Blueshift

May 18, 2009

[intro music]

Sara Mitchell: Welcome to the May 18th, 2009 episode of Blueshift, brought to you from NASA's Goddard Space Flight Center. Last month, NASA announced the name for its new International Space Station node - Tranquility. The big news didn't come from the new name - it was what NASA didn't name it that had the world abuzz. Though he mounted an impressive campaign to have the node named for himself, comedian Stephen Colbert got the consolation prize. The Tranquility node will house the Combined Operational Load-Bearing External Resistance Treadmill, or COLBERT for short.

Well, if there's one thing NASA is famous for - besides astronauts or Tang - it's acronyms. It's been a long-standing joke that NASA has an acronym for everything, and sometimes it feels like we really do. Just the HSF - I mean, Human Space Flight program - has a glossary of over 14,000 acronyms. Even when you work here, it can be a little overwhelming. Here at Blueshift, we've put together a helpful guide to some of the acronyms you might be hearing during the latest shuttle mission.

[music]

Francis Reddy: Hey, Anita, I've been watching the Hubble repair mission, but what's with all these abbreviations and acronyms?

Anita Krishnamurthi: It's true. NASA has a lot of them. Let me give you a quick rundown. For example, a spacewalk is an E-V-A - Extravehicular Activity.

Frank: Got it.

Anita: Now, on those EVAs...

Frank: Aha... check!

Anita: ...the astronauts will be installing COS, WFC3, new gyros and batteries, repair STIS and ACS, plus add a NOBL.

Frank: This IS a noble mission. Go NASA!

Anita: No, NOBL. N-O-B-L - New Outer Blanket Layer. It's insulation for Hubble.

Frank: I see.

Anita: One new instrument they're adding is COS.

Frank: ...'cuz ...why?

Anita: No... C-O-S - the Cosmic Origins Spectrograph. And the new WFC3 camera replaces the WFPC2.

Frank: You forgot a letter.

Anita: What?

Frank: Shouldn't the new camera be called WFPC3?

Anita: No, it doesn't work that way here.

Frank: Oh.

Anita: Astronauts are also replacing the SI C&DH module on Hubble. Wanna take a guess?

Frank: Ah... no.

Anita: SI C&DH - Science Instrument Command and Data Handling. It provides all the electronics to command Hubble's science instruments and get data back to the ground.

Frank: O... K.

Anita: And hopefully, the astronauts will have time to save STIS.

Frank: Stitch.

Anita: Excuse me?

Frank: The word is stitch, not STIS.

Anita: I don't understand.

Frank: A stitch in time saves nine.

Anita: I was talking about STIS - the Space Telescope Imaging Spectrograph. It stopped working in 2004, and the astronauts will try to repair it.

Frank: I... see. You know, I've just figured out an acronym.

Anita: Really? Tell me.

Frank: ARTSTAFLOS.

Anita: ARTSTAFLOS? I've never heard of that one. What does it mean?

Frank: Astronauts Return to Space Telescope and Fix Lots of Stuff.

Anita: I have to admit - it's no worse than most.

[music]

Sara: I have my doubts that NASA will officially adopt ARTSTAFLOS as the name of its latest mission. But this got me thinking - how do they name stuff around here? Where do these names come from? Is there still hope for Stephen Colbert to put his name on more than a treadmill? I decided to ask around. First, I visited Neil Gehrels, the principal investigator for the Swift satellite.

Why is it called Swift?

Neil Gehrels: This is a fairly unusual name for a mission. Usually missions are named by some acronym that has to do with what they're doing. But it's a string of letters. And for Swift we decided to actually name it with a real word, that also describes what the mission is doing. So Swift is a gamma-ray burst satellite, and its feature that makes it do its science is that it can rapidly orient itself. And it's like a robot in space. And it does this quickly, so we named the mission Swift. It's also nice, it's the name of a bird, so our logo is a swift bird, and it works out well

because swift birds also spin around and fly quickly. So it's an appropriate name.

Sara: I always forget that Swift is not an acronym. Consider that myth busted. But fear not - my next stop was Dave Thompson's office. He's a part of the GLAST team, and GLAST? Definitely not a word.

What's a GLAST?

