



SPACE CENTER

Roundup

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Staying Strong!

NASA JSC ISS005e21513

The International Space Station's Expedition 6 crewmembers give a thumbs-up in the ISS Zarya module. Pictured are Flight Engineer Nikolai Budarin, Commander Ken Bowersox and NASA ISS Science Officer Don Pettit. **For more on Expedition 6, see page 3.**

GUEST COLUMN

Jackie Reese, Director of JSC's Employee Assistance Program



Have you ever built something hoping never to use it?

That is how I felt about a team that I formed here at Johnson Space Center – the Critical Incident Stress Debriefing Team. I formed this group just over a year ago, and while I felt that such a team would be beneficial to have waiting in the wings, I hoped that JSC employees would never need the team's volunteers to come forward and do their job.

But now, these volunteers have indeed been needed.

They are civil servants and contractors, from many directorates, and they are giving of their time to help all of us work through our reactions to the *Columbia* tragedy.

The Critical Incident Team (CIT), part of the Employee Assistance Program, helps JSC employees through debriefings, which are small-group or individual discussions. The team members have all been trained by Roger Solomon, Ph.D., an international expert on crisis management.

The first priority for the CIT was to hold debriefings for employees in the directorates most closely related to the accident; however, we are available for all JSC employees and their dependents.

Our focus is on peer support – since we ourselves are all part of the JSC family, we are all going through the same emotions. We can identify with the hurt and say, "Yes, that's how the news hit me, too." During times like this, folks don't need psychobabble, they need chicken soup. We on the CIT are walking this path with you.

Some common emotions during a crisis such as this are:

- * numbness/shock
- * disbelief
- * guilt
- * bargaining/"If only I'd..."
- * sadness
- * anger

However, not everyone feels all of these, or even any of them. Every single person will react to a tragedy in a unique way.

One common question our team has heard during debriefings is: "Why is this hitting me so hard when I didn't know the crew?" While not everyone at JSC knew the STS-107 crew on a personal level, everyone here is somehow connected with each mission. Astronauts are a symbol of the good in NASA and in the United States, and it is natural to be emotionally distraught at their loss. It is also natural to identify with the pain that the crew's loved ones are feeling.

On the other side of the coin is another common question: "Why don't I feel anything yet in the aftermath of this catastrophe?" The answer to that is that everyone has a different way of feeling during a tragic event. One employee may experience numbness and not the anger or sadness that his or her officemate has felt. Neither reaction is better than the other.

Employees need to realize that there is no "right" way to be feeling now: the stages folks experience are not fixed or uniform. Rather, people's emotions often jump around from one feeling to another.

Everyone's experience is unique; however, there are some universal coping skills that can benefit almost anyone:

- * Talk about your experience with others; don't isolate yourself. Your friends and colleagues can sympathize with how you are feeling.
- * Take care of yourself: continue to eat right and exercise. This will help with stress and enable better sleep.
- * Avoid making major life decisions during very emotional times.
- * Stick with your routine – familiar things provide comfort.
- * Get involved in something meaningful to you.

Also, don't tell yourself that you need to "get over it." Loss like this isn't something you get over; it's something you learn how to live with.

If you are having trouble eating, sleeping and doing everyday things; if you are overly preoccupied with death and dying; or if you find yourself withdrawing from family and friends, the EAP is a resource for helping you to work through this time. All visits are completely confidential.

If you need our services, please schedule an appointment by calling x36130. Or if you are concerned about a coworker exhibiting these symptoms, you can offer to accompany him or her to an appointment or call the EAP for some helpful ideas.

Overall, the JSC workforce is doing remarkably well working through this. That's because we have remarkable people here. We are leaning on each other and looking for meaningful things to do. JSC employees are bright, dedicated and passionate, and I believe we are pouring those qualities into our grieving process, too. ❖

Center Director Message



FOCUS!...FOCUS!

I'm a Tae Bo enthusiast. I exercise with Billy Blanks and the Tae Bo gang two or three times a week before I come to work. If you haven't tried it, I recommend it, particularly if

you have bum knees like me. You can get your heart rate up for 30-40 minutes in the confines of your family room without doing further damage to aging appendages.

As with anything else I do repetitively, my mind tends to wander as I go through the exercise regime. As if on cue, Billy will shout out "FOCUS, FOCUS!" I, in turn, suck my gut back in and pay attention to the proper execution of the routine.

I've found myself tending to be in a state of distraction for the past several weeks. I'll arrive at work, not remembering how I got there. My mind wants to wander in meetings, and it's difficult to pay attention to even normal conversations. It's almost like being in a state of mental dizziness, if there is such a thing. I sense that I'm not the only one around here with that problem.

