

National Aeronautics and
Space Administration
Office of the Administrator
Washington, DC 20546-0001



March 10, 2004

The Honorable Barbara A. Mikulski
Ranking Democrat
Subcommittee on VA-HUD-Independent Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Senator Mikulski:

I am in receipt of a copy of the March 5, 2004, letter that Admiral Hal Gehman, Chair of the Columbia Accident Investigation Board, recently provided to you regarding his views on the safety and risk considerations attendant to a Hubble Space Telescope (HST) servicing mission. As I've previously mentioned, this was one of the most difficult decisions I have had to make during my tenure as Administrator. The decision had to balance the world-class science that HST has produced, and will continue to produce, against the risks to the Shuttle and its crew.

In the end, my decision is based on our commitment to implement the recommendations of the Columbia Accident Investigation Board, and I am certain the Congress concurs in that commitment. This includes the need for development of on-orbit inspection, repair, and contingency rescue requirements for every Shuttle flight. Those factors bear on any decision to proceed with Shuttle operations and acutely bear on requirements to permit a Hubble servicing mission.

As Admiral Hal Gehman observed, the final Hubble Servicing Mission-4 (SM4) would have been the sole remaining Shuttle flight not directed to the International Space Station (ISS). Thus, in addition to developing the procedures, technologies and tools necessary to comply with the Columbia Accident Investigation Board recommendations for any future Shuttle missions, NASA would have needed to develop a unique set of procedures, technologies and tools for SM4.

Moreover, given our recent assessment that Shuttle Return to Flight will occur no earlier than March 2005, the prospects decline dramatically that all required safety and return-to-flight elements would be in place for an SM4 before the HST ceases to be operational, if we continue our current procedures for its operations. As such, continued pursuit of SM4 would raise the prospect that time and energy would be devoted to designing and training for a servicing mission, only to find that actions identified by the Columbia Accident Investigation Board could not be implemented. This would place

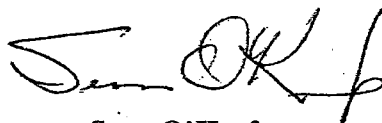
NASA in the untenable position of having to undertake the SM4 mission without the required safety and return to flight elements in place, or allowing the HST to simply cease to function. This is precisely the type of "schedule pressure" that the Columbia Accident Investigation Board quite correctly articulated would significantly undermine the safe operation of the Shuttle.

In lieu of the challenges of the servicing mission, there are other options. I am extremely encouraged by preliminary assessments of alternative options for deploying instruments that would have been flown on an SM4 mission, and this assessment is ongoing. At the same time, we are examining the contracts supporting the HST program to determine the most effective actions over the course of the coming months. We also envision the acceleration of technologies to extend the life of HST without a Shuttle servicing mission. At present, with no change to our operations procedures, Hubble will continue to deliver science return for 2-3 more years. However, an adjustment to our operational protocols could add more time to its service life. We are receiving several responses to our Request for Information (RFI) on Hubble Space Telescope End of Mission alternatives issued a few weeks ago. These responses include very promising concepts on extension of power generation capabilities robotically. Indeed, these options appear more likely than the low probability of a timely servicing mission in compliance with the Board recommendations.

Beyond these important considerations, there are other factors. We must undertake a safe return mission using an expendable launch vehicle. The funding for these requirements has been fully incorporated in the FY 2005 NASA budget request. Similarly, the budget includes all resources to fabricate and launch the James Webb Space Telescope at the earliest opportunity. We will also seek to leverage scientific synergy between HST and the current Spitzer and Chandra telescopes.

Now, our focus should be on the considerable talent at the Goddard Space Flight Center and Space Telescope Science Institute, and what can be done to maintain the HST for as long as possible and thereby ensuring its continued contributions to science. The Hubble was designed to operate until 2005. By any projection, we will succeed in operating Hubble for several years to come. I look forward to working with you to accomplish these goals.

Cordially,

A handwritten signature in black ink, appearing to read "Sean O'Keefe". The signature is stylized and cursive.

Sean O'Keefe
Administrator