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FIFTH ANNIVERSARY OF MAN'S FIRST LANDING ON THE MOON
SMITHSONIAN INSTITUTION, NATIONAL AIR AND SPACE MUSEUM

1974

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July ? memo

P R O C E E D I N G S

1
2 DR. BROOKS: Distinguished guests, ladies and
3 gentlemen:

4 I'm Robert Brooks, the Under Secretary of the
5 Smithsonian Institution.

6 I know I speak for all of us here in welcoming
7 Neil Armstrong, Mike Collins and Buzz Aldrin, and past and
8 present officials of the National Aeronautics and Space
9 Administration here at the Smithsonian on the occasion of
10 the fifth anniversary of man's first landing on the Moon.

11 Perhaps some of the millions of people around
12 the world who watched that epochal Apollo-11 mission on
13 television are pausing with us today to assess in some
14 measure the significance of that historic event.

15 What is it's significance here at the Smithsonian?
16 First, and quite simply, a lot of it is here, and we are
17 proud to have it. The command modules of Apollo-11 and its
18 predecessors and its successors, the lunar module and others
19 soon to be housed in the magnificent new National Air and
20 Space Museum which is rising up on your right.

21 I was particularly pleased, however, to see that
22 we have just put on view effigies of the three astronauts,
23 standing like Cortez or Magellan in their intricate armor in
24 the great hall of the castle of the Smithsonian.

25 If there is just a suggestion when you look at

1 those effigies of Charlie Brown in his snowsuit, that is
2 as it should be, because the artifacts, we think, are meaning-
3 less unless we are reminded as well of the people within
4 them, of the human ingenuity, the determination, and the
5 idiocyncrasy that went into their making and use.

6 Over the years the Smithsonian has had a part,
7 too, in the human achievements of scientific exploration of
8 air and of space. It began not far from this spot where
9 you're sitting during the Civil War, when Thaddeus Lowe,
10 with encouragement of the Smithsonian Institution, demon-
11 strated a balloon ascent for President Lincoln.

12 In 1896 Samuel P. Langley, the third Secretary,
13 achieved successful unmanned flight of an aircraft for
14 one-half mile along the Potomac River. Shortly thereafter,
15 the Smithsonian received a request for information about
16 aeronautics from a young bicycle maker in Dayton, Ohio. His
17 name was Wilbur Wright. I'm glad to say that we were able
18 to respond.

19 In the twenties, the Smithsonian supported and
20 published the rocket studies of the great pioneer, Robert
21 Goddard, and received a different response. We got a
22 telegram from Mary Pickford's press agent suggesting that
23 America's sweetheart should send the first message to the
24 Moon. I don't know how we responded to that.

25 More recently, the Smithsonian Astrophysical

1 Observatory and the Air and Space Museum have both participa-
2 ted in much of the research based upon our new ability to
3 send and recover instruments and observations beyond the
4 limits of the earth's atmosphere.

5 At the Smithsonian, then, we have always tried,
6 by collecting, by study, by exhibition and by participation,
7 to assess the achievements of history and to make it as clear
8 as we could that these were, above all, the achievements of
9 the human spirit, of men and women standing upon the
10 shoulders of those who went before.

11 So it is with particular pleasure that we invite
12 those people who are responsible for the great achievement
13 of the lunar flight five years ago today, in space and on
14 the ground, to share with us their reflections on that
15 event.

16 Before introducing the speakers I should like to
17 recognize our distinguished other guests on the platform.

18 First of all, on my extreme left in the front
19 row Dr. David Challinor, Assistant Secretary for Science
20 of the Smithsonian.

21 On my extreme right in the second row, Mrs.
22 Challinor.

23 On my extreme right in the front row, Dr. Robert
24 Seamans, former Deputy Administrator of NASA and Secretary
25 of the Air Force, and now President of the National Academy

1 of Engineering.

2 Mrs. Robert Seamans is also with us, and my wife,
3 Mrs. Brooks.

4 Our first speaker will be Dr. Thomas O. Paine,
5 who has had a long and distinguished career in industry and
6 in government. After receiving his undergraduate degree from
7 Brown University, and his doctorate from Stanford, Tom Paine
8 rose through the ranks of General Electric and became a
9 vice president in 1963.

