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Senate

The Senate met at 4 p.m. and was called to order by the President pro tempore [Mr. STEVENS].

The PRESIDENT pro tempore. Today's prayer will be offered by our guest Chaplain, Dr. William J. Carl III, First Presbyterian Church, Dallas, TX.

PRAYER

The guest Chaplain offered the following prayer:

O God, who made Heaven and Earth, we pause in this moment of national grief to remember heroes who have gone on before us. We watched a tear streak across Heaven's face as *Columbia*'s brave crew gave their lives for us all. Into Thy hands we commit their spirits as we recommit ourselves to the causes for which they died.

As they reached for the stars, they touched pioneer places that gave us glimpses of Heaven and Earth. So we here on Earth release them into Heaven as we say, ''Well done, good and faithful servants.'' Recalling the sober days of September 11, we realize how fragile all our lives are, and yet how resilient our Nation can be. When our lives come apart, You are always there to help us pick up the pieces.

Pick us up now, Lord. Give us courage and hope for the future that lies ahead as we continue to be one people, under God, with liberty and justice for all. Amen.

PLEDGE OF ALLEGIANCE

The President pro tempore led the Pledge of Allegiance, as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

RECOGNITION OF THE ACTING MAJORITY LEADER

The PRESIDENT pro tempore. The acting majority leader is recognized.

SCHEDULE

Mr. BOND. Mr. President, on behalf of the majority leader, I announce that today the Senate will be in a period for morning business from now until 6 p.m., with the time equally divided. Senators have requested time to memorialize and reflect upon the Space Shuttle *Columbia* disaster.

There will be no rollcall votes today because many of the Senators are in Houston for the memorial service for the space shuttle crewmembers. An early adjournment this evening is expected.

I yield to the distinguished assistant minority leader.

WISHES AND HOPE FOR A SPEEDY RECOVERY

Mr. REID. Mr. President, I want the record to reflect my expectation that the majority whip will return to work soon. I was saddened to learn that Senator MITCH MCCONNELL had triple bypass surgery. We all know the spunk, spirit, and tenacity he has, and I am confident he will return stronger than ever from that surgery.

On behalf of all Senators, I extend to MITCH and his lovely wife, the Secretary of Labor, Elaine Chao, our best wishes and hope for a speedy recovery.

RESERVATION OF LEADER TIME

The PRESIDING OFFICER (Mr. CHAFEE). Under the previous order, the leadership time is reserved.

MORNING BUSINESS

The PRESIDING OFFICER. Under the previous order, there will now be a period for the transaction of morning business not to extend beyond the hour of 6 p.m., with the time to be equally divided between the two leaders or their designees.

The Senator from Missouri.

EXPRESSING GOOD WISHES

Mr. BOND. Mr. President, I join with my good friend from Nevada in expressing our good wishes to the distinguished Senator from Kentucky, as well as our good friend, the distinguished Senator from Florida, who also has undergone a very serious operation. We are a family and our thoughts and concerns of those in this body who have had illnesses are with them. We wish them a very speedy recovery. The Senate will be a bit duller and quieter until they return, but I am confident they will do so soon.

TRIBUTE TO THE SPACE SHUTTLE ''COLUMBIA'' ASTRONAUTS

Mr. BOND. Mr. President, I rise today with a heavy heart, which was lifted with the inspiring and thoughtful words of our guest Chaplain. I thank him for helping us see the greater design, the hope for the future, and the good news that we have been given by the Lord.

As did millions of Americans, I spent Saturday watching the dreams of seven brave astronauts streak back to Earth in sadness. The sadness we still feel today, and we will feel for many days, is because those seven astronauts carried our dreams with them.

That is the wonder and the magic of our space program. Our astronauts go into space in large part for those of us who cannot go. Our hearts and our spirits are their cargo. We soar and ride with them into a realm that is beyond the grasp of most men but not beyond the grasp of mankind.

Even while we engage in the somber work of recovering from this terrible accident, in recovering the crew and the *Columbia* itself, our thoughts have already returned to the work of ensuring the safety of the U.S. manned space flight program and of the remaining shuttles. That is one of the responsibilities entrusted to us with the funding and oversight of the space agency.

● This ''bullet'' symbol identifies statements or insertions which are not spoken by a Member of the Senate on the floor.

Shuttle safety is not a new issue to those of us on the Appropriations Committee—or the authorizing committee—which funds the space agency and its operations. It is our job—my wonderful friend, the Senator from Maryland, Ms. MIKULSKI, and me—to ensure we know and understand each crucial element of the budget that safeguards the lives of our brave astronauts.

Whether during my service as chairman or under the leadership of my able colleague from Maryland, the direction of the VA–HUD and Independent Agencies Appropriations Subcommittee has been consistent throughout. Space shuttle safety is paramount.

I am proud the subcommittee I currently chair has consistently fully funded NASA's request for manned space flight program safety. Nevertheless, nothing about manned exploration of space is or will ever be free of risk. Manned space flight is, by its very nature, life threatening. Flying a space shuttle is nothing less than hurtling across the heavens where a slightest mistake guarantees instantaneous death.

No matter how successful we are, and no matter how many safe shuttle launches we have under our belts, we can never forget the dangers inherent in space travel. We can and should never be complacent.

We have an ironclad social and moral contract with our astronauts: In return for their willingness to place themselves in jeopardy on behalf of all mankind, we in return have an obligation to provide them with all the resources required for a safe flight.

While it is our goal to eliminate risk, to be quite frank, we cannot. We can only minimize risk. That is the cruel reality of manned space flight. Some element of risk haunts every mission. And in the face of such risks, we still have Americans and international partners willing—yes, anxious—to go. They know the risks. Their families understand they are in harm's way and still they dare to live a dream that very few of us can fully appreciate. It is precisely that element of human nature that inspires us to seek challenges greater than ourselves.

To those who question the value of our space program, I ask them: How can you quantify the dreams of millions of children here and across the world? How can you quantify the spirit of discovery? What value should we place on our quest to understand our place in the universe?

Those are the questions we must ask ourselves during this period of recovery. The weeks and months ahead will be filled with questions. So far, we have too few answers.

Our questions did not begin with Saturday's terrible loss of *Columbia*. The subcommittee has had continuing concerns about whether the budget requests from NASA accurately reflect the full safety needs of the space agency and the shuttle program. It is reflected in our reports. It is all in the public record. I know NASA has always placed the safety of our astronauts as its highest priority, we have an obligation to ensure that the analysis of safety, no matter what the cost, is fully disclosed, understood, and addressed. We have labored to do so in the past and will continue to do so in the future.

We recognize that Congress, NASA, and the administration have to live within a budget. At the same time, we cannot allow a budget to force our hand on safety decisions. We have not done so, nor will we. I do not believe NASA has done so, nor this, nor the previous administration. Nevertheless, our concerns on VA–HUD appropriations were heightened by the March 2002 NASA Aerospace Safety Advisory Panel Report which stated that the current budget projections for the space shuttle were insufficient to accommodate significant safety upgrades, infrastructure needs, and the maintenance of critical workforce skills over the long term.

Our most recent report to the appropriations bill endorsed these concerns as well as the need for additional funding for shuttle safety upgrades. Our concerns were sufficient to request that NASA conduct an assessment of future safety needs in light of the shuttle's longer than expected operational life and use. We need to know more and we need to know more now.

NASA has already responded with a request for additional shuttle upgrades and safety funding over the next few years. This was the right response, but we need to know how much more we need to do to ensure that every funding decision continues to make the lives of our astronauts the paramount priority at NASA.

Clearly, we had concerns, and those concerns remain. We must work together to gain greater confidence in NASA's budget.

I applaud and have the highest admiration for NASA Administrator Sean O'Keefe, who is already working hard on this and many more issues at NASA. He took over a troubled agency drowning in cost overruns and out-of-control spending on the International Space Station program. He stopped the bleeding of huge cost overruns and has righted NASA's ship through responsible program management. I look forward, as do, I am sure, the rest of the Members of this body, to continuing to work with Administrator O'Keefe in our efforts to ensure the safety of our shuttle program and the well-being of our astronauts. This will, as always, remain our top priority.

Of course, we must find out what happened to the *Columbia*, fix the problem, and move our space program forward, as the deputy administrator for space so eloquently stated on Saturday. But this is not a simple issue. We have three international astronauts on the International Space Station, two Americans and one Russian. We need to be able to bring them home in complete safety.

The administration is moving forward with two commissions to understand what happened, and to make sure it does not happen again. In addition, I believe it is appropriate to hold a hearing in the appropriations subcommittee on shuttle funding upgrades and safety needs. This is too important an issue not to receive the full attention of the Senate. I assure my colleagues that we will work to provide whatever funding is necessary to meet the immediate needs of the space agency through the remaining months of the fiscal year.

We are currently waiting to hear back from NASA at this moment, and clearly we will provide whatever additional funds are necessary for NASA in the 2003 supplemental, as appropriate, or even if we receive a request in time in the conference report on the 2003 measure that is pending. I will convene a hearing on safety needs as soon as practicable, as soon as NASA has information for us, understanding full well that the immediate needs focus on recovery of the *Columbia*, the crew, and the twin investigations now underway.

At a time of such tragedy, we all function as part of a team with a single mission, to find out what went wrong, and then to take steps to make sure it never happens again. We must and we will leave no stone unturned. There are astronauts who have not yet flown but who will perhaps this year and in 10 years. They dream of carrying our hopes beyond this planet we call home. We must always keep faith with them and their families. We must honor the contract that binds us in this great endeavor.

That dream has not died with *Columbia* and her proud crew. Her dream lives on in the hearts of all of us who look to the heavens on a quiet night in awe and wonder, and we see the *Columbia* still. We mourn for the astronauts and we pray for their families. We shall always remember them, along with the *Challenger* and the *Apollo* crews. The courage of all of the astronauts shall forever inspire our dreams and brighten our hopes for the future.

Manned space exploration is a great challenge, a great opportunity. Yes, there are dangers with it, but fulfilling the hopes and the dreams of those who have gone before is our great opportunity and our obligation.

I yield the floor.

The PRESIDING OFFICER. The Democratic whip.

Mr. REID. Mr. President, I ask unanimous consent that the Senator from California be recognized for up to 15 minutes after I complete my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. REID. Mr. President, before my friend from Missouri leaves the Chamber, I say to him that the work he and Senator MIKULSKI have done on the appropriations subcommittee that deals with the funding for the space program

is exemplary. We have gone through some very tough times. There are many Senators who have offered amendments to do away with the space station and defund the space program. I have always been proud of the bipartisan relationship that Senator BOND and Senator MIKULSKI have had in fighting for the space program. It is a program we have to protect. I know there have been editorials saying do away with it; it is not worthwhile, but I really think it is important for so many reasons, not the least of which is to explore space.

The second is, I went running this morning. It was raining. It was windy and cold. I had on a very brief wrap, thin as this piece of paper, but I was warm. Why? Because it was Goretex. It was invented to take people into space.

We have accomplished so much in space that is scientific I think it would be a terrible shame to stop the space programs, and it would not be a legacy of which this country would be proud.

I publicly acknowledge and congratulate the Senator from Missouri and the Senator from Maryland for their exemplary work on the subcommittee.

Mr. BOND. Mr. President, if I may, I wish to extend sincere thanks to the Senator from Nevada for his remarks. Senator MIKULSKI is and has been one of the foremost champions of NASA and its mission. She is in Houston today. I am sure we will hear from her. It is her ongoing and strong commitment to space shuttle safety that inspires and leads all of us, and I thank the distinguished assistant minority leader for his words.

Mr. REID. Mr. President, I join my colleagues in remembering the seven astronauts who perished on the *Columbia* Space Shuttle. Nevadans and all Americans, along with the people of India, Israel, and all over the world, mourn their loss, marvel at their courage, and take pride in their accomplishments. Our country's space program has made remarkable success, but many people often overlook the ingenuity, intelligence, and inspiration that made this success possible. They take for granted the enormous difficulty involved in the extraordinary achievement, asking: If we can put a man on the moon, why can't we solve other problems to overcome other challenges?

The moon landing was a great technological and engineering achievement. That event and subsequent space travel testify to American determination, know-how, and our can-do spirit. But sadly, as the *Columbia* shuttle tragedy reminds us, space travel remains difficult and extremely dangerous. The brave men and women who embark on journeys into the skies are pioneers.

One of the original explorers of outer space is our former colleague in the Senate, John Glenn. He is a true patriot who served our great Nation so well in so many capacities. He was a fighter pilot in World War II, a fighter pilot in Korea, who distinguished himself in many different ways in the skies defending our country's interests. He was later, of course, a test pilot who set a transcontinental speed record, and in 1962 he piloted *Friendship 7* spacecraft in the first manned orbital mission of the United States. He represented Ohio in the U.S. Senate for 25 years, and nearing the end of his final term, he volunteered to return to space at age 77 as part of the shuttle crew that deployed the Spartan solar-observing spacecraft. His encore flight allowed us to learn about the aging process.

John Glenn was part of that select group depicted by writer Tom Wolfe in his fascinating book about the early efforts to explore space. John Glenn indeed proved he has the right stuff.

Another of our Senate colleagues, BILL NELSON, is a veteran of space travel. He and I served together in the House of Representatives when he was chosen to be a crew member on the *Columbia* space shuttle. In 1986, he participated in a 6-day flight that traveled over 2 million miles and orbited the earth 96 times. He returned safely just 10 days before the *Challenger* space shuttle crew was killed.

Senator NELSON has applied his own experience in space to speak passionately about the value of such missions.

In the wake of the *Columbia* shuttle tragedy, it is important that we understand the significance of the shuttle voyages and America's entire space program.

Sending men and women into space further our understanding of the mysteries of the universe, and reveals answers to some eternal and profound questions about the cosmos and the heavens above. In addition, space exploration improves our everyday lives on Earth in ways both big and small because the insight we gain has important applications for our health, environment, safety, comfort and wellbeing.

The *Columbia* shuttle mission was devoted strictly to onboard science, with no spacewalks or space station visits involved. More than 80 experiments were conducted during the 16-day flight, including a study of how zero-gravity affected low-level combustion that might have helped reduce automobile pollution, observations of the sun that could teach us more about global climate change, research into water conservation and reuse, and medical research intended to fight cancer.

So space travel is important to Americans and has benefits for all of us on Earth. I will continue to be a strong supporter of our space program.

Certainly, we must investigate what caused the *Columbia*'s demise—and we must ask difficult questions and get all the answers in order to improve the safety of future astronaut heroes—but now is a time to remember the lives of wonderful crew and to grieve.

I encourage everyone to read the newspaper articles about this diverse team of courageous, dedicated and talented individuals. You will be impressed with, and inspired by, the range and degree of their accomplishments.

Nevadans mourn their deaths and extend our sympathy to all of their families and loved ones. My colleagues will speak about each of the crew members we lost, and I will in the future discuss more of them, but in my brief remarks today, I especially offer my condolences on the loss of *Columbia*'s pilot, William McCool, a Navy commander who was 41 years old. His mother Audrey is a dean at the University of Nevada Las Vegas and his father Barry both teaches part-time at UNLV and is a graduate student there.

