



1
00:00:01,400 --> 00:00:02,501
>> Pat Ryan: Nick tell
me about the background

2
00:00:02,501 --> 00:00:03,702
of the International
Space Apps Challenge.

3
00:00:03,702 --> 00:00:04,904
Where did this idea come from?

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00:00:04,904 --> 00:00:06,072
>> Nick Skytland:

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00:00:06,072 --> 00:00:07,640
So the International
Space Apps Challenge grew

6
00:00:07,640 --> 00:00:11,544
out of our involvement with the
Random Acts of Kindness Project.

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00:00:11,544 --> 00:00:13,779
Which was a collaboration
with Microsoft, Google,

8
00:00:13,779 --> 00:00:16,182
Yahoo, HP and World Bank.

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00:00:16,182 --> 00:00:19,151
And the idea of that was we
wanted to change the world

10
00:00:19,151 --> 00:00:21,787
through mass collaboration,
and engage people

11
00:00:21,787 --> 00:00:26,158
in solving real challenges

that matter to organizations.

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00:00:26,158 --> 00:00:27,226

And we came up with the idea

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00:00:27,226 --> 00:00:28,627

of the International

Space Apps Challenge

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00:00:28,627 --> 00:00:30,362

by applying that model to NASA.

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00:00:30,362 --> 00:00:33,466

And the ultimate goal

was to engage citizens

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00:00:33,466 --> 00:00:35,968

around the world, and

helping solve grand challenges

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00:00:35,968 --> 00:00:37,369

that NASA offers.

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00:00:37,369 --> 00:00:39,071

>> Pat Ryan: It's not

anybody in particular,

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00:00:39,071 --> 00:00:40,873

or any group of people;

everybody?

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00:00:40,873 --> 00:00:42,074

>> Nick Skytland: Yeah.

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00:00:42,074 --> 00:00:44,877

We're not prescriptive in

anyone's title or talent

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00:00:44,877 --> 00:00:47,780

or whatever they have on their resume, if they have a passion

23

00:00:47,780 --> 00:00:50,316

for space exploration,
we want to engage them.

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00:00:50,316 --> 00:00:53,486

>> Pat Ryan: The first of these activities took place last

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00:00:53,486 --> 00:00:54,186

year --

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00:00:54,186 --> 00:00:55,020

>> Nick Skytland: Yeah.

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00:00:55,020 --> 00:00:56,422

>> Pat Ryan: -- how did it go?

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00:00:56,422 --> 00:00:57,056

>> Nick Skytland: Yeah we had the first one almost exactly a

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00:00:57,056 --> 00:00:58,090

year ago in April.

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00:00:58,090 --> 00:00:59,158

It went really well.

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00:00:59,158 --> 00:01:00,659

It exceeded our expectations at the time.

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00:01:00,659 --> 00:01:04,930

We had 25 cities around the world, and 2,083 participants.

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00:01:04,930 --> 00:01:08,134

And the 101 solutions were developed in 48 hours.

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00:01:08,134 --> 00:01:10,669

We thought that we were really onto something at the time.

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00:01:10,669 --> 00:01:11,837

>> Pat Ryan: That many solutions,

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00:01:11,837 --> 00:01:12,938

you say, were developed.

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00:01:12,938 --> 00:01:15,274

How many of them turned out to be something

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00:01:15,274 --> 00:01:17,109

that were very worthwhile and useful?

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00:01:17,109 --> 00:01:18,677

>> Nick Skytland: You know, we were actually surprised by this,

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00:01:18,677 --> 00:01:20,246

a very large majority of them,

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00:01:20,246 --> 00:01:24,550

like 80% of them were actually useful solutions after the fact.

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00:01:24,550 --> 00:01:27,520

>> Pat Ryan: This year you set out 50 different challenges

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00:01:27,520 --> 00:01:29,255

for people to try to solve, including some

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00:01:29,255 --> 00:01:32,358
that were directly applicable to
the International Space Station.

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00:01:32,358 --> 00:01:33,926
Give us a few examples.

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00:01:33,926 --> 00:01:35,761
>> Nick Skytland: Yeah so this
year -- just to clarify --

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00:01:35,761 --> 00:01:37,863
this year, we actually had
a lot more participants

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00:01:37,863 --> 00:01:39,098
in our even this year too.

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00:01:39,098 --> 00:01:41,834
So we had about 9,000 people
participate this year.

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00:01:41,834 --> 00:01:43,235
>> Pat Ryan: Wow.

