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Series: Grant, Mary Kate, Files
Subseries: Subject File, 1988-1991

OA/ID Number: 13878
Folder ID Number: 13878-009

Folder Title:
Cal Tech Commencement Speech, 6/14/91 [1]

Stack:	Row:	Section:	Shelf:	Position:
G	19	2	7	3



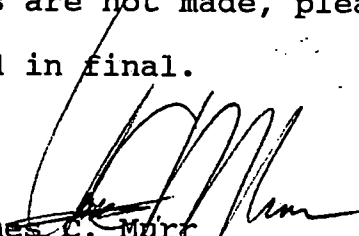
EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

JUN 1 1991

NOTICE:

Enclosed are comments from staff members of the Office of Management and Budget (OMB). Such comments do not necessarily represent the official position of the Director of OMB or of the Office of Management and Budget. If you wish to have the Director's personal comments, please let me know -- and contact me if you have any questions.

If our proposed substantive changes are not made, please let us know before the material is prepared in final.


James C. Merritt
Associate Director for
Legislative Reference
and Administration

WHITE HOUSE STAFFING MEMORANDUM

DATE: 6/10/91 ACTION/CONCURRENCE/COMMENT DUE BY: TUESDAY 6/11/91 3:00 p.m

SUBJECT: PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT

	ACTION FYI			ACTION	FYI
VICE PRESIDENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	MCCLURE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SUNUNU	<input type="checkbox"/>	<input type="checkbox"/>	PETERSMEYER	<input type="checkbox"/>	<input type="checkbox"/>
SCOWCROFT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PORTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DARMAN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ROGICH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BRADY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SMITH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BROMLEY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	UNTERMAYER	<input type="checkbox"/>	<input type="checkbox"/>
CARD	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BOSKIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DEMAREST	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ROGERS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
FITZWATER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SNOW	<input type="checkbox"/>	<input checked="" type="checkbox"/>
GRAY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
HOLIDAY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS:

Please forward your comments directly to Tony Snow, Rm. 122, x2930, no later than 3:00 p.m., Tuesday, June 11, with a copy to this office. Thank you.

RESPONSE:

See comments

Note: Disappointing that speech does not contain more emphasis on R&D, High Performance Computing, + other vital budget initiatives that have particular applications at Cal Tech.

*Brady
x4844*

PHILLIP D. BRADY
Assistant to the President
and Staff Secretary
Ext. 2702

91 JUN 10 PM 2:47

Grant / Cawley
June 10, 1991
Draft two
A:CALTECH

**PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT
PASADENA, CALIFORNIA
FRIDAY, JUNE 14, 1991
10:00 A.M.**

[Acknowledgements] ((It's a pleasure to be here at Cal Tech. However, my trip back to Washington will be delayed. /// Some of Cal Tech's finest reassembled **Air Force One** in the lobby of my **hotel**. //// Today isn't **Ditch Day**, is it?))

We celebrate today the centennial of Cal Tech. This institution has accomplished more in 100 years than many will accomplish in a millennium. Your students, professors and graduates have looked into the heart of the atom -- and gazed at stars billions of miles away. They have created new medicines and technologies; they have sent rockets hurtling into the heavens; they have redefined the sciences upon which modern technology -- and modern life -- depend. **Cal Tech's mission is outward-looking, its quest never-ending, and its path of discovery truly remarkable. ///**

Earlier this century, in the days of smokestacks and smelters, Henry Luce declared the advent of the American Century. He was right. And as this American Century draws to a close, we must declare the advent of the Next American Century. Today, ours is the era of microchips and M-TV. And ours is an economy increasingly based upon **knowledge** -- rather than on natural resources, cheap labor, or geographic location. As you well

Note: Pretty "Pedestrian" for such a high caliber Institution.

Selfridge
X6150

know, here at Cal Tech, knowledge does not stand still ... it expands to fulfill the horizon. My challenge to you today is one of fulfilling your own horizons, and with them, the horizons of all Americans.

We are now on the verge of new voyage in the American experience. We are charting a fresh course for the unseen world. But to reach it, we will need a strong, swift current of new and exciting ideas. [[Cal Tech is providing many of them -- Nobel laureate Murray Gell-Mann is hard at work on this fall's symposium, "Visions of a Sustainable World," where your thinkers will look a hundred years into the future.]]

Thomas Aquinas once said that if the highest aim of a captain were to preserve his ship, he would keep it in safe harbor forever. Now, our imagination begins to explore the 21st Century, the time has come to leave port and set sail -- to the New World just beyond the horizon.

The Techers [Tekk-ers] who have explored new worlds -- whether the positron and the quark, or the fingerprint of the human gene, or the microcosm of the silicon chip -- these brilliant men and women understand the dynamics of solving a problem. But like them, you must fix your gaze on the distance and **seize opportunities** -- to possess that vision that will lead us into the 21st Century.

I think of the day I graduated from college. We were impatient, // optimistic, // ((bored with the speaker)) ... but we sensed a coming adventure. I suspect it's the same with you.

Only this time, you probably aren't thinking about becoming farmers, like Barbara and I were. My generation **built** our future. Yours will **propel destiny** with your **inventiveness**, your **ingenuity**, and your **imagination**.

I'm talking about the next frontier. In the 21st Century, the power of the individual -- as well as the power of the nation -- will depend upon **knowledge**. Just as the writer Alvin Toffler predicted, a "power shift" is sweeping America. The economic battleground will be the labs and libraries, the bookshelves and computer screens across the country. (~~I'm not talking about a nation of nerds here~~) -- but whether you're in the military, at the market or on the mainframe, **knowledge will define power**.

Some call this The Third Wave ... or The Information Age ... or The New Age of Discovery. With apologies to Henry Luce, I like to call this challenge **the Next American Century**. And if we face this future foursquare, we will transform the nation. ///

Let me explain how we'll do it. First, **the free market can be a tremendous source of ingenuity**. With free markets and free people, creativity can be unleashed and the America Dream made alive. Take a look at the **good** some people are achieving: **Charles Richter and George Housner's** research has saved untold lives through their work on predicting and preparing for earthquakes. **Harry Gray's** research could lead to our harvesting energy from sunlight the same way plants do. And medical researcher **Pamela Bjorkman's** research may someday prevent diseases like arthritis and diabetes.

Scully
4578

And take a look at all the creative entrepreneurs, the ones with that knack for know-how. In fact, I got a letter the other day from four Cal Tech grads who formed a company named "Gemstar." They'd heard me talk about our six National Education Goals to achieve excellence by the year 2000. I once joked that the seventh goal should be that by the turn of the century, Americans must be able to get their VCRs to stop flashing "12:00." /// I admit, I didn't think it was possible. /// But these young entrepreneurs quickly invented a device that sets the VCR clock correctly, and wrote to me: "[We] responded promptly to your national call for VCR-literacy by the year 2000, in fact, **nine years ahead of schedule.**"//

With guys like these at work, there may be hope for those of us who are still novices in the age of technology. /// Like me, these guys like what works. Take our education strategy, for example -- called America 2000 -- it concentrates on **what works**. America 2000 **breaks the mold** -- because it's time we started measuring success by tests passed instead of dollars spent. Whether in our schools and child care centers, or our factories and neighborhoods, **government must be part of the solution -- not part of the problem.**

And good can result when government acts intelligently and programs show results -- like Head Start, where kids get the tools they need to start school ready to learn. That's a program this Administration supports. We like programs that work -- ones that use the free market as a model -- ones that **create**

opportunity for our citizens, not lock them out of the political process and make them wards of the state.

To match the wisdom of the free market, government must act intelligently. Bigger isn't better. Better is better. And so one hundred days ago today, I asked the Congress to tackle the urgent problems here at home with the same commitment we dedicated to tackling the crisis in the Persian Gulf. I asked for just two bills to be passed in a hundred days -- a comprehensive crime bill, and a transportation bill. These are bills that work. But they've been sitting there collecting dust longer than some Congressmen. /// Neither bill is on my desk yet, and the American people don't understand why. //

They don't understand what's so hard about enacting a bill to fight crime in a hundred days. They don't understand the delay, the inaction, the footdragging. Particularly when they see that Congress can pass a funding bill for the Lawrence Welk Museum ... and a fish farm in Arkansas ... and a new tour boat for American Samoa ... while threatening to cancel the Space Station Freedom. Last week, Congress nearly cancelled the Second Golden Age of space exploration and its possibilities for new materials, new processes and new wonder drugs here on Earth.

After a difficult fight over funding for the Space Station Freedom, we return now to our broader mission: to call the people toward the higher good, the bigger picture, a greater adventure.

We've done it before ... first carving a superpower out of the wilderness ... then creating the most prosperous, educated,

Space Station was saved. ~~In the long run, it will not be at the expense of~~
science. -- not, as some believe, at

mutually beneficial investments in the future. No, science & space must be partners in the budget wars --

Grady
x 4844

We must invest now in this brighter future -- in high performance computing, in math & science education, in research & development. These are the kinds of investments I've called for in my budget -- and they should not be sacrificed on the altar of current consumption.

enlightened, nation ever on Earth ... and now reaching beyond our planet to the glory of Space.

*shady
x4844*

Here at Cal Tech, your astronomers are exploring new worlds at Keck and Palomar; scientists can now use the world's fastest computer -- here, at the JPL labs -- to enable unmanned space missions to touch the furthest corners of the universe. ((I hear that the computer is so advanced, it can actually calculate the number of "Tommy's Burgers" you kids eat ... and it can reprogram the scoreboard at the Rosebowl even faster. ////)) ((But I do think it's great ... in fact, Cal Tech is one of the few schools in the country where "P.C." has always stood for "personal computer."))

