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Chapter 19

A Girl in the Man-on-the-Moon Program: Camaraderie and Discrimination during the Apollo Years and Beyond*

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Abstract

The author reported for duty fifty-one years ago, in the summer of 1968, to the NASA Goddard Space Flight Center, one month after graduating with honors from the University of Maryland. Her position was entry level Aerospace Technologist (AST), within the Data Operations Branch of the Manned Flight Planning and Analysis Division. Her duties included the testing and development of the Goddard Real Time System (GRTS) to assure operational readiness for Apollo missions, beginning with Apollo 7. Her role in Apollo 11 was to operate the GRTS to record radar data from the Manned Space Flight Network (MSFN) tracking sites and use this data to update the orbit and send out acquisition messages to the MSFN.

The author's fondest memory of the Apollo program, especially Apollo 11, was that, with less than one year of Government service, she had the opportunity to work among the "giants" of NASA to contribute to the success of something that had never been done before. The awe and wonder of Apollo continued past

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the Moon landing in 1969, through the entire program, including the Apollo-Soyuz Test Program in 1975.

The "Apollo Mentality" guided the author through forty-six years at NASA, encompassing the highs of camaraderie and the lows of discrimination. The camaraderie lasted one year until a manager asked why she was not pregnant. Thus began the discrimination, more specifically gender harassment.

This chapter addresses how the "girl" accommodated the conflicting behaviors through the lens of the "Apollo Mentality" during her NASA tenure.

I. Definitions

Gender Harassment: The most common form of sexual harassment, consisting of verbal and nonverbal behaviors that convey hostility, objectification, exclusion, or second-class status about members of one gender; e.g., behaviors that communicate that women do not belong or do not merit respect [1].

Camaraderie: Mutual trust, friendship, and teamwork in the workplace to accomplish mission goals.

Apollo Mentality: If it is worth doing, it is worth doing well; if you make a commitment, honor it; if the task you are given has never been done before and seems difficult, create a team or join a team of smart, passionate, and creative people within and outside of your organization. [This is the working definition created and used by the author.]

II. Author's Personal Background

I belong to the generation of women whose lives were programmed at birth when the doctor announced, "It's a girl." Working for NASA was not part of my programming, but happened quite by chance, and endured for over forty-six years. My father was a mechanical engineer, and my mother was an elementary school teacher. Although my parents, teachers, and high school guidance counselor expected me to graduate from college, they did not expect me to pursue a career that would interfere with marriage and motherhood. They were adamant that I obtain a degree in elementary education and teach. This was troubling to me, since our family dinner conversations centered on my father's passion and excitement in solving difficult problems and my mother's grumblings about bureaucracy and spending personal money for school supplies. My mother loved teaching, but I could not imagine myself in that role.

When I registered at the University of Maryland, I did not enroll in the College of Education, but instead the College of Arts and Sciences. I waited until I had completed the first semester before telling my parents. When I was a junior, one of my friends who knew I was working part-time for $1/hour asked if I would be interested in doubling that! I was hired as a Math Aide at the Goddard Space Flight Center, and for two years I worked for an awesome group of scientists, some of whom were preparing to analyze Moon rock samples yet to come. As graduation approached in 1968, the only jobs available at Goddard were in Manned Flight (notice that NASA had not yet converted to Human Space Flight). I had a degree in Mathematics, with supporting courses in Physics and Engineering (and an unofficial minor in Computer Science, since the Department had not yet been accredited).

III. Author's Introduction to the Apollo Program— Camaraderie at Goddard

From the multiple job offers I received from NASA and other government organizations, I accepted a career position at Goddard as an Aerospace Technologist (AST)/Mathematician in the Manned Flight Planning and Analysis Division. I was assigned to work on the Goddard Real Time System (GRTS), which was a large, complex, and interactive system used to support manned space flight missions and the launch and early orbit phases of science missions for real time trajectory and orbit computation. The scope of my duties included: providing large scale computer programming support for Manned Space Flight Network requirements; creating programs to perform launch trajectory, orbit prediction, and reentry computations; designing computer programs to perform orbit extraction from raw radar data; and providing computer driven display outputs of spacecraft trajectory parameters.

When I was encouraged to broaden the scope of my duties, I gravitated toward the operations end, so I could better understand how the software worked in an operational environment, i.e., did it work the way it was intended, and more importantly, how did it work when you introduced conditions that were not in the prepared test script.

