



1
00:00:01,330 --> 00:00:06,300
>> NASA and its commercial crew
program today announced new

2
00:00:06,300 --> 00:00:10,370
agreements with three American
commercial companies to design

3
00:00:10,370 --> 00:00:12,070
and develop the next generation

4
00:00:12,070 --> 00:00:15,940
of U.S. human space flight
capabilities enabling a launch

5
00:00:15,940 --> 00:00:20,900
of astronauts from U.S.
soil in the next five years.

6
00:00:20,900 --> 00:00:22,970
Advances made by these companies

7
00:00:22,970 --> 00:00:25,370
under newly signed
space act agreements

8
00:00:25,370 --> 00:00:28,430
through the agencies commercial
crew innovative capability

9
00:00:28,430 --> 00:00:31,400
initiative are intended
to ultimately lead

10
00:00:31,400 --> 00:00:32,460
to the availability

11
00:00:32,460 --> 00:00:35,790
of commercial human space

flight services for government

12

00:00:35,790 --> 00:00:37,680
and commercial customers.

13

00:00:37,680 --> 00:00:41,690
>> Our commercial crew and cargo
effects are based on a simple

14

00:00:41,690 --> 00:00:43,470
but powerful principle.

15

00:00:43,470 --> 00:00:46,620
By investigating in
American companies

16

00:00:46,620 --> 00:00:50,850
and American ingenuity we're
spurring free market competition

17

00:00:50,850 --> 00:00:52,830
to give more taxpayer's
more bang

18

00:00:52,830 --> 00:00:55,130
for the buck while enabling NASA

19

00:00:55,130 --> 00:00:59,080
to do what we do best
reach for the heavens.

20

00:00:59,080 --> 00:01:02,540
>> Sierra Nevada Corporation
will advance its dream chaser

21

00:01:02,540 --> 00:01:05,430
spacecraft which resembles
NASA's space shuttle

22

00:01:05,430 --> 00:01:07,620
but is smaller and
based on improvements

23
00:01:07,620 --> 00:01:11,060
to the agencies HL 20
lifting body design.

24
00:01:11,060 --> 00:01:13,760
The company partnered with
United Launch Alliance

25
00:01:13,760 --> 00:01:17,780
to launch a spacecraft to
top an atlas five rocket.

26
00:01:17,780 --> 00:01:21,430
SpaceX's crewed dragon will
get more lift capability

27
00:01:21,430 --> 00:01:24,320
from the next generation
of falcon rockets.

28
00:01:24,320 --> 00:01:27,650
The uncrewed version of
dragon recently made history

29
00:01:27,650 --> 00:01:30,900
as the first commercial built
spacecraft to rendezvous

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00:01:30,900 --> 00:01:34,650
and then birth with the
International Space Station.

31
00:01:34,650 --> 00:01:38,710
Boeing will continue to
develop it's CST 100 spacecraft

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00:01:38,710 --> 00:01:41,930
which underwent rigorous testing
during two previous commercial

33

00:01:41,930 --> 00:01:43,610
crew development phases.

34

00:01:43,610 --> 00:01:46,900
It too will launch
atop an atlas five.

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00:01:46,900 --> 00:01:50,250
>> I am very confident in
the ability and capability

36

00:01:50,250 --> 00:01:53,200
of are three partners
under iCap.

37

00:01:53,200 --> 00:01:54,770
I believe that we can
make great progress

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00:01:54,770 --> 00:01:56,730
with these three partners.

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00:01:56,730 --> 00:02:02,280
>> Between now and May 31st 2014
NASA's partners will complete

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00:02:02,280 --> 00:02:05,110
their spacecraft and
launch vehicle designs,

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00:02:05,110 --> 00:02:08,650
test their hardware, and then
showcase how they would operate

42

00:02:08,650 --> 00:02:12,870
and manage missions from launch

through orbit and landing.

