



SPACE CENTER  
**Roundup**

VOL. 42 NO. 2 LYNDON B. JOHNSON SPACE CENTER HOUSTON, TEXAS FEBRUARY 2003

*Remembering...*

**STS-107**

*Rick Dave Laurel KC Mike Willie Nan*

**SPACE SHUTTLE COLUMBIA**

# The world grieves with our NASA family

Milt Heflin's words were as sincere as they were understated when describing the mood in Johnson Space Center's Mission Control Center after contact was lost with the STS-107 crew aboard Space Shuttle *Columbia*.

"We began to know we had a bad day," the Chief of the Flight Director Office said to a global audience during a press conference in the Teague Auditorium just a few hours after the tragedy on Feb. 1, 2003.

Milt said it was a great day for a landing at Kennedy Space Center. At 9 a.m. EST, crowds were gathered to welcome home the crew after a successful 16-day science mission. The shuttle was to touch down on Runway 33 at 9:16 a.m.

**I believe that their names will remain as the bright sparkling stars in the universe and will light the way for those who will follow them on the difficult roads of space exploration."**

**VALENTINA TERESHKOVA**  
First woman in space

Support has arrived from near and far. Love, sympathy and encouragement have been shown in many ways – from letters written by dignitaries to members of the general public placing bouquets of flowers at our main gate.

Valentina Tereshkova, the first woman in space, took a moment to write from Moscow: "I am deeply grieved by the loss of the crew of *Columbia*. I express my sincere condolences to the families and friends of the astronauts. I believe that their names will remain as the bright sparkling stars in the universe and will light the way for those who will follow them on the difficult roads of space exploration."

Since the tragedy, Johnson Space Center has received hundreds of e-mails, all of them sending their condolences to the families of the STS-107 crew.

A woman, who simply identified herself as Jana, wrote: "I just wanted to let you know that you and all of those at NASA are in our thoughts and prayers at this time. I cannot begin to imagine the heartache you are feeling right now! I am sure you will be very busy over the next few days and weeks. Just remember that you are loved!"

Another writer, Beverly McCartt, said: "My family and I wanted to let the folks at NASA know that they are in our thoughts and prayers. Your work is tremendously important to the future of humankind, and it is an enormous and dangerous undertaking – as exploration into the unknown has always been since humans first sought the answer to 'Why?'"

She went on to write: "Take the time to heal your hearts and souls, knowing that you are valued and cherished for taking us to places beyond our dreams. We mourn with you and offer whatever solace we can as you gather together to comfort one another and share your grief with those who truly understand. Take the time to remember – and heal. The heavens await – and you will lead us there. Thank you."

However, 9:16 came and went. Soon the happy gathering turned somber, and the crew's families were taken away. What they soon learned was that MCC had lost communication and tracking with *Columbia* at 9 a.m. and never regained it.

As the world learned of these events, many were shaken and confused. A few hours later, President George W. Bush confirmed the worst.

"The *Columbia* is lost; there are no survivors," he said.

Since that time, the team at JSC, along with our entire NASA family, has worked diligently to find answers while enduring the excruciating pain of our personal loss.

## Center Director Message



## Remember and move forward

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

It's raining. The Texas sky is weeping over our terrible loss. First there was shock and denial. Then there was grief and mourning. Now there is frustration and anger.

I've been reading some of the latest headlines: "Stop the Shuttle," "Shuttle Too Old," "Too Expensive," "Too Dangerous," etc. The critics are out in force, taking advantage of our Nation's tragedy. Reading this stuff can give one a sense of hopelessness.

So what do we do about it? Do we say it's too hard and give up? Or do we rededicate ourselves to our purpose and fight the good fight? IT'S DECISION TIME FOR ALL OF US!

Here's what I'm going to do. I'm going to GUT IT OUT. I'm going to give it my best shot. Every day I'm going to dedicate my efforts to the memory of STS-107 and its valiant crew. Every day I'm going to give my very best to further this noble endeavor for which they gave their lives.

I am convinced that we are participating in one of the greatest achievements in the history of humankind. I am compelled to continue no matter how difficult the journey. I will not be denied!

Will you join me?

**Beak sends.**

## This edition of the Roundup...

Like every member of our JSC family, the *Roundup* staff was devastated by the tragic events of STS-107. To honor the memory of our fallen family members, we have dedicated this entire edition to the STS-107 crew – Rick, Dave, Laurel, KC, Mike, Willie and Ilan.

It is our hope that, in this issue, we have captured their exuberance and excitement about their mission, as well as their personalities and humanity.

We also pay tribute to another beloved member of our NASA family – the Space Shuttle *Columbia*. She was our first shuttle and the symbol of our ingenuity. *Columbia* will forever remain special in our hearts.

Finally, this issue's cover photo features a stunning image taken by the STS-107 crew just days before the accident. That photograph now symbolizes to us the sacrifice those seven heroes made in order for us to continue our journey in exploring the mysteries and wonders those heavens hold for all humankind.

**Thank you STS-107 crew – you will never be forgotten.**

# Official statements

## PRESIDENT GEORGE W. BUSH

**Below is the entire text of President George W. Bush's address to the America public after the tragedy on Feb. 1, 2003:**

My fellow Americans, this day has brought terrible news and great sadness to our country. At 9 a.m. this morning, Mission Control in Houston lost contact with our space shuttle Columbia. A short time later, debris was seen falling from the skies above Texas. The Columbia is lost; there are no survivors.