10 In 1968 he became James Webb's deputy at NASA,
11 and shortly thereafter was appointed Administrator. This is
12 the position that he held during the Apollo-11 mission.

13 Dr. Paine returned to industry in 1970 and is
14 presently a senior vice president of the General Electric
15 Company. We're glad to welcome Doctor and Mrs. Paine with us
16 on the platform today. Dr. Paine.

17 (Applause.)

18 DR. PAINE: Thank you.

19 It's a great pleasure to be here and have this
20 opportunity for a reunion after five years with many of the
21 people who made this event possible.

22 It seems that it must have been a very short time
23 ago, as I look around me and talk to the people who are
24 assembled here today, that this event took place. It hardly
25 seems five years that people were pausing all around the world

1 to watch the first few faltering footsteps on the Moon.

2 I think that this afternoon looking back on it,
3 we're still too close to it to understand fully the signif-
4 icance. But a few things are becoming clear.

5 On the technical level Apollo demonstrated the
6 enormous power of modern systems engineering to make rapid
7 strides across a wide variety of disciplines to achieve a
8 bold national objective.

9 On the institutional level, Apollo demonstrated
10 the effectiveness of our free society in organizing government,
11 university, industry teams to work together harmoniously to
12 achieve clear goals, articulated by national leaders.

13 One must pay tribute here to the administrative
14 genius of Jim Webb, who can't be with us today, but whose
15 understanding grasp of space-age management built the
16 remarkable capability in management which was responsible
17 greatly for NASA's achievements.

18 On the personal level, of course, Apollo furnished
19 an inspiring example of courageous, competent men, willing
20 to undertake the most demanding missions to explore the
21 unknown.

22 On the geopolitical level, Apollo's convincing
23 demonstration of America's continuing impressive technical
24 leadership provided an essential stabilizing force in inter-
25 national relations.

1 On the domestic front, Apollo set new standards
2 of program performance, which set an example that raised the
3 hopes and expectations of our citizens in many other endeavors.

4 In the economic sphere, Apollo sparked a host of
5 product and process innovations that continue even to this day
6 to add to our economy, both here and in our international trade.

7 But beyond all of these significant, short-range
8 considerations, to my mind, lies the real fundamental signif-
9 icance of Apollo. For the first time mankind has been given
10 a vision of the thin biosphere that surrounds our beautiful
11 blue planet, earth, which, as we now know, is the fragile home
12 of all the life that so far has been detected in our solar
13 system.

14 And for the first time, terrestrial life that
15 evolves here on this planet over billions of years, has reached
16 out to touch another world.

17 To me, this is the true significance of Apollo.
18 The human intellect triumphing over time and space has
19 pioneered a route in our generation by which terrestrial life
20 will surely in centuries to come enliven other worlds.

21 I believe that men will always remember this as
22 the great spiritual legacy of Apollo, and indeed, of our
23 generation, which reached out into the heavens.

24 Thank you.

25 (Applause.)

1 DR. BROOKS: Thank you, Dr. Paine.

2 Our next speaker, Dr. George Low, has seen the
3 space program grow from its very earliest beginnings.
4 Educated in aeronautical engineering at Rensselaer Polytechnic
5 Institute, Dr. Low joined NASA -- or NACA, as it was then
6 known -- in 1949. He worked in a number of installations,
7 including Langley, Virginia, Cleveland, Ohio and Washington.

8 At the time of the Apollo-11 landing, Dr. Low
9 was the Manager of the Apollo Spacecraft Program in Houston,
10 Texas. He is now Deputy Administrator of NASA, a position
11 he has held since 1969.

12 We're pleased to welcome Dr. and Mrs. Low to our
13 platform.

14 Dr. Low.

15 (Applause.)

16 DR. LOW: About two hours and three minutes from
17 now the hands of the clock will stand at 4:18. That is the
18 exact time that Apollo-11 landed on the Moon five years ago.

19 For the first time in history, man had reached
20 another world. It was the beginning of the future.

21 To the 400,000 Americans who had been dedicated
22 to doing the impossible, it was a moment of tremendous
23 engineering and scientific achievement. To the 500 million
24 people around the world who watched the drama of Apollo-11
25 unfold on television, it was a height of human adventure and

1 exploration.

