



1
00:00:31,509 --> 00:00:29,109
this is the post-launch news conference

2
00:00:33,270 --> 00:00:31,519
for aquarius sac d

3
00:00:35,270 --> 00:00:33,280
launched successfully this morning from

4
00:00:38,310 --> 00:00:35,280
nasa space launch complex 2 at

5
00:00:40,869 --> 00:00:38,320
vandenberg air force base in california

6
00:00:42,310 --> 00:00:40,879
and here to discuss the success of our

7
00:00:44,950 --> 00:00:42,320
mission today

8
00:00:46,869 --> 00:00:44,960
is chuck gay the deputy associate

9
00:00:51,189 --> 00:00:46,879
administrator for the nasa science

10
00:00:58,389 --> 00:00:53,590
hector timmerman the foreign minister of

11
00:01:05,509 --> 00:01:00,869
michael freilick the nasa earth science

12
00:01:11,670 --> 00:01:08,550
and conrado ferraro the konai executive

13
00:01:13,990 --> 00:01:11,680

and technical director from buenos aires

14

00:01:17,030 --> 00:01:14,000

and we'll begin first with chuck gay

15

00:01:18,630 --> 00:01:17,040

chuck thank you george well first

16

00:01:20,550 --> 00:01:18,640

i think i speak for the entire panel

17

00:01:22,149 --> 00:01:20,560

when i say we're extremely pleased to be

18

00:01:23,429 --> 00:01:22,159

here this morning it's been a great day

19

00:01:25,590 --> 00:01:23,439

so far

20

00:01:28,230 --> 00:01:25,600

on behalf of nasa i would i would first

21

00:01:29,830 --> 00:01:28,240

like to congratulate the entire team of

22

00:01:31,670 --> 00:01:29,840

international professionals who have

23

00:01:33,910 --> 00:01:31,680

worked so hard

24

00:01:35,590 --> 00:01:33,920

to to accomplish what they have to this

25

00:01:36,950 --> 00:01:35,600

point for this very very important earth

26

00:01:39,910 --> 00:01:36,960

science mission

27

00:01:41,990 --> 00:01:39,920

the the mission itself is is certainly

28

00:01:43,270 --> 00:01:42,000

notable for its scientific objectives

29

00:01:45,590 --> 00:01:43,280

which we've heard about in the

30

00:01:47,830 --> 00:01:45,600

pre-launch press briefings

31

00:01:49,749 --> 00:01:47,840

but it's also extremely notable in in

32

00:01:51,030 --> 00:01:49,759

its demonstration of what can be

33

00:01:52,870 --> 00:01:51,040

accomplished with international

34

00:01:55,590 --> 00:01:52,880

partnerships the value of those

35

00:01:57,270 --> 00:01:55,600

partnerships and how they can be and

36

00:01:58,149 --> 00:01:57,280

should be performed

37

00:01:59,590 --> 00:01:58,159

um

38

00:02:02,709 --> 00:01:59,600

i can't tell you

39

00:02:04,709 --> 00:02:02,719

how how pro how proud i am of the entire

40

00:02:06,789 --> 00:02:04,719

team you know i've i've watched them

41

00:02:08,550 --> 00:02:06,799

over over the past gosh almost 10 years

42

00:02:10,710 --> 00:02:08,560

worked together

43

00:02:12,390 --> 00:02:10,720

overcome obstacles and hardships

44

00:02:14,390 --> 00:02:12,400

together i've seen them become friends

45

00:02:16,869 --> 00:02:14,400

and i've seen them become a family

46

00:02:18,390 --> 00:02:16,879

and and i think these uh you know the

47

00:02:20,550 --> 00:02:18,400

the bonds that have been established

48

00:02:22,790 --> 00:02:20,560

during this mission have in some in some

49

00:02:25,750 --> 00:02:22,800

way made the the earth a little bit

50

00:02:27,030 --> 00:02:25,760

smaller place for us all so

51
00:02:29,190 --> 00:02:27,040
back to you george and we'll let the

52
00:02:31,270 --> 00:02:29,200
other other panel members uh talk about

53
00:02:32,150 --> 00:02:31,280
the mission all right thank you chuck

54
00:02:34,309 --> 00:02:32,160
and

55
00:02:36,309 --> 00:02:34,319
now to hector temeron the foreign

56
00:02:38,309 --> 00:02:36,319
minister of argentina from buenos aires

57
00:02:42,470 --> 00:02:38,319
thank you very much thank you very much

58
00:02:43,670 --> 00:02:42,480
and as i share the happiness

59
00:02:46,229 --> 00:02:43,680
and

60
00:02:50,229 --> 00:02:46,239
about a successful launch of an

61
00:02:51,589 --> 00:02:50,239
argentinian space mission and mission a

62
00:02:53,910 --> 00:02:51,599
satellite

63
00:02:56,550 --> 00:02:53,920

and in cooperation with such an

64

00:02:58,710 --> 00:02:56,560

important organization as nasa

65

00:03:00,949 --> 00:02:58,720

but let me tell you that

66

00:03:02,710 --> 00:03:00,959

how proud we are the argentinians of

67

00:03:06,149 --> 00:03:02,720

this achievement

68

00:03:11,910 --> 00:03:06,159

thinking that 10 years ago argentina's

69

00:03:17,990 --> 00:03:15,830

fabric collapsed and since that time

70

00:03:19,750 --> 00:03:18,000

we have been coming out with a big

71

00:03:20,790 --> 00:03:19,760

effort of our people

72

00:03:24,149 --> 00:03:20,800

and

73

00:03:26,149 --> 00:03:24,159

the government didn't ever forget the

74

00:03:27,430 --> 00:03:26,159

importance of science

75

00:03:28,390 --> 00:03:27,440

and so

76

00:03:36,390 --> 00:03:28,400

we

77

00:03:40,070 --> 00:03:36,400

an important

78

00:03:41,990 --> 00:03:40,080

important instrument to search the earth

79

