Peter T Lyttle/GD/USGS/DOI
Sent by: Janice H Shay

12/14/2007 06:32 AM

To GS-G All, elt
cc elt sec
bcc
Subject The Passing of Thomas G. Hildenbrand

MEMORANDUM

To: GS-G All
ELT

From: Peter T. Lyttle
Acting Associate Director for Geology

Subject: The Passing of Thomas G. Hildenbrand

It is with great sadness that I relate to you the passing of Thomas G. Hildenbrand, USGS geophysicist. Tom died early this week after a long illness. Tom had a distinguished and multi-faceted career with the USGS, and continued to serve the public as a Scientist Emeritus after his recent retirement.

Tom was a superb research scientist, a gifted and extremely effective manager, a remarkable scientific organizer and facilitator, and above all else, a warm and enthusiastic mentor and teacher. He never sought the limelight, although he was never shy about going center stage to promote the ideas he felt were important. Tom dramatically advanced the Nation's understanding of the fundamental crustal structure of North America. He assembled and led national and international scientific teams that developed the rationales and operational plans for creating gravity and magnetic databases of North America. The resulting databases provided the Nation's scientists with a window into the hidden framework of the continental crust. His ground-breaking research using potential-field geophysics identified the causative links between crustal structure and geologic hazards, ore genesis, and ground water movement. Following his convincing demonstration that seismic energy in the New Madrid area, the site of a major historical earthquake, was generated and focused by buried structures associated with a former continental rift, the Nation called upon his expertise to elucidate the geologic underpinnings surrounding the proposed nuclear waste repository at Yucca Mountain. Tom answered the challenge by developing new methods for assessing the concealed geologic framework, earthquake hazards, and controls on ground water movement near the site. Applying these methods to gravity anomalies over the Rainier Mesa area north of Yucca Mountain, he identified linear, possibly fault-controlled structures well below sediment cover. He also conducted landmark research into the relationships between regional crustal structure and mineral resources, defining the architecture of deep-seated faults and fractures that controlled the movement of mineralizing fluids on regional and local scales. He explained the distribution of known ore deposits and provided a framework for exploration for undiscovered deposits. The minerals industry and the USGS now incorporate his discoveries in their strategies for assessing our national mineral resource endowment. Tom served as a Section Chief and then Branch Chief of the former Geophysics Branch during which time he guided more than a hundred geophysicists through a period of both financial and scientific identity turmoil. He organized countless consortia and working groups to attack problems in the far west, the Basin and Range, and the central US. His classic modus operandi was to bring together diverse scientific talent, set a scientific agenda, run a set of workshops, cajole key people to take leadership roles, and then to walk off smiling as he lined up the next windmill with which to tilt. Perhaps one of his most interesting organizational efforts was to herd a small group of geophysicists in Menlo Park through reorganization to form a successful science unit with the outrageous name of GUMP.

Tom was a fine scientist, colleague, and friend. He loved his work, and he loved being a member of the USGS. He will be sorely missed.

Information about memorial activities will be forthcoming as they become available.

Our thoughts and deepest sympathy are extended to Tom's family and closest friends,

Peter T. Lyttle
Acting Associate Director for Geology

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