2 But today, looking back at the events of July 20,
3 1969, from the perspective of just a few short years of
4 history, it is clear that Apollo was and is much more than
5 that.

6 To me, Apollo is the symbol of hope for the future
7 of mankind. I say this even while here on earth we face
8 serious problems -- super problems -- having to do with the
9 environment and natural resources and energy; even while
10 there are some who would predict that we may soon plunge into
11 a new and terrible dark age of a ravaged environment and
12 depleted resources.

13 But I can say this, because the men and women of
14 Apollo demonstrated that mankind can cope to achieve what at
15 first appears to be impossible, that we can solve tomorrow's
16 super problems, that we can succeed in spite of what may
17 appear to be insurmountable obstacles.

18 Apollo was at the forefront of the thrust to a
19 new and better world, and so is NASA today. NASA is still
20 pushing beyond the frontiers of science and technology, and
21 we do this peacefully, openly, and for the benefit of all.

22 True, our major thrust is in the exploration of
23 space. We've put men on the Moon, and spaceships around
24 Mars. We have extended our reach to Mercury and Venus, and
25 glimpsed the mysteries of the distant world of Jupiter.

1 But the same technology that has made these feats
2 possible has enhanced measurably the quality and the security
3 of life on our own planet.

4 Weather satellites warn us of storms. Communica-
5 tions satellites have pushed back the barriers of ignorance.
6 Resource monitoring spaceships watch our farm lands, help us
7 to locate vital minerals, and keep a watchful eye on the
8 advances of pollution.

9 Many of the discoveries and innovations our efforts
10 have produced have found their way into medicine, into
11 electronics, and into products and services of all kinds.

12 The views brought back by our astronauts of our
13 tiny planet, floating like a blue oasis in a void, have
14 stirred our spiritual belief, while making us aware of our
15 cosmic heritage. And with the coming joint space venture with
16 our Russians neighbors can be counted, we can lay firm claim
17 to the easing of world tensions.

18 However, we must now look to the future. With
19 the help of American industry and universities, we are moving
20 toward new and even more exciting adventures in space;
21 adventures that will ultimately lead to practical application.

22 Ahead lies a Viking landing on Mars. Within a
23 few years, shuttle orbiters will add a new dimension to
24 earth studies, by carrying teams of scientists and engineers
25 to and from space on a regular basis.

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1 Beyond lies a construction of huge orbiting space
2 stations with men and women scientists of all nations working
3 together in harmony for a common purpose. They will investi-
4 gate the earth, the moon, the sun, the stars and the universe.
5 They will experiment with applications of weightlessness
6 for medicine and manufacturing processes.

7 Some day we will establish scientific outposts on
8 the moon, and even tap its mineral resources.

9 And in the not-too-distant future, astronauts
10 may well tread on the surface of Mars and the glaciers of
11 the moons of Jupiter in search of extraterrestrial life.

12 It is not inconceivable, also, that one day we
13 may even be able to listen to other civilizations in the
14 distant reaches of our galaxy to tap our cosmic heritage,
15 just as we have tapped the wisdom and the experience of the
16 earliest civilizations of earth.

17 In the final analysis, the ability to move outward
18 in space, to colonize other worlds in our solar system, and to
19 communicate with other intelligent beings, may represent the
20 fundamental factor in the survival of humanity. The future
21 did begin with Apollo.

22 Thank you.

23 (Applause.)

24 DR. BROOKS: Thank you very much, Dr. Low.

25 We are happy also to welcome Dr. and Mrs. Fletcher,

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1 who is our next speaker here with us today.

2 Dr. James Fletcher is a native of New Jersey, was
3 educated at Columbia and at the California Institute of
4 Technology. He received his PhD in California in 1948.

5 Next followed an impressive procession of research
6 and teaching positions at Harvard, Princeton, Cal Tech and
7 UCLA.

8 Dr. Fletcher then tried his hand most successfully
9 in the business world and filled a variety of responsible
10 corporate positions with such companies as Hughes Aircraft,
11 Raymo Wooldridge, Aerojet General, and Space Electronics
12 of which he was both organizer and president.

13 Dr. Fletcher then returned to the campus, this
14 time as president of the University of Utah, a position
15 which he occupied from 1964 until he came to Washington in
16 1971 in the position which he now holds as administrator
17 of the National Aeronautics and Space Administration.