To guarantee that the 21st Century is indeed the Next American Century, the forces of the free market and the government are not enough. They must be combined with something more: the brilliance of those who make a difference in the lives of others -- the ones I call Points of Light. The American people understand what it takes to solve problems in their own neighborhoods. They are the ones on the front lines of the war on drugs, the ones teaching others how to read, the ones taking care of AIDS babies after work at night. In the Next American Century, **all of us have a responsibility to lead.** The most important parts of our communities -- the union halls, the police clubs, the school groups, the chambers of commerce, everyone -- can use their power to solve problems. **Because there isn't a**

problem in America that isn't being solved somewhere -- and can't be solved everywhere.

Together, we may not right all wrongs, but we can try. Your education here at Cal Tech enables you to lead, to use your talents for the sake of our country, our communities and our children -- not just for yourself. Those of you who volunteered to help abused women and children at the Hestia House; or taught kids to read in Pasadena; or helped the boys and girls at Five Acres -- you have already begun to lead. You understand that with your diploma today comes a commitment to fulfill the horizons of opportunity for all ... justice ... freedom ... and peace on Earth.

Whether you are drawn to the magic of the marketplace, to the honor of public service, or the ethic of serving others, each of you holds the power to transform America. Your generation is charting our voyage into the Next American Century. I join you in your quest for faraway places and salute your vision of worlds unseen. God bless each and every one of you, and thank you.

#

WHITE HOUSE STAFFING MEMORANDUM

DATE: 6/12/91 ACTION/CONCURRENCE/COMMENT DUE BY: ---

SUBJECT: REMARKS AT CALTECH COMMENCEMENT

	ACTION FYI			ACTION FYI	
VICE PRESIDENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	MCCLURE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUNUNU	<input type="checkbox"/>	<input type="checkbox"/>	PETERSMEYER	<input type="checkbox"/>	<input type="checkbox"/>
SCOWCROFT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PORTER	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DARMAN	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ROGICH	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRADY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SMITH	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BROMLEY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UNTERMAYER	<input type="checkbox"/>	<input type="checkbox"/>
CARD	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>BOSKIN</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DEMAREST	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ROGERS</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
FITZWATER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>SNOW</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
GRAY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ALBRECHT</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HOLIDAY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS:

The attached has been forwarded to the President.

RESPONSE:

PHILLIP D. BRADY
 Assistant to the President
 and Staff Secretary
 Ext. 2702

THE WHITE HOUSE
WASHINGTON

June 12, 1991

91 JUN 12 PM 3:39

MEMORANDUM FOR THE PRESIDENT

THROUGH: DAVID DEMAREST *DD*
TONY SNOW *TS*

FROM: MARY KATE GRANT *MKG*

SUBJECT: REMARKS AT CALTECH COMMENCEMENT

I. SUMMARY

On Friday, June 14, at 10:00 a.m. you will address the 1991 graduating class of the California Institute of Technology (Caltech). The event will be held in the school's athletic stadium, with approximately 5,000 attendees. You will be introduced by Governor Pete Wilson. Your remarks are about fifteen minutes in length and will be on TelePrompter.

II. DISCUSSION

Your remarks begin with congratulations on Caltech's centennial celebration, and move into your vision of the Next American Century. You also reiterate the main points of tonight's address on the South Lawn and note that the hundred-day challenge to Congress expires the day of the commencement.

As far as jokes go, Caltech is famous for its "Ditch Day," on which the students play high-tech pranks on one another. Cars are often dismantled and reassembled inside classrooms and dorms; one year the scoreboard at the Rose Bowl was reprogrammed by remote control by Caltech students ("Techers").

Grant / Cawley
June 12, 1991
Draft four
A:CALTECH

**PRESIDENTIAL REMARKS: CALTECH COMMENCEMENT
PASADENA, CALIFORNIA
FRIDAY, JUNE 14, 1991
10:00 A.M.**

[Governor Wilson, thank you. Acknowledgements] ((It's a pleasure to be here at Caltech. However, my trip back to Washington will be delayed. /// Some of Caltech's finest reassembled Air Force One in the lobby of my hotel. //// Today isn't Ditch Day, is it?))

We celebrate today the centennial of Caltech. This institution has accomplished astonishing things in its 100 years. Your students, professors and graduates have peered into the heart of the atom -- and gazed out at stars billions of miles away. They have inspired new medicines and biotechnologies; they have hurled rockets into the heavens; they have helped redefine the sciences upon which modern technology -- and modern life -- depend. Caltech's mission is outward-looking, its quest never-ending, and its path of discovery remarkable. ///

We now stand on the verge of a new voyage in the American experience -- charting a fresh course to a world of unseen possibilities and promise. But to reach it, we will need a strong, swift current of ideas. Thomas Aquinas once said that if the highest aim of a captain were to preserve his ship, he would stay in safe harbor forever. Now, as our imagination mulls over

the prospects for the 21st Century, the time has come to leave port and set sail -- to the New World beyond.

Many Techers [Tekk-ers] have already explored new worlds -- worlds of the positron and the quark, the fingerprint of the human gene, and the microcosm of the silicon chip. These brilliant men and women understood the architecture of a problem -- and they knew how to navigate the maze of possibilities that stood between them and a solution. Like them, you think about the opportunities -- not the obstacles -- that lie ahead.

I think of the day I graduated from college. We were impatient, // optimistic, // ((bored with the speaker)) ... but we sensed a coming adventure. I suspect it's the same with you. Only this time, you probably aren't thinking about becoming farmers, like Barbara and I were. My generation built our future, with mortar, brick and machinery. Yours will send us soaring toward our new destiny with innovation, ingenuity, and imagination.

Earlier this century. Henry Luce declared this "The American Century." In his time, that future consisted of smelters and smokestacks -- heavy, productive industries. And as this American Century draws to a close, ours is an age of microchips and MTV. And ours is an economy increasingly dependent upon knowledge -- rather than on natural resources or geographic location. As you well know, knowledge never stands still ... it expands beyond the horizon. My challenge to you today is to push

beyond today's horizons and create new, more distant horizons for our future.

This is the next frontier. In the 21st century, the power of the individual -- as well as the power of the nation -- will depend upon knowledge. We will do economic battle in labs and libraries, and miracles will germinate in bookshelves and on computer screens across the country. Whether you're in the military, at the market or on the mainframe, knowledge will define opportunity.

Some call this The Third Wave ... or The Information Age ... or The New Age of Discovery. With a nod to Henry Luce, I believe this serves as the cornerstone for the Next American Century. If we face this future foursquare -- if we accept the call to unleash our imaginations -- we will transform the nation. We will transform the world.///

We begin with the free market, the powerhouse of ingenuity. Free markets and free people breathe life into the American Dream. Look at the good people can achieve: Charles Richter and George Housner's research has saved untold lives through their work on predicting and preparing for earthquakes. Harry Gray's research could lead to our harvesting energy from sunlight the same way plants do. And medical researcher Pamela Bjorkman's [Be-york-man] research may someday prevent such diseases as arthritis and diabetes.

Look at all the creative entrepreneurs, the ones transforming basic research into new products -- the ones with

that knack for know-how. I got a letter the other day from four Caltech grads who formed a company named "Gemstar." They'd heard me talk about our six National Education Goals to achieve excellence by the year 2000. I once joked that the seventh goal should be that by the turn of the century, Americans must be able to get their V.C.R.s to stop flashing "12:00." /// I admit, I didn't think it was possible. /// But this team of upstarts invented a device that solves the VCR clock-problem easily. They wrote: "[We] responded promptly to your national call for V.C.R.-literacy by the year 2000, in fact, **nine years ahead of schedule.**"//

With guys like these, there may be hope for guys like me, still struggling in the age of technology. /// Their kind of entrepreneurship helped make our nation prosperous and great. This kind of can-do spirit -- this expression of natural American creativity -- will make our new education strategy work. America 2000, as we call it, summons the nation to create a New Generation of American Schools -- schools that break the mold, schools where all students reach World Class Standards of performance in English, science, mathematics, history and geography. It's time we started measuring success by something other than dollars spent. Let's not ask ourselves: **What costs?** Let's ask: **What works?**

This Administration has rewarded programs in which government acts intelligently and programs produce results. Head Start, where kids get the tools they need to start school ready

to learn, works -- and we support it. We have expanded Head Start funding by over \$700 million in the last two years.

We advocate programs that employ free-market incentives -- like our tax credits for low-income parents to choose their own child care -- because they use human nature as a lever, not an obstacle. We support initiatives that **create opportunity** -- like our housing vouchers for public housing tenants. Our HOPE initiative tries to give public housing citizens greater control over their lives and their futures.

Whether in our schools and child care centers, or our factories and neighborhoods, we must ensure that **government is part of the solution -- not part of the problem.**

We in government must understand: **bigger isn't better. Better is better. ///**

And so one hundred days ago today, I asked the Congress to tackle the urgent problems here at home with the same commitment we dedicated to tackling the crisis in the Persian Gulf. I asked it to pass just two bills in a hundred days -- a comprehensive crime bill, and a transportation bill. These bills would work. But they've been collecting dust longer than some members of Congress. **/// Neither bill has reached my desk -- and the American people don't understand why. //**

They don't understand what's so hard about passing a bill in 100 days to fight crime. They don't understand the delay, the inaction, the footdragging. Particularly when they see that Congress can pass a funding bill for a fish refuge in Iowa and a

ferry boat in Samoa ... while threatening to cancel the manned space program and the Space Station Freedom. Last week, a Congressional Committee nearly cancelled the Second Golden Age of space exploration and its possibilities for new knowledge, new technologies, and whole new industries here on Earth. The Space Station survived -- not, as some believe, at the expense of science. Science and space must be partners in the budget wars -- both vital investments in the future.

We must invest now in a brighter future. That's why our Administration fully supports high performance computing, and math and science education. We're also proposing a thirteen percent increase -- \$76 billion -- for research and development. We want to increase funding for the supercollider by more than 100 percent. Government and the free market often converge in the field of basic research. Together, they help produce a brighter future for all Americans. And that's why our commitment to it is so strong.