00:03:44,550 --> 00:03:42,000

and to analyze

80

00:03:45,350 --> 00:03:44,560

the changes that we are witnessing

81

00:04:03,030 --> 00:03:45,360

the

82

00:04:04,149 --> 00:04:03,040

space

83

00:04:06,229 --> 00:04:04,159

policy

84

00:04:09,190 --> 00:04:06,239

as an international part of our

85

00:04:12,789 --> 00:04:09,200

international cooperation we do this for

86

00:04:14,949 --> 00:04:12,799

civilian use we do this to advance

87

00:04:17,030 --> 00:04:14,959

the well-being of our people and the

88

00:04:20,390 --> 00:04:17,040

people of latin america and everybody

89

00:04:23,590 --> 00:04:20,400

else and so if part of our cooperation

90

00:04:25,990 --> 00:04:23,600

with other nations and we hope that in

91

00:04:28,550 --> 00:04:26,000

the future we will see more of these

92

00:04:30,230 --> 00:04:28,560

activities together with you at the nasa

93

00:04:32,150 --> 00:04:30,240

and with other countries in latin

94

00:04:34,390 --> 00:04:32,160

america and in europe thank you very

95

00:04:36,310 --> 00:04:34,400

much thank you hector

96

00:04:38,070 --> 00:04:36,320

now michael freileck the nasa earth

97

00:04:40,550 --> 00:04:38,080

science division director at nasa

98

00:04:41,909 --> 00:04:40,560

headquarters michael thank you very much

99

00:04:43,430 --> 00:04:41,919

george

100

00:04:46,550 --> 00:04:43,440

this is

101
00:04:49,270 --> 00:04:46,560
obviously a great day a great day for

102
00:04:53,510 --> 00:04:49,280
argentina and konai a great day for the

103
00:04:56,550 --> 00:04:53,520
u.s and nasa and a great day for all of

104
00:04:58,390 --> 00:04:56,560
our other international collaborators on

105
00:05:00,790 --> 00:04:58,400
this mission and it's a great day for

106
00:05:03,830 --> 00:05:00,800
science

107
00:05:06,629 --> 00:05:03,840
in in the us at least june

108
00:05:09,749 --> 00:05:06,639
is the month for graduations

109
00:05:12,390 --> 00:05:09,759
and with the successful launch of sac

110
00:05:14,150 --> 00:05:12,400
the aquarius today

111
00:05:17,830 --> 00:05:14,160
i'm reminded that this is like a

112
00:05:21,189 --> 00:05:17,840
commencement it marks the end of a long

113
00:05:23,270 --> 00:05:21,199

period of learning of bonding of

114

00:05:25,909 --> 00:05:23,280

collaborating between

115

00:05:27,990 --> 00:05:25,919

the teams from all of these nations

116

00:05:30,870 --> 00:05:28,000

to gain the knowledge

117

00:05:33,110 --> 00:05:30,880

that was required and to implement

118

00:05:34,230 --> 00:05:33,120

this great mission and it marks the

119

00:05:35,749 --> 00:05:34,240

start

120

00:05:37,029 --> 00:05:35,759

of

121

00:05:39,670 --> 00:05:37,039

advancing

122

00:05:42,150 --> 00:05:39,680

science in ways that it has not that we

123

00:05:46,310 --> 00:05:42,160

have not been able to before

124

00:05:49,029 --> 00:05:46,320

aquarius sacd is going to elucidate

125

00:05:51,430 --> 00:05:49,039

aspects of the water cycle the exchanges

126
00:05:52,390 --> 00:05:51,440
of water between the oceans and the

127
00:05:54,870 --> 00:05:52,400
atmosphere

128
00:05:58,629 --> 00:05:54,880
and the lands it's going to tell us a

129
00:06:01,909 --> 00:05:58,639
bit about how the ocean circulates and

130
00:06:04,469 --> 00:06:01,919
therefore how the ocean contributes to

131
00:06:07,189 --> 00:06:04,479
moving heat around from low latitudes to

132
00:06:10,150 --> 00:06:07,199
high latitudes making this earth more

133
00:06:12,550 --> 00:06:10,160
habitable than it otherwise would and

134
00:06:13,830 --> 00:06:12,560
aquarius sacd is going to be making

135
00:06:15,749 --> 00:06:13,840
measurements

136
00:06:17,990 --> 00:06:15,759
in places that have never had

137
00:06:20,950 --> 00:06:18,000
measurements made before and it will be

138
00:06:23,270 --> 00:06:20,960

making them every week for years and

139

00:06:25,189 --> 00:06:23,280

years this is going to be a great

140

00:06:27,029 --> 00:06:25,199

mission it has been a superb

141

00:06:28,870 --> 00:06:27,039

collaboration that has brought our

142

00:06:31,749 --> 00:06:28,880

countries together

143

00:06:33,909 --> 00:06:31,759

and our communities together and i think

144

00:06:37,430 --> 00:06:33,919

you're going to be hearing a lot about

145

00:06:38,710 --> 00:06:37,440

sac the aquarius in the years to come

146

00:06:41,990 --> 00:06:38,720

thank you george

147

00:06:44,070 --> 00:06:42,000

and now to colorado veroto the canai

148

00:06:46,830 --> 00:06:44,080

executive and technical director from

149

00:06:49,510 --> 00:06:46,840

buenos aires conrado thank

150

00:06:51,670 --> 00:06:49,520

you a couple of days ago

151

00:06:54,390 --> 00:06:51,680

i mentioned to some young people that we

152

00:06:57,430 --> 00:06:54,400

are coming from argentina just to watch

153

00:06:59,510 --> 00:06:57,440

aquarius sadly going into orbit

154

00:07:01,670 --> 00:06:59,520

that they could be they will see almost

155

00:07:03,350 --> 00:07:01,680

nothing since it was expected here

156

00:07:05,110 --> 00:07:03,360

before

