good morning I'm Steve Feldman president
of the astronauts Memorial Foundation
I want to welcome you here today to a
ceremony remembering the 25th
anniversary of the Challenger accident
challenger STS 51 L launched on January
28th 1986 carrying seven astronauts
including the first teacher scheduled to
go into space
tragically 73 seconds after the launch
Challenger was destroyed and all of the
astronauts on board lost their lives
today
25 years later we gather here to
remember and honor those astronauts

appropriately we do this at the site of

the space mirror memorial designated by

the United States Congress as the

National Memorial to honor all of those

astronauts who have sacrificed their lives for our space program please rise

for the singing of the national anthem

by Suzy Cunningham a NASA employee

oh say can you see by the dawn's early light what so proudly we hailed at the twilight's last gleaming whose broad stripes and bright stars through the perilous fight or the ramparts we
watched were so gallantly streaming and

the Rockets red glare the bombs bursting

in air gave proof through the night that

our flag was still there

oh say does that star-spangled banner

yet wave or the land of the free thank

you please be seated

we will begin today's program with an

invocation presented by a member of the

AMF board and a prominent author dr. Mick ukleja

Mick ukleja

dr. ukleja today we're here to honor and

to remember but also to celebrate seven

lives that were lived well these
individuals had families and have

families we also remember the families

and the great sacrifice of releasing

their loved ones to such an intense

profession to better mankind and even

greater sacrifice of losing those that

they dearly loved these individuals were

able to combine their passions their

talents their competencies as well as

their vocation into one focus and so for

this we honor them today remember them

and we're also inspired by the lives

that they lived join me in prayer our

Father you have created us to excel to

be all that we can be for the purpose of
serving other people

we're created in your image and so we find that we also love to create and we

we love to explore to understand the wonders of your creation we're called to
do this and for a rare few it even becomes dangerous
even to the point of risking their lives

and it's to those rare few that we come to honor today the risks are well thought through they're not reckless but they are dangerous we accept it we accept that along with the
promise of a better life and so we honor them today not only because they serve us but also because they inspire us like the great explorers of old Magellan and Columbus and all the rest they explored new worlds and it was a world without completed Maps or foolproof manuals because they were creating them and so father we are reminded today that there was a time for everything a season for every activity under heaven time they'd be born and the time to die a time to plan at a time to pluck up that which is planted so in the spirit of these heroic
leaders the greatest way we can honor

them is to not simply live for ourselves

but to live and plant well as we serve

those around us

while the knowing that all of life is on

loan from you we thank you for loaning

us these incredible lives and we thank

you that they are now safely back in

your presence amen

we are honored to have with us today

members of the AMF Board of Directors

and trustees astronauts NASA officials

corporate executives military officers

and perhaps most important to us family
members of those astronauts whom we

00:06:25,050 --> 00:06:32,370
honor the commander of Challenger and

00:06:28,889 --> 00:06:34,529
it's true leader was dick Scobee his

00:06:32,370 --> 00:06:36,509
wife June has since become one of the

00:06:34,529 --> 00:06:39,539
most respected members of the space

00:06:36,509 --> 00:06:42,029
community her original book about

00:06:39,540 --> 00:06:44,340
challenger entitled silver linings the

00:06:42,029 --> 00:06:47,729
triumphs of the Challenger was truly

00:06:44,339 --> 00:06:51,839
inspirational she wrote a book moon base

00:06:47,730 --> 00:06:54,210
crisis about motivating young people to

00:06:51,839 --> 00:06:57,869
study science technology engineering and

00:06:54,209 --> 00:06:59,609
math and her most recent book an update

00:06:57,870 --> 00:07:03,019
of silver linings and really her

00:06:59,610 --> 00:07:05,250
autobiography which is just out is also

00:07:03,019 --> 00:07:09,000
inspirational and really something for
all of us to admire she also was