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00:01:43,235 --> 00:01:44,170
>> Nick Skytland: And the event
actually took place in 83 cities

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00:01:44,170 --> 00:01:46,038
around the world
and 44 countries.

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00:01:46,038 --> 00:01:47,239
So all 7 continents.

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00:01:47,239 --> 00:01:49,842
And we had a space

station involved

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00:01:49,842 --> 00:01:51,510
with a pre-recorded message.

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00:01:51,510 --> 00:01:54,880
And so we offered 58
challenges, actually totally.

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00:01:54,880 --> 00:01:57,683
And there were a number of
solutions that came out of them.

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00:01:57,683 --> 00:01:59,685
One of them directly applicable

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00:01:59,685 --> 00:02:02,188
to a space station
was a challenge called

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00:02:02,188 --> 00:02:03,289
"Spot the Station".

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00:02:03,289 --> 00:02:06,425
And we had over 35 --
or about 35 entries

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00:02:06,425 --> 00:02:08,360
to this one challenge alone.

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00:02:08,360 --> 00:02:11,764
And one of the solutions that
came out of it was a software

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00:02:11,764 --> 00:02:15,968
or hardware application
that both allows a user

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00:02:15,968 --> 00:02:19,004

to follow the space station
using augmented reality

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00:02:19,004 --> 00:02:20,372
in an iPhone app.

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00:02:20,372 --> 00:02:23,776
And then it takes that data
and augments it with hardware

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00:02:23,776 --> 00:02:26,011
that lights up when
space station is nearby.

69

00:02:26,011 --> 00:02:28,447
>> Pat Ryan: Okay that's one.

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00:02:28,447 --> 00:02:29,248
>> Nick Skytland: Yeah.

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00:02:29,248 --> 00:02:30,382
And so there's a few others.

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00:02:30,382 --> 00:02:32,551
Obviously many related
to space exploration.

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00:02:32,551 --> 00:02:35,254
We had one that I'm just really
particularly excited about.

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00:02:35,254 --> 00:02:38,390
It was called "Wish You Were
Here", was the challenge name.

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00:02:38,390 --> 00:02:41,227
And the idea was to
help citizens connect

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00:02:41,227 --> 00:02:43,696
with our Mars mission
that's happening right now.

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00:02:43,696 --> 00:02:46,165
We have a lot of data from
Mars exploration programs,

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00:02:46,165 --> 00:02:48,834
but how can we actually make
that more tangible to the user.

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00:02:48,834 --> 00:02:51,704
So what they developed was
a solution called "Soul".

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00:02:51,704 --> 00:02:55,941
It's the first interplanetary
weather system for your iPhone.

81

00:02:55,941 --> 00:02:58,877
And the idea is that you
can see the weather on Mars.

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00:02:58,877 --> 00:03:01,046
So you can compare that
with your weather on Earth.

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00:03:01,046 --> 00:03:04,049
And it's a really just ingenious
app that's actually going to be

84

00:03:04,049 --> 00:03:04,850
on the app store this week.

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00:03:04,850 --> 00:03:06,018
>> Pat Ryan: Hmm.

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00:03:06,018 --> 00:03:07,152
And you can probably

better about yourself too

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00:03:07,152 --> 00:03:08,921

because you have better
weather than Mars right?

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00:03:08,921 --> 00:03:09,788

>> Nick Skytland: [Chuckles]
that's definitely true.

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00:03:09,788 --> 00:03:10,656

That's definitely true.

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00:03:10,656 --> 00:03:11,357

>> Pat Ryan: Okay.

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00:03:11,357 --> 00:03:12,725

Space station, Mars.

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00:03:12,725 --> 00:03:14,260

>> Nick Skytland: And then we
had a number of other ones.

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00:03:14,260 --> 00:03:20,599

One of them really looked at
the corona activity on the sun,

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00:03:20,599 --> 00:03:24,169

and allowed you to understand
when that was at a high level

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00:03:24,169 --> 00:03:25,204

or when it was at a low level

96

00:03:25,204 --> 00:03:27,473

because we're constantly
being bombarded

97

00:03:27,473 --> 00:03:29,074

on earth with this activity.

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00:03:29,074 --> 00:03:30,409

>> Pat Ryan: Right.

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00:03:30,409 --> 00:03:31,243

>> Nick Skytland: But often times we don't have any idea

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00:03:31,243 --> 00:03:32,711

of what's actually happening.

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00:03:32,711 --> 00:03:35,080

And so this was something you could just hang onto your wall

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00:03:35,080 --> 00:03:38,417

and it would light up when there was activity going on.

