



1
00:00:06,600 --> 00:00:12,560

Now is my favorite part of the closing ceremonies.

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00:00:12,560 --> 00:00:17,140

It's the part I look forward to every time I've been able to be a part of them.

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00:00:17,140 --> 00:00:23,280

Each year the class nominates one of their peers for an almost impossible task:

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00:00:23,280 --> 00:00:26,660

to somehow summarize the shared experiences and memories

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00:00:26,660 --> 00:00:29,830

of the SSP participants during this session.

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00:00:29,830 --> 00:00:35,840

To somehow crystalize nine weeks of experiences into just a few short minutes.

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00:00:35,840 --> 00:00:38,480

This year the class selected very well.

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00:00:38,480 --> 00:00:42,840

He has a bachelor's degree in mechanical engineering and physics and is entering the graduate

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00:00:42,840 --> 00:00:48,900

program in astronautics and aeronautics at Stanford University this fall.

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00:00:48,900 --> 00:00:52,210

Currently, he's working at NASA- Ames Research Center.

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00:00:52,210 --> 00:00:56,320

His passion towards space is to encourage humanity's

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00:00:56,320 --> 00:01:18,890

first permanent, off-world settlements. Please welcome Mr. Jonathan Connelly SSp '12 class speaker.

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00:01:18,890 --> 00:01:22,120

Jonathan: Thank you for the introduction, Gary, and thank you, Administrator Bolden,

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00:01:22,120 --> 00:01:24,890

for what's always an inspiring speech.

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00:01:24,890 --> 00:01:29,480

I'd also like to thank the participants of the 2012 class of the SSP.

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00:01:29,480 --> 00:01:33,190

It's been such an honor to be selected to speak on behalf of you,

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00:01:33,190 --> 00:01:37,240

but it's been even more of an honor to have been a part of you this summer,

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00:01:37,240 --> 00:01:41,570

to be there as we made memories together and worked and grew.

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00:01:41,570 --> 00:01:47,100

To make sure that I represented that honor to the best of my ability,

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00:01:47,100 --> 00:01:50,730

I thought I should talk to one of our distinguished mentors.

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00:01:50,730 --> 00:01:54,760

I talked to Jim Burke over lunch and I was asking,

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00:01:54,760 --> 00:01:58,020

Jim, what do you think I should say in my speech?

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00:01:58,020 --> 00:02:01,360

I've been elected the class speaker, I really want to do a good job and

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00:02:01,360 --> 00:02:03,340

Jim looks at me and he tells me, well, Jon,

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00:02:03,340 --> 00:02:06,740

I think you should get up there and tell them how terrible ISU was.

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00:02:06,740 --> 00:02:09,700
He said that would really get their attention.

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00:02:09,700 --> 00:02:14,610
Even though I think Jim was joking, I thought, you know, let's go with it.

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00:02:14,610 --> 00:02:21,650
So I think this is the part where I think people get a little bit worried.

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00:02:21,650 --> 00:02:25,150
So, ISU has been terrible for me. Very, very terrible.

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00:02:25,150 --> 00:02:28,320
And it's been especially bad for my English.

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00:02:28,320 --> 00:02:32,550
I was in the cafeteria the other day and I was going to get a bag of potato chips to go with my sandwich,

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00:02:32,550 --> 00:02:37,640
but I accidentally asked for crisps instead of chips. Really embarrassing.

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00:02:37,640 --> 00:02:44,560
I think when I get home, I'm going to put a Facebook post saying

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00:02:44,560 --> 00:02:49,360
elected to give class speech, has to follow Charlie Bolden.

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00:02:49,360 --> 00:02:54,220
I'm going to grad school in the fall and I was really excited about getting back into classes

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00:02:54,220 --> 00:02:59,450
after working a while but classes won't be the same without Earth balls and questions and

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00:02:59,450 --> 00:03:05,560
flying koalas and hundreds and hundreds of slides of black text on white backgrounds.