founding chairman of the challenges

centers for space science education she

earns a PhD degree from Texas A&M

University and has taught every grade

level from kindergarten through college

she hasn't been interviewed on 60

minutes The O'Reilly Factor The Oprah

Winfrey Show Good Morning America and

untold untold additional shows she has

too many awards for me to be able to

mention this morning but it is a

pleasure to introduce our keynote

speaker dr. June Scobee Rodgers
thank you very much dr. feldman's for those nice words makes me feel like i'm somebody and it wasn't even my own funeral well it's a nice cool brisk morning here chamber of commerce didn't get the message to make it a beautiful day for us to talk about florida good morning there's so many of you that have joined today thank you for coming out on this cool brisk day to help us honor the challenger crew and in fact all those names that are behind me on this beautiful mirror memorial on behalf of
all the Challenger families I am happy
to be here we're represented by the
Resnick families as well so hello to you
I thank you for being here to help us
honor our loved ones and the spirit of
the mission of the space shuttle
Challenger it's hard to believe that 25 years has passed since that fateful day
January 1986 we know it when we look at
our kids to how they've grown and we
have nine grandchildren but like
everyone watching around the world we
were stunned to see the unspeakable
unfold right before our eyes could this
really happen no one believed it could

158
00:09:14,320 --> 00:09:19,750
happen what should have been a day

159
00:09:16,570 --> 00:09:22,660
heralded for education turned to tragedy

160
00:09:19,750 --> 00:09:26,169
in a split second a loved ones were gone

161
00:09:22,659 --> 00:09:31,179
my nation grieved and our future looked

162
00:09:26,169 --> 00:09:33,729
uncertain later years later after we

163
00:09:31,179 --> 00:09:35,049
lost the beloved Columbia crew my

164
00:09:33,730 --> 00:09:41,080
daughter wrote a letter to those

165
00:09:35,049 --> 00:09:47,439
children she said everyone around the

166
00:09:41,080 --> 00:09:50,470
world saw how I challenged her crew my

167
00:09:47,440 --> 00:09:54,250
dad died they all wanted to say goodbye

168
00:09:50,470 --> 00:09:56,430
to American heroes me I just wanted to

169
00:09:54,250 --> 00:09:58,960
say goodbye to my daddy

170
00:09:56,429 --> 00:10:01,689
she helped those children to rely

171
00:09:58,960 --> 00:10:07,060
that their lives had become very public
but that keep the memories alive of

their parents ask people that knew them
to tell you stories about their dads I

remember being at the memorial service

at Johnson Space Center shortly after

the Schley accident

watching this missing man formation

flyover one plane I think you all are

aware one plane pulls up and climbs to

the heavens to symbolize the loss but

the other planes continue on to carry on

the mission that's when it dawned on me

challengers mission a mission to teach

was incomplete lessons were left
untaught scientific and engineering problems were left unsolved but the saddest reality was the impact on the children the chance to really touch a child and inspire a new generation of explorers the families of the Challenger seven realized something very profound we didn't somehow if we didn't somehow continue challenging mission of Education then our loved ones would have died in vain and certainly that entire crew embraced Christa McAuliffe and was known as the teacher in space mission we couldn't let that happen that
they'd be forgotten so we began to turn

this unimaginable tragedy into a monumental triumph the entire world knew

how the Challenger crew died we wanted the world to know how they lived and for what they were risking their lives we

Jane Smith Lorna Ann azúcar Cheryl McNair Marcia Jarvis Steve McAuliffe and Chuck Resnick all seven families banded together to create a cause greater than ourselves that would not only take us into the future but help us to heal our hearts and the hearts of those in our nation
one night only weeks after the accident

00:12:15,100 --> 00:12:19,480
while sitting around in my living room

00:12:16,629 --> 00:12:21,179
and not my home in Houston we concede

00:12:19,480 --> 00:12:24,759
the idea of the Challenger Center a

00:12:21,179 --> 00:12:26,828
living tribute to our loved ones a place

00:12:24,759 --> 00:12:30,039
that would provide America's students

00:12:26,828 --> 00:12:32,948
with access to outstanding space science

00:12:30,039 --> 00:12:34,990
educational opportunities we envisioned

00:12:32,948 --> 00:12:37,559
activities where children teachers and

00:12:34,990 --> 00:12:39,759
citizens alike could touch the future

00:12:37,559 --> 00:12:42,099
manipulating equipment conducting

00:12:39,759 --> 00:12:44,679
scientific experiments solving problems

00:12:42,100 --> 00:12:46,690
working together immersing themselves in

00:12:44,679 --> 00:12:49,929
a space like surroundings and growing

00:12:46,690 --> 00:12:51,550
accompanied to the space technology our
hope was to spark in our young people and interest and a joy in science a spark that could change their lives our vision became reality when you visit a challenger center you'll see children with their teacher and fly a simulated space mission into the future there they are challenged to apply skills in math and science while working together as a team to complete a successful mission they learn critical skills needed for the 21st century
teamwork dealing with adversity solving

