



NASA CELEBRATES
HISPANIC HERITAGE:

**EL AYER
Y EL MAÑANA**

1
00:00:22,230 --> 00:00:17,349
hi everybody i'm soledad o'brien i

2
00:00:26,390 --> 00:00:24,790
yesterday and tomorrow you might know me

3
00:00:28,630 --> 00:00:26,400
from my work in journalism and

4
00:00:31,189 --> 00:00:28,640
television but one thing you might not

5
00:00:33,430 --> 00:00:31,199
know is my connection to this wonderful

6
00:00:35,750 --> 00:00:33,440
month-long celebration of the latino

7
00:00:37,030 --> 00:00:35,760
community my mom who passed away a few

8
00:00:40,150 --> 00:00:37,040
years back

9
00:00:42,310 --> 00:00:40,160
immigrated from cuba as a teenager eager

10
00:00:44,630 --> 00:00:42,320
to get an education in this country and

11
00:00:46,950 --> 00:00:44,640
also hoping for a country that would

12
00:00:50,549 --> 00:00:46,960
guarantee her more freedoms

13
00:00:52,869 --> 00:00:50,559

in 1968 california congressman george e

14

00:00:55,510 --> 00:00:52,879

brown pushed to recognize the

15

00:00:59,430 --> 00:00:55,520

contributions of the latino community

16

00:01:01,830 --> 00:00:59,440

and congress passed public law 90-48

17

00:01:03,349 --> 00:01:01,840

officially authorizing and requesting

18

00:01:05,910 --> 00:01:03,359

the president to issue annual

19

00:01:08,230 --> 00:01:05,920

proclamations declaring september 15th

20

00:01:10,950 --> 00:01:08,240

and 16th to mark the beginning of what

21

00:01:12,550 --> 00:01:10,960

was then called national hispanic

22

00:01:14,310 --> 00:01:12,560

heritage week

23

00:01:15,590 --> 00:01:14,320

today we're celebrating that special

24

00:01:18,310 --> 00:01:15,600

period of the year when the us

25

00:01:22,310 --> 00:01:18,320

recognizes a community that is hardly a

26
00:01:25,109 --> 00:01:22,320
minority anymore we are 60.6 million

27
00:01:28,469 --> 00:01:25,119
strong a record 18.5 of the total

28
00:01:31,030 --> 00:01:28,479
population and growing quickly our music

29
00:01:33,510 --> 00:01:31,040
our art our language our food have all

30
00:01:35,830 --> 00:01:33,520
had a profound influence on american

31
00:01:37,030 --> 00:01:35,840
culture we've even been heard in the

32
00:01:39,670 --> 00:01:37,040
voting booth

33
00:01:42,389 --> 00:01:39,680
our program today will focus on the

34
00:01:44,469 --> 00:01:42,399
creation of the latino museum another

35
00:01:46,950 --> 00:01:44,479
congressional recognition of the

36
00:01:48,789 --> 00:01:46,960
accomplishments of our community we will

37
00:01:50,710 --> 00:01:48,799
also have a conversation about what the

38
00:01:53,350 --> 00:01:50,720

future could hold for two leading

39

00:01:55,350 --> 00:01:53,360

agencies the smithsonian institution

40

00:01:58,310 --> 00:01:55,360

which is now leading the planning and

41

00:02:01,270 --> 00:01:58,320

the development of the museum and nasa

42

00:02:03,270 --> 00:02:01,280

the global leader in space exploration

43

00:02:05,590 --> 00:02:03,280

science and research

44

00:02:08,150 --> 00:02:05,600

it is a measure how far the latino

45

00:02:10,869 --> 00:02:08,160

community has come since that day when

46

00:02:14,150 --> 00:02:10,879

congress initiated the celebration that

47

00:02:16,309 --> 00:02:14,160

two such august institutions are at the

48

00:02:19,110 --> 00:02:16,319

forefront of our discussion joining me

49

00:02:20,949 --> 00:02:19,120

is dr ellen stofan the under secretary

50

00:02:22,790 --> 00:02:20,959

for science and research at the

51
00:02:24,949 --> 00:02:22,800
smithsonian she oversees at science

52
00:02:27,510 --> 00:02:24,959
research centers as well as the national

53
00:02:30,070 --> 00:02:27,520
museum of natural history and the

54
00:02:32,470 --> 00:02:30,080
national zoo her focus is the

55
00:02:35,270 --> 00:02:32,480
smithsonian's collective scientific

56
00:02:37,910 --> 00:02:35,280
initiatives especially biodiversity

57
00:02:40,630 --> 00:02:37,920
global health climate change species

58
00:02:42,710 --> 00:02:40,640
conservation astrophysics and the search

59
00:02:45,030 --> 00:02:42,720
for life outside the earth's solar

60
00:02:47,990 --> 00:02:45,040
system before joining the smithsonian dr

61
00:02:50,309 --> 00:02:48,000
stovan had 25 years experience in space

62
00:02:53,270 --> 00:02:50,319
related organizations and a deep

63
00:02:54,949 --> 00:02:53,280

research background in planetary geology

64

00:02:56,869 --> 00:02:54,959

it's so nice to see you dr stoken thanks

65

00:02:58,630 --> 00:02:56,879

for talking with me oh thank you for

66

00:03:01,030 --> 00:02:58,640

having me here today

67

00:03:03,589 --> 00:03:01,040

of course my pleasure uh let's first and

68

00:03:06,149 --> 00:03:03,599

foremost talk about the national museum

69

00:03:08,710 --> 00:03:06,159

of the american latino that legislation

70

00:03:11,350 --> 00:03:08,720

to create that museum was passed just

71

00:03:13,589 --> 00:03:11,360

this last december can you give us an

72

00:03:15,589 --> 00:03:13,599

update on where this stands and what are

73

00:03:18,309 --> 00:03:15,599

some of the milestones that that have

74

00:03:20,790 --> 00:03:18,319

been set for making progress along the

75

00:03:23,270 --> 00:03:20,800

path to getting it actually created we

76

00:03:25,110 --> 00:03:23,280

are so excited about the creation of

77

00:03:27,830 --> 00:03:25,120

this new museum along with the american

78

00:03:30,630 --> 00:03:27,840

women's history museum um to have the

79

00:03:32,229 --> 00:03:30,640

challenge of doing two new museums at

80

00:03:34,470 --> 00:03:32,239

the same time is obviously a big

81

00:03:36,309 --> 00:03:34,480

challenge but this is so as we're going

82

00:03:38,309 --> 00:03:36,319

to be talking about today this is just

83

00:03:41,030 --> 00:03:38,319

so incredibly important

84

00:03:43,589 --> 00:03:41,040

and the exciting news is we've actually

85

00:03:45,830 --> 00:03:43,599

made a fair amount of progress uh we

86

00:03:48,229 --> 00:03:45,840

have a search firm on board we're

87

00:03:50,710 --> 00:03:48,239

searching for the director eduardo diaz

88

00:03:52,789 --> 00:03:50,720

who is head of our latino smithsonian

89

00:03:55,270 --> 00:03:52,799

latino center is the acting director

90

00:03:58,470 --> 00:03:55,280

while we search for a permanent director

91

00:04:00,630 --> 00:03:58,480

we've appointed a 19-member board and

92

00:04:02,949 --> 00:04:00,640

will continue to appoint

93

00:04:05,589 --> 00:04:02,959

members to that for advisory board for

94

00:04:07,190 --> 00:04:05,599

the museum to help them think about

95

00:04:10,070 --> 00:04:07,200

what is this museum what is it going to

96

00:04:13,030 --> 00:04:10,080

do how how is it going to tell this

97

00:04:14,470 --> 00:04:13,040

amazing and complex story of the latino

98

00:04:17,349 --> 00:04:14,480

experience

99

00:04:19,349 --> 00:04:17,359

in this country uh so we are incredibly

100

00:04:21,270 --> 00:04:19,359

excited between the board the search for

101

00:04:23,270 --> 00:04:21,280

the director and of course there's that

102

00:04:25,670 --> 00:04:23,280

very small issue where are we actually

103

00:04:28,310 --> 00:04:25,680

going to put this museum and so we have

104

00:04:31,430 --> 00:04:28,320

a site selection process that's going on

105

00:04:32,629 --> 00:04:31,440

for both of the new museums that process

106

00:04:34,550 --> 00:04:32,639

is um

107

00:04:35,830 --> 00:04:34,560

obviously a complicated one you have to

108

00:04:38,390 --> 00:04:35,840

really say

109

00:04:39,749 --> 00:04:38,400

where on the national mall or near the

110

00:04:41,990 --> 00:04:39,759

national mall

111

00:04:43,830 --> 00:04:42,000

do we have the space to put two new

112

00:04:46,070 --> 00:04:43,840

museums uh

113

00:04:48,870 --> 00:04:46,080

and so it's really that site selection

114

00:04:51,510 --> 00:04:48,880

that is the first really important step

115

00:04:54,310 --> 00:04:51,520

um way before you ever get to the actual

116

00:04:56,070 --> 00:04:54,320

design of the museum and so again those

117

00:04:57,510 --> 00:04:56,080

those things are all underway really

118

00:05:01,029 --> 00:04:57,520

exciting

119

00:05:04,070 --> 00:05:01,039

so you think that latinos could have a a

120

00:05:06,390 --> 00:05:04,080

place a presence on the national mall

121

00:05:09,029 --> 00:05:06,400

one day soon-ish

122

00:05:11,350 --> 00:05:09,039

yes definitely and you know obviously as

123

00:05:12,629 --> 00:05:11,360

our secretary lonnie bunch knows going

124

00:05:14,150 --> 00:05:12,639

from having the congressional

125

00:05:16,710 --> 00:05:14,160

legislation to actually getting the

126

00:05:20,070 --> 00:05:16,720

museum built on the mall is can be a

127

00:05:22,390 --> 00:05:20,080

long process um but we're really hoping

128

00:05:24,310 --> 00:05:22,400

that this process moves along um and

129

00:05:26,070 --> 00:05:24,320

that's why we've taken these steps of

130

00:05:27,590 --> 00:05:26,080

actually getting all the leadership in

131

00:05:29,029 --> 00:05:27,600

place because frankly that is part of

132

00:05:30,469 --> 00:05:29,039

the critical step

133

00:05:32,550 --> 00:05:30,479

for those people who don't know the

134

00:05:34,790 --> 00:05:32,560

smithsonian is actually part federally

135

00:05:37,670 --> 00:05:34,800

funded and part privately funded so

136

00:05:39,189 --> 00:05:37,680

about 60 of our funding comes from the

137

00:05:40,629 --> 00:05:39,199

federal government and the federal

138

00:05:43,350 --> 00:05:40,639

government usually pays for the

139

00:05:45,909 --> 00:05:43,360

construction of museums but everything

140

00:05:47,590 --> 00:05:45,919

that goes inside the museum all the

141

00:05:50,629 --> 00:05:47,600

galleries you know bringing in the

142

00:05:52,950 --> 00:05:50,639

artifacts um designing the museum that

143

00:05:55,270 --> 00:05:52,960

is actually paid for from private funds

144

00:05:56,790 --> 00:05:55,280

that we get through fundraising and so

145

00:05:58,550 --> 00:05:56,800

frankly that's going to be for both of

146

00:06:00,790 --> 00:05:58,560

these new museums that's going to be a

147

00:06:03,350 --> 00:06:00,800

big role of the board is saying

148

00:06:05,430 --> 00:06:03,360

how do we put together a fundraising

149

00:06:06,469 --> 00:06:05,440

campaign to help raise funds for these

150

00:06:08,469 --> 00:06:06,479

museums

151
00:06:10,150 --> 00:06:08,479
while we go through the federal process

152
00:06:12,070 --> 00:06:10,160
again first of all we have to have this

153
00:06:14,309 --> 00:06:12,080
site selection we'll have to design the

154
00:06:16,469 --> 00:06:14,319
museums um and then go through the

155
00:06:18,070 --> 00:06:16,479
process of building it so

156
00:06:20,710 --> 00:06:18,080
while it's certainly not going to happen

157
00:06:22,790 --> 00:06:20,720
in the next year or two um it is going

158
00:06:24,550 --> 00:06:22,800
to happen and we're really excited about

159
00:06:26,790 --> 00:06:24,560
it and i will say

160
00:06:30,469 --> 00:06:26,800
to give us a preview of how exciting

161
00:06:33,350 --> 00:06:30,479
this is going to be in may of 2022

162
00:06:35,350 --> 00:06:33,360
uh the molina family gallery will open

163
00:06:37,110 --> 00:06:35,360

at the national museum of american

164

00:06:38,710 --> 00:06:37,120

history on the mall

165

00:06:41,350 --> 00:06:38,720

and that will actually be the first

166

00:06:43,590 --> 00:06:41,360

latino focus gallery on the national

167

00:06:45,749 --> 00:06:43,600

mall at the smithsonian

168

00:06:49,749 --> 00:06:45,759

and so that'll at least give us a

169

00:06:51,670 --> 00:06:49,759

preview of the kinds of stories um the

170

00:06:54,230 --> 00:06:51,680

kinds of things we want to talk about in

171

00:06:55,909 --> 00:06:54,240

really saying you know how have latinors

172

00:06:57,749 --> 00:06:55,919

helped shape this country what has been

173

00:06:59,830 --> 00:06:57,759

their experience in this country all

174

00:07:00,629 --> 00:06:59,840

these stories that are so critical to

175

00:07:03,830 --> 00:07:00,639

tell

176

00:07:06,469 --> 00:07:03,840

the uh collaboration between nasa and

177

00:07:08,230 --> 00:07:06,479

the smithsonian is is quite deep can you

178

00:07:10,309 --> 00:07:08,240

talk a little bit about that history

179

00:07:12,710 --> 00:07:10,319

yeah you know it dates um amazingly all

180

00:07:14,070 --> 00:07:12,720

the way back to the the 1960s in fact i

181

00:07:16,309 --> 00:07:14,080

think the first agreement was signed

182

00:07:17,110 --> 00:07:16,319

back in 1967

183

00:07:20,790 --> 00:07:17,120

where

184

00:07:24,629 --> 00:07:20,800

nasa um said that all of the significant

185

00:07:27,270 --> 00:07:24,639

artifacts from air and space would be um

186

00:07:28,950 --> 00:07:27,280

as soon as they were done using them you

187

00:07:30,629 --> 00:07:28,960

know for technical purposes they would

188

00:07:32,950 --> 00:07:30,639

go to the smithsonian

189

00:07:34,629 --> 00:07:32,960