In less than three years, I thoroughly understood the ins and outs of GRTS and was one of only six Goddard personnel who could operate it reliably and so I became a real-time orbit operations controller. I evolved into the Operations Director for Real-Time Computational Systems and assumed responsibility for the operational readiness of GRTS, including requirements coordination, technical direction for software implementation, system testing and integration, generation

of operational procedures, and actual mission support. In addition to the Apollo missions, I supported approximately fifty science missions.

The Apollo Program was my very first career job. My fondest memory from Apollo 11 is that I, with less than one year of Government service, had the opportunity to contribute to the success of something that had never been done before—to land men on the Moon and return them safely to earth. Further for Apollo missions 7–17, I was privileged to work among the "giants" of NASA and experience firsthand the "Apollo Mentality" that guided and sustained me throughout my forty-six years at NASA, the first twelve at Goddard and the rest at Headquarters.

What I learned from the camaraderie experience is that collaboration and teamwork across traditional boundaries were more powerful in achieving technical excellence and mission success than just directing that it be so. It allowed me to recognize that leadership is a choice, not a position, and to exercise that choice as challenges present themselves. An early career challenge for me was to design and implement a new real time orbit determination capability that would accommodate the Apollo and science missions concurrently. Although it was considered heresy to bring users, operators, customers, and developers together to exchange ideas and expectations, I relied on camaraderie to produce a system that not only met our requirements, but also was easier and cheaper to operate and maintain. For this effort, as well as for my real time computational support of the Apollo and science missions, I received the NASA Exceptional Service Medal, the Agency's second highest incentive award. Prior to this, I shared two awards with other GRTS support members—Silver Snoopy Astronauts Award (presented personally by the astronauts) and a trip to Kennedy Space Center to view the launch of Apollo 17 as a Manned Flight Awareness (MFA) Award honoree. These two awards are part of the MFA program designed to recognize individuals and teams who demonstrate superior performance and quality, particularly with respect to flight safety.

IV. Author's Introduction to Gender Harassment at Goddard

Shortly after the Apollo 11 mission had concluded, my Branch Head and other managers began asking why I was not pregnant, given that I was married. I was quite startled but responded by offering to explain the process of birth control as learned in health education class. When several managers approached me to convey their displeasure that I was depriving men of their opportunity to work for NASA and provide for their families, I had no response. I also had no response when these managers accused me of being greedy for money that I did not

need since my husband was working. Upon reflection fifty years later, I found these behaviors hurtful and demeaning, but more importantly, they were meant to convey to the "girl" that she was not welcome.

I continued with an alternating pattern of camaraderie (previous section) and gender harassment in my work environment. When I received an invitation from the Associate Center Director to discuss technical aspects of my job, I was thrilled. When he explained that he wanted to assure himself that the Exceptional Service Medal nomination from my organization was legitimate and not just because I was a "girl," I was less thrilled. I accepted his invitation, answered his questions, and the nomination moved forward.

The next two examples were (and still are) particularly hurtful, as they were attacking my job performance. The first was an assertion from the Division Chief that my software was at fault for a non-nominal launch trajectory display. I advised that the software was working correctly and was bothered that he had not considered the possibility that the mission was not proceeding on a nominal course. The details for this example involved the Mariner Mars mission in the spring of 1971. In preparation for mission support, we always plotted the nominal trajectories and displayed them during the actual mission so we could easily track progress. Very soon after launch, the actual real time trajectory data was not lining up with the nominal plots. My Division Chief walked over to my console and said in his most authoritative voice, "Rhoda, your software is not working correctly; the actual trajectory is supposed to line up with the nominal trajectory." I replied in my most confident voice that the software was indeed working correctly; it was the mission that was not going well. Within a few seconds, we heard over the communication circuits that the mission was heading for impact, and we were to impound our data for the failure investigation that would follow.

The second example was the declaration of surprise from the Branch Head regarding the accelerated progress I had made on a project that was construed at the highest levels to fail so that I could be terminated. He made a plea for me to slow down progress to lessen the embarrassment for management. Without hesitation, I requested and obtained reassignment out of the organization. The details for this example involved the project to develop a single system for use by Payload Mission Planners in one organization and Tracking Network Schedulers in another organization so that there would be a seamless interaction between planning payload orbital operations and negotiating network support schedules in the 1980–1990 timeframe. Fortunately, I was unaware that conventional wisdom had pre-determined that this task was not achievable. It was in fact achievable, as I had working software and operations procedures within three months. Note that this accomplishment was not by chance. Having recognized that such a system

had never been done before and seemed difficult, I employed the "Apollo Mentality" beginning with creating a team of government and contractor personnel all with the necessary resolve to get this done.