problems and the fundamentals of human interaction we launched our first Challenger Center in Houston today we've grown to a network of 48 challenger centers throughout America as well as in Canada South Korea and England and later today I'll join the those folks at the Challenger Learning Center in Houston to celebrate that memory and which I do every year I go to a challenger Center to see children doing what our beloved challenger space crew loves so much well each year more than 400,000 school
students visit one of our centers and experience the thrill and excitement of space exploration and with our new chairman Scott Parazynski I think that number will double in no time and in the past 25 years we have reached more than 4 million children we have strong partnerships with NASA and other federal agencies numerous universities and aerospace contractors health keep our curriculum current throughout ongoing evaluation and consultation and leadership on our board of directors has laid a solid foundation for growth in
numerous directions so you see

00:14:40,509 --> 00:14:46,100
challenger wasn't the final chapter in

00:14:42,860 --> 00:14:50,139
the book of space exploration just a

00:14:46,100 --> 00:14:53,360
transition chapter in this great book

00:14:50,139 --> 00:14:58,309
nor is Space Shuttle the final chapter

00:14:53,360 --> 00:14:58,789
as I wrote and like any good school

00:14:58,309 --> 00:15:01,879
teacher

00:14:58,789 --> 00:15:05,659
I brought my proper long as I wrote in

00:15:01,879 --> 00:15:10,100
the silver linings book we are not a

00:15:05,659 --> 00:15:13,009
nation of naysayers we are a nation of

00:15:10,100 --> 00:15:17,839
believers we are innovators and

00:15:13,009 --> 00:15:19,879
problem-solvers and yes risk takers with

00:15:17,839 --> 00:15:22,820
a pioneering spirit that began with our

00:15:19,879 --> 00:15:24,860
forefathers who sailed from Europe to

00:15:22,820 --> 00:15:28,670
establish and colonize our nation and
then boldly expanded West's exploring
discovering and building our country
technology gave us automobiles and
locomotives then we slipped the surly
bonds of Earth into airplanes and built
their rockets to launch us on the
highway to space we as a nation are
indebted to the space pioneers who
blazed a trail of exploration and
discovery here at Kennedy Space Center
you've witnessed decades of launch
successes from early mercury 7
astronauts with Alan Shepard the Gemini
excitement of John Glenn and the
historic days of Apollo and moon landings when we were all glued to the flickering black-and-white television to watch the first steps of armstrong and aldrin upon the moon then came the shuttle a Space Station transportation system a space transportation system a plane with sparkling white wings designed by creative engineers to launch like a rocket toward the heavens orbit the earth build the International Space Station launch satellites collect astonishing images from Hubble and you've seen those
most recently make discoveries and grow

our knowledge and then glide safely back

home to earth after Dick Scobee and his

even shuttle astronauts were selected in the

first class of 35 shuttle astronauts

I no longer watched the launch of space

vehicles from afar I'll watch them

standing right here with him at Kennedy

we watched the engines ignite and felt

the human felt that thunderous roar as

the first shuttle Columbia lifted off

carrying brave astronauts John Young and

my dear friend Bob Crippen who's here

with us today it was sheer exhilaration

with us today it was sheer exhilaration
that our family of astronauts shared

00:17:29,808 --> 00:17:34,548
their experiences with us when was a

00:17:32,419 --> 00:17:38,059
particularly personal joy after my

00:17:34,548 --> 00:17:42,950
husband piloted the successful 41c solar

00:17:38,058 --> 00:17:44,778
mechs mission now it is sad to see the

00:17:42,950 --> 00:17:47,480
shuttle story approaching the close of

00:17:44,778 --> 00:17:50,240
its chapter in this mighty history book

00:17:47,480 --> 00:17:52,419
of space exploration but the book will

00:17:50,240 --> 00:17:55,880
continue with new exciting chapters

00:17:52,419 --> 00:17:57,919
about space programs and more advanced

00:17:55,880 --> 00:18:00,580
space vehicles to carry us into the next

00:17:57,919 --> 00:18:04,700
chapters of exciting adventures

00:18:00,579 --> 00:18:06,829
discoveries and achievement and will

00:18:04,700 --> 00:18:09,590
benefit and advance the people of our

00:18:06,829 --> 00:18:11,359
planet and a new legacy a challenger
center students will be there and