''Willie'', as their son was known to family and friends, was an outstanding student who maintained a 4.0 grade point average and graduated 2nd in a class of over one thousand at the demanding U.S. Naval Academy. He also excelled in sports, especially running, and was elected captain of the Navy cross-country team. He was well liked by all. He had a great smile, a ''stunning personality,'' is how his classmates described CDR McCool. Later, after the academy, he received advanced degrees in computer science and engineering and became an elite pilot. He had more than 400 carrier landings. Perhaps the most difficult test for any pilot is landing on those carriers as they bob up and down in the ocean. His parents were proud of him. He was inspired by his parents.

Willie's father, Barry, was a Navy and Marine pilot, a veteran of Vietnam. They built model airplanes together when CDR McCool was a boy. These childhood experiences influenced Willie to pursue aviation and serve his country, as he did so well. His example was set his by father. Barry McCool will now serve on the team investigating the disaster that claimed his son's life and the other six *Columbia* astronauts.

Willie had more than 2,800 hours of flight experience. He reacted to his journey into space with awe and amazement. He said: It's beyond imagination until you actually get it and see it and experience it and feel it . . . I have had the opportunity to be on the flight deck probably more than most of my crew mates, to look outside and really soak up the sunrises, the sunsets, the moonrises and the moonsets, the views of the Himalayas.

For someone who appreciated nature and spending time outdoors hiking and camping, it must have been such a joy to witness the Earth from the heavens where Willie now resides. My thoughts and prayers are with CDR McCool's parents, with his wife, his three sons, and all of his loved ones.

Let me also note that David Brown, a Navy captain, aviator, and flight surgeon, who was also lost aboard the flight *Columbia*, was an instructor at Fallon Naval Air Station in Nevada, the premier tactical air warfare training facility.

Even after the loss of their children in the *Columbia* shuttle tragedy, the mothers of both these crewmembers want the space program to continue. Dorothy Brown said in an interview: We're a nation of explorers. That's why this great Nation has come to what it is, and the space program will go on, too, for that reason. Audrey McCool, CDR McCool's mother said: We're very distressed, but we want the space missions to go on.

What strong women these grieving mothers are. We can surely be inspired by them, as well as their sons and the entire *Columbia* crew.

I am reminded of a poem that came about as a result of a revolution in Ireland. The poem that came from that I have on my desk. I read to the Senate today ''The Mother.''

I do not grudge them: Lord, I do not grudge
My two strong sons that I have seen go out
To break their strength and die, they and a few,
In bloody protest for a glorious thing.
They shall be spoken of among their people,
The generations shall remember them,
And call them blessed;
The little names that were familiar once
Round my dead hearth.
Lord, thou art hard on mothers:
We suffer in their coming and their going:
And tho' I grudge them not, I weary, weary
Of the long sorrow—And yet I have my joy:
My sons were faithful, and they fought.

The PRESIDING OFFICER. The Senator from California.

Mrs. BOXER. I ask unanimous consent immediately following my remarks, Senator ENZI be recognized for 8 minutes, and Senator LEAHY for 10 minutes after Senator ENZI.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mrs. BOXER. Mr. President, I rise on behalf of the people of my State, California, who have very strong ties to the space program and the shuttle program. Today I pay tribute to the seven astronauts who lost their lives in the *Columbia* disaster. Our Nation and the world deeply mourn their loss. These seven brave explorers—Rick Husband, William McCool, Michael Anderson, Kalpana Chawla, David Brown, Laurel Clark, and Ilan Ramon—gave their lives to extend the frontiers of science. With their mission accomplished, the shuttle and its crew were returning to Earth in triumph. So near to landing, yet so far. As we all know, the flight ended in tragedy.

We know that we gained valuable new knowledge and understanding of space from this mission, from *Columbia*. But we have lost something that is truly priceless, the lives of seven outstanding men and women who had worlds left to conquer. As we look at their faces, our best and our brightest, we grieve for their families.

I wish to say a few words about three of the astronauts who had special connections with my home State of California.

William McCool, pilot of the *Columbia,* was born in San Diego, where he spent much of his first 15 years. His NASA assignment capped a distinguished Navy career as a test pilot, avionics researcher, and administrative and operations officer.

Dr. Kalpana Chawla lived and worked in California from 1988 to 1994. After 4 years at the Ames Research Center near Sunnyvale, she joined Overset Methods, Inc., of Los Altos, as vice president and research scientist. There she formed and headed a research team that made important advances in computational field dynamics, particularly in streamlining the flow of air over vehicles during launch.

Like Willie McCool, Kalpana Chawla had character traits that are often associated with California such as a great sense of adventure and a desire to stretch the boundaries in her case of traditional women's work—and she did.

Rick Husband, *Columbia*'s commander, served as an instructor pilot and academic instructor at George Air Force Base in California and attended test pilot school at Edwards Air Force Base in California. Working through a college extension program at Edwards, he then earned a master's degree in mechanical engineering from California State University at Fresno in 1990. In November 2002, citing his role as astronaut and mission commander, the Fresno State Alumni Association honored Colonel Husband at its Top Dog Alumni Awards ceremony. A proud Fresno State alumnus, he wore his red Bulldog sweatshirt in space aboard *Columbia.*

The people of my State are proud of our connection to these three astronauts. We honor their memory, along with that of their crewmates, Michael Anderson, David Brown, Laurel Clark, and Ilan Ramon. We know, of course, since we did have an Israeli on board, this has become an international tragedy. We send our condolences to the family of Astronaut Ramon and to the Government of Israel.

I stated how proud my people at home are of our connection, not only to these astronauts but to the shuttle program. California was the birthplace of the shuttle. All were built in California, in Palmdale. The Jet Propulsion Lab in Pasadena was instrumental in development of the shuttle, and most years, shuttle missions ended with landings at Edwards Air Force Base.

So this has hit home to us. We shall forever honor and remember these seven heroes, as we build on their accomplishments and carry on their important work. May God bless their memories and comfort their families and colleagues and inspire future explorers with the courage to follow in their footsteps.

As we honor these courageous men and women, we must also begin the task of finding the answers—answers to the hard questions why and how do we prevent these happenings—questions about the cause of this tragedy and also about the future of space exploration. As a member of the Senate Commerce Committee, which has oversight over NASA, I will be asking many questions in the weeks ahead. Could the *Columbia* disaster have been prevented? We know that space travel cannot be completely foolproof, but are there steps that could have been taken to prevent this weekend's tragedy? Was the shuttle program compromised by budget cuts and cost-cutting?

I support a strong space program, but you can't do it on the cheap. Were safety warnings ignored or, worse yet, suppressed? Were members of NASA's safety advisory board removed after raising these questions?

Yesterday, the New York Times reported that five members of NASA's Aerospace Safety Advisory Panel—that is more than half the panel—were dismissed shortly after warning about safety problems. And a sixth member of the panel was so disgusted with the dismissals that he quit. There are allegations that these panelists were removed as a result of their critical statements about safety problems. We need to get to the bottom of this matter. I have written to Senator MCCAIN and Senator HOLLINGS, the chair and ranking member of the Commerce Committee on which I serve. I have asked them to invite the members of the safety advisory panel, many of whom were fired, one of whom quit, to give their testimony.

I also asked that Senator John Glenn be invited. He is a major supporter of the space program and he really has important things to say. I spoke with him. I don't even want to quote what he said because I think he knows so much and should say it in his own way, as to what we need to do here. As a former Senator and as an astronaut, he brings an incredible expertise to the table. I know he has the respect of all my colleagues on both sides of the aisle.

Let me say there is one thing that is not an issue in my mind and that is the future of the manned space program. I strongly support that. But now is the time to use this moment to examine the future of space exploration. For example, what is the future role of the space shuttle? Are the existing shuttles sufficient to carry out the mission? Are they in good enough condition—excellent condition, perfect condition—to carry those men and women in the future? What is the role of the International Space Station? Is too great a share of our limited resources being spent on the space station? Is too much money on the space station being spent on maintenance rather than scientific experiments?

I have read that the astronauts are saying they are scientists and they are spending 80 percent of their time on the platform, on the space station, keeping house, doing maintenance on the space station rather than the experiments they really want to do.

What about a possible manned mission to Mars, which seems to have disappeared from anyone's agenda? Most

fundamentally, how do we recommit ourselves to a space program that captures the imagination of America, and what would this take in terms of funding its goals?

So we need to ask all these questions and we need to get the answers. We have to work together, across party lines, to come up with this vision. Whatever we come up with, it needs to be funded, funded in a way so safety will never be at issue; we will know that we have done every single thing we could possibly do.

The family of *Columbia*'s crew has said, ''the bold exploration of space must go on.'' I fully agree with them. But it sits on our shoulders, those of us here who are called upon to fund this program, to make sure we are funding it in the right way; that we are not wasting dollars but that the dollars are going to ensure that the program's goals are met; that there are clear goals; and that safety comes first.

Over the past two decades, shuttle crews have carried out scores of experiments in space that have helped to advance science on Earth. For example, they have studied the effects of gravity on humans, animals, and plants. They have tracked the movement of fault lines on the Earth's crust, something very important to many of our States, particularly mine. They have gauged the impact of typhoons and other storms. They have measured changes of forest cover in remote areas of Alaska and Canada. And they have helped archaeologists locate the long lost city of Umar, a 4,000-year-old settlement on the Arabian peninsula.

Many shuttle missions have included medical researchers who used the environment of space to further their understanding of cell growth, human metabolism, and a variety of diseases.

We have much to be proud of in these days as we mourn.

I will join Chairman MCCAIN and the other members of the Commerce Committee in seeking to determine the cause of the *Columbia* disaster and outlining the steps we must take to avoid its recurrence. At the same time, I will work to define the goals and the mission of the space program and make sure the funding is there for accomplishing the mission in the safest possible way.

In closing, I can't help but remark that their faces—those beautiful faces—will stay with me for a long time, and that they represent the hope and the promise of our future.

Mr. President, as you sit with me on the Foreign Relations Committee, I know all of our Members on both sides are very concerned that we protect the lives of not only our young people but young people all over the world, and that we will find a way to do that which makes sense for our stronger Nation.

We are reminded when we read what the astronauts say every time a different astronaut goes up: what a fragile planet we live on. It always renews my commitment, as I am sure it does your commitment, Mr. President, that we must protect this planet—the air, the water, the forests, and the wetlands. They are a gift from God.

In memory of those who lost their lives this weekend, we will continue to explore and we will continue to reach for the stars. We should do no less.

Thank you very much, Mr. President. I yield the floor.

The PRESIDING OFFICER. Under the previous order, the Senator from Wyoming is recognized.

Mr. ENZI. Thank you, Mr. President. I thank the Senator from California for the challenges which she placed before us as well as the memories to which she spoke.

Today, here in the Senate and the House, in Houston, TX, all across the country, and in places throughout the world, people of all faiths and from all walks of life will take a moment to remember the tragic loss of the crew of the Space Shuttle *Columbia* this past weekend. As we do, we will put aside our differences and come together as a family to remember those who were lost and the great cause for which they gave their lives.

For me, the story of this past weekend's events begins when I was growing up—a Boy Scout who was fascinated by rockets and rocketry. That interest continued to show itself as I became a young man who was fascinated by the two latest creations of the day—television and the start of our space program. As science worked to develop the tools we would need to explore outer space, television gave us all a front row seat so we would see what was happening.

Back then, the early successes in rocketry—mostly by Russia—fired our imaginations and steeled our will to win the race to reach the heavens. It was only natural for me and the people of Wyoming to feel so moved. After all, we were the products of the pioneer spirit. Our ancestors had left the comforts of the East behind and headed West looking for a new life and to explore what was then the new frontier. They were pioneers.

As television became a more common addition to our homes, it brought the next new frontier—space—into our very living rooms. Each day we could see the latest events of the day that were happening around the world beamed right into our living rooms. We watched in fascination as things that were happening miles and miles away were seen right in the comfort of our own homes. For me, the stars of the sky came in second place in importance only to the stars of the space program. Me and all of my friends, especially those who had been in the Scouts, wanted to be just like them.

I still remember the days when we would go to a local field and work on our own experiments in rocketry. Then, as we grew older, when a new flight was announced by NASA, we would grab the first chance we had to watch it as the miracle of television brought the wonders of space flight to our homes and our schools.

Competition was with the Russians. But now there is cooperation with the Russians in space and with the space station.

Our efforts to explore space and the continuing impact of seeing it all live on television made for a powerful pair as we heard the words of John F. Kennedy as he challenged the Nation to land a man on the moon. His vision led us onward and upward. And it wasn't all that long afterwards that my wife and I—newlyweds—felt a personal stake in what we saw on the television before us. We sat spellbound as we watched Neil Armstrong take his one small step on the Moon that meant so much for all mankind.

Neil Armstrong was part of a long line of astronauts who braved the odds to do the impossible as, together as a nation, we reached for greatness. Over the years, there had been disappointments, failures and tragedies, but with each success we felt like we had a grip on the process and that the odds would be forever in our favor.

Somewhere along the way in the years that passed, we forgot that space is a cold, unfriendly place and that space flight brings with it great risks and dangers as well as great rewards. We forgot the lesson learned from the early days of the space program—that when we dream great dreams and achieve great successes, we are also courting great danger.

We think of the shuttle as an airplane. And we know how safe airplanes are. That danger was brought painfully home when we launched the Space Shuttle *Challenger.*

All at once and without warning, the reliable space machine we had come to trust and take for granted blew up and disintegrated before our eyes.

I remember that day so well because it was the day we were to send our first educator into space, Christa McAuliffe. In schools all over the country, children and their teachers watched excitedly as a school teacher prepared to make her voyage into space. When it ended in tragedy, a lot of fathers and mothers sat down that night with their children to talk about what they had seen at school that day. They got a lot of tough questions from little children with sad eyes who wondered why these things have to happen.

Mothers and fathers have no answers for those questions and they can only say that sometimes bad things happen to good people. They can only hug and hold and remind their little ones that there is a God and somehow He works all things for His good. Someday we may know what that good is. But for now, all we can do is trust and hope and pray.

Now we have felt that pain for a second time. The first brought us an awareness of the risks we take in exploring the unknown. It reminded us that despite the best of planning and

preparation sometimes things happen that we could never have possibly prepared for. Now we watch these events unfold for a second time with a different sense—and from a different perspective. We remember the risks of space flight. But, as we mourn those who were lost, we renew our feeling of determination and our resolve to succeed no matter the odds or the obstacles to be overcome.

The crews of the *Challenger* and the *Columbia*—those modern day pioneers—will be forever linked in our minds, tied together by the same terrible helplessness we felt as we watched both tragedies unfold. Each time we searched for answers that we knew would never come. In the end, each time we found ourselves more determined than ever before to move ahead, and to continue the exploration of space that must never end. And, in the end, that is the important lesson we will take with us. We may experience defeat, but we will never be defeated. In this and all we pursue in life, we will ultimately succeed as long as we hold true to our dreams and follow our star.