Most Americans find Beltway bickering mystifying -- and they should. We ought to think of nobler issues and purposes. We must call upon our higher aspirations. We've done it before ... first carving a superpower out of the wilderness ... then creating the most prosperous, educated society on Earth ... and now reaching beyond our planet to the glory of Space.

With the telescopes on Mount Palomar and with the Keck Telescopes in Hawaii, your astronomers are looking farther than mankind has looked before. Your J.P.L. labs enable unmanned

space missions such as the Pioneers and Voyagers to touch the distant boundaries of our solar system.

And here in Pasadena, scientists can now use the world's fastest computer. ((I hear that the computer is so advanced, it can actually calculate the number of "Tommy's Burgers" you all eat ... and it can reprogram the scoreboard at the Rosebowl even faster. ////)) ((But I do think it's great ... Caltech is one of the few schools in the country where "P.C." has always stood for "personal computer."))

To guarantee that the 21st Century becomes the Next American Century, we must combine the might of the free market and intelligent government with something else: the brilliance of those who make a difference in the lives of others -- including the ones I call Points of Light.

We know what it takes to solve problems in our own neighborhoods. Some among us have decided to step to the front lines of the war on drugs; they have taken time to teach others to read; they have volunteered to care for AIDS babies after work at night.

In the Next American Century, all of us will have a responsibility to lead. Each part of our communities -- the union halls, the police clubs, the chambers of commerce, parents, teachers, everyone -- can use their power to solve problems. Because there isn't a problem in America that isn't being solved somewhere.

Your education here at Caltech enables you to lead, to use your talents for the sake of our country, our communities and our children. Those of you who volunteered to help abused women and children at the Hestia House; or taught kids to read in Pasadena; or helped the boys and girls at Five Acres -- you have accepted the challenge. You understand that with your diploma today comes a commitment to reach the horizons of justice and opportunity, freedom and peace.

Whether you are drawn to the magic of the marketplace, to the honor of public service, or to the ethic of serving others, each of you will be building an America whole and good. Your generation will map our voyage into the Next American Century. I join you in your quest for faraway places and salute your vision of worlds unseen. God bless each and every one of you, and thank you.

#

For the files

FAXed to Tina 6/11
SB

Document No. 244831SS

WHITE HOUSE STAFFING MEMORANDUM

DATE: 6/10/91 ACTION/CONCURRENCE/COMMENT DUE BY: TUESDAY 6/11/91 3:00 p.m

SUBJECT: PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT

	ACTION FYI			ACTION FYI	
VICE PRESIDENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	MCCLURE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SUNUNU	<input type="checkbox"/>	<input type="checkbox"/>	PETERSMEYER	<input type="checkbox"/>	<input type="checkbox"/>
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GRAY	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
HOLIDAY	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

REMARKS:

Please forward your comments directly to Tony Snow, Rm. 122, x2930, no later than 3:00 p.m., Tuesday, June 11, with a copy to this office. Thank you.

substantial comments

RESPONSE:

DP

PHILLIP D. BRADY
Assistant to the President
and Staff Secretary
Ext. 2702

91 JUN 10 PM 2:47

Grant / Cawley
June 10, 1991
Draft two
A:CALTECH

**PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT
PASADENA, CALIFORNIA
FRIDAY, JUNE 14, 1991
10:00 A.M.**

[Acknowledgements] ((It's a pleasure to be here at Cal Tech. However, my trip back to Washington will be delayed. /// Some of Cal Tech's finest reassembled Air Force One in the lobby of my hotel. //// Today isn't Ditch Day, is it?))

We celebrate today the centennial of Cal Tech. This institution has ^{an unparalleled record of} accomplished ^{its} more in 100 years, ~~than many will accomplish in a millennium.~~ Your students, professors and graduates have ^{peered} looked into the heart of the atom -- and ^{focused their} gazed at stars billions of miles away. They have ^{inspired} created new medicines and technologies; they have ^{hurttled} ~~sent~~ rockets ~~hurttling~~ into the heavens; they have redefined the sciences upon which modern technology -- and modern life -- depend. Cal Tech's mission is outward-looking, its quest never-ending, and its path of discovery truly remarkable. ///

Earlier this century, in the days of smokestacks and smelters, Henry Luce declared the advent of the American Century. He was right. And as this American Century draws to a close, we must declare the advent of the Next American Century. Today, ours is the era of microchips and M-TV. And ours is an economy increasingly based upon knowledge, ~~rather than on natural resources, cheap labor, or geographic location.~~ As you well

know, here ~~at Cal Tech~~, knowledge ^{never} does not stand still ... it is dynamic
 and expands to fulfill ^{an ever-changing, expanding} the horizon. My challenge to you today is one
 of fulfilling your own horizons, and with them, the horizons of
 all Americans.

We are now on the verge of new voyage in the American
 experience. We are charting a fresh course for the unseen world.
 But to reach it, we will need a strong, swift current of new and
 exciting ideas. [[Cal Tech is providing many of them -- Nobel
 laureate Murray Gell-Mann is hard at work on this fall's
 symposium, "Visions of a Sustainable World," where your thinkers
 will look a hundred years into the future.]]

Thomas Aquinas once said that if the highest aim of a
 captain were to preserve his ship, he would keep it in safe
 harbor forever. Now, ^{as} our imagination begins to ^{encounter} explore the 21st
 Century, the time has come to leave port and set sail -- to the
 New World just beyond the horizon.

^{Many} ~~the~~ Techers [Tekk-ers] ~~who~~ ^{already} have explored new worlds -- ~~the~~ ^{the} worlds
~~whether~~ the positron and the quark, or the fingerprint of the
 human gene, or the ^{miniature universes} ~~microcosm~~ of the silicon chip. ~~These~~
 brilliant men and women understand the ^{architecture} ~~dynamics~~ of solving a
 problem. ^{And} ~~but~~ like them, you ^{too} must fix your ^{vision} ~~gaze~~ on the distance.
~~and seize opportunities~~ ^{on the opportunities that lie ahead.} ~~to possess that vision that will lead~~
~~us into the 21st Century.~~

I think of the day I graduated from college. We were
 impatient, // optimistic, // ((bored with the speaker)) ... but
 we sensed a coming adventure. I suspect it's the same with you.

Only this time, you probably aren't thinking about becoming farmers, like Barbara and I were. My generation built our future ^{with mortar, ~~and~~ bricks, and machinery. innovation} Yours will propel destiny with ~~your~~ inventiveness, your ingenuity, and ~~your~~ imagination.

I'm ^{this is} talking about the next frontier. In the 21st century, the power of the individual -- as well as the power of the nation -- will depend upon knowledge. ~~Just as the writer~~ Alvin Toffler predicted, a "power shift" is sweeping America. The economic battleground will be the labs and libraries, the bookshelves and computer screens across the country. ((I'm not talking about a nation of nerds here)) -- but whether you're in the military, at the market or on the mainframe, knowledge will define ^{opportunity} power.

Some call this The Third Wave ... or The Information Age ... or The New Age of Discovery. With apologies to Henry Luce, I ^{believe this is the} like to call this challenge ~~the~~ Next American Century. And if we face this future foursquare, we will transform the nation. ///

~~Let me explain how we'll do it. First,~~ ^{First,} the free market ^{drives} ~~can~~ ~~be a tremendous source of ingenuity.~~ ^{With Free markets and free people, creativity can be unleashed and the America Dream made alive.} ~~Take a look at the good some people~~ ^{can} are achieving:

Charles Richter and George Housner's research has saved untold lives through their work on predicting and preparing for earthquakes. Harry Gray's research could lead to our harvesting energy from sunlight the same way plants do. And medical researcher Pamela Bjorkman's research may someday prevent diseases like arthritis and diabetes.

~~And take~~ a look at ~~all~~ the ~~creative~~ entrepreneurs, the ones with that knack for know-how. ~~In fact~~, I got a letter the other day from four Cal Tech grads who formed a company named "Gemstar." They'd heard me talk about our six National Education Goals to achieve excellence by the year 2000. I once joked that the seventh goal should be that by the turn of the century, Americans must be able to get their VCRs to stop flashing

"12:00." /// I admit, I didn't think it was possible. /// But ^{this} ~~these~~ ^{team of upstarts} ~~young entrepreneurs~~ quickly invented a device that sets the VCR clock ^{easily and} correctly, ^{They then} ~~and~~ wrote to me: "[We] responded promptly to your national call for VCR-literacy by the year 2000, in fact, nine years ahead of schedule."///

With guys like these ~~at work~~, there may be hope for ^{guys} ~~those of~~ ^{like me, still struggling} ~~us who are still novices~~ in the age of technology. /// Like me, ~~they~~ ^{these} ~~guys~~ like what works. ~~Take~~ ^{Our national} ~~our~~ education strategy, ~~for~~ ~~example~~ -- called America 2000 -- ~~it~~ ^{we are determined to} ~~concentrates~~ on what works. America 2000 ~~breaks~~ the mold -- because ~~it's time we started~~ ^{by something other than} measuring success ~~by tests passed instead of~~ dollars spent.

^{to} ^{TP} Whether in our schools and child care centers, or our factories ^{something called} ~~and neighborhoods~~, ^{we must also ensure that is} ~~government must be part of the solution~~ -- not results part of the problem.

~~And good can result~~ ^{when} government acts intelligently and programs show results -- like Head Start, where kids get the ^{increase} ~~tools they need to start school ready to learn~~, ^{that's when to put our} ~~That's a program~~ ^{efforts.} ~~this Administration supports~~. We like programs that work -- ones ~~that use the free market as a model~~ -- ones that create

And we have in the case of Head Start - 3/4 of billion increase.