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00:03:05,560 --> 00:03:09,380

And finally, as a good Californian in the San Francisco Bay area,

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00:03:09,380 --> 00:03:13,660

I drive a Prius, it's a hybrid car with good gas mileage so I usually

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00:03:13,660 --> 00:03:18,010

end up driving when my friends go out for dinner or something so whenever

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00:03:18,010 --> 00:03:26,600

I'm driving people now, I'm afraid I'm going to be yelling, "The Prius will be leaving in five minutes!"

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00:03:26,600 --> 00:03:36,860

Seriously, though, but ISU has created some really amazing memories and one of the first ones

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00:03:36,860 --> 00:03:41,660

that comes to mind is when you are able to see Atlantis as you pulled into the VAB for the last time.

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00:03:41,660 --> 00:03:47,560

Enjoying the shadow when she passed overhead, when her wings momentarily blocked the hot

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00:03:47,560 --> 00:03:51,890

Florida sun and for me, seeing those wings ahead and the shadow passing over me, it was like

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00:03:51,890 --> 00:03:57,440

she was flying again, and it reminded me of what inspired me in my childhood.

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00:03:57,440 --> 00:04:01,970

And of course we can't forget the two magnificent rocket launches that we saw.

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00:04:01,970 --> 00:04:06,320

And you know, it's so interesting to watch a rocket launch because you're waiting and you're

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00:04:06,320 --> 00:04:09,830

going through the count and you're listening intently for everything the launch director says

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00:04:09,830 --> 00:04:14,920

and your heart stops because there's a hold and you finally get to that final moment when

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00:04:14,920 --> 00:04:19,730

they're counting down three, two, one and you're focused on it so hard and you forget to

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00:04:19,730 --> 00:04:24,050

breathe and you can hear something, but you don't hear it in your ears and you feel something

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00:04:24,050 --> 00:04:28,460

in your chest pounding but it's not your heart, it's the vibrations of this living beast

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00:04:28,460 --> 00:04:32,240

that's about to leave the planet and I have to think in those moments when

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00:04:32,240 --> 00:04:36,020

I've watched a launch that I know what the astronauts feel when they're sitting on top,

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00:04:36,020 --> 00:04:40,600

waiting to go into the void, when they're sitting on top of this pulsing, vibrating rocket.

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00:04:40,600 --> 00:04:43,530

It's like a beast waiting to break free of invisible chains.

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00:04:43,530 --> 00:04:48,260

Then it does break free and it ascends and it ascends higher and higher yet so quietly and

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00:04:48,260 --> 00:04:53,310

peacefully as it touches space for the first time and it's just such a beautiful moment I

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00:04:53,310 --> 00:04:57,780

can't wait to experience it for myself someday and I'm sure all of you will,

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00:04:57,780 --> 00:05:02,340

but ISU has created some really strange memories as well.

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00:05:02,340 --> 00:05:09,960

I never thought that I would be there on pad 39A watching the launch of My Little Rocket,

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00:05:09,960 --> 00:05:13,710

especially with George Diller in the background with space unicorn playing.

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00:05:13,710 --> 00:05:20,690

And I never thought that I would dance to Da Freakadien with our distinguished guests and

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00:05:20,690 --> 00:05:27,780

lecturers and I've shared some really fun memories of me as well from going skydiving to

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00:05:27,780 --> 00:05:33,820

flying a plane for the first time to having fun in the EVA pool and of course we can't forget

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00:05:33,820 --> 00:05:39,340

the culture nights in the NPRD. We'll leave those stories for ourselves.

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00:05:39,340 --> 00:05:43,480

And so even though tomorrow we go our separate ways, and we go back to the 31 countries that

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00:05:43,480 --> 00:05:48,590

we call home, I'll remember you and I'll remember the times we've shared and the friendships

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00:05:48,590 --> 00:05:51,590

we've built together over the past nine weeks.

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00:05:51,590 --> 00:05:55,650

And I'll never forget that our destination is in the sky above.

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00:05:55,650 --> 00:06:00,880

I've always love the phrase Ad Astra which is used so many times in the space industry.

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00:06:00,880 --> 00:06:05,740

Ad astra means to the stars and it makes sense because we're going to the stars, right?

