

NASA Center for Climate Simulation Success Story

Women's History Month: NCCS Women Reflect on Careers and Influences

March 30, 2015

The NASA Center for Climate Simulation (NCCS) and predecessor organizations at NASA's Goddard Space Flight Center have had women staff members since the 1960s. Women also serve as principal investigators and other users of the NCCS Discover supercomputer. For Women's History Month, five current NCCS staff members tell what influenced their careers and offer their thoughts on women in the information technology (IT) sector.

Laura Carriere

Hometown: Scarborough, Ontario, Canada

NCCS Role: Manages the technical projects that develop and implement climate model data services, which allow scientists to access, visualize, and use information such as temperature, precipitation, wind, and humidity in their research.

University of Toronto astronomer Helen Hogg's pioneering success led Laura to major in astronomy and astrophysics at that same university. Armed with a bachelor of science including a computer science minor, she took an IT position in the Astronomy Department. At the time Laura says that "there weren't a lot of IT experts, so we tended to support each other. We shared research, ideas, and newly discovered software, tools, and solutions. The field is still like that today, where there's a

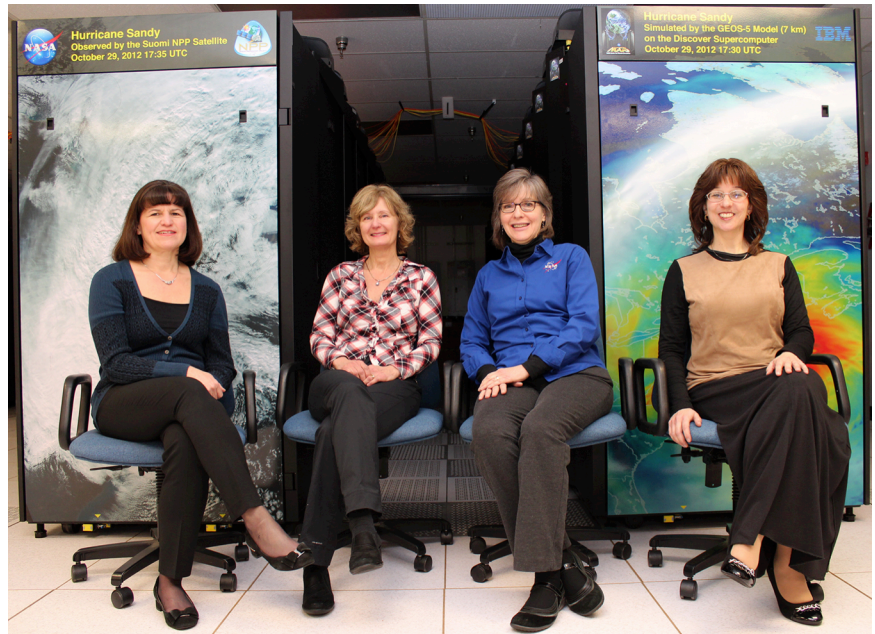
tremendous amount of teamwork needed to build truly effective solutions." After working for other Goddard organizations, Laura started at NCCS in 2010. She urges the IT sector to present career opportunities as "inclusive of girls' interests." "IT is about problem solving using an algorithmic approach—a step-by-step process to get from beginning to end, from problem to solution," she says. "Starting from this natural, familiar process and turning that into a technical solution would draw women in rather than alienating them by presenting them with multiple lines of code to decipher."

Savannah Strong Finch

Hometown: Lanham and Largo, Maryland

NCCS Role: Performs testing, beta tester support, application maintenance and development, and other tasks for the MERRA Analytics, Ultrascale Visualization Climate Data Analysis Tools, and Climate Inspector Tool projects.