~~opportunity for our citizens, not lock them out of the political process and make them wards of the state.~~

To match the wisdom of the free market, ~~government must not understand.~~ ~~intelligently.~~ Bigger isn't better. Better is better. And so one hundred days ago today, I asked the Congress to tackle the urgent problems here at home with the same commitment we dedicated to tackling the crisis in the Persian Gulf. I asked for just two bills to be passed in a hundred days -- a comprehensive crime bill, and a transportation bill. These are bills that work. But they've been sitting there collecting dust longer than some Congressmen. /// Neither bill is on my desk yet, and the American people don't understand why. //

They don't understand what's so hard about enacting a bill to fight crime in a hundred days. They don't understand the delay, the inaction, the footdragging. Particularly when they see that Congress can pass a funding bill for the Lawrence Welk Museum ... and a fish farm in Arkansas ... and a new tour boat for American Samoa ... while threatening to cancel the Space Station Freedom. Last week, Congress nearly cancelled the Second Golden Age of space exploration and its possibilities for new materials, new processes and new wonder drugs here on Earth.

~~After a difficult fight over funding for the Space Station Freedom, we return now to our broader mission: to call the people toward the higher good, the bigger picture, a greater adventure.~~ *This buckling within the beltway must be a mystery to most of America. I believe a more noble purpose awaits our attention. We must call upon America's higher aspirations.*

We've done it before ... first carving a superpower out of the wilderness ... then creating the most prosperous, educated,

enlightened, nation ~~ever~~ on Earth, ~~and now reaching beyond our planet to the glory of space.~~

Here at Cal Tech, your astronomers are exploring new worlds at Keck and Palomar; scientists can now use the world's fastest computer -- here, at the JPL labs -- to enable unmanned space missions to touch the furthest corners of the universe. ((I hear that the computer is so advanced, it can actually calculate the number of "Tommy's Burgers" you ^{all} kids eat ... and it can reprogram the scoreboard at the Rosebowl even faster. ////)) ((But I do think it's great ... in fact, Cal Tech is one of the few schools in the country where "P.C." has always stood for "personal computer."))

To guarantee that the 21st Century is indeed the Next American Century, the forces of the free market and the government are not enough. They must be combined with something more: the brilliance of those who make a difference in the lives of others -- ^{including} the ones I call Points of Light. The American people understand what it takes to solve problems in their own neighborhoods. They are the ones on the front lines of the war on drugs, the ones teaching others how to read, the ones taking care of AIDS babies after work at night. In the Next American Century, all of us have a responsibility to lead. The most important parts of our communities -- the union halls, the police clubs, the school groups, the chambers of commerce, everyone -- can use their ^{insights} ~~power~~ to solve problems. Because there isn't a

problem in America that isn't being solved somewhere -- and can't be solved everywhere.

Together, we may not right all wrongs, but we can try. Your education here at Cal Tech enables you to lead, to use your talents for the sake of our country, our communities and our children -- not just for yourself. Those of you who volunteered to help abused women and children at the Hestia House; or taught kids to read in Pasadena; or helped the boys and girls at Five Acres -- you have already begun to lead. You understand that with your diploma today comes a commitment to fulfill the horizons of opportunity for all ... justice ... freedom ... and peace on Earth.

Whether you are drawn to the magic of the marketplace, to the honor of public service, or the ethic of serving others, each of you holds the power to ^{help ensure a} ~~transform~~ ^{Whole and Good.} America. Your generation is ^{mapping the} ~~charting our~~ voyage into the Next American Century. ~~I join you~~ ^{Good luck and} ~~in your quest for faraway places and salute your vision of worlds~~ ~~unseen.~~ God bless each and every one of you, and thank you.

#

Grant / Cawley
June 10, 1991
Draft two
A: CALTECH

91 JUN 10 PM 2:47

PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT
PASADENA, CALIFORNIA
FRIDAY, JUNE 14, 1991
10:00 A.M.

Governor Wilson, Thank you
[Acknowledgements] ((It's a pleasure to be here at Cal Tech. However, my trip back to Washington will be delayed. /// Some of Cal Tech's finest reassembled Air Force One in the lobby of my hotel. //// Today isn't Ditch Day, is it?))

We celebrate today the centennial of Cal Tech. This institution has accomplished more in 100 years than many ~~[will]~~ accomplish in a millennium. Your students, professors and graduates have ^{peered} ~~[looked]~~ into the heart of the atom -- and ^{focused their} ~~gazed~~ at stars billions of miles away. They have ^{inspired} ~~[created]~~ new medicines and ^{bio} technologies; they have ^{hurtled} ~~sent~~ rockets ~~[hurtling]~~ into the heavens; they have ^{helped} ~~redefined~~ the sciences upon which modern technology -- and modern life -- depend. Cal Tech's mission is outward-looking, its quest never-ending, and its path of discovery truly remarkable. ///

Earlier this century, ~~[in the days of smokestacks and smelters,]~~ Henry Luce declared ^{this} ~~[the advent of]~~ the American Century. He was right. And as this American Century draws to a close, we must ^{look forward to the 21st Century} ~~[declare the advent of the Next American Century]~~. Today, ~~[ours is the era of microchips and M-TV. And]~~ ours is an economy increasingly based upon knowledge -- rather than on natural resources, cheap labor, or geographic location. As you well

know, [~~here at Cal Tech~~], knowledge ^{never} ~~does not~~ stand still ... it expands ^{beyond} [~~to fulfill~~] the horizon. My challenge to you today is one of ^{expanding beyond} fulfilling your own horizons, and ~~with them~~, ^{beyond} the horizons of all Americans.

We are now on the verge of ^a new voyage in the American experience, [~~we are~~] charting a fresh course for the unseen world. But to reach it, we will need a strong, swift current of new and exciting ideas. [→] [[Cal Tech is providing many of them -- Nobel laureate Murray Gell-Mann is hard at work on this fall's symposium, "Visions of a Sustainable World," where your thinkers will look a hundred years into the future.]]

Thomas Aquinas once said that if the highest aim of a captain were to preserve his ship, he would keep it in safe harbor forever. Now, ^{as} our imagination begins to ^{encounter} [~~explore~~] the 21st Century, the time has come to leave port and set sail -- to the New World just beyond the horizon.

^{Many} [~~The~~] Techers [Tekk-ers] [~~who~~] have ^{already} explored new worlds -- *the worlds* of [~~whether~~] the positron and the quark, or the fingerprint of the human gene, or the microcosm of the silicon chip -- these brilliant men and women understand the dynamics of solving a problem. ^{And} [~~But~~] like them, you ^{too} must fix your ^{vision} [~~gaze~~] on the distance and **seize opportunities** -- to [~~possess that vision that will~~] lead us into the ^{next millennium} ~~21st Century~~.

I think of the day I graduated from college. We were impatient, // optimistic, // ((bored with the speaker)) ... but we sensed a coming adventure. I suspect it's the same with you.

Only this time, you probably aren't thinking about becoming farmers, like Barbara and I were. My generation built our future. ^{with mortar, brick and machinery} Yours will propel destiny with ^{innovation} ~~[your inventiveness, your]~~ ingenuity, and ~~[your]~~ imagination. **(A)**

^{This is} ~~[I'm talking about]~~ the next frontier. In the 21st century, the power of the individual -- as well as the power of the nation -- will depend upon knowledge. ~~[Just as the writer Alvin Toffler predicted, a "power shift" is sweeping America.]~~ The economic battleground will be the labs and libraries, the bookshelves and computer screens across the country. ~~[((I'm not talking about a nation of nerds here)) --]~~ but whether you're in the military, at the market or on the mainframe, knowledge will define ^{opportunity,} ~~[power.]~~

Some call this The Third Wave ... or The Information Age ... or The New Age of Discovery. With ^{a nod} ~~[apologies]~~ to Henry Luce, I ^{believe} ~~[like to call]~~ this ^{is the} ~~challenge~~ ^{of} the Next American Century. And if we face this future foursquare, we will transform the nation. ///

~~[Let me explain how we'll do it. First,]~~ ^{We begin with} the free market, ~~can~~ ^{is the} ~~be a tremendous source of ingenuity.~~ ~~(with)~~ free markets and free people ^{unleash} ~~[can be unleashed and]~~ ^{and breathe life into} the America Dream, ~~[made alive.]~~ ~~Take a~~ Look at the good ~~[some]~~ people ^{can achieve} ~~[are achieving]:~~

Charles Richter and George Housner's research has saved untold lives through their work on predicting and preparing for earthquakes. Harry Gray's research could lead to our harvesting energy from sunlight the same way plants do. And medical researcher Pamela Bjorkman's research may someday prevent diseases like arthritis and diabetes.

~~And take a look at all~~ the ~~(creative)~~ entrepreneurs, the ones ^{who turn basic research into new products - the ones} with that knack for know-how. ~~(In fact,~~ I got a letter the other day from four Cal Tech grads who formed a company named "Gemstar." They'd heard me talk about our six National Education Goals to achieve excellence by the year 2000. I once joked that the seventh goal should be that by the turn of the century, Americans must be able to get their VCRs to stop flashing "12:00." ~~///~~ I admit, I didn't think it was possible. ~~///~~ But ^{this team of upstarts} ~~(these young entrepreneurs)~~ quickly invented a device that ^{fixed} ~~(sets)~~ the VCR clock ^{problem easily. They then} ~~(correctly), (and)~~ wrote to me: "[We] responded promptly to your national call for VCR-literacy by the year 2000, in fact, nine years ahead of schedule."//

With guys like these ~~(at work)~~, there may be hope for ^{guys like} ~~(those of~~ me, ^{still struggling} ~~us who are still novices)~~ in the age of technology. ~~///~~ Like me, ^{they} ~~(these guys)~~ like what works. ~~(Take our)~~ ~~educational strategy, for example~~ ~~(called) America 2000 -- (it) concentrates on what works.~~

America 2000 breaks the mold -- because ^{we are determined to} ~~(it's time we started)~~ ^{measure success by something other than} ~~(measuring success by tests passed instead of)~~ dollars spent. ^{something called} ~~results.~~

Whether in our schools and child care centers, or our factories ^{we must also ensure that} and neighborhoods, ^{is} ~~government must be part of the solution -- not~~ part of the problem.