And the success is far-reaching. I have a heart repair that would not have been possible without the space program. Science moves on, stimulated by the unknown and represented by space.

When the crew of the *Challenger* died, President Reagan comforted the Nation with the words that the crew that had slipped the surly bonds of Earth had reached out and touched the face of God. This past weekend, President Bush assured us that the ''God who names the stars also knows the names of the seven souls we mourn today.''

Then and now, both crews left us with our eyes gazing toward the skies and the heavens above, hopeful and prayerful that if they had to leave us, they had done so in pursuit of a better place as they returned, not to Earth, but to their home in God's holy heaven.

This night, and the next, and for many to come, when we go out on our back porch or sit in the backyard and look up at the stars, we will remember the *Challenger* and the *Columbia* and their valiant crews. The lights of the sky will remind us of their indomitable spirit and our pledge that as long as there are stars in the skies, we will never stop reaching out to them to explore, to dare and to dream in space and on Earth. That is our life, our legacy and our shared vision as Americans. It is what makes us unique, and it is why our nation will always be known as the land of the free and the home of the brave.

I yield the floor.

The PRESIDING OFFICER. Under the previous order, the Senator from Vermont is recognized.

Mr. LEAHY. Mr. President, as I listen to my friend from Wyoming and my friend from California and others who are speaking in this Chamber today, I am reminded of what I heard throughout the State of Vermont this past weekend while I was home—whether it was people who stopped me in a grocery store and just wanted to reach out and touch somebody—perhaps we would embrace for a moment—or whether it was coming out of mass on Sunday at the church, where the same thing occurred—the people have felt such sorrow and shock. There is no other way you could express yourself.

Those of us who have grown up seeing the space program have seen so many of the triumphs. I still remember our own colleague, Senator John Glenn, a man I was elected with in the same year, in his amazing orbit of the Earth. Then later, when he was well into his 70s, he had another trip as an astronaut. We saw that too. We saw man's first steps on the moon, of which every one of us remembers exactly where we were when that occurred. We also remember exactly where we were when the *Challenger* was destroyed. And I suspect we will always remember exactly where we were when we got the news about the *Columbia* space shuttle.

Today we are so connected automatically, with live television, radio, and friends and neighbors calling us when something such as this happens, a tragedy which unites not only the whole country but the whole world. Everybody seems to know it almost immediately.

So, as so many other Senators, I rise to pay tribute to the seven astronauts who lost their lives in the *Columbia* tragedy last Saturday morning. Here was this magnificent space vessel, with these seven wonderful, exemplary human beings, streaking across the sky dozens of miles above the Earth at eight times the speed of sound; and then, suddenly, *Columbia* disintegrated.

A clergyman in Florida aptly described the fiery contrails we watched repeatedly on Saturday as: ''a glistening tear across the face of the heavens.'' There is nothing I could write that would say it any better.

We were and are sad not only because of the loss of these heroes and the interruption of space exploration, but because this tragedy reminds us of other astronauts who have paid the ultimate price.

As with every national tragedy, we rise from the shock and the sadness through commemoration and perseverance. We heard the President of the United States, who spoke shortly after the tragedy, and again eloquently today, as did others in Texas. The President tells us—and we know in our hearts—we cannot forget these heroes: Rick Husband, William McCool, Michael Anderson, David Brown, Kalpana Chawla, Laurel Blair Salton Clark, and Ilan Ramon. Each represented a special kind of intelligence, dedication and energy we should all aspire to, and certainly all young people in this country should aspire to.

Over and over we have read their biographies, their stories. We have heard their neighbors, their friends, their teachers, their classmates, and their fellow astronauts tell of the barriers they had to overcome in their lives and the almost superhuman rise above senseless bias and discrimination. They will be missed, but they will continue to stand as models. I hope we will continue to read of their stories because they are role models for us here in the United States, but also for those in Israel, as with COL Ramon, and for those in India, and really for everyone across the globe.

Someone said: This is such a public tragedy. But that is the way the space program has been. We have shown publicly our triumphs, and we have shown publicly our disasters. We have shown the fears and the overwhelming thrills over the years.

I close with this, Mr. President: To remind everybody we are at the bicentennial of the congressional authorization for the Lewis and Clark exploration of the West, when President Thomas Jefferson said: Go forth to explore the West and our boundaries. And the Congress said to go forth.

Lewis and Clark knew no frontiers. They did not know what they would find. And these astronauts knew no frontiers. We Americans have never known frontiers.

So we will find the cause of *Columbia*'s loss. We will fix it. The shuttle program will continue. The manned space program will move forward. We will return to space. It is our destiny, I believe. And there, in the spirit of the seven, we will again invest our knowledge and resources to learn about our origins, our daily lives, and, maybe, catch a glimpse of the future.

I see my friend from Oregon in the Chamber. I yield the floor.

The PRESIDING OFFICER (Mrs. DOLE). The Senator from Oregon.

Mr. SMITH. Madam President, I express admiration for Senator LEAHY's words and for the contribution that many of our colleagues will make in this Chamber to try to give expression to their own feelings and, more importantly, to the feelings of those who reside in our respective States.

I am mindful that in each one's own way and on one's own terms, every American—every Oregonian, suffers from the *Columbia* tragedy. All I can do is reflect on what I feel, but I think that in saying what I will today, it is similar to what many also feel.

As an American citizen, as someone who is 50 years old, I have always taken particular pride that we are descended from Pilgrims and pioneers. We have a history, a heritage, a legacy that stretches from Columbus to *Columbia*. We are the children of an American spirit that believes in discovery, in development, in pioneering new ways, and exploring new frontiers.

I remember, as a young boy, the experience of hearing about the Russian launch of *Sputnik*, and seeing the satellite in the sky as it made its way over the American continent.

With particular wonder, I remember, as an elementary school boy, how

Weekly Reader—which was something we would always spend time learning from—began to fill with stories of our own space program.

I remember, like many of my colleagues, taking inspiration from the leadership of John F. Kennedy challenging us in pursuit of the new frontier and in a man landing on the moon and his safe return.

I remember, with great pride, the launch of Alan Shepherd as part of the Mercury program, just to see if man could live in outer space.

I remember, as an elementary school boy, attending the parade that was held in Washington, DC for John Glenn. Little did I realize that one day I would have the privilege of serving with John Glenn in the U.S. Senate. I remember his parade down Pennsylvania Avenue and how we, as a new generation of Americans, celebrated the renewing of the American spirit of exploration.

I remember following with great interest the Apollo program and being inspired by the remarkable realization that two Americans were on the Moon. Neil Armstrong is a hero, the first to make that small step for man but that giant leap for mankind. I remember the pride I felt when the Apollo program was merged with the Soyuz program and began to break down the cold war barriers with Russia. Then, of course, the space shuttle came and we watched with awe as this new configuration of the space program inspired us all in the new possibilities of learning and discovery.

I don't think any of us will forget that day that *Challenger* went down and the heartache we felt as it exploded upon its launch. Now we add the memory of watching *Columbia* disintegrate as it reemerged into the Earth's atmosphere.

Where do we go from here? As we stand on the verge of a foreign conflict and struggle with our economy, it is entirely appropriate for Congress to look at the space program and, with our President, set new goals. I hope they will include a space station, even a Moon station, and eventually a landing on the planet of Mars. That reflects the highest standards of American leadership. This demonstrates America's courage and it will firmly fix, in the firmament of heaven, America's place among the leadership of nations.

My final thoughts are to the families. As we witnessed the ceremony today, we all grieve for the parents and the children of these astronauts who have lost their parent or their child. I am reminded of an admonition that the only way to take sorrow out of death is to take love out of life. Death often looms as the ultimate calamity, but it need not be if we keep it in perspective of eternity.

Some time ago, I was attracted to a monument I saw in England. Its words seem appropriate at this occasion. They were about time. As I looked at these families who are suffering and saw how tragic death loomed for them, I am sure they wondered how they could endure time without their loved one. This monument said: Time is too slow for those who wait, too swift for those who fear, too long for those who grieve, too short for those who rejoice, but for those who love, time is eternity.

I add my voice to those of my colleagues here today to say God bless the memory of Rick Husband, William McCool, Michael Anderson, Kalpana Chawla, David Brown, Laurel Clark, and Ilan Ramon of Israel. To them I say: Godspeed.

The PRESIDING OFFICER. The Senator from Utah.

Mr. HATCH. Madam President, I thank my colleague from Hawaii for allowing me to proceed ahead of him. I certainly appreciate his kindness.

I rise today to salute the seven astronauts aboard the Space Shuttle *Columbia* who lost their lives as they endeavored to conquer the vast unknown of space.

I would like to take a moment to praise the work of Commander Rick Husband, Pilot William McCool, Mission Specialist Kalpana Chawla, Mission Specialist David Brown, Mission Specialist Michael Anderson, Mission Specialist Laurel Clark, and Payload Specialist Ilan Ramon.

These great heroes will always be remembered for their willingness to carry the hopes and aspirations of a country with them into space, even though they made the ultimate sacrifice for their efforts.

I know the months and years ahead will be filled with debate over many issues surrounding this tragedy.

Certainly, we will hear questions asked about the ongoing funding of NASA and the safety concerns surrounding such adventurous exploration.

The Nation will need answers to these questions.

Hearings should be held. Investigations should be conducted. But in the final analysis, let us not forget how valuable the space program is to our country and to the American spirit.

I would like to ask my colleagues, administration officials, and NASA to proceed with their investigations in a prudent manner and return our astronauts to space as soon as possible.

I would like to see a renewed focus for NASA, a focus that would rival President Kennedy's challenge to be the first Nation to send a man to the moon.

This can only be done by pressing forward with bold new space initiatives and not by prolonged critiquing and endless investigations.

Just the mention of the word ''space'' conveys so many special meanings to each of us.

Thoughts of heroes such as Buzz Aldrin and Neil Armstrong come immediately to mind. In many ways, our Nation is defined by the adventurous space program which has been a part of our national heritage for over 40 years.

Terms such as courage, bravery, and pioneer are not afforded to those who take no risk and who sit on the sidelines and watch. No, those terms are reserved for people and nations willing to take risks in order to learn and advance the knowledge of all mankind. As President Reagan said, in the face of the loss of the Space Shuttle *Challenger,* ''The future doesn't belong to the fainthearted; it belongs to the brave.'' The seven astronauts who piloted the Space Shuttle *Columbia* heard that call and will forever be remembered for their bravery.

No American relishes the loss of life and the sacrifice of those courageous astronauts. But every American is thankful for the willingness of these astronauts to press forward—even when the risks are so great—in order to provide more knowledge and nurture a new generation of scientists who are inspired to look at the universe differently every time astronauts venture into the darkness of space.

The space program is so vitally important to our Nation's science education. Every year, bright, energetic, wide-eyed students enter the Nation's school systems and are motivated by the new scientific findings in our universe. They grow to love science, a love that will stay with them throughout their lives and continue to propel our Nation's scientific discoveries into the future.

We cannot let that love die. It is our duty to push the envelope, to explore the outer reaches of our universe. Innovation and determination shape our scientific future and the space program is such a crucial part of that.

My home State of Utah has long been actively engaged in America's space program. Our own Richfield, UT native, former Senator, and my friend, Astronaut Jake Garn, left Cape Canaveral on the Space Shuttle *Discovery* in April 1985 and return to earth over 6 days later after having orbited the earth 110 times.

As well, ATK, a leading-edge aerospace company based in Utah provides state-of-the-art solid rocket motors which makes the idea of people being able to fly through space a reality.

Utah's contribution to the success of our Nation's space program goes on and on, but let it suffice to say, that the entire State of Utah mourns for the loss of these brave astronauts. We pray for their families and those they have left behind.

Now is not the time to take a huge step backward in our space program and send the message to the next generation of Americans that when things get hard or when plans go wrong, we should give up . . . give up and let our dreams and aspirations fall victim to a task that appears hopelessly difficult.

No, now is not that time.

Now is the time when we need to stare adversity in the face. Learn from past mistakes. Refocus our vision on what we can accomplish by working together toward a unified goal. Now is

the time to raise a new generation of heroes and teach them how to overcome difficult circumstances.

Yes, America will continue its space program. We will be more than mere spectators of the universe. We will be active participants and we will train a new generation of explorers who will build on the foundation laid by these great astronauts abroad the Space Shuttle *Columbia*. Who knows what this new generation may discover? With the rapid pace of technological advances and the courage to conquer the unknown, it is sure to be something great.

Elaine and I send our very strongest condolences to the families of the astronauts who have lost their lives in the service of their country. We will pray for those families and pray that somehow they will be comforted in this hour of need.

I personally know what it is like to lose a member of the family while serving our country. My older brother was killed in the Second World War at the Ploesti oil raid that helped to knock out Hitler's oil supply. It was a very difficult thing for our family, and it still is. In the last month, I have been reading the letters he wrote to my mother and I have gotten to know him better than I ever thought I would—as a person who gave his life for us and did it willingly so that we might be free.

These astronauts have given their lives for us and they have given them willingly, helping us to be free, to have a better society, to explore in this day and age, much like Lewis and Clark did in their day and age, the outreaches of the universe and help us to gain scientifically every step of the way. I am grateful to them and their families and I pray for them.

I yield the floor.

The PRESIDING OFFICER. The Senator from Hawaii is recognized.

Mr. AKAKA. Madam President, I rise today to join my colleagues on this sad and solemn afternoon to honor the lives of our brave astronaut heroes: the seven crew members of the Space Shuttle *Columbia* who were lost Saturday morning on their return from a 16-day scientific mission in outer space.

As we honor the memory of the *Columbia* crew, Shuttle Commander Rick Husband, Pilot William McCool, Payload Commander Michael Anderson, Mission Specialist Kalpana Chawla, Mission Specialist David Brown, Mission Specialist Laurel Clark, and Payload Specialist Ilan Ramon, I send my heartfelt sympathy to their families and loved ones.

This is a national and international tragedy that has brought people and nations around the globe together in grief and remembrance. The men and women onboard the *Columbia* epitomized the best and brightest our country has to offer, and the participation of other nations in the shuttle program illustrates the collaboration and interconnection between America and other nations in the peaceful exploration of space and progress of scientific inquiry. The *Columbia* crew, like most of the men and women in our space program, came to NASA as successful and respected leaders from their respective professions. As scientists, doctors, surgeons, aviators, and military officers, they sought to share their expertise in the service of our Nation and mankind. In the decades since *Sputnik* and John Glenn's orbital mission of the earth in the *Friendship 7*, people around the world have been fascinated with possibilities of space exploration. The shuttle program opened the reality of space exploration to astronauts from many nations and caught the interest of young people around the world.