um to be kept in perpetuity and this is

190

00:07:37,350 --> 00:07:34,639

so incredibly important because

191

00:07:39,430 --> 00:07:37,360

obviously this is such a story of

192

00:07:41,990 --> 00:07:39,440

innovation of

193

00:07:43,830 --> 00:07:42,000

you know amazing feats done by teens

194

00:07:45,670 --> 00:07:43,840

done by individuals that the fact that

195

00:07:47,909 --> 00:07:45,680

nasa really made this agreement very

196

00:07:49,909 --> 00:07:47,919

early on with the smithsonian means we

197

00:07:52,629 --> 00:07:49,919

have all these artifacts to help us tell

198

00:07:54,309 --> 00:07:52,639

the story and of course it started um

199

00:07:56,550 --> 00:07:54,319

and the dominant part of the national

200

00:07:59,110 --> 00:07:56,560

air and space museum's um collection is

201

00:08:01,990 --> 00:07:59,120

the apollo collection so all of the

202

00:08:03,990 --> 00:08:02,000

apollo artifacts down to really old

203

00:08:06,309 --> 00:08:04,000

containers of pineapple that the

204

00:08:08,150 --> 00:08:06,319

astronauts took to the moon everything

205

00:08:09,189 --> 00:08:08,160

went to the air and space museum so when

206

00:08:11,589 --> 00:08:09,199

you see

207

00:08:13,589 --> 00:08:11,599

artifacts around the world from apollo

208

00:08:15,270 --> 00:08:13,599

they're on loan from the smithsonian

209

00:08:17,270 --> 00:08:15,280

because obviously we wanted to get that

210

00:08:18,869 --> 00:08:17,280

story out not just across the country

211

00:08:21,189 --> 00:08:18,879

but around the world

212

00:08:23,350 --> 00:08:21,199

we also hold one of my favorite things

213

00:08:25,589 --> 00:08:23,360

at the air and space museum which is the

214

00:08:28,070 --> 00:08:25,599

apollo art collection

215

00:08:29,990 --> 00:08:28,080

during apollo nasa commissioned all the

216

00:08:31,830 --> 00:08:30,000

leading artists of the day to be

217

00:08:33,750 --> 00:08:31,840

documenting

218

00:08:35,190 --> 00:08:33,760

apollo from an artistic point of view

219

00:08:37,269 --> 00:08:35,200

and i really love that because i love

220

00:08:39,509 --> 00:08:37,279

this intersection between science

221

00:08:40,949 --> 00:08:39,519

technology engineering math and the arts

222

00:08:43,350 --> 00:08:40,959

and those two are really critically

223

00:08:45,350 --> 00:08:43,360

important so we have a rauschenberg we

224

00:08:47,269 --> 00:08:45,360

have like five norman rockwells we have

225

00:08:48,150 --> 00:08:47,279

an alma thomas that's my absolute

226

00:08:50,230 --> 00:08:48,160

favorite

227

00:08:52,710 --> 00:08:50,240

so the fact that the smithsonian can

228

00:08:54,470 --> 00:08:52,720

help tell that apollo story is because

229

00:08:58,230 --> 00:08:54,480

we have these artifacts and now this

230

00:08:59,110 --> 00:08:58,240

relationship continues to today but nasa

231

00:09:00,870 --> 00:08:59,120

now

232

00:09:02,710 --> 00:09:00,880

gives the smithsonian sort of first

233

00:09:04,870 --> 00:09:02,720

right over refusal of the artifacts and

234

00:09:06,790 --> 00:09:04,880

then does give them to other museums

235

00:09:09,190 --> 00:09:06,800

around the country it's not as exclusive

236

00:09:11,350 --> 00:09:09,200

as it used to be but that's okay because

237

00:09:13,750 --> 00:09:11,360

seriously we actually run out of room to

238

00:09:16,630 --> 00:09:13,760

store things at the smithsonian i've had

239

00:09:19,110 --> 00:09:16,640

the opportunity to interview many nasa

240

00:09:21,030 --> 00:09:19,120

scientists over the years on my

241

00:09:23,269 --> 00:09:21,040

journalistic programs and it's always

242

00:09:26,070 --> 00:09:23,279

been fascinating but what becomes very

243

00:09:28,550 --> 00:09:26,080

clear very quickly is that nasa has this

244

00:09:31,190 --> 00:09:28,560

massive portfolio right from from the

245

00:09:33,030 --> 00:09:31,200

home planet to a biodiversity to human

246

00:09:35,110 --> 00:09:33,040

impact to international space and

247

00:09:37,430 --> 00:09:35,120

moonlight right i mean the list kind of

248

00:09:39,269 --> 00:09:37,440

goes on and on and on how do you think

249

00:09:42,790 --> 00:09:39,279

you're going to be able to capture all

250

00:09:45,670 --> 00:09:42,800

of that and then represent some of that

251
00:09:47,590 --> 00:09:45,680
in the national museum of the american

252
00:09:49,509 --> 00:09:47,600
latino what's that intersection look

253
00:09:51,350 --> 00:09:49,519
like when i think you think about a

254
00:09:53,269 --> 00:09:51,360
museum you know really what you're doing

255
00:09:55,590 --> 00:09:53,279
is telling stories you know again

256
00:09:58,150 --> 00:09:55,600
stories of of individuals who made a

257
00:10:00,710 --> 00:09:58,160
difference stories of teams that made a

258
00:10:02,870 --> 00:10:00,720
difference and obviously that story of

259
00:10:05,350 --> 00:10:02,880
nasa you know if you're going to do a

260
00:10:07,269 --> 00:10:05,360
story about perseverance rover of course

261
00:10:10,150 --> 00:10:07,279
you want to that's on mars right now you

262
00:10:12,389 --> 00:10:10,160
want to talk about diana trujillo who um

263
00:10:14,550 --> 00:10:12,399

is a latino woman who's doing amazing

264

00:10:18,150 --> 00:10:14,560

things um as part of the engineering

265

00:10:20,069 --> 00:10:18,160

team on on perseverance and so to me it

266

00:10:22,310 --> 00:10:20,079

always comes back to the story what's

267

00:10:24,870 --> 00:10:22,320

the story because you might have an

268

00:10:26,550 --> 00:10:24,880

artifact but you really want to know who

269

00:10:28,949 --> 00:10:26,560

is the person that built that who's the

270

00:10:31,190 --> 00:10:28,959

person that operated it you know what

271

00:10:33,670 --> 00:10:31,200

struggles did they go through personally

272

00:10:35,750 --> 00:10:33,680

to achieve these amazing things

273

00:10:40,230 --> 00:10:35,760

and the story of this country is the

274

00:10:41,829 --> 00:10:40,240

story of of american latinos they they

275

00:10:44,150 --> 00:10:41,839

as everyone knows

276

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

contributed huge amounts been there

277

00:10:49,269 --> 00:10:45,839

every step of the way you know it took

278

00:10:51,829 --> 00:10:49,279

400 000 people to accomplish apollo and

279

00:10:55,110 --> 00:10:51,839

so the job of the new museum is going to

280

00:10:56,230 --> 00:10:55,120

be to collect all those inspiring

281

00:11:03,509 --> 00:10:56,240

stories

282

00:11:05,670 --> 00:11:03,519

prejudice

283

00:11:08,870 --> 00:11:05,680

and other stories are stories of

284

00:11:10,550 --> 00:11:08,880

perseverance and triumph and huge

285

00:11:13,350 --> 00:11:10,560

contributions to the history of this

286

00:11:15,509 --> 00:11:13,360

country and so for the new director

287

00:11:17,030 --> 00:11:15,519

and the curators of that museum frankly

288

00:11:18,870 --> 00:11:17,040

it's going to be an embarrassment of

289

00:11:20,710 --> 00:11:18,880

riches because there are

290

00:11:22,790 --> 00:11:20,720

so many stories out there and which

291

00:11:24,870 --> 00:11:22,800

story do you choose and which artifacts

292

00:11:26,949 --> 00:11:24,880

do you choose and what is the narrative

293

00:11:28,069 --> 00:11:26,959

of the museum going to be and that's

294

00:11:29,190 --> 00:11:28,079

going to be what we're going to be

295

00:11:31,190 --> 00:11:29,200

working on

296

00:11:33,190 --> 00:11:31,200

as we go through the longer process of

297

00:11:35,670 --> 00:11:33,200

actually getting the museum built is

298

00:11:37,350 --> 00:11:35,680

what are the stories and

299

00:11:40,150 --> 00:11:37,360

you know so many of those stories at

300

00:11:43,190 --> 00:11:40,160

nasa you know whether it's ellen ochoa

301
00:11:44,710 --> 00:11:43,200
um who flew obviously on on the space

302
00:11:46,949 --> 00:11:44,720
shuttle and then went on to become head

303
00:11:48,870 --> 00:11:46,959
of johnson space center or whether it's

304
00:11:51,910 --> 00:11:48,880
somebody we're going to be talking to uh

305
00:11:53,430 --> 00:11:51,920
later here today um marla from the nasa

306
00:11:55,910 --> 00:11:53,440
glenn research center

307
00:11:57,910 --> 00:11:55,920
you know the latino story is the nasa

308
00:12:01,430 --> 00:11:57,920
story and and that means you know we

309
00:12:03,509 --> 00:12:01,440
want that museum to definitely tell that

310
00:12:05,509 --> 00:12:03,519
an embarrassment of riches is always a

311
00:12:08,069 --> 00:12:05,519
very good problem for someone who's

312
00:12:09,750 --> 00:12:08,079
curating a museum to have dr stoughton

313
00:12:10,949 --> 00:12:09,760

i'm going to have you um stand by for a

314

00:12:13,110 --> 00:12:10,959

moment we're going to continue our

315

00:12:14,870 --> 00:12:13,120

conversation in just a few moments i

316

00:12:16,629 --> 00:12:14,880

wanted to hear about the great work that

317

00:12:18,470 --> 00:12:16,639

is going on in fact at nasa's glen

318

00:12:21,590 --> 00:12:18,480

research center and langley research

319

00:12:24,550 --> 00:12:21,600

center leaders of course in aeronautics

320

00:12:27,269 --> 00:12:24,560

and aviation so let's welcome the glenn

321

00:12:28,790 --> 00:12:27,279

research center director dr marla perez

322

00:12:31,990 --> 00:12:28,800

davis

323

00:12:33,990 --> 00:12:32,000

over over 80 years of operations nasa

324

00:12:35,990 --> 00:12:34,000

glenn has made many contributions to

325

00:12:38,230 --> 00:12:36,000

space and aeronautics

326

00:12:41,269 --> 00:12:38,240

from ground testing materials

327

00:12:42,550 --> 00:12:41,279

development and research perspective

328

00:12:44,949 --> 00:12:42,560

in that time

329

00:12:45,990 --> 00:12:44,959

we have helped nasa explore the solar

330

00:12:49,110 --> 00:12:46,000

system

331

00:12:52,069 --> 00:12:49,120

we have made aircraft cleaner quieter

332

00:12:55,350 --> 00:12:52,079

and safer and our technologies have

333

00:12:58,150 --> 00:12:55,360

changed lives years on earth

334

00:13:00,710 --> 00:12:58,160

initially established in 1941 as an

335

00:13:03,190 --> 00:13:00,720

aircraft engine research laboratory

336

00:13:05,509 --> 00:13:03,200

nasa glenn now contributes to a variety

337

00:13:07,590 --> 00:13:05,519

of nasa and commercial aerospace

338

00:13:10,550 --> 00:13:07,600

missions through our expertise in

339

00:13:12,790 --> 00:13:10,560

aircraft and space technology

340

00:13:14,949 --> 00:13:12,800

glenn is helping the united states send

341

00:13:16,790 --> 00:13:14,959

the first woman and the first person of

342

00:13:19,269 --> 00:13:16,800

color to the moon

343

00:13:22,310 --> 00:13:19,279

our world-class test facilities and

344

00:13:24,870 --> 00:13:22,320

unrivalled expertise in power propulsion

345

00:13:26,069 --> 00:13:24,880

and advanced materials are crucial to

346

00:13:27,590 --> 00:13:26,079

advancing

347

00:13:29,509 --> 00:13:27,600

arguments

348

00:13:31,030 --> 00:13:29,519

glenn is conducting revolutionary

349

00:13:33,269 --> 00:13:31,040

aeronautics research in green

350

00:13:35,750 --> 00:13:33,279

technologies like electric aircraft

351
00:13:37,590 --> 00:13:35,760
propulsion and advanced materials and

352
00:13:38,710 --> 00:13:37,600
alternative fuels for sustainable

353
00:13:40,870 --> 00:13:38,720
aviation

354
00:13:44,629 --> 00:13:40,880
while also exploring next generation

355
00:13:47,110 --> 00:13:44,639
supersonic and hypersonic aircraft

356
00:13:50,310 --> 00:13:47,120
our neil a amstrom test facility in

357
00:13:52,870 --> 00:13:50,320
sandusky is home to the world's largest

358
00:13:55,430 --> 00:13:52,880
and most powerful space environment

359
00:13:57,829 --> 00:13:55,440
simulation chambers and it has been

360
00:14:00,790 --> 00:13:57,839
instrumental in preparing the orion

361
00:14:02,790 --> 00:14:00,800
spacecraft for the rms1 mission later

362
00:14:05,110 --> 00:14:02,800
this year

363
00:14:07,350 --> 00:14:05,120

nasa glenn is advancing human space

364

00:14:09,110 --> 00:14:07,360

flight through our leading roles in

365

00:14:11,590 --> 00:14:09,120

power and proportion communication

366

00:14:14,470 --> 00:14:11,600

technologies advanced materials and

367

00:14:17,110 --> 00:14:14,480

through our world-class test facilities

368

00:14:19,030 --> 00:14:17,120

our center play a critical role in the

369

00:14:21,430 --> 00:14:19,040

development and testing of the orion

370

00:14:23,829 --> 00:14:21,440

spacecraft for rms1

371

00:14:26,230 --> 00:14:23,839

and we will look on with prior adidas

372

00:14:28,629 --> 00:14:26,240

flight around the moon and back to prove

373

00:14:31,350 --> 00:14:28,639

the systems and technologies needed to

374

00:14:33,030 --> 00:14:31,360

safely launch astronaut on rms2 in the

375

00:14:35,030 --> 00:14:33,040

coming years

376

00:14:37,750 --> 00:14:35,040

we are finalizing the design of the

377

00:14:39,590 --> 00:14:37,760

power and propulsion element for our

378

