

Originally Processed With FOIA(s):
S; 1999-0093-F

FOIA Number:
S

FOIA MARKER

**This is not a textual record. This is used as an
administrative marker by the George Bush Presidential
Library Staff.**

Record Group/Collection: George H.W. Bush Presidential Records
Collection/Office of Origin: Speechwriting, White House Office of
Series: Speech File Backup Files
Subseries: Chron Files, 1989-1993

OA/ID Number: 13795
Folder ID Number: 13795-005

Folder Title:
Young Astronauts Council--Space Speeches by Dan Quayle 1/24/92 [OA 7567] [4]

Stack:	Row:	Section:	Shelf:	Position:
G	26	22	2	6

Dany:

This is the text of the article that
was published in that white House
newsletter for kids 2 was talking
you about.

— Liz Proffridge
X6975

SPACE COUNCIL
02-08-90

**STATEMENT OF THE VICE PRESIDENT
THE WHITE HOUSE REPORT TO STUDENTS**

"Back to the Moon. Back to the future. And this time, back to stay." With these words, President Bush proposed a new set of goals for man's exploration of space. This was not only a challenge to establish a manned lunar base -- the President also called for "a journey into tomorrow -- a journey to another planet -- a manned mission to Mars."

After the President announced these goals last July 20th, during a celebration of the 20th Anniversary of the Apollo Moon landing, the President turned to me, as Chairman of the National Space Council, to get started on the plans for achieving these goals.

We have our work cut out for us. Designing, building, and manning a lunar base, getting humans to Mars and safely back -- these are tough technical challenges, requiring the brightest minds our country has to offer. But we won't be able to carry out these projects, which will take many years of hard work, without the support and enthusiasm of today's students. It is you who will face the challenge, the opportunity, and the adventure of figuring out the right solutions for many of these complex scientific tasks.

How will astronauts be kept alive and healthy during the many months of voyaging to Mars and back? How will their limited supply of water be conserved and recycled? What new techniques must a doctor use to remove an appendix in zero gravity? How many spare computers must be kept on the lunar base to ensure one will always be operating? How can oxygen be extracted from the lunar soil to support human life?

We need students from grade school through the college level to prepare themselves, through education and excellence, to become technical experts and innovators who will come up with the answers to these and a thousand other questions. We need bright, young scientists who will come up with some fresh ideas and new approaches to carrying out our space program, to find ways of getting all of our space programs -- not just the Moon and Mars programs -- accomplished sooner, at lower cost, and with minimum risk.

A strong background in math and science is a must. Engineers, physicists, mathematicians, chemists, biologists, astronomers, and computer scientists are just a few of the skilled professions we'll draw on for our space workforce.

I challenge each of you to look to the future of the United States in space, ask yourself if you have a place in it, and then

go for it. Apply yourself to those educational disciplines that will lead to the attainment of your personal goals -- get excited, work hard.

This nation needs you and is depending on you to lead it into the exciting world beyond earth -- with the courage, determination, and intelligence characteristic of this great nation.

For further information on careers in space
write: NASA Headquarters
Code XEP
Washington, D. C. 20546

OFFICE OF THE VICE PRESIDENT

Embargoed until delivered -- Wednesday, July 24, 1991

EXCERPTS FROM PREPARED REMARKS BY THE VICE PRESIDENT

VANDENBERG AIR FORCE BASE, CALIFORNIA

Vandenberg Air Force Base has truly played a vital role in keeping America free. The strategic missiles tested here -- and the men and women trained here -- have helped provide our umbrella of security for more than three decades. Throughout times of uncertainty and Cold War, Vandenberg has always done its part to guard our country and preserve the peace. And I am here to say thank you.

During the Persian Gulf War, too, Vandenberg did its part. Space systems, including many launched from this base, provided us a global vision, and a level of tactical support to commanders in the field that was simply unprecedented.

In the years ahead, as we defend ourselves and our friends, the Air Force Space Policy Directive will be proven true: "Spacepower will be as decisive in future combat as airpower is today."

The men and women of Vandenberg will continue to lead -- in the military, and in our overall space program. And let there be no mistake: America's space program must and will always be the very best in the world.

In every aspect of our space program we will, in the words of Longfellow, "wisely improve the present," and "meet the future without fear." But there's more: Americans don't just meet the future; we shape it. We can't predict every challenge facing us 10, 30, 50 years down the road. But we can equip ourselves and our children to deal with those challenges: By providing the infrastructure that's needed to build and to prosper. In the 20th century, our pathways to progress and development have been the momentous highway and dam projects. In the 21st century, our next great pathway will be space transportation.

And consider where that pathway could take us. Consider the benefits it may bring us.

- o Research and manufacturing in space can help us cure dreaded diseases and extend life.

Don:

Here are the speeches and remarks
his mode for which we have
transcribed -- some we don't show,
of course.

- big Portfolio

- o Space travel can bring about whole new industries -- in areas like communications, electronics, and energy -- improving our standards of living, generating jobs, and making us more competitive.
- o It can also open new avenues of cooperation with other countries -- including the Soviet Union -- allowing us to work together on environmental monitoring and life sciences research.

And let's not forget another reason for our space program. We are a pioneering nation. You can trace our entire history through the stories of those who led lives of exploration and discovery. From Lewis and Clark to the riders on the westward trails; from Thomas Edison to Henry Ford; from the Wright brothers to the astronauts. It is our destiny to push back the frontiers of geography and knowledge. Americans will always be the world's great pioneers.

To continue to lead, to create the infrastructure that's needed, we have to go beyond where we are today. Let's face it: America's launch capabilities are aging. You know this well. The Shuttle, for all its marvelous capability, was designed in the early 1970's. The expendable rockets are based on even older technologies.

It's not that we can't get critical missions into space; we can, and we have, four times since March here at Vandenberg. But we can do more. It is time for a new phase in space launch.

I am here to announce that as of today, we have entered that new phase. President Bush has approved a new National Space Launch Strategy -- a long-range plan to meet America's launch needs well into the next Century. This blueprint for change will bring our space launch capabilities into line with the enormous technological advances of the past two decades. And it will open the highway to space for what the President has termed the "Next American Century."

How do we get there? We'll begin by developing a new national launch system -- a new family of launch vehicles -- within a decade -- to take advantage of current technologies that are less costly and more reliable. We'll also pursue an energetic space launch technology program to prepare for needs that arise down the road. This effort, involving NASA and the Departments of Energy and Defense, will include both system components and new launch system concepts -- like the National Aerospace Plane -- that could bring breathtaking improvements in the years ahead.

The new National Launch Strategy is not a "buy everything" plan. It's one that will meet real needs, both for NASA and the

Department of Defense. And it's one that will lead to a new commercial launch vehicle as good or better than those of our foreign competitors.

We also have to remember that in the next several years, decisions must be made on the design of a whole new generation of satellites. If we don't move forward with a new system now, these missions will have to be designed for launch on vehicles we already have. If we were to let this happen, America would be locked into continued reliance on our current vehicles, and their 20 to 30 year old technology, for another generation. This is unacceptable.

Of course, investing in a system for the future doesn't mean neglecting the needs of today. Systems like Atlas, Delta, Titan and the Space Shuttle will certainly provide America's primary launch capabilities at least through this decade and into the 21st Century.

In the development of our new strategy, perhaps the most difficult set of decisions concerned the Space Shuttle program. Less than a decade ago, our space policy envisioned total reliance on the Shuttle. But circumstances have changed dramatically since then. Today we rely on expendable rockets for nearly all of our unmanned launch requirements, and that's a sound policy. The Space Shuttle, with its precious human lives, is just too valuable to use on missions that don't need its unique capabilities. It makes no sense to use Shuttle astronauts unless we absolutely have to. In the future we should, and we will, seek to avoid using the Shuttle solely as a cargo carrier.

