

① Families of Medalists

② Members of Congress -

✓ Dr Harnia
Dr Land + Medalists
Hale Boggs - Med Land
George Miller

Distinguished members of

NOTES

VICE PRESIDENT HUBERT HUMPHREY

The Scientific
Community

NATIONAL MEDAL OF SCIENCE AWARDS LUNCHEON

③ Recipients of the
National Medal
of Science for 1967

WASHINGTON, D.C.

FEBRUARY 13, 1968

Merle Fain Sob
Camer Pal Sen

I am honored to be with the distinguished recipients
of America's highest award for scientific achievement.

President
Ceremony

Some of your accomplishments are familiar in millions
of households. Others are known only to your peers.

But each of you has experienced the lonely quest for
knowledge. Each of you has known the adversities and
setbacks which are so much a part of all human progress.

Burke's words -- "the march of the human mind
is slow" -- are no longer true, at least in the field
of science.

↳ In this age of unprecedented scientific discovery,
it is nevertheless important -- and refreshing -- to
remind ourselves that the "miracles" we see about us
daily are the product of human minds and hands.

} your
Dedication.
your
commitment
to Excellence

↳ Consider, for example, last year's achievements in
the space sciences:

The Surveyor and Orbiter missions were completed,
mapping the greater part of the moon, front and back,
and analyzing its surface.

↳ Saturn V, the most powerful vehicle to date, was
fired successfully -- developing a thrust of seven and
a half million pounds with its first-stage engines.

↳ An Applied Technology Satellite was put into synchronous orbit and performed a series of experiments involving communications, meteorology, gravity gradient measurements and environmental sensing.

↳ A biosatellite cast new light on how living organisms react to radiation and weightlessness.

↳ All done by men. — and olympics in Colo
communication satellite (Gherbol)

Those human accomplishments offer the hope that we may soon come to grips with some more mundane challenges -- air pollution and water contamination... the need for low-cost desalinization and for controlling the noise that goes with modern society... the illnesses and bodily failures which have still not made the "unnecessary" list.

Maintaining the momentum of scientific progress is the continuing task of non-profit and commercial organizations.

Marine Sciences - 516 million - Sea Grant
4448 million -

-4-

It is also a priority concern of those of us who pursue the rather imprecise science of government.

For fiscal year 1969, the federal government proposes to increase its investment in basic and applied research from 16.9 billion to 17.8 billion dollars.

How much that sum will really buy depends on + Deduct men -- on the imagination of individual scientists, on the quality of administration.

And in years to come, the character of our scientific achievement will depend on the quality of education available to our young people.

I have invited 4 gifted Students youngsters from Dunbar High McKiley Hs, Springfield School to be with us today. This past summer, they and 21 others participated in a scientific training program at Goddard Space Laboratory as part of a pioneering effort for Washington's inner city youth.

(Univ. Sci.)
Academic
Research
1.4 Billion
4.6 Billion
up
13%

Educ
Resources

Before last summer, none of the 25 youngsters had planned to attend a four-year college. I am happy to report that all plan to do so now.

As Chairman of the President's Council on Youth Opportunity, I hope this summer will offer similar experiences to hundreds of American youngsters across the country with the cooperation of the Science Teachers' Association, federal agencies, scientific corporations and other interested groups.

It is for them, these young scientists...for all their fellow young Americans...and indeed for the future progress and security of this country, that we will continue to increase our investment in scientific education at every level -- in other words, in our future.

No one can foresee who the National Medal of Science Winners will be five or ten years from now.

But we can foresee that their achievements will be all the more brilliant if the doors of opportunity are open to potential scientists of every race and from every background.

And we know that the cause of humanity, which ~~you, whom we honor today and the rest of us must serve,~~ will be advanced.

— International Cooperation }
Science Communication
Satellites

Wally Baer →

Please return
to P. Barlow

~~_____~~

REMARKS OF THE VICE PRESIDENT OF THE
UNITED STATES, HON. HUBERT H. HUMPHREY
AT LUNCHEON HONORING THE RECIPIENTS OF
THE NATIONAL MEDAL OF SCIENCE FOR 1967

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1967-1968
1967-1968*

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REMARKS OF VICE PRESIDENT HUMPHREY

VICE PRESIDENT HUMPHREY: Thank you very much.