43

00:02:12,870 --> 00:02:16,480

The agency CCIcap
initiative sets the stage

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00:02:16,480 --> 00:02:18,860

for a crewed orbital
demonstration mission

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00:02:18,860 --> 00:02:23,510

to low earth orbit by
the middle of the decade.

46

00:02:23,510 --> 00:02:30,010

[Music]

47

00:02:30,010 --> 00:02:36,060

[Pause]

48

00:02:36,060 --> 00:02:39,050

>> Well welcome back, welcome
inside mission control we're

49

00:02:39,050 --> 00:02:40,300

very pleased to be joined

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00:02:40,300 --> 00:02:43,500

by Brent Jett he is the
commercial crew program

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00:02:43,500 --> 00:02:45,080

deputy manager.

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00:02:45,080 --> 00:02:48,250

Brent's obviously no
stranger to mission control

53

00:02:48,250 --> 00:02:49,900

and obviously being on orbit

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00:02:49,900 --> 00:02:53,820
as an astronaut he's flown four
times aboard the space shuttle

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00:02:53,820 --> 00:02:56,400
two of those actually to the
International Space Station

56

00:02:56,400 --> 00:02:57,920
for assembly missions.

57

00:02:57,920 --> 00:03:02,480
He joined the commercial crew
program early last year in 2011

58

00:03:02,480 --> 00:03:05,200
and prior to that
he was the director

59

00:03:05,200 --> 00:03:07,990
of flight crew operations which
oversees the astronaut office

60

00:03:07,990 --> 00:03:11,050
and aircraft ops which
is located primarily

61

00:03:11,050 --> 00:03:13,260
out at Ellington Field
here down the street

62

00:03:13,260 --> 00:03:15,730
from Johnson's Space Center.

63

00:03:15,730 --> 00:03:18,790
Those four space
shuttle flights seems

64

00:03:18,790 --> 00:03:22,690

like probably been a long
time ago now but he first flew

65

00:03:22,690 --> 00:03:26,210

on STS-72 as a pilot and STS-81

66

00:03:26,210 --> 00:03:28,360

to the Russian mere
space station as a pilot

67

00:03:28,360 --> 00:03:31,420

and then commanded two
missions to the ISS early

68

00:03:31,420 --> 00:03:34,030

in the assembly phase and
then as we got started

69

00:03:34,030 --> 00:03:37,090

with assembly once
again after the loss

70

00:03:37,090 --> 00:03:42,590

of Columbia STS-115 your
final flight was back in 2006

71

00:03:42,590 --> 00:03:44,430

and then he transitioned
into management role.

72

00:03:44,430 --> 00:03:46,130

So, Brent, thanks a lot welcome

73

00:03:46,130 --> 00:03:47,860

to mission control I
know it's been a while

74

00:03:47,860 --> 00:03:49,260

since you've been here.

75

00:03:49,260 --> 00:03:51,030

>> It's good to be back.

76

00:03:51,030 --> 00:03:53,430

>> Talk a little bit about
how you segwayed actually

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00:03:53,430 --> 00:03:57,700

into the role of commercial
crew program deputy manager how

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00:03:57,700 --> 00:03:59,620

that all got set up.

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00:03:59,620 --> 00:04:02,570

>> Yeah. That's interesting as
you mentioned I was the director

80

00:04:02,570 --> 00:04:05,570

of flew crew operations in 2010

81

00:04:05,570 --> 00:04:09,870

when the president announced
the commercial crew program.

82

00:04:09,870 --> 00:04:15,180

That was in February
and Mike Coats came

83

00:04:15,180 --> 00:04:18,580

to me shortly thereafter and
said, you know, we need somebody

84

00:04:18,580 --> 00:04:21,510

at JSE to work with
Kennedy to set

85

00:04:21,510 --> 00:04:23,170
up for the program essentially

86

00:04:23,170 --> 00:04:26,440
in a planning office
type of role.