As far as manned spaceflight is concerned, the Shuttle will be crucial for some time to come. The space launch policy proposes to extend the life span of the Shuttle fleet; to maintain the capacity to produce spare parts; and to operate the system conservatively. But the policy does not envision acquiring new orbiters. Therefore, in all probability, we have purchased the last Space Shuttle.

The new phase in space launch will also bring an increase in the importance of commercial launch. New commercial uses of space will evolve, international competition in space launch will increase, and the relationship between federal government agencies and industry will become more like a partnership.

Last week's launch of Pegasus here, at the western test range, is a good example of how government and industry can work together on America's launch infrastructure. That's something we want to strengthen, and doing so is part of the new strategy. Just as we build roads to suit commercial traffic, we'll build a launch system that can fit the needs of the private sector. The

result will be a better launch industry in America -- and a better competitive standing around the world.

More than thirty years ago, our country's leaders made a solemn decision: that America's space program would always lead the world. For the National Space Council, and for our entire space apparatus, yesterday's pledge is today's mission. And our new National Launch Strategy will help ensure that we accomplish our mission.

#

OFFICE OF THE VICE PRESIDENT

Office of the Press Secretary

For Immediate Release

July 17, 1991

STATEMENT BY THE VICE PRESIDENT
PRESS CONFERENCE AT THE UNIVERSITY OF NEW HAMPSHIRE

Durham, New Hampshire

3:30 p.m

I'm delighted to have had the chance to visit the University's Earth, Oceans and Space Institute. You know, I hear briefing after briefing in Washington about our earth and space science program. But a trip like this -- one of my first to a University laboratory -- really brings home what's important and the absolute dedication of those here on the scientific "front line." What an impressive array of work -- from operating scientific sensors at this very moment on the Gamma Ray Observatory to building sensors which will fly in space on an international solar-terrestrial satellite, to planning how to use global climate change sensors later in the decade.

Let me share with you my impressions about one of the most important issues facing us today -- the question of global climate change. One of the most striking items the scientists here showed me was data taken from space illustrating the loss of rain forests in South America. I take away two things from this and my discussions with the scientists: first, the incredible potential of space-based sensors to study the earth as a whole, and, second, that we are just beginning to understand the scientific issues surrounding climate change.

The President and I are committed to applying our nation's vast scientific talent to the questions of global change. And let me say that our most precious resources in this endeavor are students such as those I met today -- these are the men and women who will tell us in the coming years what questions we have, how bad they may be and, hopefully how to fix those we find.

We are committed to placing climate change at the very top of our scientific agenda. A large part of the U.S. global change research program is our space program's Mission to Planet Earth. Much of the work here at the University directly supports that Mission. As Chairman of our National Space Council I have made it my personal priority to accelerate Mission to Planet Earth -- to move the schedule up so that we can get the critical climate change data as soon as possible.

Tomorrow, on the other side of the country, a distinguished panel of experts will begin meeting to tell us how to get Mission to Planet Earth data as soon as possible. I understand that Dr. Moore, my host here at the University, will be flying out early in the morning to join their deliberations. Their task is made doubly difficult by the severe budget situation. But I want you to know that the President and I will find the resources to address these critical scientific question now.

I'd be delighted to take a few questions from the press.

OFFICE OF THE VICE PRESIDENT

Delivered Wednesday, February 20, 1991

PREPARED TEXT OF REMARKS BY THE VICE PRESIDENT

JOHN F. KENNEDY SPACE CENTER

Thank you, J. R. Thompson, for that generous introduction, and thank all of you for that warm welcome.

It's a great honor to be here this morning, at the scene of so much history and so much triumph. When the history of the 20th Century is recorded, the Kennedy Space Center will stand out as the symbol of American technical competence, and our spirit of adventure.

A short time ago I met with Captain Mike Coats and his crew, and I can tell you they're ready for the countdown. When safety is assured, their mission will begin. And we all wish them good luck and great success.

As Chairman of the National Space Council, let me salute all of you here: NASA employees, military personnel, and representatives of private industry. You are building our country's bright future in space exploration -- and you are doing a fantastic job for the United States of America.

Every day you work with the wonders of science -- exploring the universe, probing its secrets and applying new knowledge to improve life on earth. You've had moments of bitter disappointment. But there have been far more moments of high achievement. One of NASA's earliest successes came 33 years ago this month, when a Jupiter C rocket blasted off from here to place America's first satellite, Explorer 1, into space. And ever since that unforgettable day, you've been a part of countless additional successes. Marvelous technical accomplishments, like the Saturn 5 and the Space Shuttle, have thrilled us over and over again, and they've made us proud -- proud to be Americans, and proud to have our magnificent space program: the best in the world.

Americans have always come together to face great challenges -- at home, and abroad. And when the forces of aggression and lawlessness threaten peace and stability in vital areas of the world, we respond with decisiveness, and with an absolute commitment to victory.

I know that just about everyone here knows someone -- or has a family member -- serving in the Gulf. Desert Storm is now more

than a month old. From a military viewpoint, the campaign against Saddam Hussein could not be going better. The Allied Forces have performed decisively and brilliantly. Our strategy to expel Saddam from Kuwait is on schedule. And our American Armed Forces are providing an invaluable service to our country. They are courageous, they are getting the best support in the entire world, they are going to get the job done, and then they are going to come home.

Just down the road from here is Cape Canaveral Air Force Base. The satellites launched from Canaveral -- on rockets with names like Atlas, Delta, and Titan -- are, as we speak, providing essential weather data, navigation support, warning and other information directly to our forces in the Persian Gulf. To the men and women of Cape Canaveral Air Force Base, on behalf of all Americans, I say: thank you for your patriotism, for your competence, and for being one of the keys to our success in this just and noble cause.

And, of course, the men and women of Kennedy are doing their part to push the frontiers of technology for our national security. As I mentioned, I just came from the launch pad, where Discovery is being readied for a mission that will help enhance our future security -- by bringing us closer to strategic defense capability here at home. President Bush is absolutely committed to moving forward on strategic defense. And to those who say it won't work -- that you can't hit a bullet with a bullet -- I say: tell that to Saddam Hussein, who's seen dozens of his Scuds blown out of the air by a great defensive missile known as the Patriot.

Looking to the future -- which I know is a way of life for all of you -- I want to give you a brief progress report on our efforts to keep the space program strong, safe, and affordable.

A little more than two months ago, the National Space Council received the final report of the Augustine Committee. It's an excellent report: serious and thorough, with sensible reform proposals and achievable goals. And, unlike a lot of government reports, it's not going to sit on the shelf. Dick Truly and the people of NASA have already set up specific timetables for putting the Committee recommendations into action.

Let me highlight one portion of the Augustine Committee report, dealing with space launch. We believe the space transportation infrastructure will be to the 21st century what the great highway projects were to the 20th century: pathways to progress and development. And since that infrastructure will depend on developing a new launch system, space launch is at the top of our agenda.

Let's face the facts. Our nation's launch capabilities are aging. The Shuttle, for all its marvelous capability, was

designed in the early 1970's. The expendable rockets, all of which grew out of the 1960's ballistic missile programs, are based on even older technologies.

And, our infrastructure is aging too. As you well know, many of the buildings and launch pads throughout the Cape were built in the early 1960's. During the 1970's and early 80's, we were pursuing a policy that relied upon a single launch system. That was a mistake. It will not happen again.

