

HUBBLE
25



HUBBLE

hangouts

Hubble Hangouts Live at AAS 225

#6: Meeting Recap

Tuesday, Jan 6, 2014, 4:30pm PST, 12:30am (Wed) UTpm, 1:30am (Wed) CET

1
00:00:04,170 --> 00:00:11,930
nothing

2
00:00:17,279 --> 00:00:14,190
we're live

3
00:00:20,190 --> 00:00:17,289
okay hello everybody hello everybody

4
00:00:23,429 --> 00:00:20,200
we're back this is our final hang up for

5
00:00:24,749 --> 00:00:23,439
the day at the 225th meeting American

6
00:00:27,359 --> 00:00:24,759
Astronomical Society my name is Tony

7
00:00:29,540 --> 00:00:27,369
Darnell I work at Space Telescope and so

8
00:00:33,030 --> 00:00:29,550
does my colleague carol christian she's

9
00:00:34,560 --> 00:00:33,040
we she is the we're still here we're

10
00:00:35,910 --> 00:00:34,570
still showing you what's going on and

11
00:00:37,709 --> 00:00:35,920
what we'd like to do every time this day

12
00:00:39,240 --> 00:00:37,719
is talk a little bit give you guys a

13
00:00:40,740 --> 00:00:39,250

recap of the meeting itself some of the

14

00:00:42,299 --> 00:00:40,750

things that we've learned in carol has

15

00:00:44,549 --> 00:00:42,309

gone around getting a bunch of swag so

16

00:00:47,100 --> 00:00:44,559

she's going to show you that as well we

17

00:00:48,330 --> 00:00:47,110

hope that you guys are enjoying these

18

00:00:50,040 --> 00:00:48,340

things we're doing giving them to you

19

00:00:53,580 --> 00:00:50,050

i'm not monitoring comments or questions

20

00:00:55,860 --> 00:00:53,590

at this point because our colleague has

21

00:00:57,300 --> 00:00:55,870

had to go do something else so let's go

22

00:01:00,210 --> 00:00:57,310

ahead and a service with Carol okay

23

00:01:03,890 --> 00:01:00,220

first of all the rundown today there was

24

00:01:06,810 --> 00:01:03,900

a big emphasis actually on education

25

00:01:08,460 --> 00:01:06,820

astronomers love to talk about what they

26

00:01:11,550 --> 00:01:08,470

do and they love to be involved in

27

00:01:13,350 --> 00:01:11,560

education so there are many posters and

28

00:01:18,419 --> 00:01:13,360

presentations about education with

29

00:01:21,870 --> 00:01:18,429

astronomy and as usual there were also a

30

00:01:24,870 --> 00:01:21,880

lot of talks on exoplanet research and

31

00:01:26,580 --> 00:01:24,880

also a couple of press releases and so

32

00:01:28,050 --> 00:01:26,590

one of the press releases was from the

33

00:01:30,779 --> 00:01:28,060

Kepler project and they were talking

34

00:01:34,020 --> 00:01:30,789

about how they've been of course looking

35

00:01:36,510 --> 00:01:34,030

they've upped the number of planet

36

00:01:40,349 --> 00:01:36,520

candidates to something like 4,700 oh

37

00:01:43,679 --> 00:01:40,359

wow yeah and they have a handful that

38

00:01:45,449 --> 00:01:43,689

are earth-like so we've got some super

39

00:01:47,279 --> 00:01:45,459

Earths they're in the right place called

40

00:01:49,440 --> 00:01:47,289

the habitable zone so they're in the

41

00:01:52,139 --> 00:01:49,450

right place to have water so of course

42

00:01:55,580 --> 00:01:52,149

follow-up observations will be done and

43

00:01:58,260 --> 00:01:55,590

in fact there was another presentation

44

00:02:00,839 --> 00:01:58,270

it was another present sorry there was

45

00:02:06,059 --> 00:02:00,849

another presentation that was about

46

00:02:09,359 --> 00:02:06,069