157

00:07:09,430 --> 00:07:05,120

the answer was

158

00:07:11,350 --> 00:07:09,440

what matter is the emotion to be there

159

00:07:13,830 --> 00:07:11,360

and certainly it is the emotion of

160

00:07:16,790 --> 00:07:13,840

knowing that in just a few minutes

161

00:07:19,430 --> 00:07:16,800

we may be fully successful

162

00:07:22,950 --> 00:07:19,440

or it could be that we end feeling that

163

00:07:24,469 --> 00:07:22,960

years of car work have been wasted

164

00:07:27,029 --> 00:07:24,479

i'm sure that our friends from the

165

00:07:28,950 --> 00:07:27,039

states canada italy france and brazil do

166

00:07:30,870 --> 00:07:28,960

share the same feelings

167

00:07:33,270 --> 00:07:30,880

this is time that the people from

168

00:07:34,390 --> 00:07:33,280

goddard and jpl will probably

169

00:07:36,469 --> 00:07:34,400

watch

170

00:07:38,309 --> 00:07:36,479

their aquarius instrument

171

00:07:40,950 --> 00:07:38,319

the italian spaces say the rosa

172

00:07:43,830 --> 00:07:40,960

instrument the space the french species

173

00:07:46,150 --> 00:07:43,840

is their common instrument the canadian

174

00:07:47,990 --> 00:07:46,160

institute of optics they are balometer

175

00:07:50,550 --> 00:07:48,000

in the infrared camera

176

00:07:54,309 --> 00:07:50,560

and the impact from brazil the results

177

00:07:56,790 --> 00:07:54,319

of their work on the environmental tests

178

00:07:58,309 --> 00:07:56,800

and at home in argentina so many people

179

00:08:00,629 --> 00:07:58,319

from the national science and technology

180

00:08:01,749 --> 00:08:00,639

system will be watching the results of

181

00:08:03,909 --> 00:08:01,759

their work

182

00:08:05,510 --> 00:08:03,919

such as the national atomic commission

183

00:08:07,430 --> 00:08:05,520

with the solar panels

184

00:08:09,830 --> 00:08:07,440

our radio astronomy institute to the

185

00:08:12,469 --> 00:08:09,840

niagara optic institute of the national

186

00:08:15,189 --> 00:08:12,479

research council with microwave

187

00:08:17,110 --> 00:08:15,199

radiometer the infrared camera

188

00:08:18,710 --> 00:08:17,120

the university of la plata and the

189

00:08:21,189 --> 00:08:18,720

technology university with other

190

00:08:24,150 --> 00:08:21,199

instruments and the main

191

00:08:25,990 --> 00:08:24,160

developer of the space platform in bab

192

00:08:28,070 --> 00:08:26,000

and many other people from others

193

00:08:30,070 --> 00:08:28,080

research central university as well as

194

00:08:32,149 --> 00:08:30,080

from the industry because it is a

195

00:08:34,389 --> 00:08:32,159

national project

196

00:08:37,269 --> 00:08:34,399

we are very grateful to all of them

197

00:08:39,190 --> 00:08:37,279

at this time we are very happy

198

00:08:41,990 --> 00:08:39,200

we know that aquarius like this in orbit

199

00:08:44,630 --> 00:08:42,000

alive that it will deliver data it was

200

00:08:47,750 --> 00:08:44,640

worth the effort

201
00:08:50,630 --> 00:08:47,760
now aquarius d is moving towards a new

202
00:08:52,310 --> 00:08:50,640
fascinating productive stage

203
00:08:54,470 --> 00:08:52,320
it will be the responsibility of our

204
00:08:57,030 --> 00:08:54,480
people at the teoflotabanera center in

205
00:08:58,710 --> 00:08:57,040
cordoba to manage the mission to ensure

206
00:09:01,910 --> 00:08:58,720
that the satellite will deliver data in

207
00:09:04,070 --> 00:09:01,920
timely and appropriate way

208
00:09:06,150 --> 00:09:04,080
and it will be the responsibility of the

209
00:09:08,070 --> 00:09:06,160
science team selected jointly by our

210
00:09:11,190 --> 00:09:08,080
ministry of science and technology nasa

211
00:09:13,670 --> 00:09:11,200
and connie to use their imagination to

212
00:09:17,269 --> 00:09:13,680
find news and fascinating applications

213
00:09:19,509 --> 00:09:17,279

for those for the aquarius and the data

214

00:09:21,350 --> 00:09:19,519

new and fascinating ways to help to a

215

00:09:22,470 --> 00:09:21,360

better understanding of the earth

216

00:09:25,110 --> 00:09:22,480

environment

217

00:09:27,590 --> 00:09:25,120

to contribute to a better knowledge

218

00:09:29,110 --> 00:09:27,600

of the essential climate variable to

219

00:09:31,829 --> 00:09:29,120

help our health

220

00:09:33,509 --> 00:09:31,839

to save lives

221

00:09:36,389 --> 00:09:33,519

i'm not a poet

222

00:09:37,829 --> 00:09:36,399

but today i wish i could write a poem a

223

00:09:41,509 --> 00:09:37,839

poem of life

224

00:09:43,910 --> 00:09:41,519

a poem a love a point of happiness

225

00:09:46,150 --> 00:09:43,920

and looking back on my life i will be

226
00:09:48,870 --> 00:09:46,160
always grateful to my parents for taking

227
00:09:51,590 --> 00:09:48,880
me to argentina a country of

228
00:09:52,949 --> 00:09:51,600
opportunities a country where you can

229
00:09:55,509 --> 00:09:52,959
have a dream

230
00:09:57,829 --> 00:09:55,519
and it will give you the opportunity to

231
00:10:00,630 --> 00:09:57,839
convert into reality

232