103

00:03:38,417 --> 00:03:39,785

>> Pat Ryan: Now you mentioned it's --

104

00:03:39,785 --> 00:03:42,421

I'm sorry, is it 83 countries?

105

00:03:42,421 --> 00:03:44,223

>> Nick Skytland: 83 cities; 44 countries.

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00:03:44,223 --> 00:03:46,458

>> Pat Ryan: 44 countries all over the world,

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00:03:46,458 --> 00:03:47,893

and we brought a couple of photographs

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00:03:47,893 --> 00:03:50,095
to show you what it looked
like when it went on.

109
00:03:50,095 --> 00:03:53,198
Describe what we're
seeing here, the brochure?

110
00:03:53,198 --> 00:03:54,233
Nick Skytland: Yeah.

111
00:03:54,233 --> 00:03:56,835
So this is just a
brochure that a lot

112
00:03:56,835 --> 00:03:58,037
of the participants were given

113
00:03:58,037 --> 00:04:00,105
that just described the
challenges ahead of time.

114
00:04:00,105 --> 00:04:02,041
The participants would
have a chance to look

115
00:04:02,041 --> 00:04:04,743
at all the challenges
before the weekend started,

116
00:04:04,743 --> 00:04:07,579
and really pick the ones
they gravitated towards.

117
00:04:07,579 --> 00:04:08,847
And then the weekend
of the event,

118
00:04:08,847 --> 00:04:10,449
they actually chose

one to work on.

119

00:04:10,449 --> 00:04:12,384

>> Pat Ryan: And the second picture give you,

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00:04:12,384 --> 00:04:14,520

kind of an example in this location anyway,

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00:04:14,520 --> 00:04:15,721

of the people who are there.

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00:04:15,721 --> 00:04:16,722

>> Nick Skytland: Yeah.

123

00:04:16,722 --> 00:04:17,723

This is a picture from Philadelphia,

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00:04:17,723 --> 00:04:19,625

which was our global main stage.

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00:04:19,625 --> 00:04:23,028

And this is the reception -- the reception on Friday night

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00:04:23,028 --> 00:04:24,596

where all the participants came together.

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00:04:24,596 --> 00:04:27,099

It was part of Philly Tech Week actually.

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00:04:27,099 --> 00:04:30,536

And it was a huge event where there was a number of speakers,

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00:04:30,536 --> 00:04:32,338
including Leland Melvin --

130
00:04:32,338 --> 00:04:33,439
>> Pat Ryan: Mm-hmm.

131
00:04:33,439 --> 00:04:34,807
>> Nick Skytland: --
who just, we're excited

132
00:04:34,807 --> 00:04:36,709
about space exploration; we're
talking to the participants

133
00:04:36,709 --> 00:04:38,477
about the future of NASA.

134
00:04:38,477 --> 00:04:40,913
>> Pat Ryan: You mentioned
a moment ago to me too

135
00:04:40,913 --> 00:04:43,682
that you were surprised that
quite a lot of the people

136
00:04:43,682 --> 00:04:44,817
that you had turn out,

137
00:04:44,817 --> 00:04:47,252
there were a lot more
women than you expected.

138
00:04:47,252 --> 00:04:50,189
>> Nick Skytland: Yeah we have
a really interesting case this

139
00:04:50,189 --> 00:04:52,558
year, that we had
a very large amount

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00:04:52,558 --> 00:04:53,959
of participation from women.

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00:04:53,959 --> 00:04:55,694
Usually in the tech industry,
when you do something like this,

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00:04:55,694 --> 00:04:57,730
you have a lower -- and just
stemic [phonetic] in general,

143

00:04:57,730 --> 00:05:00,132
you have a lower population
of women that participate.

144

00:05:00,132 --> 00:05:04,069
In New York City, half of the
175 participants were women.

145

00:05:04,069 --> 00:05:05,170
It's incredible.

146

00:05:05,170 --> 00:05:07,139
>> Pat Ryan: So you've
got all these people

147

00:05:07,139 --> 00:05:09,408
that are turning out,
and they put up some

148

00:05:09,408 --> 00:05:10,809
of their own signage actually --

149

00:05:10,809 --> 00:05:12,010
>> Nick Skytland: [Chuckles].

150

00:05:12,010 --> 00:05:12,978
>> Pat Ryan: -- that --
to show you where to go --

151

00:05:12,978 --> 00:05:14,279

>> Nick Skytland: Yes.

152

00:05:14,279 --> 00:05:15,280

>> Pat Ryan: -- but this is

-- these are the people --

153

00:05:15,280 --> 00:05:16,315

>> Nick Skytland:

This is fantastic.