00:14:41,509 --> 00:14:39,600

lunar gateway

379

00:14:44,310 --> 00:14:41,519

ons integrated at launch with the

380

00:14:45,189 --> 00:14:44,320

habitation and logistic output it will

381

00:14:47,430 --> 00:14:45,199

form

382

00:14:49,750 --> 00:14:47,440

the cornerstone of our exploration

383

00:14:52,150 --> 00:14:49,760

architecture around the moon

384

00:14:54,790 --> 00:14:52,160

and its innovated high power propulsion

385

00:14:56,790 --> 00:14:54,800

system will provide more access to lunar

386

00:14:58,389 --> 00:14:56,800

surface while demonstrating those

387

00:15:00,710 --> 00:14:58,399

technologies for future human

388

00:15:03,189 --> 00:15:00,720

exploration of mars

389

00:15:05,750 --> 00:15:03,199

nasa glenn will continue to meet future

390

00:15:08,150 --> 00:15:05,760

surface exploration needs by advancing a

391

00:15:10,790 --> 00:15:08,160

broad portfolio of cutting-edge power

392

00:15:13,750 --> 00:15:10,800

generation and distribution systems

393

00:15:16,790 --> 00:15:13,760

including radio isotope fission and

394

00:15:19,030 --> 00:15:16,800

solar that will work together to ensure

395

00:15:22,710 --> 00:15:19,040

future missions have the plentiful

396

00:15:24,790 --> 00:15:22,720

reliable power required to be successful

397

00:15:26,790 --> 00:15:24,800

nasa's vision of flight looks very

398

00:15:29,030 --> 00:15:26,800

different from today's world

399

00:15:31,269 --> 00:15:29,040

and we believe we are at the right place

400

00:15:33,670 --> 00:15:31,279

at the right time and we foresee a

401
00:15:36,710 --> 00:15:33,680
future commercial aviation renaissance

402
00:15:41,990 --> 00:15:39,590
we see electrified propulsion as one of

403
00:15:45,269 --> 00:15:42,000
the key drivers of changing the way we

404
00:15:48,310 --> 00:15:45,279
travel making future aircraft cleaner

405
00:15:49,910 --> 00:15:48,320
more efficient and more cost effective

406
00:15:52,389 --> 00:15:49,920
we are tackling the challenges of

407
00:15:53,749 --> 00:15:52,399
electric propulsion for small to large

408
00:15:56,470 --> 00:15:53,759
aircraft

409
00:15:58,629 --> 00:15:56,480
our focus is on the development of all

410
00:16:01,590 --> 00:15:58,639
electric propulsion systems and

411
00:16:03,030 --> 00:16:01,600
components from batteries to megawatt

412
00:16:05,189 --> 00:16:03,040
scale system

413
00:16:07,590 --> 00:16:05,199

and we are partnering with industry on

414

00:16:09,910 --> 00:16:07,600

future large scale hybrid electric

415

00:16:14,629 --> 00:16:09,920

concept to meet nasa's requirements on

416

00:16:17,189 --> 00:16:14,639

carbon fuel burn emissions and noise

417

00:16:19,749 --> 00:16:17,199

we are running emerging markets to

418

00:16:22,389 --> 00:16:19,759

tackle the challenges of creating an air

419

00:16:25,189 --> 00:16:22,399

transportation system for urban and

420

00:16:27,749 --> 00:16:25,199

underserved areas that is all electric

421

00:16:29,990 --> 00:16:27,759

autonomous efficient and safe for moving

422

00:16:32,150 --> 00:16:30,000

passengers and packages

423

00:16:34,470 --> 00:16:32,160

at glen we are studying how electric

424

00:16:36,550 --> 00:16:34,480

systems can be optimized and we are

425

00:16:37,910 --> 00:16:36,560

supporting engine and power technology

426
00:16:39,670 --> 00:16:37,920
development

427
00:16:42,550 --> 00:16:39,680
we're also working to understand and

428
00:16:44,470 --> 00:16:42,560
mitigate the vehicle's acoustics to help

429
00:16:47,189 --> 00:16:44,480
limit noise issues

430
00:16:49,829 --> 00:16:47,199
and we are developing secure data links

431
00:16:52,629 --> 00:16:49,839
and real-time communications to safely

432
00:16:53,990 --> 00:16:52,639
integrate this aircraft in the national

433
00:16:56,470 --> 00:16:54,000
airspace

434
00:16:58,389 --> 00:16:56,480
we are building an experimental airplane

435
00:17:01,189 --> 00:16:58,399
called the x-59

436
00:17:03,990 --> 00:17:01,199
it flies at supersonic speeds but makes

437
00:17:05,029 --> 00:17:04,000
a quiet thump instead of a loud sonic

438
00:17:07,990 --> 00:17:05,039

boom

439

00:17:10,150 --> 00:17:08,000

we will fly it to provide data to enable

440

00:17:12,470 --> 00:17:10,160

regulation changes to allow overland

441

00:17:15,029 --> 00:17:12,480

commercial supersonic flight

442

00:17:16,829 --> 00:17:15,039

this project is a game changer for

443

00:17:19,590 --> 00:17:16,839

future transcontinental and

444

00:17:21,750 --> 00:17:19,600

intercontinental transportation concepts

445

00:17:24,710 --> 00:17:21,760

and will provide an opportunity to

446

00:17:27,189 --> 00:17:24,720

generate economic and societal benefit

447

00:17:29,029 --> 00:17:27,199

in a globally linked world

448

00:17:31,190 --> 00:17:29,039

to talk a little bit more about the

449

00:17:34,310 --> 00:17:31,200

exciting work the hispanic workforce is

450

00:17:36,230 --> 00:17:34,320

supporting at langley research center is

451
00:17:37,909 --> 00:17:36,240
engineering project manager debbie

452
00:17:39,510 --> 00:17:37,919
martinez

453
00:17:41,590 --> 00:17:39,520
thanks soledad

454
00:17:44,230 --> 00:17:41,600
the convergent aeronautics solution or

455
00:17:46,789 --> 00:17:44,240
cast project is helping nasa change the

456
00:17:48,470 --> 00:17:46,799
way airplanes fly and the aviation

457
00:17:50,549 --> 00:17:48,480
industry along with it

458
00:17:53,270 --> 00:17:50,559
by providing innovative solutions to

459
00:17:55,590 --> 00:17:53,280
complex problems cass seeks to help all

460
00:17:57,669 --> 00:17:55,600
of nasa aeronautic research and the

461
00:18:01,029 --> 00:17:57,679
broader community to the benefit of the

462
00:18:03,270 --> 00:18:01,039
us economy and our quality of life

463
00:18:04,870 --> 00:18:03,280

as the cash execution manager i have

464

00:18:07,430 --> 00:18:04,880

worked with numerous talented and

465

00:18:09,029 --> 00:18:07,440

creative researchers such as those on

466

00:18:11,110 --> 00:18:09,039

the stereo team

467

00:18:13,190 --> 00:18:11,120

stereo stands for scalable traffic

468

00:18:15,110 --> 00:18:13,200

management for emergency response

469

00:18:17,590 --> 00:18:15,120

operations

470

00:18:20,150 --> 00:18:17,600

we are here at langley certain range

471

00:18:21,830 --> 00:18:20,160

the stereo team had flight tests here

472

00:18:23,669 --> 00:18:21,840

they partnered with the california

473

00:18:26,470 --> 00:18:23,679

department of forestry and fire

474

00:18:28,789 --> 00:18:26,480

protection and the u.s forest service

475

00:18:31,669 --> 00:18:28,799

who flew aircrafts that helped fight

476

00:18:34,549 --> 00:18:31,679

wildfires in coordination with our nasa

477

00:18:36,310 --> 00:18:34,559

drones using the stereo system to keep

478

00:18:37,830 --> 00:18:36,320

all parties informed

479

00:18:39,590 --> 00:18:37,840

the increased communication and

480

00:18:41,669 --> 00:18:39,600

coordination from the ground units to

481

00:18:44,549 --> 00:18:41,679

the vehicles in the air help make the

482

00:18:46,150 --> 00:18:44,559

battle against wildfires faster safer

483

00:18:48,070 --> 00:18:46,160

and more targeted

484

00:18:49,909 --> 00:18:48,080

let's take a look at other aeronautic

485

00:18:52,230 --> 00:18:49,919

programs that some of my hispanic

486

00:18:54,230 --> 00:18:52,240

colleagues are supporting

487

00:18:56,549 --> 00:18:54,240

i work for the advanced air transport

488

00:18:58,630 --> 00:18:56,559

technology project and we're focused on

489

00:19:00,789 --> 00:18:58,640

exploring and developing technologies to

490

00:19:02,870 --> 00:19:00,799

improve energy efficiency and

491

00:19:04,070 --> 00:19:02,880

environmental compatibility for

492

00:19:06,390 --> 00:19:04,080

fixed-wing

493

00:19:09,830 --> 00:19:06,400

subsonic transport what is that those

494

00:19:12,390 --> 00:19:09,840

are passengers and cargo aircrafts

495

00:19:14,310 --> 00:19:12,400

studies look at vehicle configurations

496

00:19:16,630 --> 00:19:14,320

that are three generations beyond what

497

00:19:18,789 --> 00:19:16,640

we currently are using

498

00:19:21,270 --> 00:19:18,799

for that we need to have mature

499

00:19:25,270 --> 00:19:21,280

technology solutions ready for the time

500

00:19:28,150 --> 00:19:25,280

frame of 2035 to 2045. recently at 14 by

501
00:19:30,549 --> 00:19:28,160
22 we tested the common research model

502
00:19:32,549 --> 00:19:30,559
on the simplify high lift configuration

503
00:19:34,070 --> 00:19:32,559
with active flow control and active flow

504
00:19:35,750 --> 00:19:34,080
control is one of the technologies that

505
00:19:38,310 --> 00:19:35,760
we're trying to develop where it

506
00:19:40,310 --> 00:19:38,320
manipulates the flow around a wing to

507
00:19:42,549 --> 00:19:40,320
make it more efficient

508
00:19:45,029 --> 00:19:42,559
all these studies are super exciting

509
00:19:47,350 --> 00:19:45,039
because it will impact positively the

510
00:19:49,029 --> 00:19:47,360
way we travel in the future the facility

511
00:19:51,029 --> 00:19:49,039
you have behind me is the carbon motion

512
00:19:52,390 --> 00:19:51,039
facility which is our premier

513
00:19:55,029 --> 00:19:52,400

world-class facility

514

00:19:56,310 --> 00:19:55,039

that consists of three high-fidelity

515

00:19:58,470 --> 00:19:56,320

full mission

516

00:20:00,310 --> 00:19:58,480

human-in-the-loop flight simulators and

517

00:20:01,430 --> 00:20:00,320

one six degree of freedom motion

518

00:20:04,390 --> 00:20:01,440

platform

519

00:20:06,549 --> 00:20:04,400

my job here consists of leading a team

520

00:20:08,630 --> 00:20:06,559

of engineers and technicians on the

521

00:20:11,510 --> 00:20:08,640

planning and execution of

522

00:20:13,110 --> 00:20:11,520

operations maintenance and improvements

523

00:20:14,470 --> 00:20:13,120

of the flight simulators and the motion

524

00:20:17,909 --> 00:20:14,480

platform

525

00:20:20,470 --> 00:20:17,919

flight simulation is a safe and

526
00:20:22,230 --> 00:20:20,480
cost-effective way to train pilots and

527
00:20:23,830 --> 00:20:22,240
design aircrafts

528
00:20:26,630 --> 00:20:23,840
it also allows us to develop new

529
00:20:28,950 --> 00:20:26,640
technologies to improve

530
00:20:31,350 --> 00:20:28,960
the decision-making of the pilot and

531
00:20:32,950 --> 00:20:31,360
also responds to emergency situation in

532
00:20:35,830 --> 00:20:32,960
the cab

533
00:20:37,350 --> 00:20:35,840
flight simulation is definitely a

534
00:20:38,470 --> 00:20:37,360
important factor

535
00:20:42,470 --> 00:20:38,480
in

536
00:20:43,430 --> 00:20:42,480
the commercial aviation

537
00:20:45,590 --> 00:20:43,440
safe

538
00:20:47,270 --> 00:20:45,600

for the flying public

539

00:20:49,750 --> 00:20:47,280

the electrified powertrain flight

540

00:20:53,430 --> 00:20:49,760

demonstration project is part of nasa

541

00:20:55,510 --> 00:20:53,440

aeronautics focus to expand research on

542

00:20:57,110 --> 00:20:55,520

sustainable aviation through the

543

00:20:59,110 --> 00:20:57,120

development and tests of green

544

00:21:00,310 --> 00:20:59,120

technologies for the next generation of

545

00:21:02,950 --> 00:21:00,320

aircraft

546

00:21:05,270 --> 00:21:02,960

nasa and industry have conducted studies

547

00:21:07,990 --> 00:21:05,280

on electrified aircraft propulsion

548

00:21:10,390 --> 00:21:08,000

concepts and the results indicate that

549

00:21:11,350 --> 00:21:10,400

there is significant reduction in energy

550

00:21:13,029 --> 00:21:11,360

use

551
00:21:15,510 --> 00:21:13,039
emissions which reduces our carbon

552
00:21:17,909 --> 00:21:15,520
footprint as well as a reduction in

553
00:21:20,070 --> 00:21:17,919
direct operating costs which will

554
00:21:21,750 --> 00:21:20,080
benefit both the public and airline

555
00:21:23,430 --> 00:21:21,760
operators

556
00:21:25,830 --> 00:21:23,440
through industry car sharing

557
00:21:28,070 --> 00:21:25,840
partnerships the electrified powertrain

558
00:21:30,310 --> 00:21:28,080
flight demonstration project is working

559
00:21:33,110 --> 00:21:30,320
to mature and flight test

560
00:21:35,590 --> 00:21:33,120
megawatt class electrified powertrain

561
00:21:37,830 --> 00:21:35,600
systems which are at the heart of

562
00:21:40,310 --> 00:21:37,840
electrified aircraft propulsion systems

563
00:21:42,310 --> 00:21:40,320

this is a game changer if we can

564

00:21:45,029 --> 00:21:42,320

actually introduce

565

00:21:47,750 --> 00:21:45,039

megawatt powertrain systems we can

566

00:21:50,310 --> 00:21:47,760

change how aviation aircraft are

567

00:21:53,190 --> 00:21:50,320

designed in the future with applications

568

00:21:55,350 --> 00:21:53,200

to turbo props regional as well as

569

00:21:56,950 --> 00:21:55,360

single-aisle aircraft

570

00:21:59,510 --> 00:21:56,960

new airspace operations are rapidly

571

00:22:01,270 --> 00:21:59,520

emerging involving multi-rotor vehicles

572

00:22:03,110 --> 00:22:01,280

small quadcopters and octocopters are

573

00:22:04,950 --> 00:22:03,120

being proposed for applications such as