~~(And good can result)~~ ^{that's where to increase} When government acts intelligently and programs show results -- like Head Start, where kids get the tools they need to start school ready to learn, ^{our efforts -} ~~this Administration supports.~~ We like programs that work -- ^{and} ones that create opportunity that use the free market as a model, -- ones that ^{like tax credits for low-income parents to choose their own child care options} create opportunity.

Here:
See
Cabinet
Affairs

opportunity for our citizens, ⁵ ~~not lock them out of the political~~ ^{like housing vouchers to give} ~~process and make them wards of the state.~~ ^{for public housing tenants, have the opportunity to live where they want.}

To match the wisdom of the free market, ^{understand this:} government must ~~act~~ **intelligently**. **Bigger** isn't better. **Better** is better. And so one hundred days ago today, I asked the Congress to tackle the urgent problems here at home with the same commitment we dedicated to tackling the crisis in the Persian Gulf. I asked for just two bills to be passed in a hundred days -- a comprehensive crime bill, and a transportation bill. These are bills that work. But they've been sitting there collecting dust longer than some Congressmen. /// Neither bill is on my desk yet, and the American people don't understand why. //

They don't understand what's so hard about enacting a bill to fight crime in a hundred days. They don't understand the delay, the inaction, the footdragging. Particularly when they see that Congress can pass a funding bill for ^{their own franking privileges} ~~the Lawrence Welk Museum~~ ... and a fish farm in Arkansas ... and a ^{ferry} ~~new tour~~ boat ⁱⁿ ~~for American~~ Samoa ... while threatening to cancel the Space Station Freedom. Last week, ^{a Cong. Committee} ~~Congress~~ nearly cancelled the Second ^{manned space program and} Golden Age of space exploration and its possibilities for new ^{knowledge, new technologies and whole new industries} ~~materials, new processes and new wonder drugs~~ here on Earth. ^(we trust the Senate will endorse a balanced plan)

After a difficult fight over funding for the Space Station Freedom, we return now to our broader mission: to call the people toward the higher good, the bigger picture, a greater adventure.

We've done it before ... first carving a superpower out of the wilderness ... then creating the most prosperous, educated,

^{See Grady First} This bickering within the Beltway must be a mystery to most Americans. I believe a more noble purpose awaits us. We must call upon America's higher aspirations.

enlightened, ^{society} nation ~~ever~~ on Earth ... and now reaching beyond our planet to the glory of Space ~~Outward to the Moon and then on to Mars.~~

Here at Cal Tech, your astronomers are exploring new worlds

~~at Keck and Palomar; scientists can now use the world's fastest computer -- here, at the JPL labs -- to enable unmanned space missions to touch the furthest corners of the universe.~~ ^{at Keck and Palomar; scientists can now use the world's fastest computer -- here in Pasadena. And your JPL labs enable unmanned space missions such as the Pioneer and Voyager to touch the furthest corners of the solar system. And scientists can now...} ((I hear

that the computer is so advanced, it can actually calculate the number of "Tommy's Burgers" you ^{all} ~~kids~~ eat ... and it can reprogram the scoreboard at the Rosebowl even faster. ////)) ((But I do think it's great ... in fact, Cal Tech is one of the few schools in the country where "P.C." has always stood for "personal computer."))

To guarantee that the 21st Century is indeed the Next American Century, the forces of the free market and the government are not enough. They must be combined with something more: the brilliance of those who make a difference in the lives of others -- ^{including} the ones I call Points of Light. The American people understand what it takes to solve problems in their own neighborhoods. They are the ones on the front lines of the war on drugs, the ones teaching others how to read, the ones taking care of AIDS babies after work at night. In the Next American Century, all of us have a responsibility to lead. ^{Each} ~~The most~~

~~important~~ parts of our communities -- the union halls, the police clubs, ~~the school groups~~, the chambers of commerce, ^{parents, teachers,} everyone -- can use their power to solve problems. Because there isn't a

step

~~more~~
~~the~~
~~here~~

problem in America that isn't being solved somewhere -- and can't be solved everywhere.

Together, we may not right all wrongs, but we can try. Your education here at Cal Tech enables you to lead, to use your talents for the sake of our country, our communities and our children -- not just for yourself. Those of you who volunteered to help abused women and children at the Hestia House; or taught kids to read in Pasadena; or helped the boys and girls at Five Acres -- you have already begun to lead. You understand that with your diploma today comes a commitment to fulfill the horizons of opportunity for all ... justice ... freedom ... and peace on Earth.

Whether you are drawn to the magic of the marketplace, to the honor of public service, or the ethic of serving others, each of you holds the power to ^{help ensure an} ~~transform~~ ^{whole & good} America. Your generation is ^{mapping} ~~charting~~ our voyage into the Next American Century. I join you in your quest for faraway places and salute your vision of worlds unseen. God bless each and every one of you, and thank you.

#

WHITE HOUSE STAFFING MEMORANDUM

91 JUN 11 P 3:59

DATE: 6/10/91 ACTION/CONCURRENCE/COMMENT DUE BY: TUESDAY 6/11/91 3:00 p.m.

SUBJECT: PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT

	ACTION FYI			ACTION FYI	
VICE PRESIDENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	MCCLURE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SUNUNU	<input type="checkbox"/>	<input type="checkbox"/>	PETERSMEYER	<input type="checkbox"/>	<input type="checkbox"/>
SCOWCROFT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PORTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DARMAN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ROGICH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BRADY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SMITH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BROMLEY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	UNTERMAYER	<input type="checkbox"/>	<input type="checkbox"/>
CARD	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BOSKIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DEMAREST	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ROGERS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
FITZWATER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SNOW	<input type="checkbox"/>	<input checked="" type="checkbox"/>
GRAY	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
HOLIDAY	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

REMARKS:

Please forward your comments directly to Tony Snow, Rm. 122, x2930, no later than 3:00 p.m., Tuesday, June 11, with a copy to this office. Thank you.

RESPONSE:

*See comments. Thanks.
Kelly Williamson
6-11-91*

PHILLIP D. BRADY
Assistant to the President
and Staff Secretary
Ext. 2702

THE WHITE HOUSE
WASHINGTON

June 11, 1991

MEMORANDUM FOR TONY SNOW

FROM: HOLLY WILLIAMSON *HW*

SUBJECT: Cal Tech Speech

In addition to the changes made directly on the attached text, please note that Ede (and others from our office) will be speaking with Dave and you in general terms about the speech. It was our understanding that the speech would focus on science and technology, research and development (i.e., budgetary spending--how much we are doing), and technical infrastructure (also including topics such as viberoptics and high performance computing).

If you have any questions, please call me. Thanks.

Attachment

Grant / Cawley
June 10, 1991
Draft two
A:CALTECH

91 JUN 10 PM 2:47

**PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT
PASADENA, CALIFORNIA
FRIDAY, JUNE 14, 1991
10:00 A.M.**

[Acknowledgements] ((It's a pleasure to be here at Cal Tech. However, my trip back to Washington will be delayed. /// Some of Cal Tech's finest reassembled Air Force One in the lobby of my hotel. //// Today isn't Ditch Day, is it?))

✓ (Ed.)
We celebrate today the centennial of Cal Tech. This institution has accomplished more in 100 years than many will accomplish in a millennium. Your students, professors and graduates have looked into the heart of the atom -- and gazed at stars billions of miles away. They have created new medicines and technologies; they have sent rockets hurtling into the heavens; they have ^{helped} redefined the sciences upon which modern technology -- and modern life -- depend. Cal Tech's mission is outward-looking, its quest never-ending, and its path of discovery truly remarkable. ///

✓ (Ed. - MTV is not very Presidential.)
Earlier this century, in the days of smokestacks and smelters, Henry Luce declared the advent of the American Century. He was right. And as this American Century draws to a close, we must declare the advent of the Next American Century. Today, ours is the era of microchips and ~~micro~~ ^{lasers}. And ours is an economy increasingly based upon knowledge -- rather than on natural resources, cheap labor, or geographic location. As you well

know, here at Cal Tech, knowledge does not stand still ... it expands to fulfill the horizon. My challenge to you today is one of fulfilling your own horizons, and with them, the horizons of all Americans.

We are now on the verge of new voyage in the American experience. We are charting a fresh course for the unseen world. But to reach it, we will need a strong, swift current of new and exciting ideas. [[Cal Tech is providing many of them -- Nobel laureate Murray Gell-Mann is hard at work on this fall's symposium, "Visions of a Sustainable World," where your thinkers will look a hundred years into the future.]]

Thomas Aquinas once said that if the highest aim of a captain were to preserve his ship, he would keep it in safe harbor forever. Now, our imagination begins to explore the 21st Century, the time has come to leave port and set sail -- to the New World just beyond the horizon.

The Techers [Tekk-ers] who have explored new worlds -- whether the positron and the quark, or the fingerprint of the human gene, or the microcosm of the silicon chip -- these brilliant men and women understand the dynamics of solving a problem. But like them, you must fix your gaze on the distance and **seize opportunities** -- to possess that vision that will lead us into the 21st Century.

I think of the day I graduated from college. We were impatient, // optimistic, // ((bored with the speaker)) ... but we sensed a coming adventure. I suspect it's the same with you.

Only this time, you probably aren't thinking about becoming farmers, like Barbara and I were. My generation built our future. Yours will propel destiny with your inventiveness, your ingenuity, and your imagination.

I'm talking about the next frontier. In the 21st century, the power of the individual ---as well as the power of the nation -- will depend upon knowledge. Just as the writer Alvin Toffler predicted, a "power shift" is sweeping America. The economic battleground will be the labs and libraries, the bookshelves and computer screens across the country. ((I'm not talking about a nation of nerds here)) -- but whether you're in the military, at the market or on the mainframe, knowledge will define power.