00:10:02,790 --> 00:10:00,640
let's today give us our thanks to god

233
00:10:12,069 --> 00:10:02,800
for all these blessings

234
00:10:15,910 --> 00:10:14,389
we'll take questions now please give

235
00:10:18,949 --> 00:10:15,920
your name an affiliation when the

236
00:10:23,110 --> 00:10:18,959
microphone comes to you and we'll start

237
00:10:27,430 --> 00:10:25,350
nora wallace santa barbara news press

238
00:10:30,230 --> 00:10:27,440

minister timmerman can you explain to us

239

00:10:31,670 --> 00:10:30,240

in the u.s media how

240

00:10:34,389 --> 00:10:31,680

important this mission is for just

241

00:10:35,910 --> 00:10:34,399

people regular people in argentina not

242

00:10:37,829 --> 00:10:35,920

the media that are here and not the

243

00:10:40,949 --> 00:10:37,839

scientists but your average person in

244

00:10:44,150 --> 00:10:40,959

argentina well let me tell you that

245

00:10:45,829 --> 00:10:44,160

everybody in argentina has been follow

246

00:10:48,310 --> 00:10:45,839

following the

247

00:10:51,590 --> 00:10:48,320

launch of the satellite through public

248

00:10:53,350 --> 00:10:51,600

television through all other media

249

00:10:54,630 --> 00:10:53,360

the president was

250

00:10:57,030 --> 00:10:54,640

present

251

00:10:59,110 --> 00:10:57,040

during the transmission

252

00:11:01,430 --> 00:10:59,120

children from all the schools are going

253

00:11:04,470 --> 00:11:01,440

to be receiving the information from the

254

00:11:06,310 --> 00:11:04,480

satellite so it's something that

255

00:11:07,030 --> 00:11:06,320

is not only

256

00:11:49,509 --> 00:11:07,040

a

257

00:12:01,430 --> 00:11:49,519

cost question how much did the mission

258

00:12:07,350 --> 00:12:03,509

yeah the the total mission cost is

259

00:12:09,509 --> 00:12:08,550

all right i think we have a question

260

00:12:11,509 --> 00:12:09,519

right here

261

00:12:14,870 --> 00:12:11,519

yeah my name is adrian paensa and i work

262

00:12:16,470 --> 00:12:14,880

for channel 7 the public tv in argentina

263

00:12:18,150 --> 00:12:16,480

it doesn't go unnoticed for us that

264

00:12:20,470 --> 00:12:18,160

naturally the united states could have

265

00:12:22,710 --> 00:12:20,480

built the satellite themselves

266

00:12:24,949 --> 00:12:22,720

you guys have the scientists to do it

267

00:12:27,030 --> 00:12:24,959

however you pick argentina

268

00:12:28,230 --> 00:12:27,040

and for us it's obviously a reason to be

269

00:12:29,910 --> 00:12:28,240

proud

270

00:12:32,310 --> 00:12:29,920

but instead of me saying that we are

271

00:12:34,230 --> 00:12:32,320

proud we i would like to ask either

272

00:12:37,190 --> 00:12:34,240

michael or you

273

00:12:39,350 --> 00:12:37,200

why did you pick argentina

274

00:12:41,670 --> 00:12:39,360

what made you say okay what is the main

275

00:12:44,470 --> 00:12:41,680

reason we want you guys to be our

276

00:12:46,629 --> 00:12:44,480

partners well sir and mike can can can

277

00:12:48,870 --> 00:12:46,639

add to this but certainly there is a

278

00:12:51,269 --> 00:12:48,880

history of partnership with argentina

279

00:12:53,030 --> 00:12:51,279

from the earlier earlier missions

280

00:13:00,389 --> 00:12:53,040

and

281

00:13:01,350 --> 00:13:00,399

organizations allows us to accomplish

282

00:13:03,829 --> 00:13:01,360

more

283

00:13:05,430 --> 00:13:03,839

than we than we can alone just from the

284

00:13:07,910 --> 00:13:05,440

simple economics

285

00:13:10,550 --> 00:13:07,920

but uh argentina has a proven track

286

00:13:11,670 --> 00:13:10,560

record with uh in partnering with nasa

287

00:13:13,670 --> 00:13:11,680

and we were

288

00:13:15,910 --> 00:13:13,680

uh pleased and and proud to be

289

00:13:19,110 --> 00:13:15,920

associated with argentina for sac the

290

00:13:24,310 --> 00:13:21,030

yeah uh chuck

291

00:13:26,550 --> 00:13:24,320

chuck got uh the absolute essentials of

292

00:13:29,670 --> 00:13:26,560

the answer let me just say uh a few

293

00:13:32,069 --> 00:13:29,680

other things uh

294

00:13:34,870 --> 00:13:32,079

argentina

295

00:13:38,230 --> 00:13:34,880

and its and our past collaborations with

296

00:13:40,230 --> 00:13:38,240

them uh have really helped to

297

00:13:41,750 --> 00:13:40,240

advance our understanding of the earth

298

00:13:44,710 --> 00:13:41,760

and understanding the earth as an

299

00:13:48,389 --> 00:13:44,720

integrated complex system is way too

300

00:13:49,670 --> 00:13:48,399

hard for any single nation any single

301
00:13:52,389 --> 00:13:49,680
agency

302
00:13:55,110 --> 00:13:52,399
but we need to have partners who are

303
00:13:58,069 --> 00:13:55,120
willing to truly collaborate

304
00:13:59,509 --> 00:13:58,079
not simply take orders or give orders

305
00:14:00,829 --> 00:13:59,519
who have vision

306
00:14:04,069 --> 00:14:00,839
who have

307
00:14:07,910 --> 00:14:04,079
sustained effort and are willing to

308
00:14:09,910 --> 00:14:07,920
attack the challenges that arise during

309
00:14:11,990 --> 00:14:09,920