follow up on on planets and and they are

47

00:02:11,940 --> 00:02:09,369

looking for the confirmation of the size

48

00:02:14,040 --> 00:02:11,950

and the atmospheres and they think they

49

00:02:16,080 --> 00:02:14,050

have another one that might have be kind

50

00:02:18,059 --> 00:02:16,090

of like an earth-like planet

51
00:02:20,130 --> 00:02:18,069
but it's not confirmed but it's just a

52
00:02:21,360 --> 00:02:20,140
teaser so that was that your press

53
00:02:23,520 --> 00:02:21,370
release there's a difference between

54
00:02:27,000 --> 00:02:23,530
when you say up the couplers got a bun

55
00:02:28,140 --> 00:02:27,010
is up the number of panic experts what

56
00:02:30,839 --> 00:02:28,150
is it what does that mean exact that

57
00:02:35,699 --> 00:02:30,849
means that they have analyzed the data

58
00:02:38,430 --> 00:02:35,709
carefully and they have 4,700 object

59
00:02:42,300 --> 00:02:38,440
stars that have a brightness change

60
00:02:44,520 --> 00:02:42,310
which could be due to a planet so then

61
00:02:47,190 --> 00:02:44,530
after that they have to continue to

62
00:02:51,059 --> 00:02:47,200
monitor and the reason that it takes so

63
00:02:53,220 --> 00:02:51,069

long to continue getting candidates is

64

00:02:56,850 --> 00:02:53,230

that when Kepler first started it stares

65

00:03:00,270 --> 00:02:56,860

at one part of the sky only and in the

66

00:03:02,880 --> 00:03:00,280

first year they could detect planets

67

00:03:05,069 --> 00:03:02,890

that went around their parent star

68

00:03:06,630 --> 00:03:05,079

fairly rapidly so they'd see it many

69

00:03:09,479 --> 00:03:06,640

times because you have to see it many

70

00:03:11,430 --> 00:03:09,489

times before you say yeah it's

71

00:03:14,039 --> 00:03:11,440

repeatable looks like it could be a

72

00:03:16,530 --> 00:03:14,049

planet but now it's been in orbit for

73

00:03:19,289 --> 00:03:16,540

four years and so they're starting to

74

00:03:21,930 --> 00:03:19,299

detect planets that are further out that

75

00:03:24,059 --> 00:03:21,940

have probably gone round like only a

76

00:03:26,670 --> 00:03:24,069

couple of times so the longer they're up

77

00:03:28,680 --> 00:03:26,680

there then the planet state detector

78

00:03:30,690 --> 00:03:28,690

further and further from the parent star

79

00:03:33,839 --> 00:03:30,700

and then we use ground-based and

80

00:03:36,270 --> 00:03:33,849

space-based telescopes to then go back

81

00:03:38,550 --> 00:03:36,280

and look at those objects and see if

82

00:03:42,150 --> 00:03:38,560

they can detect the planet itself its

83

00:03:43,289 --> 00:03:42,160

atmosphere or do deeper observations and

84

00:03:44,789 --> 00:03:43,299

it's important to remember also that

85

00:03:46,680 --> 00:03:44,799

this is the Kepler data Kepler has

86

00:03:48,120 --> 00:03:46,690

completed its main mission yes and this

87

00:03:50,550 --> 00:03:48,130

this is data they're still going through

88

00:03:53,670 --> 00:03:50,560

and coming up with even more candidates

89

00:03:56,520 --> 00:03:53,680

now and Kepler uses the radio Vlad sorry

90

00:03:58,470 --> 00:03:56,530

the transit transit method to detect

91

00:04:00,120 --> 00:03:58,480

these dips and brightness as a planet

92

00:04:01,800 --> 00:04:00,130

goes in front that's this primary way of

93

00:04:03,390 --> 00:04:01,810

doing it and from that they can get