V. Author's Takeaways from the Apollo Program

The Man-on-the Moon Program was the best first job ever. It contained the essentials for achieving career success—a series of challenging tasks, some of which had not been done before; the responsibility for technical excellence; the ethics of honoring commitments; and the importance of camaraderie, i.e., Engineering is a team sport. I thrived in this environment.

There was, however, a downside—discrimination. I was unprepared for the verbal onslaught of comments that suggested that, as a "girl," I was not welcome in the workplace. I could see the virtual banner, "Girls Not Welcome" hanging overhead. For the most part, my coping mechanism was to ignore the attacks and press on. Fifty years later, I recognize this as gender harassment, the most common form of sexual harassment [1]. As I write this chapter, I recall my first supervisor telling me that when he announced to the all-men group that he was hiring a "girl," they all threatened to quit. In the end, no one quit. My supervisor had called their bluff! Fifty years later, I realize my supervisor's actions as almost revolutionary and critical to establishing a respectful work environment. I regret that I never thanked him.

VI. Author's Experience at NASA Headquarters (Examples through the Lens of the Apollo Mentality)

VI.1. Tracking and Data Relay Satellite System (TDRSS) Division

After twelve years at Goddard, I applied and was selected for a program manager position in the Office of Space Tracking and Data Systems (OSTDS), Tracking and Data Relay Satellite System (TDRSS) Division. Now in my thirties, I was no longer a "girl." I was the only female engineer in the Division of ten to fifteen people, as well as in OSTDS of approximately fifty people.

With the conclusion of the Apollo Program, I was looking forward to once again experiencing the excitement, energy, camaraderie, and the opportunity to accomplish something that had never been done before—the deployment of the first ever space-based communications system. It would consist of a constellation of geosynchronous satellites and associated ground facilities, providing global

tracking, telemetry, and command services to low-earth orbiting spacecraft, including the Shuttle.

The camaraderie did not begin immediately. Within a few weeks of my arrival, I attended a Program Review during which a Goddard manager was presenting software development status and near-term software deliveries. I listened intently and then asked if he was certain of the schedules. He responded quickly, in a condescending manner, that I was new to Headquarters and could not possibly determine the readiness of the software to be delivered as presented. I assertively suggested otherwise. The Headquarters Division Director decided to take this discussion offline. When we met later in his office, I explained my rationale for questioning the schedule and recommended he call the Project Manager. The Project Manager then reported that there would be a minimum six-week delay and would get back with the updates. The good news for me was that my technical credibility was firmly established, and I would experience no further instances of gender harassment for nearly two decades. The good news for NASA is that I was assigned to get the Project back on track, which I did.

Another area of responsibility was TDRSS navigation. I was successful in formulating, advocating, and implementing the TDRSS Navigation Initiatives Program, including the TDRSS Onboard Navigation System (TONS) and navigation certification for Space Shuttle support. TONS produced high-accuracy, low-cost, easy-to-use, autonomous onboard navigation services for customer spacecraft, with minimal cost, power, weight, and volume impact on their spacecraft. The navigation certification for Shuttle support was critical, since the NASA ground tracking stations were being phased down, and non-NASA ground stations were supporting at considerable cost. I chartered a team, composed of representatives from three NASA Centers and three industry organizations, to accomplish this task, which they did. In addition to major cost savings, the certified TDRS configuration allowed for more timely and accurate Shuttle maneuver confirmation. For this effort, I received the Silver Snoopy Astronauts Award and was included in a NASA Group Achievement Award (GAA). The GAA was significant since the nomination was submitted by one of the participating NASA Centers, rather than from Headquarters. The language in the nomination specifically cited that a key element in the success of the group was the formation of a smoothly working team involving three NASA organizations and three contractors. “There was a real spirit of teamwork, cooperation, and perseverance to attain the common goals. The trust, cooperation, and teamwork that grew out of this group resulted in improved institutional support of the Shuttle beyond the original scope of the group.”