the many years that these missions are

310
00:14:15,670 --> 00:14:12,000
under development and argentina has

311
00:14:18,790 --> 00:14:15,680
proven time and time again with nasa and

312
00:14:21,910 --> 00:14:18,800
in other ways that the spirit of that

313
00:14:25,030 --> 00:14:21,920

nation as well as the competence of

314

00:14:28,550 --> 00:14:25,040

of your scientists uh is there and nasa

315

00:14:30,470 --> 00:14:28,560

is indeed proud uh to be a collaborator

316

00:14:33,189 --> 00:14:30,480

with argentina and the other

317

00:14:39,110 --> 00:14:33,199

international collaborators on this

318

00:14:43,670 --> 00:14:41,110

hi good morning this is nora barr from

319

00:14:46,629 --> 00:14:43,680

la nacion in buenos aires

320

00:14:48,150 --> 00:14:46,639

does the success of this mission up to

321

00:14:50,150 --> 00:14:48,160

now at least

322

00:14:59,670 --> 00:14:50,160

let you think about

323

00:15:03,829 --> 00:15:00,629

uh

324

00:15:06,470 --> 00:15:03,839

i can answer it in a very simple way

325

00:15:09,509 --> 00:15:06,480

many years ago

326

00:15:12,710 --> 00:15:09,519

i have a meeting with nasa at that time

327

00:15:14,790 --> 00:15:12,720

as administrator and we said okay sake

328

00:15:17,670 --> 00:15:14,800

sugbee sexy

329

00:15:20,150 --> 00:15:17,680

well we have to follow up to zita and

330

00:15:25,110 --> 00:15:20,160

then when we arrive there we have still

331

00:15:29,030 --> 00:15:26,790

right here in the front

332

00:15:31,749 --> 00:15:29,040

al staller kvm rfm

333

00:15:33,990 --> 00:15:31,759

as an amateur astronomer very concerned

334

00:15:35,990 --> 00:15:34,000

about light pollution also interested in

335

00:15:38,310 --> 00:15:36,000

the amount of energy that we beam up out

336

00:15:40,310 --> 00:15:38,320

into space i'm curious if you tell me

337

00:15:43,030 --> 00:15:40,320

something about the high sensitivity

338

00:15:46,069 --> 00:15:43,040

camera and the urban light

339

00:15:51,110 --> 00:15:48,150

well the high sensitivity camera

340

00:15:52,829 --> 00:15:51,120

actually is already flying in succeed

341

00:15:59,269 --> 00:15:52,839

and

342

00:16:01,749 --> 00:15:59,279

i mean

343

00:16:04,790 --> 00:16:01,759

snow cover there are many things that we

344

00:16:07,590 --> 00:16:04,800

use that camera for

345

00:16:11,590 --> 00:16:07,600

also it has another

346

00:16:13,829 --> 00:16:11,600

reason to be there and this related to a

347

00:16:14,949 --> 00:16:13,839

problem that we have in argentina which

348

00:16:18,870 --> 00:16:14,959

is

349

00:16:21,189 --> 00:16:18,880

and we are using that camera

350

00:16:26,710 --> 00:16:21,199

just to those people who don't

351

00:16:26,720 --> 00:16:30,550

any additional questions

352

00:16:35,350 --> 00:16:32,310

all right

353

00:16:38,310 --> 00:16:35,360

wait just a second for the microphone

354

00:16:42,949 --> 00:16:40,150

you know uh from what i understand this

355

00:16:45,509 --> 00:16:42,959

satellite is supposed to be uh like

356

00:16:48,949 --> 00:16:45,519

able to collect data that's been uh for

357

00:16:51,350 --> 00:16:48,959

the past 110 15 25 years been collected

358

00:16:53,590 --> 00:16:51,360

by buoys and people and ships and stuff

359

00:16:54,790 --> 00:16:53,600

like that with this you know i'm

360

00:16:57,269 --> 00:16:54,800

assuming this satellite is going to

361

00:16:58,790 --> 00:16:57,279

collect in a more accurate and and

362

00:17:00,389 --> 00:16:58,800

thorough way and collecting areas that

363

00:17:02,710 --> 00:17:00,399

you haven't been able to do before is it

364

00:17:05,029 --> 00:17:02,720

going to be useful in terms of comparing

365

00:17:07,110 --> 00:17:05,039

what the what the uh

366

00:17:09,510 --> 00:17:07,120

the salinity levels have been in the

367

00:17:12,150 --> 00:17:09,520

past or is it just from the point this

368

00:17:14,549 --> 00:17:12,160

point on of monitoring the salinity

369

00:17:16,470 --> 00:17:14,559

points in the water you know since uh

370

00:17:18,870 --> 00:17:16,480

since the older methods might not be as

371

00:17:20,390 --> 00:17:18,880

accurate

372

00:17:22,949 --> 00:17:20,400

i'll take a i'll take a shot at that

373

00:17:25,990 --> 00:17:22,959

it's a it's an extremely insightful uh

374

00:17:29,110 --> 00:17:26,000

and and thoughtful question uh as as the

375

00:17:32,549 --> 00:17:29,120

questioner uh stated uh

376

00:17:34,470 --> 00:17:32,559

since since the dawn of of civilization

377

00:17:38,950 --> 00:17:34,480

uh salinity measurements have been made

378

00:17:41,750 --> 00:17:38,960

rather sporadically uh by in at points

379

00:17:44,950 --> 00:17:41,760

and intermittently uh in time with

380

00:17:47,990 --> 00:17:44,960

varying accuracies uh what uh

381

00:17:50,789 --> 00:17:48,000

aquarius sac d will be doing will be

382

00:17:51,909 --> 00:17:50,799

making global measurements

383

00:17:53,190 --> 00:17:51,919

frequently

384

00:17:55,669 --> 00:17:53,200