As a NASA engineer Savannah's father helped design and implement the communications system between NASA Mission Control and Apollo spacecraft crews and also was a major innovator for many satellite network communication infrastructures. "I always thought that was pretty cool and aspired to get a job in the technical field," she says. Not long after earning a bachelor's degree in computer science from the University of Maryland Savannah joined a team developing the GenSAA software for automating command/control and health/safety monitoring for Goddard satellite missions. From coworkers Ed Luczak and Dave Ripley she learned how to become a knowledge engineer, an approach that has deepened during her nearly 5 years with NCCS. For the IT sector to attract more women Savannah says "it is important to begin the encouragement and support at a very young age. In my home there was a huge emphasis on math, science, and technology for both my brother and myself. We had one of the very first home computers, and my father said, 'This is the future—learn it!'"



Women working directly for the NASA Center for Climate Simulation (NCCS) include (left to right) Laura Carriere, Savannah Strong Finch, Ellen Salmon, and Adina Tarshish. The backdrop is Scalable Compute Unit 9 of the Discover supercomputer.

Lyn Gerner

Hometown: Kansas City, Missouri

NCCS Role: Provides guidance to the Discover supercomputer team regarding cutting-edge workload management approaches, which helps NCCS optimize utilization of its primary computational resource.



Lyn Gerner works for NCCS remotely.

Lyn “became good at math” during her undergraduate years and ultimately pursued a bachelor of science in mathematics and computer science. “I always wanted to contribute to scientific discovery through my work, so the chance to work at NASA had, and continues to have, great meaning for me,” she says. Lyn has worked for NCCS twice—from 1985 to 1995 and currently since mid-2013. NCCS mentors included Fred Shaffer, Chris Bock, and Carol Boquist, whose “kind support early on helped me better understand the importance of the interpersonal skills that can enhance one’s professional life.” Lyn has found the IT sector in general, but especially its public sector, to be quite supportive of women. “NASA in particular has always been a great place to grow and excel,” she says. “If we—as individual contributors, managers, and organizations—support everyone’s growth, then gender becomes a non-issue.”

Ellen Salmon

Hometown: Erie, Pennsylvania

NCCS Role: Coordinates interaction with science and management customers (including support for field campaigns and other special projects); communicates user requirements and helps organize services with NCCS technical staff.

Ellen holds a master of science in meteorology from Penn State, where her thesis focused on numerical weather prediction running weather model and analysis codes on a Cray supercomputer. These research interests naturally led to a position with NCCS. “I find it rewarding to understand how the parts of the high-performance computing environment work and at the same time figure out how to make them work well (perhaps by combining the parts in new ways) to help advance people’s work,” she says. Of the “many wonderful, talented women at Goddard,” those who have influenced Ellen include Computational and Information Sciences and Technology Office Assistant Chief Nancy Palm and past Chief Scientist for Meteorology Joanne Simpson. She says to be more women-friendly “the IT sector would do well to emulate a lot of the culture and policies at NCCS and similar organizations, where there’s a conscious effort to create an environment where employees can perform their jobs while also accommodating their life and families outside of work.”

Adina Tarshish

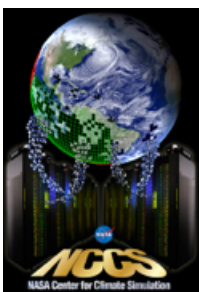
Hometown: Queens, New York

NCCS Role: Helps manage the 45-petabyte-capacity mass storage system where computing users store the large amounts of data produced by their jobs.

Growing up Adina was inspired “by women in my own community that were managing to have careers and families at the same time,” especially watching her mother spend 7 years getting her accounting degree, pass the CPA exam, and become a partner in her husband’s CPA firm. Adina enjoyed programming while pursuing a bachelor’s degree in computer science at Queens College of the City University of New York. She joined NCCS in 1990 shortly after graduation. Then senior NCCS employee Lisa Nicklas was an early mentor, and Adina notes the presence of highly competent women throughout her years at Goddard, including colleagues Nancy Palm, Lyn Gerner, and Ellen Salmon. Today Adina sees the IT sector as encouraging and supporting women in many ways. “It is a profession that pays decently and often allows for telework and flexible hours,” she says. “The only thing it really does not offer much is part-time work, which is the reason why most of my friends have entered other fields.”

Jarrett Cohen

NASA Goddard Space Flight Center



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