

This is Ali AbuTaha again (#102)

By now, I have read your postings, navigated collectSpace, and I congratulate you on a professional forum. Forgive me for offending some of you, a natural reaction to attacks. I attribute the present situation to meager hard evidence about my work in your hand.

Organizers in London invited me in 1982 to speak at a Middle East Communications Conference and the proceedings (MECOM 83) were published in 1983. In my talk, I outlined the technical architecture (perhaps the first) to integrate the, then, stand-alone computer and stand-alone TV set and stand-alone telephone. From the 500 gathered experts, the first question, reminded me of some skeptical posts here, was, "and how are you going to squeeze a black-and-white picture in a 64kb telephone line?" It would do no good to look him up today and send him a color picture by e-mail through a telephone line. You don't want to appear in that light in 2032 – roughly the time span above.

This thread has transcended its title, the collective jeers, and little cheers. As I read Dwayne, Chris, kyra, Naraht, and Pearlman, I am reminded of Herodotus, Josephus and Pliny. Did they report from the trenches or "ivory towers? We still learn and teach these gems after two thousand years. You have set the standard by which you will be judged. If you are concerned about how you will be judged when Praxis publishes the next "Log," then I am out of here. But if you want to be judged by time, as your posts suggest, then I like to contribute to the effort. Kyra writes about a "permanent historical record," Chris is "infuriated" by attitudes in "social, cultural, educational, professional" studies, Naraht admonishes, "to learn how to adhere to the high standards of scholarship that the historical profession upholds," and so on. You have set a lofty standard, and I like it, actually, I like it very much.

The above expert who ridiculed "squeezing a picture into a telephone line" controlled a massive budget. The Internet is history. You don't have multi-billion dollar budget, but your assets are greater – your intellect. Here are other responses to your comments.

"Then you also need to fully investigate the other side of the story and weigh the two against each other," writes "mjanovic" vs. Tim Furniss. The poor guy did for 20 years. His Challenger chapter contains a lot of evidence, I admit soft evidence but he is writing to a general audience. NASA told him AbuTaha is wrong, and he writes that. But he also says that prominent experts agree with Ali. Bob writes, "Ironically, some of the letters that Furniss chooses to excerpt as supportive of Abutaha read much more like (overly) polite rejection letters rather than endorsements." I know these letters well, Bob. Mr. Pearlman is obviously a busy man and he is influenced by the barrage of attacks on me and my work – and possibly my silence for many years. One of the excerpts in Tim's Chapter is from the top American scientist/engineer today, Dr. Arden Bement, the Director of NSF. Fairness demands that everyone reads it: "I had the opportunity of reading your papers concerning the correct way to handle transient loads in pressure-activated structures and found them to be very enlightening. The errors you point out in calculating transient loads are indeed fundamental." Bob and others say that Furniss should have interviewed the writers of the letters. If you ask my opinion, I think it is unwise. At the time of the letter, 1993, Dr. Bement was a distinguished professor of mechanical engineering and his position today should preclude a zoo approach. What makes sense is that collectSpace, or others including Praxis, study the issues, prepare a 3-5 pages report (double-spaced) and submit it to the NSF or NASA. Oh, let me say to Mr. Pearlman that I had briefed Dr. Bement in person over a beer in Washington DC before his letter. Of all the top experts I discussed the subject

with in person across the Country (including NASA), he was the most insightful of the abstruse transient subject. The excerpt from his letter attests that the brightest in our Country do sometimes make it to the top.

From the UK, "fragmeister" writes, "What we don't seem to be able to do is examine Ali AbuTaha's (photo evidence)." I mentioned in my last post that Tim Furniss referenced two of my photos showing the fire striking the Challenger right wing at liftoff (again, Spaceflight, BIS, May 1988, page 195). The British Interplanetary Society (BIS) is the oldest established space group in the world and most respected. On a visit to London many years ago, I was given a tour of the new buildings, and I was humbled to hear that they intended to open a section in their library for my works (not only Challenger). I suggest that "fragmeister," and others, get in their cars, visit BIS in London and get the two original pictures that were used for publication. And, "as a teacher," get pictures of the recovered right wing (these are in the Commission Appendices), put the photos side by side and ask your students to compare the locations of fire and the locations of "burn" damage. Perhaps some of your students may aspire to become great aerospace engineers – we need them.