In the early years of the space program, technology limited us to a small number of very expensive and important missions. Today we're able to do much more in space. And we can and will bring our launch capability into line with the enormous technological advances of recent years.

And I might add there's another challenge: ever-increasing competition in the global marketplace. That makes it crucial to encourage the private launch industry -- an industry that creates jobs and makes a major contribution to our economic well-being.

The Augustine Committee recommended that we develop a new national launch system. The President agrees, and his new Budget proposals reflect that recommendation -- to the tune of a 13.8 per cent budget increase for NASA. And as we move toward this new system, some of its characteristics are already clear.

First, it will be flexible, supporting a range of payloads to meet the future requirements of NASA and the Defense Department. It will actively address the needs of the private launch industry, to provide a basis for building competitive commercial launch vehicles. Our focus will be on systems that can evolve as our needs change. We will not pursue dead-end options.

Second, we're going to take advantage of some existing components of both the shuttle and expendable rockets. For at least the next decade or so, the shuttle will remain our sole means of getting people into space. And we will keep it ready for the task.

Third, while we currently have no plans to purchase additional orbiters beyond Endeavor, we will maintain a production capability, at least for the next several years, as an insurance against failure. We also plan to initiate a new Assured Shuttle Availability Program to systematically maintain and improve the existing Shuttle fleet.

Finally, as recommended by the Augustine Committee, we hope to make adjustments in the management of the shuttle program. To take an example, the Committee has recommended that we transfer more shuttle operational responsibilities here, to Kennedy Space

Center. This is a good idea, and I fully support it.

Keeping the shuttle available and up-to-date will allow us to stay on track as the space program advances toward a new phase. And let me assure you that we will move forward on all fronts, by sustaining a vigorous technology effort. New engines, new materials, and improved infrastructure concepts all must, and will, be pursued. And just as with NASA's past, I'm confident that the disappointments will be far outnumbered by the moments of high achievement and success. For as President George Bush has said, "the space program should always go 'full throttle up.' And that's not just our ambition . . . it's our destiny."

I'm proud to be associated with all of you, as you help fulfill America's destiny in space. I am proud that you are keeping our space program second to none. And I am proud to be here today. Good luck in everything you do, and God bless you. Thank you very much.

#

OFFICE OF THE VICE PRESIDENT

Delivered Friday, February 8, 1991

PREPARED TEXT OF REMARKS BY THE VICE PRESIDENT

REMARKS AT GENERAL DYNAMICS CONVAIR DIVISION
SAN DIEGO, CALIFORNIA

Thank you for that kind introduction, and thank you all very much.

In the last two days, I've visited with some of the families of our troops deployed in the Persian Gulf. At Fort Bliss, Texas, on Wednesday, and Camp Pendleton yesterday, I thanked all of them for their courage, for their sacrifices, and, above all, for their tremendous support for our troops in Operation Desert Storm.

Today, I'm here to thank all of you at General Dynamics -- not only for supporting our troops, but also for giving them the very best equipment in the world.

Saddam Hussein has had many surprises in this war. And one of our best surprises for him was the Tomahawk. What a great American name.

To the first Americans, a tomahawk was a finely balanced weapon for precision operations. To our "man in Baghdad," Peter Arnett, the Tomahawk is a new American missile whistling by him en route to destroy yet another military target. The Tomahawk works, and it's one more reason we are going to get Saddam Hussein out of Kuwait.

During the last half of the decade of the 1980's, the defense industry was experiencing severe criticism. There were stories of \$600 toilet seats and \$200 claw hammers. The media made it sound as if the defense industry was needlessly wasting the taxpayers' money as a matter of practice.

But President Bush and former President Ronald Reagan believed in making an investment in our national security. And thank God they did. For today, America is strong, determined, and absolutely prepared to defend her interests.

And I'll tell you one person who doesn't believe we wasted all our money on \$600 toilet seats -- and that's Saddam Hussein. He knows the quality of our military equipment. When Operation Desert Storm began, it was your Tomahawk that led the charge.

The Tomahawk saves lives -- American lives, allied lives. First: it is unmanned. Second: With its pinpoint accuracy, civilian injuries and collateral damage are kept at a minimum. The Tomahawk is a fine example of a simple truth: our servicemen and women deserve the very best -- and today, they have the very best.

The world marvels at America's superior technology. And there is one reason why we have a qualitative edge -- and that's the great American workforce. The American worker built the Tomahawk, the Patriot, and the Stealth fighter. You might say that the American labor force is just like the American Armed Forces: patriotic, dedicated, and -- without any doubt -- the best in the world.

Saddam Hussein has been building his military machine for the past ten years. Taking out his huge arsenal isn't easy; it will take some time. The President is determined to minimize the risks our brave men and women face -- but, unfortunately, risks remain. As General Schwartzkopf has said, any loss of life causes great agony. And our hearts and our prayers go out to the families who have lost loved ones in the Gulf. We will never forget their courage. We will always remember their bravery. And in the words of President Lincoln, they have given their "last full measure of devotion" to their country -- and they "shall not have died in vain."

As for those of our brave soldiers who are taken prisoners of war, let me say this. Iraq has signed the Geneva Conventions on the treatment of prisoners of war. But Saddam Hussein has violated these conventions by abusing allied prisoners. Let there be no doubt: we will hold Saddam Hussein and his henchmen personally accountable for their vicious acts.

In its early stages, Operation Desert Storm has been labelled a high-tech war. As I mentioned, the Tomahawk has performed splendidly. Thousands and thousands of successful air missions have been completed, and we've achieved air supremacy over Iraq. And dozens of Saddam's Scud missiles have been blasted out of the sky by the air-defense weapon known as the Patriot.

In this first crisis of the post-Cold War era, we have learned that the world is still a dangerous place. And we must remain firm in defending against aggression, lawlessness, and terrorism. Yesterday I met with former Prime Minister Margaret Thatcher of Great Britain. She has always been a champion of freedom, and a steadfast ally of the United States. Prime Minister Thatcher and I discussed yesterday's terrorist attack on Number 10 Downing Street in London -- an attack which, thank God, failed. We agreed that we will grant the terrorists no

victories. Their evil ambitions will be defeated, and the forces of justice will prevail.

In the early 1930's, Winston Churchill said, "Never, never, never believe any war will be smooth and easy." That was good advice 60 years ago, and it's good advice today. But while the length of this conflict is uncertain, its outcome is not in doubt. We will win this war, and then our troops will come home to their loved ones.

The United States is a peace-loving nation. We didn't want this war. We didn't go looking for a fight. We exhausted every reasonable chance for a peaceful solution. But Saddam Hussein chose war. And now that the war has begun, Saddam hopes the ideas of the protestors and demonstrators will prevail. Saddam should not misinterpret what he sees. The protestors are a tiny, vocal minority, and the American people are showing overwhelming support for President George Bush and his Persian Gulf policy.

Once again, ladies and gentlemen, the President and I salute you -- the American workers. You are patriotic, dedicated, and giving our Armed Forces the winning edge. Keep up the great work for America. Thank you, God bless each and every one of you, and God bless this great country of ours.

#

OFFICE OF THE VICE PRESIDENT

REMARKS BY THE VICE PRESIDENT

REPORT OF THE ADVISORY COMMITTEE
ON THE FUTURE OF THE U.S. SPACE PROGRAM

Old Executive Office Building
Washington, D.C.

December 10, 1990 - 11:30 A.M. (L)

VICE PRESIDENT: Dick Truly and I have just come from a National Space Council meeting where we have been briefed in depth by the Augustine Committee.