VI.2. Faster, Better, Cheaper (FBC) Era

In the early 1990s, NASA's Associate Administrator for Space Communications (previously OSTDS) commissioned a team to review the Office of Space Communications (Code O) core program and determine how the space tracking and data systems program could be conducted faster, better, and cheaper. The team was empowered to take an unconstrained, non-parochial, and imaginative look at the program and to explore strategic options for improving customer services and the associated infrastructure to sustain these services. As the leader of the Code O Team (and succeeding NASA COST LESS Team), I followed the path of the "Apollo Mentality" and camaraderie. After four workshops, an investment program, and constructive dialogs across our supplier and customer communities, we presented our plan for achieving faster, better, *and* cheaper design and implementation of space systems. The plan included a technical architecture and market-oriented framework named Fundamental Reusables for Enterprise Deployment (FRED). The technical architecture provided for systems to be synthesized from reusable technology components, but to appear as if they were custom-designed around original requirements and implemented from scratch. The market-oriented framework provided for the commercialization of the reusable technology components into cross-cutting, off the shelf product lines. The desired end goal was to transition from being a smart builder of one-of a-kind-systems to a smart buyer of systems that look like they are one of a kind. Cost savings were conservatively projected at $800M/year. Further, FRED would assure that public funds were spent avoiding unnecessary duplications and organizational costs, with savings being redirected to new research and space missions.

After reading the initial FRED Business Plan, the NASA Administrator wrote, "Dear Rhoda … Thanks for being responsive and helping lead NASA in bold new directions. Please share this letter with those who participated. I am very proud of all of you!" However, outside of the Administrator's office, the NASA COST LESS Team met with insurmountable resistance to its plan, and the team was terminated the following year. Although my team of volunteers from across government, industry, and academia meticulously laid the technical and business groundwork for this paradigm shift, the Agency was not prepared to adopt it. Managers were suspicious of challenging the conventional wisdom that any two of *faster, better, cheaper* metrics could be achieved concurrently, but never all three as shown by the NASA COST LESS Team.

Meanwhile, Agency managers were collecting current functionalities and responsibilities, and transferring them in bulk to the private sector as large, consolidated outsourcing packages to achieve *faster, better, cheaper*. Although the NASA COST LESS Team believed that this approach might achieve some ad-

ministrative efficiencies up front, the broader goal of *faster, better, cheaper* would not be realized. The Team's voice fell on deaf ears [2].

In addition to the missed opportunity as envisioned by FRED, NASA also missed the opportunity to continue working with software engineering legend, Margaret Hamilton, who was responsible for the error-free onboard flight software for the Apollo missions. Her honors include the NASA Exceptional Space Act Award and Presidential Medal of Freedom. Ms. Hamilton had begun working with the NASA COST LESS Team on achieving the faster, better, **and** cheaper design and implementation of space systems. The Team considered the missed opportunity a huge loss for the Agency.

There was also a profound personal impact to me. The termination of the NASA COST LESS Team affected my performance evaluation, and my rating was downgraded. Somewhere in the files was a nomination for me to receive the NASA Exceptional Achievement Medal, in recognition of innovative leadership, breadth of vision, and extraordinary passion in helping lead NASA in bold new directions through FRED-Fundamental Reusables for Enterprise Deployment. The Nominating Official was the Associate Administrator for Space Operations. I appealed the downgraded rating on the basis of this nomination, and my rating was restored to Outstanding.

With the termination of the NASA COST LESS Team, I realized that my career path with space tracking and data systems was now ended. The OSTDS organization was being abolished, and employees were being redirected to the Space Operations organizations at Headquarters and the Johnson Space Center.

As I was writing this chapter, I remembered some examples of positive recognition our Team's work received. I watched the November 1994 video that was prepared for the White House Office of Science and Technology Programs. In the video, I laid out the NASA COST LESS Team plan and accomplishments to date. Everything seemed so clear then! I also re-read the sidebar from Frank Hoban's book, *Where Do You Go After You've Been to the Moon?* The sidebar on page 93 refers to insights and discoveries from the Team's Hunting Sacred Cows Workshop, showing that NASA must change the way it does business from a smart builder of one-of-a-kind systems to a smart open market buyer [3]. Additionally, our team was nominated for the American Institute of Aeronautics and Astronautics Space Systems Award with endorsements from the Director, Jet Propulsion Laboratory; the Director, Space Operations, Johnson Space Center; the Deputy Director, Stennis Space Center; and the former director, Langley Research Center. Particularly significant was the award endorsement from the Director, Space Operations, who said that he had embraced the NASA COST LESS Team concepts in the Consolidated Space Operations contract solicitation.

