om Shoemaker—"Well, We Saved the Free World Today!"

As news of Tom's passing circulated Rincon's email, anecdotes came pouring in:

"Tom had little formal training, but he was the most naturally talented individual in the area of signal processing that I ever met." —*Mike Parker, Rincon Founder*

"Give him some data, a rack of equipment, and the Midas baseline, then get out of his way." —Mike Taylor, former Rincon CEO, receiving wisdom from Mike Parker about Tom in the early days

"Oh man, what a genius!" —Doug Didier, former Midas Studies SETA

explosions.



Tom Shoemaker the epitome of Rincon spirit and Rincon culture

Tom started his career as a radar operator for the U.S. Navy, flying in submarine hunters. He survived three plane crashes two in Neptunes, one in an Orion. After separation from the Navy, Tom worked for TRW. It was Rincon's good fortune that Mike Parker, who was working for ESL at the time, first met Tom in 1968 while visiting TRW to look at some old records they had processed of signals bounced off Soviet nuclear

Fast forward to 1971, when Tom joined ESL. One day in 1972, Tom showed up in Mike Parker's office at ESL, and, as Parker says it, "In typical Tom style, informed me that he [Tom] had decided to come work for me." The deal was done. Parker continues, "Tom ran the 'Gold Room' for me, the country's best signal processing lab at the time." And Tom continued running the lab until he came to work at Rincon in 1988.

Parker reflects that "with Tom, you always knew where you stood. He had the best interests of the country at heart, and he would not put up with fools or people who didn't work toward the customer's best interest." Tom's impact on Rincon is legion. His signals analysis acumen commanded much respect at Rincon. Bart Rice, Senior Rincon Engineer, reminisces:

"Conventional wisdom was, if you wanted to solve a difficult problem, tell Tom that it would be too hard for him to solve. He would have a solution in short order."

And another fond recollection of Tom from Mike Taylor:

"I was meeting with Parker one day in the early 1990s. Tom knocks on the door and tells Parker that Tom needs him to look at some data. So I tagged along as they went to the lab. What I witnessed were two of the premier minds in our business at work. They were looking at Tom's analysis based on the Midas



tools of the day. Of course, Parker took off his glasses and moved to within a foot of the screen. Tom kept re-running the macro pointing at the rasters and plots while collaborating with Mike to figure out the anomalies of the SOI. I looked over their shoulders and wondered what in the world they were seeing. I soon realized that these two operated on a level that I had never witnessed in my career. Pure genius."

Outside the company, Tom was also held in high regard. Doug Didier, former Midas Studies SETA, remembers a time when the Government explicitly sought Tom's analysis expertise, awarding him a contract that Tom got to name—he called it "Trust Me."

Doug remarks:

"It was incredible to see his mind at work, taking a complex problem and reducing it to a simple idea. In 1987, Tom took a problem that we knew was impossible to solve, and Tom solved it. Carl [Ferdensi, Midas Studies COTR] and I immediately got on a plane and flew to Silicon Valley. We created a story to get funding and then had to build a system using Shoemaker's solution. I once took Tom to the airport and waited until his plane took off. I watched him board—cowboy boots and jeans—and I thought to myself, if people only knew."

While still working at Rincon, Tom discovered a love for high-power rocketry and participated in several of the launches that take place in the desert west of Tucson every month. After he retired, Tom started building rockets of his own. Sean Keane, another Senior Engineer at Rincon, was Tom's good buddy. Sean's memories include their shared interest in rocketry:

"There are three levels of certification in highpower rocketry. Level 1 is pretty easy to attain. Level 2 requires a written test and is significantly more effort. To launch the largest rockets, which typically weigh more than 50 pounds, you have to certify Level 3. This is a very complex process, requiring written documentation for the rocket's flight characteristics (which are usually generated by computer simulation) and supervision throughout the building of the rocket. Most highpower rocketry hobbyists never go past Level 2, but that wasn't good enough for Tom. He certified Level 3 with a rocket he named 'Big Fat Fanny,' which are lyrics from a song by Queen. Tom certified on his first attempt, which is somewhat uncommon for Level 3 certification flights, and he had a smile from ear to ear."

Senior Rincon Engineer, Sid Henderson, remembers:

"I never worked directly with Shoe, so I didn't know him well. However, he made a strong impression on me one morning in a meeting when someone



asked him how it was going. He responded 'Well! We saved the free world today!' I laughed, but realized he really felt that way about why he did what he did. A great guy."

Tom, we are honored to have served with you.