Some call this The Third Wave ... or The Information Age ... or The New Age of Discovery. With apologies to Henry Luce, I like to call this challenge the Next American Century. And if we face this future foursquare, we will transform the nation. ///

Let me explain how we'll do it. First, the free market can be a tremendous source of ingenuity. With free markets and free people, creativity can be unleashed and the America Dream made alive. Take a look at the good some people are achieving: Charles Richter and George Housner's research has saved untold lives through their work on predicting and preparing for earthquakes. Harry Gray's research could lead to our harvesting energy from sunlight the same way plants do. And medical researcher Pamela Bjorkman's research may someday prevent diseases like arthritis and diabetes.

And take a look at all the creative entrepreneurs, the ones with that knack for know-how. In fact, I got a letter the other day from four Cal Tech grads who formed a company named "Gemstar." They'd heard me talk about our six National Education Goals to achieve excellence by the year 2000. I once joked that the seventh goal should be that by the turn of the century, Americans must be able to get their VCRs to stop flashing "12:00." /// I admit, I didn't think it was possible. /// But these young entrepreneurs quickly invented a device that sets the VCR clock correctly, and wrote to me: "[We] responded promptly to your national call for VCR-literacy by the year 2000, in fact, **nine years ahead of schedule.**"//

With ^{people} ~~guys~~ like these at work, there may be hope for those of

us who are still novices in the age of technology. /// Like me, these guys like what works. Take our education strategy, for example -- called America 2000 -- it concentrates on what works. America 2000 breaks the mold -- because it's time we started measuring success by tests passed instead of dollars spent.

Whether in our schools and child care centers, or our factories and neighborhoods, government must be part of the solution -- not part of the problem.

And good can result when government acts intelligently and programs show results -- like Head Start, where kids get the tools they need to start school ready to learn. That's a program this Administration supports. We like programs that work -- ones that use the free market as a model -- ones that **create**

✓ (see) See insert A (next page)

✓ (see) not really on the mark.

Insert A

June 11, 1991

~~NOTE TO LESLIE ARSHT~~

The AMERICA 2000 section of the Presidential Remarks for Cal Tech could be improved considerably by changing the transition and the focus (on page 4) from "what works" to entrepreneurship and invention. It might read something like:

It is this kind of entrepreneurship ~~and application of knowledge~~ that helped make this Nation what we are today. And it is this kind of can-do, innovative spirit that will make our new education strategy work. AMERICA 2000, as we call the strategy, summons the best minds in America to one of our great challenges: to create a New Generation of American Schools--schools that break the mold, schools where all students reach World Class Standards of performance in English, science, mathematics, history, and geography.

B

Our education strategy proceeds on the fundamental notion that educational success cannot be measured in terms of dollars spent. We must measure our performance by our students' performance--by how much, and how well, students are learning.

Whether in our schools and child care centers...[return to the text, page 4).

~~Whether in our schools and child care centers, or our factories and neighborhoods...[back to the text].~~

opportunity for our citizens, not lock them out of the political process and make them wards of the state.

To match the wisdom of the free market, **government must act intelligently**. Bigger isn't better. Better is better. And so one hundred days ago today, I asked the Congress to tackle the urgent problems here at home with the same commitment we dedicated to tackling the crisis in the Persian Gulf. I asked for just two bills to be passed in a hundred days -- a comprehensive crime bill, and a transportation bill. These are bills that work. But they've been sitting there collecting dust longer than some Congressmen. /// Neither bill is on my desk yet, **and the American people don't understand why.** //

They don't understand what's so hard about enacting a bill to fight crime in a hundred days. They don't understand the delay, the inaction, the footdragging. Particularly when they see that Congress can pass a funding bill for the Lawrence Welk Museum ... and a fish farm in Arkansas ... and a new tour boat for American Samoa ... while threatening to cancel the Space Station Freedom. Last week, Congress nearly cancelled the Second Golden Age of space exploration and its possibilities for new materials, new processes and new wonder drugs here on Earth.

After a difficult fight over funding for the Space Station Freedom, we return now to our broader mission: to call the people toward the higher good, the bigger picture, a greater adventure.

We've done it before ... first carving a superpower out of the wilderness ... then creating the most prosperous, educated,

I am still waiting on NASA's comments. They do have comments on this section. I will get to you asap.

enlightened, nation ever on Earth ... and now reaching beyond our planet to the glory of Space.

Here at Cal Tech, your astronomers are exploring new worlds at Keck and Palomar; scientists can now use the world's fastest computer -- here, at the JPL labs -- to enable unmanned space missions to touch the furthest corners of the universe. ((I hear that the computer is so advanced, it can actually calculate the number of "Tommy's Burgers" you kids eat ... and it can reprogram the scoreboard at the Rosebowl even faster. ////)) ((But I do think it's great ... in fact, Cal Tech is one of the few schools in the country where "P.C." has always stood for "personal computer."))

To guarantee that the 21st Century is indeed the Next American Century, the forces of the free market and the government are not enough. They must be combined with something more: the brilliance of those who make a difference in the lives of others -- the ones I call Points of Light. The American people understand what it takes to solve problems in their own neighborhoods. They are the ones on the front lines of the war on drugs, the ones teaching others how to read, the ones taking care of AIDS babies after work at night. In the Next American Century, all of us have a responsibility to lead. The most important parts of our communities -- the union halls, the police clubs, the school groups, the chambers of commerce, everyone -- can use their power to solve problems. Because there isn't a

problem in America that isn't being solved somewhere -- and can't be solved everywhere.

Together, we may not right all wrongs, but we can try. Your education here at Cal Tech enables you to lead, to use your talents for the sake of our country, our communities and our children -- not just for yourself. Those of you who volunteered to help abused women and children at the Hestia House; or taught kids to read in Pasadena; or helped the boys and girls at Five Acres -- you have already begun to lead. You understand that with your diploma today comes a commitment to fulfill the horizons of opportunity for all ... justice ... freedom ... and peace on Earth.

Whether you are drawn to the magic of the marketplace, to the honor of public service, or the ethic of serving others, each of you holds the power to transform America. Your generation is charting our voyage into the Next American Century. I join you in your quest for faraway places and salute your vision of worlds unseen. God bless each and every one of you, and thank you.

#

497-7773
John
John Males

WHITE HOUSE STAFFING MEMORANDUM

91 JUN 10 5:35

DATE: 6/10/91 ACTION/CONCURRENCE/COMMENT DUE BY: TUESDAY 6/11/91 3:00 p.m

SUBJECT: PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT

	ACTION FYI			ACTION FYI	
VICE PRESIDENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	MCCLURE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SUNUNU	<input type="checkbox"/>	<input type="checkbox"/>	PETERSMEYER	<input type="checkbox"/>	<input type="checkbox"/>
^{Alber 1:00} SCOWCROFT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PORTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DARMAN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ROGICH <i>Mc</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BRADY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SMITH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BROMLEY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	UNTERMAYER	<input type="checkbox"/>	<input type="checkbox"/>
CARD	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BOSKIN <i>Mc</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DEMAREST	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ROGERS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
FITZWATER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SNOW	<input type="checkbox"/>	<input checked="" type="checkbox"/>
GRAY ^{Hand 2896 Pack 110 7803} <i>Mc</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Albrick <i>w/c</i>	<input type="checkbox"/>	<input type="checkbox"/>
HOLIDAY	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

REMARKS:

Please forward your comments directly to Tony Snow, Rm. 122, x2930, no later than 3:00 p.m., Tuesday, June 11, with a copy to this office. Thank you.

RESPONSE:

MASTER

And see D2's Comments

PHILLIP D. BRADY
Assistant to the President
and Staff Secretary
Ext. 2702

Conrad - Disappointing that speech does not contain more emphasis on R&D, (High performance computing, + other vital budget initiatives that have particular applications at Cal Tech.

Grant / Cawley
June 10, 1991
Draft two
A: CALTECH

Smith - The "whole + good America" ^{whole + good communities} should be worked into speech as a follow up to the 100 days speech.

**PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT
PASADENA, CALIFORNIA
FRIDAY, JUNE 14, 1991
10:00 A.M.**

[Acknowledgements] ((It's a pleasure to be here at Cal Tech. However, my trip back to Washington will be delayed. /// Some of Cal Tech's finest reassembled **Air Force One** in the lobby of my **hotel**. //// Today isn't Ditch Day, is it?))

We celebrate today the centennial of Cal Tech. This institution has accomplished more in 100 years than ^{others have} many will accomplish^{ed} in a millennium. Your students, professors and graduates have looked into the heart of the atom -- and gazed at stars billions of miles away. They have created new medicines and technologies; they have sent rockets hurtling into the heavens; they have ^{helped} redefined the sciences upon which modern technology -- and modern life -- depend. **Cal Tech's mission is outward-looking, its quest never-ending, and its path of discovery truly remarkable. ///**

Earlier this century, in the days of smokestacks and smelters, Henry Luce declared the advent of the American Century. He was right. ^{But the 21st Century will be an} ~~And as this American Century draws to a close, we~~

^{* look forward to} ~~(must declare the advent of) the Next American Century. Today,~~ ^{biotechnology and space exploration. It will} ~~ours is the era of microchips and M-TV. And ours is an economy~~ ^{have} ~~increasingly based upon knowledge -- rather than on natural resources, cheap labor, or geographic location. As you well~~

* Save "Next American Century" for p. 3
** Not Presidential (M-TV)

OMB — Note: Pretty "pedestrian" for such a high caliber institution.

Bromley
Bromley

Ed.

Bromley
Porter
↓
Ed.

know, here at Cal Tech, knowledge does not stand still ... it expands ^{beyond} ~~to fulfill~~ the horizon. My challenge to you today is one of ^{expanding beyond} ~~fulfilling~~ your own horizons, and with them, ^{beyond} the horizons of all Americans.

We are now on the verge of ^a new voyage in the American experience, ~~we are~~ charting a fresh course for the unseen world. But to reach it, we will need a strong, swift current of new and exciting ideas. [[Cal Tech is providing many of them -- Nobel laureate Murray Gell-Mann is hard at work on this fall's symposium, "Visions of a Sustainable World," where your thinkers will look a hundred years into the future.]]