94

00:04:05,129 --> 00:04:03,400

things like the size of the planet and

95

00:04:06,720 --> 00:04:05,139

whether or not might have an atmosphere

96

00:04:07,309 --> 00:04:06,730

or not as well as how far away it might

97

00:04:09,349 --> 00:04:07,319

be from

98

00:04:11,649 --> 00:04:09,359

right so the things they can learn from

99

00:04:15,440 --> 00:04:11,659

that so other things that go on besides

100

00:04:16,819 --> 00:04:15,450

the reporting of research posters which

101

00:04:19,699 --> 00:04:16,829

we talked about today was a big

102

00:04:22,969 --> 00:04:19,709

education poster day is that we have

103

00:04:24,950 --> 00:04:22,979

these town hall groupings where we talk

104

00:04:26,779 --> 00:04:24,960

about that astronomers get together talk

105

00:04:29,930 --> 00:04:26,789

about the facility so we're having a

106

00:04:32,089 --> 00:04:29,940

Hubble town hall on thursday tonight

107

00:04:35,719 --> 00:04:32,099

we're having a James Webb telescope Town

108

00:04:37,490 --> 00:04:35,729

Hall which I'll be recording but I won't

109

00:04:40,129 --> 00:04:37,500

be streaming it'll be posted later on

110

00:04:42,050 --> 00:04:40,139

our website later on so we had one today

111

00:04:43,189 --> 00:04:42,060

on the ground-based observatories

112

00:04:44,960 --> 00:04:43,199

because there are many ground-based

113

00:04:46,700 --> 00:04:44,970

observatories and what new

114

00:04:48,589 --> 00:04:46,710

instrumentation are being put on that

115

00:04:50,960 --> 00:04:48,599

some pretty exciting stuff they're doing

116

00:04:54,350 --> 00:04:50,970

some large surveys from the ground and

117

00:04:56,120 --> 00:04:54,360

they're also doing some spectroscopy

118

00:04:58,610 --> 00:04:56,130

which they can do know that the

119

00:05:00,860 --> 00:04:58,620

advantage of ground-based observatory is

120

00:05:03,379 --> 00:05:00,870

that in a couple of years you can build

121

00:05:06,260 --> 00:05:03,389

a brand new brand new instrument with

122

00:05:09,140 --> 00:05:06,270

new technology and and pretty large

123

00:05:11,060 --> 00:05:09,150

format so they can be heavier than the

124

00:05:12,560 --> 00:05:11,070

stuff we put in space read last night

125

00:05:14,689 --> 00:05:12,570

remember they had the thirty meter

126

00:05:17,510 --> 00:05:14,699

telescope never had I've had a big

127

00:05:21,710 --> 00:05:17,520

banquet kind of thing The Meters really

128

00:05:24,499 --> 00:05:21,720

big really big hardware big pieces of

129

00:05:27,129 --> 00:05:24,509

glass and big instrumentation but

130

00:05:31,279 --> 00:05:27,139

another thing I wanted to share with you

131

00:05:36,050 --> 00:05:31,289

that is a feature of these meetings as

132

00:05:39,589 --> 00:05:36,060

all trade shows and meetings is fun

133

00:05:42,320 --> 00:05:39,599

stuff which is that you can pick up at

134

00:05:47,240 --> 00:05:42,330

the various booths around the room that

135

00:05:50,089 --> 00:05:47,250

reminds you of different kinds of of the

136

00:05:51,239 --> 00:05:50,099

different organizations that are here so

137

00:05:58,949 --> 00:05:51,249

this

138

00:06:00,659 --> 00:05:58,959

piece of schwag is actually from a

139

00:06:03,689 --> 00:06:00,669

little company called Eureka that

140

00:06:09,350 --> 00:06:03,699

supports research and astronomy oh here