VI.3. Self-Initiated Leadership Activity: International Academy of Astronautics (IAA) Symposium on Small Satellite Missions

Marjorie Townsend (first female spacecraft project manager at NASA and one of my early supervisors at Goddard) introduced me to a few small satellite enthusiasts from the International Academy of Astronautics (IAA) in 1993. The Academy was visionary in its recognition and advocacy of the importance of small satellites and their potential contributions to promote development and use in response to the particular needs of a country or region [4].

The Academy was planning for its first Symposium on Small Satellite Missions to be held in 1994 at the 45th Congress of the International Astronautical Federation (IAF). Three sessions were planned and conducted: Low Cost Scientific Missions in Earth-Orbiting and Planetary Programs; Small Satellite Programs in Developing Nations; Low Cost Approaches for Small Satellite Mission Operations and Data Analysis. The third session dovetailed nicely with the work I was doing with the NASA COST LESS Team and from there a relationship took hold. I authored papers based on our COST LESS results and hosted workshops that members of the IAA attended. By 1997, I was a chair for the session on Mission Operations, and in 2004, I accepted the position of Coordinator for the Symposium that by then had five sessions. In 2019, the Symposium is in its twenty-sixth year with nine sessions plus three joint sessions. The number and content of sessions are evaluated annually, with the introduction of new topics to keep the symposium fresh and up to date regarding new development and future trends.

Today the Symposium on Small Satellite Missions is a recognized model of excellence with a high performing team of prominent engineers and scientists representing more than ten countries serving as Session Chairs who also nurture prospective authors and new Session Chairs. The Symposium continues to demonstrate unwavering commitment to serving the needs of the small satellite missions community.

I was formally recognized for my contributions by the IAF and IAA:

- IAF Distinguished Service Award for 2016—For extraordinary and sustained leadership in service to the IAF for nearly two decades through the Symposium on Small Satellite Missions, first as a Session Chair and then as Coordinator since 2004, enabling the Symposium to be a voice for the international small satellite communities to assess Lessons Learned and present new concepts, technologies, and methodologies to improve their access to space and their ability to plan and conduct their missions.

- IAA Social Sciences Award for 2017—For significant and lasting contributions to the advancement of the astronautical sciences (through the Symposium on Small Satellite Missions).

VI.4. Access to Space for Science Missions

Following the reorganizing and downsizing chaos of the mid to late 1990s, I found myself in the newly chartered Science Mission Directorate (SMD), having no defined position. I seized the opportunity to create one and assumed the role of combined spokesperson/mediator/negotiator for Access to Space, critical to achieving successful Earth and space science missions. My objective was to pull back the curtain on launch services and present SMD program executives, scientists, analysts, and managers with the range of options and costs associated with launch vehicle configurations, launch sites, launch readiness dates, launch delay penalties, and co-manifest opportunities essential for making informed decisions. This was made possible by collaborating with the Launch Services Program and Headquarters Office to transform the formal NASA Launch Vehicles Flight Planning Board (FPB) process from a mysterious, puzzling, and often-secretive process to a disciplined, structured, and transparent process in direct support of customer missions' access to space. I thoroughly enjoyed the Apollo-like mentality of doing something new and the accompanying camaraderie. What was new was establishing an enduring collaboration between SMD and the Space Operations Mission Directorate to proactively plan for and negotiate realistic and credible launch opportunities for SMD missions. I was particularly pleased to see that my Performance Rating Official observed the improved communications and noted, "her innovative ability to repair broken cross-directorate processes is becoming legendary."

One of our most challenging actions was to secure an affordable launch service for the Lunar Atmosphere and Dust Environment Explorer (LADEE) that had been demanifested from its ride with another SMD mission due to risk. After reviewing all options, we determined that there was no commercial launch vehicle suitable for LADEE, and there were no manifest opportunities. Through ingenuity, we were able to use the NASA FPB process to select a non-commercial launch vehicle (i.e., US Air Force Minotaur V) and still satisfy the provisions of the Commercial Space Act. Further, we were able to expertly defend the US government against a protest, thereby assuring an affordable launch service for LADEE.

Management recognized that without the exceptional efforts by Ms. Hornstein and her colleagues, it is unlikely that the LADEE mission would have launched at all. They prepared and submitted nominations for three Exceptional

Achievement Medals in 2014 for exceptional leadership in accomplishing selection of the US Air Force Minotaur V and in the successful protest defense of that selection enabling the launch of the LADEE mission. We received no feedback or opportunity to follow-up.

