

NASA LUNAR SCIENCE CENTER



1
00:00:07,030 --> 00:00:04,789
nasa research park or nrp as we call it

2
00:00:09,830 --> 00:00:07,040
at ames research center today is hosting

3
00:00:12,629 --> 00:00:09,840
the exploration and sustainability expo

4
00:00:13,509 --> 00:00:12,639
wherein about 40 of our partners in the

5
00:00:15,749 --> 00:00:13,519
park

6
00:00:17,670 --> 00:00:15,759
universities businesses and non-profits

7
00:00:18,470 --> 00:00:17,680
are showcasing their technologies and

8
00:00:20,630 --> 00:00:18,480
products

9
00:00:21,590 --> 00:00:20,640
along with our nasa ames experts and

10
00:00:23,550 --> 00:00:21,600
researchers

11
00:00:25,670 --> 00:00:23,560
to show the confluence between

12
00:00:27,509 --> 00:00:25,680
exploration-driven technologies

13
00:00:29,990 --> 00:00:27,519

and the new technologies we need for

14

00:00:32,069 --> 00:00:30,000

sustainability purposes here on earth

15

00:00:33,030 --> 00:00:32,079

skytran is a personal rapid transit

16

00:00:36,229 --> 00:00:33,040

technology

17

00:00:38,709 --> 00:00:36,239

that's a hybrid between automobiles

18

00:00:39,590 --> 00:00:38,719

with the throughput of mass transit well

19

00:00:41,270 --> 00:00:39,600

it uses

20

00:00:42,869 --> 00:00:41,280

magnetic levitation to support the

21

00:00:44,869 --> 00:00:42,879

vehicle instead of wheels

22

00:00:46,470 --> 00:00:44,879

and linear synchronous motors to propel

23

00:00:49,110 --> 00:00:46,480

the vehicle on a guideway

24

00:00:49,910 --> 00:00:49,120

this is basically a laboratory it's a

25

00:00:52,709 --> 00:00:49,920

test bench

26
00:00:54,470 --> 00:00:52,719
and we're an r d company we're designing

27
00:00:55,189 --> 00:00:54,480
total electric power systems for

28
00:00:56,790 --> 00:00:55,199
automobiles

29
00:00:58,549 --> 00:00:56,800
we're researching air traffic management

30
00:01:00,709 --> 00:00:58,559
technologies basically

31
00:01:02,470 --> 00:01:00,719
trying to improve the flying experience

32
00:01:03,590 --> 00:01:02,480
by increasing efficiency of commercial

33
00:01:05,990 --> 00:01:03,600
air traffic

34
00:01:07,590 --> 00:01:06,000
and in so doing we hope to have a

35
00:01:09,190 --> 00:01:07,600
beneficial impact on the environment by

36
00:01:10,710 --> 00:01:09,200
reducing emissions and delays

37
00:01:12,550 --> 00:01:10,720
when nasa's pursuing our missions in

38
00:01:14,149 --> 00:01:12,560

exploration we're having to do things

39

00:01:15,590 --> 00:01:14,159

and develop new technologies

40

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

that are pushing the envelope of what

41

00:01:19,749 --> 00:01:18,320

technology can do and in doing so

42

00:01:21,670 --> 00:01:19,759

we develop technologies that also have

43

00:01:23,429 --> 00:01:21,680

many applications back here on earth

44

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

and a lot of those have to do with

45

00:01:27,109 --> 00:01:25,600

sustainability the rovers that we have

46

00:01:30,390 --> 00:01:27,119

here this one specifically

47

00:01:32,310 --> 00:01:30,400

they're used for studies on earth

48

00:01:34,310 --> 00:01:32,320

and we had uh set up a mission control

49

00:01:36,069 --> 00:01:34,320

center actually here at nasa ames

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00:01:38,149 --> 00:01:36,079