18 Dr. Fletcher?

19 (Applause.)

20 DR. FLETCHER: Thank you Dr. Brooks, and thank
21 you also for the beautiful day that we have, sitting here
22 relaxed, calm, and reflecting about five years ago.

23 Needless to say, none of us were here in this
24 place five years ago. Those 400,000 people that Dr. Low
25 was talking about were mostly glued to consoles watching meters,

1 very tense along with our three friends, Mike and Neil and
2 Buzz, who were busy 250,000 miles away trying to make their
3 spacecraft work. And the rest of us were spread out all
4 over the world, one place or another, probably watching our
5 TV, and hoping, hoping, hoping, that it would work.

6 And I remember a remark, something like this, when
7 it really did land, and Neil made the famous expression
8 about the Eagle having landed, I think I said something like
9 this: "Well, they really did it, didn't they." And it was
10 a big sigh of relief.

11 But most of us find time is quite scarce for
12 serious reflection about the fate and future of mankind as
13 we busy ourselves like we did five years ago, with the con-
14 cerns of the day. Most of our lives are not spent facing
15 the momentous questions of the age. Everyday problems occupy
16 most of our time and thoughts.

17 So it is appropriate that we use an occasion such
18 as this to meditate about the meaning of historical events
19 that have touched our lives and to determine what we can
20 learn from them.

21 Like other great milestones in history, Apollo
22 stands out dominantly against the background of ordinary
23 events. This one magnificent achievement clearly overshadows
24 and stands out as a memorable event of our era.

25 Important historical events are those that affect

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1 many people over a long period of time. These are the
2 hallmarks of mankind's progress.

3 Clearly, Apollo qualifies by that or any other
4 definition of a truly historic occasion.

5 When the Eagle landed at Tranquility, man burst
6 the bonds that for millions of years tied humanity to this
7 small and fragile planet that Dr. Low described.

8 There is little likelihood that the epic
9 accomplishments of Apollo will be lost in the pages of
10 history. There is, however, a very real danger that our own
11 generation may too soon forget that progress has a price which
12 society must be willing to pay.

13 Today, for example, we face a number of crises;
14 energy, pollution, urban congestion, crime, inflation, and
15 you could go on and on. All of these problems affect us in
16 a very direct, immediate and personal way and properly rank
17 high on our list of priorities.

18 But in establishing national priorities we must be
19 mindful that no matter how pressing the demand, or how acute
20 the crises of its time, every progressive society to remain
21 strong, must commit a portion of its resources for programs
22 to advance human knowledge and progress.

23 Universities, research programs, scientific
24 investigation, all require a commitment that at the time seem
25 difficult to support when weighed against the needs of the day.

1 And in every age there have been critics of programs that
2 have no immediate payout, or do not address directly the
3 immediate and the urgent problems of the times.

4 The space program is such a program. The dollars
5 that we spend on space research and exploration produce no
6 instant supply of food for the hungry, no shelter for the
7 homeless, no clothing for the ragged. Spinoffs from space
8 technology have helped in innumerable ways to improve everyday
9 life for thousands of people. But NASA programs provide no
10 quick readymade solutions to the major ills that afflict
11 mankind. Yet, in the long run, the benefits of our program
12 may return many times over, the cost of the initial investment.

13 In fact, when our descendents look back on it,
14 the first man landing on the moon most certainly will be
15 considered the outstanding event of the 20th Century, and
16 probably more. July 20, 1969 may be remembered in the future
17 as the day man ended an era of one-planet civilization, and
18 began a new age as traveler and colonizer of the universe.

19 In times past, decisions to embark on great
20 undertakings were made for people by royalty or their
21 religious leaders. It is still the responsibility of leaders
22 to feed or to point the way. But in a democratic society, the
23 final decision rests ultimately with the people themselves.
24 They must voluntarily choose to make the sacrifices needed to
25 assure progress.

1 This choice was made by our republic year after
2 year, until that day was reached five years ago and men, our
3 men, made the first steps off our planet and into the solar
4 system.

5 Most Americans continue to have a strong commitment
6 to the future, and are willing to spend a portion of this
7 country's bountiful resources on a better tomorrow for all
8 the world's people.