574

00:22:06,070 --> 00:22:04,960

surveillance photography or even package

575

00:22:07,669 --> 00:22:06,080

delivery

576

00:22:09,350 --> 00:22:07,679

the system-wide safety project is

577

00:22:11,110 --> 00:22:09,360

developing tools that are critical to

578

00:22:13,190 --> 00:22:11,120

the safe integration of these vehicles

579

00:22:14,950 --> 00:22:13,200

into the national airspace system

580

00:22:16,149 --> 00:22:14,960

which is particularly important for

581

00:22:18,070 --> 00:22:16,159

urban environments with a high

582

00:22:19,590 --> 00:22:18,080

population density

583

00:22:21,909 --> 00:22:19,600

so the work that i'm involved with is

584

00:22:23,510 --> 00:22:21,919

developing flood dynamics simulations

585

00:22:25,350 --> 00:22:23,520

that can accurately predict the

586

00:22:26,549 --> 00:22:25,360

vehicle's trajectory the vehicle's

587

00:22:27,830 --> 00:22:26,559

performance

588

00:22:29,510 --> 00:22:27,840

and simulate different air traffic

589

00:22:31,350 --> 00:22:29,520

management scenarios

590

00:22:33,110 --> 00:22:31,360

and so we complete different wind tunnel

591

00:22:35,190 --> 00:22:33,120

tests to assess the vehicle's

592

00:22:36,870 --> 00:22:35,200

aerodynamic behavior in a wide range of

593

00:22:38,710 --> 00:22:36,880

operating conditions

594

00:22:40,710 --> 00:22:38,720

this ranges from hover all the way to

595

00:22:42,549 --> 00:22:40,720

forward flight it's definitely an

596

00:22:44,230 --> 00:22:42,559

exciting time to be a part of nasa and

597

00:22:46,230 --> 00:22:44,240

shape the future of aviation

598

00:22:48,549 --> 00:22:46,240

thanks for joining us at nasa langley

599

00:22:50,149 --> 00:22:48,559

research center in hampton virginia back

600

00:22:52,549 --> 00:22:50,159

to you soledad

601
00:22:55,270 --> 00:22:52,559
nasa is doing an incredible amount of

602
00:22:57,190 --> 00:22:55,280
work in earth science specifically with

603
00:23:00,549 --> 00:22:57,200
efforts to understand our earth's

604
00:23:02,310 --> 00:23:00,559
atmosphere crust water and life as a

605
00:23:04,870 --> 00:23:02,320
single connected system and

606
00:23:07,990 --> 00:23:04,880
understanding the earth system and its

607
00:23:09,510 --> 00:23:08,000
response to natural and human impact

608
00:23:12,070 --> 00:23:09,520
give us a better understanding of our

609
00:23:14,390 --> 00:23:12,080
continuously changing climate these

610
00:23:16,630 --> 00:23:14,400
studies and insights are necessary to

611
00:23:19,510 --> 00:23:16,640
determine how to predict future changes

612
00:23:21,830 --> 00:23:19,520
of climate weather and natural hazards

613
00:23:24,070 --> 00:23:21,840

so here to give us additional insight

614

00:23:26,870 --> 00:23:24,080

into these efforts is earth science

615

00:23:29,029 --> 00:23:26,880

deputy director miss sandra kaufman

616

00:23:30,710 --> 00:23:29,039

thank you so much soledad for that

617

00:23:31,590 --> 00:23:30,720

introduction

618

00:23:33,350 --> 00:23:31,600

so

619

00:23:37,430 --> 00:23:33,360

nasa earth science

620

00:23:39,669 --> 00:23:37,440

conducts a a very comprehensive program

621

00:23:41,590 --> 00:23:39,679

of breakthrough science research on

622

00:23:42,549 --> 00:23:41,600

climate science

623

00:23:44,310 --> 00:23:42,559

we

624

00:23:47,269 --> 00:23:44,320

use

625

00:23:49,430 --> 00:23:47,279

our 23 space missions that we have and

626
00:23:52,630 --> 00:23:49,440
collecting

627
00:23:54,870 --> 00:23:52,640
all kinds of data uh we have another 16

628
00:23:56,549 --> 00:23:54,880
missions uh that we have under

629
00:23:58,630 --> 00:23:56,559
development uh they are going to be

630
00:24:00,789 --> 00:23:58,640
launched in the next several years

631
00:24:01,830 --> 00:24:00,799
uh we also use international space

632
00:24:04,470 --> 00:24:01,840
station

633
00:24:06,950 --> 00:24:04,480
so with all of these submissions and

634
00:24:10,470 --> 00:24:06,960
instruments aboard the space station we

635
00:24:12,310 --> 00:24:10,480
measure uh aerosols in our atmosphere uh

636
00:24:14,470 --> 00:24:12,320
we we try to understand whether they

637
00:24:16,789 --> 00:24:14,480
come from natural sources or man-made

638
00:24:19,029 --> 00:24:16,799

sources we also study the processes that

639

00:24:20,230 --> 00:24:19,039

regulate the abundance of ozone in the

640

00:24:22,950 --> 00:24:20,240

atmosphere

641

00:24:26,070 --> 00:24:22,960

there is uh the such thing as the ozone

642

00:24:28,549 --> 00:24:26,080

hole and we measured it and that we can

643

00:24:30,070 --> 00:24:28,559

predict certain aspects of it we study

644

00:24:32,950 --> 00:24:30,080

sea level rise

645

00:24:35,350 --> 00:24:32,960

we only have one earth and uh and we are

646

00:24:38,070 --> 00:24:35,360

the helping to the best that we can in

647

00:24:41,350 --> 00:24:38,080

understanding it and and measure what's

648

00:24:44,070 --> 00:24:41,360

happening uh earth science has a very

649

00:24:44,950 --> 00:24:44,080

strong applied sciences program

650

00:24:46,390 --> 00:24:44,960

and

651
00:24:49,029 --> 00:24:46,400
in that program

652
00:24:52,470 --> 00:24:49,039
we not only you know do disaster

653
00:24:55,029 --> 00:24:52,480
response uh due to natural hazards we

654
00:24:56,950 --> 00:24:55,039
also have a program on public health

655
00:24:58,789 --> 00:24:56,960
helping predict uh

656
00:25:00,630 --> 00:24:58,799
illnesses such as

657
00:25:03,110 --> 00:25:00,640
you know malaria

658
00:25:06,230 --> 00:25:03,120
in a lot of the the countries in in

659
00:25:09,110 --> 00:25:06,240
south america latin america and africa

660
00:25:11,669 --> 00:25:09,120
that is a big problem and uh we are

661
00:25:13,990 --> 00:25:11,679
trying to use our satellites uh the the

662
00:25:17,190 --> 00:25:14,000
measurements of temperature the

663
00:25:20,310 --> 00:25:17,200

measurements of moisture and try to

664

00:25:21,669 --> 00:25:20,320

predict the incidence of some of these

665

00:25:24,310 --> 00:25:21,679

illnesses

666

00:25:25,430 --> 00:25:24,320

we also have a very strong agricultural

667

00:25:29,029 --> 00:25:25,440

program

668

00:25:31,510 --> 00:25:29,039

that is helping farmers out there in not

669

00:25:34,710 --> 00:25:31,520

just on scientific studies but trying to

670

00:25:35,830 --> 00:25:34,720

understand for example soil loss soil

671

00:25:38,310 --> 00:25:35,840

moisture

672

00:25:41,029 --> 00:25:38,320

plant evapotranspiration

673

00:25:43,190 --> 00:25:41,039

whether the soil is is not in good

674

00:25:45,750 --> 00:25:43,200

condition whether the salt is reducing

675

00:25:49,029 --> 00:25:45,760

carbon into the atmosphere as carbon

676

00:25:52,630 --> 00:25:49,039

dioxide so all these aspects are the

677

00:25:54,470 --> 00:25:52,640

aspects that we uh work and and

678

00:25:56,710 --> 00:25:54,480

and help and study

679

00:25:58,789 --> 00:25:56,720

uh and of course working with the local

680

00:26:01,350 --> 00:25:58,799

communities working with

681

00:26:04,310 --> 00:26:01,360

people in in coastal areas with the sea

682

00:26:06,950 --> 00:26:04,320

level rise and helping uh anticipate uh

683

00:26:10,470 --> 00:26:06,960

aspects of uh resilience uh community

684

00:26:11,350 --> 00:26:10,480

resilience and and such so um

685

00:26:13,430 --> 00:26:11,360

last

686

00:26:15,590 --> 00:26:13,440

i wanted to talk about our surveyor

687

00:26:17,269 --> 00:26:15,600

program an initiative that we have with

688

00:26:19,669 --> 00:26:17,279

the united states agency for the

689

00:26:21,269 --> 00:26:19,679

international development usaid and we

690

00:26:24,630 --> 00:26:21,279

work in partnership with leading

691

00:26:26,470 --> 00:26:24,640

regional organizations that worldwide

692

00:26:29,909 --> 00:26:26,480

to help developing countries use this

693

00:26:32,710 --> 00:26:29,919

information provided by our satellites

694

00:26:35,269 --> 00:26:32,720

and empowering local communities all the

695

00:26:39,350 --> 00:26:35,279

way from west africa south africa the

696

00:26:41,190 --> 00:26:39,360

hindu um himalaya region central america

697

00:26:43,350 --> 00:26:41,200

and we are planning on opening up a new

698

00:26:44,230 --> 00:26:43,360

hub in central america in the upcoming

699

00:26:47,029 --> 00:26:44,240

years

700

00:26:49,110 --> 00:26:47,039

so all in all you know air science is

701
00:26:51,029 --> 00:26:49,120
trying to contribute to the the the

702
00:26:54,310 --> 00:26:51,039
understanding of our planet

703
00:26:55,990 --> 00:26:54,320
but uh also help with with uh all kinds

704
00:26:59,269 --> 00:26:56,000
of aspects that uh

705
00:27:01,669 --> 00:26:59,279
benefits uh society in in general

706
00:27:04,149 --> 00:27:01,679
um so thank you very much and and back

707
00:27:05,909 --> 00:27:04,159
to you soledad

708
00:27:08,390 --> 00:27:05,919
we just learned about the work being

709
00:27:09,269 --> 00:27:08,400
done here on earth so now let's take a

710
00:27:11,350 --> 00:27:09,279
look

711
00:27:13,830 --> 00:27:11,360
above another interesting and exciting

712
00:27:16,310 --> 00:27:13,840
research area that nasa works on is

713
00:27:18,870 --> 00:27:16,320

space food food is critical of course

714

00:27:21,110 --> 00:27:18,880

for mission success and the health and

715

00:27:22,870 --> 00:27:21,120

performance of the astronauts

716

00:27:24,950 --> 00:27:22,880

maintaining a healthy diet plays an

717

00:27:27,269 --> 00:27:24,960

important role specifically socially and

718

00:27:30,070 --> 00:27:27,279

psychologically which is important for

719

00:27:33,110 --> 00:27:30,080

long-duration missions in space so how

720

00:27:34,389 --> 00:27:33,120

does nasa handle feeding its diverse

721

00:27:36,310 --> 00:27:34,399

crew members

722

00:27:37,830 --> 00:27:36,320

let's turn it over to johnson space

723

00:27:40,630 --> 00:27:37,840

center

724

00:27:42,310 --> 00:27:40,640

thanks soledad my name is gisela munoz

725

00:27:44,870 --> 00:27:42,320

and i'm a crew systems instructor and

726
00:27:46,789 --> 00:27:44,880
the flight operations directorate

727
00:27:49,029 --> 00:27:46,799
one of the lessons astronauts receive

728
00:27:51,669 --> 00:27:49,039
from our team is food preparation and

729
00:27:54,070 --> 00:27:51,679
equipment which covers not only how to

730
00:27:55,830 --> 00:27:54,080
operate the galley hardware but also

731
00:27:57,590 --> 00:27:55,840
what types of food they can expect to

732
00:27:59,669 --> 00:27:57,600
see when they're on orbit and how to

733
00:28:01,269 --> 00:27:59,679
prepare them space food is prepared and

734
00:28:03,269 --> 00:28:01,279
packaged differently

735
00:28:05,269 --> 00:28:03,279
than on earth a standard menu for

736
00:28:07,590 --> 00:28:05,279
astronauts will include rehydratable

737
00:28:09,350 --> 00:28:07,600
foods and beverages thermo-stabilized

738
00:28:12,070 --> 00:28:09,360

foods that are packaged similar to

739

00:28:14,870 --> 00:28:12,080

military mres and natural form foods

740

00:28:16,230 --> 00:28:14,880

like nuts or cookies if you're lucky

741

00:28:18,549 --> 00:28:16,240

you'll get food from one of our

742

00:28:21,430 --> 00:28:18,559

international partners like russian

743

00:28:22,710 --> 00:28:21,440

european canadian or japanese space

744

00:28:25,110 --> 00:28:22,720

agencies

745

00:28:27,190 --> 00:28:25,120

astronauts also have access to fresh

746

00:28:29,110 --> 00:28:27,200

food like apples and oranges that are

747

00:28:31,990 --> 00:28:29,120

flown up on our commercial resupply

748

00:28:33,669 --> 00:28:32,000

vehicles eating and drinking in space is

749

00:28:36,549 --> 00:28:33,679

different than on earth because of the

750

00:28:39,350 --> 00:28:36,559

lack of gravity since you're not able to

751
00:28:41,190 --> 00:28:39,360
pour drinks into a cup beverages are

752
00:28:42,549 --> 00:28:41,200
packaged in a pouch and sucked out

753
00:28:44,870 --> 00:28:42,559
through a straw

754
00:28:47,110 --> 00:28:44,880
for your food you need to be careful as

755
00:28:49,190 --> 00:28:47,120
you eat because even small pieces of

756
00:28:50,950 --> 00:28:49,200
food don't normally fall off the table

757
00:28:53,190 --> 00:28:50,960
like they do on earth but they'll float

758
00:28:54,789 --> 00:28:53,200
away and hopefully not at one of your

759
00:28:57,350 --> 00:28:54,799
fellow crewmates

760
00:28:58,710 --> 00:28:57,360
one popular hispanic food used in space

761
00:29:01,269 --> 00:28:58,720
or tortillas

762
00:29:03,830 --> 00:29:01,279
tortillas are a staple food and native

763
00:29:05,430 --> 00:29:03,840

to hispanic cuisine in mexico central

764

00:29:07,750 --> 00:29:05,440

and south america

765

00:29:10,149 --> 00:29:07,760

tortillas have been used on orbit for

766

00:29:12,789 --> 00:29:10,159

decades for crew meals as early as the

767

00:29:14,950 --> 00:29:12,799

beginning of the space shuttle program

768

00:29:17,190 --> 00:29:14,960

astronauts have gotten creative over the

769

00:29:20,149 --> 00:29:17,200