Colonel Ramon, Israel's first astronaut and one of his nation's premier air force pilots, captured the imagination of the Israeli people. His participation in the shuttle program stirred a great sense of pride and hope in a nation that has endured so much conflict and violence over the past two years. Dr. Kalpana Chawla, the first Indian-born woman to go into space, is a national heroine in India and a great inspiration to young people in both that land of her birth and her adopted home, especially young women and girls who saw Dr. Chawla as a role model for the possibilities and opportunities available to them.

As we mourn the loss of these brave individuals, men and women who willingly assumed the risk of space travel in their dedication to science and the expansion of human knowledge to new frontiers, we are reminded of the human spirit for exploration and discovery. Indeed, the quintessential trait of the American national character is the sense of adventure and curiosity that led pioneers and homesteaders westward, impelled men and women in Europe and Asia to emigrate to a new, vast, and unknown Nation with only the promise of opportunity and prosperity, and embraced President Kennedy's challenge to put a man on the moon.

America has been peopled by men and women driven by this spirit, and it is a quality we greatly admire and respect in our leaders and fellow citizens. The crew of the *Columbia* fully understood that there are many dangers associated with space flight, but looked beyond them while seeking to bring forth wisdom and reason from the vast unknown through space exploration and research. The crew understood that the experiments they were conducting on a wide array of medical and scientific subjects held the promise of major scientific advancements and benefit to mankind.

In the coming weeks and months, we must investigate what caused this tragedy and ensure that manned space flight is safe for our men and women who dedicate their lives to space exploration. As we scour the earth for answers to this tragedy, we must not lose sight of the heavens, or allow our fascination with exploring, discovering, or dreaming to wane. For by reaffirming our resolve to explore the wonders and mysteries of the universe, we honor the memory of the *Columbia's* crew, and the memory of all those astronauts who lost their lives in our Nation's endeavor to understand outer space.

I yield the floor and suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. AKAKA. Madam President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. AKAKA. Mr. President, I ask unanimous consent that the time under the quorum calls be equally divided; in addition, I ask unanimous consent that the previous quorum calls be equally divided.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. AKAKA. I thank the Chair. I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mrs. MURRAY. Madam President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mrs. MURRAY. Madam President, I join my colleagues in expressing our gratefulness to the seven heroes who were lost on the Space Shuttle *Columbia* Saturday as they completed a mission of science to benefit the world.

I also share my thoughts and prayers with the families they've left behind.

Over the past few days, we have seen an outpouring of support from people all over the world for these seven remarkable individuals, and the work they carried out so selflessly.

From formal memorial services—like the one held in Houston today—to more spontaneous tributes throughout America, Israel, India and other nations, people around the world have shared their words of loss and appreciation.

Frankly, there is little I can add to the chorus of eloquent voices we have heard over the past few days.

But what I can do—and what I am honored to do on behalf of the people I represent—is to share with the Senate how two members of this amazing crew touched the lives of many in my home State of Washington.

Columbia pilot William McCool was a Commander in the United States Navy. He served two tours at Naval Air Station Whidbey Island in Washington State.

Commander McCool was an EA–6B pilot serving in both the Tactical Electronic Warfare Squadron 133 and the Tactical Electronic Warfare Squadron 132.

His colleague, *Columbia* Payload Commander Michael Anderson, was a

Lieutenant Colonel in the United States Air Force. Colonel Anderson had long ties to the Spokane area in Washington State.

Both of these astronauts touched lives in Washington State. Both were accomplished pilots. Both were pillars in their communities. Both were strong family members.

On Saturday afternoon, I called the Commander of the Naval Air Station Whidbey Island. Over the years, I have had an opportunity to work with the fine crews at NAS Whidbey Island. I have shared both good times and bad times with them. When I called on Saturday just a few hours after the disaster, I knew the air crews and the families would be struggling with Commander McCool's death.

I spoke with Captain Steven Black. I had expected to hear stories of Willie McCool's service at NAS Whidbey earlier in his distinguished career. I heard that—and so much more—as Captain Black told me about this man who was so revered by his fellow Naval airmen at Whidbey.

Willie was a role model to young flyers at Whidbey. They all followed his career and his many accomplishments in the Air Force and as an astronaut with NASA.

Captain Black told me about his recent E-mails with Commander McCool.

Just 2 days before, Commander McCool took the time to E-mail his friends and colleagues at Whidbey. Whidbey Island had an effect on Willie McCool. And Willie McCool had an impact on NAS Whidbey Island that lives on in the mission and the talents of the Naval personnel serving there.

As Captain Black told a reporter,

> Willie flew the skies of Washington state. He was a talented pilot. He was very enthusiastic about his work. He had a contagious sense of awe and wonder at the science behind the flying he loved.

And Commander McCool touched lives in communities beyond NAS Whidbey.

One of those communities is Anacortes, WA, where he and his family lived and continue to own a home. Anacortes is north of Oak Harbor and NAS Whidbey. It is a small town that took immense pride in having Commander McCool as a neighbor, a parent, and a fellow outdoorsman. Commander McCool's appreciation for Anacortes and the local community was with him on the *Columbia* mission.

He took with him a Douglas Fir Cone from the Little Cranberry Lake area. That cone represented the seeds of a future generation.

Commander McCool's commitment and service to future generations is now represented on the sign outside of Fidalgo Elementary School. That sign says, ''Fidalgo salutes a legacy of a good friend, Commander William McCool.''

Let me now turn to another *Columbia* hero with ties to Washington State, Lieutenant Colonel Michael Anderson.

On Sunday morning, parishioners of the Morning Star Missionary Baptist Church in Spokane gathered to worship and pay tribute to him. Michael Anderson and his family are long time members of the congregation.

Speaking of Lieutenant Colonel Anderson, Reverend Freeman Simmons offered words of comfort to friends of the Anderson family.

Reverend Freedom said,

> He belonged to more than his family, more than his race, more than his different affiliations. He belonged to this age.

Michael Anderson was born in New York State. He and his family came to Spokane, WA, during his father's Air Force service at Fairchild Air Force Base. He graduated from Cheney High School and came across the Cascades to attend the University of Washington. At UW, Anderson earned degrees in both physics and astronomy. He went on to a career in the Air Force as pilot and was selected to join NASA and the space program in 1994.

Lieutenant Colonel Anderson was one of the veterans aboard *Columbia*. He previously spent 211 hours in space on the 89th shuttle mission in 1998 to the Russian space station MIR. On that mission, Anderson traveled 3.6 million miles in 138 orbits around the Earth aboard the shuttle *Endeavor*.

Aboard the *Columbia*, Payload Commander Anderson was responsible for the incredible science being conducted during the mission. His mission was to manage 79 experiments on behalf of several space agencies and school children in many countries.

Michael Anderson considered Spokane his hometown, and Spokane is proud of his service. Today, all across Spokane, the community has posted its respect and admiration for our lost astronauts. One sign on Division Street reads, ''NASA we mourn with you.'' Another reads, ''Remember our Astronauts.''

Lieutenant Colonel Anderson's many contributions to space and science will live as a lasting tribute to an accomplished and heroic American. Let me mention just one.

Following Michael's successful 1998 shuttle mission, he returned to Washington State and the Spokane area. In May 1998, he want back to his alma mater, Cheney High School. He shared his experiences with students and he returned a school pennant which he had taken with him into space on that first mission.

One of the teachers described his appearance at a school assembly saying:

> His message to the kids was so upbeat and so positive. ''It doesn't matter what your dream is. If you are willing to chart the course, if you are willing to do what it takes, you can achieve your dreams.'' When that assembly was over, no one wanted to leave. They all wanted to stay and talk to Mike.

Both of these men left families. These men were spouses, fathers, community leaders, role models in service to our country. They will be missed by their families and a grateful nation. We will stand with the families as they grieve. We will be with them as the Nation seeks answers to the *Columbia* tragedy, and we will join them in honoring their loved ones as space exploration and discovery go forward. Willie McCool, Michael Anderson, and all of our *Columbia* astronauts gave so much of their lives in service and exploration. Our task now is to ensure their spirit continues to deliver the wonders of space that they explored on our behalf.

I continue with the words from Willie McCool in an e-mail message to his colleagues at NAS Whidbey. Commander McCool spoke of seeing the Sun rise and set on the Earth from space and wrote:

> The colors are stunning.
> In a single view, I see—looking out at the edge of the earth:
> red at the horizon line,
> blending to orange and yellow,
> followed by a thin white line,
> then light blue,
> gradually turning to dark blue
> and various gradually darker shades of grey
> then black and a million stars above.
> It's breathtaking.

Madam President, I yield the floor.

The PRESIDING OFFICER. The Senator from Virginia.

Mr. ALLEN. I ask unanimous consent that the distinguished senior Senator from Virginia and I be recognized for a time not to exceed 20 minutes to engage in a colloquy, and that it be charged against the time of the majority.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ALLEN. Madam President, I join with my colleague, Senator WARNER, on this sad day, not just for America but for the world. It is a day on which we commemorate and honor the lives of the seven courageous astronauts. We are joined together in honoring the lives of these courageous individuals who dedicated their lives and decided to use their talents to reach high; to reach for high ideals, and who assumed the risks of these dangers in a very noble effort to improve our quality of life here on Earth.

This is a day of admiration. It is a day of inspiration for us and for the NASA people who care so much about this tragedy, the loss of these heroes. We all watched in horror as they were trying to come back into our atmosphere. The tragic disaster was more than just a loss for us in the United States, but it was a loss for the entire world community—whose diversity, ingenuity, and skill are reflected in the members of this historic crew.

Our hearts ache for the grieving but amazingly brave families of these heroes who perished in this catastrophic failure. As we go through the list of those on the shuttle we see Rick Husband, Commander; Pilot William McCool; Michael Anderson; CDR Kalpana Chawla, Mission Specialist Laurel Clark; Mission Specialist Ilan Ramon of Israel; and David M. Brown, Mission Specialist 1 and Navy captain from Arlington, VA, a Virginia resident, born and raised in Virginia, he

went to college at the College of William and Mary after attending Yorktown High School, and was graduated from Eastern Virginia Medical School in Norfolk, VA.

Our thoughts and prayers are with all these families. But for my colleagues to get to know the character of these families, where they came from, it is important that I share with you my conversation with David's brother Doug. David's brother was the only family member who was waiting for him when he was to land in Florida.

It is a family of achievers. His father—it would have been very difficult for him to get down there because his father is in a wheelchair. His father contracted polio at the age of 5. It never deterred him. He became a judge. He campaigned, somehow, door to door, and then was appointed as a circuit court judge, where he served honorably and expertly for 20 years, watching a great deal of growth and transformation in Northern Virginia.

David's brother Doug, with whom I spoke today, is a hero and character in his own sense. He went to West Virginia University. I said: Why did you leave Virginia to go to West Virginia? And he said they have a great target shooting program there. He himself was a two-time All-American. It is a family of achievers.

Doug talked about family, not just his family but the NASA family; about this crew and how this flight was delayed time after time; one time because they were sending up another mission to fix the Hubble. Another time there was a delay because of repair of the fuel lines. So the family became closer. By the time they were actually able to launch and go off on their mission, they had become very close.

We talked about various things. I asked him a question about what could we do to help? Is there anything we can do to comfort you or to comfort your family? What he said is that NASA and the Navy Casualty Assistance Crews were great. Everything possible was being done for them. He talked about how NASA had such noble goals, trying to expand the knowledge of mankind, and said they are the best of mankind.

Doug said his brother David understood that everyone was taking risks. We talked about how Navy pilots and test pilots over the years have lost their lives, some trying to land on a pitching aircraft carrier. He said those folks are heroes as well, and they don't get the attention these individuals received.

I asked Doug how his recent conversations with David. Doug said that he recently asked David: Well, what if you don't get back? What should I say?

He said his brother told him the program must go on. Not in a careless way, but it needs to move forward. He believed if there was any error and he couldn't get back, it most likely would be a human error, but that he would not hold that against whomever it was involved in that error because he knew everyone was trying to do the best job they could.

He talked about NASA, about how they cared about, for example, specifically, one of the culprits or suspected culprits in this tragedy, which was that piece of foam that hit the left wing.

His brother—and he communicated with him by e-mail when he was up in space—had actually taken photographs of that wing because they were concerned about it.

I said: Did those photographs get back?

He said: No, they didn't send those photographs back. But that will be part of the investigation, at least his oral description of the situation.

I said: As we are trying to figure this out and trying to learn from it, what would he say?

He said: Gosh, you have to understand, GEORGE—he said GEORGE, not Senator ALLEN. We are on a friendly basis. He said: You have to understand my brother David was a football player. He was an offensive lineman at Yorktown High School. He said: In these sort of things, they use a football analogy. You don't get stopped dead in your tracks. When you get tackled, you get up and you keep trying to score.

And Doug, his brother, said they used to make fun of David, that no one ever paid any attention to an offensive lineman. They were trying to rub it in. No one knew of his football prowess.

David retorted that no one else had Katie Couric cheering for him like she did at Yorktown High School.

Today, David, everyone is cheering for you. We are aching for your wonderful family and your friends. We know the noble mission that you have been on, and others will be on in the future, will continue as you desired.

We will reconstruct the facts. We are determined to get up. We are determined to learn. We will not quit. We will keep fighting. In fact, we will keep improving, we will keep innovating, and we will keep advancing.

David Brown was a hero, and these surviving families are heroic individuals as well. As we go forward, we will learn. But we also will pray to God that we continue to be blessed, in this country and the world, with people of such courage and especially people of such great character.

I would like to yield to the distinguished senior Senator from Virginia, Mr. WARNER.

The PRESIDING OFFICER. The Senator from Virginia is recognized.

Mr. WARNER. Madam President, may I say to my good friend, the junior Senator, that he delivered his remarks with great empathy and feeling. I wish to congratulate him. I have come to know him as a man who has intense feelings for people; and as a former Governor the many times he had to respond to catastrophes and loss of life in our State, he certainly has learned how to speak for the families and the survivors, and to speak with admiration about those who made the sacrifice. I thank the Senator for the privilege of serving with him.

Mr. ALLEN. I thank the Senator.

Mr. WARNER. Madam President, it is interesting; as the two of us approached the floor, a reporter paused in a very courteous way to ask me some questions. He is doing a study on the demographics of the Senate, and in particular on the number of Senators who have had an opportunity to serve in uniform. I expressed an opinion that I have expressed many times to a similar request. I find that, while it has its advantages, there is certainly no disadvantage to those who have not had the opportunity to serve in uniform. I think we all learn very quickly how to address the responsibilities we have with respect to the men and women of the Armed Forces of the United States.

But in the few steps that I took walking to the Chamber, I say to my colleague, I did reflect momentarily on two brief periods that I was privileged to serve in uniform at the very end of World War II when I did not see combat as did the spouse of the distinguished Presiding Officer of the Senate, our former colleague, Senator Dole, in no way have I ever put myself in the category of Senators Dole, INOUYE, STEVENS, HOLLINGS, and many others since then who served in Vietnam with such great distinction on the battlefield. But I did come to know many of my colleagues. Then I served briefly in the Korean war as a ground communications officer in the first wing. But I got to know aviators very well in that capacity. I recall that one of our tentmates did not return, and also our commanding officer lost his life. I was part of the detail that went out to retrieve him from a mountainside.