9 Despite current difficulties and gloomy prophesies
10 by well-meaning, but short-sighted critics, our nation and
11 the rest of humankind will make more of these steps into the
12 vast but exciting reaches of our solar system.

13 Thank you.

14 (Applause.)

15 DR. BROOKS: Thank you Dr. Fletcher.

16 Now we pass from the men who organized, the men
17 who planned, to the men who are out there.

18 The first astronaut I would like to introduce,
19 Col. Edwin E. Aldrin, who is here with his wife. Buzz Aldrin
20 was educated at West Point and at the Massachusetts Institute
21 of Technology where he was awarded the Doctor of Science
22 degree in 1963.

23 Col. Aldrin had a distinguished career in the
24 U.S. Air Force, including a tour as a fighter pilot in Korea,
25 and later director of the Air Force Test Pilot School.

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1 Col. Aldrin's first space flight was in 1966,
2 aboard Gemini 12, during which he set an endurance record
3 as a space walker.

4 Col. Aldrin then became an expert in lunar mission
5 planning, and was assigned as lunar module pilot for the
6 historic flight of Apollo 11.

7 Col. Aldrin?

8 (Applause.)

9 COL. ALDRIN: Friends of Apollo, as I mentioned
10 the other day down at the Cape, you can tell the difference
11 between college professor, a museum curator, and a freewheeling
12 rancher from Los Angeles, by the shade of the suits that they
13 wear. But I am afraid that today Dr. Fletcher, with his
14 jacket, has completely outdone us all.

15 (Laughter.)

16 (Applause.)

17 I hate to be a nitpicker about seconds, but it
18 seems to me that we landed at 4:17:32 instead of 4:18, and if
19 it had been 4:18, I am afraid we would have run out of gas.

20 Far be it from me to compete with the distinguished
21 gentlemen who have preceded me in discussing the philosophy
22 and significance of Apollo. As I do look back over the past
23 five years, I am reminded of an evening discussion that I had
24 with a rather senior space industry person on the West Coast,
25 and as we reminisced, I finally asked him, what do you think are

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1 the two most important parts of the Apollo program that will
2 not be remembered by the American public or the world?

3 Now this took him back a little bit because
4 usually he is answering the question the other way, what are
5 the most important things that will be remembered.

6 He thought for a while and he said, well, I guess
7 people may not appreciate the great teamwork between government
8 and industry, military services.

9 And I said, no, I think we will remember that. That
10 is well recorded, the great management embodied in the
11 organization of NASA.

12 And he said, well perhaps the fact that we did it
13 in a peaceful way, and we did it out in front so that everybody
14 could see, so all the nations of the world could see our
15 successes and failures.

16 And I said, no, I think that is also well recorded.
17 People will remember that.

18 Well, he was pretty well stumped.

19 So I said, when we first started thinking about
20 going to the moon, we really didn't know how to get there.
21 Some people thought we should build a rocket bigger than the
22 Saturn 5, the Nova, and go there directly and land the
23 spacecraft, and then return.

24 Other people said, no, we should use the Saturn 5
25 and build it together in earth orbit.

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1 There was an enterprising engineer at Langley
2 Research Center, who said, no, I think there is a better way
3 to do it. He did his calculations on the back of an envelope
4 and convinced those who were his immediate seniors. It was
5 a long, uphill fight for John Hubalt, who many of you will
6 never remember as the one that pointed the way to lunar orbit
7 rendezvous.

8 And I said that is one major part of Apollo which
9 will not be remembered.

10 He said, well, okay. What is your second one?

11 And I said, could you imagine back in the early
12 '60s, Mr. Webb going in to see the President and saying,
13 Mr. President, here is the way we are going to go to the
14 moon.

15 We are going to build a Saturn 5, and to test out
16 its components, we are going to build a smaller rocket, the
17 Saturn 1, and we will fly it about 20 times. And then we will
18 put a spacecraft on top of it with three crewmen, and they
19 will orbit the earth for seven days.

20 And in the meantime, we will have flown this big
21 rocket twice.

22 And then, Mr. President, we are going to take that
23 same spacecraft, and put three people on top of that rocket
24 that has never flown with men on it, and we are going to send
25 it to the moon.

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1 That is the way we did it.