with high

385

00:17:58,070 --> 00:17:55,679

precision high accuracy and high

386

00:18:00,390 --> 00:17:58,080

stability

387

00:18:02,230 --> 00:18:00,400

there are places in the ocean

388

00:18:05,110 --> 00:18:02,240

particularly in the oceans particularly

389

00:18:07,750 --> 00:18:05,120

in the northern hemisphere uh where

390

00:18:09,830 --> 00:18:07,760

we have almost enough

391

00:18:12,070 --> 00:18:09,840

salinity measurements in the past to be

392

00:18:13,270 --> 00:18:12,080

able to continue a time series as you

393

00:18:16,950 --> 00:18:13,280

pointed out

394

00:18:19,029 --> 00:18:16,960

with aquarius sac d however over vast

395

00:18:21,350 --> 00:18:19,039

regions reaches of the earth's ocean

396

00:18:24,070 --> 00:18:21,360

especially in the southern hemisphere in

397

00:18:27,270 --> 00:18:24,080

the southern oceans this will be

398

00:18:31,190 --> 00:18:27,280

first measurements so it's a combination

399

00:18:34,150 --> 00:18:31,200

of extending our knowledge and improving

400

00:18:36,230 --> 00:18:34,160

those measurements in some areas where

401
00:18:38,470 --> 00:18:36,240
we already have

402
00:18:40,150 --> 00:18:38,480
barely reasonable measurements

403
00:18:41,750 --> 00:18:40,160
but extending

404
00:18:46,230 --> 00:18:41,760
excellent measurements to areas that

405
00:18:50,950 --> 00:18:47,909
we could take additional questions if

406
00:18:56,470 --> 00:18:52,590
hi

407
00:18:59,270 --> 00:18:56,480
lucas argentina

408
00:19:01,029 --> 00:18:59,280
how was the contact with the

409
00:19:02,870 --> 00:19:01,039
the center in faldo del carmen in

410
00:19:07,029 --> 00:19:02,880
cordoba and

411
00:19:09,190 --> 00:19:07,039
it's for for baroto and which was the

412
00:19:10,630 --> 00:19:09,200
the first word you

413
00:19:12,870 --> 00:19:10,640

when you contact with

414

00:19:15,350 --> 00:19:12,880

the this center what what

415

00:19:16,710 --> 00:19:15,360

what was the the what they said and you

416

00:19:19,110 --> 00:19:16,720

say

417

00:19:21,270 --> 00:19:19,120

actually the first time that we got in

418

00:19:23,990 --> 00:19:21,280

contact with them was through the

419

00:19:27,110 --> 00:19:24,000

president

420

00:19:29,110 --> 00:19:27,120

it was we just she was just

421

00:19:32,230 --> 00:19:29,120

as a as the minister

422

00:19:35,350 --> 00:19:32,240

of our mystery faces

423

00:19:37,830 --> 00:19:35,360

she was so proud

424

00:19:38,870 --> 00:19:37,840

she wanted to talk immediately after the

425

00:19:41,190 --> 00:19:38,880

launch

426
00:19:43,190 --> 00:19:41,200
so we talked with them immediately after

427
00:19:46,390 --> 00:19:43,200
the launch

428
00:19:49,110 --> 00:19:46,400
and what was very important

429
00:19:51,669 --> 00:19:49,120
is that at cordoba that we are kids from

430
00:19:52,950 --> 00:19:51,679
our 2mp program

431
00:19:53,909 --> 00:19:52,960
we have

432
00:20:00,630 --> 00:19:53,919
we

433
00:20:02,470 --> 00:20:00,640
a very big outreach effort

434
00:20:04,870 --> 00:20:02,480
to have space

435
00:20:07,110 --> 00:20:04,880
information

436
00:20:10,070 --> 00:20:07,120
not only for scientists

437
00:20:12,070 --> 00:20:10,080
but not only for production i mean for

438
00:20:14,630 --> 00:20:12,080

but for kids

439

00:20:16,950 --> 00:20:14,640

and those kids that were there belong to

440

00:20:18,870 --> 00:20:16,960

a school one of those but then we have

441

00:20:20,870 --> 00:20:18,880

some many of them

442

00:20:23,990 --> 00:20:20,880

that today

443

00:20:26,310 --> 00:20:24,000

have are using space information

444

00:20:31,909 --> 00:20:26,320

delivered from satellite ladies

445

00:20:31,919 --> 00:20:35,350

any follow-ups

446

00:20:40,549 --> 00:20:38,470

ariel wessler ksby tv

447

00:20:42,630 --> 00:20:40,559

um my question is i understand that the

448

00:20:45,990 --> 00:20:42,640

salinity measurements from spaces is a

449

00:20:48,149 --> 00:20:46,000

first for nasa can you speak to um why

450

00:20:50,149 --> 00:20:48,159

do this now and kind of what brought on

451

00:20:52,470 --> 00:20:50,159

the importance of this mission to to

452

00:20:54,470 --> 00:20:52,480

take salt measurements from space

453

00:20:57,909 --> 00:20:54,480

certainly as as i

454

00:20:59,270 --> 00:20:57,919

uh alluded to in in my brief remarks

455

00:21:01,909 --> 00:20:59,280

the key

456

00:21:04,789 --> 00:21:01,919

to understanding the earth is not simply

457

00:21:07,350 --> 00:21:04,799

to understand individual processes but

458

00:21:08,149 --> 00:21:07,360

rather to understand their linkages

459

00:21:11,270 --> 00:21:08,159

and

460

00:21:13,029 --> 00:21:11,280

salinity surface salinity in the ocean

461

00:21:16,630 --> 00:21:13,039

provides

462

00:21:19,510 --> 00:21:16,640

linkages and understanding of a number

463

00:21:22,390 --> 00:21:19,520

of different cycles in the earth if we

464

00:21:23,510 --> 00:21:22,400

want to understand the water cycle of

465

00:21:26,070 --> 00:21:23,520

the earth

466

