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**Get to Know Your Officers: Valerie J. Gawron**

Valerie Gawron is an Engineer at The MITRE Corporation. The MITRE Corporation is a not-for-profit organization that provides systems engineering, R&D and information technology support to the government.

1. **Tell me a little bit about yourself. Where did you get your degree/training?**
   MBA, Business Administration, 1988 State University of New York at Buffalo
   MS, Industrial Engineering, 1988 State University of New York at Buffalo
   Postdoctoral Research, 1980 New Mexico State University
   Ph.D., Engineering Psychology, 1980 University of Illinois
   MA, Psychology, 1977 State University College at Geneseo
   BA, Psychology, 1975 State University College at Buffalo

2. **What made you want to pursue the career path you have taken? (e.g., Why aerospace? Why human factors? Was there a critical incident that led you to this career path? was there any research that you found particularly interesting?)**
   My Uncle Marv was an aeronautical engineer and when I was five he took me for a picnic to the local airport. As he explained lift, drag, and thrust of aircraft I listened intently. He smiled and asked, "So are you going to be an aeronautical engineer?" I remember shaking my head, "No, Uncle. Airplanes are great but what about the pilots? Who studies them so they don't make mistakes?" My Uncle promptly returned me to my parents.

3. **What is aerospace human factors to you? Why does aerospace human factors matter?**
   Enabling humans to literally spread their wings and even leave the bounds of earth behind. Without human factors great such as Dr. Chuck Hopkins, none of the astronauts would have been able to complete missions and experiments.

4. **What struggles do you typically face as a human factors/aerospace professional?**
   There are a lot of people who profess to be human factors engineers but have no education, no training, and could not pass a certification test yet they influence system design.

5. **Where do you see aerospace human factors in 15-20 years? (e.g., What questions will aerospace human factors be trying to answer? What will be the research focus?)**
   1000 increase in UAS flight hours, increasing international passenger growth especially in Asia, need for additional training to replace retiring work forces in ATC and maintenance

6. **What questions are you trying to answer with your research?**
   Can pilots use WAAS to land safely on shorter, narrower runways than allowed by the current standards? Are the new methods for airplane upset training effective in flight? What data discriminate safe pilot performance from that which is not safe? Can aviation experiments be run using the Cloud or is the delay too great?

7. **What outlets do you use for your research (what journals do you use, what conferences do you present at, etc.)?**

8. **What is the most exciting incident or research you have been a part of?**
   Re-enactment in-flight of eight fatal hull loss accidents to compare five types of airplane upset training

9. **Is there any advice you would give to a person wanting to pursue a career in aerospace human factors? (From a previous interview:)**
   1. When picking a career, pick...
something you love to do since you’ll be doing it for half a century. These are the words of my mom’s sole surviving brother (two of her brothers died in the Spanish influenza epidemic at ages 1 and 3). My uncle said these words to me when I was five while we were watching airplanes take off and land at the Buffalo International Airport. For many years I was at the same airport watching airplanes (the United States Air Force Total In-flight Simulator, the Variable-Stability In-flight Simulator and Test Aircraft, and two Variable-Stability Learjets) take off and land. But now I have them fully instrumented.

2. Never stop. These are the words of a woman I met in the emergency room where I was volunteering. She was 103, African-American, and a retired dentist. I sometimes had problems as a female engineering student 20 years ago, but this woman had obtained a dental degree in spite of being a woman, being African-American, and going to school 80 years ago. I went on to finish a bachelor’s, three masters, and a doctoral degree. I now help (I hope) other students by being an outside reader on theses and dissertations. I plan to never stop.

3. Listen to Aaron Copeland’s Fanfare for the Common Man at least once a month. The advice was from Aaron himself at an open rehearsal at Buffalo’s Kleinhans’s Music Hall. As human factors engineers, that piece of music should be our anthem. We are the designers, trainers, and evaluators of systems for the common human. The challenge is, not everyone is so common.

4. Be eclectic. These are my own words. I find great pleasure in tackling a diverse domain of problems. The pleasure comes from learning techniques in one domain (e.g., Head-Up Display [HUD] symbology in military aircraft) and applying them to another domain (e.g., HUDs in passenger cars).

5. Publish, publish, publish. My words again. I once had the unfortunate experience of duplicating an experiment that was doomed (well, it was the logical extension of previously published work). The original experiment was never published and I was destined to repeat history—painfully. I have published a book a year for the last five years as well as at least two articles or book chapters a year.

6. Remember that America isn’t the only country in the world. My great uncle Paul’s words. He taught the family to seek knowledge anywhere and everywhere. So I suggest that you read Ergonomics or Applied Ergonomics, participate in international conferences, skim AGARD proceedings, and travel. And when you travel, remember Fanfare for the Common Man and listen and help. As human factors engineers, we have the tools to better the world. Let’s do it!

7. Participate. I’ve learned a lot from being technical and program chairs for our society. Don’t limit yourself to HFES (probably heresy but...). The Aerospace Medical Association needs reviewers, the American Institute of Aeronautics and Astronautics lacks volunteers to write standards (you might even get an Associate Fellowship if you help, I did), the Association of Aviation Psychologists wants reviewers for student grant applications, the Intelligent Transportation Systems of America is soliciting members, the Military Operations Society pines for an accurate model of human behavior, and the Society of Automotive Engineers wants to develop more resource documents. Just do it!