Norm Augustine, Laurel Wilkening, and their Committee members were just absolutely superb. On behalf of the President, Norm, just let me once again thank you and the members of the Committee for a tremendous effort and a serious, substantive report. The review has been comprehensive and now it is our challenge to begin its implementation.

We gave the Committee a very broad mandate. We told them everything was on the table, nothing was off the table. It's clear to me that the Committee has met, if not exceeded, our expectations:

- o They have done a serious, thorough job.
- o They've maintained their independence.
- o They've produced a great report that takes on tough issues.
- o The recommendations are specific and appear to reflect today's budget realities. This report is not a "buy everything" wish list.

As I have stated many times, our space program is in transition. We are moving from an era of temporary space encounters to an era of permanent exploration of space.

Overall, I think the recommendations have the effect of sharpening the focus of our space program. The priorities will be changed toward achieving two specific and understandable long term goals -- Mission to Planet Earth and Mission from Planet Earth.

This report will give our space program a needed shot in the arm. The report mandates serious reform efforts as well as charting a new path into our space future.

According to the report, America must have a vigorous, balanced, and affordable space program which:

- o Emphasizes space science.
- o Focuses our programs on the two specific goals I mentioned -- Mission to Planet Earth and Mission from Planet Earth.

To do this, the report concludes, we need:

- o A complete redesign of the Space Station to reduce cost and complexity.
- o To begin a new launch system while phasing out the Space Shuttle.
- o To either completely restructure the personnel system or begin a conversion of NASA centers to the Jet Propulsion Laboratory (JPL) model.

This report clearly points out the need for fundamental changes in our civil space program. We will make changes.

We will reconvene this Committee in approximately six months to assess how well we are doing on implementing their recommendations.

Finally, I want to thank Dick Truly and the NASA staff for the tremendous support and effort they gave to this Committee. It was vigorous and we could not have been in this position, at this time, without the support of Dick Truly and his entire NASA team. And with that, Dick, I invite you to make a comment or two.

Office of the Vice President

Embargoed until delivery -- 2:00 PM (CDT)

September 5, 1990

TEXT OF REMARKS BY THE VICE PRESIDENT

ADDRESS BEFORE JOHNSON SPACE CENTER

HOUSTON, TEXAS

Thank you, Dick Truly, for that generous introduction.

Well I'm really glad to be here again today, talking to an important part of the NASA family at Johnson Space Center and to all of you at the other NASA Centers.

Twenty one years ago, here at Houston, mission control first heard that "the Eagle had landed." And a little over one year ago, in the proud Houston tradition, President Bush challenged the nation to a new age of space exploration. He said the time had come to look beyond irregular and periodic space missions. He said we must commit to a future where Americans and citizens of all nations will live and work in space. Dick Truly and I are here today to renew that promise.

Over the last year and a half, this Administration has renewed America's commitment to our space program. We now have a far reaching vision and a sound plan for America's future in space.

This vision and plan look to each of you to play a vital role. And that means all of you here at Johnson, those at Kennedy and Marshall and Goddard, and those at all the other NASA Centers who are working hard to maintain America's leadership in space.

I grew up, as many of you, thrilled and excited about space and its challenges. There's just something about exploring, reaching, and achieving that sparks the American imagination. My enthusiasm has only increased as a result of learning more about what it takes to be successful in space -- about the triumphs and tragedies that come with exploring all that lies beyond this earth. And along with that increased understanding I've developed a healthy respect for NASA, for what it stands for, and for you, the men and women who make it all work.

Recently, we've heard some criticism about problems, whether with the Hubble Telescope or the fuel leaks in the Shuttle. People have asked, with problems like these, is NASA up to the task? Let me say this, we do not fear -- we welcome -- constructive criticism aimed at improving our efforts; but the fact is: NASA is up to the job -- the difficult and challenging job of helping shape America's future in space.

Take it from a guy who knows about unwarranted criticism: once they start piling on they don't know when to stop. I want you to know that I understand what many of you have been feeling these last few months. The frustration of having your critics focus only on the negatives, not the positives, and the feeling of helplessness at not being able to set the record straight, no matter how right you are or how articulate you try to be.

Well, we're fixing the things that are wrong with the Hubble and the Shuttle and we're moving on to the next set of challenges that await us. And you know better than anyone that there will be more challenges in these programs, and even more in

those challenges that follow.

Because that's the business you're in -- the cutting edge of progress. You're doing what no one else has done before. And yes, there are risks to it, and mistakes, and problems no one could have anticipated. But it is American ingenuity, NASA ingenuity, that will find the solutions. Like David Skillman, Manager of Observatory Systems at the Goddard Hubble Space Telescope Project Office, who figured out how to correct the problem with the Hubble high gain antenna when it was restricted by a cable, or, like the Shuttle support team at Kennedy that found the fuel leaks in Atlantis and Discovery and fixed them before they caused an accident.

[Cutting edge space activity is what Commander Vance Brand and Space Shuttle Columbia are up to right now with Astro-1 and its astronomical observatory, which will examine the invisible universe of ultraviolet and X-ray astronomy. A particularly exciting aspect of this mission is the debut of a pilot program designed to encourage students to pursue studies in math, science and technology.

The "Space Classroom" lessons will enable students to hear a lecture by the shuttle team and then interact with questions and discussion. The entire learning session will be carried then by NASA Select to classrooms across the country. What a powerful way to teach our kids. What a great example of the effect our space program can have on education!]

So don't let the critics get you down. You chose the right career, and you are doing what is right for the nation.

Your work is more important, not less, as we move into an era which calls for routine, reliable, affordable space operations.

Many years ago Wernher Von Braun was asked what it would take to send a rocket to the moon. He replied, "the will to do it." That's where we are today. The President has articulated a bold new vision for space - a new age of exploration. And since that historic day, a little over a year ago, we have shaped that vision into a solid plan for America's future in space. What we need is the will to do it.

This Administration submitted a sound funding request for the money to begin this historic adventure this year. Now the needed funds are in danger of being cut by doubters in the Congress. Doubters who think we should live within our known limits, instead of expanding our horizons. Doubters who believe that mankind's destiny is forever anchored to a single planet. Doubters who scoff at America's investment in space -- which is an investment in the future.

It was the legacy of JFK and LBJ that brought us to one of America's greatest moments as a nation -- July 20, 1969 -- the day Americans first stepped foot on the Moon. I know I don't have to tell anyone from Houston how important that day was for America. But two months ago, when the House Appropriators sought to abandon the Moon/Mars mission, they turned their backs on the legacy of JFK and LBJ. So let me say, as forcefully as I can: George Bush and Dan Quayle are never going to abandon that legacy. We are not going to allow doubters in the Congress to abandon that legacy. And together with Dick Truly, and each of

you, we will make this nation's vision of America's role in space a reality.

We are entering a new era of ambitious space activities which offers enormous benefits to Americans and people of all the world. But as we move from occasional, brief encounters beyond earth's orbit, to sustained space operations, the transition will not always be an easy one.

To meet the challenge of sustained operations in space we must make sure that you, the people who make it all work, have the tools you need -- and that means adequate resources, the right people, and the organizational structure to support you. It's important that we rigorously assess the roles and responsibilities of every government agency involved in our space program to ensure that the entire Administration team is up to the task. To do that, we are taking a fresh look at our institutions, programs, and strategies. There will be no sacred cows.