I empathize, as do the other men and women of the Armed Forces, for the loss of those astronauts who achieved their status through training in the U.S. military. What a privilege it is for all of us who had the opportunity to serve, to serve with others, and to share in their everyday happenings and glory—and sometimes in the status of their death—that we do here, brothers and sisters in the Senate today.

A number of our colleagues had the opportunity to go down to the services. I had to remain here. But I join with my colleagues in our reverent and humble way of expressing our deepest sympathies to the families, to the survivors, to the fellow enlisted military officers who served with these individuals throughout their careers, and to the Nation. The whole Nation is grieving for their deaths.

It is a marvelous thing to see Americans come together from all walks of life and to join in prayers and in other ways—so often in quiet ways—to express our feelings over this tragic loss to our Nation, and indeed to the world, because the world is largely dependent on those nations that have trained those going into space with particular missions. We lost the very brave and

extraordinary military officer from our strong ally, Israel.

While our Nation grieves for the deaths of the seven pioneers in space, for their friends and families, and for the States those brave souls called home, we join in mourning with all States in the Union. And yet we celebrate in a way their entire lives. We in Virginia are united in our solemn remembrance of one of those astronauts, CPT David Brown, whose parents, Dorothy and Paul, live in Washington, VA. My distinguished colleague spoke of his wonderful conversation with his brother today.

In the United States of America, we are a nation of pioneers—blazing trails from the 16th and 17th centuries to build ourselves a new nation, venturing west in the 18th and 19th centuries to fulfill our manifest destiny; and today in the 20th and 21st centuries leaving the outer bounds of our own atmosphere to learn more about this planet and others, and to share that knowledge with the world.

Shuttle launches and landings have become routine over the last several decades, yielding a false sense of security. We now recognize how false it is—for we are shaken to our very core.

Brilliant were the remarks delivered today by our President—and those who gathered with him at the memorial service. President Bush is well known to my colleague as a fellow Governor. They served together. How often the Senator from Virginia told me about the moments they shared when both of them were Governors. But he—not unlike my dear friend, the Senator from Virginia—has a remarkable way to step into a period of mourning and bring strength to the families who remain, and to the Nation. I certainly commend our President.

Over 100 times our brave astronauts have challenged the laws of gravity—I love that phrase; I wrote it myself—the laws of gravity propelling themselves, their shuttles, and their payloads hundreds of miles from the Earth's surface. Their work has yielded a great deal of scientific advancement—especially medical advances—credited with enhancing the quality of life not only of ourselves but, indeed, the world.

Space research, technology, and exploration are major contributors to enhancing our national security, to improving our standard of living, and broadening our scientific knowledge—and to carry on the pioneering traditions of our Nation. NASA has been the driving force for these many accomplishments.

May I say the current Administrator of NASA is a member of our Senate family. In many ways, he worked with this institution. He went on to become Secretary of the Navy, an office that I was once privileged to hold. Our thoughts and prayers are with him. I think thus far he has shown strong leadership in addressing this tragedy, proceeding immediately to try to unearth the facts and to procure the knowledge from all sources, wherever they may be, to try to find the answers for this tragedy.

We are a nation of risk-takers. But with exploration comes inherent risks. We have continually tempted fate through superior science and with the most talented men and women in their fields—astronauts who are the best and the brightest—those who fulfill their dreams and, I think more importantly, who have instilled in generations of young people their commitments and their dreams to perhaps become astronauts or dreams to perhaps one day wear the uniforms of the Army, the Navy, the Marine Corps, the Coast Guard, and the Air Force.

Last night I was privileged to attend a public meeting of the Council on Foreign Relations and of the four members of the chiefs of the services and/or their designated persons, who spoke brilliantly. In the cross questions, they addressed their pride in those men in uniform who achieved the status of astronaut—most particularly, at least two of them knew personally two of those who were lost on this mission.

I was so proud of the way they spoke and talked with resolve as to how we press on in space, and how generations upon generations will be coming behind to take their places, not unlike the men and women of the Armed Forces who throughout the world today are standing watch over our freedom, most particularly in the stressful situations of the Korean Peninsula and, indeed, the Persian Gulf and Afghanistan. How proud we are of the men and women of the Armed Forces.

The *Columbia* crew trained for their mission for years and in an instant our Nation has lost seven brave brothers and sisters;

Commander Rick Douglas Husband, U.S. Air Force Colonel, father of one daughter and one son; hometown, Amarillo, TX;

Pilot William C. McCool, U.S. Navy Commander, father of three sons; hometown, San Diego, CA:

Kalpana Chawla, Ph.D. in aerospace engineering, hometown Karnau, India;

Michael P. Anderson, lieutenant colonel, U.S. Air Force, father of two daughters; hometown, Spokane, WA;

Laurel Blair Salton Clark, commander, U.S. Navy, mother of one son; hometown, Racine, WI;

Ilan Ramon, colonel, Isreli Air Force;

And David M. Brown, captain, U.S. Navy; hometown, Washington, VA.

I am proud to stand here today on behalf of all Virginians to honor his memory and celebrate his life.

How proud Virginia, his parents, his friends, and his family are of this distinguished man: CPT David Brown. In his last words from space, CPT Brown wrote an e-mail to his parents in Virginia. My colleague referred to an e-mail he wrote to his brother. This is an e-mail he wrote to his parents:

If I'd been born in space, I would desire to visit the beautiful Earth more than I ever yearned to visit space. It's a wonderful planet.

Quiet, confident, heroic, adventuresome, dedicated to the welfare of others, and always seeing the best in our world: CPT Brown.

My colleague enumerated the details of his family and his education, but I do wish to recount one story. His parents were not surprised by his choice. Paul and Dorothy Brown watched their son grow up in the Westover section of Arlington with a clear sense of adventure. He flew with a friend in a small plane at age 7. And while at William and Mary, he worked two jobs just to gain the dollars for his flying lessons.

In a speech to students last September, CPT Brown predicted that at some point a shuttle flight would end with the loss of crew and aircraft. But he encouraged the young people to have ''a big vision, accept the risks and be persistent in pursuit of [your] goals.''

Last Christmas, CPT Brown had a conversation with his brother Doug, who asked what would happen if something went wrong in space. He simply said: ''Well, this program will go on.'' And the remainder of that conversation my dear colleague put in the RECORD.

We are a nation of patriots. Not only must we remember these brave men and women of the *Columbia*, but all men, all women in uniform, who protect this great Nation. And I suppose since 9/11 each of you in this Chamber, like I, stop quietly when you see the uniform of a fireman, a policeman, or a medical worker, or those who form the vast infrastructure in this country and take risks day and night so we can enjoy the highest quality of life of any nation in this world.

I say to our Armed Forces on deployment around the world, who have been dispatched for the cause of protecting freedom, and to our police and firefighters, you are in our thoughts and in our prayers every day. Ours is a grateful Nation for the risks you and your families—and I underline families—take.

Today we must mourn our loss: the crew of the *Columbia*. Tomorrow we will continue their work. I emphasize that. Our President said that. Tomorrow we will continue their work, their search for knowledge, and their exploration of new frontiers.

We will remember them with reverence, just as we remember the settlers at Jamestown in 1607, and the expedition of Lewis and Clark in 1803. We will remember them, just as we remember our lost soldiers, sailors, and airmen, who have given their lives—generations of lives—to protect our freedoms. And we will remember them, just as we will remember the others who have fallen in space, who dared to dance among the stars. We remember them.

I yield the floor.

Mr. ALLEN. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER (Mr. ALEXANDER). The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. ALLEN. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ALLEN. Mr. President, before the minority assistant leader arrives and I do final closing business, I want to commend the senior Senator from Virginia, my mentor, my ally, my good friend, for his outstanding statements, and for his experiences throughout his life—in many wars, in many tragedies—and through it all with his experience, as he always has the right things to say. He crafts those words himself. And he is proud of them.

He is an artist. He is an artist not only on canvas but also an artist with the gift of language, of sentiments, and of love and care for his fellow human beings. And he has been a hero himself, in many wars—in time of war and in time of peace—a leader in the civilian sector, and one who I, every single day, in every single moment that I am with him, learn something good and beneficial to improve myself.

So I thank my colleague, my dear friend, Senator WARNER, for those wonderful remarks that I think mean a great deal to the family of Captain Brown and to all the families, but also to the spirit of innovation, of that gung-ho spirit as far as the military is concerned, but also understanding the historic nature from the very beginnings of the cradle of liberty in Jamestown, on through the Lewis and Clark expeditions, and others throughout mankind.

He is really a wonderful Virginia gentleman. Some call him ''The Squire.'' I call him a living hero. I thank the Senator for his comments.

Mr. WARNER. Mr. President, I thank my colleague. I am deeply moved. A hero I am not, my dear fellow. I served twice in active duty for brief periods, and I benefited greatly in that service.

I try today, as chairman of the Armed Services Committee, to return to the men and women of the Armed Forces more than what I received by way of training and other benefits from serving in the military. My tours of active duty are inconsequential compared to the glorious careers of the persons who we honor today and, indeed, all others really that I have served with and see on the far-flung battlefields of the world as I travel through their posts, and will do soon again, to do what I can to benefit their lives, their welfare, their safety, and that of their families.

Mr. WARNER. But I think, my dear friend, we should note that we have present in the Chamber today the visiting Chaplain who comes from the State of Virginia. I think it is a matter of consequence that he is here today in the time that you and I speak. And he, too, expresses, as he did in the opening prayer, what is in his heart today, as he is in this Chamber, participating and listening to our speeches. So we are fortunate. We thank the guest Chaplain.

Mr. ALLEN. Mr. President, I share my colleague's comments in relation to the guest Chaplain, Dr. William Carl. It is a pleasure for us all he is here.

Mr. DASCHLE. Mr. President, I often speak about the many inspirational or impressive feats accomplished by South Dakotans. I am particularly pleased by the thousands of men and women from South Dakota who serve our Nation in one of the Armed Forces. But today, I want to call attention to someone who has risen above and beyond most others. I'm speaking of CDR Charles J. ''Jerry'' Logan of the U.S. Navy.

Commander Logan was born in De Smet, SD. He also lived in Leola and Belle Fourche, SD. The commander is a graduate of Belle Fourche High School and the South Dakota School of Mines in Rapid City. He is the only son of Charles and Margaret Logan's eight children. Most of the Logan family continues to reside in South Dakota. The commander is married to Teresa Logan, the daughter of Norman, who also served in the Navy, and Gay Jacobs.

Last November Commander Logan was bestowed the special honor of taking command of the USS *Bremerton*. This is his first command post. The *Bremerton* is one of several nuclear attack submarines assigned to the Pacific Fleet. Command of a nuclear submarine is obviously and enormous responsibility. Only a select few are ever charged with such a task.

Commander Logan took command of the *Bremerton* at a Change of Command ceremony in San Diego. Over 100 friends and relatives attended, and I am pleased to say many came from South Dakota—including Commander Logan's parents, all seven of his sisters, and many other relatives. I understand the presiding officer at the ceremony, Captain McAneny, was quite moved by the large contingent from South Dakota who traveled to show their support for Commander Logan.

I can certainly understand why the entire Logan and Jacobs families are proud of Commander Logan. I, too am proud of Jerry Logan, as I am proud of all those from South Dakota and throughout the Nation who are serving their country in the Armed Forces.

Mr. DODD. Mr. President, today I join the Nation in grieving the tragic loss of the crew of the Space Shuttle *Columbia*, which went down during its return to Earth after 16 days in space.

My heart especially goes out to the families of the seven astronauts on board the *Columbia*; Rick Husband, the mission commander, William McCool, the shuttle pilot, and the five crewmembers, David Brown, Michael Anderson, Laurel Clark, Kalpana Chawla, and Ilan Ramon.

Ever since President Kennedy announced, on May 25, 1961, that the United States land an American safely on the Moon by the end of the 1960s, our Nation has been committed to reaching for the stars.

President Kennedy said, ''We choose to go to the moon . . . not because [it is] easy, but because [it is] hard.''

Thus begun America's space program, a program which has compelled some our Nation's brightest and bravest souls to risk their lives in the name of progress; to travel into the frontiers of space in order to advance human life here on Earth.

The space program has seen its share of tragedy. In the prespace travel days of 1950s, daredevil pilots, such as form Senator John Glenn, risked it all to help us develop jet engine and rocket propulsion technologies, and to learn about the outer-reachers of our stratosphere. Dozens died in the process. They sacrificed their lives to make the space program possible.

Many of us are old enough to remember January 27, 1967, the day *Apollo 1* exploded during a launch-pad test, killing all three astronauts on board, Virgil Grissom, Edward White, and Roger Chaffee. I personally remember the numbness I felt when hearing the news, and later watching the tragedy replayed on television.

But the space program went forward; 18 months later, on July 20, 1969, Neil Armstrong and Buzz Aldrin took man's first steps on the Moon.

All of a sudden, our boundaries seemed limitless.

In 1982, the space shuttle program became operational, and trips to space began seeming commonplace.

But once again, on January 28, 1986, our Nation mourned the loss of shuttle astronauts Michael Smith, Dick Scobee, Judith Resnik, Ronald McNair, Ellison Onizuka, Gregory Jarvis, and Christa McAuliffe, who were lost the *Challenger* shuttle exploded during take-off.

President Reagan's words spoke for an entire Nation when he said: ''We've grown used to the idea space, and perhaps we forget that we've only just begun. We are still pioneers.''

With those words, the space shuttle program went forward, and there have been dozens of shuttle launches over the past 15 years, reaping untold rewards for humanity in terms of increasing our understanding of physics, biology, and of the physical universe in which we live.

Now we are in the shadow of another tragedy. Some are questioning whether or not manned space flights ought to continue. Some say risks to the lives of the astronauts outweigh the gains we can make in terms of scientific progress.

I say we listen to the families of those lost on Space Shuttle *Columbia*. They are united in their feelings that their loved ones died doing what they loved most, that these heroes understood the risks, but were undeterred because they also understood the potential for gain.

These families are united in their belief that the space program must go on.

I believe that if it does not, than the lives of these seven astronauts would have been lost in vain.

Tragedies like these are a direct result of America's restless desire for progress, to go further, fly faster, learn more, and advance.

Robert Kennedy once said: ''It is from acts of courage that human history is shaped.''

These seven brave astronauts knew the risks. They were not deterred. They were emboldened. They gave their lives that humanity could take yet another leap forward into the vast unknown of future knowledge.

They are, and always will be, national heroes.

Reading through articles from Sunday's New York Times, I could not help but be struck by the diversity of the crew. Once upon a time, all NASA astronauts were white men from the military. But over the past few decades, NASA has been recruiting astronauts based on their skills, their excellence, and of course, their courage and commitment. That has meant a more diverse astronaut pool.