00:21:27,590 --> 00:21:26,080

we have to understand things like

467

00:21:28,830 --> 00:21:27,600

evaporation

468

00:21:31,430 --> 00:21:28,840

and

469

00:21:33,110 --> 00:21:31,440

precipitation that is the

470

00:21:35,190 --> 00:21:33,120

the water moving from the land and the

471

00:21:37,990 --> 00:21:35,200

ocean to the atmosphere and coming from

472

00:21:39,590 --> 00:21:38,000

the atmosphere back to there uh back to

473

00:21:42,149 --> 00:21:39,600

the ocean and

474

00:21:44,310 --> 00:21:42,159

when you rain on the ocean you change

475

00:21:47,350 --> 00:21:44,320

its salinity the surface salinity

476
00:21:49,669 --> 00:21:47,360
becomes less when you evaporate water

477
00:21:52,630 --> 00:21:49,679
from the ocean you change its salinity

478
00:21:53,750 --> 00:21:52,640
the surface salinity becomes greater

479
00:21:57,110 --> 00:21:53,760
when you

480
00:21:59,909 --> 00:21:57,120
freeze water into ice the ice rejects

481
00:22:03,190 --> 00:21:59,919
the brine and the salinity of the

482
00:22:05,510 --> 00:22:03,200
surrounding ocean increases so

483
00:22:09,029 --> 00:22:05,520
the point of making those measurements

484
00:22:12,470 --> 00:22:09,039
today is that they help us to elucidate

485
00:22:15,110 --> 00:22:12,480
so many different aspects of the coupled

486
00:22:18,870 --> 00:22:15,120
processes that define the earth as a

487
00:22:21,510 --> 00:22:18,880
system furthermore the deep circulation

488
00:22:23,430 --> 00:22:21,520

of the ocean is driven by density

489

00:22:25,110 --> 00:22:23,440
differences

490

00:22:28,470 --> 00:22:25,120
heavy water sinks

491

00:22:30,710 --> 00:22:28,480
lighter water floats and the salinity

492

00:22:32,310 --> 00:22:30,720
content of the deep ocean of the

493

00:22:36,390 --> 00:22:32,320
subsurface ocean

494

00:22:37,990 --> 00:22:36,400
is a big part of determining the density

495

00:22:39,190 --> 00:22:38,000
of those waters so if we are to

496

00:22:41,350 --> 00:22:39,200
understand

497

00:22:43,990 --> 00:22:41,360
subsurface currents we need to

498

00:22:46,789 --> 00:22:44,000
understand surface salinity because it's

499

00:22:49,350 --> 00:22:46,799
at the surface where the

500

00:22:51,590 --> 00:22:49,360
imprint of salinity is placed on the

501
00:22:53,669 --> 00:22:51,600
water so it really ties together a lot

502
00:22:55,510 --> 00:22:53,679
of things it's an extremely timely

503
00:22:57,430 --> 00:22:55,520
mission but as far as the technology

504
00:23:00,070 --> 00:22:57,440
this is something we couldn't have done

505
00:23:01,830 --> 00:23:00,080
five years ago or ten years ago the

506
00:23:04,789 --> 00:23:01,840
radiate the microwave

507
00:23:06,310 --> 00:23:04,799
l-band radiometer uh plus the

508
00:23:08,950 --> 00:23:06,320
scatterometer

509
00:23:13,029 --> 00:23:08,960
that is used in the aquarius instrument

510
00:23:16,390 --> 00:23:13,039
is are far and away uh the most accurate

511
00:23:19,029 --> 00:23:16,400
and precise and stable instruments of

512
00:23:21,430 --> 00:23:19,039
their type that have ever been flown in

513
00:23:22,950 --> 00:23:21,440

space this really could not have been

514

00:23:28,149 --> 00:23:22,960

done

515

00:23:38,789 --> 00:23:30,470

any further questions we have

516

00:23:41,909 --> 00:23:40,470

hello thank you for this opportunity my

517

00:23:44,789 --> 00:23:41,919

name is melissa cabo i'm with the news

518

00:23:46,789 --> 00:23:44,799

agency of argentina tell them um for mr

519

00:23:49,350 --> 00:23:46,799

varato minister timmerman i would like

520

00:23:50,710 --> 00:23:49,360

to know uh what did you feel

521

00:23:53,510 --> 00:23:50,720

when

522

00:23:56,390 --> 00:23:53,520

while the launch of the satellite and

523

00:23:58,070 --> 00:23:56,400

for you mr er gay and mr

524

00:24:00,549 --> 00:23:58,080

michael um

525

00:24:02,630 --> 00:24:00,559

having in mind that the past two

526
00:24:08,870 --> 00:24:02,640
launches were weren't successful i would

527
00:24:15,110 --> 00:24:10,310
well

528
00:24:21,430 --> 00:24:18,310
you know i was watching two scenes at

529
00:24:22,630 --> 00:24:21,440
the same time one was the satellite

530
00:24:24,630 --> 00:24:22,640
going up

531
00:24:27,029 --> 00:24:24,640
and the other one was mr baroto

532
00:24:29,190 --> 00:24:27,039
embracing a lady

533
00:24:29,990 --> 00:24:29,200
and crying

534
00:24:33,830 --> 00:24:30,000
and

535
00:24:36,470 --> 00:24:33,840
that no to see both things i was able to

536
00:24:39,590 --> 00:24:36,480
better understand the significance of

537
00:24:42,070 --> 00:24:39,600
this from a human point of view i mean

538
00:24:44,149 --> 00:24:42,080

then i saw the

539

00:24:47,029 --> 00:24:44,159

americans and the argentinians at the

540

00:24:49,590 --> 00:24:47,039

control center embracing themselves

541

00:24:52,950 --> 00:24:49,600

sometimes for us lay people very

542

00:24:56,070 --> 00:24:52,960

difficult to understand scientific

543

00:24:59,269 --> 00:24:56,080

development but i can understand human

544