141

00:06:19,200 --> 00:06:15,780

so it's science on top okay that's

142

00:06:22,620 --> 00:06:19,210

enough so then so there's there's also

143

00:06:24,510 --> 00:06:22,630

an unlimited quantity of handouts so

144

00:06:27,780 --> 00:06:24,520

there are business cards there are these

145

00:06:31,170 --> 00:06:27,790

kind of cards this one happens to be

146

00:06:32,760 --> 00:06:31,180

about spectroscopy education there's

147

00:06:35,129 --> 00:06:32,770

also what was that I saw that I don't

148

00:06:37,080 --> 00:06:35,139

know this here but this thing is really

149

00:06:39,480 --> 00:06:37,090

cool you should get one Tony you put it

150

00:06:43,409 --> 00:06:39,490

around the handle on your briefcase or

151
00:06:45,480 --> 00:06:43,419
Oh luggage because no one else has these

152
00:06:47,460 --> 00:06:45,490
so it's really easy for me to find my

153
00:06:50,250 --> 00:06:47,470
luggage and it has the name of the

154
00:06:54,020 --> 00:06:50,260
organization Associated university so

155
00:06:57,330 --> 00:06:54,030
there's what that was it first Microsoft

156
00:07:03,690 --> 00:06:57,340
had the red and blue 3d glasses that you

157
00:07:08,430 --> 00:07:03,700
can use worldwide telescope we have pins

158
00:07:13,560 --> 00:07:08,440
we have our HST and our jwst pins as his

159
00:07:16,350 --> 00:07:13,570
as well there's also bookmarks are fun

160
00:07:18,960 --> 00:07:16,360
because they're cute but also because

161
00:07:20,969 --> 00:07:18,970
they give you lots of information about

162
00:07:23,279 --> 00:07:20,979
the organization that made the bookmark

163
00:07:25,320 --> 00:07:23,289

so there's educational stuff this is a

164

00:07:27,900 --> 00:07:25,330

digital library there are booked

165

00:07:30,240 --> 00:07:27,910

companies there's that stuff there are

166

00:07:32,580 --> 00:07:30,250

stickers what's it say you want you your

167

00:07:35,219 --> 00:07:32,590

Pluto the year on Pluto this is the year

168

00:07:36,980 --> 00:07:35,229

that as you as you as you all smart

169

00:07:39,719 --> 00:07:36,990

people know and have been following that

170

00:07:40,980 --> 00:07:39,729

there's a probe going to Pluto it's

171

00:07:43,320 --> 00:07:40,990

going to be out there pretty soon

172

00:07:45,360 --> 00:07:43,330

looking at Pluto and this is an

173

00:07:49,020 --> 00:07:45,370

advertisement for that mission you can

174

00:07:51,540 --> 00:07:49,030

collect probably a thousand stickers

175

00:07:54,510 --> 00:07:51,550

from the various places or admissions

176

00:07:56,640 --> 00:07:54,520

yeah I got a w first one this is post at

177

00:08:01,170 --> 00:07:56,650

notes for a ground-based telescope that

178

00:08:03,930 --> 00:08:01,180

will be depressing come online large

179

00:08:05,610 --> 00:08:03,940

synoptic survey telescope also the

180

00:08:06,470 --> 00:08:05,620

astrophysics data system which does

181

00:08:09,830 --> 00:08:06,480

public

182

00:08:13,220 --> 00:08:09,840

patient's there's a screen cleaner for

183

00:08:19,330 --> 00:08:13,230

your iphone there's a key ring from

184

00:08:26,360 --> 00:08:19,340

Hawaii which has a surfboard their pens

185

00:08:29,840 --> 00:08:26,370

there's candy there's mac nuts mmm more

186

00:08:31,820 --> 00:08:29,850

pins chocolate is my favorite more pens

187

00:08:34,400 --> 00:08:31,830

oh yeah this year is very popular to