they'll be ready to accept the challenge

of space exploration anew why because we

have whole planets to explore and we

have new worlds to build and the silver

linings book I draw together this rich

history of the space program from the

early days of von Braun rockets my

teenage Sputnik days and the this

discovery is made by NASA astronauts and

scientists to the explorers of today

including this interesting emerging role

of private space travel returning to our

day of remembrance
perhaps President Reagan said at best 25 years ago in place of his scheduled State of the Union address he spoke to a grieving nation he took care to speak to the children who were watching the live coverage of shuttles launch he said I know it's hard to understand but sometimes painful things like this happen it's all a part of the process of exploration and discovery it's all part of taking a chance in expanding man's horizons the future doesn't belong to the faint-hearted it belongs to the
brave the Challenger crew was pulling us into the future and we'll continue to follow them the president concluded his remarks we will never forget them or the last time we saw them this morning as they prepared for their journey and waved goodbye and slipped the surly bonds of Earth to touch the face of God that was then and their names are beautifully emblazoned on the mirror but this is now it's time for the next 25 years to unfold let us boldly look to the future with a vision built upon our rich heritage of
space pioneers what's on the next

00:20:20.329 --> 00:20:26.839
horizon for our nation and planet well

00:20:23.869 --> 00:20:28.699
in 48 cities today schoolchildren will

00:20:26.839 --> 00:20:31.429
fly a space simulation mission a

00:20:28.700 --> 00:20:33.110
challenger mission that inspires and

00:20:31.430 --> 00:20:36.080
motivates them in the sciences and

00:20:33.109 --> 00:20:38.089
technology engineering and math these

00:20:36.079 --> 00:20:40.309
children and others are our future

00:20:38.089 --> 00:20:43.970
engineers and scientists who will build

00:20:40.309 --> 00:20:46.789
new vehicles to fly in space physicians

00:20:43.970 --> 00:20:49.549
and teachers who will take scientific

00:20:46.789 --> 00:20:52.940
scientific breakthroughs to improve our

00:20:49.549 --> 00:20:55.099
lives and they represent future space

00:20:52.940 --> 00:20:56.660
explorers who will create the highway to

00:20:55.099 --> 00:20:59.509
our planets and beyond
who will travel to the unknown to make the discoveries that expand our knowledge and build a better world and keep it safe recently I wrote with famous authors Kevin Anderson and Rebecca most this is my other prop a series of young adult science fiction books about star challengers oh these books are fun and with a famous science fiction author they're well received it's about kids who discover just how important it is to learn the skills of science and math to advance space exploration and keep our
planet safe and there are a lot of fun

because they haven't mysterious

commanders Zota who takes them into the

future and it's here at Kennedy that we

stand beneath this astronaut memorial

mirror inscribed with their names of our

loved ones challenger as well as those

of columbia and paulo names that

represent people who gave their lives

serving the country they loved we honor

them with our presence at this ceremony

and you honor yourselves for paying

tribute to them on this day 25 years

after their loss on this their silver
anniversary thank you thank you very much

thank you Mike McCauley is chairman of the board of directors of the astronauts Memorial Foundation he is also a former astronaut and shuttle pilot he is also a retired Navy captain and test pilot he went on to become an executive at United Space Alliance and ultimately became president and CEO of that corporation it's my pleasure to introduce Mike McCauley my first words this morning were going to be I am triply blessed to be here this morning but I'm going to
add something in its quadruply actually

