

EDITORIAL

## Job Well Done: Reflections on Failure Investigator Retirees

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Recently, some people I know have retired from performing full-time failure analysis. Thinking about their retirements makes me reflect on all of the good work they have done and raises some questions for pondering. Do analysts who have spent a career solving the mystery of failures, looking at fractures, and examining microstructures ever really “retire?” Is all of their good work forgotten? What can we learn from them to apply to failure analyst’s careers that are still active?

As I thought about those recent retirees, it made me flash back to some of the individuals who have been leaders in material science or pioneers in failure analysis: Bill Warke (Retired Research Metallurgist); Herman Burghard (Southwest Research Institute); Chuck Morin (Engineering Systems Inc.); Don Wulpi (International Harvester); William (Bill) Becker (University of Tennessee); McIntyre (Mac) Louthan (Savannah River National Laboratory); Roy

Baggerly (PACCAR); and Joe Epperson (who recently retired from the National Transportation Safety Board), to name a few.

### Looking Back

Many of these failure analysts, researchers, and investigators worked at it for a lifetime, in careers spanning 30, 40 or even 50 years. They laid the foundation for fundamentals in fractography and stress analysis and are founding fathers for the Journal of Failure Analysis and Prevention, which provides a solid foundation for the new Failure Analysis Society (FAS).

Common attributes seem to stand out about these individuals. They were innovative, meticulous, concerned with details, diligent, and persistent—no quitting until the job was done. They were committed to excellence in their work. They labored long and hard and made a career of analyzing things and figuring out why something broke or failed. Even the most complex topics were made simple by them to explain to us and to others.

I also observed that many of them truly enjoyed the daily work they did. One of my mentors, Herman Burghard, was once asked, “What is it that you enjoy about solving the mystery of failure?” He passionately replied, “I enjoy the urgency of confronting a new and a surprising problem. I also do not know what tomorrow will bring.”

Like Mr. Burghard, these pioneers did not know what the immediate answer was, or what tomorrow would bring (who does?), but they did know that each day was best spent doing good work, living life to the fullest, supporting and encouraging family, friends, and coworkers, and having a positive impact on the next generation. These individuals were dedicated to their work, but they also had

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other interests to balance work with family and enjoyment of life. Many of us will recall Mac's family stories, Herman's wood-working experiences, Bill's adventures in China, and Joe's time on a motorcycle.

Although many of these individuals have now stepped away from the daily demands of report writing, meeting budgets, and schedules, they are not "retiring," they are "refocusing" their time on other things. And, they are or were always available for a technical perspective or a teaching moment.

Is their work forgotten? As we reflect on those careers that have spanned many decades of work, it is remarkable to consider the thousands of investigations they have completed, and the insightful findings they developed from each project. The individuals they mentored, taught or shared with will take those learnings with them, and their own reward is the personal satisfaction of doing a good job. As I think about many of these individuals, they truly deserve praise for "A Job Well Done!"

## Looking Forward

The new Failure Analysis Society board includes: Pierre Dupont (President); James Lane (Vice-President); Secretary (Daniel Dennies); and Treasurer (Roch Shipley). Other FAS members are building upon the foundation laid by some of those who have retired.

What do we learn from those that went before us? Whatever the status of your career, there is something to be learned from these sages of materials science, engineering,

and failure analysis. For those of us who are still investigating and actively doing the work, here are some things these patriarchs modeled for us to consider:

- Know the fundamentals of science and engineering.
- Be concerned with the details on an investigation.
- Pursue excellence, even if your efforts are unnoticed.
- Pass on to others what you are learning as a teacher or mentor.
- Enjoy the work you do, but be sure to balance that with outside interests.

So, whether you are beginning a career, or are somewhere in the middle or near the end of a career, you can look forward to retiring to refocus your time. In the meantime continue to do good, excellent work and enjoy it—that can be a reward in itself. Your work matters!

The Journal of Failure Analysis and Prevention (JFAP) publishes many articles, case histories, and lessons learned to help investigators and engineers better understand how a failure could occur and how to prevent a similar occurrence. Like the pioneer analyst's approach to a typical investigation, these articles apply the fundamentals of materials science and engineering and describe the details to solve or understand some of the simple or even more complex investigations.

Do you enjoy the work you do and have you learned something that might be of use to someone else? Consider submitting an article to the JFAP to pass on some of the lessons you have learned.