years with using tortillas to make

770

00:29:22,470 --> 00:29:20,159

pizzas fajitas breakfast burritos and

771

00:29:24,389 --> 00:29:22,480

even a space cheeseburger

772

00:29:26,070 --> 00:29:24,399

tortillas are a great component to the

773

00:29:28,310 --> 00:29:26,080

standard menu because they don't create

774

00:29:30,149 --> 00:29:28,320

a lot of crumbs and have a longer shelf

775

00:29:31,350 --> 00:29:30,159

life than the standard breads we eat on

776

00:29:32,950 --> 00:29:31,360

the ground

777

00:29:34,950 --> 00:29:32,960

shelf life is important because

778

00:29:37,350 --> 00:29:34,960

astronaut meals are sent up to the

779

00:29:39,269 --> 00:29:37,360

international space station in advance

780

00:29:41,590 --> 00:29:39,279

in addition to the standard menu

781

00:29:43,669 --> 00:29:41,600

astronauts are provided a small sample

782

00:29:44,630 --> 00:29:43,679

of off-the-shelf foods they request to

783

00:29:46,389 --> 00:29:44,640

fly

784

00:29:49,830 --> 00:29:46,399

some recent requests have included

785

00:29:53,029 --> 00:29:49,840

hispanic foods such as salsa sacera bean

786

00:29:55,430 --> 00:29:53,039

dip with jalapenos and tostada shells

787

00:29:57,990 --> 00:29:55,440

salsa sacera is a red sauce dip made

788

00:30:00,710 --> 00:29:58,000

from chili peppers red peppers onion

789

00:30:03,029 --> 00:30:00,720

garlic and tomatoes so sata shells are

790

00:30:04,470 --> 00:30:03,039

similar to tortillas but have a crunchy

791

00:30:07,110 --> 00:30:04,480

consistency

792

00:30:09,990 --> 00:30:07,120

avocados even made a recent trip up the

793

00:30:12,070 --> 00:30:10,000

iss aboard one of the resupply vehicles

794

00:30:14,549 --> 00:30:12,080

it is important to incorporate this

795

00:30:16,950 --> 00:30:14,559

variety into everyday meals and take

796

00:30:19,350 --> 00:30:16,960

crew preferences into consideration

797

00:30:21,029 --> 00:30:19,360

the acceptability of astronaut meals are

798

00:30:23,029 --> 00:30:21,039

a contributor to the positive

799

00:30:25,830 --> 00:30:23,039

psychological health and performance of

800

00:30:27,510 --> 00:30:25,840

the crew while they are in space

801

00:30:29,830 --> 00:30:27,520

gathering for meals with friends and

802

00:30:31,830 --> 00:30:29,840

family with good food is an important

803

00:30:34,149 --> 00:30:31,840

part of the hispanic culture

804

00:30:37,669 --> 00:30:34,159

entire songs have been dedicated to the

805

00:30:39,750 --> 00:30:37,679

menu of hispanic cuisine such as el menu

806

00:30:42,310 --> 00:30:39,760

the opportunity to have the comforts of

807

00:30:44,389 --> 00:30:42,320

home cannot be understated this will be

808

00:30:47,669 --> 00:30:44,399

equally important as we venture farther

809

00:30:49,269 --> 00:30:47,679

from home during the artemis missions

810

00:30:52,070 --> 00:30:49,279

and it's back to our conversation with

811

00:30:54,310 --> 00:30:52,080

dr stouffen so given this long-standing

812

00:30:55,750 --> 00:30:54,320

partnership between uh nasa and the

813

00:30:58,389 --> 00:30:55,760

smithsonian

814

00:31:00,470 --> 00:30:58,399

how do you see them working together on

815

00:31:01,909 --> 00:31:00,480

the latino museum what would that

816

00:31:05,110 --> 00:31:01,919

actually sort of

817

00:31:06,950 --> 00:31:05,120

look like in practice

818

00:31:09,110 --> 00:31:06,960

we know one of the things that nasa is

819

00:31:10,950 --> 00:31:09,120

constantly think about is is

820

00:31:12,789 --> 00:31:10,960

how do we help inspire that next

821

00:31:14,870 --> 00:31:12,799

generation and that's actually also the

822

00:31:16,389 --> 00:31:14,880

mission at the air and space museum and

823

00:31:18,950 --> 00:31:16,399

i know it's the mission for the whole

824

00:31:21,269 --> 00:31:18,960

smithsonian is really thinking about how

825

00:31:24,310 --> 00:31:21,279

do we inspire the next generation to do

826

00:31:26,070 --> 00:31:24,320

more to discover more to invent more you

827

00:31:28,389 --> 00:31:26,080

know to keep this great story of this

828

00:31:31,190 --> 00:31:28,399

country going and so when i think of the

829

00:31:32,870 --> 00:31:31,200

latino museum and nasa working together

830

00:31:35,430 --> 00:31:32,880

one of the things i really think about

831

00:31:37,269 --> 00:31:35,440

is is first of all going back to marion

832

00:31:38,870 --> 00:31:37,279

wright edelman's quote you can't be what

833

00:31:41,669 --> 00:31:38,880

you can't see

834

00:31:43,990 --> 00:31:41,679

and so are we are we highlighting people

835

00:31:45,750 --> 00:31:44,000

like the astronaut um franklin chang

836

00:31:48,870 --> 00:31:45,760

diaz or joe acaba who you're going to

837

00:31:51,350 --> 00:31:48,880

talk to or ellen ochoa are we really

838

00:31:54,230 --> 00:31:51,360

telling those stories of of people like

839

00:31:57,110 --> 00:31:54,240

diana of people like marla these amazing

840

00:31:58,630 --> 00:31:57,120

engineers so that every kid who walks

841

00:32:00,470 --> 00:31:58,640

into that museum

842

00:32:02,389 --> 00:32:00,480

understands that people who look like

843

00:32:05,509 --> 00:32:02,399

them have been making incredible

844

00:32:07,590 --> 00:32:05,519

contributions all along and and i know

845

00:32:09,190 --> 00:32:07,600

that's really important to nasa and i

846

00:32:11,190 --> 00:32:09,200

know it's really important to the

847

00:32:12,549 --> 00:32:11,200

smithsonian that piece about

848

00:32:13,830 --> 00:32:12,559

inspiration

849

00:32:15,909 --> 00:32:13,840

and then of course it's always the

850

00:32:17,509 --> 00:32:15,919

programs it's not just the artifacts

851
00:32:20,470 --> 00:32:17,519
which are critically important that help

852
00:32:21,909 --> 00:32:20,480
us tell the stories um it's not just who

853
00:32:24,070 --> 00:32:21,919
we're featuring but what kind of

854
00:32:24,870 --> 00:32:24,080
programming what kind of educational

855
00:32:27,350 --> 00:32:24,880
reach

856
00:32:29,830 --> 00:32:27,360
so that certainly people who come to the

857
00:32:33,430 --> 00:32:29,840
museum are being inspired but they're

858
00:32:35,269 --> 00:32:33,440
we're also creating digital outreach on

859
00:32:37,830 --> 00:32:35,279
using all those incredible skills that

860
00:32:39,669 --> 00:32:37,840
nasa has in the smithsonian has together

861
00:32:40,549 --> 00:32:39,679
to really make sure we're not just

862
00:32:43,509 --> 00:32:40,559
reaching

863
00:32:45,830 --> 00:32:43,519

um kids who can come to washington but

864

00:32:49,750 --> 00:32:45,840

that we're reaching kids all around this

865

00:32:55,269 --> 00:32:52,789

currently nasa is preparing for return

866

00:32:57,430 --> 00:32:55,279

to the moon and there are a handful of

867

00:32:59,750 --> 00:32:57,440

hispanic astronauts who are working to

868

00:33:02,230 --> 00:32:59,760

make that a reality uh this means that

869

00:33:04,389 --> 00:33:02,240

they could be the very first hispanic

870

00:33:07,029 --> 00:33:04,399

astronauts to ever set

871

00:33:08,950 --> 00:33:07,039

foot on the moon which is

872

00:33:12,549 --> 00:33:08,960

amazing

873

00:33:14,389 --> 00:33:12,559

you know i i'm old enough that i

874

00:33:15,909 --> 00:33:14,399

remember the first moon landing and

875

00:33:18,230 --> 00:33:15,919

while it was certainly inspiring and

876

00:33:19,350 --> 00:33:18,240

actually my dad worked at nasa at that

877

00:33:21,430 --> 00:33:19,360

time

878

00:33:23,430 --> 00:33:21,440

it didn't make me think i'm gonna go do

879

00:33:24,549 --> 00:33:23,440

that because frankly none of them looked

880

00:33:27,269 --> 00:33:24,559

like me

881

00:33:29,669 --> 00:33:27,279

and this idea that those first crews

882

00:33:32,070 --> 00:33:29,679

that we send to the moon

883

00:33:33,669 --> 00:33:32,080

um the multiple crews will send there

884

00:33:35,750 --> 00:33:33,679

and then the first humans that walk on

885

00:33:38,149 --> 00:33:35,760

mars they're gonna look like all of us

886

00:33:41,110 --> 00:33:38,159

and to me again it gets back to that

887

00:33:44,470 --> 00:33:41,120

inspiration if we can do this if we can

888

00:33:46,710 --> 00:33:44,480

do this together um just just think what

889

00:33:48,470 --> 00:33:46,720

kind of power we have and to me that is

890

00:33:49,830 --> 00:33:48,480

part of the inspiration of space

891

00:33:51,590 --> 00:33:49,840

exploration

892

00:33:53,909 --> 00:33:51,600

that i think has helped certainly bring

893

00:33:55,750 --> 00:33:53,919

this country together during apollo but

894

00:33:58,630 --> 00:33:55,760

i think you know now as we really

895

00:34:01,269 --> 00:33:58,640

struggle with kovid i i think we need a

896

00:34:03,430 --> 00:34:01,279

little of that moonshot feeling of you

897

00:34:05,350 --> 00:34:03,440

know what if we put our minds to it we

898

00:34:07,590 --> 00:34:05,360

can we can do anything we can have

899

00:34:10,550 --> 00:34:07,600

humans walk on the moon

900

00:34:13,349 --> 00:34:10,560

i love the concept of storytelling as a

901
00:34:14,869 --> 00:34:13,359
way of both bringing people together but

902
00:34:17,109 --> 00:34:14,879
also really

903
00:34:18,790 --> 00:34:17,119
making people recognize themselves i

904
00:34:20,869 --> 00:34:18,800
mean in this idea of like including

905
00:34:22,790 --> 00:34:20,879
everybody's story in that bigger

906
00:34:24,950 --> 00:34:22,800
storytelling picture

907
00:34:26,710 --> 00:34:24,960
dr stouffin we're going to take a a

908
00:34:29,990 --> 00:34:26,720
break in order to hear from the

909
00:34:31,430 --> 00:34:30,000
astronauts dr frank rubio and joe acaba

910
00:34:33,430 --> 00:34:31,440
who are going to tell us a little bit

911
00:34:35,510 --> 00:34:33,440
about what this means for them

912
00:34:38,149 --> 00:34:35,520
all right frank so you know here we are

913
00:34:39,909 --> 00:34:38,159

in hispanic heritage month and i think

914

00:34:43,510 --> 00:34:39,919

it's really important because it gives

915

00:34:45,750 --> 00:34:43,520

us that time to really reflect upon the

916

00:34:48,470 --> 00:34:45,760

contributions that the

917

00:34:50,710 --> 00:34:48,480

hispanic community has contributed you

918

00:34:52,310 --> 00:34:50,720

know not only to the space program

919

00:34:54,629 --> 00:34:52,320

but to the u.s

920

00:34:56,389 --> 00:34:54,639

as a whole so it really just gives us an

921

00:34:58,870 --> 00:34:56,399

opportunity to reflect on all the work

922

00:35:00,950 --> 00:34:58,880

that we've done the contributions that

923

00:35:03,990 --> 00:35:00,960

we have given and really to celebrate

924

00:35:06,870 --> 00:35:04,000

that and for us to remember our heritage

925

00:35:09,430 --> 00:35:06,880

and to take part and really focus our

926

00:35:11,430 --> 00:35:09,440

our time on that

927

00:35:12,630 --> 00:35:11,440

yeah joe i agree i think it's a really

928

00:35:14,069 --> 00:35:12,640

important

929

00:35:15,589 --> 00:35:14,079

thing that we celebrate right we as

930

00:35:16,630 --> 00:35:15,599

americans i think one of the great

931

00:35:18,790 --> 00:35:16,640

things

932

00:35:21,910 --> 00:35:18,800

for our nation is that we are made up of

933

00:35:23,990 --> 00:35:21,920

so many uh backgrounds and cultures and

934

00:35:26,230 --> 00:35:24,000

i think acknowledging that acknowledging

935

00:35:28,630 --> 00:35:26,240

where we came from uh you know for my

936

00:35:32,230 --> 00:35:28,640

kids i want them to be really proud

937

00:35:33,589 --> 00:35:32,240

to be latinosaurs or hispanic americans uh

938

00:35:35,109 --> 00:35:33,599

and despite the fact that you know

939

00:35:36,470 --> 00:35:35,119

they're they're american to the core i

940

00:35:38,710 --> 00:35:36,480

don't want them to forget where they

941

00:35:40,790 --> 00:35:38,720

came from where we came from uh and so

942

00:35:42,870 --> 00:35:40,800

as a nation i think throughout the year

943

00:35:45,510 --> 00:35:42,880

the fact that we're able to celebrate a

944

00:35:47,910 --> 00:35:45,520

different cultural backgrounds uh and

945

00:35:50,150 --> 00:35:47,920

and diversity it's just great because i

946

00:35:52,630 --> 00:35:50,160

think more than anything it acknowledges

947

00:35:55,109 --> 00:35:52,640

that as a country we're made up of a

948

00:35:56,550 --> 00:35:55,119

whole lot of different um

949

00:35:58,790 --> 00:35:56,560

you know backgrounds that came together

950

00:36:01,750 --> 00:35:58,800

and made this awesome thing

951
00:36:03,190 --> 00:36:01,760
named america and i think together those

952
00:36:05,349 --> 00:36:03,200
cultures and those backgrounds can

953
00:36:07,990 --> 00:36:05,359
accomplish and continue to accomplish

954
00:36:11,190 --> 00:36:08,000
amazing things

955
00:36:12,630 --> 00:36:11,200
so i think when we talk about

956
00:36:15,030 --> 00:36:12,640
you know having

957
00:36:16,790 --> 00:36:15,040
whatever culture it may be working at

958
00:36:18,710 --> 00:36:16,800
nasa it's super important i think

959