The crew of the *Columbia* were a wonderful example of this diversity, men and women, black and white, immigrant and native-born, as well as a crew-member from Israel, Ilan Ramon.

The crew of the *Columbia* offer us a reminder that there are not boundaries in space, and that humans are one race.

Together, we will overcome this tragedy. And together, we will continue to look toward the stars and beyond.

I ask unanimous consent to print in the RECORD seven articles from Sunday's New York Times, each of which offers insights into the lives and personal accomplishments of each of the astronauts lost in Saturday's tragedy.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From the New York Times, Feb. 2, 2003]

LOSS OF THE SHUTTLE: THE ASTRONAUTS; THE COLUMBIA SPACE SHUTTLE'S CREW OF 6 AMERICANS AND 1 ISRAELI

(By Pam Belluck)

Seven astronauts, six Americans and an Israeli, died aboard the shuttle Columbia yesterday. Of the crew of five men and two women, four had never flown in space before.

COL. RICK D. HUSBAND—A LIFELONG DREAM OF BEING AN ASTRONAUT

It took Rick D. Husband four tries to convince NASA to let him become an astronaut. The 45-year-old Air Force colonel from Amarillo, Tex., had yearned to fly in outer space since he was a child. ''It's been pretty much a lifelong dream and just a thrill to be able to get to actually live it,'' Colonel Husband told The Associated Press just before the Jan. 16 launching of the space shuttle Columbia.

Finally, Colonel Husband, a former test pilot who learned to fly when he was 18 and had more than 3,800 hours of flight time in more than 40 types of aircraft, was chosen for the NASA space program in 1994.

But it would take five more years of training and preparation before he would ride his first rocket into space. During that 10-day mission in 1999, Colonel Husband was the pilot of the space shuttle Discovery in the first mission by a shuttle crew to dock with the international space station.

After that he became chief of safety for NASA's astronaut office, and despite having only one space flight under his belt Colonel Husband was chosen to be the commander of the Columbia mission.

His mother, Jane Husband, said he prepared intensely, capitalizing on every minute, even an unexpected six-month delay when repairs forced the shuttle to be grounded last July.

''At Christmas, he was still studying, and I said, 'Oh, gosh,''' Mrs. Husband told the Ledger of Lakeland, Fla., just after the launching of the shuttle. ''He said, 'I have to make sure everything is in my head perfect.' They're all like that. They have to be mentally prepared.''

Greg Ojakangas, a NASA consultant and professor of physics at Drury University in Springfield, MO., because friendly with Colonel Husband during the 1994 NASA selection process, when Dr. Ojakangas was not picked to be an astronaut.

''He finally made it,'' Dr. Ojakangas said. ''It was a tale of perseverance.''

Dr. Ojakangas said Colonel Husband was a religious man devoted to his family, whose only regret about joining the space program was that it kept him so busy.

''When I asked him how he was liking it,'' Dr. Ojakangas said, ''I remember him talking about how he wished he has more time at home.''

Colonel Husband, had a wife, Evelyn; a daughter, Laura, 8; and a son, Matthew, 3. A baritone who sang in a barbershop quartet while in school, Colonel Husband still sang in church choirs. And he loved water skiing and biking.

Colonel Husband's mother and uncle watched the shuttle launching in Florida last month, feeling some of the astronaut's excitement as the spacecraft took off.

''It was almost as if the creator arranged it,'' his uncle, George Drank, told The Ledger. ''The flood lights were on the shuttle. Then the sun started coming over the horizon. As it ascended into heaven, the sun was behind it, and it made a big dark streak across the sky. I looked back at his mother and brother and tears were streaming.''

Evelyn Husband said: ''I wasn't nervous about what he was doing because he worked so long and hard for it. But when that started lifting off, Mama started crying. It's different when your son is on it.''

When asked before the flight about being selected mission commander while being relatively new to the space program, Colonel Husband seemed modest and poised.

''I think,'' he said, ''a lot of it has to do with being at the right place at the right time, for starters.''

[From the New York Times Feb. 2, 2003]

LOSS OF THE SHUTTLE: THE ASTRONAUTS; THE COLUMBIA SPACE SHUTTLE'S CREW OF 6 AMERICANS AND 1 ISRAELI

(By Jodi Wilgoren)

Seven astronauts, six Americans and an Israeli, died aboard the shuttle Columbia yesterday. Of the crew of five men and two women, four had never flown in space before.

DR. LAUREL SALTON CLARK—AFTER SEA AND SKY, MOVING ON TO SPACE

Laurel Salton Clark had conquered the sea, diving with the Navy Seals and conducting medical evacuations from submarines off Scotland. She had penetrated the air as a flight surgeon aboard the Marine Attack Squadron of the Year. Space was the logical next frontier.

''She was never one of these people to say, 'O.K., I found what I want to do,' it was always 'What the next challenge?''' said Dr. Clark's younger brother, Daniel Salton. ''She was one of these people who just had goals, just saw the goal, the end result, and knew how much work it would take to get there and was willing to do it.''

Dr. Clark, 41, a Navy commander who was one of two women among the seven astronauts aboard the space shuttle Columbia, was always scuba diving or mountain biking, hiking or rock climbing or parachuting. She grew up in Racine, Wisc., the eldest of four children, married a fellow Navy officer, Jonathan Clark, who later joined her in working at NASA, and had an 8-year-old son, Iain.

In an e-mail message sent from the space shuttle a few days ago, Dr. Clark marveled at the view of Wind Point, a peninsula jutting into Lake Michigan a few miles from her childhood home, and wondered whether the photographs she had taken would turn out.

''Hello from above our magnificent planet earth,'' Dr. Clark wrote to a group of close friends and relatives. ''The perspective is truly awe-inspiring. Even the stars have a special brightness. I have seen my 'friend' Orion several times.

An animal lover who was always the child to sleep with the family cat, Laurel Blair Salton graduated from Racine's William Horlick High School in 1979 and majored in zoology at the University of Wisconsin, in Madison, intending to be a veterinarian. Instead, she attended the university's medical school, where she was part of a tight-knit group of six friends who saved up their vacation time and spent the last three weeks before graduation in 1987 sailing a 42-foot boat through the British Virgin Islands.

After nearly a decade in the Navy, with postings in Pensacola, Fla, Holy Loch, Scotland, and Yuma, Ariz, a friend suggested that Dr. Clark take the NASA test. Like many others, she was not accepted on the first round. She later became part of a class known as the Sardines, because it had more than 40 astronaut candidates, the most in history, Ms. Salton said.

At NASA, Dr. Clark was nicknamed ''Floral, ''because of the vibrant colors that she wore when not in uniform.

Mr. Salton said he never worried about the safety of the shuttle—until two weeks ago when he joined his mother, siblings and several of Dr. Clark's friends at the launching.

''I was just an emotional wreck when she was in space, when you actually see that rocket group,'' he recalled. ''Visions of the Challenger go through your head and you pray that its not going to happen. Once they're up in space, big sigh of relief, O.K. the dangerous part is over. I never ever considered that something could happen on the way down.''

While in space, Dr. Clark was part of several life-science experiments. In an interview from space published on Friday in The Milwaukee Journal Sentinel, she spoke of watching the sunsets.

''There's a flash—the whole payload bay turns this rosy pink,'' she said. ''It only lasts about 15 seconds and then it's gone. It's very ethereal and extremely beautiful.''

Always a lover of her Scottish heritage, Dr. Clark had chosen as her wake-up song aboard the shuttle a bagpipe version of ''Amazing Grace,'' similar to one played at her wedding.

It will also be played at her funeral.

[From the New York Times, Feb. 2, 2003]

LOSS OF THE SHUTTLE: THE ASTRONAUTS; THE COLUMBIA SPACE SHUTTLE'S CREW OF 6 AMERICANS AND 1 ISRAELI

(By Warren E. Leary)

Seven astronauts, six Americans and an Israeli, died aboard the shuttle Columbia yesterday. Of the crew of five men and two women, four had never flown in space before.

COL. ILAN RAMON—PILOT EMBRACED ROLE AS A SYMBOL FOR JEWS

Col. Ilan Ramon was a soft-spoken combat pilot conscious of the importance of symbols and history, and the role he played in both. In the days and weeks leading to the Columbia's mission, and as the shuttle carried out its 16 days of science experiments, much of the attention focused on Colonel Ramon.

The son and grandson of Holocaust survivors, Colonel Ramon, 48, was the first citizen of his country to go into space. The accomplishment, he said in an interview in mid-January, was not his alone.

''Every time you are the first, it is meaningful,'' he said. ''I am told my flight is meaningful to a lot of Jewish people around the world. Being the first Israeli astronaut, I feel I am representing all Jews and all Israelis.''

On the shuttle, where he presided over an Israeli project to collect images of dust storms to gauge their impact on climate, Colonel Ramon carried a special keepsake.

It was a small Torah scroll used at the bar mitzvah of the project's principal investigator, Dr. Joachim Joseph, almost 60 years ago while he was in a Nazi concentration camp. The elderly rabbi performing the ceremony, who died soon afterward in the camp, gave the Torah to the boy and told him to tell people what had happened there.

Dr. Joseph said Colonel Ramon saw the Torah when visiting his home and was so moved by the story that he asked to take it into space as a tribute.

Before the launching, most of the attention paid to the mission centered on security and efforts to keep the shuttle and its crew safe from any terrorist attack. Officials at NASA acknowledged that the presence of an Israeli astronaut had only intensified the heightened security they had imposed since Sept. 11, 2001.

But Colonel Ramon and his crewmates said they were not unduly concerned about their safety, and they concentrated on keeping up their training for their much-delayed research mission, Colonel Ramon, who spent more than four years preparing for the flight, saw it repeatedly postponed by higher-priority missions and problems that periodically grounded the shuttle fleet.

''I have a lot of patience,'' he said with a smile before the launching, ''but now I'm ready to go.''

Ilan Ramon was born on June 20, 1954, in a Tel Aviv suburb and, after graduating from high school in 1972, attended the Israel Air force Flight School. He became a fighter pilot and logged more than 4,000 hours in various combat aircraft. He fought in the Yom Kippur war of 1973 and in the Lebanon conflict in 1982.

He received a bachelor of science degree in electronics and computer engineering from the University of Tel Aviv in 1987, and in 1994 was promoted to colonel and assigned to head the air force's weapons development and acquisition division.

Colonel Ramon was selected as an astronaut candidate in 1997 as a result of a science agreement two years earlier between President Bill Clinton and Shimon Peres, then the Israeli foreign minister. He and his wife, Rona, moved to Houston in 1998 so he could begin training at the Johnson Space Center. He is also survived by four children ages 6 to 14.

[From the New York Times, Feb. 2, 2003]

LOSS OF THE SHUTTLE: THE ASTRONAUTS; THE COLUMBIA SPACE SHUTTLE'S CREW OF 6 AMERICANS AND 1 ISRAELI

(By Lydia Polgreen)

Seven astronauts, six Americans and an Israeli, died aboard the shuttle Columbia yesterday. Of the crew of five men and two women, four had never flown in space before.

DR. KALPANA CHAWLA—QUIET AND MODEST, BUT ALSO DETERMINED

Nearly everyone who walks into Don Seath's classroom has at least toyed with the thought of becoming an astronaut. Mr. Seath, who has taught aerodynamics at the University of Texas of Arlington since 1965, would be hard pressed to think of a student who on first meeting seemed less likely to go into space than Kalpana Chawla. It was not that she lacked brilliance. ''She was a very good student, quite excellent,'' Mr. Seath said in a telephone interview. ''She was in my aerodynamics class, and she performed exceedingly well. She was very bright.''

What she did not have was the brash attitude most aspiring astronauts displayed.

''She was quiet and modest,'' Mr. Seath said. ''When I heard she had been accepted into the program to become a astronaut I was thrilled but also surprised.'' She just did not seem to fit the type, he said.

But Dr. Chawla, 41, never lacked determination, those who knew her said. From her childhood in Karnal, a small-town about 80 miles north of New Delhi, she nursed a lifelong dream to go into space. She early on set her sights on an American education that would take her up into the air.

''I was interested in aerospace and flying, and the U.S. is really the best place in the world for flying,'' she told the University of Texas at Arlington magazine in 1998.

Dr. Chawla was a brilliant student, always in the top five of her class, those who knew her said. After getting an engineering degree from Punjab Engineering College in 1982, she moved to the United States, where she attended the University of Texas at Arlington, then got a doctorate in aerospace engineering from the University of Colorado. Along the way she became a citizen of the United States.

In 1994, NASA selected her and 19 other people from a group of 4,000 other applicants to its astronaut program. On Nov. 19, 1997, she became the first Indian-born woman in space. She was assigned to the shuttle Columbia as a mission specialist and prime robotic arm operator.

The flight was not without mishaps. As robotic arm operator she was unable to retrieve the 3,000 pound Spartan satellite, which spun away after the shuttle released it, and astronauts had to go out on a space walk three days later to retrieve it. The mistake shook her confidence, and she feared her space career was over. But her concern was misplaced.

''Some of the senior people, the very senior astronauts, shook my hand and said, 'K.C., you did a great job. Don't let anyone tell you different,' ''Dr. Chawla told the University of Texas at Arlington Magazine. A NASA inquiry later determined that the shuttle crew had made a series of errors that caused the satellite to malfunction.

In New Delhi, relatives of Dr. Chawla gathered to hear news and mourn together.

''Whenever you are involved in such tasks, one should be prepared for such things,'' said Anjay Chawla, Dr. Chawla's brother, his voice choking as he spoke to reporters. ''If it could happen to others it could happen to you as well. This time it happened to us.''

R. S. Bhatia, head of the Washington office of the Indian Space Research Organization, India's answer to NASA, said Dr. Chawla had become a symbol of India's greatness, even though she was no longer a citizen.

''After her first flight, she became a national hero,'' Mr. Bhatia said. ''She is an American citizen, but she is ours too. This is the most terrible tragedy. We have lost a hero.''

[From the New York Times, Feb. 2, 2003]

LOSS OF THE SHUTTLE: THE ASTRONAUTS; THE COLUMBIA SPACE SHUTTLE'S CREW OF 6 AMERICANS AND 1 ISRAELI

(By Jeffrey Gettleman)

Seven astronauts, six Americans and an Israeli, died aboard the shuttle Columbia yesterday. Of the crew of five men and two women, four had never flown in space before.

CAPT. DAVID M. BROWN—A CIRCUS PERFORMER AND A TOP AVIATOR

Trapeze artist. Stilt walker. Test pilot. David M. Brown had a special blend of the right stuff. And a bucket of humility to go along with it.

''He was one of those guys who filled all the squares to be where he was,'' said Bob Ryan, another pilot-doctor who knew Dr. Brown from a flight surgeons' organization. ''But he was quiet about it. You'd never hear Dave beating his own drum.''