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00:06:05,740 --> 00:06:09,580

But at ISU, I feel more connected to space than ever before

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00:06:09,580 --> 00:06:13,120

and have to think there is something missing in that phrase.

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00:06:13,120 --> 00:06:18,760

In our core lectures we've learned that we actually came from the stars, that the elements

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00:06:18,760 --> 00:06:22,520

that form our bodies were forged in stellar furnaces,

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00:06:22,520 --> 00:06:26,350

that the atoms in our body were strewn throughout the universe at unimaginable speed and

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00:06:26,350 --> 00:06:30,150

distance and that even though as humans we were born here,

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00:06:30,150 --> 00:06:34,880

as matter we were born out there in space in the stars.

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00:06:34,880 --> 00:06:39,530

And so even though I don't speak Latin, I've been told that phrase should be *reverte*,

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00:06:39,530 --> 00:06:44,050

ad astra which means return to the stars.

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00:06:44,050 --> 00:06:46,940

And return to take our birthright, we will.

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00:06:46,940 --> 00:06:51,350

We will do it together and as a species together with the voices of

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00:06:51,350 --> 00:06:56,430

31 countries and six continents and we can overcome any challenge that faces us.

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00:06:56,430 --> 00:07:02,300

And yes space is hard, and what we do takes years of effort and enormous resources and

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00:07:02,300 --> 00:07:08,880

sometimes we lose, programs are cancelled and sometimes on terrible days lives are lost.

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00:07:08,880 --> 00:07:14,660

But we're a relentless species. We take our resources and tools and we create amazing things.

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00:07:14,660 --> 00:07:19,240

We take rocks and turn them into metal, we take sand and turn it into computers, we take

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00:07:19,240 --> 00:07:23,700

water and turn it into rocket fuel and we put those things together and we're able to give

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00:07:23,700 --> 00:07:29,010

ourselves new capabilities to fundamentally change what it means to be human.

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00:07:29,010 --> 00:07:32,490

It's these things that make it an incredible time to be alive.

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00:07:32,490 --> 00:07:36,080

Just imagine all the things that are going to happen during our long careers in space.

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00:07:36,080 --> 00:07:38,120

We might see the first humans on Mars.

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00:07:38,120 --> 00:07:41,860

I know that some of us will become astronauts, it's a lifelong passion.

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00:07:41,860 --> 00:07:47,120

Some of us will get married and start families, we might have incredible successes in our careers.

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00:07:47,120 --> 00:07:51,800

Whenever we achieve whatever it is that makes us happy, I know that we'll be there for each other.

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00:07:51,800 --> 00:07:55,360

Even when the terrible moments do happen, when an accident occurs,

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00:07:55,360 --> 00:08:01,460

or life takes a different turn and we feel lost I know that we'll be there for each other then, too.

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00:08:01,460 --> 00:08:04,940

The friendships and relationships that we've created over the last

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00:08:04,940 --> 00:08:08,290

nine weeks are strong and they unite us, even over global distances.

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00:08:08,290 --> 00:08:10,520

You know, when you work in the space industry and you're in

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00:08:10,520 --> 00:08:15,890

astronomical units all the time, a few thousand kilometers is no big deal.

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00:08:15,890 --> 00:08:22,850

And so, space is incredibly large, but if space is truly infinite, then so are the possibilities within it.

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00:08:22,850 --> 00:08:27,380

And together we'll build an incredible future, a future of infinite possibilities.

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00:08:27,380 --> 00:08:32,800

So to close I really want all of us to be speaking together, and so I'll ask you that whenever

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00:08:32,800 --> 00:08:35,200

I say a word, you respond in your native language.

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00:08:35,200 --> 00:08:38,240

This will be with the participants and whoever else who wants to join in.

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00:08:38,240 --> 00:08:42,590

So, for instance if I said hello, you would reply bonjour if you spoke french,

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00:08:42,590 --> 00:08:45,520

or hola if you spoke spanish, etc.

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00:08:45,520 --> 00:08:49,720

So if you will, turn to your neighbor, and hold their hand or put your arm around their

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00:08:49,720 --> 00:08:55,460

shoulder or give them a smile, whatever it is that makes you comfortable (laughter)