Thank you, Dr. Hornig. Dr. Lamb and the other distinguished medalists, and in particular the families of, the very dear families of the medalists. I know they are so pleased to be here to participate in the ceremonies at the White House, to see the President and Mrs. Johnson, and then to be here at the State Department in these fine, very lovely rooms, the John Quincy Adams Room, the Jefferson Room, and here in the Franklin Room.

As Dr. Hornig indicated, these facilities are literally jam-packed with the history of our great country. And I hope that every one of our young people particularly, before they leave, will see that they get a copy of this Diplomatic Reception Room Tour Booklet; it's the best brochure on American history, particularly in the early period of our republic, that I have read. And I hope that the parents will see that our young friends get it before they leave.

I am sort of a crank on history anyway -- I even wanted to correct Dr. Hornig a couple of times here; but I shan't do it because he's apt to take me on in other disciplines where I have no knowledge, and prove my incompetence -- to the point where I wouldn't want to sponsor

any more luncheons!

I am very happy to see so many distinguished members of the scientific community here today. I can't think of anything that is more heartening right now, in these troubled times, than to see people with depth of thought, conviction, people that have given a life to self discipline, a life to excellence in the pursuit of truth and the pursuit of knowledge.

We need you in the Capital City. We not only need your physical presence but we need your faith, we need your competence.

There are so many here that I would like to mention by name and by title. I first want to thank the Members of Congress who have found time today to come here. I know that the Majority Whip of the House of Representatives, Mr. Hale Boggs, Congressman Boggs is with us; I am not sure whether he can remain. Congressman Mel Laird, one of the ranking minority members of the House Appropriations Committee, was with us. He had to leave to go to Alabama where they are honoring the very distinguished United States Senator, Mr. Hill, this evening.

Congressman George Miller of the House Committee on Astronautics, the chairman, is with us here today. Earlier we had Chet Holifield, the vice chairman of the Joint

Committee on Atomic Energy. We were privileged to have the Speaker of the House of Representatives with us at the White House.

We have had a fine representation of the Congress present at these ceremonies, and might I say to the recipients of the medals that these men are deeply interested in your achievements, and the Congress of the United States is very vital to the pursuit of excellence in science and technology. They take a great interest in and concern about our preeminence in science and technology.

I am pleased also to note that we have some of the leaders of the different associations of the scientific community of America. Dr. Walter R. Roberts, president of the American Association for the Advancement of Science; Dr. Eric Walker of the National Academy of Engineering; and we of course have our own Dr. Seitz of the National Academy of Science; and we have Dr. Fainsod of the American Political Science Association. I want to bring him in. I am a dues-paying member.

And long before I ever became Vice President of the United States, I practiced up in being vice president of the American Political Science Association.

[Applause.]

And I want you to know that was a tougher job than this one!

We are very pleased also to have some of the leading men in our scientific world in the government here, there are so many that have taken such a notable role: Dr. Hayworth and Dr. Seiborg, Mr. Webb. Dr. Wink, Dr. Shannon and others here, that have really given a real character to the role of government in the fields of science and technology.

I hope that you all enjoyed the ceremony at the East Room at the White House as much as I did. I know that the recipients of the National Medal of Science for 1967 were very honored. But I like to bask in their sunlight, so to speak, in their honors. I was there and just felt a glow of, well, a glow of honor that was falling all around us.

And I know that the President was so pleased to have this morning, where he could participate in and, on behalf of this great country, extend thanks, appreciation, admiration and honor to the recipients of the Science Medal.

Now, some of your accomplishments, and I speak particularly now to the medalists, are familiar in millions and millions of American households, in fact throughout the world. Others are known only to your peers. But each of you, I believe we can say, has experienced the lonely quest for

knowledge. And each of you has known the adversities and the setbacks which are so much a part of all human progress. It is here where the physical scientists, the technicians and the political scientists have a common denominator. We all have adversities once in a while.