To make sure we're on the right track, I asked Admiral Truly to put together an outside Advisory Committee that will consider the future long-term direction of the space program and make serious recommendations, which we can implement, to strengthen America's space program -- to build the foundation for a better, more aggressive space program for the future.

I've told Norm Augustine, the Chairman of the Advisory Committee, that nothing is off limits in this zero-based review. This is the first serious outside look at Space, with a capital S, that we've had in years. I've asked the Committee to look at where we are going -- at our goals and objectives -- and deter-

mine whether our institutions, our programs, and our strategies are postured properly to get us there.

This is a serious review. I have instructed the Committee to give us recommendations that we can act upon. And believe me, we will act! Some of the recommendations may call for changes in how we are organized and how we do business. Some of the recommendations may suggest significant changes to our institutions and programs. We're prepared to make the hard decisions, provided they're the right decisions.

The President said last year, "We cannot take the next giant leap for mankind tomorrow -- unless we start with a single step today." So let's take that first step together as we prepare to meet the challenges of reaching for the stars. The men and women of NASA have proven the doubters wrong so many times before. Now, working together, we'll prove them wrong again.

OFFICE OF THE VICE PRESIDENT

Embargoed until 12:00 p.m.

May 1, 1990

PREPARED REMARKS OF THE VICE PRESIDENT TO THE
AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS

Thank you, Ed for those kind and generous words.

And thank you, members of the American Institute of Aeronautics and Astronautics for your leadership in charting an exciting future in space.

And congratulations to Dick Truly and NASA on another successful Shuttle flight and Hubble Space Telescope deployment...a scientific instrument which will look back to the beginning of time.

Your theme, "Global Aerospace: On the Threshold of Tomorrow" is certainly an appropriate topic. For President Bush and I believe that today we are on an important threshold. As a nation we need to decide whether we will hesitate, or step boldly in space exploration.

You know which course of action I favor and let me take a few minutes today to explain why we should step boldly.

There are times when seemingly small decisions reverberate

through the centuries. Now is such a time. The decisions we make in this decade for space will set the nation's course for decades, if not centuries to come. The legacy we leave to future generations may well be decided in these next few years.

In the 15th Century, China may well have been the most technologically and culturally advanced state on Earth. She owned great fleets of large oceangoing ships. In 1433 a fleet of Chinese ships sailed all the way to Africa, trading, exploring, and advancing Chinese culture. But the Ming Empire had other priorities -- problems at home, pressing needs elsewhere. They recalled the fleet -- and then they burned it. They wanted to bring an end to "wasteful" exploring. And they also wanted to ensure that Chinese explorers would not even be tempted to venture forth again for a long, long time.

At about the same time that China was burning its fleet, a small European nation's foresighted leader, Prince Henry of Portugal --now known as Henry the Navigator -- sent ships up and down the coast of Africa. Soon another European nation, Spain -- just emerging from centuries of war and turmoil -- also began an exploration program. For a time Portugal and Spain competed to explore and use the new world that Spain discovered.

Portugal did not completely abandon exploration, as China did. But she soon lost out to Spain through gradual loss of sea-

exploration capabilities. Spain went on to reap the harvest of two continents -- ushering in a golden age for her people which was to last almost two centuries.

The question now facing the United States in space is which path to take with regard to the "oceans" of the 21st Century -- space?

Before I sketch out my answer, let me review the space plans of a modern nation known for investing in the future -- Japan.

Japan has, of course, a good record of investing in the future. Consumer electronics is an example. In the early 1960s "Consumer Electronics" consisted of black and white television sets and 45 RPM record players. Japan invested heavily in research and development of integrated circuits. Today, Japan owns the majority of the world's huge market in integrated circuits.

Japan has targeted space as the electronics industry of the future. She is increasing her investment in space significantly. Japan has shown special interest in unmanned and manned exploration the Moon. She recently launched the first probe to that body in 15 years.

What's in space for the Japanese -- and for us?

Consider the successful launch of Pegasus a few weeks ago -- made possible by a strong government - private sector partnership. We are all familiar with the success of the satellite communications industry. Soon, small commercial satellites will open a trillion dollar industry supplying additional new information services from space -- services such as cellular telephones, world-wide TV and computer services and much more. Think what this could mean to a developing nation. It could skip the entire cost of stringing wires and other infrastructure expenses, and still develop state of the art communications services.

In the next century, space will be providing even more valuable products and services. New medicines and medical understanding from research and manufacturing in space could cure dreaded diseases and extend life. Material from the Moon could enable us to supply many of the earth's energy needs safely and cleanly from space. Space exploration could give us access to precious metals of various sorts -- the equivalent of finding whole new continents on earth.

There are other reasons to be initially concerned about our Solar System. As the AIAA has pointed out in a position paper released at this meeting, those same asteroids which promise material riches can be a threat as well. For example, in 1965 a small asteroid exploded high over Canada with a force equivalent to an atomic bomb. It would certainly benefit all nations to

know when such a natural event might occur, warn those who could be affected, and maybe, someday, even affect whether and where such an event might happen.

Furthermore, investing in space is especially important in light of the decline in our military spending. In the past much of our investment in military research and development has had civilian benefits. In addition to directly assuring our national security, military research led to competitive new industries and products in fields such as microelectronics and many others.

I hope and trust that in the decades ahead we will continue a vigorous defense research and development program. Our investment in national security preserved peace and fostered the cause of freedom.

Thanks to the promising trend toward a more peaceful and less threatening world, it does appear our defense spending will decline. To ensure that we continue to benefit from research and development in advanced technologies, we therefore need to continue and expand our investment in space-related research and development.

The President is committed to bringing the benefits of space development to the American people.

The National Space Council has developed and put in place a comprehensive five part strategy to advance our space endeavors.

First, we will develop our space infrastructure -- the equivalent of the roads and bridges program of the 20th Century to get us to space in the 21st.

Second, we will open the frontiers of space through manned and unmanned programs. The launch of the Hubble Space telescope last week was a fitting signal that America leads the world in space exploration once more.

Third, we will use space to solve problems on Earth. Our Mission to Planet Earth Program will give us the information to understand the causes of current environmental problems. Perhaps space could then allow us, by providing a clean inexhaustible source of energy, to correct these problems and prevent future ones.

Fourth, we will use space to foster our economic well being --to make sure that space is developed to its full commercial potential. The best way to guarantee that America benefits from developing the space frontier is to unleash the forces of the marketplace.

Finally, we must ensure the freedom to operate in space. to explore and develop, for ourselves and for other nations.

For our part, the Administration is committed to building a space program which leads the world in all facets of space use. This morning President Bush and I met with the leaders of Congress for the first Congressional leadership meeting on space at the White House in 15 years. We explained our strategy for space and the top priority it has for this Administration. President Bush told the Congressional leaders that a key part of our investment in our space future is his Space Exploration Initiative -- setting us on a course back to the Moon to stay and then on to Mars.

We are now asking Congress for modest resources for the next few years so that we can answer the President's charge to figure out how to implement this important Initiative.

For the next several years we will be evaluating alternate ways to do the job. We will be developing new technologies which will enable us to accomplish our objectives faster, cheaper and better. As the National Research Council reported, there are many potential approaches and architectures for accomplishing the President's space exploration goals. NASA will soon be calling on you for these new ideas and new technologies. When they cast their net widely, I trust you will be there with new ideas.

But your ideas will do little good without adequate Congressional support.

Let me emphasize -- what we are asking for is simply modest funds to answer the President's, the American peoples' and Congress' questions about when, how, and how much it will take to accomplish our goals. In a few years, when we have the answers to our questions and have chosen a specific path, a specific plan, then and only then will we ask Congress for the money to build the great ships to the future.