Dr. Brown, 46, grew up in Arlington, Va. He was a star gymnast on the parallel bars at Yorktown High School and went on to earn a letter at William and Mary. He also joined the circus, performing as an acrobat, unicyclist and stilt walker, all the while earning top marks in biology.

Dr. Brown, a 46-year-old doctor who died about the space shuttle Columbia yesterday, began his gravity defying days in Arlington, VA., where he starred on the Yorktown High School gymnastics team. He went on to join the circus while studying biology at the College of William and Mary. He was an acrobat, unicyclist and stilt walker.

''I always let him dream,'' said his mother, Dot.

He attended Eastern Virginia Medical School and signed up with the Navy afterwards.

He was sent to a military hospital in Alaska, and then served on an aircraft carrier. In 1988, Dr. Brown was selected for pilot training, a rarity for Navy doctors. He graduated No. 1 in his naval aviation class.

He flew F–18 Hornet jet fighters, A–6E Intruder aircraft and the high performance T–38 Talon, known as the white rocket. He joined the Navy test pilot school in 1995 and was chosen for the astronaut program the next year. It was his third try. His credentials in biology and medicine helped land him a spot on the Columbia mission, which focused on scientific research.

Dr. Brown was hooked on space, friends said. He had a telescope in his living room, aimed at the moon. Some nights, he would jump in his single-engine plane and fly the 50 miles from Houston, where he lived, to Galveston to attend astronomy club meetings.

''As we were flying through the night, Dave would point out all the stars and nebula,'' said Dwight Holland, an Air Force pilot and friend. ''He loved it.''

Solidly built with wholesome looks, Dr. Brown had never been married. His closest companion was his 14-year-old dog, Duggins, who died two days before the shuttle lifted off.

His parents live on a mountaintop in rural Virginia. Yesterday, they shared the last e-mail they received from him.

''My most moving moment was reading a letter that Ilan Ramon brought from a Holocaust survivor whose seven-year-old daughter died,'' Dr. Brown wrote. ''I was stunned

such a beautiful planet could harbor such bad things.''

[From the New York Times, Feb. 2, 2003]

LOSS OF THE SHUTTLE: THE ASTRONAUTS; THE COLUMBIA SPACE SHUTTLE'S CREW OF 6 AMERICANS AND 1 ISRAELI

(By Timothy Egan)

Seven astronauts, six Americans and an Israeli, died aboard the shuttle Columbia yesterday. Of the crew of five men and two women, four had never flown in space before.

LT. COL. MICHAEL P. ANDERSON—A SOURCE OF HOPE FOR CHILDREN

Whenever Happy Watkins wanted to inspire black children in Spokane, an overwhelmingly white city in eastern Washington, he would reach into his wallet and pull out an autographed picture of Lt. Col. Michael P. Anderson of the Air Force, the black astronaut who grew up in their town and died on the space shuttle Columbia today. ''These kids, some of them have no hope, and their eyes would light up when they saw this picture,'' said Mr. Watkins, who taught young Michael Anderson in the Sunday school at Morning Star Baptist Church in Spokane.

''This picture said it all—he's black, he's an astronaut—it was a huge motivator,'' Mr. Watkins said in an interview.

Born on Christmas Day 1959 in Plattsburgh, N.Y., the son of an Air Force serviceman, Colonel Anderson dreamed of the cosmos, and space flight, from the time he was a boy and got his first toy airplane at age 3.

He was a fan of Star Trek, and early on, he memorized the names of most of the American astronauts. He watched the Moon landing when he was a 9-year-old, and the excitement never left him, he said later.

He never doubted he would be an astronaut. ''I can't remember ever thinking that I couldn't do it,'' Colonel Anderson said in an interview with the University of Washington alumni newsletter in 1998. ''I never had any serious doubts about it. It was just a matter of when.''

But on the eve of his last flight, Colonel Anderson did talk about the risk of space flight.

''There's always that unknown,'' he said to reporters just before the Columbia lifted off on Jan. 16.

Colonel Anderson's parents, Bobbie and Barbara Anderson, live in Spokane. The family moved to the area about 30 years ago, friends said, because Bobbie Anderson was assigned to the Fairchild Air Force Base about 25 miles from Spokane. Michael Anderson went to school in Cheney, a farm town next to the base.

Today, inside Cheney High School is a plaque and picture of Colonel Anderson, the astronaut who never wavered in his dreams.

''Michael's always been an amazingly strong, focused guy,'' said the Rev. Freeman Simon, who has known the family for about 25 years, and attended the same church with them. ''He is strange in one respect: he was the guy who always seemed to know what he wanted, and could translate his thinking into action.''

After Cheney High School, Colonel Anderson got a bachelor of science degree in physics and astronomy at the University of Washington, in Seattle. He earned a master's degree in physics in 1990 at Creighton University.

In 1994, while stationed at Plattsburgh Air Force Base, he was chosen for the space shuttle program, one of 19 candidates selected that year from among 2,962 applicants.

He was on the Shuttle-Mir docking mission in 1998, when the crew transferred more than 9,000 pounds of scientific equipment and other hardware from the Endeavour to the Mir.

He was married to the former Sandra Lynn Hawkins.

While Colonel Anderson was a role model in Spokane as one of the few black astronauts, he would have stood out even if he had never gone to space, friends said.

''If you know what the character of an eagle is like, that is Michael Anderson,'' said Mr. Freeman. ''He was an eagle among chickens.''

[From the New York Times, Feb. 2, 2003]

LOSS OF THE SHUTTLE: THE ASTRONAUTS; THE COLUMBIA SPACE SHUTTLE'S CREW OF 6 AMERICANS AND 1 ISRAELI

(By Alan Feuer)

Seven astronauts, six Americans and an Israeli, died aboard the shuttle Columbia yesterday. Of the crew of five men and two women, four had never flown in space before.

Cmdr. William C. McCool: Carrying a Memento Of Home on Mission

When Cmdr. William C. McCool of the Navy, the pilot of the space shuttle Columbia, took off on Jan. 16, he carried a piece of his hometown with him: a spirit towel for the Coronado Mustangs, his high school football team in Lubbock, Tex. Commander McCool, 41, had always been a football fan. He told The Associated Press in an interview that he was rooting for the Oakland Raiders in last Sunday's Super Bowl, having grown up in San Diego.

He was an athlete—a runner, swimmer and a back-country camper—and played the guitar and chess. He was even known to play chess via e-mail with crew members of the international space station.

He was also something of a cutup, those who knew him said.

''Willie had one of the best senses of humor of any kid you'd ever seen,'' said Ed Jarman, who taught Commander McCool's high school chemistry class. ''He could rig up the most comical ways of explaining scientific principles.''

Mr. Jarman said Commander McCool was highly dependable. ''If I needed trash picked up on the school grounds, I'd make him a committee of one.''

He had always been interested in joining in the Navy, Mr. Jarman said; his father was a chief petty officer in the Navy.

Commander McCool graduated second in his 1983 class at the Naval Academy, where he ran with the cross-country track team.

The commander of his mission, Rick D. Husband, was also from Lubbock, and the town was in mourning yesterday.

The Columbia mission was Commander McCool's first trip into space. He was an experienced test pilot, one of the Navy's elite airmen, and had logged more than 2,800 flight hours.

Commander McCool was chosen by NASA for its astronaut program in 1996 and completed two years of training. He was scheduled for a shuttle mission in June 2001, but it was delayed.

Asked then by The Lubbock Avalanche-Journal if the scratched mission troubled him, he was optimistic.

''From a rookie point of view, the delays are probably good,'' he said. ''I feel like going through the training flow essentially a second time a little less like a rookie and a little bit more like a veteran.''

In the same interview he said one of the hardest parts of his mission would be working on a split-duty around-the-clock schedule: half of the shuttle crew members worked, while the other half slept.

''I think it's going to be very difficult,'' he said. ''That's why we're focusing now in advance on doing everything very efficiently on time. We hope we can do whatever measures are necessary to get us into bed.''

Commander McCool was married and had three sons.

Ms. SNOWE. Mr. President, America and the world watched with equal measures of shock and sadness on the morning of February 1, as the Shuttle *Columbia* was lost and seven heroes perished in the skies over Texas.

At this most somber of times, we pray for the souls of the seven astronauts, as well as the families of those who gave their lives to advance humankind. We also extend our most profound sympathies to all Israelis as they mourn their fallen countryman, the first Israeli astronaut. Their boundless joy has turned to the deepest sorrow, and we share in their terrible loss.

Today, we remember Rick D. Husband, commander; William C. McCool, pilot; Michael P. Anderson, payload commander; David M. Brown, mission specialist; Kalpana Chawla, mission specialist; Laura Blair Salton Clark, mission specialist; and Ilan Ramon, payload specialist. Their names are no longer of the pedestrian Earth, they now belong to the ages, forever etched in the halls of history.

We can scarcely comprehend the dangers which they accepted daily as the price for making a difference in the world. For most of us, we could not imagine a life so punctuated by peril. For them, they could not imagine life in any other form, and it is we who are the beneficiaries of their courage.

For those who exist on the vanguard of human endeavor, we reserve our highest regard and greatest respect. For it is they who set new standards by challenging old limits. It is they who embrace the ultimate risk in exchange for mapping the realm of possibility. We can no more place ourselves in their minds and hearts than we can imagine what it is like to stand on a street corner in a city we have never seen. We occupy a different space in the world. But we know and can appreciate the fruits of their extraordinary labor, and that is probably all they would ever ask of us.

The Space Shuttle *Columbia*, on mission STS–107, was dedicated to research in the space, life, and physical sciences. The seven astronauts worked around the clock, for 16 days, to carry out studies in the areas of astronaut health and safety, advanced technology development, and Earth and space sciences. It is true they carried with them experiments designed to expand the store of human knowledge. But they also carried with them the pride of the United States and Israel, and the hopes of the people of our two great nations for a brighter and better tomorrow.

Our hearts are now heavy, but our pride and our hope are not diminished, far from it. Indeed, the spirit represented by *Columbia* cannot be vanquished by such crude and earthly instruments as physics or fire. Rather, the spirit embodied by her and her

crew is of a higher, infinitely more durable plane, where the finest of human ideals and pursuits never die, but only grow stronger with the passing of the days.

In moving forward, we must now ascertain what went wrong, and take every conceivable step to ensure it is never repeated for the sake of those who, in the years ahead, will once more ride into the breach of space. As President Bush has said, ''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.'' Perhaps that is best way for us to honor the memory of those seven astronauts who never returned from *Columbia*.

Robert F. Kennedy once said, ''There are those who look at things the way they are, and ask why . . . I dream of things that never were, and ask why not?'' That is the credo by which the seven astronauts of *Columbia* lived their lives, and their legacy will be remembered as long as greatness is revered.

Again, I join with my colleagues and all of America in expressing my deepest appreciation, and my most sincere condolences to the families. Our thoughts and prayers are with them. May God grant them strength and comfort as He welcomes home the crew of *Columbia*.

Mr. FEINGOLD. Mr. President, I rise today with a heavy heart to mourn the loss of a fellow Wisconsinite, a wife, mother, daughter, sister, and friend. This extraordinary woman, Laurel Clark of Racine, WI, was a physician, a Navy Commander, and an astronaut who was flying her first space mission aboard the Space Shuttle *Columbia*. When that craft broke apart over the blue Texas sky on Saturday morning, we lost this incredible woman and her six crew mates. I extend my deepest sympathy to Dr. Clark's husband and son and to her family and friends.

Dr. Clark, the oldest of four children, was born in Iowa and grew up in Racine, WI. She graduated from William Horlick High School in 1979 and went on to attend the University of Wisconsin-Madison, where she studied zoology and was an active member of Gamma Phi Beta Sorority. She earned her undergraduate degree in 1983, and her medical degree, also from the University of Wisconsin, in 1987.

Dr. Clark joined the U.S. Navy after medical school and became a diving doctor, participating a number of submarine missions. She was selected to train as an astronaut in 1996, and she and her husband relocated to Houston, TX, home of the Johnson Space Center.

Dr. Clark's first shuttle mission was postponed several times, and after years of training and anticipation, she and her crewmates lifted off from Cape Canaveral on January 16 for a 16-day microgravity research mission. Aboard the *Columbia*, Dr. Clark was a mission specialist who conducted numerous medical experiments, often using herself as a test subject.

An e-mail message that Dr. Clark sent to her brother from space noted that she enjoyed looking down on her home planet and seeing familiar sights such as Wind Point on Lake Michigan.

Dr. Clark's professional journey took her from the depths of the Earth's oceans to the vast reaches of outer space. She truly reached for the stars and made incredible contributions to our country. Dr. Laurel Clark and her crewmates were tragically taken from us too soon, and we will always treasure her legacy of scientific exploration and discovery and her commitment to her family, friends, and country.

Mr. KERRY. Mr. President, I rise today to pay tribute to the men and women who lost their lives on the space shuttle *Columbia* and offer my condolences to their families and to the entire NASA community. Like all Americans, they are in my thoughts and prayers during this difficult time.

Early Saturday morning, the crew of the *Columbia* was preparing to reenter the Earth's atmosphere after a 16-day mission to conduct scientific experiments. Five of the seven astronauts were on their first space flight. By all accounts, the mission had been a success, and some of the astronauts jokingly complained to mission controllers about having to come home. The crew included Dr. Kalpana Chawla, a mechanical engineer and Indian immigrant, William McCool, a Navy test pilot, Dr. David Brown, a Navy physician, COL Ilan Ramon, an Israeli fighter pilot, Laurel Clark, a Navy flight surgeon, and two veterans of the space program, Mission Commander Rick Husband and Payload Commander Michael Anderson. Fourteen minutes into reentry, as the shuttle passed through the upper atmosphere and reached temperatures as hot as 2,000 degrees, it broke apart above northern Texas, taking these seven remarkable individuals down with it.

This was a world tragedy as much as it was an American tragedy. The crew of the *Columbia* reflected our diverse planet as much as it did a cross section of America. Dr. Chawla was a hero in her native India, as was COL Ramon in Israel. Both were on their first space flight. Millions of people around the world reacted in horror as they watched footage of the *Columbia* streaking across the Texas sky. They share in our deep sense of grief.

I am confident we will complete an exhaustive investigation to determine what went wrong. All questions need to be answered before we send our best and brightest back into space. However, I firmly believe that we must press on. We must continue the exploration of space. I have always supported the space program because I believe it is in the best interests of mankind to unlock the mysteries of life on earth and beyond. The shuttle missions have helped us understand global warming, weather patterns, and the effects of weightlessness on the human body, aided in the understanding of disease, and exponentially increased our understanding of the universe. It would be impossible to quantify the knowledge we have gained from sending men and women into space.

Space flight brings out the best in us. It challenges us to think big, to strive for greatness, and to work together to achieve the most important goals. There is no doubt in my mind that we should continue these missions and prepare the next generation of astronauts for the challenges that lay ahead. To be sure, there is great risk. However, if it weren't difficult, if it didn't promise to improve the quality of our lives and our understanding of the world, then it wouldn't be worth doing. Yesterday the families of the *Columbia* 7 issued a statement expressing that sentiment: ''Although we grieve deeply, as do the families of *Apollo 1* and *Challenger* before us, the bold exploration of space must go on.''