2 I am sure if Mr. Webb had tried to go in and convince
3 the President, he would have been kicked out of his office. But
4 I believe that the men here responsible for those kind of
5 decisions, gained us very valuable months, which enabled us to
6 meet the deadline of landing within the '60s.

7 The three of us, I am sure, as we look back on
8 things, feel quite proud of the significance of the symbols
9 that we chose. And it took us many long hours in the evening
10 to choose the Eagle as our emblem, carrying the olive branch
11 to the moon, the olive branch of peace, and the call signs of
12 Eagle and Columbia.

13 If there were any regrets that I think we might have,
14 it would be that instead of bringing back the helmets,
15 perhaps we should have brought back the boots that we wore on
16 the surface, so that Mike could display them in the
17 Smithsonian.

18 Those footprints that are up there on the moon are
19 a living monument that will last for ages and ages to come.

20 The three of us, and many others that were part
21 of the space program, are now planting our footsteps in widely
22 diverse ways. For some it has been easier than others. Our
23 lives have changed tremendously.

24 The moon and the surface have changed. And I
25 trust that future historians will look back and say that the

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1 earth and the lives of its inhabitants have changed, changed
2 in a way that only the ingenuity of Americans could have
3 brought about.

4 We need not apologize to any of the space program's
5 critics, but we should stand proud when we remember the events
6 that led up to July 20th, 1969.

7 Thank you.

8 (Applause.)

9 DR. BROOKS: Thank you, Buzz Aldrin.

10 It would be presumptuous of me, I think, to welcome
11 Mike Collins and Mrs. Collins here, because this is their
12 turf. They belong here. They have come to roost, and this
13 is his museum that we are looking at.

14 Mike Collins was born in Rome, educated at St. Albans
15 School here in Washington, and at the U.S. Military Academy.
16 He was an Air Force test pilot at Edwards Air Force Base at
17 the time of his selection to the Astronaut Corps in 1963.

18 Mr. Collins flew aboard the three-day Gemini 10
19 flight, and became the nation's third space walker, prior to
20 his assignment to the Apollo program. He was the Apollo 11
21 command module pilot and orbited the moon while his compatriots
22 walked upon it.

23 After Apollo 11 he left NASA, became Assistant
24 Secretary of State for Public Affairs, served there until
25 1971, when he joined us as director of the National Air and

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1 Space Museum of the Smithsonian Institution.

2 Mike?

3 (Applause.)

4 MR. COLLINS: Thank you very much, Dr. Brooks.

5 And thank all of you for coming. I can't imagine
6 a better place for this ceremony than here on the Mall, in
7 the shadow of the Capitol. It is also one of my favorite
8 places, and as Dr. Brooks told you, I do spend a lot of time
9 here; a great deal of it in one of the old red buildings to
10 your right rear, the 1879 Arts and Industries Building.

11 And every time I walk in there, or practically
12 every time, I am startled by the size of the original Wright
13 Brothers airplane suspended almost directly above the Apollo
14 11 command module, which carried us to the moon and back.

15 The remarkable part, I think, is that only 66
16 years separated these two events, an indication of the
17 incredibly swift pace of technology in this century.

18 Today I look back on what happened five years ago
19 with a great deal of pride, and still a trace of disbelief.
20 But more important, I think, is where will we be five years
21 from now, or, indeed, 66 years from now.

22 Clearly, the mood of the country has shifted from
23 the exuberance of the '60s, to a more introspective attitude,
24 causing us all to examine our own planet in a way that is
25 more critical than we have ever examined it before. And I

1 think that the space program is being, and will be extremely
2 helpful in this examination; for the ability to orbit the earth
3 once each 90 minutes is a most powerful tool, a tool for
4 measuring the ravages caused by over a millenia of human
5 carelessness. And such a complete survey is the first step
6 in the process of repair.

7 Therefore, I expect the next five years will see a
8 burgeoning of the productive use of earth satellites for the
9 benefit of all of us surface crawlers here.

10 But 66 years from now, I certainly hope that this
11 new building going up over there, the new National Air and
12 Space Museum, which incidentally will be open to the public
13 for the Bicentennial on the 4th of July, '76.