and via satellite link we were

51
00:01:40,469 --> 00:01:38,159
controlling these rovers as if we would

52
00:01:43,109 --> 00:01:40,479
control them on mars this

53
00:01:44,469 --> 00:01:43,119
expo is really great because we've got

54
00:01:47,109 --> 00:01:44,479
everybody coming together

55
00:01:48,469 --> 00:01:47,119
scientists researchers engineers high

56
00:01:49,590 --> 00:01:48,479
technology

57
00:01:52,069 --> 00:01:49,600
things that are happening in your

58
00:01:53,749 --> 00:01:52,079
backyard new green technology

59
00:01:55,590 --> 00:01:53,759
all these groups are coming together and

60
00:01:56,230 --> 00:01:55,600
we're having a really great interchange

61
00:01:58,310 --> 00:01:56,240
and

62
00:01:59,350 --> 00:01:58,320
learning how to partner better with the

63
00:02:01,590 --> 00:01:59,360

technical sector

64

00:02:03,190 --> 00:02:01,600

and with the government we're currently

65

00:02:05,190 --> 00:02:03,200

working with nasa to firm up

66

00:02:07,190 --> 00:02:05,200

what's known as a space act agreement

67

00:02:09,589 --> 00:02:07,200

which will then allow the unique

68

00:02:11,589 --> 00:02:09,599

capabilities of this aviation platform

69

00:02:12,949 --> 00:02:11,599

to be used for scientific research and

70

00:02:14,710 --> 00:02:12,959

we're really excited about that one

71

00:02:16,710 --> 00:02:14,720

the uav collaborative is a non-profit

72

00:02:19,350 --> 00:02:16,720

organization here in california that's

73

00:02:21,510 --> 00:02:19,360

charter is to promote uav technology

74

00:02:23,190 --> 00:02:21,520

unmanned aerial vehicles we first have

75

00:02:24,390 --> 00:02:23,200

established a relationship with the nasa

76

00:02:25,750 --> 00:02:24,400

ames research center we have a

77

00:02:27,990 --> 00:02:25,760

cooperative agreement to

78

00:02:29,270 --> 00:02:28,000

conduct uav demonstration missions and

79

00:02:31,589 --> 00:02:29,280

acquire data

80

00:02:33,110 --> 00:02:31,599

the main emphasis on earth science but

81

00:02:35,110 --> 00:02:33,120

we've reached out into

82

00:02:37,190 --> 00:02:35,120

emergency response applications search

83

00:02:38,869 --> 00:02:37,200

and rescue the tesla roadster is the

84

00:02:40,470 --> 00:02:38,879

only federally certified highway

85

00:02:41,670 --> 00:02:40,480

electric vehicle available for sale in

86

00:02:44,070 --> 00:02:41,680

the united states

87

00:02:44,790 --> 00:02:44,080

it is uh it is runs on lithium-ion

88

00:02:47,110 --> 00:02:44,800

batteries

89

00:02:47,910 --> 00:02:47,120

it goes 244 miles on a charge on the epa

90

00:02:50,229 --> 00:02:47,920

cycle

91

00:02:52,869 --> 00:02:50,239

and has a top speed of 125 miles per

92

00:02:53,350 --> 00:02:52,879

hour nasa has a really great opportunity

93

00:02:55,270 --> 00:02:53,360

here

94

00:02:57,830 --> 00:02:55,280

to help the nation move towards

95

00:02:58,869 --> 00:02:57,840

sustainable systems and renewable energy

96

00:03:01,270 --> 00:02:58,879

in the future

97

00:03:02,390 --> 00:03:01,280

we have sustainability work that we do

98

00:03:04,630 --> 00:03:02,400

in space for

99

00:03:06,869 --> 00:03:04,640

the space station for potential and

100

00:03:07,910 --> 00:03:06,879

future lunar and mars habitats that's

101
00:03:09,430 --> 00:03:07,920
very sustainable

102
00:03:11,270 --> 00:03:09,440
those technologies can be brought back

103
00:03:11,990 --> 00:03:11,280
down to earth right here to be able to

104
00:03:14,149 --> 00:03:12,000
help us

105
00:03:16,149 --> 00:03:14,159
make our our homes and our businesses

106
00:03:18,630 --> 00:03:16,159
more sustainable the nasa lunar science

107
00:03:19,910 --> 00:03:18,640
institute is a distributed or virtual

108
00:03:22,309 --> 00:03:19,920
institute

109
00:03:24,309 --> 00:03:22,319
that supports lunar science research so

110
00:03:25,830 --> 00:03:24,319
our central office is based at nasa ames

111
00:03:26,550 --> 00:03:25,840
and there are teams across the country

112
00:03:28,309 --> 00:03:26,560
and the world

113
00:03:30,789 --> 00:03:28,319

working together to do lunar science

114

00:03:32,149 --> 00:03:30,799

research the research park is the first

115

00:03:33,990 --> 00:03:32,159

attempt in the united states

116

00:03:35,430 --> 00:03:34,000

to actually bring in parties with the

117

00:03:37,270 --> 00:03:35,440

fundamental view of

118

00:03:39,270 --> 00:03:37,280

if you bring them together can you

119

00:03:41,350 --> 00:03:39,280

leverage resources and talent

120

00:03:43,270 --> 00:03:41,360

in a very competitive world where no one

121

00:03:44,789 --> 00:03:43,280

is spending as much money as we used to

122

00:03:46,710 --> 00:03:44,799

on research and development

123

00:03:48,470 --> 00:03:46,720

our core is exploration be it in

124

00:03:49,830 --> 00:03:48,480

aeronautics or space programs

125

00:03:51,509 --> 00:03:49,840

when we bring in partners that are

126

00:03:53,190 --> 00:03:51,519

developing technologies or

127

00:03:55,110 --> 00:03:53,200

graduate students that are moving into

128

00:03:56,630 --> 00:03:55,120

science technology engineering math

129

00:03:58,390 --> 00:03:56,640

you create an intellectual stew that's

130

00:04:00,229 --> 00:03:58,400

nowhere else in the country what we're

131

00:04:02,149 --> 00:04:00,239

able to showcase today are many of the