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00:05:16,315 --> 00:05:17,015

>> Pat Ryan: -- that

turned out, right?

155

00:05:17,015 --> 00:05:18,117

>> Nick Skytland: Yeah.

156

00:05:18,117 --> 00:05:19,118

>> Pat Ryan: These are

our computer geeks.

157

00:05:19,118 --> 00:05:20,219

>> Nick Skytland:

Yeah what's great

158

00:05:20,219 --> 00:05:21,854

about this event is it's

not only developers,

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00:05:21,854 --> 00:05:23,655

it's also technologists,

entrepreneurs,

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00:05:23,655 --> 00:05:25,357

designers, programmers.

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00:05:25,357 --> 00:05:27,860

So this is a great
example of what --

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00:05:27,860 --> 00:05:29,661

the creativity that comes
out of this weekend.

163

00:05:29,661 --> 00:05:32,131

>> Pat Ryan: And we got a
couple of looks inside the room

164

00:05:32,131 --> 00:05:33,732

of the people at work.

165

00:05:33,732 --> 00:05:34,666

>> Nick Skytland: Yeah
they're hard at work --

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00:05:34,666 --> 00:05:35,801

>> Pat Ryan: Drawing
on the wall.

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00:05:35,801 --> 00:05:36,802

>> Nick Skytland: You
know it's interesting,

168

00:05:36,802 --> 00:05:38,837

we will offer them
food at lunchtime,

169

00:05:38,837 --> 00:05:40,406

and they won't even
want to stop working.

170

00:05:40,406 --> 00:05:41,607

>> Pat Ryan: Yeah.

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00:05:41,607 --> 00:05:42,274

>> Nick Skytland: They
just work [chuckles] right

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00:05:42,274 --> 00:05:43,242
through the weekend.

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00:05:43,242 --> 00:05:44,176
>> Pat Ryan: And
this one, you said,

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00:05:44,176 --> 00:05:45,511
was actually one
of your favorites.

175

00:05:45,511 --> 00:05:47,112
>> Nick Skytland: Yeah this
is one of my favorite photos

176

00:05:47,112 --> 00:05:48,680
from events like
this from all time.

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00:05:48,680 --> 00:05:52,384
Because what you see here
is, the men are a minority

178

00:05:52,384 --> 00:05:53,051
in this picture [chuckles].

179

00:05:53,051 --> 00:05:54,153
>> Pat Ryan: Mm-hmm.

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00:05:54,153 --> 00:05:55,220
>> Nick Skytland: And
the women just look

181

00:05:55,220 --> 00:05:57,222
like they're really
having a great time.

182

00:05:57,222 --> 00:05:59,591

>> Pat Ryan: This International Space App challenge happened

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00:05:59,591 --> 00:06:00,659
this past weekend.

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00:06:00,659 --> 00:06:02,060
>> Nick Skytland:
That's correct.

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00:06:02,060 --> 00:06:03,896
>> Pat Ryan: Is there a way yet
for people to be involved in it?

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00:06:03,896 --> 00:06:05,764
>> Nick Skytland:
Yeah, we actually --

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00:06:05,764 --> 00:06:09,168
so we had 770 solutions
submitted to --

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00:06:09,168 --> 00:06:11,203
for the judging process.

189

00:06:11,203 --> 00:06:13,138
Which is incredible;
it's overwhelming.

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00:06:13,138 --> 00:06:16,208
And so we've down selected
those to about 100.

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00:06:16,208 --> 00:06:18,010
And we're going to have
a people's choice award.

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00:06:18,010 --> 00:06:20,979
And what we're asking people
to do is go online and vote

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00:06:20,979 --> 00:06:22,848
for your favorite solution.

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00:06:22,848 --> 00:06:25,350
We're then going to down
select from those into the top,

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00:06:25,350 --> 00:06:26,819
you know, 15 or so,
and we're going

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00:06:26,819 --> 00:06:28,520
to have a second round
of that competition.

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00:06:28,520 --> 00:06:31,123
We're going to choose
one overall winner based

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00:06:31,123 --> 00:06:32,324
on popular vote.

199

00:06:32,324 --> 00:06:33,859
>> Pat Ryan: From all
of the different areas?

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00:06:33,859 --> 00:06:34,960
>> Nick Skytland: Yeah.

201

00:06:34,960 --> 00:06:36,228
>> Pat Ryan: All 58
different challenges.

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00:06:36,228 --> 00:06:38,363
AS well as, I guess,
a winner in each area?