14 I certainly hope this new building will be chock
15 full of the products, the byproducts of our exploration. I
16 hope that the museum will contain spacecraft that have taken
17 men to the surface of Mars and back to Earth again, just as
18 this one behind you contains the Apollo 11 spacecraft.

19 I don't think that is an unreasonable expectation,
20 and as a matter of fact, I think that long before 66 years have
21 gone by, man will have clearly documented the existence of
22 extraterrestrial life, and I hope that our new building here
23 will contain samples of that life as well as the machines that
24 discovered it. I don't think that is unreasonable.

25 I am looking forward keenly to that kind of a

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1 future, anyway, a future which will see NASA in the forefront
 2 of exploration, and the Smithsonian documenting and displaying
 3 each step along the pathway to the stars.

4 Thank you.

5 (Applause.)

6 *intro*
may 70
 DR. BROOKS: Thank you very much, Mike.

7 *Neil Armstrong*
 VOICE: A ubiquitous commercial says, you only go
 8 around once in life.

9 Hardly.

10 You go around and around. Some say more in this
 11 city than in others; go physically round and round. Once
 12 a day around the earth's axis, and once a year around the sun,
 13 like a giant carousel with horses named Earth and Jupiter, and
 14 Mars and Lunar. 70 turns or so for a lifetime ticket.

15 When that lifetime ride is begun, we can't get
 16 off, and many people say that neither should you switch horses
 17 when the merry-go-round is in motion. Never change horses in
 18 midstream. Why get on another horse when you don't even
 19 have your own well trained yet?

20 Well, we answer, we know our horse has shin splints,
 21 and we suspect it may have a bowed tendon. So, perhaps if
 22 we were just able to go over to the next horse over on this
 23 merry-go-round, we would be able to observe and diagnose our
 24 own horse better.

25 And from the next horse beyond that, we would get a

num151 superlative view of the rest of the carousel. Spectacular
2 sights of the carnival surroundings.

3 Well, today, we celebrate the completion of five
4 trips around the sun; five turns of the carousel since we
5 first had someone trade horses.

6 We say it really was an experience, we really did
7 get a new view. We really know our horse better.

8 We do think that by and by everybody will be doing
9 it, but not everybody completely believes the horse traders.
10 They suspect that these travelers may be just like many others,
11 less interested in the voyage than the telling about it. And
12 if they are like most travelers, they talk about past and
13 future; where they have been, and where they are going, depending
14 on which they think will be most impressive to the listener.

15 The human, after all, is a slave to his own self
16 satisfaction. Some find that satisfaction in the acquisition
17 of material things and they are scorned by those who do not.
18 Others find their satisfaction in experiences or telling about
19 them. Still others find their satisfaction in proclaiming that
20 they are not like the other two. They are slave to neither
21 material things, nor to emotion.

22 But, in reality, they are slaves to the existence
23 of both.

24 Many observers think of the scientists or the
25 technologists as completely bound to physical things, and

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1 sharply separated from the arts, the world of perception and
2 emotion.

3 But that is an imperfect view, for all, the physicist,
4 the astronaut, the painter, and musicians are all attracted
5 to their rainbow's end by the emotion of wonder.

6 Albert Einstein said, "The fairest thing we can
7 experience, is the mysterious. It is the fundamental emotion
8 which stands, the cradle of true art and true science."

9 In the limited ride on the carousel provided by
10 our creator, and in the larger sense our existence is completely
11 dependent, not on ourselves, but on our fellow man.

12 Our physical surroundings, the burdens we bear,
13 the smiles that uplift us, are the product of our fellow man.
14 And everything we leave behind, the products of our individual
15 lifetimes, are received by our fellow man for better or for
16 worse, stones from which he will build tomorrow's foundations.

17 I don't know how the legacy of Apollo will be judged,
18 but those of us involved have certainly received self satisfaction
19 enough for anyone. And I, for one, am happy that I had the
20 opportunity to play a part.

21 Thank you. It is nice to see so many friends here.

22 (Applause.)

23 DR. BROOKS: Ladies and gentlemen, with gratitude,
24 with, I think, some sense of contemplation of this event as
25 well as celebration, that concludes our ceremonies.

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1 I would like to thank our speakers, our guests,
2 and thank you for coming; until the next ride on the
3 carousel.

4 (Applause.)

5 (End of tape.)
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