

Directors' perspective: First impressions.

Last Friday, September 11, the institute was humming as proposals started pouring in over the Internet, first a trickle, then a steady flow until more than 1000 proposals had passed the electronic gates. Bets were laid as to the number we would receive. Anxious scientists wondered if the release of the Starr report on the same day would bring the net down. A few wanted a director's decision on what to do "if", which I put off in the hope that the US backbone could simultaneously support science and scandal without hurting science (it can). On Saturday afternoon, I found an overworked employee asleep on the couch in my office, a target of opportunity through an open door. The process was smooth, not chaotic, and by Saturday evening, the main work was largely finished. On Monday, I was presented with a few decisions artfully made in my absence needing my signature to retain the full force of authority. I signed. It has been quite a while since I witnessed the dedication to duty that STScI staff put out last week, my second week on the job.

On Tuesday, I was standing by the printer watching my viewgraphs emerge, when one of our visiting scientists walked in, an eminent professor from a far away university. He pounced on my viewgraphs. "New results about science?" he asked eagerly. "No, it's about money," I admitted, and his face fell. "Well," he said (somewhat derisively, I thought), "I guess *someone* has to worry about money." He turned his back to me and headed down the hall muttering to himself about science. Crestfallen that I could not engage him with my color-coordinated charts, I was comforted by the thought that my worrying about money enabled him to worry about science, and that, perhaps, is as it should be. And, frankly, the results coming from HST have impressed so many people from so many walks of life – and more countries than reside in North America alone – that I don't think we have to worry very much about money. We are giving our supporters their money's worth.

STScI is a remarkable place. It is a testament to the new reality that astronomy, like physics, is often done as a group effort. Building, launching, and operating a space satellite with the exquisite technical prowess of HST is a big operation, big and expensive, and it requires exceptional people. I find many exceptional people here in science, in systems engineering, in operations, in public relations, in management, in pretty much every aspect of the enterprise needed to keep it healthy. At Goddard Space Flight Center, I had the privilege of meeting managers and engineers of the sort featured in the movie Apollo 13. They perform nearly impossible technical feats under enormous pressure to correct expensive and sometimes life-threatening errors in a mission in real time. It is gratifying and comforting to be associated with this level of talent; it's a little intimidating, too.

We are fortunate, as astronomers, that we can retain many elements of the traditional approach to science within such a superstructure. Individual scientists still work out the best way to use these facilities. They propose individually and take the credit for the resulting discoveries. They are lauded for their triumphs of pure thought, for their applications of intelligence to problems of the universe the success of which delights their colleagues and the larger public that supports the endeavor. We have moved from constructing local observatories in bad sites using only rock (Stonehenge) to launching large, precise telescopes into orbit to penetrate the depths of space. It is impossible for me to regard this progress with anything less than awe.

As HST approaches the end of its first decade, it remains cutting edge in most ways. Some of the devices – the gyros, the star trackers – are so well made that they cannot be found at equivalent levels of performance outside the HST program. HST is technically sweet. And we keep putting new instruments on every three years, an effort guaranteed to keep it young for as long as we wish to service it. As a facility, it represents to me the apex of all the effort that came before. As an institute, it is our job to keep it functioning seamlessly, minimizing the interference between creative thought and final discovery despite the complexities involved. From my first impressions of STScI, I have no doubt that we will continue to do so.

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