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00:06:38,363 --> 00:06:39,331

>> Nick Skytland: Yeah
we're going to have --

204
00:06:39,331 --> 00:06:40,265
in addition to that one winner,

205
00:06:40,265 --> 00:06:41,900
we will have 4 additional
winners.

206
00:06:41,900 --> 00:06:43,535
One for best use of data.

207
00:06:43,535 --> 00:06:45,504
One for best use of hardware.

208
00:06:45,504 --> 00:06:47,039
One for galactic impact.

209
00:06:47,039 --> 00:06:48,807
And then one for most inspiring.

210
00:06:48,807 --> 00:06:52,644
>> Pat Ryan: And it sounds like
some or more of these are going

211
00:06:52,644 --> 00:06:55,314
to be available for
anybody to use.

212
00:06:55,314 --> 00:06:56,615
>> Nick Skytland: Yeah.

213
00:06:56,615 --> 00:06:58,617
The great thing about this
event is that every solution

214
00:06:58,617 --> 00:07:02,221
that was submitted -- all

770 of them, are submitted

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00:07:02,221 --> 00:07:03,422
under an open-source license.

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00:07:03,422 --> 00:07:05,757
Meaning that NASA
can use the code

217

00:07:05,757 --> 00:07:07,125
or anybody can use the code.

218

00:07:07,125 --> 00:07:09,895
And a lot of them will -- you'll
find them on the app stores.

219

00:07:09,895 --> 00:07:13,365
Android; iPhone, a lot of them
are web-based browser tools,

220

00:07:13,365 --> 00:07:15,634
and some of them are hardware
that you can download the plans.

221

00:07:15,634 --> 00:07:17,035
Build yourself a cube
sat [phonetic] based

222

00:07:17,035 --> 00:07:20,572
on their plans and go for it.

223

00:07:20,572 --> 00:07:23,509
>> Pat Ryan: It --
obviously this is tying

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00:07:23,509 --> 00:07:26,712
in with NASA's overall effort
at education and outreach;

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00:07:26,712 --> 00:07:28,480
getting more people involved.

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00:07:28,480 --> 00:07:29,548
>> Nick Skytland: Yeah.

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00:07:29,548 --> 00:07:30,916
And it's not just
education and outreach.

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00:07:30,916 --> 00:07:33,819
What we tried to do was
develop an event here

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00:07:33,819 --> 00:07:35,454
that we can educate the public

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00:07:35,454 --> 00:07:37,723
about what space exploration's
all about and what we're doing

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00:07:37,723 --> 00:07:39,791
and then the missions and
the programs that we have.

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00:07:39,791 --> 00:07:41,159
But more than that,
we are trying

233

00:07:41,159 --> 00:07:44,029
to aggregate useful
contributions

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00:07:44,029 --> 00:07:45,097
to the Space Program.

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00:07:45,097 --> 00:07:46,498
There are a lot of
people outside of NASA

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00:07:46,498 --> 00:07:49,201

who love what we do, but
have never had an opportunity

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00:07:49,201 --> 00:07:50,836

to actually participate
first hand.

238

00:07:50,836 --> 00:07:52,037

They don't have a job here.

239

00:07:52,037 --> 00:07:53,939

They're not an astronaut;
they can't fly in space.

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00:07:53,939 --> 00:07:56,241

So -- but they have
great, brilliant ideas.

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00:07:56,241 --> 00:07:58,243

And so what we've done here
is provide a way for people

242

00:07:58,243 --> 00:07:59,411

to actually contribute.

243

00:07:59,411 --> 00:08:01,880

And our goal is to
actually pull a large amount

244

00:08:01,880 --> 00:08:04,650

of these solutions back
into the space agency.

245

00:08:04,650 --> 00:08:06,385

>> Pat Ryan: You looked like --
but you had a lot of fun there,

246

00:08:06,385 --> 00:08:09,488

and going to have some
good results as well.

247

00:08:09,488 --> 00:08:10,255

>> Nick Skytland:

Yeah it's incredible.

248

00:08:10,255 --> 00:08:11,623

I live for these events.

249

00:08:11,623 --> 00:08:16,094

They are so inspiring to see
people from around the world,

250

00:08:16,094 --> 00:08:20,499

ages 8 to 75 participating
in an event like this.

251

00:08:20,499 --> 00:08:21,600

>> Pat Ryan: Nick

I appreciate it.

252

00:08:21,600 --> 00:08:23,969

Thank you for bringing
us up-to-date on it.

253

00:08:23,969 --> 00:08:25,938

Nick Skytland is
the Program Manager