00:23:21,200 --> 00:23:24,650
as Bob Cabana and I sit here a moment

00:23:22,910 --> 00:23:27,259
ago and looked at over the audience

00:23:24,650 --> 00:23:30,470
there's 25 years of center directors in

00:23:27,259 --> 00:23:31,849
this audience seven of them I would

00:23:30,470 --> 00:23:34,308
suggest that you guys get together

00:23:31,849 --> 00:23:35,659
afterwards and get a group photo because

00:23:34,308 --> 00:23:39,589
you'll never do this one again I don't

00:23:35,660 --> 00:23:42,019
think so the triply blessed though first

00:23:39,589 --> 00:23:45,500
is a relatively new astronaut in the mid

00:23:42,019 --> 00:23:49,308
80s I was blessed to know and support

00:23:45,500 --> 00:23:52,359
and work with the Challenger crew and it

00:23:49,308 --> 00:23:56,079
was a privilege that I will never forget

00:23:52,359 --> 00:23:58,849
then they returned to flight days I

00:23:56,079 --> 00:24:01,250
began to understand more about the
system and the program and the
sacrifices and what we had to do and in
those days I spent a lot of time in
Washington and I my favorite thing to do
in the mornings was to go jog around the
memorial mall and I would get to the
Lincoln Memorial and I would stop and I
would run up the steps turn to the left
because the Gettysburg Address is on the
wall to the left and I would sit down on
the granite and read aloud the
Gettysburg Address the guards thought I
was weird for a while but they got used
to me after a while and and tourists
would look at me in point but but I

would read it well then later on the

second blessing came when I had the

opportunity to fly space shuttle and the

space shuttle that

I flew was far more effective far safer

far better than the one had gone before

me and the sacrifice of these seven

contributed greatly to me being able to

fly in a far safer far better far more

effective space shuttle now today as the

chairman of the board of the astronaut

Memorial Foundation is an additional

privilege and blessing to be here with
you today to do this but as I was

thinking about what my message ought to

be as the chairman you know I could have

made a long speech or it could make it

almost a no speech but in those days

when I was in Washington it would set up

there and read the Gettysburg Address

out loud there was a certain part of it

that began to take a different meaning

for me during the return to flight days

and in closing I want to read that part

of the Gettysburg Address

it is for us the living rather to be

dedicated here to the unfinished work
which they who fought here thus far so

500 00:25:48,829 --> 00:25:53,298 nobly advanced it is rather for us to be

501 00:25:51,919 --> 00:25:55,909 here dedicated to the great task

502 00:25:53,298 --> 00:25:58,460 remaining before us that from these

503 00:25:55,909 --> 00:26:00,919 honored day it did we take increased

504 00:25:58,460 --> 00:26:03,500 devotion to that cause for which they

505 00:26:00,919 --> 00:26:06,649 gave the last full measure of devotion

506 00:26:03,500 --> 00:26:09,528 that we here highly resolve that these

507 00:26:06,648 --> 00:26:12,008 dead shall not have died in vain thank

508 00:26:09,528 --> 00:26:12,009 you and God bless

509 00:26:21,460 --> 00:26:28,069 Bob Cabana is director of the Kennedy

510 00:26:24,890 --> 00:26:31,340 Space Center and provides leadership to

511 00:26:28,069 --> 00:26:33,918 all of the personnel at the center he is

512 00:26:31,339 --> 00:26:37,759 also a former astronaut who was flown

513 00:26:33,919 --> 00:26:41,440 into space four times twice as a shuttle
pilot and twice as a shuttle commander

he is a retired Marine Corps colonel and

a former test pilot it's my honor to

introduce Bob Cabana oh it's really an

honor for me to be here today to help

honor those behind me on this mirror you

know those of us who are old enough to

remember you know you we can probably

tell you exactly where they were or what

they were doing you know the morning of

January 28th 1986 when we lost the space

shuttle Challenger and her crew of seven

much like the assassination of President

Kennedy the Apollo 11 landing on the
moon September 11th 2001

all of these are moments that define our history I was a newly selected astronaut candidate with seven months of training under my belt taking a class and one of the single Systems trainers learning about the orbiters orbital maneuvering system and reaction control systems when we lost Challenger when our class was interrupted to tell us what had happened there was sure disbelief we were unwilling to accept the news that had been given to us that we had really lost in orbiter and its crew surely they'd
aborted they had it wrong we didn't lose

