very quickly when an hour two

263

00:13:26,390 --> 00:13:22,810

came back up and only lost a minimal

264

00:13:28,680 --> 00:13:26,400

amount of money now in another area

265

00:13:30,930 --> 00:13:28,690

same kind of thing different unit

266

00:13:32,640 --> 00:13:30,940

different kind of personality

267

00:13:34,800 --> 00:13:32,650

somebody call attention to that some of

268

00:13:36,270 --> 00:13:34,810

these clues to the company said hi he

269

00:13:38,970 --> 00:13:36,280

says we're not going we work through

270

00:13:40,710 --> 00:13:38,980

this we've done this before you just

271

00:13:43,320 --> 00:13:40,720

it's just getting after and get listen

272

00:13:45,780 --> 00:13:43,330

fixed within a few hours

273

00:13:48,480 --> 00:13:45,790

everything coked up on every pipe and

274

00:13:50,580 --> 00:13:48,490

every vessel was full solid carbon and

275

00:13:53,750 --> 00:13:50,590

they were down for a month cleaning it

276

00:13:56,580 --> 00:13:53,760

out nobody got hurt lots of money lost

277

00:13:57,930 --> 00:13:56,590

and the instructions of the workers

278

00:14:00,120 --> 00:13:57,940

whenever you see four or five of these

279

00:14:03,060 --> 00:14:00,130

things to losing the situational

280

00:14:05,520 --> 00:14:03,070

awareness move to a safe position if the

281

00:14:10,280 --> 00:14:05,530

Premonition factors present do it right

282

00:14:15,240 --> 00:14:10,290

now quick now here's one last example

283

00:14:16,980 --> 00:14:15,250

okay Flying Tiger Airlines bad

284

00:14:21,000 --> 00:14:16,990

communications failure to act on

285

00:14:23,460 --> 00:14:21,010

premonitions flying tiger Airlines came

286

00:14:26,700 --> 00:14:23,470

from the Flying Tigers of World War two

287

00:14:29,520 --> 00:14:26,710

Fame and they had a an air air freight

288

00:14:33,210 --> 00:14:29,530

company and they were they were

289

00:14:37,220 --> 00:14:33,220

traveling from Borneo to Kuala Lumpur in

290

00:14:42,030 --> 00:14:37,230

Malaysia and it was a dark night it was

291

00:14:44,970 --> 00:14:42,040

it couldn't really see much there was no

292

00:14:47,880 --> 00:14:44,980

moon and as they got on approach here to

293

00:14:50,460 --> 00:14:47,890

Kuala Lumpur the air traffic controlling

294

00:14:54,750 --> 00:14:50,470

look couldn't in Kuala Lumpur called in

295

00:14:58,020 --> 00:14:54,760

and said you need to fly around and come

296

00:15:00,300 --> 00:14:58,030

in from the other direction because the

297

00:15:02,250 --> 00:15:00,310

instrument landing system is not in

298

00:15:04,920 --> 00:15:02,260

service from the direction you're coming

299

00:15:07,680 --> 00:15:04,930

in same kind of comment I'll come on how

300

00:15:09,390 --> 00:15:07,690

we you know he was kind of a cowboy yeah

301

00:15:11,100 --> 00:15:09,400

we can do this we've done manual

302

00:15:12,840 --> 00:15:11,110

landings before we don't need to we

303

00:15:15,630 --> 00:15:12,850

don't need to do that besides that'll

304

00:15:17,970 --> 00:15:15,640

take us another hour to get around there

305

00:15:21,180 --> 00:15:17,980

and come back and he says we're not

306

00:15:26,040 --> 00:15:21,190

going to do it well three times during

307

00:15:29,100 --> 00:15:26,050

this approach thing the person the

308

00:15:31,320 --> 00:15:29,110

second officer said oh come on Captain

309

00:15:33,030 --> 00:15:31,330

let's just fly around I really don't

310

00:15:36,750 --> 00:15:33,040

feel good about this he did that three

311

00:15:40,310 --> 00:15:36,760

times and he was rebuffed each time and

312

00:15:46,160 --> 00:15:42,949

the air traffic controller cleared them

313

00:15:49,519 --> 00:15:46,170

to go to she said you are cleared to fly

314

00:15:56,060 --> 00:15:49,529

to two four zero zero and they were

315

00:15:58,340 --> 00:15:56,070

arguing about which which frequency they

316

00:16:01,280 --> 00:15:58,350

should be on that was a distraction and

317

00:16:05,720 --> 00:16:01,290

what the crew heard was you are cleared

318

00:16:09,139 --> 00:16:05,730

to four zero zero so at that point in

319

00:16:11,840 --> 00:16:09,149

time right here they reset the glide

320

00:16:15,079 --> 00:16:11,850

slope on the automatic pilot to go to

321

00:16:17,389 --> 00:16:15,089

400 feet instead of 2400 they began to

322

00:16:19,129 --> 00:16:17,399

still began to continue because of the

323

00:16:21,230 --> 00:16:19,139

distraction they did not recognize any

324

00:16:22,699 --> 00:16:21,240

of these because this wasn't part of the

325

00:16:25,100 --> 00:16:22,709

training at the time and they flew into

326

00:16:26,689 --> 00:16:25,110

a mountain and of course they're killed

327

00:16:31,449 --> 00:16:26,699

and those were the ones that they were

328

00:16:35,990 --> 00:16:31,459

not doing so I'm firmly convinced that

329

00:16:38,870 --> 00:16:36,000

this training works it worked in in all

330

00:16:40,910 --> 00:16:38,880

sorts of critical safety critical

331

00:16:43,370 --> 00:16:40,920

industries and we've trained people in

332

00:16:45,920 --> 00:16:43,380

it and it's got a premonition part of it

333

00:16:47,629 --> 00:16:45,930

and I think it the it helps is

334

00:16:50,960 --> 00:16:47,639

premonition area with the other clues

335

00:16:55,309 --> 00:16:50,970

because it helps you recognize what's

336

00:16:57,970 --> 00:16:55,319

going on and and act and be motivated to

337

00:17:02,629 --> 00:16:57,980

act ok

338

00:17:05,399 --> 00:17:02,639

[Applause]

