**Geophysical Institute's Foss soars in design competition**

By LJ Evans

For several days in a row last September, Hannah Foss kept seeing the same ad pop up in her Facebook feed. It was an invitation to design the livery — the decorative paint job on the outside of an airplane — for a new Hainan Airlines Boeing 787-9 Dreamliner. The design was supposed to use characters from DreamWorks' Kung Fu Panda films, and the prize for the first-place design was an all-expenses-paid trip to China.

"I scrolled past it a few times,” Foss said, “but eventually I had a few free evenings, so I said, ‘Why not?'"

Foss had a major advantage. She's a graphic designer at the University of Alaska Fairbanks Geophysical Institute, and she knew what she was doing.

The entry process was all online. Hainan's contest website used a 3D model plane and offered different sets of Kung Fu Panda character images to choose from. It was more of a design project than a drawing project, Foss said, because you had to use their design elements, not draw the airplane and characters from scratch. She ended up submitting three designs, adding to more than 200,000 entries Hainan received from the U.S. and Canada.

She didn't think she had much of a chance. “I definitely wasn’t expecting any word back. I didn’t want to get my hopes up,” Foss said.

A few weeks later, she got an email from the Hainan marketing staff. "They said 'Oh, you won the thing!' I was like, 'Oh, cool!'"

It isn’t the first time Foss has been recognized for her talents.

Foss and her mother emigrated from Adelaide, South Australia, to Alaska in 2008. In 2013 she completed a bachelor of fine art degree at UAF and a diploma in character animation through Animation Mentor. Foss was named the Greater Fairbanks Chamber of Commerce’s 2016 Artist of the Year.

In addition to being involved with the Downtown Association of Fairbanks’ Window Project, she also took part in the 2013 Fairbanks Film Festival and designed the 2014 Yukon Quest logo. At the Geophysical Institute, Foss has created graphics for the Learning Through Cultural Connections curriculum and the animations for “Kiuguyat: The Northern Lights” video, which accompanies the curriculum.

Foss plans to fly from Seattle to China on the new plane sometime in May or June, once it is decorated with her design. Her travel itinerary isn't done yet because the aircraft is still being assembled in Charleston, North Carolina, from parts manufactured all around the globe. It will also be painted there, but the Kung Fu Panda decals will be applied in China.

Application of the paint and the decals is tricky because the 787 Dreamliner has a copper exoskeleton that can absorb and dissipate the electric charge if a plane is hit by lightning. The exoskeleton protects the airplane's electronics. Safety regulations both in the U.S. and China stipulate that the coating materials can't be more than a certain number of microns thick. Just *how* thick is proprietary.

"They don't want the paint plus decals to insulate the plane and render the copper shielding useless," Foss said.

She expected that as soon as she turned in the designs her involvement would end, but that hasn't been the case. Steve Myers, a contractor in Seattle working with Boeing, has made sure Foss has been involved.

"He said, 'You do graphic design, this is your job.' He wanted to make sure, as revisions were made for safety reasons, that I could be on board and help,'" Foss said. Myers sent her chips of all the aviation-safe paints that would work best in full-spectrum lighting at 30,000 feet so she could pick the colors. She reviewed the Adobe Illustrator files and she interacted with DreamWorks staff to make tweaks to some of the Kung Fu Panda images.

Designing the aircraft livery for Hainan has been a terrific learning and networking opportunity, but Foss is most looking forward to the trip.

"Growing up in Adelaide, which is such a cultural melting pot, and especially being so close to our Asian neighbors, China's been on a list of places I've really wanted to visit," Foss said. "I have not yet traveled to a place where English is not the first language, so that's really exciting."

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Cutlines:

*Greater Fairbanks Chamber of Commerce photo*
Hannah Foss, in front of her public art installation “Kindan-No,” was named the Greater Fairbanks Chamber of Commerce’s 2016 Artist of the Year.

*Hainan Airlines graphic*
This paint scheme for a new Hainan Airlines Boeing 787-9 Dreamliner earned Hannah Foss an all-expenses-paid trip to China.

*LJ Evans photo*
Hannah Foss is taking a skeleton articulation class in the UAF Veterinary Medicine program to help her create better drawings, paintings and animations of animals. Her group is assembling the skeleton of a domestic sheep, which will be used as a learning tool for vet students.