Burke's words, "The march of the human mind is slow" -- possibly those words do not have as much relevance today as they once did, at least in the field of science. Because it appears that we are making giant strides. We have an explosion, so to speak, of scientific information, scientific knowledge and achievement.

But in this age of unprecedented scientific discovery I believe that it is nevertheless important and refreshing to remind ourselves that the miracles that we see about us, that these miracles are the product, not of machines, not even of a system, but of human minds and spirits and human hands. And that's what we are doing today, we are honoring these great spirits, these great minds, these capable hands.

We are not honoring them in terms of money, but rather in terms of recognition and admiration.

Now, I have been introduced to you as having some interest in two fields, particularly, of the scientific

world: the Space Council, and what we call the Council on Oceanography.

I just sent a note over to my friend, Dr. Wink, a while ago -- as Dr. H-rnig says, I seldom pay very much attention to all these words that I have written down here; I sort of just get up and visit with you. And I was looking through all these notes, and despite all of my admonitions, Dr. Wink, we didn't have much in there about oceanography, and I knew that I would most likely be fired if I didn't say something about it.

But there are many duties for the Vice President these days, most of which are bestowed upon him by the wish or the desire of the President, one or two by the Constitution, at least as Presiding Officer of the Senate and the right to break a tie vote. But the Congress has also placed some duties upon the Vice President in recent years, and I often tell this because this office is one that is the subject of many barbs, and the Congress has its own views of the Vice Presidency.

They made me chairman, or they made the Vice President, whoever he may be, chairman of the Space Council and chairman of the Council on Oceanography.

There is another way of saying it: whenever they

gave the Vice President anything to do, it was either out of this world, or at the bottom of the seas.

[Laughter.]

I don't know whether you read anything into that or not, but if you are a student of psychology, you might.

I am very grateful, though, for this rare privilege, because it brings me into contact with the scientific community in universities, in government, in industry. And I visit as many of the laboratories and as many of the private installations and private industrial establishments as I can possibly find the time to see.

Last year's achievements, for example, in the Space Sciences I think tell us a little about the miracles around us, and also about the fact that these miracles are the product of the mind and of the hand.

The Surveyor and the Orbiter missions were completed, mapping the greater part of the moon, front and back, and analyzing its surface. Who would have thought this possible a few years past?

Saturn 5, the most powerful vehicle to date, was fired successfully, developing a thrust of seven and a half million pounds with its first-stage engines. An applied technology satellite was put into synchronous orbit and

performed a series of experiments involving communications, meteorology, gravity gradient measurements, environmental sensing, just a whole series of fantastic measurements and developments.

A biosatellite cast new light on how living organisms react to radiation and weightlessness.

Now, for the scientists these things mean a great deal, but let me tell you about the layman. I have been looking late at night to my television, and I have seen the Olympics, the Winter Olympics, live, in color, from Grenoble, France, by Communications Satellite. What a development!

And what this can mean for mankind! I am a sort of a nut on education, I guess, and I have longed for the day that we could make all of our universities and colleges, large or small, great institutions of excellence. And the difference between an institution of excellence and one of not up to the standard of excellence is the faculty. And everybody cannot afford a prize faculty, and there aren't enough prize professors to give every college and university a resident, outstanding scholar or student; so what are we going to do?

We will make it through Communications Satellite.

If you can see the world's champion in figure

skating or skiing and have that message brought into your home vividly, concisely, pointedly, dramatically; don't tell me that a university or a college can't do exactly the same thing with a great mind, a great artist, a great musician, a great scientist from many places around this world.

The Communications Satellite can make the smallest college in America an institution of excellence. It really can. It all depends upon what we want to do with it.

By the way, I want to get in my plug for what I believe is the role of the university, because there are many of my university friends here.

I am a refugee from a classroom, and I am proud of it. I always mention it in these political years, because you never can tell, I may want to have to go back -- I may not want to, but I may go back!