87

00:04:26,440 --> 00:04:28,060
So he asked me to
take that on as sort

88

00:04:28,060 --> 00:04:30,830
of an additional responsibility
to being a director

89

00:04:30,830 --> 00:04:34,110
of flight crew ops so for
the next year or so I kind

90

00:04:34,110 --> 00:04:37,170
of wore two hats working with
Ed Mango [phonetic] in Florida

91

00:04:37,170 --> 00:04:41,490
to set up the program and then
also continuing on with my role

92

00:04:41,490 --> 00:04:43,830
as director with
flight crew ops.

93

00:04:43,830 --> 00:04:47,960
>> You know Ed came by back
about five months ago now

94

00:04:47,960 --> 00:04:50,140
and talked to us about the state

95

00:04:50,140 --> 00:04:54,030
of the program obviously

a great deal has happened

96

00:04:54,030 --> 00:04:55,410
since that time frame.

97

00:04:55,410 --> 00:05:00,140
Now he's based -- the program
is based at KSE down in Florida

98

00:05:00,140 --> 00:05:03,380
and of course your here
in Houston but you know,

99

00:05:03,380 --> 00:05:04,880
from my vantage point looks

100

00:05:04,880 --> 00:05:07,950
like that coordination is
working really well and,

101

00:05:07,950 --> 00:05:12,590
you know, is that kind of
a model for how NASA plans

102

00:05:12,590 --> 00:05:15,020
to do its business in the future

103

00:05:15,020 --> 00:05:17,610
at least relative
to commercial crew?

104

00:05:17,610 --> 00:05:21,100
>> Yeah. I'm not sure
it's necessarily a model

105

00:05:21,100 --> 00:05:23,970
that we're going to try to
follow with all programs.

106

00:05:23,970 --> 00:05:27,430

It's been working very well
I would agree with you.

107

00:05:27,430 --> 00:05:30,960

Kennedy and Johnson
have I think unique

108

00:05:30,960 --> 00:05:33,600

and complementary
skills in the work force.

109

00:05:33,600 --> 00:05:36,800

Kennedy as you mentioned is the
lead center the program office

110

00:05:36,800 --> 00:05:41,390

is there with Ed leading
the entire program

111

00:05:41,390 --> 00:05:46,270

and what Ed has done is really
made it concerted effort

112

00:05:46,270 --> 00:05:49,690

to make sure that people don't
view this is just a Kennedy

113

00:05:49,690 --> 00:05:52,520

program, you know, he
understands that's it's going

114

00:05:52,520 --> 00:05:55,690

to take all the man space flight
centers all the human space

115

00:05:55,690 --> 00:05:58,950

flight centers to make this
program work so I give him a lot

116

00:05:58,950 --> 00:06:01,830
of credit for making
that happen.

117
00:06:01,830 --> 00:06:05,730
>> How do you all have the
program structured in terms of,

118
00:06:05,730 --> 00:06:08,100
you know, division
of responsibilities?

119
00:06:08,100 --> 00:06:09,410
>> Yeah, it's a little
bit different

120
00:06:09,410 --> 00:06:11,870
from what folks might remember
from the shuttle program.

121
00:06:11,870 --> 00:06:16,130
And sometimes when you have a
multicenter program you take

122
00:06:16,130 --> 00:06:19,380
specific areas or projects
and take that whole delegation

123
00:06:19,380 --> 00:06:21,080
to a certain NASA center.

124
00:06:21,080 --> 00:06:24,510
We did really want
to take that path

125
00:06:24,510 --> 00:06:28,510
so what we've done is
really every office

126
00:06:28,510 --> 00:06:30,320

within the program
almost every one

127
00:06:30,320 --> 00:06:35,230
of them has leadership that's
spans the centers and --

128
00:06:35,230 --> 00:06:35,360
>> Right.

129
00:06:35,360 --> 00:06:37,330
>> -- people working in the
office that spans the centers

130
00:06:37,330 --> 00:06:42,740
so that's a little bit unique
but it's worked out well so far.