00:36:19,990 --> 00:36:18,720
everybody understands today

960
00:36:21,510 --> 00:36:20,000
that uh

961
00:36:23,750 --> 00:36:21,520
a diverse team

962
00:36:26,230 --> 00:36:23,760
makes for a better team you get

963
00:36:28,230 --> 00:36:26,240

different perspectives uh different ways

964

00:36:30,630 --> 00:36:28,240

of doing things so that's super

965

00:36:33,670 --> 00:36:30,640

important and being an astronaut it is a

966

00:36:34,950 --> 00:36:33,680

uh a visible occupation you know frank

967

00:36:37,190 --> 00:36:34,960

and i we're just

968

00:36:39,670 --> 00:36:37,200

a couple of ordinary dudes from uh you

969

00:36:41,670 --> 00:36:39,680

know from california but we have a

970

00:36:43,670 --> 00:36:41,680

really cool job and it's an important

971

00:36:46,310 --> 00:36:43,680

job and it's very visible

972

00:36:49,349 --> 00:36:46,320

and so you know part of what we do

973

00:36:52,310 --> 00:36:49,359

is representing nasa but then also

974

00:36:54,630 --> 00:36:52,320

representing who we are as people and so

975

00:36:56,230 --> 00:36:54,640

i think from the nasa side that's super

976
00:36:58,470 --> 00:36:56,240
important uh

977
00:37:00,630 --> 00:36:58,480
but when we go out and you know either

978
00:37:03,030 --> 00:37:00,640
when we give talks or we go and do our

979
00:37:05,349 --> 00:37:03,040
missions people are watching uh when i

980
00:37:07,589 --> 00:37:05,359
was first selected as an astronaut i

981
00:37:10,230 --> 00:37:07,599
mean the puerto rican community they

982
00:37:11,750 --> 00:37:10,240
just embraced me they you know they were

983
00:37:14,150 --> 00:37:11,760
proud

984
00:37:16,470 --> 00:37:14,160
they reached out to me and then

985
00:37:18,470 --> 00:37:16,480
as i flew on my shuttle flight and then

986
00:37:21,430 --> 00:37:18,480
future flights that support just

987
00:37:22,630 --> 00:37:21,440
continued and as i give talks and i talk

988
00:37:24,470 --> 00:37:22,640

to kids

989

00:37:26,230 --> 00:37:24,480

you know they look at that and they go

990

00:37:28,790 --> 00:37:26,240

dang if joe can do that you know i can

991

00:37:31,910 --> 00:37:28,800

do that and that's not belittling to me

992

00:37:33,829 --> 00:37:31,920

it's just i'm a regular person um that

993

00:37:35,510 --> 00:37:33,839

you know had a dream and it you know it

994

00:37:36,630 --> 00:37:35,520

happened to work out so i think it's

995

00:37:39,589 --> 00:37:36,640

important

996

00:37:41,990 --> 00:37:39,599

for

997

00:37:44,230 --> 00:37:42,000

the latino community to see me and frank

998

00:37:46,150 --> 00:37:44,240

and others that are doing this work

999

00:37:48,870 --> 00:37:46,160

uh representing them

1000

00:37:50,790 --> 00:37:48,880

and you know trying to make them proud

1001
00:37:53,589 --> 00:37:50,800
yeah joe that's that's a an awesome way

1002
00:37:54,950 --> 00:37:53,599
to put it you know and um

1003
00:37:56,630 --> 00:37:54,960
you know like you said we're just

1004
00:37:58,310 --> 00:37:56,640
blessed to have this awesome job and to

1005
00:37:59,829 --> 00:37:58,320
represent the nasa team right we

1006
00:38:01,990 --> 00:37:59,839
represent um

1007
00:38:03,589 --> 00:38:02,000
thousands thousands of people that just

1008
00:38:04,710 --> 00:38:03,599
put in so much work and effort to make

1009
00:38:05,670 --> 00:38:04,720
what we do

1010
00:38:06,630 --> 00:38:05,680
happen

1011
00:38:08,870 --> 00:38:06,640
um

1012
00:38:10,310 --> 00:38:08,880
you know and i think people forget yeah

1013
00:38:13,430 --> 00:38:10,320

you look at my class for instance and

1014

00:38:16,470 --> 00:38:13,440

we're an incredibly diverse class uh but

1015

00:38:19,430 --> 00:38:16,480

first and foremost within our core

1016

00:38:21,589 --> 00:38:19,440

uh competence and capability are our

1017

00:38:23,349 --> 00:38:21,599

utmost because ultimately we're trusting

1018

00:38:25,510 --> 00:38:23,359

each other with our lives and so when i

1019

00:38:27,589 --> 00:38:25,520

look at joe i you know it's awesome that

1020

00:38:30,390 --> 00:38:27,599

he's hispanic right and that i know that

1021

00:38:32,950 --> 00:38:30,400

he's reaching a large

1022

00:38:34,310 --> 00:38:32,960

portion of our of our society but but

1023

00:38:36,950 --> 00:38:34,320

really when i see joe i see an

1024

00:38:39,109 --> 00:38:36,960

incredibly capable competent astronaut

1025

00:38:41,430 --> 00:38:39,119

and that's uh that's who i want beside

1026

00:38:43,910 --> 00:38:41,440

me uh not just because he's latino but

1027

00:38:46,790 --> 00:38:43,920

also because uh and really mostly

1028

00:38:49,270 --> 00:38:46,800

because of who he is as an astronaut as

1029

00:38:51,190 --> 00:38:49,280

far as being capable knowledgeable

1030

00:38:53,430 --> 00:38:51,200

um and competent in what he does and i

1031

00:38:54,310 --> 00:38:53,440

think all of us take a lot of pride

1032

00:38:57,589 --> 00:38:54,320

in that

1033

00:38:59,349 --> 00:38:57,599

when i when i think about the moon um

1034

00:39:02,950 --> 00:38:59,359

and going back to the moon i honestly go

1035

00:39:05,190 --> 00:39:02,960

back to being a kid mode right

1036

00:39:07,030 --> 00:39:05,200

i personally don't care who it is uh

1037

00:39:09,190 --> 00:39:07,040

it's going to be

1038

00:39:11,510 --> 00:39:09,200

hopefully one of my peers that's in the

1039

00:39:13,270 --> 00:39:11,520

core now just thinking of my friends

1040

00:39:15,750 --> 00:39:13,280

uh being up there

1041

00:39:17,750 --> 00:39:15,760

it just makes me excited uh and not just

1042

00:39:21,270 --> 00:39:17,760

because i'm an astronaut but as

1043

00:39:23,270 --> 00:39:21,280

as as a person as an american as a human

1044

00:39:24,470 --> 00:39:23,280

being i just think accomplishing great

1045

00:39:27,030 --> 00:39:24,480

things

1046

00:39:28,790 --> 00:39:27,040

brings us together uh because we're all

1047

00:39:32,069 --> 00:39:28,800

excited about being able to point and

1048

00:39:34,950 --> 00:39:32,079

say wow look what we're capable of doing

1049

00:39:38,230 --> 00:39:34,960

uh when we put our efforts together and

1050

00:39:41,750 --> 00:39:38,240

work hard and and overcome obstacles

1051
00:39:44,069 --> 00:39:41,760
and take challenges head on so yeah i

1052
00:39:45,750 --> 00:39:44,079
excitement uh happiness joy i mean it's

1053
00:39:47,990 --> 00:39:45,760
it's hard not to smile when i think of

1054
00:39:49,750 --> 00:39:48,000
uh going back there you know i i look

1055
00:39:52,630 --> 00:39:49,760
forward to hopefully contributing uh as

1056
00:39:53,990 --> 00:39:52,640
an as a team to accomplishing um

1057
00:39:55,750 --> 00:39:54,000
something that

1058
00:39:57,990 --> 00:39:55,760
you know i think we we can imagine it

1059
00:39:58,950 --> 00:39:58,000
right now but we can't even dream of how

1060
00:40:01,430 --> 00:39:58,960
awesome

1061
00:40:03,990 --> 00:40:01,440
uh having a community on the moon in a

1062
00:40:05,829 --> 00:40:04,000
permanent or semi-permanent uh

1063
00:40:08,470 --> 00:40:05,839

state is gonna be like it's gonna be

1064

00:40:10,950 --> 00:40:08,480

pretty cool uh it's gonna be hard but i

1065

00:40:12,069 --> 00:40:10,960

think it's to be make it even better the

1066

00:40:13,190 --> 00:40:12,079

fact that it is hard is going to make it

1067

00:40:15,910 --> 00:40:13,200

even better for us to be able to

1068

00:40:18,870 --> 00:40:15,920

accomplish those things

1069

00:40:21,430 --> 00:40:18,880

yeah when i think about uh you know

1070

00:40:23,510 --> 00:40:21,440

all of us going back to the moon

1071

00:40:24,390 --> 00:40:23,520

and if i just had to say a few words it

1072

00:40:26,790 --> 00:40:24,400

would be

1073

00:40:28,790 --> 00:40:26,800

you know what if we can do it

1074

00:40:30,550 --> 00:40:28,800

you can do it and you know that sounds

1075

00:40:31,510 --> 00:40:30,560

very simple

1076

00:40:33,670 --> 00:40:31,520

but

1077

00:40:35,190 --> 00:40:33,680

it takes a lot of work

1078

00:40:37,349 --> 00:40:35,200

it's going to take a lot of work for us

1079

00:40:39,589 --> 00:40:37,359

to go back to the moon and i think it

1080

00:40:42,150 --> 00:40:39,599

signifies that amount of work that

1081

00:40:43,670 --> 00:40:42,160

amount of dedication

1082

00:40:45,829 --> 00:40:43,680

whatever

1083

00:40:47,829 --> 00:40:45,839

the younger generation wants to do just

1084

00:40:49,990 --> 00:40:47,839

know that if we can do this if we can

1085

00:40:51,510 --> 00:40:50,000

get back to the moon you can accomplish

1086

00:40:53,750 --> 00:40:51,520

what you want to do

1087

00:40:55,829 --> 00:40:53,760

we're not working every day thinking

1088

00:40:58,470 --> 00:40:55,839

about a legacy but

1089

00:41:02,150 --> 00:40:58,480

it is important for us to realize that

1090

00:41:04,230 --> 00:41:02,160

people do look up to us as a role model

1091

00:41:07,190 --> 00:41:04,240

and you know i feel proud

1092

00:41:09,910 --> 00:41:07,200

that you know we both are leaving a mark

1093

00:41:12,309 --> 00:41:09,920

um you know to our country

1094

00:41:14,870 --> 00:41:12,319

uh to where we came from

1095

00:41:16,870 --> 00:41:14,880

and just the world in general so i i

1096

00:41:19,349 --> 00:41:16,880

think you know the most important thing

1097

00:41:22,309 --> 00:41:19,359

is being a good person

1098

00:41:24,710 --> 00:41:22,319

and and working really hard you know

1099

00:41:26,710 --> 00:41:24,720

you're not always going to be the best

1100

00:41:29,109 --> 00:41:26,720

at any particular job

1101

00:41:30,950 --> 00:41:29,119

but you can work hard uh you can make

1102

00:41:33,510 --> 00:41:30,960

yourself proud you can make your family

1103

00:41:35,349 --> 00:41:33,520

proud and i think that you know when i

1104

00:41:36,710 --> 00:41:35,359

start thinking about a legacy i'm hoping

1105

00:41:38,790 --> 00:41:36,720

that's what people

1106

00:41:39,589 --> 00:41:38,800

uh will remember is you know joe was

1107

00:41:42,150 --> 00:41:39,599

just

1108

00:41:45,670 --> 00:41:42,160

this regular old dude but you know he he

1109

00:41:48,150 --> 00:41:45,680

worked hard he was a good person and uh

1110

00:41:51,030 --> 00:41:48,160

you know and i can be proud about that

1111

00:41:53,750 --> 00:41:51,040

right we as a latino community uh tend

1112

00:41:55,349 --> 00:41:53,760

to bring a lot of joy and celebration uh

1113

00:41:56,390 --> 00:41:55,359

to the picture and i think nowadays

1114

00:41:58,790 --> 00:41:56,400

especially

1115

00:42:01,910 --> 00:41:58,800

uh our nation needs a little bit of joy

1116

00:42:04,150 --> 00:42:01,920

and so as we reflect and as we celebrate

1117

00:42:05,750 --> 00:42:04,160

um you know trying to stay focused on

1118

00:42:07,829 --> 00:42:05,760

yes we're in a hard period in our

1119

00:42:10,230 --> 00:42:07,839

history right now but we're going to

1120

00:42:12,950 --> 00:42:10,240

overcome this and we're going to look

1121

00:42:14,790 --> 00:42:12,960

back and and say hey we did it we got

1122

00:42:16,630 --> 00:42:14,800

past that and now it's time to keep

1123

00:42:18,950 --> 00:42:16,640

moving forward and so

1124

00:42:20,790 --> 00:42:18,960

let's celebrate enjoy take pride in who

1125

00:42:24,790 --> 00:42:20,800

we are and then

1126

00:42:30,470 --> 00:42:26,790

back with dr stouffen

1127

00:42:33,270 --> 00:42:30,480

washington dc has a lot of museums a lot

1128

00:42:35,910 --> 00:42:33,280

of museums why this one what will make

1129

00:42:38,870 --> 00:42:35,920

it different why would you say people

1130

00:42:40,710 --> 00:42:38,880

have absolutely positively have to go to

1131

00:42:43,190 --> 00:42:40,720

this museum when it's finally built and

1132

00:42:44,950 --> 00:42:43,200

completed

1133

00:42:47,030 --> 00:42:44,960

you know when i i think of all the

1134

00:42:48,630 --> 00:42:47,040

smithsonians and and for example we are

1135

00:42:51,109 --> 00:42:48,640

you could argue we already have a museum

1136

00:42:52,870 --> 00:42:51,119

of american history why do we need a

1137

00:42:55,750 --> 00:42:52,880

museum just about the

1138

00:42:57,589 --> 00:42:55,760

latino population but when i look at

1139

00:42:59,349 --> 00:42:57,599

our museum of

1140

00:43:01,109 --> 00:42:59,359

native american museum when i look at

1141

00:43:02,550 --> 00:43:01,119

the african-american history and culture

1142

00:43:07,829 --> 00:43:02,560

museum

1143

00:43:10,069 --> 00:43:07,839

depth of the stories and the

1144

00:43:13,349 --> 00:43:10,079

contributions that have made this

1145

00:43:15,990 --> 00:43:13,359

country what it is and i think to be

1146

00:43:18,950 --> 00:43:16,000

able to highlight stories that frankly

1147

00:43:21,190 --> 00:43:18,960

people just don't know i mean how many

1148

00:43:23,510 --> 00:43:21,200

people know who felix carrera was i mean

1149

00:43:25,750 --> 00:43:23,520

he was a puerto rican world war one

1150

00:43:28,230 --> 00:43:25,760

fighter pilot hero

1151
00:43:30,870 --> 00:43:28,240
