

Gehman Board investigates *Columbia* accident

By Kendra Ceule



NASA JSC 2003e07054 Photo by James Blair

Adm. Harold Gehman, chairman of the Columbia Accident Investigation Board, is interviewed by reporters.

of an emergency. On Feb. 1, that group was contacted to supervise the investigation into the loss of Space Shuttle *Columbia* and her crew. Led by Adm. Harold Gehman Jr., the *Columbia* Accident Investigation Board (more commonly the "Gehman Board") acts as a steering committee for the independent investigation.

The Board consists of safety experts from the U.S. Air Force, the Federal Aviation Administration, the Department of Transportation and other organizations. The Board's full charter, as well as biographies of its members, is available at:

http://www.nasa.gov/columbia/board_documents.pdf

The Gehman Board's duties, as outlined in its charter, include:

- * Determine the facts, as well as the actual or probable causes, of the shuttle mishap in terms of dominant and contributing root causes and significant observations, and recommend preventive and other appropriate actions to preclude recurrence of a similar mishap. The investigation will not be conducted or used to determine questions of culpability, legal liability or disciplinary action.
- * Use the established NASA support structure of working groups, NASA Field Center support and supporting facilities to conduct the investigations as the Board deems appropriate.
- * Obtain and analyze whatever facts, evidence and opinions it considers relevant by relying upon reports of studies, findings, recommendations and other actions by NASA officials and contractors or by conducting inquiries, hearings, tests and other actions it deems appropriate.
- * Provide a final written report for public release at such time and in such manner as the Board deems appropriate.

The Gehman Board is assisted in its efforts by the NASA Task Force, which coordinates the use of NASA resources by the Board during the investigation. The Task Force is the formal interface between NASA and contractor personnel and the Gehman Board.

The Board's findings will be reported to Administrator Sean O'Keefe and also to the public at a date to be determined by the Board. Originally, the group's charter gave it 60 days to report its findings, but the charter has been amended to allow the Board as much time as necessary. The Board has made three such amendments to its own charter to further its independence from NASA.

Gehman announced recently that the panel is opening an office in Washington, D.C., which can be reached at 703-416-3461 and that Thomas L. Carter has been appointed the Board's assistant for government relations. Carter will be the Board's independent representation in Washington and will maintain contact with both Congress and Executive Branch organizations. For more information regarding the Board's members, see "Who's Who in the Gehman Board."

Astronaut John Young, Associate Director-Technical, and Ron Dittmore, Manager of the Space Shuttle Program, look on during a Gehman Board briefing.



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While JSC employees have heard about the Gehman Board and its investigation into the *Columbia* accident, questions may still linger over what the Board is, how it was formed and how it operates. A brief overview is below to answer these questions.

As part of NASA's contingency planning, the Agency keeps a list of accident investigation experts who can be called on in the event

Who's Who on the Gehman Board

CHAIRMAN OF THE BOARD

Adm. Harold "Hal" Gehman Jr.

Gehman completed more than 35 years of active duty in October 2000. His last assignment was as NATO's Supreme Allied Commander, Atlantic, and as the Commander in Chief of the U.S. Joint Forces Command, one of the five U.S. Unified Commands. Immediately after retiring, Gehman served as Co-chairman of the Department of Defense review of the terrorist attack on the *USS Cole*.

BOARD MEMBERS

Maj. Gen. John L. Barry

Barry is Director, Plans and Programs, Headquarters Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio. He worked as the NASA Administrator's executive assistant and White House liaison during the *Challenger* accident. His assignment prior to his current position was the Strategic Planner for the U.S. Air Force.

Brig. Gen. Duane W. Deal

Deal is Commander, 21st Space Wing, Peterson Air Force Base, Colo. Deal has extensive flight experience, crew commander experience in missile warning and space control, and extensive aircraft maintenance and logistics experience. He has served on or presided over 10 mishap investigations for space launch and aircraft incidents.

James Hallock

Hallock has earned three degrees in physics, including a Ph.D., from the Massachusetts Institute of Technology. He calculated lunar photometric functions and the potential effects of solar flare radiation on the optical systems of Apollo spacecraft.

Maj. Gen. Kenneth W. Hess

Hess is the Air Force Chief of Safety, Headquarters U.S. Air Force, Washington, D.C., and Commander, Air Force Safety Center, Kirtland Air Force Base, N.M. He has extensive staff experience at Headquarters U.S. Air Force, the Joint Staff and U.S. Pacific Command. He has commanded three Air Force wings and is a command pilot with more than 4,200 hours in various aircraft.

Scott Hubbard

Hubbard is Director of NASA Ames Research Center, and is responsible for the organization and oversight of Ames' research efforts. He has been a contributor to, and the developer of, space research missions since 1974, and brought his expertise to the investigation of the loss of two NASA Mars spacecraft in 2000.

Rear Adm. Stephen A. Turcotte

Turcotte is the Commander, Naval Safety Center, Norfolk, Va. He graduated from Marquette University NROTC in 1975, received his commission upon graduation and was ordered to flight training. He was designated a Naval Aviator in 1977. Turcotte has been trained in the S-3A "Viking" and was deployed to the Western Pacific/Indian Ocean aboard *USS Kitty Hawk* during the Iranian Hostage Crisis.

Steven Wallace

Wallace is the Director of the Federal Aviation Administration's Office of Accident Investigation, and has overall responsibility for all FAA accident investigation activity. He oversees the FAA response to all National Transportation Safety Board recommendations, as well as internal FAA safety recommendations. A lawyer by training, Wallace is also a license commercial pilot with multiengine and instrument ratings.

Roger E. Tetrault

Tetrault retired from his post as Chairman of McDermott International in 2000 after 24 years with the company. At McDermott's major subsidiary, Babcock and Wilcox, Tetrault had been the Vice President and Group Executive of the Government Group, where he was responsible for the diversified government business segment that included nuclear reactors, pressure vessels and advanced Solid Rocket Motor Bodies for the space shuttle.

Dr. Sheila Widnall

Dr. Widnall is Professor of Aeronautics and Astronautics and Engineering Systems at Massachusetts Institute of Technology. She has served as Associate Provost of MIT, and as Secretary of the Air Force. She has done extensive research in fluid dynamics and is a world-renowned expert in aircraft turbulence and spiraling airflows.

NASA SUPPORT

Both NASA Support members of the Gehman Board are non-voting members.

Theron M. Bradley Jr.

Bradley, NASA's Chief Engineer, is responsible for the overall review and technical readiness of all NASA programs. Bradley assures development efforts and mission operations are planned and conducted on a sound engineering basis, and provides an integrated focus for Agency-wide engineering policies, standards and practices.

Bryan D. O'Connor

O'Connor is the Associate Administrator for Safety and Mission Assurance and has functional responsibility for the safety, reliability, maintainability and quality assurance of all NASA programs. After the *Challenger* was lost, O'Connor was given a number of safety and management assignments over the next three years. O'Connor is a member of the Astronaut Corps and has 386 hours in space.

MEMBERS OF THE GEHMAN BOARD