131
00:06:42,740 --> 00:06:45,910
>> Now we're moving into the
next phase when is CCIcap

132
00:06:45,910 --> 00:06:47,390
which stands for
Commercial Crew,

133
00:06:47,390 --> 00:06:49,250
Integrated Capability
we're winding the

134
00:06:49,250 --> 00:06:52,550
down the previous
phase, CC dev 2.

135
00:06:52,550 --> 00:06:56,980
Talk a little bit about how
that's now structured the

136
00:06:56,980 --> 00:07:00,050
differences as we move

into the next phase.

137

00:07:00,050 --> 00:07:03,720

>> Yeah. I tell you there's two probably two main differences we

138

00:07:03,720 --> 00:07:07,040

didn't really restructure the program itself,

139

00:07:07,040 --> 00:07:09,740

but obviously we had seven partners in CC dev 2,

140

00:07:09,740 --> 00:07:13,850

four funded three unfunded with smaller teams working with each

141

00:07:13,850 --> 00:07:15,690

of those partners and as we transitioned

142

00:07:15,690 --> 00:07:20,510

into iCap we have three partners now and the scope

143

00:07:20,510 --> 00:07:23,070

of their work is much bigger so they're working

144

00:07:23,070 --> 00:07:25,840

on the whole Integrated system and so the teams

145

00:07:25,840 --> 00:07:27,420

that we have assigned to work with each

146

00:07:27,420 --> 00:07:29,460

of those companies are larger.

147

00:07:29,460 --> 00:07:32,900

>> Right. And, you know,
for those that haven't tuned

148

00:07:32,900 --> 00:07:34,870

if we did have an
opportunity to talk

149

00:07:34,870 --> 00:07:38,130

with the three partner
managers, I'll call them new

150

00:07:38,130 --> 00:07:40,210

but they're not really
they've served

151

00:07:40,210 --> 00:07:44,020

in pretty extensive
roles already within CCP

152

00:07:44,020 --> 00:07:47,270

but very interesting to
hear how they're working

153

00:07:47,270 --> 00:07:53,010

on their new teams in terms
of organizational activity.

154

00:07:53,010 --> 00:07:58,000

But obviously with that,
you know, what is your view

155

00:07:58,000 --> 00:08:02,570

of the external response
from the companies themselves

156

00:08:02,570 --> 00:08:06,540

and how this is structured now?

157

00:08:06,540 --> 00:08:10,750

>> Well, I think industry has been very positive throughout

158

00:08:10,750 --> 00:08:14,900

the whole commercial initiative, you know, it started back

159

00:08:14,900 --> 00:08:19,090

with the cots cargo initiative and now it's been expanded

160

00:08:19,090 --> 00:08:23,920

to crew so industry I think is very, very, they're very pleased

161

00:08:23,920 --> 00:08:27,430

and very anxious to continue this model.

162

00:08:27,430 --> 00:08:29,930

I think the view the combination

163

00:08:29,930 --> 00:08:33,860

of NASA bringing their experience to the table along

164

00:08:33,860 --> 00:08:38,050

with the freedom for industry to be innovative, move quickly,

165

00:08:38,050 --> 00:08:41,580

and have a little bit more control of their design,

166

00:08:41,580 --> 00:08:44,410

that combination obviously they find very attractive.

167

00:08:44,410 --> 00:08:51,390

>> I know that one of the important things that you guys

168

00:08:51,390 --> 00:08:56,020

at the program have taken very seriously is the next steps

169

00:08:56,020 --> 00:09:00,510

really is risk and certification or combined and I know

170

00:09:00,510 --> 00:09:03,230

that that's something that's coming down the road obviously

171

00:09:03,230 --> 00:09:06,160

that you guys are working on pretty feverishly now.

172

00:09:06,160 --> 00:09:10,210

Can you talk a little bit about how everybody's embracing

173

00:09:10,210 --> 00:09:12,920

that aspect of the structure.