If Congress is afraid even to ask the questions of when, how and how much, we will have made an important and fateful decision -- and I think, a deeply misguided one. We need to move ahead so we can make an informed decision later on how to proceed and at what pace. For we all will be held accountable for that decision.

And it is to America's youth that we must ultimately answer. What will we say to the young man I met at the U.S. Space Camp a few months ago who told me he wanted to plant the American flag on Mars? What will we say to our students who dream of shores unseen and vistas unknown? Will we tell them we were afraid even to take the first steps?

America has been given an opportunity which may not come our way again. This nation has risen to the challenge before. Soon after we first became a nation, we doubled our land area at a cost many said we could not afford. The next decades proved the wisdom of our investment.

In this century we built a road system at a cost of over \$2.5 trillion. When we began that road system early in the century many argued that we could neither afford it nor needed it. They were wrong.

We begin now on the road system of the 21st Century -- the road system into the solar system. Untold wealth and an unlimited future awaits us. As in the past, let us prove to the nay-sayers that it can be done. Let us prove to the nay-sayers that challenging this new frontier will be worthwhile. And let us prove to the nay-sayers once again bold initiatives are required for a nation that prides itself as the leader of the free world.

In addition to serving as Chairman of the Space Council, I chair the Competitiveness Council. Our future competitiveness will depend on developing advanced technology. It will depend on educating our young people for excellence in math and science. And the space program is a sound investment in ensuring that these key aspects of American competitiveness are there when we

need them.

We need your help now. Help us convince Congress that investment in space is key to our nation's future. Help us in explaining space potential to our people. Help us to develop the new technologies to make these possibilities real. And help us think of new ways to do it faster, safer, cheaper and better.

Thank you and God bless you.

OFFICE OF THE VICE PRESIDENT

Embargoed until delivered -- 9:40 AM (MDT) - April 10, 1990

TEXT OF REMARKS BY THE VICE PRESIDENT

SIXTH NATIONAL SPACE SYMPOSIUM
UNITED STATES SPACE FOUNDATION

Broadmoor Hotel
Colorado Springs, Colorado

Good Morning. Thank you, Jim (Hill) for the warm introduction. It is a pleasure to be back here at the Broadmoor. This beautiful city of Colorado Springs is such an important center for America's space activities. Here, under Cheyenne Mountain, and at Falcon and Peterson Air Force Bases -- the men and women of Space Command are at work, 24 hours every day, tracking, monitoring and controlling spacecraft. These people are the unsung heroes of our space program.

And, of course, the Space Foundation is based here. Since 1983, you have been a cornerstone of our thinking and planning for space. And you have dedicated yourselves to inspiring our fellow citizens to sustain their commitment to our space efforts.

Today is special. For today the Space Shuttle will -- we hope -- leave earth to carry the Hubble Space Telescope 380 miles to earth orbit. We have waited a long time for this launch -- but if all goes well today, the wait will have been worth it. For the Hubble telescope,

along with the other Great Observatory satellites, which will soon follow it into space, will revolutionize our scientific knowledge.

The Hubble will mark a scientific advance comparable to Galileo's invention of the telescope almost 400 years ago. It will rewrite our children's textbooks, and begin a whole new chapter in our understanding of time and space. It will help lead us to answers to some of the most ancient and fundamental questions -- such as the age of the universe, and it will allow the human eye to penetrate the darkness of space to find objects only so far imagined. As one scientist has said, "We'll be like a little nearsighted child in a classroom who is given a pair of glasses and at last can see what the teacher has been writing on the blackboard."

I'm struck by the kind of excitement the Hubble launch has already generated -- not just among the space community, but among Americans at large. The Hubble is generating excitement like the Voyager sailing past Neptune during the dog days of August, transmitting its beautiful pictures back to us. We need to return excitement to our space program.

There are skeptics and naysayers who claim that Americans have lost their taste for exploration, for discovery, for challenging the limits of our knowledge.

They are wrong. The thrill I experienced at the Jet Propulsion Laboratory when Voyager's pictures came in was shared by millions of Americans. And it is this human quest for discovery, for excitement, a quest inspired by a sense of wonder and awe, that leads us to reach out, to know what can be known, to see all that can be seen, to go anywhere there is something to be discovered, and to follow to the limits of our imagination. It is this quest that lies at the basis of our commitment to space exploration and discovery.

During my year of serving as Chairman of the National Space Council, I've become more convinced than ever that our space program is fundamental to the very mission of America. We have always been an exploring nation. From the Oregon Trail to the dunes of Kitty Hawk, part of America's greatness was embodied in the willingness to break the bonds of our tradition and to explore new spaces. That is why the President and I believe that in the 21st Century, America must be the world's preeminent spacefaring nation.

But we explore space not only because we are a nation of explorers. We also explore space because of the real, tangible benefits we derive from our space program.

The Space Foundation's terrific television spots -- the series called "Space, What's in it for You" -- highlight many of these benefits:

- new medical technologies to help the deaf, the blind and the disabled, and that allow us to perform previously unimaginable feats like bone marrow transplants and laser surgery;
- technologies that are revolutionizing our communications capabilities;
- technologies that will lead to better crop production;
- and even everyday items like the athletic shoes that seem to be replacing every other kind of shoe in this country!

But space makes so many other contributions. Space activities support our efforts to improve our children's education. By providing exciting space achievements, heroic space pioneers, and new discoveries, our space program helps create the incentives that make our young people want to excel in math and science. Improved math and science education is absolutely fundamental for our nation's future.

Space is also vital to our efforts to preserve and protect the environment here on earth. The Landsat satellite system, which the Space Council reviewed last spring, has been a primary source of our current understanding of environmental change. And the new Earth Observing System, which we will begin to build in 1991, will provide us with the in-depth knowledge we need to understand global climate change.

Space also has helped us build a more peaceful and stable world. For example, space systems enable us to verify arms control treaties. And as communications satellites have linked peoples around the globe more closely, the communications made possible by satellites have contributed to the fight against repression and totalitarianism.

But we have only begun to enjoy the concrete benefits of space exploration. I recently had dinner with a number of the "senior statesmen" of the space community. They were all very enthusiastic about what the future holds for man if we continue and renew our commitment to space. They told me, for example, that in the next century space may be key to allowing us to satisfy our energy needs from space without damaging the environment; providing us with increased access to rare and essential metals and minerals;

and allowing us to develop new information services which could further the revolution in communications which has already begun. And, of course, in the next century, research in space could lead to new medicines or medical treatments of incalculable benefit to mankind.

You and I understand all these benefits and opportunities that space provides. But what about a key participant in this whole enterprise -- the taxpayer who is footing the bill. Have we done enough to explain the significance and meaning of these accomplishments to the average citizen? The average taxpayer needs to be shown that there is a link between our space expenditures -- his space expenditures -- and the quality of his or her life. We simply need to do a better job.

As you know, the National Space Council, which I chair, has developed a five-part strategy for space, designed to cut across the traditional divisions. I am pleased to see that you have structured your agenda for this conference along the lines of these five strategy elements. We will be listening to your discussions here, and look forward to hearing your conclusions and recommendations.

Let me spend a just a few minutes reviewing for you what we are doing in each of these areas. First, we are working to develop space launch capabilities as a national resource to make access to space routine and affordable in the future. Where would highway transportation be today if we had built only those roads and bridges that could be fully justified on the basis of a specific need at the time? Needless to say, we did not do that. Space access is the essential first step in our national space program.