339

00:17:14,250 --> 00:17:05,409

yes thank you John very interesting

340

00:17:16,949 --> 00:17:14,260

okay I'm wondering hi yeah very

341

00:17:20,340 --> 00:17:16,959

fascinating talk my brother works for

342

00:17:22,829 --> 00:17:20,350

the Navy he's at Bremerton Jim yard he

343

00:17:25,079 --> 00:17:22,839

was involved in refueling submarines and

344

00:17:27,799 --> 00:17:25,089

we've talked on many occasions about

345

00:17:30,240 --> 00:17:27,809

their safety procedures and he recently

346

00:17:32,010 --> 00:17:30,250

turned me to a book I can't remember the

347

00:17:35,760 --> 00:17:32,020

author sorry but it's called root cause

348

00:17:37,139 --> 00:17:35,770

analysis okay so I was wondering looking

349

00:17:39,269 --> 00:17:37,149

at that it seemed quite limited to me

350

00:17:41,310 --> 00:17:39,279

and I wanted to know if if you had seen

351
00:17:43,470 --> 00:17:41,320
that practice and how how you would

352
00:17:46,169 --> 00:17:43,480
think of it well that's a subject that

353
00:17:48,810 --> 00:17:46,179
we teach in and with relation to this

354
00:17:52,039 --> 00:17:48,820
here also root cause failure analysis

355
00:17:54,570 --> 00:17:52,049
that's two things is it's a technique of

356
00:17:56,760 --> 00:17:54,580
building an error chain where you start

357
00:17:59,310 --> 00:17:56,770
where the sharp end of the error chain

358
00:18:00,960 --> 00:17:59,320
is that's where it hurts okay and you

359
00:18:02,310 --> 00:18:00,970
say what caused that and then what

360
00:18:03,779 --> 00:18:02,320
caused that and then what caused that

361
00:18:06,529 --> 00:18:03,789
and then what caused that and so you

362
00:18:10,649 --> 00:18:06,539
develop an error chain that you can

363
00:18:12,960 --> 00:18:10,659

analyze and then take actions to solve a

364

00:18:14,669 --> 00:18:12,970

lot of problems and so that's one thing

365

00:18:16,080 --> 00:18:14,679

and then there is also a computer

366

00:18:17,340 --> 00:18:16,090

program you can buy that will walk you

367

00:18:19,380 --> 00:18:17,350

through it called root cause failure

368

00:18:26,430 --> 00:18:19,390

analysis very very very valuable

369

00:18:28,139 --> 00:18:26,440

technique yeah yeah no it doesn't but

370

00:18:31,769 --> 00:18:28,149

one of the things I've done in my

371

00:18:33,990 --> 00:18:31,779

classes I I take that that lemon clues

372

00:18:37,380 --> 00:18:34,000

sheet and we use that an incident

373

00:18:41,159 --> 00:18:37,390

investigation to see if there was human

374

00:18:44,010 --> 00:18:41,169

error because they had missed one or two

375

00:18:47,180 --> 00:18:44,020

or more or five of those clues to losing

376

00:18:49,440 --> 00:18:47,190

awareness so in that respect yeah we do

377

00:18:51,419 --> 00:18:49,450

yeah oh right here

378

00:18:53,580 --> 00:18:51,429

thanks John um my work for a company

379

00:18:54,810 --> 00:18:53,590

that talks about safety but doesn't

380

00:18:58,080 --> 00:18:54,820

really do anything about safety

381

00:19:00,930 --> 00:18:58,090

is there anything typical yeah yeah and

382

00:19:04,380 --> 00:19:00,940

we've had accidents there but I just got

383

00:19:11,590 --> 00:19:04,390

brushed under the rug any commercial

384

00:19:15,430 --> 00:19:13,570

well I think there are yeah I think

385

00:19:18,340 --> 00:19:15,440

there are some there are people who

386

00:19:20,110 --> 00:19:18,350

because the FAA requires it's called

387

00:19:22,390 --> 00:19:20,120

crew resource management is the

388

00:19:24,370 --> 00:19:22,400

technical term for the entire training

