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Presentation of the Distinguished Public Service Award of 2002 to David Hill

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In the spring of 1968, I gave my very first talk at a scientific meeting, the Seismological Society of America in St. Louis. In those days the SSA was still just barely small enough to hold only one large session, so it began early and went a little late. I was feeling a little sorry for my self because I was assigned the second talk of the meeting very early in the morning. Well, it turned out that the very first talk of the meeting, the one before mine, was a graduate student from Caltech who snowed me, and not me alone, with a theoretical talk about head waves. You can probably guess that that grad student was Dave Hill. Two years later, both with freshly minted PhDs, we ended up as acolytes of Lou Pakiser and Jerry Eaton at the USGS Office of Earthquake Research and Crustal Studies in Menlo Park. But, Dave having worked for the Survey before he was sent off to grad school, soon became like an older brother to us youngsters. It turned out that before Dave had taken up theoretical seismology, he had already done a good deal of work in crustal studies and observational seismology, and had done a tour of duty at the Hawaii Volcano Observatory.

Around 1979 the Long Valley Caldera on the eastern side of the Sierra Nevada Mountains in California, began to show signs of unrest with a sequence of large earthquakes, uplift and other warning signs. Were it not for the fact that Mammoth Mountain, upon which the ski area of the same name is located, is a recently active volcano on the margins of the Caldera, we might not be here today. The ski area was and is the focus of the thriving community of Mammoth Lakes, located within the caldera. As became clear, the problem of unrest at Long Valley Caldera was not only a geological problem, but a political, social and economic problem as well. After a few missteps, fits and starts, Dave ended up as the USGS point person on Long Valley, particularly in dealing with the local community.

You may recall that in Henrik Ibsen's "Enemy of the People," Dr. Stockmann, the town physician discovers that the baths upon which the town economy is based are contaminated causing illness to tourists. He assumes that when shown the scientific evidence, the town's people will do the right thing and close the baths. In contrast, he ends up ostracized and ignored. (This play should be read carefully by all young earth scientists looking to a career in geologic hazards.)

Like Dr. Stockmann, Dave was a scientist who brought the towns' people a message that they didn't really want to hear. Fortunately, from the point of view of facilitating communication, the citizens—and their officials—were literally shaken out of their sleep by earthquakes, underscoring aspects of the message Dave was bringing to them. This drama has been playing out over the last 20 plus years against the backdrop of a community polarized around the idea of development. And as we know, there are no thicker politics than local politics.

Unlike Dr. Stockmann, Dave was initially an outsider without any relationship to the community. And unlike Dr. Stockmann, Dave has been able to develop relationships of trust and mutual respect with a sequence of key members and officials of the community. This effort required not only the highest level of scientific capability, but also patience and persistence, empathy and human understanding, candor (especially about uncertainties) and integrity. Fortunately, the volcanic phenomena recently at work in Long Valley have not yet had a catastrophic impact on the community.

It is fascinating to reflect on how the human dynamics between scientists and public officials have shaped the response to the threat of geologic catastrophe. Positive examples include the relationships between Rocky Crandall and then Washington governor Dixie Lee Ray prior to, and following, the eruption of Mount St. Helens, and between Rick Hoblitt and the USGS team with Air Force General Willie Studer, Commander of Clark Air Base, prior to the eruption of Mt. Pinatubo in the Philippines.

Repeatedly we have learned that the success in communicating the message depends very much on the messenger.

Dave Hill's two decades of success as this messenger are the basis for the award of the Mineralogical Society of America Distinguished Public Service Medal.

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