174

00:09:12,920 --> 00:09:16,630

>> Right. And I think it's good for folk to realize

175

00:09:16,630 --> 00:09:20,090

that the program up to this point has been primarily focused

176

00:09:20,090 --> 00:09:24,070

on facilitating industry and their development

177

00:09:24,070 --> 00:09:27,800

of their own commercial systems and at some point

178

00:09:27,800 --> 00:09:32,070

in that process we need to transition to a role

179

00:09:32,070 --> 00:09:35,410

of doing certification for the ISS mission that we need

180

00:09:35,410 --> 00:09:38,240

to get our astronauts to and from station.

181

00:09:38,240 --> 00:09:40,880

And we recently announced our strategy for how we were going

182

00:09:40,880 --> 00:09:45,520

to start that certification process and we should

183

00:09:45,520 --> 00:09:48,900

by early next year we'll be in what we call phase one

184

00:09:48,900 --> 00:09:52,000

of the certification effort where now rather

185

00:09:52,000 --> 00:09:53,960

than just facilitating the develop

186

00:09:53,960 --> 00:09:56,650

of these systems we're going to be going in and working

187

00:09:56,650 --> 00:10:00,410

with industry and these
companies to ensure

188

00:10:00,410 --> 00:10:03,540

that what they are developing
meets our requirements

189

00:10:03,540 --> 00:10:07,290

and our safety standards.

190

00:10:07,290 --> 00:10:09,830

>> Budget stability is
always a big part of this

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00:10:09,830 --> 00:10:13,670

and what have you heard,
how are things in terms

192

00:10:13,670 --> 00:10:15,740

of the budget structure moving

193

00:10:15,740 --> 00:10:18,820

out in the next obviously
CCiCap is kind of laid

194

00:10:18,820 --> 00:10:23,730

out as a 21 month program and
what's laid out beyond that.

195

00:10:23,730 --> 00:10:26,140

>> Yeah. So you're right,
budget stability is a challenge

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00:10:26,140 --> 00:10:31,070

for every program manager and
their deputies and their team

197

00:10:31,070 --> 00:10:34,430

so it is something
we're working on.

198

00:10:34,430 --> 00:10:38,410

I think the way we've
developed our plans, you know,

199

00:10:38,410 --> 00:10:42,640

we have to be able to respond to
changes in budget year to year

200

00:10:42,640 --> 00:10:44,800

and so we're ready to do that.

201

00:10:44,800 --> 00:10:50,350

But I think in the long
run ultimately, you know,

202

00:10:50,350 --> 00:10:52,910

politically I think
there's general agreement

203

00:10:52,910 --> 00:10:55,830

that we need a U.S. capability

204

00:10:55,830 --> 00:10:57,680

to take advantage of
the space station.

205

00:10:57,680 --> 00:10:59,230

We only -- we're relying

206

00:10:59,230 --> 00:11:01,960

on the [inaudible] we're
single string there, you know,

207

00:11:01,960 --> 00:11:05,490

any problem with the [inaudible]
if it was grounded for a period

208

00:11:05,490 --> 00:11:08,600

of time we would be unable to
get astronauts back and forth

209

00:11:08,600 --> 00:11:13,280

so that and the fact that we
America taxpayers invested a

210

00:11:13,280 --> 00:11:16,170

tremendous amount of money
in the station we really want

211

00:11:16,170 --> 00:11:18,750

to fully utilize that
and commercial crew

212

00:11:18,750 --> 00:11:20,590

and cargo are both part of that.

213

00:11:20,590 --> 00:11:21,910

So I think there's
general agreement

214

00:11:21,910 --> 00:11:25,640

that what we're doing is
something that needs to be done

215

00:11:25,640 --> 00:11:28,800

and has a high priority where I
think we get sometimes a little

216

00:11:28,800 --> 00:11:32,410

bit skeptical -- a little bit of
skepticism on the political side

217

00:11:32,410 --> 00:11:35,640

because we're doing
things differently.