00:25:01,350 --> 00:24:59,279

feelings and then i saw how important is

545

00:25:03,990 --> 00:25:01,360

the cooperation not only from a

546

00:25:06,149 --> 00:25:04,000

scientific point of view but also the

547

00:25:07,110 --> 00:25:06,159

the from a human point of view and here

548

00:25:12,230 --> 00:25:07,120

i saw

549

00:25:17,830 --> 00:25:16,149

i would just fully agree with you

550

00:25:20,470 --> 00:25:17,840

yeah i would just just say uh cert

551
00:25:21,669 --> 00:25:20,480
certainly we were we were thrilled and

552
00:25:23,990 --> 00:25:21,679
excited

553
00:25:25,830 --> 00:25:24,000
you know for every launch we we work

554
00:25:28,149 --> 00:25:25,840
very hard to ensure

555
00:25:30,549 --> 00:25:28,159
the best we can that we're going to have

556
00:25:32,870 --> 00:25:30,559
a successful launch opportunity but it's

557
00:25:35,430 --> 00:25:32,880
a risky business i mean so many things

558
00:25:38,789 --> 00:25:35,440
can go wrong and sometimes they do

559
00:25:40,789 --> 00:25:38,799
and we redouble our efforts you know

560
00:25:43,029 --> 00:25:40,799
every time just to to

561
00:25:45,190 --> 00:25:43,039
try to look at every little detail to

562
00:25:47,990 --> 00:25:45,200
make sure nothing goes

563
00:25:50,230 --> 00:25:48,000

nothing is missed and

564

00:25:52,149 --> 00:25:50,240

despite all that effort we still kind of

565

00:25:55,269 --> 00:25:52,159

hold your breath you know while while

566

00:25:57,750 --> 00:25:55,279

you're going through the the various

567

00:25:59,909 --> 00:25:57,760

events during launch and i don't

568

00:26:02,070 --> 00:25:59,919

you know no one was was

569

00:26:04,470 --> 00:26:02,080

really really comfortable until we saw

570

00:26:07,830 --> 00:26:04,480

the separation of the

571

00:26:10,230 --> 00:26:07,840

sakti aquarius from the launch vehicle

572

00:26:12,230 --> 00:26:10,240

saw the solar rays open up and got

573

00:26:13,350 --> 00:26:12,240

telemetry from the spacecraft saying

574

00:26:16,310 --> 00:26:13,360

that we had

575

00:26:18,950 --> 00:26:16,320

positive power on on the on the uh on

576

00:26:21,350 --> 00:26:18,960

the spacecraft so it took a long time i

577

00:26:23,750 --> 00:26:21,360

mean by in degrees we were getting more

578

00:26:25,510 --> 00:26:23,760

and more comfortable and excited but you

579

00:26:28,070 --> 00:26:25,520

know we know it's not over until we get

580

00:26:30,149 --> 00:26:28,080

to the the point where the spacecraft is

581

00:26:32,789 --> 00:26:30,159

flying by itself separated from the

582

00:26:35,269 --> 00:26:32,799

launch vehicle and i think we all

583

00:26:38,149 --> 00:26:35,279

breathe the sigh of relief and uh

584

00:26:39,909 --> 00:26:38,159

and uh we're ready to come here and and

585

00:26:42,789 --> 00:26:39,919

tell you all how excited we were about

586

00:26:48,710 --> 00:26:43,990

i'll

587

00:26:51,590 --> 00:26:48,720

four words uh three of which have been

588

00:26:52,630 --> 00:26:51,600

said before uh certainly relief

589

00:27:00,149 --> 00:26:52,640

uh

590

00:27:03,430 --> 00:27:00,159

delta ii

591

00:27:06,789 --> 00:27:03,440

uh on on which sac the aquarius uh was

592

00:27:09,990 --> 00:27:06,799

launched joy obviously uh that the

593

00:27:12,710 --> 00:27:10,000

spacecraft is working so well from the

594

00:27:15,029 --> 00:27:12,720

from the beginning anticipation

595

00:27:17,190 --> 00:27:15,039

uh as a scientist as an oceanographer

596

00:27:19,590 --> 00:27:17,200

indeed uh anticipation of the great

597

00:27:21,990 --> 00:27:19,600

things that that this mission uh is

598

00:27:23,510 --> 00:27:22,000

going is going to be accomplishing and

599

00:27:25,110 --> 00:27:23,520

very personally

600

00:27:27,190 --> 00:27:25,120

hunger

601
00:27:29,510 --> 00:27:27,200
it's been a couple of years since i have

602
00:27:31,350 --> 00:27:29,520
wanted to eat after a launch

603
00:27:42,950 --> 00:27:31,360
and i wanted to eat this morning after

604
00:27:49,990 --> 00:27:45,510
did you have any comments

605
00:27:53,669 --> 00:27:51,190
all right

606
00:27:56,549 --> 00:27:53,679
well in that event that is going to

607
00:27:59,029 --> 00:27:56,559
conclude our post-launch news conference

608
00:28:02,789 --> 00:27:59,039
this morning and our coverage of the

609
00:28:05,029 --> 00:28:02,799
aquarius sacd launch the next event we

610
00:28:07,029 --> 00:28:05,039
hope will be an exciting briefing about

611
00:28:21,669 --> 00:28:07,039
the science that aquarius sac d has

612
00:28:24,230 --> 00:28:23,269
t minus 10

613
00:28:25,110 --> 00:28:24,240

9

614

00:28:26,149 --> 00:28:25,120

8

615

00:28:27,110 --> 00:28:26,159

7

616

00:28:28,149 --> 00:28:27,120

6

617

00:28:29,190 --> 00:28:28,159

5

618

00:28:30,230 --> 00:28:29,200

4

619

00:28:31,269 --> 00:28:30,240

three

620

00:28:32,230 --> 00:28:31,279

two

621

00:28:34,870 --> 00:28:32,240

one

622

00:28:37,590 --> 00:28:34,880

we have ignition

623

00:28:40,389 --> 00:28:37,600

and liftoff of aquarius and the sac d