Thomas Aquinas once said that if the highest aim of a captain were to preserve his ship, he would keep it in safe harbor forever. Now, our imagination begins to explore the 21st Century, the time has come to leave port and set sail -- to the New World just beyond the horizon.

The Techers [Tekk-ers] who have explored new worlds -- whether the positron and the quark, or the fingerprint of the human gene, or the microcosm of the silicon chip -- these brilliant men and women understand the dynamics of solving a problem. But like them, you must fix your gaze on the distance and **seize opportunities** -- to possess that vision that will lead us into the 21st Century.

I think of the day I graduated from college. We were impatient, // optimistic, // ((bored with the speaker)) ... but we sensed a coming adventure. I suspect it's the same with you.

Only this time, you probably aren't thinking about becoming farmers, like Barbara and I were. My generation built our future. Yours will propel destiny with your inventiveness, your ingenuity, and your imagination.

I'm talking about the next frontier. In the 21st century, the power of the individual -- as well as the power of the nation -- will depend upon knowledge. ~~Just as the writer Alvin Toffler predicted, a "power shift" is sweeping America.~~ The economic battleground will be the labs and libraries, the bookshelves and computer screens across the country. ~~((I'm not talking about a nation of nerds here))~~ -- but whether you're in the military, at the market or on the mainframe, knowledge will define power.

Some call this ~~The Third Wave ...~~ or The Information Age ... or The New Age of Discovery. With ~~apologies to~~ ^{a nod to} Henry Luce, I like to call this challenge the Next American Century. And if we face this future foursquare, we will transform the nation. ///

Let me explain how we'll do it. ^{no second} First, the free market can ^{is the crucible} be a tremendous source of ingenuity. ^{Lincoln recognized this when he observed} With free markets and free

people, creativity can be unleashed and the America Dream made alive. * Take a look at the good some people are achieving:
Charles Richter and George Housner's research has saved untold lives through their work on predicting and preparing for earthquakes. Harry Gray's research could lead to our harvesting energy from sunlight the same way plants do. And medical researcher Pamela Bjorkman's research may someday prevent diseases like arthritis and diabetes.

* A non-sequiter. These individuals did most of their work w/ fed. support. Could talk about industries arising from Cal Tech research.

That work of the Patent office "adds the fuel of interest to the fire of ingenuity."

Porter

Holiday + Porter + OMB

Porter

McClure + Porter

Porter

Bromley

Insert (A)

And take a look at all the creative entrepreneurs, the ones with that knack for ^{turning} know-how ^{new products}. In fact, I got a letter the other day from four Cal Tech grads who formed a company named "Gemstar." They'd heard me talk about our six National Education Goals to achieve excellence by the year 2000. I once joked that the seventh goal should be that by the turn of the century, Americans must be able to get their VCRs to stop flashing "12:00." /// I admit, I didn't think it was possible. /// But these young entrepreneurs quickly invented a device that sets the VCR clock correctly, and wrote to me: "[We] responded promptly to your national call for VCR-literacy by the year 2000, in fact, **nine years ahead of schedule.**"//

Holiday

With ^{people} guys like these at work, there may be hope for those of

~~us who are still novices in the age of technology. /// Like me, these guys like what works. Take our education strategy, for example -- called America 2000 -- it concentrates on what works.~~

~~America 2000 **breaks the mold** -- because it's time we started measuring success by ^{what our kids learn and can do} tests passed instead of dollars spent.~~

Whether in our schools and child care centers, or our factories and neighborhoods, **government must be part of the solution -- not part of the problem.**

And good **can** result when government acts intelligently and programs show results -- like Head Start, where kids get the tools they need to start school ready to learn. That's a program this Administration supports. We like programs that work ^{*} -- ones

~~that use the free market as a model~~ -- ones that **create**

* Headstart is not a good example of a free market program.

Porter

GCA Ed.° Insert

(B)

Porter

Porter

Good place for possible insert on POTUS compt. lessons.

not really on mark

Space Station was saved - not, as some believe, at the expense of science. No, science + space must be partners in the budget wars - mutually beneficial investments in the future - GRADY

opportunity for our citizens, not lock them out of the political process and make them wards of the state.

To match the wisdom of the free market, **government must act intelligently**. Bigger isn't better. Better is better. And so one hundred days ago today, I asked the Congress to tackle the urgent problems here at home with the same commitment we dedicated to tackling the crisis in the Persian Gulf. I asked for just two bills to be passed in a hundred days -- a comprehensive crime bill, and a transportation bill. These are bills that work. But they've been sitting there collecting dust longer than some Congressmen. /// Neither bill is on my desk yet, and the American people don't understand why. //

They don't understand what's so hard about enacting a bill to fight crime in a hundred days. They don't understand the delay, the inaction, the footdragging. Particularly when they see that Congress can pass a funding bill for the Lawrence Welk Museum ... and a fish farm in Arkansas ... and a new tour boat for American Samoa ... while threatening to cancel the Space

Station Freedom. [Last week, ^{the House of Reps. nearly cancelled the} Congress nearly cancelled the Second ^{manned space program and the} Golden Age of space exploration and its possibilities for new ^{knowledge, new technologies, and whole new industries.} ~~materials, new processes and new wonder drugs here on Earth.~~]

After a difficult fight over funding for the Space Station Freedom, ^{the House of Representatives put the program back on} we return now to our broader mission: to call the people ^{track. Now we trust the Senate will endorse a balanced program and let us} toward the higher good, the bigger picture, a greater adventure. ^{returns} ~~We've done it before ...~~ A first carving a ^{^ nation} superpower out of the ^{of the day} wilderness ... then creating the most prosperous, educated,

* The original jungs somewhat hollow, since these rationales have been minimized in the debate.

** This may not be appropriate for commencement speech.

Porter

NASA

Insert @ Porter

Bromley

NASA

Porter

We must invest now in this brighter future -
in high performance computing, in math + science
education, in research + development. These are the
kinds of investments I've called for in my budget
-- and they should not be sacrificed on the
enlightened, ^{society} nation ever on Earth ... and now reaching beyond our
planet to the glory of space. Grady

NASA
NASA
Porter
Here at Cal Tech, your astronomers are exploring new worlds
at Keck and Palomar; ^{and with the Hubble Space Telescope} scientists can now use the world's fastest
computer -- here, at the JPL labs -- to enable unmanned space ^{of the solar system +}
missions ^{such as the pioneers + voyagers} to touch the furthest corners of the ^{solar system} universe. ((I hear
that the computer is so advanced, it can actually calculate the
number of "Tommy's Burgers" you kids eat ... and it can reprogram
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Porter
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^{the} ~~important~~ parts of our communities -- the union halls, the police
clubs, the ^{educators} ~~school groups~~, the chambers of commerce, everyone --
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problem in America that isn't being solved somewhere, ~~--- and can't~~
~~be solved everywhere.~~

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#



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

91 JUN 17 P6:19

Handwritten signature/initials

MEMORANDUM FOR ANTHONY SNOW

FROM: ROBERT E. GRADY
ASSOCIATE DIRECTOR FOR NATURAL RESOURCES,
ENERGY AND SCIENCE

SUBJECT: Additional Material for the President's CalTech
Commencement Speech

Attached is information on three projects supported by the National Science Foundation in which CalTech is a major partner. These projects are intended to improve math and science education at the precollege level. The first one, "Hands-on Science in Pasadena", involves all the elementary school classrooms of the Pasadena school district (based on the success of a four-year pilot effort). It exemplifies, I believe, what the President has been saying about the importance of partnerships and of local involvement in improving education in America. This might also make a good stop for the President -- to meet some of the teachers and CalTech scientists participating in the program.

Please let me know if you need any additional material.

Attachments

The President has also taken the leadership position in education. The Charlottesville Education Summit with the Nation's Governors established 6 national goals in education. From our perspective, a crucial one is Goal #4: "By the Year 2000, U.S. students will be first in the world in science and mathematics achievement."

Only 6 percent of the total national spending for elementary and secondary education comes from the Federal Government. However, the Federal Government can play a leadership role by highlighting problem areas, encouraging broad coalitions, and funding model programs that may have national applicability.

In the FY 1992 budget, 16 Federal agencies (under the OSTP Committee on Education and Human Resources) have developed a coordinated Federal budget strategy, consistent with the National Goals, to improve math and science education. This is the first time that this has ever occurred. The 1992 budget proposed \$1.94 billion in math and science education, a 13 percent increase over 1991. This spending has been allocated primarily to improve precollege math and science education, consistent with the high priority assigned to this level. In addition to dollars, Federal labs and research facilities in many agencies are opening their doors to precollege teachers and students -- as well as university researchers and students -- in an effort to promote math and science as careers and to improve basic science knowledge.

The President might point out that the CalTech "stars" of tomorrow are in elementary school today.

Teacher Enhancement

Pine, Jerome; Klentschy, Michael; Bower, James M; Yure, Jennifer
California Institute of Technology;
Pasadena, CA 91125
Discipline: Elementary Science
Award No.: 9050276
FY90 Funding \$653,197
FY91 Funding \$101,679

Hands-On Science in Pasadena: Changing a Large School System

This project will initiate a hands-on inquiry-based science curriculum in all the elementary school classrooms of the Pasadena Unified School District. The District is urban, multicultural and multiracial. The District's partner, the California Institute of Technology (Caltech), is a preeminent research university. Their combined effort will use a method proven during four years of a very successful partnership between Caltech and one Pasadena pilot school. The initial education for teachers will be presented in small groups each led by a mentor teacher and a volunteer science professional. During these group meetings the teachers will have an opportunity to investigate kit materials which they will use later in their classrooms. The small group will work through the kits in a cooperative learning environment, while the co-leaders emphasize the philosophy and methods of hands-on teaching as well as the scientific subject matter which relates to each kit. During the school year, resource teachers will work with teachers in their classrooms, and meet with them during group meetings. At these sessions teachers will be able to explore other science units and exchange experiences and ideas with their colleagues. The total cost sharing for the project will be 200% of the NSF portion.

