development of the Advanced National Seismic System. [See page 22.] Begun in 2000, the system has helped integrate, modernize, and expand earthquake monitoring and notification nationwide.

Parkfield Prediction

Between 1857 and 1966, six magnitude-6.0 earthquakes occurred at intervals of approximately 22 years along the San Andreas Fault near Parkfield, Calif. In 1985, USGS scientists took advantage of the seeming regularity of these earthquakes and set up extensive research instrumentation in the area. They boldly predicted the next sizable earthquake would occur in 1988, 22 years after the last one. Instead, it arrived in September 2004, after providing a wealth of valuable research data.

In 2004, the USGS and the National Science Foundation, as part of the EarthScope science initiative, went even further and began drilling a deep hole to install instruments directly within the San Andreas Fault near the point of the previous magnitude-6.0 earthquakes, forming the San Andreas Fault Observatory at Depth (SAFOD).

SAFOD is providing direct information on the composition and mechanical properties of rocks in the fault zone, the nature of stresses responsible for earthquakes, the role of fluids in controlling faulting and earthquake recurrence, and the physics of earthquake initiation and rupture. By observing earthquakes "up close," SAFOD marks a major advance in the pursuit of a rigorous scientific basis for assessing earthquake hazards and predicting earthquakes. This work ties in with the National Earthquake Hazard Reduction Program's efforts to protect lives and property from earthquake hazards.

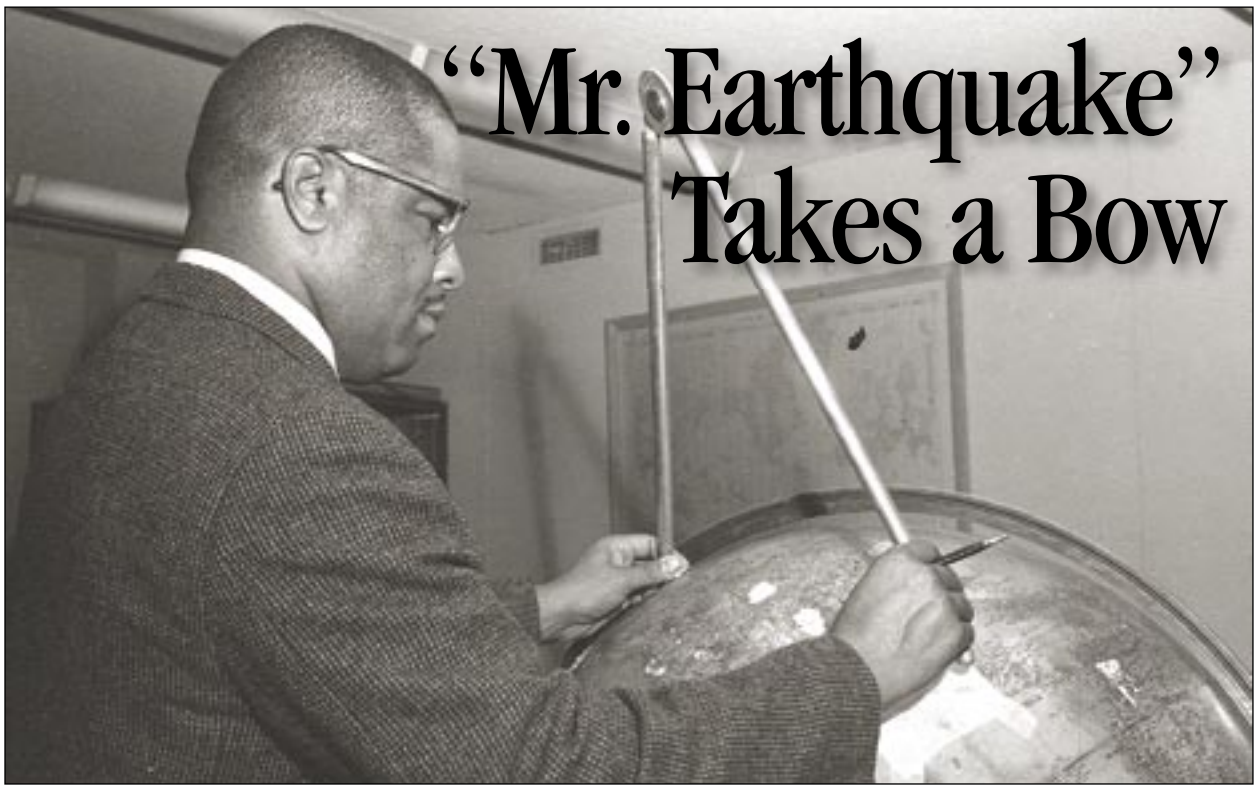
USGS Senior Advisor for Science Applications Jim Devine recalls that improvements in earthquake monitoring and advances in seismology and geomagnetism made the 1950s and 1960s a very exciting time for scientists. "Nothing has matched it since," he says.