188

00:08:36,590 --> 00:08:34,410

have you can have it in almost any color

189

00:08:39,830 --> 00:08:36,600

you can think of from every organization

190

00:08:42,380 --> 00:08:39,840

and sure enough they put their logo on

191

00:08:46,940 --> 00:08:42,390

it so when you charge your phone you

192

00:08:49,520 --> 00:08:46,950

won't forget them and I think I think

193

00:08:51,440 --> 00:08:49,530

well I have more chocolate egg like lots

194

00:08:56,980 --> 00:08:51,450

of chocolate there's other kinds of food

195

00:09:02,540 --> 00:08:56,990

and last but not least sorry is also a

196

00:09:05,090 --> 00:09:02,550

lighted pen which changes color which if

197

00:09:08,060 --> 00:09:05,100

you still use pencil and paper or

198

00:09:10,610 --> 00:09:08,070

post-it notes if you still use pencil

199

00:09:12,650 --> 00:09:10,620

and paper so anyway oh yeah and then a

200

00:09:14,330 --> 00:09:12,660

pencil I don't even know where there is

201
00:09:19,520 --> 00:09:14,340
a pencil for you see that first night

202
00:09:22,490 --> 00:09:19,530
you would you have a bright pencil from

203
00:09:24,650 --> 00:09:22,500
from era sebo so that's pretty much the

204
00:09:26,960 --> 00:09:24,660
swag I collected and let me tell you

205
00:09:29,560 --> 00:09:26,970
this only tip of the iceberg and it's

206
00:09:32,180 --> 00:09:29,570
only a little bit of the paper and

207
00:09:34,070 --> 00:09:32,190
postcards that I that I picked up I mean

208
00:09:36,980 --> 00:09:34,080
I could have like a bucket load this

209
00:09:40,370 --> 00:09:36,990
stuff anyway have at it today writer

210
00:09:41,930 --> 00:09:40,380
today Tony yep your job is cut out for

211
00:09:44,870 --> 00:09:41,940
you yeah so i've got i'll be doing the

212
00:09:48,020 --> 00:09:44,880
James Webb Space Telescope town hall

213
00:09:49,460 --> 00:09:48,030

tonight that'll be at six-thirty pacific

214

00:09:50,570 --> 00:09:49,470

time i'll be recording that and posting

215

00:09:52,280 --> 00:09:50,580

it sometime on youtube that's where

216

00:09:53,660 --> 00:09:52,290

everybody's giving everybody updates on

217

00:09:58,340 --> 00:09:53,670

what's going on with the mission

218

00:10:00,740 --> 00:09:58,350

and stuff tomorrow we'll be back so we

219

00:10:01,970 --> 00:10:00,750

hope you'll join us and what we did with

220

00:10:04,730 --> 00:10:01,980

Carolyn i'll be back at three thirty two

221

00:10:06,560 --> 00:10:04,740

morrow pacific time to talk about some

222

00:10:08,030 --> 00:10:06,570

we're having a science workshop tomorrow

223

00:10:09,980 --> 00:10:08,040

afternoon and we'll be talking about

224

00:10:11,420 --> 00:10:09,990

some of the highlights of that we'll

225

00:10:13,940 --> 00:10:11,430

have people from that as well as doing

226

00:10:16,910 --> 00:10:13,950

another recap in the morning tomorrow

227

00:10:19,480 --> 00:10:16,920

will be a hangout over to northrop

228

00:10:21,920 --> 00:10:19,490

grumman booth we will have a w first and

229

00:10:24,110 --> 00:10:21,930

evolvable Space Telescope's hang out

230

00:10:26,480 --> 00:10:24,120

with the people involved can't wait for

231

00:10:28,310 --> 00:10:26,490

that way that'll be fine yeah I agree so

232

00:10:29,870 --> 00:10:28,320

with that folks thank you for watching

233

00:10:32,660 --> 00:10:29,880

we're done for today we'll see you