8. Finally, maintain a sense of humor. Also my words. As some of you know, I’ve been threatened with guns and knives (isn’t volunteering in emergency rooms fun); jumped out of perfectly good airplanes onto land and into swamps; and ridden in Army tanks, experimental aircraft, state-of-the-art automobiles, military helicopters, naval ships, and submarines all for the sake of human factors engineering.

10. Feel free to add anything else you think others may want to know. I am on a quest to see every country of the world. 170 down and 9 to go. I hope to visit the Philippines and Palau in August, Cuba in March, and Kiribati, Marshall Islands, Nauru, Solomon Islands, Tuvalu, and Vanuatu in November 2015.
NASA Research Announcement (NRA) for Leading Edge Aeronautics Research for NASA (LEARN)

The Aeronautics Research Mission Directorate’s (ARMD’s) NASA Aeronautics Research Institute (NARI) will be releasing a solicitation for multi-institutional, multi-disciplinary team-based proposals for research as participating members of LEARN. Proposals must clearly articulate an innovative, broadly based research concept addressing one or more of the six ARMD strategic thrusts and has the potential to mature into technologies of interest to ARMD or to commercial aerospace companies.

The current plan is:
Release of NRA at https://nspires.nasaprs.com ..................late June 2014
Pre-proposal briefing .................................................July 10, 2014
Proposals due .............................................................August 20, 2014
Period of performance start .................................January 1, 2015

Until the release of the LEARN NRA, additional information and the latest schedule will be updated at http://nari.arc.nasa.gov/news.

Once the NRA is released, please see NSPIRES website for specific information relative to this solicitation. If you are not a registered NSPIRES account holder, you can register at https://nspires.nasaprs.com/external/aboutRegistration.do

Treasurer’s Report
Submitted by: Angel Millan

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As of 6/27/2014 the ASTG has 404 members in good standing
Upcoming Events

31st EAAP Conference: September 22-26, 2014 Malta. Theme: Aviation Psychology: facilitating change(s)
Go to http://conference.eaap.net/ for more information

HFES Annual Meeting: October 27 - 31 Chicago, Illinois
Go to https://www.hfes.org/Web/HFESMeetings/2014annualmeeting.html for more information

Australian Aviation Psychology Association’s Symposium: November 10-13, 2014 Melbourne
Go to http://www.aavpa.org/read/921/2014-aavpa-symposium.html for more information

IEEE Aerospace Conference: March 7-14, 2015 Big Sky, Montana
Go to http://www.aeroconf.org/ for more information

Aerospace Medical Association Annual Meeting: May 10-14, 2015 Orlando, Florida
Go to http://www.asma.org/annual-meetings/future-annual-meetings for more information.

SAE International Aerospace Events can be found at http://www.sae.org/events/aerospace/

For more conferences and meetings go to http://www.hfes.org/web/calendar/calendar.html

Air Shows. Feel like catching an air show. Go to http://www.milavia.net/airshows/ for a calendar of events
An exit slide in the rear of the aircraft deployed during a United 737 flight, causing the aircraft to divert and land prematurely. The flight landed in Wichita, prompting a little girl and her dog to remark, “Gee I think we ARE in Kansas anymore…” This, apparently, was the plan the whole time according to the disenchanted and bored people onboard the flight who were looking for some kind of diversion/excitement during the otherwise hum-drums flight. The slide, however, did not help the passengers to get off any sooner once on the ground again and, in fact, made exiting more laborious for those near the slide. Said one passenger, “I could have gotten that at the water park, and I would have had a nice, cool splash at the end.” Another said (actual quote), “Gee, I hope there’s nobody in the restroom because they’re going to be there a very long time.”

Hondajet made its long-awaited inaugural flight in June. The two engines are supported on stilts above the wings. Any resemblance to Thrust of the Decepticon Transformers is entirely coincidental. The power plant(s) and powertrain are said to come with a 75,000 mile warranty.

Beringer Wheels & Brakes has introduced its new 4-inch main wheel and brake for light aircraft. Cut from solid aluminum billet on precision CNC machinery, they carry Beringer’s signature bright red anodized finish. (This is legit. I was particularly disappointed to hear that I wasn’t getting a cut of the profits, but maybe I can get them to give me a set of these bright-red wheels to put on my Nissan… unless, of course, there is going to be a NissanJet to put them on…).

A recent APS interview with a researcher on fatigue suggested that fatigue-related performance problems in aviation have been underestimated, and that there is evidence that fatigue degrades cognitive performance, mood, and piloting skills. Asked if he was going to do any more studies on fatigue, the researcher indicated probably not because he was tired of it.
Since nobody answered the last Aerospace Trivia question, I thought I would change the trivia up a bit and go back to a mystery craft for this issue. Identify the aircraft below to be this issue’s trivia winner. Email answers to ericjstearman@gatech.edu. Please include Aerospace Trivia in the subject line.

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Message From the Editor
Eric Stearman

I hope you enjoyed this newsletter. I would like to give a special thanks to Valerie Gawron for taking the time to answer my interview questions, Angel Milan for providing the treasurer’s report, and Dennis Beringer for all of his help.

If you ever come across an interesting article or event you would like to share with the members, do not hesitate to contact me at ericjstearman@gatech.edu. I would be more than happy to spread the information through the newsletter. Just make sure to include ASTG Newsletter it the subject line to make it easier for me to find.