You heard of the New Smyrna Beach videotape taken by Harold Sehnert of Lima, Ohio, and you can find some of my photos of that tape in Space Flight News, March 1987, No. 15, Key Publishing Ltd, England. And believe me, you can make vital measurements from the photos. Just get the evidence first. You will find the next item relevant and shocking.

The Abort/RTLs modes were mentioned by "kyra," who can study this item and report on it. In 1988, PBS did one-hour special on Return to Flight. In the show, NASA took Judy Woodruff and her crew on a tour of flight simulation and training. Rick Hauck was at the helm, the clear call came, "Discovery, go at (with) throttle up," to which Hauck replied, "Roger, go at (with) throttle up." What happened next was shocking. Hauck, with cameras zooming in, reached to the panels before him, "pushed a button" and then "turned a switch." Everyone's interest was at a peak then. How many people watched that show? Was it only me? I developed close-up pictures of Hauck's actions – he pushed the "Abort" button, and he then turned a switch to the "RTLs" position! Get a layout of the instruments in the crew cabin, which you might have received with a magazine. Follow the above short action slowly and freeze it. Here is the sequence: "Go with throttle up," was followed by "Abort," and then "RTLs," or return to launch site, which Tim Furniss reports in his Challenger chapter. Everyone is shouting foul. Get the tape from PBS and see it for yourself. I had shown the tape and pictures to Tim and others years ago. That explains the source of Tim's information.

I hereby request that Dr. John Mason and Mr. Robert Pearlman obtain the PBS recording and carefully study the 10-seconds segment in the 3,600-seconds TV show. I think Praxis (and collectSpace) can raise legitimate questions with NASA. Was the agency simulating in 1988 AbuTaha's "sequence of events" that he submitted to them in 1986, or did NASA independently develop that sequence, simulated their own studies in 1988, and just overlooked telling us about it? It may unfold that Praxis has not betrayed its professional responsibility to its readers and to history.

Mr. Pearlman writes to Dr. Mason, "the only cause of the accident was failed O-rings, damaged by low temperatures before launch." I like to comment on this in a future post.

To me, the important part of my work is the transient effect studies, which I finished in 1992. Around 2000, I prepared a lengthy report (about 1Mb, 114 pages, 70 figures, tables, Shuttle test sheets, Shuttle report sheets, etc., and 52

mostly technical references), opened a domain (shuttlefactor.com) and made the report available for everyone for free, primarily as an educational tool. I let it run out in 2005. The transient analysis is short (about 3 pages) and is rather advanced mathematically. If the reader has not done transient analysis before, it does not matter. After the short math equations, the subject is simplified. One Section is titled, "I am not A Rocket Scientist. Will I get it?" Another, "Dynamic Overshoot and the "\$64,000 Question."

All I can do now is find the report (in Word and Adobe formats) and upload it, say, to Mr. Pearlman. My condition is that the Report be made available to those who ask for it on this forum, and that that will be for the purpose of evaluating, or learning, the subject. Tim Furniss writes about NASA and Rockwell measuring the SSME's overshoot and wondering, what's that? You will see it in their ink in my Report. Although I had many Springer-Praxis books in my 8,000 books library that I lost because of my work on this subject, I had not contacted Praxis before. They should also study my "shuttlefactor" report.

Before closing, let me say this. With hardhat on, cranes, helicopter and ropes, I directed the installation of some large structures. I thought I saw it all. But I was awestruck when I stood before two magnificent human achievements: the Great Pyramid in Egypt and the Space Shuttle at the Kennedy Space Center in Florida. Nothing that I, or others, say can diminish the greatness of the achievement that the tens of thousands of people at NASA and its Contractors gave us. The dynamics of the Shuttle as it roars and soars up distinguishes it from the Pyramid - a unique achievement.

As I said above, you raised the bar. That is good and bad. It is good because it may bring vital information to many good engineers who will turn it to good and great uses. It is bad because your findings may be hurtful, also to good engineers. I have not been able to inspire myself to click on a space site, including NASA's, for many years. I am glad I clicked on collectSpace.

Thank you again.

Ali AbuTaha