Second, we are committed to opening the frontiers of space through both manned and unmanned exploration. We are well underway with in-depth unmanned exploration of the Solar System. Viking, Voyager, Magellan, Galileo and, today, Hubble are our unmanned voyages of discovery continue to be spectacular accomplishments. And the initiative to return to the Moon, then go on to explore Mars, is this Administration's first major space decision has given shape to the manned space program.

The third element of our strategy is to intensify our use of space to solve problems here on Earth. I already talked about the important benefits we are deriving and can derive here on earth from space and would only repeat the need to help explain these benefits to our fellow citizens. Dick Cheney spoke to you yesterday about the importance of the Strategic Defense Initiative.

I wholeheartedly agree with him. The Brilliant Pebbles program, which uses technologies available today, is a deterrent we can't afford to be without.

Fourth, we will want to ensure the freedom of space for exploration and development. Space will become to the future what oceans have always been; highways to discovery and commerce. But the sea lanes can also be dangerous. They can be open or closed. They can even be used as springboards for attack. For these reasons we must ensure the freedom to use space for exploration, for development, for ourselves and for all nations.

The final element of our strategy is to foster our economic well-being by capitalizing on the unique environment of space. Until a few years ago, space was almost exclusively the domain of governments. Now we are committed to bring the energies of America's marketplace to space. Our challenge is to create an environment which encourages the development of new, private sector space efforts.

Let me expand on this point for a minute. It was America's technology that led the way in space. It was America's genius that put a man on the moon. And it will be America's entrepreneurial spirit that keeps us first in space. The United States is the only nation with a non-governmental private space sector. Last week's successful

launch of Pegasus is a classic demonstration of the wisdom of encouraging private investment. However, our space industries must be able to compete against foreign government-owned or supported industries. And very high initial investments are often needed to introduce new space products. These cannot be allowed to form barriers that keep us from developing new markets for the good of all Americans. In such cases, the government must take positive actions.

Let me be very clear: encouraging a competitive private sector is in America's long term self interest. And space and space enterprises are a traditional American strength. As Chairman of the National Space Council, I can assure you that we intend to keep it that way. I am pleased by the recent agreement in principle reached with Japan that will allow U.S. companies to compete for Japanese satellites. But other decisions, ranging from new spaceports to foreign cooperative programs, are still pending.

For this reason, the Space Council has initiated a high level, fast paced policy review. Later this year, we will be ready to announce a policy framework which outlines the appropriate government role in ensuring that America remains the world leader in space.

You know, as someone who grew up in the 1960's, seeing America first in space seems natural to me. After all, when my parent's generation was young, seeing a man on the moon was just a dream in some fantasy science fiction story. My generation saw it happen, though. And today, our children expect things that are beyond many of our dreams.

Last year, I visited the Space Camp in Huntsville, Alabama. During my visit a young man, 17 years old, told me, "Mr. Vice President, my generation is going to plant the American flag on Mars." I think he is right.

Like you, President Bush and I are committed to making that young man's dreams come true. Working with you, we can turn their dreams into reality -- for the benefit of ourselves and our children, and for the benefit of people today and future generations all over the world.

Thank you and God Bless you.

OFFICE OF THE VICE PRESIDENT

Embargoed until delivery -- approx. 11:45 AM, Jan. 10, 1990

TEXT OF REMARKS BY THE VICE PRESIDENT

AMERICAN ASTRONOMICAL SOCIETY
ARLINGTON, VIRGINIA

As you know, Space Shuttle Columbia is well into its second day. At this moment it is over Indonesia at an altitude of 338 kilometers. Its mission signifies America's successful return to space.

I am told the last time the American Astronomical Society dealt formally with the White House was in 1902, when you visited President Teddy Roosevelt. We've got to stop meeting so often.

Today, the United States leads the world in space science. In large part this is because of our leadership in space astronomy. And this leadership, in turn, reflects your efforts. So let me begin by paying tribute to you for your magnificent contributions to advancing our scientific understanding over the years.

America has been a leader in the scientific understanding of space. We also pioneered the space age. In the 1960's, we made a national commitment to both space science and space exploration.

For someone like myself, who grew up in the 1960's, the memories of those years are vivid. Like millions of other Americans, I especially remember July 20, 1969, the day Apollo landed on the Moon. I had just graduated from college and was at home with my parents awaiting word of my active duty assignment. As some of you may have heard, I served in the National Guard.

Quite frankly, my parents were much more impressed than I was

that America was actually landing on the Moon. You see, my generation grew up expecting Americans to land on the Moon. And my children's generation expects even more from us. As a 17 year-old New Yorker said to me during my visit to a Space Camp in Huntsville, Alabama, "Mr. Vice President, my generation is going to plant the American flag on Mars."

So we've got our work cut out for us. Unfortunately, over the past two decades, we have not maintained the momentum of the 1960's.

- o In space launch, our competitive advantage in technology has disappeared.
- o We have not sufficiently developed space as an arena for private enterprise; and, after developing the world's first space station in the early 1970's, we will be waiting until the late 1990's for a replacement.
- o We have continued to have good ideas -- but our programs seem to be taking too long and costing too much to build. As a result, the rest of the world is catching up and may pass us by.
- o And despite our continued scientific and technological preeminence, our government has not done as well as it could have in marshalling the resources and the leadership necessary to keep us ahead in space.

When President Bush established the National Space Council on April 20 last year, he asked me, as its Chairman, to take a fresh look at our space program. He asked me to work with others in the Administration and outside to reassert our world leadership in space.

He asked that we shape a space program that is aggressive and innovative, and that we challenge accepted ways of doing business.

As soon as I became Chairman of the Space Council, I began meeting with various groups of experts on our space program. And whatever their particular differences, I heard much the same thing from almost all of them; they told me that we can no longer accept the status quo.

And let me say this, we will not. Indeed, as Chairman of the National Space Council, I intend to bring the kind of innovative approaches to the space program of the 90's that were characteristic of Polaris, Atlas, Apollo, Voyager, and some programs in the Defense Advanced Research Projects Agency.

To do this, the Council is looking across the traditional divisions among civil, commercial, and national security activities. We are building a program that is more than the sum of these parts. Our strategy has several elements:

First, we intend to develop our space launch capability and its related infrastructure as a national resource. These large, complex, and expensive infrastructure elements are like the great railroad, highway, and dam programs of the past. They are as vital to space travel as the interstate highway system is to motor travel.

Moreover, they cannot be considered only within the context of a single government agency. They cannot be built to meet the needs only of a specific space program. They must be structured to accommodate both our current needs and our future programs.

We need to ensure reliable and affordable access to space. The

Space Council is consulting widely on ways to accomplish this. I believe we can lower the cost of space launch.

Our second goal is to open the frontiers of space. This includes manned and unmanned programs. Last July the President announced the goals of completing Space Station Freedom, going back to the Moon to stay, and going on to Mars. I reaffirm those goals today. I believe they have given focus to our manned space efforts, and are crucial to our space program as a whole.

But our manned space program will move ahead in conjunction with our unmanned program. Our unmanned space exploration provides excitement and fascinating results. Remember Voyager's encounter with Neptune last August?

I do. I was at the Jet Propulsion Laboratory on August 29th, congratulating the scientists there for a job well done. That mission taught all of us how central unmanned exploration is to space science and discovery. As Magellan now makes its way toward Venus and Galileo toward Jupiter, let me reaffirm our commitment to the unmanned, as well as the manned, exploration of space.

Let me also emphasize today the role of science in our future programs.

We are committed to a balanced scientific program. The large exploration programs we are planning will not emphasize human activities at the expense of scientific excellence.

