



NASA's Fourth Annual Forum
of Master Project Managers
February 11 - 13, 2002

QuikTOMS

Ready For Launch (9/18/01)

Ken Schwer
NASA GSFC

NASA's
Quick Total Ozone Mapping Spectrometer
(QuikTOMS) Mission





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QuikTOMS Test Preps. (5/01) & Installation into APC (9/3/01)





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QuikTOMS APC Closeouts & Fairing Installation (9/6/01)





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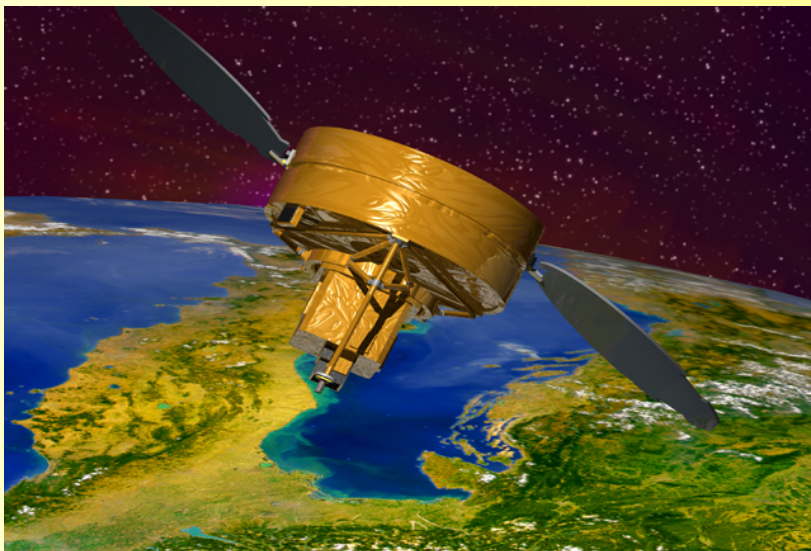
QuikTOMS Taurus Upper Stack Lift/Mate (9/15/01)





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QuikTOMS



**Lost at Sea
(9/21/01)**

... providing closure ...

QuikTOMS (Memo to entire Team & Mgmt.)

I know, it feels like we lost a friend. The Taurus in flight anomaly, which lasted only seconds, prevented Taurus from achieving a stable orbit. Therefore, when Orbview-4 & QuikTOMS were released they quickly returned to Earth somewhere in the Indian Ocean.

Friday evening as I went thru my QuikTOMS Mission Operations information, I felt lost & had great difficulty with the finality of our Observatory's fate. She never got a chance to show her true colors in orbit. I kept thinking, "what a waste for all" but that didn't last for long. Once I realized all the triumphs, lessons learned, and working relationships created on this small but important mission, the purpose of QuikTOMS started to become clear. I want to share the following.

I think our I&T Manager's e-mail summarizes our closing months best: *"The QuikTOMS Team should hold their heads high. The Team overcame many obstacles in the last nine months and delivered a working spacecraft to the Launch site. Over 600 hrs Run-time was accumulated at the launch site without an issue. The total Run time of the spacecraft was over 1800 hrs. The spacecraft was powered for 19 days while waiting for the launch (Over 1.6 Million seconds). Spacecraft telemetry was nominal during the launch, and the spacecraft survived the hard ride up. Taurus telemetry indicted a secondary payload separation and QuikTOMS telemetry also stopped at this time. Based on this, we believe QuikTOMS deployed from the Taurus rocket but at a lower altitude and velocity than intended and did not achieve an orbit. The ground operations team was ready and waiting to take over control once the spacecraft reached orbit. I would like to thank everyone at this time for all their hard work, long hours, and personal sacrifices. I am proud to have been a part of the team. Everyone must remember in this industry some things are not in our control. Go spend time with your families and I hope to see you on the next project."* I saw the telemetry stop after separation and unfortunately that was the last we heard of our Observatory. Our Mission Operations & Ground System team used every resource available in an attempt to establish contact with QuikTOMS.

Our Taurus team should also be proud. Taurus-6 was a sight to see on the pad as she was flying the American Flag. Even after the in flight anomaly, Taurus showed her strength & control by trying to correct her course. Taurus completed the sequence of events but did not have enough speed to get us into orbit. I want to thank our Taurus friends for their hard work and dedication. With the experience and strength of the Taurus team, I know they will rebound even stronger.

I want to pass on the kind words from the Director of Flight Projects at GSFC: *"The reason that QuikTOMS was "quick" is that the team worked exceptionally hard to get the spacecraft ready in 2 years. On top of the normal challenges, the QuikTOMS team was thrown the curve caused by the Mars failures, resulting in a huge amount of unplanned work: Red Team, parts analysis and testing, etc. It was only by extra hard work, near round the clock in the last few months, that the Project remained "quick." Under those circumstances it is particularly devastating to have nothing to show for all that work. We are reminded that although the rewards for our work are high, risk is high. The spacecraft was lost, but not everything was lost. Relationships built over the past 2 years will remain ever strong in the future and will be important in future projects and collaborations. Knowledge gained in teamwork and spacecraft development will be the springboard for future successes and career growth. Please join me in offering condolences to the QuikTOMS team but also congratulations for a fantastic job, well done."*

I truly want to thank all of you and your families for the tremendous effort, dedication, and personal sacrifices you gave to the QuikTOMS mission. Many of you went way beyond the call of duty. For the Observatory I&T team: you are among the best and you delivered a great bus for the TOMS instrument under the most challenging of circumstances. For the mission operations team: your Operations Readiness Review pulled us together after a rough Pre-Ship Review and you developed very impressive control centers & trained a great team. You were ready & I know our scientists & GSFC would have been proud of your performance.

I know this week will be difficult, especially for our Mission Operations team, so reflect on our journey and realize the QuikTOMS Mission was not meant to be that of science, it was a mission for human will and teamwork.

All of you moved a mountain for me and I am forever grateful.