The only formal recognition I have is from the Administrator's letter on my retirement in 2014:

> "I was particularly pleased to see you at the launch of NASA's Lunar Atmosphere and Dust Environment Explorer (LADEE) last year, in recognition of your exceptional achievement in securing the US Air Force Minotaur V launch vehicle, without which it would have been unlikely that the LADEE mission would have ever launched."

VI.5. Self-Initiated Leadership Activity: NASA Headquarters Professional Association (NHPA), International Federation of Professional and Technical Engineers (IFPTE), Local 9, (aka the Union)

Concurrent with work examples VI.3 and VI.4, I served as a Union officer (first as Vice President, then as President) at NASA Headquarters during the fifteen years prior to my retirement. We represented approximately 200 engineers and scientists, with an objective to add 300 administrative employees at a later time, which we did. The early years were quite challenging due to the highly adversarial and contentious relationship of the outgoing labor and management teams. When the new teams were in place, we embarked on a different approach to the labor-management process—one that stressed professionalism, honesty, and above all, a mutual commitment to achieving the NASA mission through fair, equitable, and respectful treatment of employees. We codified this in 2012 with NASA Procedural Requirements (NPR) 3711.1A Federal Employee Labor Management Relations Program.

We achieved successful outcomes at three levels—workplace environment, policies and procedures, and people. Notable examples include providing flexible work arrangements through Telework policies and procedures, simplifying procedures to provide adjustments to the workplace environment to accommodate individuals with disabilities, and the absence of formal grievances and litigations for over ten years. Recalling from the "Apollo Mentality" that leadership is a choice, not a position, the criteria for NASA's Outstanding Leadership Medal were revised so as to no longer be restricted to executives and supervisors, and language was added to advise that employees at any grade level may be nominated. These achievements are reflected in the formal recognition listed below.

- 2006 NASA Group Achievement Award to Headquarters Labor-Management Team for outstanding and sustained contributions to the achievement

of NASA's mission by establishing and maintaining a collaborative, professional, and highly effective labor-management relations program at NASA Headquarters.

- 2010 Headquarters Distinguished Service Award to Headquarters Labor Relations Officer for significant achievements in employee and labor management relations that positively and indelibly impacted NASA Headquarters workplace environment, programs, and people.
- 2013 Exceptional Service Medal to Union President for outstanding and sustained leadership in labor-management relations, enabling the NASA mission through the fair, equitable, and respectful treatment of employees.
- 2014 Administrator retirement letter to Ms. Hornstein:

  Dear Rhoda … your legacy may rest on the application of your "people" skills toward building a constructive, collaborative, and inclusive labor-management relations program. For the past 15 years, you have provided the proactive, sustained, and innovative leadership to successfully implement this model in policy and practice, advocating the fair, equitable, and respectful treatment of the Agency's most critical resource—our employees—as a means to achieving NASA's mission.

VII. Author's Update to Takeaways from NASA Tenure

The examples from NASA Headquarters reconfirmed my original finding that the "Apollo Mentality" and camaraderie are significant contributors to career success and are prerequisites for mission success. Perhaps, more importantly, it is the absence of gender harassment that beneficially impacts both career and mission success. In the TDRSS example, a senior manager prevented gender harassment by stopping it outright. In the two self-initiated leadership activities, gender harassment never presented itself. What is clear is that gender harassment is hurtful and demeaning.

In my initial takeaway, I wrote that camaraderie was akin to "Engineering is a team sport." While at Headquarters and serving on the Exceptional Engineering Achievement Medal Panel, I was presenting the case for one of the award nominees who was a team leader, when I was abruptly stopped by the senior management official who said, "Engineering is not a team sport." I quietly wondered if this official had participated in the Apollo Program. I wish I could have thought of a quick retort. I should note that the team leader being considered for the medal was male. Although this comment was not a case of gender harassment, it attempted to discredit camaraderie as essential to Agency success.

Finally, I discovered my overall personal takeaway, i.e., never underestimate the power of a first job!

Figure 19–1: October 1969, Rhoda Hornstein and colleague Paul Niner prepare for the Apollo 12 mission.

Figure 19–2: July 1970, Tom Stafford, Apollo 10 Commander, thanks Rhoda Hornstein of the Goddard Real Time System Team as part of the commemoration of the first anniversary of the Apollo 11 lunar landing.

Figure 19–3: March 1972, Astronaut Robert Overmyer presents the Silver Snoopy to Rhoda Hornstein at the third Silver Snoopy Award Ceremony at the Goddard Space Flight Center.

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