The Future

"Short-term prediction is still in the future," says Senior Science Advisor for Earthquake and Geologic Hazards David Applegate, "but we are making great strides at minimizing loss of life and property right now by providing assessments of hazard zones and delivering rapid post-event information for first responders and emergency managers."

The USGS continues to improve existing earthquake monitoring, assessment and research activities with the ultimate goal of providing the nation with a new generation of earthquake products to improve earthquake mitigation and response. On the horizon is an extensive, coordinated seismic-monitoring network that will instantly register ground motion and signal an alarm if an earthquake occurs near a populated area — automatically opening the firehouse doors seconds or minutes before the tremblors arrive.

"Mr. Earthquake" Takes a Bow



Waverly Person uses the technology of the day to locate earthquakes.

By David Hebert and Heidi Koontz

After 51 years of educating audiences around the globe about earthquakes, USGS scientist Waverly Person called it quits on Feb. 3, 2006. Person is well known among media circles as *the* person to call when an earthquake happens anywhere in the world. Known by many as "Mr. Earthquake," he is a fixture both in classrooms and on television sets.

Before becoming a government scientist, he served in both World War II and the Korean War with the U.S. Army. He then took his bachelor's in mathematics to a position as a science technician with the Department of Commerce, which oversaw federal seismic monitoring in the 1950s.

Person was literally thrown in front of the media spotlight in 1964 following the magnitude-9.2 earthquake that hit Anchorage, Alaska.

In the lobby of the Commerce Building in Washington, D.C., was a seismograph; and the ink used to create seismograms was spilled everywhere because of the machine's drastic response to the huge quake. The lobby was full of curious people, some with microphones and cameras, asking questions about the situation. Person saw what was happening and told his supervisor, "Somebody needs to talk to those people."

"Well, there's nobody else here," the supervisor responded. "You've got to talk to them."

And that's exactly what he did. Media, citizens, students — anyone who asked a question about earthquakes, he answered. Some notable names of inquirers over the years include Tom Brokaw, Dan Rather and Matt Lauer.

Of course, Person is a natural when it comes to talking to people.

"It's one of the things I enjoy most of all," he says. "I've always tried to put news to the general public in a way they can understand it — to get the message to the vast majority. When there's an earthquake, people are frightened. If you relate the information to them so that they understand, they calm down."

Behind the public view, Person has some historical feats to boast. He marched alongside Dr. Martin Luther King, Jr., and has been coined the nation's first black earthquake seismologist.

"I've learned a lot along the way," said Person. "And the path hasn't always been kind."

He feels lucky to be a noticeable face to younger generations and to have the opportunity to persuade minority students to pursue science. Thus, Person will continue educating this demographic about seismology through speaking at inner-city classrooms.

Last year, U.S. Rep. Bob Beauprez (Colo.) recognized Person's 50 years of government service at a ceremony honoring his career.

"You want economic advice, you go to Alan Greenspan. You want to know anything about seismic activity, you see if you can get Waverly Person on the line," said Rep. Beauprez in a *Denver Post* article commemorating Person's 50th anniversary.

So who will fill Person's shoes?

"Waverly is a hard act to follow — not only because of his calm under fire, but also his incredible encyclopedic mind for earthquake history," said Jill McCarthy, director of the USGS Geologic Hazards Team in Golden, Colo. "For the past few years, we've been training other scientists to deal with media inquiries, and we've been developing earthquake databases and computer programs that attempt to replicate what Waverly knows intuitively from decades of hands-on experience. Even still, we realize that things just won't be the same without Waverly."

And they haven't been.

"People still call and ask to talk with Waverly about rumblings they've felt," said John Bellini, a geophysicist who was hired by Person 7 years ago. "We tell them he's retired, and a bit of shock ensues."

Person, a long-time Boulder, Colo., resident, and his wife, Sarah, plan to enjoy each other's company and travel around the country to visit family. And since he is now a scientist emeritus, you might just see him in the background the next time a "big one" hits.