every kid should know his name and this

1152
00:43:32,630 --> 00:43:30,880
museum will give us the opportunity to

1153
00:43:34,630 --> 00:43:32,640
tell more stories

1154
00:43:37,270 --> 00:43:34,640
to talk about the contributions that

1155
00:43:39,270 --> 00:43:37,280
latinos have made to this country but

1156
00:43:41,109 --> 00:43:39,280
also to show the darker side what have

1157
00:43:42,309 --> 00:43:41,119
been the struggles what have been the

1158
00:43:44,550 --> 00:43:42,319
challenges

1159
00:43:47,190 --> 00:43:44,560
and i think that for those of us who

1160
00:43:49,750 --> 00:43:47,200
really think about the rich rich

1161
00:43:52,630 --> 00:43:49,760
heritage that goes back hundreds of

1162
00:43:54,870 --> 00:43:52,640
years in this country um

1163
00:43:57,510 --> 00:43:54,880

those stories need to be told they need

1164

00:43:59,990 --> 00:43:57,520

to be more commonly understood and and

1165

00:44:02,069 --> 00:44:00,000

it is the american story and it's the

1166

00:44:04,630 --> 00:44:02,079

smithsonian's job to tell the american

1167

00:44:07,829 --> 00:44:04,640

story and the latino museum will give us

1168

00:44:09,750 --> 00:44:07,839

more space more room more bandwidth to

1169

00:44:11,670 --> 00:44:09,760

make sure that everybody's story gets

1170

00:44:15,109 --> 00:44:11,680

told

1171

00:44:18,069 --> 00:44:15,119

many museums focus a lot on history sort

1172

00:44:19,670 --> 00:44:18,079

of ancient artifacts uh it sounds like

1173

00:44:20,829 --> 00:44:19,680

you're gonna have to figure out how to

1174

00:44:23,990 --> 00:44:20,839

toggle

1175

00:44:28,710 --> 00:44:24,000

between the history the historic story

1176
00:44:30,630 --> 00:44:28,720
but also the unfolding presence as well

1177
00:44:32,150 --> 00:44:30,640
you know our secretary lonnie bunch of

1178
00:44:33,750 --> 00:44:32,160
the smithsonian likes to talk about the

1179
00:44:35,670 --> 00:44:33,760
fact that the role of the smithsonian

1180
00:44:36,390 --> 00:44:35,680
and really the role of museums is to

1181
00:44:38,630 --> 00:44:36,400
help

1182
00:44:40,470 --> 00:44:38,640
people understand the present in the

1183
00:44:43,430 --> 00:44:40,480
context of the past

1184
00:44:45,270 --> 00:44:43,440
and to help us chart a better future and

1185
00:44:47,829 --> 00:44:45,280
so when you think about that we should

1186
00:44:49,589 --> 00:44:47,839
be using history in all these museums to

1187
00:44:52,069 --> 00:44:49,599
help us understand how we got to the

1188
00:44:54,630 --> 00:44:52,079

place we are today because hopefully

1189

00:44:56,390 --> 00:44:54,640

that'll help us understand

1190

00:44:58,390 --> 00:44:56,400

what's happening it gives you a very

1191

00:44:59,910 --> 00:44:58,400

different interpretation of what's

1192

00:45:02,150 --> 00:44:59,920

happening right now if you really

1193

00:45:04,230 --> 00:45:02,160

understand the path we walked to get

1194

00:45:07,030 --> 00:45:04,240

here and then when you think of that

1195

00:45:09,589 --> 00:45:07,040

path it helps you understand how do we

1196

00:45:12,309 --> 00:45:09,599

get to the future that we all have a

1197

00:45:13,750 --> 00:45:12,319

role in creating and i think sometimes a

1198

00:45:15,910 --> 00:45:13,760

lot of us feel like the future is

1199

00:45:18,470 --> 00:45:15,920

something that happens to us it's not

1200

00:45:21,030 --> 00:45:18,480

something that we have agency in and to

1201
00:45:23,190 --> 00:45:21,040
me at the smithsonian we're telling the

1202
00:45:24,870 --> 00:45:23,200
stories of the past we're involving

1203
00:45:27,990 --> 00:45:24,880
people in the excitement of what's

1204
00:45:29,910 --> 00:45:28,000
happening now but it's all with the idea

1205
00:45:31,910 --> 00:45:29,920
of how can the public then use that

1206
00:45:35,190 --> 00:45:31,920
information to help create the future

1207
00:45:40,550 --> 00:45:37,990
nasa is obviously continuing its work on

1208
00:45:42,950 --> 00:45:40,560
inspirational missions that capture the

1209
00:45:44,870 --> 00:45:42,960
imagination of many i know that

1210
00:45:46,950 --> 00:45:44,880
currently the agency is exploring

1211
00:45:48,470 --> 00:45:46,960
foreign worlds looking to get humans

1212
00:45:51,430 --> 00:45:48,480
back to the moon as i mentioned all

1213
00:45:53,910 --> 00:45:51,440

while expanding our understanding of the

1214

00:45:55,750 --> 00:45:53,920

planet through its work the agency hopes

1215

00:45:57,270 --> 00:45:55,760

to continue to inspire young people

1216

00:45:58,790 --> 00:45:57,280

you've mentioned that several times i

1217

00:46:01,270 --> 00:45:58,800

know that's a real

1218

00:46:02,630 --> 00:46:01,280

piece of the mission or the missions is

1219

00:46:05,190 --> 00:46:02,640

to make sure that young people are

1220

00:46:07,109 --> 00:46:05,200

constantly uh inspired and and of course

1221

00:46:09,750 --> 00:46:07,119

spark an interest in science and

1222

00:46:11,829 --> 00:46:09,760

research and exploration uh so i thought

1223

00:46:13,829 --> 00:46:11,839

it would be a good time to hear uh from

1224

00:46:16,150 --> 00:46:13,839

the workforce at the kennedy space

1225

00:46:18,470 --> 00:46:16,160

center in florida and jet propulsion lab

1226
00:46:20,950 --> 00:46:18,480
in california on some of the work that

1227
00:46:22,710 --> 00:46:20,960
inspiring hispanics are doing

1228
00:46:24,790 --> 00:46:22,720
happy hispanic heritage month from

1229
00:46:27,190 --> 00:46:24,800
nasa's kennedy space center in florida

1230
00:46:28,710 --> 00:46:27,200
i'm liliana villarreal operations flow

1231
00:46:30,069 --> 00:46:28,720
manager with the exploration ground

1232
00:46:32,069 --> 00:46:30,079
systems program

1233
00:46:34,309 --> 00:46:32,079
i'm supporting our return to the moon

1234
00:46:36,230 --> 00:46:34,319
through nasa's artemis missions i'm

1235
00:46:38,550 --> 00:46:36,240
responsible for the overall management

1236
00:46:40,309 --> 00:46:38,560
planning integration and execution of

1237
00:46:42,870 --> 00:46:40,319
operational ground and fly hardware

1238
00:46:44,710 --> 00:46:42,880

activities required to support orion and

1239

00:46:45,990 --> 00:46:44,720

space launch system human spaceflight

1240

00:46:47,829 --> 00:46:46,000

missions

1241

00:46:49,750 --> 00:46:47,839

my responsibility is to help lead the

1242

00:46:52,069 --> 00:46:49,760

team to ensure we successfully complete

1243

00:46:53,510 --> 00:46:52,079

the ground processing test and assembly

1244

00:46:56,309 --> 00:46:53,520

in preparation for the artemis one

1245

00:46:58,950 --> 00:46:56,319

launch i was born in cartagena colombia

1246

00:47:00,550 --> 00:46:58,960

but consider miami florida my hometown i

1247

00:47:01,990 --> 00:47:00,560

moved to florida with my family when i

1248

00:47:03,910 --> 00:47:02,000

was 10 years old

1249

00:47:05,750 --> 00:47:03,920

the fact that this is the foundation for

1250

00:47:07,589 --> 00:47:05,760

going back to the moon and eventually

1251
00:47:09,670 --> 00:47:07,599
going deeper into space is such an

1252
00:47:11,589 --> 00:47:09,680
inspiration for me to be part of the

1253
00:47:13,910 --> 00:47:11,599
team that started that is a dream for an

1254
00:47:15,910 --> 00:47:13,920
aerospace engineer like me we are very

1255
00:47:18,309 --> 00:47:15,920
fortunate in nasa to have a healthy and

1256
00:47:20,069 --> 00:47:18,319
strong hispanic workforce most of them

1257
00:47:21,349 --> 00:47:20,079
are very much involved in mentoring and

1258
00:47:23,349 --> 00:47:21,359
sharing their knowledge with the younger

1259
00:47:24,790 --> 00:47:23,359
workforce but a lot of us also do

1260
00:47:26,630 --> 00:47:24,800
outreach with the public and most

1261
00:47:27,750 --> 00:47:26,640
importantly to the k to 12th grade

1262
00:47:29,270 --> 00:47:27,760
students

1263
00:47:31,190 --> 00:47:29,280

i think it's important to ensure people

1264

00:47:33,349 --> 00:47:31,200

see that we do have hispanics and other

1265

00:47:35,270 --> 00:47:33,359

minorities work in these amazing complex

1266

00:47:37,349 --> 00:47:35,280

and exciting programs because we need to

1267

00:47:39,349 --> 00:47:37,359

show everyone that a diverse team is a

1268

00:47:41,109 --> 00:47:39,359

successful team

1269

00:47:42,790 --> 00:47:41,119

i am artemis

1270

00:47:44,549 --> 00:47:42,800

we are artemis

1271

00:47:46,390 --> 00:47:44,559

as we prepare to launch missions to the

1272

00:47:48,150 --> 00:47:46,400

moon from florida get to know one of the

1273

00:47:50,150 --> 00:47:48,160

team members behind the mars 2020

1274

00:47:52,790 --> 00:47:50,160

mission from the nasa's jet propulsion

1275

00:47:54,309 --> 00:47:52,800

laboratory in california happy hispanic

1276

00:47:55,910 --> 00:47:54,319

heritage month from nasa's jet

1277

00:47:57,990 --> 00:47:55,920

propulsion laboratory here in sunny

1278

00:47:59,910 --> 00:47:58,000

california my name is elio morillo and

1279

00:48:01,670 --> 00:47:59,920

i'm a test and operations engineer for

1280

00:48:03,349 --> 00:48:01,680

mars 2020. i've worked on the

1281

00:48:06,150 --> 00:48:03,359

perseverance rover as well as the

1282

00:48:08,630 --> 00:48:06,160

ingenuity helicopter currently i'm the

1283

00:48:10,230 --> 00:48:08,640

engineering operations mechanisms lead

1284

00:48:12,309 --> 00:48:10,240

so my team and i make sure that the

1285

00:48:14,390 --> 00:48:12,319

rover is healthy on the surface of mars

1286

00:48:16,470 --> 00:48:14,400

every single day that it's roving as

1287

00:48:18,150 --> 00:48:16,480

well as collecting samples

1288

00:48:19,829 --> 00:48:18,160

these samples are going to be one day

1289

00:48:21,750 --> 00:48:19,839

returned by our follow-on mission the

1290

00:48:22,950 --> 00:48:21,760

mars sample return mission which is

1291

00:48:25,270 --> 00:48:22,960

going to be in charge of taking these

1292

00:48:26,950 --> 00:48:25,280

samples from mars and bringing them back

1293

00:48:29,270 --> 00:48:26,960

to earth something we've never done in

1294

00:48:31,190 --> 00:48:29,280

history and we're very excited about

1295

00:48:33,270 --> 00:48:31,200

one of the reasons i came to jpl is

1296

00:48:35,589 --> 00:48:33,280

because we live at the cutting edge of

1297

00:48:37,750 --> 00:48:35,599

space exploration and along with that we

1298

00:48:39,670 --> 00:48:37,760

have a very diverse workforce

1299

00:48:41,670 --> 00:48:39,680

i was born in ecuador grew up in puerto

1300

00:48:43,910 --> 00:48:41,680

rico lived in new york city for several

1301
00:48:45,829 --> 00:48:43,920
years went to school in michigan and

1302
00:48:48,230 --> 00:48:45,839
came here to california

1303
00:48:49,829 --> 00:48:48,240
here at jpl i found an incredible

1304
00:48:52,470 --> 00:48:49,839
supportive community of engineers and

1305
00:48:54,790 --> 00:48:52,480
scientists particularly through the

1306
00:48:56,549 --> 00:48:54,800
employee resource group amigos unidos

1307
00:48:58,230 --> 00:48:56,559
where i've found my family away from

1308
00:48:59,990 --> 00:48:58,240
home my family

1309
00:49:01,349 --> 00:49:00,000
through amigos unidos we've created a

1310
00:49:04,069 --> 00:49:01,359
supportive network that serves a

1311
00:49:05,589 --> 00:49:04,079
community both on campus and outside

1312
00:49:06,870 --> 00:49:05,599
i've been able to find mentors that have

1313
00:49:08,549 --> 00:49:06,880

taught me leadership as well as

1314

00:49:11,030 --> 00:49:08,559

technical proficiency

1315

00:49:13,510 --> 00:49:11,040

and through several outreach events

1316

00:49:15,109 --> 00:49:13,520

such as the open house high school

1317

00:49:17,670 --> 00:49:15,119

initiatives the summer internship

1318

00:49:19,270 --> 00:49:17,680

program we continue to inspire the

1319

00:49:21,430 --> 00:49:19,280

future generation of engineers and

1320

00:49:23,670 --> 00:49:21,440

scientists to continue this legacy of

1321

00:49:25,910 --> 00:49:23,680

space exploration the great thing about

1322

00:49:27,750 --> 00:49:25,920

nasa is that alongside the engineers and

1323

00:49:29,589 --> 00:49:27,760

scientists we have social media

1324

00:49:32,390 --> 00:49:29,599

specialists graphic designers

1325

00:49:34,069 --> 00:49:32,400

storytellers business administrators all

1326

00:49:36,710 --> 00:49:34,079

different kinds of skills and levels of

1327

00:49:39,190 --> 00:49:36,720

expertise that help us push all the many

1328

00:49:41,670 --> 00:49:39,200

missions of nasa forward really does

1329

00:49:43,829 --> 00:49:41,680

take a village and now let's hear from

1330

00:49:45,990 --> 00:49:43,839

our friends and california neighbors at

1331

00:49:48,390 --> 00:49:46,000

nasa ames research center

1332

00:49:49,750 --> 00:49:48,400

hi my name is cesar acosta

1333

00:49:50,950 --> 00:49:49,760

i've been working here at nasa ames

1334

00:49:53,270 --> 00:49:50,960

research center

1335

00:49:54,390 --> 00:49:53,280

for the past 27 years

1336

00:49:55,829 --> 00:49:54,400

20 of those being right here at the

1337

00:49:59,270 --> 00:49:55,839

arctic facility