389

00:19:28,680 --> 00:19:24,380

program okay so I think there are yeah

390

00:19:34,659 --> 00:19:28,690

I'll google that thank you all

391

00:19:37,200 --> 00:19:34,669

situationally aware or unaware Thanks so

392

00:19:39,340 --> 00:19:37,210

it's very fascinating presentation

393

00:19:41,500 --> 00:19:39,350

looking at the camera I know I'm gonna

394

00:19:43,149 --> 00:19:41,510

be further than Todd once the DVDs get

395

00:19:45,190 --> 00:19:43,159

out but I was looking at the eleven

396

00:19:47,320 --> 00:19:45,200

point least and it looked to me like a

397

00:19:50,649 --> 00:19:47,330

perfect checklist for a systemic

398

00:19:52,180 --> 00:19:50,659

business failure and in the case I was

399

00:19:54,490 --> 00:19:52,190

thinking about was a big telecoms

400

00:19:55,899 --> 00:19:54,500

manufacturer from Finland so you may

401
00:19:57,909 --> 00:19:55,909
have heard about it and it's recent

402
00:20:01,750 --> 00:19:57,919
troubles so I'm thinking do you think

403
00:20:05,710 --> 00:20:01,760
this list has applicability beyond the

404
00:20:08,830 --> 00:20:05,720
technical logical reliability does yeah

405
00:20:11,980 --> 00:20:08,840
matter of fact you can use it in your

406
00:20:14,560 --> 00:20:11,990
family for instance if you get a phone

407
00:20:17,770 --> 00:20:14,570
call at 3:00 in the morning saying your

408
00:20:20,820 --> 00:20:17,780
sins in jail you need to come get him

409
00:20:24,669 --> 00:20:20,830
that's bad situational and parent and in

410
00:20:26,890 --> 00:20:24,679
the kind of your parenting and I nearly

411
00:20:28,210 --> 00:20:26,900
had a guy in my office who came home one

412
00:20:29,590 --> 00:20:28,220
day and the first of the month bills

413
00:20:31,510 --> 00:20:29,600

come in and all of a sudden here is

414

00:20:32,830 --> 00:20:31,520

credit card bills from about six

415

00:20:35,830 --> 00:20:32,840

different places he didn't know he had a

416

00:20:38,649 --> 00:20:35,840

credit card for and here was an \$18,000

417

00:20:40,390 --> 00:20:38,659

total charge all piled up his wife had

418

00:20:42,580 --> 00:20:40,400

gone out and spent that much money and

419

00:20:47,470 --> 00:20:42,590

they had nothing to show for it the

420

00:20:49,480 --> 00:20:47,480

thing that they thought was she must

421

00:20:51,370 --> 00:20:49,490

have bought a lot of stuff and there was

422

00:20:54,010 --> 00:20:51,380

receipts and things but she didn't have

423

00:20:55,630 --> 00:20:54,020

him and she gave it away it was what it

424

00:20:57,310 --> 00:20:55,640

was happen to the show so there's all

425

00:21:01,149 --> 00:20:57,320

kinds financial situational awareness

426

00:21:03,940 --> 00:21:01,159

credit cards is a big one so the it's a

427

00:21:05,590 --> 00:21:03,950

really powerful powerful one additional

428

00:21:07,810 --> 00:21:05,600

continued question do you think it makes

429

00:21:11,620 --> 00:21:07,820

any sense to move the premonition from

430

00:21:14,020 --> 00:21:11,630

the 11th spot to the top well it's

431

00:21:16,330 --> 00:21:14,030

probably one of the better ones as

432

00:21:19,330 --> 00:21:16,340

you're teaching that you run into the

433

00:21:21,549 --> 00:21:19,340

problem do they believe that one down

434

00:21:23,260 --> 00:21:21,559

there ok but when you give them the rest

435

00:21:23,600 --> 00:21:23,270

of them and then people start coming up

436

00:21:26,330 --> 00:21:23,610

and

437

00:21:32,870 --> 00:21:26,340

with examples then that makes lots of

438

00:21:33,370 --> 00:21:32,880

sense - yeah okay okay thank you John