The university must consider itself as a part of the community -- not apart from, but a part of the community.

I know meditation is important, but participation and meditation together are more important. Universities are not permitted any longer to be just meadows of meditation, away from the realities of life; they must be where the action is.

And the more that you are blessed with God-given intellect, and the more that that intellect and that mind is

refined, the greater your responsibility is not to some esoteric subject but to reality. And believe me, when I see this troubled world, the more I understand the need of making the university a part of the action program of this nation.

Well, that wasn't here, either, Don; I just brought that in.

[Laughter.]

Now, what I about wanted to say was that the human accomplishments that I have mentioned in the field of space, and we have many now in the field of oceanography, obviously tremendous accomplishments in the field of the healing arts -- I might add, as a parochial interest, since in this city there is a great deal of reference to Texas, I would like to put in a plug for Minnesota.

[Laughter.]

Don't let this get out of this great hall!

[Laughter.]

All of these great heart surgeons that you have been reading about, whether from South Africa or from Stanford, were all educated and trained at the University of Minnesota, at our heart hospital. We are very proud of that. Any Minnesotans that want to applaud, I'll welcome it at this time!

[Applause.]

I mention this because we do have a bit of an inferiority complex at times out in the Middle West, wondering if people know we're there.

But these human accomplishments offer the hope that we may soon come to grips with some of the more mundane challenges. They were mentioned by our President this morning. Air pollution and water contamination, which are serious challenges to the health and well-being of this country. The need for low-cost desalinization and for controlling the noise that goes with modern society. And I repeat, the noise level in this society is making it practically impossible for anybody to be heard unless he whispers!

And it is about right.

The illness and the body failures which still have not made the unnecessary list are yet to be taken into consideration.

Now, maintaining the momentum of scientific progress is the continuing task of non-profit and commercial organizations, to be sure, but it is also the priority concern of those of us who pursue the rather imprecise science of government.

I believe the greatest contribution that government has made in recent days to science is this partnership between government, the university, the scientists, management and finance.

I have talked to my friend, Jim Webb, about this many times, and to Dr. Wink. When I see the great interests now, for example, in the field of oceanography, at the state and local level, and the private industrial level; and the role of the Federal Government and the role of the scientist were no longer in competition, were either partners in progress or were really almost individuals in defeat. Because the problems ahead of us are so immense that the resources of all are required if we are to accomplish very much.

The fiscal year 1969, and I am not particularly a budget expert and I don't want to over-emphasize these figures, proposes an increase in Federal investments in basic and applied research from 16.9 billion to 17.8 billion.

Now, I mention this because there are so many times that people these days are told that we just don't seem to care any more about some of these non-military, non-war investments.

University and academic science alone has a 13 per-

cent increase in this fiscal year budget; up from a billion four to a billion six.

And our marine science is up from 516 million -- from 448 million to 516 million. Not as much as we would like, but forward movement.

Now, how much that sum will really buy, or these sums will buy, depends on men not on bookkeeping; it depends on the imagination and the dedication of individual scientists, and it depends on the quality of administration, and it depends on coordination of our efforts.

In the years to come, the character of our scientific achievements, I think, will depend on the quality of education at every level, from Head Start to the graduate school. The quality of education available to our young people.

And what a tragedy it is that in our desire to be the greatest industrial nation in the world, the greatest nation in science and technology, that it's only been in the last decade that we understood a simple basic premise; namely, that your top science could be no better than your lowliest educational denominator.

We always understood the importance of basic research to applied research. Oh, my goodness, I held hearings

on that for 12 years in Congress, when there weren't very many people interested in it.

But I want to say that if it takes basic research to provide the well-springs for applied research, then it takes elementary and secondary education of the highest quality to release the great potentialities of this people of ours for scientific excellence.

Now, I have invited four students here today from three of our high schools here in Washington, from Dunbar, McKinley and Spingarn High. This past summer, these four and 21 others participated in a scientific training program at Goddard Space Laboratory, as a part of a pioneering effort for Washington's inner city youth.