1338

00:50:00,950 --> 00:49:59,280

here at the arc jets what we do is we do

1339

00:50:02,790 --> 00:50:00,960

heat shield testing

1340

00:50:04,390 --> 00:50:02,800

we test material for entering into an

1341

00:50:05,829 --> 00:50:04,400

atmosphere

1342

00:50:07,270 --> 00:50:05,839

making sure that that material that goes

1343

00:50:09,190 --> 00:50:07,280

onboard a spacecraft

1344

00:50:11,030 --> 00:50:09,200

is safe the hispanic team members that

1345

00:50:14,390 --> 00:50:11,040

we have here at the arctic facility

1346

00:50:15,670 --> 00:50:14,400

consists of test engineers technicians

1347

00:50:17,270 --> 00:50:15,680

electricians

1348

00:50:18,870 --> 00:50:17,280

and data acquisition

1349

00:50:20,150 --> 00:50:18,880

i've seen that grow

1350

00:50:21,430 --> 00:50:20,160

in the past

1351

00:50:23,670 --> 00:50:21,440

20 years

1352

00:50:25,510 --> 00:50:23,680

it makes me proud to see a bigger

1353

00:50:28,069 --> 00:50:25,520

hispanic community here

1354

00:50:31,190 --> 00:50:28,079

and as a hispanic it gives me great

1355

00:50:32,790 --> 00:50:31,200

pride to be working here at the arc jets

1356

00:50:33,990 --> 00:50:32,800

and

1357

00:50:35,910 --> 00:50:34,000

just

1358

00:50:38,150 --> 00:50:35,920

being part of this team

1359

00:50:40,950 --> 00:50:38,160

dr stoken it all sounds very very

1360

00:50:43,190 --> 00:50:40,960

exciting how do you advise people to to

1361

00:50:45,430 --> 00:50:43,200

keep up with all that's unfolding as

1362

00:50:47,670 --> 00:50:45,440

we're on this path to creating the

1363

00:50:49,589 --> 00:50:47,680

museum

1364

00:50:51,950 --> 00:50:49,599

well a couple different ways first of

1365

00:50:55,270 --> 00:50:51,960

all is of course come to our website

1366

00:50:56,870 --> 00:50:55,280

si.edu which will let you know what's

1367

00:50:59,109 --> 00:50:56,880

happening with the museum so when we

1368

00:51:01,190 --> 00:50:59,119

appoint new board members that some of

1369

00:51:03,670 --> 00:51:01,200

whom are pretty famous people that that

1370

00:51:06,390 --> 00:51:03,680

you've heard of uh like eva longoria or

1371

00:51:07,990 --> 00:51:06,400

jose andres so i urge people to keep it

1372

00:51:10,309 --> 00:51:08,000

keep up with who's being appointed to

1373

00:51:12,069 --> 00:51:10,319

the board um i would also say that

1374

00:51:14,790 --> 00:51:12,079

you'll be able to see the progress on

1375

00:51:17,589 --> 00:51:14,800

when we appoint the director uh later

1376

00:51:20,150 --> 00:51:17,599

this year uh as we go through that site

1377

00:51:21,910 --> 00:51:20,160

selection process and of course as we

1378

00:51:23,990 --> 00:51:21,920

think about how do we get everybody in

1379

00:51:26,150 --> 00:51:24,000

the country involved in terms of

1380

00:51:28,069 --> 00:51:26,160

thinking about the stories this museum's

1381

00:51:30,790 --> 00:51:28,079

going to tell and and the role that it's

1382

00:51:33,349 --> 00:51:30,800

going to play so i urge everyone to keep

1383

00:51:36,069 --> 00:51:33,359

an eye on this come to our website um

1384

00:51:38,870 --> 00:51:36,079

and of course again one more time in may

1385

00:51:41,190 --> 00:51:38,880

of 2022 please come to the museum of

1386

00:51:44,069 --> 00:51:41,200

american history on the mall and come

1387

00:51:45,990 --> 00:51:44,079

visit the molina family gallery soledad

1388

00:51:48,950 --> 00:51:46,000

of course you're on the board also of

1389

00:51:52,309 --> 00:51:48,960

the new latino museum how do you feel

1390

00:51:54,790 --> 00:51:52,319

about being part of this great adventure

1391

00:51:57,670 --> 00:51:54,800

sort of like ah it seems kind of

1392

00:51:59,670 --> 00:51:57,680

overwhelming and talking to you about it

1393

00:52:01,510 --> 00:51:59,680

makes it seem even even more

1394

00:52:02,790 --> 00:52:01,520

overwhelming i'm incredibly honored

1395

00:52:05,589 --> 00:52:02,800

obviously

1396

00:52:07,430 --> 00:52:05,599

and very excited you know but already

1397

00:52:09,750 --> 00:52:07,440

you think like well what is the story of

1398

00:52:11,750 --> 00:52:09,760

the american latino is it my mom's story

1399

00:52:14,870 --> 00:52:11,760

you know came to this country as an afro

1400

00:52:16,950 --> 00:52:14,880

latina from cuba is it the story of

1401
00:52:18,950 --> 00:52:16,960
americans who are mexican descent whose

1402
00:52:20,950 --> 00:52:18,960
families have been here for generations

1403
00:52:23,589 --> 00:52:20,960
and generations and generations there

1404
00:52:25,349 --> 00:52:23,599
are so many interesting stories to tell

1405
00:52:27,750 --> 00:52:25,359
that as a journalist we never even

1406
00:52:29,510 --> 00:52:27,760
scrape the surface of so i'm just

1407
00:52:31,829 --> 00:52:29,520
absolutely thrilled i'm very very

1408
00:52:33,190 --> 00:52:31,839
honored thank you for asking me that

1409
00:52:38,549 --> 00:52:33,200
thank you

1410
00:52:40,150 --> 00:52:38,559
great conversation and i have to say one

1411
00:52:43,750 --> 00:52:40,160
of the things that i'm really looking

1412
00:52:47,349 --> 00:52:43,760
forward to in this new museum is to see

1413
00:52:50,549 --> 00:52:47,359

so many americans exposed to the story

1414

00:52:52,470 --> 00:52:50,559

of our community we've had an incredible

1415

00:52:53,990 --> 00:52:52,480

impact on this country and our ancestors

1416

00:52:56,710 --> 00:52:54,000

whether they were our parents or our

1417

00:52:59,990 --> 00:52:56,720

great great grandparents have been

1418

00:53:03,109 --> 00:53:00,000

refreshing our country's culture for 500

1419

00:53:05,670 --> 00:53:03,119

plus years our stories are america's

1420

00:53:08,150 --> 00:53:05,680

stories this museum and conversations

1421

00:53:10,710 --> 00:53:08,160

like when we just had underscore just

1422

00:53:13,109 --> 00:53:10,720

how much we have infused american

1423

00:53:15,109 --> 00:53:13,119

culture with the very best of us and i

1424

00:53:16,790 --> 00:53:15,119

think it's also an opportunity to

1425

00:53:18,470 --> 00:53:16,800

correct some of the mistakes made long

1426
00:53:21,430 --> 00:53:18,480
before my mom arrived in this country

1427
00:53:24,390 --> 00:53:21,440
from cuba and for many years a lack of

1428
00:53:25,670 --> 00:53:24,400
recognition a lack of inclusion our

1429
00:53:27,829 --> 00:53:25,680
community

1430
00:53:30,390 --> 00:53:27,839
has been a great part of the american

1431
00:53:33,109 --> 00:53:30,400
story in society and culture the arts

1432
00:53:37,190 --> 00:53:33,119
schools government corporate america

1433
00:53:39,430 --> 00:53:37,200
only two percent or 10 fortune 500 ceos

1434
00:53:41,430 --> 00:53:39,440
are of hispanic descent only three

1435
00:53:43,589 --> 00:53:41,440
percent of full-time college professors

1436
00:53:45,589 --> 00:53:43,599
are hispanic latinos account for just

1437
00:53:47,510 --> 00:53:45,599
six percent of judges on courts of

1438
00:53:49,190 --> 00:53:47,520

appeals seven percent of judges on

1439

00:53:51,430 --> 00:53:49,200

district courts although everybody's

1440

00:53:54,150 --> 00:53:51,440

very proud to have supreme court justice

1441

00:53:56,870 --> 00:53:54,160

sonia sotomayor there are just 26

1442

00:53:59,270 --> 00:53:56,880

hispanic members of congress but

1443

00:54:01,829 --> 00:53:59,280

passing this legislation to create the

1444

00:54:04,150 --> 00:54:01,839

national museum of the american latino

1445

00:54:06,069 --> 00:54:04,160

is just the beginning

1446

00:54:07,829 --> 00:54:06,079

now the real work begins

1447

00:54:10,309 --> 00:54:07,839

i'm happy to see some of you in this

1448

00:54:13,190 --> 00:54:10,319

room leading the change so thank you

1449

00:54:15,349 --> 00:54:13,200

thank you thank you and a very special

1450

00:54:17,750 --> 00:54:15,359

thank you to the hispanic outreach and

1451

00:54:20,390 --> 00:54:17,760

leadership alliance hola at nasa

1452

00:54:22,950 --> 00:54:20,400

headquarters for this opportunity and to

1453

00:54:25,109 --> 00:54:22,960

everyone across nasa who participated in

1454

00:54:27,670 --> 00:54:25,119

today's program thank you all for

1455

00:54:29,910 --> 00:54:27,680

watching and now let's hear a few words

1456

00:54:32,549 --> 00:54:29,920

from ola's leadership

1457

00:54:34,870 --> 00:54:32,559

gracias soledad what a joy and honor to

1458

00:54:36,470 --> 00:54:34,880

have you as our host for today's program

1459

00:54:38,069 --> 00:54:36,480

on behalf of the hispanic outreach and

1460

00:54:39,670 --> 00:54:38,079

leadership alliance here at nasa

1461

00:54:41,829 --> 00:54:39,680

headquarters from beautiful washington

1462

00:54:43,990 --> 00:54:41,839

dc we would like to thank you and dr

1463

00:54:45,829 --> 00:54:44,000

ellen stofan for leading such a great

1464

00:54:48,549 --> 00:54:45,839

conversation about the creation of the

1465

00:54:50,630 --> 00:54:48,559

museum of the american latino latino

1466

00:54:52,470 --> 00:54:50,640

americans have touched many aspects of

1467

00:54:53,910 --> 00:54:52,480

our daily lives and we're excited to

1468

00:54:55,990 --> 00:54:53,920

hear the stories that will be told

1469

00:54:58,710 --> 00:54:56,000

through it

1470

00:55:01,829 --> 00:54:58,720

here at hola we work hard to foster

1471

00:55:03,670 --> 00:55:01,839

awareness and promote the contributions

1472

00:55:06,630 --> 00:55:03,680

that our community

1473

00:55:10,710 --> 00:55:06,640

has done here at nasa so we're looking

1474

00:55:13,910 --> 00:55:10,720

forward to increase that representation

1475

00:55:17,349 --> 00:55:13,920

involvement in our science technology

1476
00:55:19,750 --> 00:55:17,359
engineering and space exploration

1477
00:55:22,230 --> 00:55:19,760
we would like to thank the nasa employee

1478
00:55:25,109 --> 00:55:22,240
resource groups across the agency who

1479
00:55:27,990 --> 00:55:25,119
participated in this year's program aims

1480
00:55:30,630 --> 00:55:28,000
research center glenn research center

1481
00:55:33,270 --> 00:55:30,640
jet propulsion laboratory johnson space

1482
00:55:34,950 --> 00:55:33,280
center kennedy space center and langley

1483
00:55:37,750 --> 00:55:34,960
resource center

1484
00:55:39,829 --> 00:55:37,760
thank you also to nasa leadership for

1485
00:55:43,270 --> 00:55:39,839
supporting employee resource groups like

1486
00:55:44,549 --> 00:55:43,280
ola and for embracing diversity equity

1487
00:55:46,630 --> 00:55:44,559
and inclusion

1488
00:55:49,670 --> 00:55:46,640

and now let's hear from our nasa

1489

00:55:52,470 --> 00:55:49,680

administrator senator bill nelson

1490

00:55:54,069 --> 00:55:52,480

this program marked an opportunity to

1491

00:55:57,030 --> 00:55:54,079

celebrate and reflect on the

1492

00:56:00,829 --> 00:55:57,040

contributions and impact of hispanics

1493

00:56:05,510 --> 00:56:00,839

throughout our community our country

1494

00:56:08,630 --> 00:56:05,520

beyond thank you to soledad o'brien

1495

00:56:10,309 --> 00:56:08,640

ellen stofan and all our nasa guests for

1496

00:56:11,750 --> 00:56:10,319

contributing to this meaningful

1497

00:56:14,150 --> 00:56:11,760

conversation

1498

00:56:17,190 --> 00:56:14,160

and as we heard in the program

1499

00:56:19,190 --> 00:56:17,200

congress passed legislation to build a

1500

00:56:22,150 --> 00:56:19,200

national museum

1501
00:56:24,789 --> 00:56:22,160
of the american latino

1502
00:56:28,069 --> 00:56:24,799
in december 2020.

1503
00:56:29,990 --> 00:56:28,079
what a historic moment i look forward to

1504
00:56:31,270 --> 00:56:30,000
seeing the development of this future

1505
00:56:34,710 --> 00:56:31,280
museum

1506
00:56:37,670 --> 00:56:34,720
and ensuring the full nasa story

1507
00:56:40,549 --> 00:56:37,680
and the latino story

1508
00:56:42,230 --> 00:56:40,559
that it's captured and shared with the

1509
00:56:44,710 --> 00:56:42,240
world

1510
00:56:45,750 --> 00:56:44,720
as nasa continues studying our home

1511
00:56:48,309 --> 00:56:45,760
planet

1512
00:56:51,109 --> 00:56:48,319
exploring our solar system

1513
00:56:53,990 --> 00:56:51,119

and way beyond

1514

00:56:55,990 --> 00:56:54,000

and preparing to go back to the moon and

1515

00:56:58,390 --> 00:56:56,000

then on to mars

1516

00:57:00,630 --> 00:56:58,400

it will take all of us working together

1517

00:57:03,430 --> 00:57:00,640

to be successful

1518

00:57:04,710 --> 00:57:03,440

nasa is committed to a culture of

1519

00:57:07,589 --> 00:57:04,720

diversity

1520

00:57:10,150 --> 00:57:07,599

equality and unity

1521

00:57:13,910 --> 00:57:10,160

thank you again for joining us in

1522

00:57:16,630 --> 00:57:13,920

celebrating hispanic heritage month

1523

00:57:19,349 --> 00:57:16,640

and a special thank you to the hispanic

1524

00:57:21,990 --> 00:57:19,359

outreach and leadership alliance

1525

00:57:24,950 --> 00:57:22,000

at nasa headquarters

1526

00:57:28,789 --> 00:57:24,960

and to the hispanic employee resource

1527

00:57:30,549 --> 00:57:28,799

groups all across nasa centers