On board was a crew of seven: Col. Rick Husband, Lt. Col. Michael Anderson, Commander Laurel Clark, Captain David Brown, Commander William McCool, Dr. Kalpana Chawla and Ilan Ramon, a colonel in the Israeli Air Force. These men and women assumed great risk in the service to all humanity.

In an age when spaceflight has come to seem almost routine, it is easy to overlook the dangers of travel by rocket, and the difficulties of navigating the fierce outer atmosphere of the Earth. These astronauts knew the dangers, and they faced them willingly, knowing they had a high and noble purpose in life. Because of their courage and daring and idealism, we will miss them all the more.

## NASA ADMINISTRATOR SEAN O'KEEFE

**Below is Sean O'Keefe's statement on Feb. 1, 2003:**

This is indeed a tragic day for the NASA family, for the families of the astronauts who flew on STS-107, and likewise is tragic for the Nation.

Immediately upon indication of a loss of communications from STS-107, at a little after 9 a.m. this morning, we began our contingency plan to preserve all the information relative to the flight activities.

I immediately advised the President and the Secretary of Homeland Security, Tom Ridge, at the point after landing was due to have occurred at 9:16 a.m., and spoke to them very briefly to advise them that we had lost contact with the shuttle orbiter, Columbia, and STS-107 crew. They offered, the President specifically offered, full and immediate support to determine the appropriate steps to be taken.

We then spent the next hour and a half working through the details and information of what we have received, and Bill Readdy, Associate Administrator for the NASA Office of Space Flight, will walk you through the specifics of those operational and technical issues.

We met with the family members of the astronauts who were here at the Kennedy Space Center and are soon to be departing back to the Johnson Space Center in Houston. The President has called and spoken to the family members to express our deepest national regrets. We have assured them that we will begin the process immediately to recover their loved ones and understand the cause of this tragedy.

We have no indication that the mishap was caused by anything or anyone on the ground.

We assembled a Mishap Investigation Team at a point past the stage that the orbiter was to have landed here at Kennedy Space Center a little after 9:30. That team, in turn, is coordinating on a regular basis on all the facts that are pertaining to this from the Johnson Space Center with help from a Rapid Response Team from here at the Kennedy Space Center, as well as participants from the Marshall Space Flight Center in Huntsville, Alabama.

In addition to these internal efforts, we have appointed a Mishap Investigation Board, an external group of people who are independent from NASA who will be charged with the responsibility to look at all the information that was immediately locked down right after the absence of communications.

Each of these individuals are Safety and Mission Assurance related officials in other departments of the Federal government, from the Air Force, the Navy, the Department of Transportation and across the federal expanse. This Investigation Team will be chaired by an individual who

All Americans today are thinking, as well, of the families of these men and women who have been given this sudden shock and grief. You're not alone. Our entire nation grieves with you. And those you loved will always have the respect and gratitude of this country.

The cause in which they died will continue. Mankind is led into the darkness beyond our world by the inspiration of discovery and the longing to understand. Our journey into space will go on.

In the skies today we saw destruction and tragedy. Yet farther than we can see, there is comfort and hope. In the words of the prophet Isaiah, "Lift your eyes and look to the heavens. Who created all these? He who brings out the starry hosts one by one and calls them each by name. Because of His great power and mighty strength, not one of them is missing."

The same Creator who names the stars also knows the names of the seven souls we mourn today. The crew of the shuttle Columbia did not return safely to Earth; yet we can pray that all are safely home.

May God bless the grieving families, and may God continue to bless America.

is external to the federal agencies and will have the responsibility to coordinate all the information from an external view.

So we'll be conducting both the internal activity as well as the external review immediately to ascertain the causes and circumstances under which this tragedy occurred.

We have pulled together all the federal agencies and local governments as well. I have been in discussion several times this morning with Secretary Tom Ridge. The effort is under way to coordinate an understanding of exactly where the orbiter path had taken it from West Texas towards the Kennedy Space Center here in Florida and to make sure that the material on the ground is secured so that the investigation can begin promptly.

We would urge people who believe they have found any material to stay away from it and to please contact local officials. The local first responder groups for emergency services have been authorized and directed by Secretary Tom Ridge to assist in any way. The Federal Emergency Management Agency is coordinating that effort on behalf of the Department of Homeland Security.

I was here this morning with the families of the astronauts and their friends. It started out as a pretty happy morning, as we awaited the landing of STS-107.

We had highly anticipated their return because we couldn't wait to congratulate them for their extraordinary performance and their excellent effort on this very important science mission.

They dedicated their lives to pushing scientific challenges for all of us here on Earth. They dedicated themselves to that objective and did it with a happy heart, willingly and with great enthusiasm.

The loss of this valued crew is something we will never be able to get over. We have assured the families that we will do everything, everything we can possibly do to guarantee that we work our way through this horrific tragedy. We ask the members of the media to honor that too. Please respect their privacy and please understand the tragedy that they are going through at this time. We will help the media assure that this will be the case as well.

We trust the prayers of the Nation will be with them and with their families. A more courageous group of people you could not have hoped to know – an extraordinary group of astronauts who gave their lives – and the families of these crewmembers. They knew exactly the risks. And never, ever did we want to see a circumstance in which this could happen.

We diligently dedicate ourselves every single day to assuring these things don't occur. And when they do, we have to act responsibly, accountably and that is exactly what we will do.