I once read a book when I was a boy entitled, Acres of Diamonds at Your Feet -- I believe it was something like that; I can't remember, it's a long time ago. All I know is, the title made more sense than even what was between the covers.

The great intellectual resource of this country is yet to be tapped, it's there in the inner city, it's in the poor and the impoverished. Just as we are finding out the great athletic resources are yet to be tapped. They are not amongst the overly high-bred; they are amongst the plain

people.

We have squandered our resources in this country for two centuries by not digging deep enough until we found the real high-grade resource of humankind.

You see, I come from the great State of Minnesota where we learned that you could bleed off quickly and mine off quickly the high-grade iron ore, which we did; then we had to get down to taconite rock, which was considered worthless; and today it is our treasure. Because we frabricated it, we processed it, we refined it, and millions and millions of new profits to be made, and hundreds of millions of tons of the highest ore to be found.

It's just like people. The best is yet to be discovered. And we are beginning to find them in the inner cities of America and in the areas of rural poverty, make no mistake about it.

Because, remember, this country itself once was made up of what they call the refuse of humanity. The cast-offs. That's what you are; that's what I am. And maybe something developed out of that first layer of cast-offs; maybe there is yet greater to be discovered. I think so.

Well, before last summer, none of the 25 young people that I spoke of, planned to attend a four-year college.

None of them. They were lost.

I am happy to report that all 25 now have definite plans to go on to higher education.

Who knows but what the answer to many of our problems of man and disease are yet in the minds of these youngsters? I hope so.

Now, as chairman of the President's Council on Youth Opportunity -- and that's one of my tasks, and I love it -- I hope this summer will offer similar experiences to hundreds of American young people across the country, with the cooperation of the Science Teachers Association, the Federal agencies and scientific corporations and other interested groups.

I am absolutely convinced, from my experiments and research as a social scientist, that the best is yet to be found. We are proving it day in and day out, once these great potentials are developed. Because it is for them, these young scientists, for all their fellow young Americans and indeed for the future progress and security of this country, that we will continue to increase our investment in education, yes, in scientific education at every level. In other words, our investment in the future.

There has never been a nation on the face of this

earth that has become insolvent because of investment in knowledge or in education.

When I hear people worrying about whether we can afford this or afford that, let me tell you, the only thing you can't afford is undue frugality, undue penny-pinching, in the resources of education. We might just as well make up our minds to it right now.

I don't think anyone here can foresee who the National Medal of Science winners will be ten or fifteen years from now. But I wouldn't be a bit surprised that amongst these young people that I am speaking of, not only the 25, but the thousands more, we will find the new medalists.

We can foresee, however, that their achievements will be all the more brilliant if the doors of opportunity are open to potential scientists of every race, from every background; and I call upon the scientific community to be in the vanguard of opening these gates of opportunity.

Just take a look at who you are, where you come from, who were your forebears, what was your environment, not only as of now but let's say five generations, two, three, four generations ago, of your own family, and ask yourself: Isn't there more and yet better to come?

I think so. I know that if we do this that we are

going to serve the only cause that we ought to serve, and that is the cause of humanity.

I beseech you not to hesitate to press forward ever on the frontiers of international cooperation. Science should know no national jurisdiction, any more than music should, or art. Science, literature, music, art, these should be the threads that bind the family of man into one fabric.

I must say that one of the tasks that I have put myself to in this government, and sometimes with great resistance, understandably so, is pushing on the frontiers of international cooperation. I am not afraid that somebody is going to discover something that will be of undue disadvantage to us, because in the long run there are no secrets in science; and you men know it better than I do. It's a matter of time lag, yes, I know; and I am not so foolish as to know that we do not have unique responsibilities in the field of national security, I am very conscious of this -- long before I became Vice President.

But I think the greatest security is the expansion of knowledge. I think the real security for the long run is trying to convert this great discipline, this great adventure called science and technology, into the benefit of mankind.

So I praise you for your humanitarian concern, I praise you for your scientific excellence, and I thank you as a fellow American for your contributions to learning and to our country.

Thank you.

[Applause.]



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