218

00:11:35,640 --> 00:11:40,210

This is not your traditional

development program and as,

219

00:11:40,210 --> 00:11:42,330

you know, stewards of the taxpayer's dollars I think,

220

00:11:42,330 --> 00:11:45,390

you know, rightly so we get asked a lot of hard questions

221

00:11:45,390 --> 00:11:49,280

but since the cargo program actually spanned the previous

222

00:11:49,280 --> 00:11:51,800

administration I think, you know,

223

00:11:51,800 --> 00:11:55,820

we're somewhat hopefully we're somewhat apolitical while not

224

00:11:55,820 --> 00:11:57,940

being tied to one party or the other.

225

00:11:57,940 --> 00:12:02,740

Both can claim responsibility for our success when we make it.

226

00:12:02,740 --> 00:12:04,660

>> Right, yeah, understand.

227

00:12:04,660 --> 00:12:09,020

Well I'll end by number one thanking you for coming by

228

00:12:09,020 --> 00:12:11,280

but I think I'll end with a question

229

00:12:11,280 --> 00:12:13,670

that you probably get
asked a lot and that is

230

00:12:13,670 --> 00:12:16,520

in your role obviously as
an astronaut and especially

231

00:12:16,520 --> 00:12:19,030

with commercial crew and
that is, would you go fly

232

00:12:19,030 --> 00:12:21,930

on these new vehicles that
are under development?

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00:12:21,930 --> 00:12:26,230

I know you go out to all
these locations and now we're

234

00:12:26,230 --> 00:12:29,030

down to the three
at least, in CCIcap

235

00:12:29,030 --> 00:12:31,530

but would you go fly
on these vehicles?

236

00:12:31,530 --> 00:12:32,490

>> Yeah, that's interesting.

237

00:12:32,490 --> 00:12:35,230

It's probably not the right
question to ask an astronaut

238

00:12:35,230 --> 00:12:38,160

or a test pilot or probably
the type of personalities

239

00:12:38,160 --> 00:12:41,440
that work here at NASA we tend
to be pretty much risk takers

240

00:12:41,440 --> 00:12:46,920
in general but, you know, I
look it as my job is at the end

241

00:12:46,920 --> 00:12:48,540
of the day when we're
getting ready to fly

242

00:12:48,540 --> 00:12:50,620
that first mission is to
be able to look in the eye

243

00:12:50,620 --> 00:12:54,850
of our NASA astronauts and
our international partners

244

00:12:54,850 --> 00:12:57,200
and tell them that, you know,
we've done everything we need

245

00:12:57,200 --> 00:12:59,610
to do to ensure that the
risk we're asking them

246

00:12:59,610 --> 00:13:02,860
to take is acceptable and
I fully expect we're going

247

00:13:02,860 --> 00:13:04,690
to be able to do that and at

248

00:13:04,690 --> 00:13:07,360
that point I would feel
comfortable putting my brother

249

00:13:07,360 --> 00:13:09,520

or my sister on the
vehicle at as well.

250

00:13:09,520 --> 00:13:11,530

>> Well I know we're
all looking forward

251

00:13:11,530 --> 00:13:15,880

to it obviously the station
program is because that's one

252

00:13:15,880 --> 00:13:19,440

of the destinations for the
vehicles that are chosen

253

00:13:19,440 --> 00:13:21,460

to actually go and
continue to fly,

254

00:13:21,460 --> 00:13:23,550

so we're all looking
forward to that.

255

00:13:23,550 --> 00:13:26,020

So we'd like to thank
you, Brent, for stopping

256

00:13:26,020 --> 00:13:28,210

by for a new minutes I
know you haven't been

257

00:13:28,210 --> 00:13:29,870

in mission control
for a while, but --

258

00:13:29,870 --> 00:13:32,230

>> Yeah, I wasn't sure my badge
was going to let me in actually.

259

00:13:32,230 --> 00:13:34,610

>> But we really
enjoy you coming by

260

00:13:34,610 --> 00:13:36,640

and hopefully we'll have
an opportunity to visit

261

00:13:36,640 --> 00:13:38,490

with you again soon
so thanks a lot.

262

00:13:38,490 --> 00:13:39,480

>> Thanks Kyle.