Dave Thompson: GLAST was an acronym, one of those things that NASA has lots of. It stands for, or it stood for, the Gamma-ray Large Area Space Telescope, and it was a recognizable name - it was a pronounceable name. And therefore it made a good thing for us to have while we were building it.

Sara: So you changed the name to Fermi. Why Fermi?

Dave: It's always difficult to know how one of these names comes about. In this case what we did was we advertised. We had a website, and said, "Tell us what you'd like it to be named. This is not a vote, it's just a place to drop your suggestions." We got over 11,000 suggestions. And what happened was, then, members of the team went through all 11,000 suggestions - acronyms, names of people, names of mythological figures, lots of different possibilities - and we sorted those out and we picked some that seemed to reflect the ideas of what this project is about. Which is high energies. We then came up with a short list, and we sent it to NASA Headquarters, and the program scientist down there made the final choice of Fermi. It's named for Enrico Fermi, famous Italian-American physicist, who came up with some of the ideas that we're testing with the Fermi observatory.

Sara: Did anyone suggest the name Colbert in your 11,000 votes for a new name?

Dave: I didn't look at all 11,000. Of course, that does violate one of the rules. One of the rules that NASA has is, you can't name a satellite for a living person. And so, Enrico Fermi was eligible, but Stephen Colbert unfortunately was really not. Sorry, Stephen.

Sara: I don't think Fermi will be bending the rules and changing its name to Colbert. But what about another international mission? So I talked to Koji Mukai, who works with the Suzaku satellite.

What is a Suzaku?

Koji Mukai: Suzaku is a mythical bird from Chinese mythology. Also, it's the name of a Chinese constellation in the zodiac, and it's supposed to be the protector of the south. In Japan, we have a tradition of naming an astronomy satellite for a constellation, either Western or Chinese, that's one of the reasons. And I think Suzaku is supposed to be a good omen.

Sara: So what was the mission called before launch?

Koji: It was called Astro-E2. In Japan, the satellite names have project name type designation - in the case of astronomy satellites, it's called "Astro" - followed by a letter, usually.

Sara: Do you think the team ever considered the name Colbert?

Koji: At the time of the launch of Suzaku, Colbert was not famous - certainly not in Japan, and probably not even in the U.S.

Sara: So NASA doesn't have a specific formula or a universal system, and each satellite team gets to cook up their own name. But these three satellites have one thing in common - they're not going to be renamed "Colbert," especially not this far after launch. So I decided to switch gears and talk to someone working on a mission that hadn't launched yet. Maybe there's still a chance! I hiked

across center to speak with Dean Pesnell, project scientist for the Solar Dynamics Observatory. SDO is undergoing its final tests here at Goddard, and is about to be shipped down to its launch site. What better time to kick off some negotiations about its name?

Why is it called the Solar Dynamics Observatory?

Dean Pesnell: SDO is the first satellite in Living With a Star. A committee that met, many years ago, decided that there would be a number of missions, the first of which would be called the Solar Dynamics Observatory. It looks at the Sun, it looks at how the Sun changes in time, so it's the Solar Dynamics Observatory.

Sara: So once it is launched, does the Solar Dynamics Observatory expect any sort of change in the name?

Dean: We think we get one opportunity after launch, after deployment, and the satellite is actually in-orbit, we're allowed to have a name change for the satellite. We have actually asked Headquarters to change our name, but we're not allowed to talk about it right now. Be assured, it will not be Colbert.

Sara: After the microphone was put away, I asked Dean to reconsider. He didn't budge. Stephen Colbert has three strikes against him - he's not a scientist, he hasn't made any significant contributions to the field of astronomy, and, well, he's alive. That last one is a doozy. I guess having a satellite named for you isn't something you "live to see," based on NASA's rules. But NASA doesn't have any rules about naming podcast episodes, so we'd like to dedicate this one to Stephen Colbert. You've been listening to the Conciliatory On-Line Blueshift Episodic Recorded Transmission. This one's for you, Mr. Colbert.

To learn more about NASA acronyms and how things are named around here, check out our website at universe.nasa.gov/blueshift

You can also follow us on Twitter as NASAblueshift. This is Sara Mitchell, bringing the Universe closer to you with Blueshift, I mean, C.O.L.B.E.R.T.

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