When we return to the Moon, we will devote much of our effort to scientific research. At some point we hope to establish lunar astronomical observatories, to build on the foundations laid by the

Hubble Space Telescope and other Great Observatory satellites.

Similarly, our exploration of Mars will begin with an expanded series of unmanned scientific probes, perhaps including a return of Mars surface samples. This is the way we will use space to reassert America's leadership in basic sciences.

I believe that a great nation like ours, at the dawn of the 21st century, should explore space even if there were no tangible benefits on Earth. But of course there are, and the National Space Council is committed to intensifying our use of space to deal with problems on Earth. Environmental concerns are a top priority of people everywhere. Space can give us the means to understand the problems and devise solutions. This is our third goal.

In this regard, the most hopeful new initiative is the Mission to Planet Earth. At our Space Council meeting last November, we began a review of current plans for Mission to Planet Earth to make sure it is structured to give us the knowledge we need as efficiently and as soon as possible. We intend to move forward on this.

In addition, we believe the exploration of space will enhance our economic well-being and our overall national competitiveness.

Let me add here that besides heading the Space Council, there's another Council that I chair -- the Competitiveness Council. I believe these two are closely related and that space science and space exploration are crucial to our nation's technological and scientific development and economic competitiveness.

The final element of our strategy, of course, is ensuring that our space program contributes to our nation's security.

To achieve these goals, the Space Council is taking a fresh look at our current programs and options. In the Space Council we have already made some real contributions. We have restructured and improved the National Aerospace Plane Program which is leading technology for the future. And, we have preserved a national capability for civil earth remote sensing with LANDSAT.

Within weeks we'll meet on the issue of international participation in our new space exploration program. Shortly after the President's announcement, during my visit to Japan last September, I met with Prime Minister Kaifu. He and I agreed to start a dialogue about joint U.S.-Japanese ventures in space. This dialogue is likely to grow in importance in the years ahead, but now is the time to think through the whole issue of international cooperation.

In this as in other parts of our space program, we will be seeking new ways to accomplish our goals in space. In general, we will be seeking to do things faster and more economically, while maintaining high standards of safety and performance.

I know many of us are concerned over the time it takes to translate promising ideas into real space capability. A few months ago we launched the Galileo probe to Jupiter -- it will arrive there in the mid-1990's. A few months from now we will launch the Hubble Space Telescope -- a major milestone in the history of astronomy. But these projects began in the 1970's. Many of you started work on these magnificent instruments when you were students; only now are you seeing the results of your labors.

I think you will agree this just isn't good enough. Our

performance hasn't kept up with our science. We've got to figure out how to reduce the time from idea to realization from decades to a few years. I believe that this can be done.

That's why last month, I asked NASA Administrator Dick Truly to ensure that our space exploration program is benefitting from a broad range of ideas about different architectures, new systems concepts, promising new technologies, and the innovative use of existing technologies for space exploration. In performing this task, I asked him to query the best and most innovative minds in the country -- at universities, federal research centers, within our aerospace industry and elsewhere.

I have also asked the National Academy of Sciences and the Aerospace Industries Association to look at current approaches to space exploration and tell us about new, better approaches. And I'm asking you for your help today as well. We're open to your suggestions and ideas.

The federal government will do its part. An ambitious space program will not be cheap, but the necessary resources are well within our means as a nation. President Bush is committed to providing the resources, now and in the future. Despite the well-known budget constraints, and despite cuts by Congress in our proposal, our 1990 civil space budget is nearly 12% larger than 1989's.

But money alone will not be enough. We need fresh thinking. And we need a new sense of commitment -- a revival of the can-do spirit that has made our nation great.

At the start of my remarks, I mentioned that I grew up in the 1960's. The Apollo Moon landing was one of the highlights of the 60's, but there were other, more ominous events as well: the Berlin Wall, the invasion of Czechoslovakia, the Soviet promise to "bury" us.

Today, of course, the Berlin Wall is open. Czechoslovakia has embarked on the road to freedom. And far from burying the West, communism finds itself in decline and disrepute.

These events didn't just happen by accident. As many people have noted, they happened in part because even the Iron Curtain was not impervious to the Information Revolution sweeping the globe. And as you all know, space-based communications have played a key role in this revolution.

In other words, contrary to the fears of many, the progress of science, on the whole, seems to have benefitted the cause of freedom. I believe that scientific progress goes hand in hand with political and social progress -- that science and freedom are allies, not enemies. Also, progress in space can and should mean progress for all the peoples of the Earth.

So I look forward to working with you to ensure that our space program has many more memorable days like July 20th, 1969 and August 29th, 1989 -- days that benefitted us as a nation, days that we as a nation can be proud of. As the space ship Columbia continues on her voyage, our work on earth seeks to keep America number one in space now and forever.

Thank you and God Bless you.

THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release

April 20, 1969

REMARKS BY THE PRESIDENT
AND VICE PRESIDENT
DURING SIGNING CEREMONY FOR
THE SPACE COUNCIL EXECUTIVE ORDER

The Vice President's Office
The Old Executive Office Building

1:08 P.M. EDT

THE PRESIDENT: Well, to the members of Congress here and members of the Joint Chiefs, distinguished guests, thank you. It's a great pleasure to be here on an occasion of this nature. And I want to thank all of you for being here. You're helping to fulfill a promise that I made 18 months ago in Huntsville, Alabama -- at the George C. Marshall Space Flight Center.

I pledged then and I'm proud now to reestablish the National Space Council. I've asked Vice President Quayle to serve as chairman. Under his able leadership, I'm confident that the Space Council will bring coherence and continuity and commitment to our efforts to explore, study and develop space. I look to the Council to coordinate our civil, military and commercial efforts. We must establish a permanent manned presence in space by building the space station, Freedom. We must encourage private initiatives in investment, and we must ensure our national security through effective defense activities in space.

You know, when people talk about space exploration, what it represents to us, in this country -- some say that it captures the American imagination. But it's much more than that. Our efforts in space unleash the imagination.

And 20 years ago, an entire generation of Americans was inspired by the space program. We must continue on the path we've blazed in earlier decades with a renewed dedication.

Space is vitally important to our nation's future and, I would add, to the quality of life here on Earth. And it offers a technological frontier, creating jobs for tomorrow. And space programs inspire an interest in math and science, engineering in young people -- knowledge so important for a competitive future. Space offers us the chance to unlock secrets billions of years old and billions of light years away. Space is the manifest destination of a new generation and a new century.

Mr. Vice President, I plan to sign this Executive Order with one objective in mind -- to keep America first in space, and it's only a matter of time before the world salutes the first men and women on their way outward into the solar system. All of us want them to be Americans.

And now I'd like to ask the Vice President to say a few words, and then I'll be honored to sign this declaration.

THE VICE PRESIDENT: Thank you very much, Mr. President, and welcome back to your former office. It's about 100 days ago, a little less, that you were here to witness the official signing of the desk, of the Vice President's desk, and we welcome you back today as you establish the Space Council.

I certainly look forward to getting involved with the

MORE

Space Council, working with the members of Congress to develop a coherent space policy and space strategy for this country.

Space is certainly the frontier -- it is a frontier that we understand and we're going to be there. Space is important to us from an economic point of view, from a national security point of view, and certainly from a point of view of technology.

So, Mr. President, we take your charge with a great deal of seriousness. We will be working with all deliberation and cooperation with members of Congress and the space community, that we will work and present a very good space policy and strategy for the future of this nation.

Thank you very much.

(The Executive Order is signed.)

END

1:12 P.M. EDT