Instructional Materials Development**Apostol, Tom M**

California Institute of Technology; Pasadena, CA 91125

Discipline: Mathematics

Award No.: 8850730

FY89 Funding	\$376,453
FY90 Funding	\$684,325
FY91 Funding	\$1,338,654
FY93 Funding	\$694,884

Project MATHEMATICS!

Mathematics! is a series of professional quality, computer-animated videotapes containing modules on various topics in basic mathematics. This project will produce six modules on high school geometry for use in classrooms and learning centers. Each module tape will be about 20 minutes long and will be accompanied by student workbooks and teacher manuals. The modules are intended to be easily integrated into current curricula.

The tapes are designed to encourage interaction between the video tape, teacher, and students. This is done by structuring each tape into small capsules, which are identified by number titles keyed to the student workbooks, permitting the teacher to stop the tape at the end of each capsule to allow discussion by the students.

The tapes will be produced by the same team that created the 52 half-hour episodes of "The Mechanical Universe" and the twenty minute pilot tape entitled "The Theorem of Pythagoras."

All materials will be distributed on a nonprofit basis through a consortium of state departments of education, through workshops, and with assistance from the Mathematical Association of America (MAA) and the National Council of Teachers of Mathematics (NCTM). Field testing, evaluation, and teacher training are essential parts of the project. High school teachers will be involved at every developmental stage, and ongoing teacher support will be arranged through the consortium.

Studies and Analyses

Pine, Jerome

California Institute of Technology; Pasadena, CA 91125

Discipline: Student Assessment

Award No.: 8751511

FY88 Funding \$163,016

FY89 Funding \$195,297

FY90 Funding \$9,000

FY91 Funding \$42,807

Evaluation of Alternatives for Assessing Science Process Learning by Elementary School Children

This study will explore alternative testing methods to meet the demands of the hands-on approach to science teaching. Because of the critical importance of early science education, the grantee will work with fifth grade students. The investigation technique will be observation of hands-on scientific investigation, scored by scientists and science teachers. The investigation will compare four surrogates with this method: (1) computer simulation of hands-on test, (2) hands-on test with written responses, (3) free response pencil and paper test, and (4) multiple choice test. The data may prove to be of create value in designing cost-effective, practical tests that closely approximate the expensive, logistically difficult, hands-on test with scientists as observers.

WHITE HOUSE STAFFING MEMORANDUM

JUN 11 3:05

DATE: 6/10/91 ACTION/CONCURRENCE/COMMENT DUE BY: TUESDAY 6/11/91 3:00 p.m

SUBJECT: PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT

	ACTION FYI			ACTION FYI	
VICE PRESIDENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	MCCLURE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SUNUNU	<input type="checkbox"/>	<input type="checkbox"/>	PETERSMEYER	<input type="checkbox"/>	<input type="checkbox"/>
SCOWCROFT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PORTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DARMAN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ROGICH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BRADY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SMITH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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CARD	<input type="checkbox"/>	<input checked="" type="checkbox"/>	BOSKIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DEMAREST	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ROGERS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
FITZWATER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SNOW	<input type="checkbox"/>	<input checked="" type="checkbox"/>
GRAY	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
HOLIDAY	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

REMARKS:

Please forward your comments directly to Tony Snow, Rm. 122, x2930, no later than 3:00 p.m., Tuesday, June 11, with a copy to this office. Thank you.

RESPONSE:

See changes

PHILLIP D. BRADY
Assistant to the President
and Staff Secretary
Ext. 2702

Grant / Cawley
June 10, 1991
Draft two
A:CALTECH

91 JUN 10 PM 2:47

PRESIDENTIAL REMARKS: CAL TECH COMMENCEMENT
PASADENA, CALIFORNIA
FRIDAY, JUNE 14, 1991
10:00 A.M.

[Acknowledgements] ((It's a pleasure to be here at Cal Tech. However, my trip back to Washington will be delayed. /// Some of Cal Tech's finest reassembled **Air Force One** in the lobby of my **hotel**. //// Today isn't Ditch Day, is it?))

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Save "Next American Century" for p. 3.

know, here at Cal Tech, knowledge does not stand still ... it expands ^{beyond} ~~to fulfill~~ the horizon. My challenge to you today is one of ^{expanding beyond} ~~fulfilling~~ your own horizons, and with them, ^{beyond} the horizons of all Americans.

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Let me explain how we'll do it. First, the free market can be a tremendous source of ingenuity. With free markets and free people, creativity can be unleashed and the America Dream made alive. Take a look at the good some people are achieving: Charles Richter and George Housner's research has saved untold lives through their work on predicting and preparing for earthquakes. Harry Gray's research could lead to our harvesting energy from sunlight the same way plants do. And medical researcher Pamela Bjorkman's research may someday prevent diseases like arthritis and diabetes.

A non sequitur. ~~These~~ These individuals did most of their work with federal support. Could talk about industries arising from Cal Tech research.

Proposed insert
on next page

And take a look at all the creative entrepreneurs, the ones with that knack for know-how. In fact, I got a letter the other day from four Cal Tech grads who formed a company named "Gemstar." They'd heard me talk about our six National Education Goals to achieve excellence by the year 2000. I once joked that the seventh goal should be that by the turn of the century, Americans must be able to get their VCRs to stop flashing "12:00." /// I admit, I didn't think it was possible. /// But these young entrepreneurs quickly invented a device that sets the VCR clock correctly, and wrote to me: "[We] responded promptly to your national call for VCR-literacy by the year 2000, in fact, **nine years ahead of schedule.**"//

With guys like these at work, there may be hope for those of us who are still novices in the age of technology. /// Like me, these guys like what works. Take our education strategy, for example -- called America 2000 -- it concentrates on **what works**. America 2000 **breaks the mold** -- because it's time we started measuring success by tests passed instead of dollars spent. Whether in our schools and child care centers, or our factories and neighborhoods, **government must be part of the solution -- not part of the problem.**

And good can result when government acts intelligently and programs show results -- like Head Start, where kids get the tools they need to start school ready to learn. That's a program this Administration supports. We like programs that work -- ones that use the free market as a model -- ones that **create**

PROPOSED INSERT

We can also create the Next American Century by continuing to invest in science and technology. For example, the High Performance Computing and Communications initiative that we have proposed will help create exciting new tools for education, new scientific and technical knowledge for private industry, and new products and technologies that are the best in the world.



opportunity for our citizens, not lock them out of the political process and make them wards of the state.

To match the wisdom of the free market, government must act intelligently. Bigger isn't better. Better is better. And so one hundred days ago today, I asked the Congress to tackle the urgent problems here at home with the same commitment we dedicated to tackling the crisis in the Persian Gulf. I asked for just two bills to be passed in a hundred days -- a comprehensive crime bill, and a transportation bill. These are bills that work. But they've been sitting there collecting dust longer than some Congressmen. /// Neither bill is on my desk yet, and the American people don't understand why. //

They don't understand what's so hard about enacting a bill to fight crime in a hundred days. They don't understand the delay, the inaction, the footdragging. Particularly when they see that Congress can pass a funding bill for the Lawrence Welk Museum ... and a fish farm in Arkansas ... and a new tour boat for American Samoa ... while threatening to cancel the Space Station Freedom. Last week, Congress nearly cancelled the Second Golden Age of space exploration and its possibilities for new *knowledge, new technologies, and whole new industries.* ~~materials, new processes and new wonder drugs here on Earth.~~

After a difficult fight over funding for the Space Station Freedom, we return now to our broader mission: to call the people toward the higher good, the bigger picture, a greater adventure. We've done it before ... first carving a superpower out of the wilderness ... then creating the most prosperous, educated,

The original rings somewhat hollow, since these rationales have been minimized in the debate.

enlightened, nation ever on Earth ... and now reaching beyond our planet to the glory of Space.

Here at Cal Tech, your astronomers are exploring new worlds at Keck and Palomar; scientists can now use the world's fastest computer -- here, at the JPL labs -- to enable unmanned space missions to touch the furthest corners of the universe. ((I hear that the computer is so advanced, it can actually calculate the number of "Tommy's Burgers" you kids eat ... and it can reprogram the scoreboard at the Rosebowl even faster. ////)) ((But I do think it's great ... in fact, Cal Tech is one of the few schools in the country where "P.C." has always stood for "personal computer."))

To guarantee that the 21st Century is indeed the Next American Century, the forces of the free market and the government are not enough. They must be combined with something more: the brilliance of those who make a difference in the lives of others -- the ones I call Points of Light. The American people understand what it takes to solve problems in their own neighborhoods. They are the ones on the front lines of the war on drugs, the ones teaching others how to read, the ones taking care of AIDS babies after work at night. In the Next American Century, all of us have a responsibility to lead. The most important parts of our communities -- the union halls, the police clubs, the school groups, the chambers of commerce, everyone -- can use their power to solve problems. Because there isn't a

problem in America that isn't being solved somewhere -- and can't be solved everywhere.

Together, we may not right all wrongs, but we can try. Your education here at Cal Tech enables you to lead, to use your talents for the sake of our country, our communities and our children -- not just for yourself. Those of you who volunteered to help abused women and children at the Hestia House; or taught kids to read in Pasadena; or helped the boys and girls at Five Acres -- you have already begun to lead. You understand that with your diploma today comes a commitment to fulfill the horizons of opportunity for all ... justice ... freedom ... and peace on Earth.

Whether you are drawn to the magic of the marketplace, to the honor of public service, or the ethic of serving others, each of you holds the power to transform America. Your generation is charting our voyage into the Next American Century. I join you in your quest for faraway places and salute your vision of worlds unseen. God bless each and every one of you, and thank you.

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