There is good reason for experiencing this phenomenon. Our JSC world has been turned upside-down. We are being caught up in personal grief, mishap investigations, public conjecture and criticism, etc. Our normal, although very hectic, routine has been cast aside and each day brings different circumstances.

Here's the rub: we can't allow ourselves to surrender to this condition! We are committed to professional excellence and professionals don't surrender to distraction. There's also too much at stake. Astronauts preparing for future missions are depending on us keep them out of harm's way. The valiant crew of STS-107 would be terribly disappointed if we used their tragedy as an excuse for dropping the ball.

We must press on! We must stay on top of our game. As Billy Blanks would say, "FOCUS! FOCUS!"

Beak sends...

FROM THE DESK OF LT. GEN. JEFFERSON D. HOWELL JR.

Mandatory IT Security Training

All JSC employees, both civil servants and contractors, are required to complete the annual IT Security Training (ITS) by June 30, 2003. General users must take the Basic ITS for 2003 and managers must take ITS for Managers 2003. The modules are available on the NASA Site for Online Learning and Resources (SOLAR):

<https://solar.msfc.nasa.gov/solar/delivery/public/html/newindex.htm>

To complete the training, employees must enter their SOLAR user name and password. To request a new password, please click the "My Account" tab on the SOLAR homepage, or call the SOLAR helpdesk at 1-866-419-6297. New passwords are issued within 30 minutes.

Point of Contact: Chris Ortiz, JSC IT Security Manager- x31904.

Expedition 6 crew carries on legacy of space exploration

By Kendra Ceule

More than three months into their stay aboard the International Space Station, the Expedition 6 crewmembers still have no trouble keeping busy. The crewmembers are Astronaut Ken Bowersox, Commander; Cosmonaut Nikolai Budarin, Flight Engineer; and Astronaut Don Pettit, NASA ISS Science Officer. They have been performing scientific research, maintaining the station and unpacking supplies from a Russian Progress resupply ship. That's not to say that the crewmembers haven't been affected by the loss of *Columbia* and her crew on Feb. 1.

"We've had time to grieve over our friends," Bowersox said during a press conference Feb. 11. "When you're up here this long, you can't just bottle up your emotions and focus all the time. It's important for us to acknowledge that the people on STS-107 were our friends and we had a connection with them and that we feel their loss. Each of us had a chance to shed some tears.

"But now it's time to move forward and we're doing that slowly. This press conference today is a huge step that's helping us move along towards our normal objectives and fulfilling our mission here."

Fulfilling that mission has involved participating in medical tests, fine-tuning the Microgravity Science Glovebox and inspecting equipment in the station's Quest Airlock. Also, all three crewmembers have participated in several television interviews, during which many of the questions centered on the *Columbia* accident and how it affects the team. The temporary cessation of space shuttle flights means that the crew could be in for a much longer-than-expected stay in orbit.

Bowersox, Budarin and Pettit have all said they are willing to stay as long as needed. Expedition 6 is scheduled to come home in early May in the Soyuz TMA-1 craft currently docked at the station. The crew will be replaced by an American astronaut and a Russian cosmonaut who will be launched in late April or early May in a Soyuz TMA-2 craft. The current crew has enough food, fuel, clothing and other materials to last through at least the end of June, if required – thanks to the Russian Progress resupply ship, which arrived at the station in early February.

No matter how long they remain on board, the Expedition 6 crew will keep researching, working and discovering – not just fulfilling their own mission, but upholding the dream of space exploration. ❖



NASA JSC ISS006e008625

"I consider myself an explorer. And you can explore in many different ways, whether it's under the stage of a microscope or running off in a laboratory and making other measurements. I've been an explorer for as long as I can remember...exploring space is just one aspect of that."

–Astronaut Don Pettit, Expedition 6 NASA ISS Science Officer, pictured working in the Zvezda Service Module on the ISS

"I tell people that 95 percent of what's important about space station happens on the ground: when American engineers and Russian engineers get together; when a Canadian meets a Russian and they talk about what life is like in their countries; when we send somebody from Houston over to Japan and he talks to somebody at dinner. The relationships that we're building are building a stronger world, and that's just as important as building our space station."

–Astronaut Ken Bowersox, Expedition 6 Commander, pictured working with an experiment in a portable glovebox facility in the Destiny laboratory



NASA JSC ISS006e07276



NASA JSC ISS006e21375

"The previous experience of our joint [international] flights has demonstrated that we are capable of working together, and that we will be working together, and the International Space Station is a very good example of that. I think we are successful in building and operating the station, and I think we will continue to be successful in that."

–Cosmonaut Nikolai Budarin, Expedition 6 Flight Engineer, pictured working with tethers and clamps from the tool panel storage in the Zvezda Service Module

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Roundup

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 Ditemore, Manager of the Space Shuttle Program, look on during a Gehman Board briefing.



NASA JSC 2003e09146 Photo by James Blair

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