This tragedy has touched each and every one of us. These selfless heroes were dedicated to a cause greater then themselves. They were passionate about space flight, passionate about their mission, and were committed to making life better for all of us. They will be missed, and they will never be forgotten.

Mr. CONRAD. Mr. President, I would like to include a few words for the RECORD about the horrible tragedy that our Nation suffered on Saturday morning. Our Nation grieves for the brave astronauts that lost their lives on the Space Shuttle *Columbia*. My thoughts, and the thoughts of all North Dakotans, are with the families and friends of the seven crew members who died in the skies over Texas and Louisiana.

Rick Husband, Michael Anderson, Laurel Clark, David Brown, William McCool, Kalpana Chawla, Ilan Ramon. These men and women came from around the country and around the world to risk their lives, and ultimately give their lives, for human space flight and all that it can offer. Mr. Ramon was a colonel in the Israeli Air Force. Dr. Chawla was an American born in India. The others came together from across the United States. Their mission was one of cooperation, research, and discovery. In these troubled times when we talk of war every day, their mission was, significantly, a mission of peace.

I have always said that, when done right, space exploration can be of tremendous benefit to those of us on the ground. The cutting edge research that NASA conducts in space, including the research performed by these seven brave individuals on *Columbia*, simply could not happen on the surface of the Earth. Now, we are reminded not only of how difficult and how important this research is, but also just how dangerous it is.

In my State, we understand this first hand. In North Dakota, we are proud to

say that we have more astronauts per capita than any other State. James Buchli, Tony England, and Richard Hieb all hail from North Dakota. One of them, Mr. Hieb, flew on *Columbia* back in 1994.

In North Dakota, we are grieving over the loss of the seven members of *Columbia's* last mission. But, I am confident that human space flight will continue even in the wake of this disaster. Across this country, and especially at NASA, there is a ''can-do'' attitude that will allow us to forge ahead. It is this spirit that will allow us to move forward with resilience after this horrible tragedy.

Mr. CRAIG. Mr. President, like many of my colleagues, I wish to discuss the national tragedy that occurred on Saturday morning and to pay tribute to the seven brave men and women who lost their lives in the space shuttle *Columbia* disaster.

Just like people around the country, I was beginning my day on Saturday and tuning into the news programs when I learned that NASA had lost contact with the Shuttle *Columbia*. I was riveted to the developments as they unfolded on television and was devastated when our President addressed the Nation, announcing what we all suspected at that point, ''The *Columbia* is lost; There are no survivors.''

My heart and prayers go out to the crew of the Space Shuttle *Columbia* and their families. While space travel has in some ways become routine to the American public, this tragedy is a vivid reminder of the inherent risks these brave men and women undertake to pursue the boundaries of space and science. On this day, and in the future, they deserve to be remembered for the lives they lived and I hope we will do that.

In the days that have followed the tragedy, we have all become familiar with the backgrounds of the *Columbia* astronauts. They were men and women of such accomplishment and capability that it begins to make the extraordinary seem ordinary, but such a characterization is not fair to them. Our astronaut corps continues to attract the best of the best, and to require an unparalleled standard of achievement and excellence. For many shuttle astronauts, the opportunity to participate in a shuttle mission is the dream of a lifetime and for all of them, it is the culmination of a lifetime of hard work.

I remember my excitement as a child, clipping articles about the Mercury missions and hanging them on the bulletin board in my bedroom. Today, Idaho's school children do the same with articles about the International Space Station and the missions of our space shuttle fleet. Many kids follow the progress of various NASA missions in their classrooms. NASA considers this educational outreach a critical, core mission and a major purpose for its existence as an agency. In fact, in a recent meeting I had with NASA Administrator Sean O'Keefe, he spent much of our time together discussing the ways that NASA is working to excite students about math and science. This is vital work. It must continue.

Although Congress and NASA are now getting on with the business of investigating what went wrong, nothing should deter us from the important missions of our national space program. I join with my colleagues today in saluting the *Columbia* astronauts and those at NASA who make it possible for us to explore our universe.

Mrs. FEINSTEIN. Mr. President, I rise today to commemorate the lives of the seven astronauts who gave their lives Saturday when the spacecraft *Columbia* was lost as it returned to Earth. The names of those manning the shuttle will be ingrained in our minds and in our hearts: CDR Rick Husband, CDR William McCool, LTC Michael Anderson, CDR Laurel Clark, CAPT David Brown, Dr. Kalpana Chawla, and COL Ilan Ramon, of the Israeli Air Force.

The crew of the *Columbia* shared a love of flying and a sense of adventure that spurred each to strive for excellence and reach for space.

CDR Rick Husband knew from the time he was 4 years old and watched his first shuttle launch that he wanted to be an astronaut.

He was commissioned a second lieutenant in the Air Force and attended pilot training at Vance Air Force Base in Oklahoma. He later served as a test pilot for all five models of the F–15. Commander Husband logged more than 3,800 hours of flight time in more than 40 types of aircraft.

Commander Husband studied mechanical engineering at Fresno State University in California through an extension program at nearby Edwards Air Force Base. On the flight, Commander Husband carried a Fresno State Bulldogs sweatshirt, as a memento. He graduated with a master's degree in 1990. Four years later, NASA selected Husband as an astronaut candidate.

He leaves behind his wife, and his two children.

Born in San Diego, CA, CDR William McCool was the son of a Navy and Marine aviator who built model airplanes as a youngster.

Commander McCool studied aerospace engineering at the U.S. Naval Academy, and was elected captain of the cross-country running team his senior year. He graduated second in his class from the Naval Academy.

Commander McCool received a master's degree in computer science from the University of Maryland in 1985 and a master's in aeronautical engineering at the U.S. Naval Postgraduate School in 1992.

He attended flight school in Pensacola, FL, and worked as a test pilot at the Patuxent River Naval Air Station in southern Maryland.

Commander McCool leaves behind a wife and two children.

LTC Michael Anderson always dreamed of space flight and once said that he could not remember a time when he did not want to be an astronaut.

He graduated from the University of Washington in 1981 with a degree in physics and astronomy and, following in his father's footsteps, was commissioned a second lieutenant in the Air Force.

While stationed at Offutt Air Force Base in Nebraska in 1990, Anderson earned a master's degree in physics from Omaha's Creighton University.

In 1994, he was selected to join NASA as a potential future astronaut. In January 1998, he made his first flight, aboard the space shuttle Endeavour, traveling 3.6 million miles during 138 orbits of the Earth to reach the Mir space station.

LTC Michael Anderson leaves behind his wife and two daughters.

CDR Laurel Clark always excelled at school, and her classmates remember her for her fun-loving and adventurous spirit.

After Commander Clark graduated from the University of Wisconsin-Madison, she joined the Navy to pay her way through medical school, but stayed with the Navy for the series of adventures it offered her in her career.

While in the Navy, Commander Clark became a submarine medical officer, dove with Navy SEALS in Scotland, and earned her flight surgeon's wings before finally applying to NASA for astronaut training.

While orbiting the Earth, Commander Clark remarked on the beauty of watching sunsets from space.

She leaves behind her husband and her son.

CAPT David Brown loved to fly kites as a child, and would gaze at the stars with friends from a backyard telescope.

Captain Brown grew up in Arlington, VA, and earned a bachelor's degree in biology from the College of William and Mary, where he worked two jobs so he could take flying lessons.

He then earned a medical degree from Eastern Virginia Medical School in Norfolk, before joining the Navy.

Captain Brown served as a flight surgeon in the Navy and joined NASA in 1996.

His family and friends remember him as a person who ''grabbed life,'' saying that he could and did accomplish anything he set out to do.

Dr. Kalpana Chawla fell in love with the idea of flying as a young girl in India.

She graduated from the Tagore Bal Niketan School in her small hometown of Karnal and then got a bachelor's degree in aeronautical engineering from Punjab Engineering College.

She left India for the United States, earning a master's degree from the University of Texas and a doctorate in aerospace engineering from the University of Colorado.

Dr. Chawla then worked as a scientist at the NASA Ames research laboratory in California before joining the astronaut program in 1995.

Dr. Chawla was a member of the West Valley Flying Club in Palo Alto who loved doing aerial acrobatics over the Bay Area.

She leaves behind her husband.

COL Ilan Ramon was a bona fide combat hero in Israel, flying missions in the Yom Kippur War in 1973, and the Lebanon war in 1982.

In recent days, he lifted the spirits of his country, becoming a national hero as the first Israeli in space.

As a pilot, Colonel Ramon clocked more than 4,000 hours in combat aircraft, and was an F–16 squadron commander.

Aboard the *Columbia*, one of Ramon's scientific experiments involved tracking sandstorms in the Sahara Desert, and studying their impact on climate and environment.

He leaves behind his wife and four children.

Each of the astronauts knew the risks involved in space flight. But they took those risks willingly in order to follow their dreams, knowing that their mission was a noble one of science and discovery.

What remains for us, as a nation, is to determine the cause of this tragedy, make adjustments so that it will not happen again, and continue the exploration of space.

NASA Administrator Sean O'Keefe has already assigned several internal units to investigate the loss of the *Columbia*, including a ''Mishap Response Team'' and a ''Contingency Action Team.''

In addition, Administrator O'Keefe announced the formation of an independent board led by Harold W. Gehman, who cochaired the probe of the October 2000 terrorist attack on the USS *Cole* in Yemen.

I think that the way NASA has acted in the past few days is a marked improvement to the way the investigation into the 1986 *Challenger* explosion was handled.

Information has been disseminated quickly, which gives me hope that a fair and prompt investigation will yield the causes for the loss of the *Columbia*.

The space program must continue. The American legacy is filled with stories of exploration, and the desire to push new frontiers to the limit.

There is so much to learn from space. This tragedy will not stifle the desire to acquire all the potential knowledge we could gain as a country, and as a planet, from exploration beyond Earth.

The risks, however, will always be present. In a way, space exploration means continually breaking new ground, and taking those risks.

The hardest part of these losses, is the human loss. The astronauts aboard the *Columbia* were men and women at their prime. They put their hearts and souls into this mission, were the best and brightest of their peers, and still this catastrophe befell them.

My heart goes out to the families that the crew of the Space Shuttle *Columbia* left behind. As we search for the reasons this tragedy occurred, it cannot be forgotten that each member was a son or daughter, a mother or father, a brother or sister, a dear friend. The thoughts and prayers of the American people, and of the world, are with them as they endure the pain of this loss.

The crew of the Space Shuttle *Columbia* embodied the human desire to explore, to reach, and to dream. Their courage, idealism, and enthusiasm for discovery are hallmarks of the American spirit which should be remembered and celebrated, even as we grieve their loss.

(At the request of Mr. DASCHLE, the following statement was ordered to be printed in the RECORD.)

● Mr. GRAHAM. Mr. President, twice now we have witnessed the horror of vapor trails separating in the sky.

Twice now we have gazed in shock at photographs of the optimistic faces of seven young heroes, captured as they stood at the brink of one of mankind's greatest adventures.

Twice now we have endured the loss of a space shuttle and its valiant crew: First, *Challenger* on January 28, 1986, at the start of a landmark voyage dedicated to teaching a new generation about space. Now, 17 years and 4 days later, *Columbia* on February 1, 2003, at the conclusion of a successful scientific mission.

Both incidents remind us that space exploration is fraught with risk, but also with limitless possibility. Even as we mourn the loss of *Columbia*'s crew of seven brave heroes, including the first astronaut from Israel, we must rededicate ourselves to continuing to pursue knowledge of the heavens and the benefits we derive from our research.

We in Florida feel the losses most intensely. My State is home to the Kennedy Space Center and thousands of the dedicated professionals who work for NASA as well as its contractors. Floridians consider ourselves part of the special family that makes up the space program. We launched the *Columbia* on its 16-day mission, and we were ready to welcome her crew home.

Now, Floridians are firm in our belief that, just as we did in the 1980s, we must fully explore the causes of Saturday's disaster. We must identify what went wrong and fix it. We must ensure the safety of the remaining three orbiters and future astronauts.

But then we recommit ourselves to returning to space, to resuming launches, to continuing to build the International Space Station, and to forging ahead with missions to Mars and other planets.

We are already hearing cautious voices calling for spacecraft to be piloted by robots, or even insisting that no new money be spent on space. I say that is wrong. On May 25, 1961, when President John F. Kennedy declared it a national goal to land a man on the Moon, he did so with these words: ''If we are to go only half way, or reduce our sights in the face of difficulty, in my judgment it would be better not to go at all.''

In the spirit of John Glenn, Neil Armstrong, and our other space pioneers, astronauts must once again be sent soaring through the Earth's atmosphere to explore and discover.●

MORNING BUSINESS

Mr. ALLEN. Mr. President, I ask unanimous consent that the Senate proceed to a period of morning business.

The PRESIDING OFFICER. Without objection, it is so ordered.

RULES OF THE COMMITTEE ON INDIAN AFFAIRS

Mr. CAMPBELL. Mr. President, Senate Standing Rule XXVI requires each committee to adopt rules to govern the procedures of that committee and to publish those rules in the CONGRESSIONAL RECORD not later than March 1 of the first year of each Congress. On January 29, 2003, the Committee on Indian Affairs held a business meeting during which the members of the committee unanimously adopted rules to govern the procedures of the Committee. Consistent with Standing Rule XXVI, I ask unanimous consent to have printed in the RECORD a copy of the Rules of the Senate Committee on Indian Affairs.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

RULES OF THE COMMITTEE ON INDIAN AFFAIRS

Rule 1. The Standing Rules of the Senate, Senate Resolution 4, and the provisions of the Legislative Reorganization Act of 1946, as amended by the Legislative Reorganization Act of 1970, to the extent the provisions of such Act are applicable to the Committee on Indian Affairs and supplemented by these rules, are adopted as the rules of the Committee.

MEETINGS OF THE COMMITTEE

Rule 2. The Committee shall meet on the first Tuesday of each month while the Congress is in session for the purpose of conducting business, unless for the convenience of the Members, the Chairman shall set some other day for a meeting. Additional meetings may be called by the Chairman as he may deem necessary.

OPEN HEARINGS AND MEETINGS

Rule 3. Hearings and business meetings of the Committee shall be open to the public except when the Chairman by a majority vote orders a closed hearing or meeting.

HEARING PROCEDURE

Rule 4(a). Public notice shall be given of the date, place and subject matter of any hearing to be held by the Committee at least one week in advance of such hearing unless the Chairman of the Committee determines that the hearing is noncontroversial or that special circumstances require expedited procedures and a majority of the Committee involved concurs. In no case shall a hearing be conducted with less than 24 hours notice.

(b). Each witness who is to appear before the Committee shall file with the Committee, at least 72 hours in advance of the hearing, an original, printed version of his or her written testimony. In addition, each witness shall provide an electronic copy of the