the crew but watching the launch over

and over again on TV reality set in and

it was a really bad day as an astronaut

candidate five of us in my class shirt

an office next door to the 51l

Challenger crew and one of my absolute

fondest memories is of Elana Zuka one

Saturday morning now in the astronaut

office there's nothing lower than an

candidate in an assigned crew member a

few months from flight it surely doesn't

have time to dedicate to any of us

but L did early on he made me feel

welcome he took time from his busy

00:28:51,680 --> 00:28:56,990 schedule to talk with me and help me get

00:28:54,680 --> 00:28:59,210 settled in the office and in the

00:28:56,990 --> 00:29:01,519 community the this one Saturday morning

00:28:59,210 --> 00:29:03,890 coming up I met him at the top of the

00:29:01,519 --> 00:29:05,750 stairs and hey Bob how you doing and he

00:29:03,890 --> 00:29:07,670 says you know hey if you ever need to

00:29:05,750 --> 00:29:08,990 work on your car bring it over to my

00:29:07,670 --> 00:29:10,850 garage I know you're not settled yet I

00:29:08,990 --> 00:29:13,339 got all the tools that you need not I'll

00:29:10,849 --> 00:29:17,329 help you I mean that's a memory that I

00:29:13,339 --> 00:29:20,000 will treasure forever once we accepted

00:29:17,329 --> 00:29:23,449 the loss the long process of under what

00:29:20,000 --> 00:29:26,720 understanding what happened in bringing

00:29:23,450 --> 00:29:28,850 us back to flight began as we recovered
the vehicle from the sea the story

started coming together seeing the pieces of the crew compartment laid out

on the cement here at the Kennedy Space Center out in the open recording

the switch positions of the consoles in the crew compartment was a very sobering task it's no way to bring a space

shuttle home and unfortunately it wasn't the last time we would have to do it we learned many lessons from the loss of Challenger in the vehicle that returned to flight two and a half years later may have looked the same but had hundreds of
changes to make it safer and more reliable the Challenger crew will be forever young in our minds their legacy as the Challenger centers and an inspiration that motivates our children to learn and aspire to careers in math they've shown us that exploration is not without risk but that we can learn from our mistakes and be better for them in the end they continue to urge us forward to explore and to never quit just because it's hard we are better for having known them they are a part of us forever and we will not
let them down we will continue to strive
to be better
to explore to expand our knowledge of
our universe and to reach beyond thank
you the astronauts Memorial Foundation
honors those astronauts who have made
the ultimate sacrifice for the space
program we do this of course with the
space mirror Memorial but also with our
educational initiatives which serve as a
living memorial to those astronauts Alan
Shepard was the first American in space
he was one of only 12 human beings to
walked on the moon and he was one of the
early members of the board of directors

00:31:36,710 --> 00:31:41,690
of the astronauts Memorial Foundation

00:31:38,480 --> 00:31:44,210
and a very active important member upon

00:31:41,690 --> 00:31:46,700
his death we established the alan

00:31:44,210 --> 00:31:50,329
shepard technology and education award

00:31:46,700 --> 00:31:52,610
which is presented every year to a K

00:31:50,329 --> 00:32:02,899
through 12 educator who has made an

00:31:52,609 --> 00:31:58,428
outstanding contribution in educational

00:31:55,279 --> 00:32:02,899
technology is presented jointly by AMF

00:31:58,429 --> 00:32:05,690
NASA and the Space Foundation the 2009

00:32:02,900 --> 00:32:08,600
winner of the Alan Shepard award was

00:32:05,690 --> 00:32:11,600
Rick Soria who was assistant principal

00:32:08,599 --> 00:32:14,629
of choc to a Hatchi High School in Fort

00:32:11,599 --> 00:32:17,359
Walton Beach Rick was selected for his

00:32:14,630 --> 00:32:19,929
role in creating the engineers for
America program an innovative initiative that motivates students to major in science technology engineering and mathematics by having them experience hands-on aviation and aerospace activities. It's a pleasure to introduce a winner of the Alan Shepard Technology & Education Award, Rick Soria.

Good morning ladies and gentlemen. A few years ago, an engineering friend of mine told me that we were short over 60,000 native-born engineers in the Department of Defense. We got to thinking about that and did some research...
found that we lose many of those students at about the fourth or fifth grade so our initiative targets that student population the Oakland County School District why work has partnered with the United States Air Force armament museum at Eglin to develop stem experiments for students based on the aerospace exhibits that are on display at the Museum the Alan Shepard award has helped us advance our efforts greatly first in November of 2009 the astronauts Memorial Foundation partnered with me to perform the sts-125 mission
accomplished' project 50 high school students from four neighboring high schools participated the AMF team of Walter ski and Jean Tavares taught these students how to create movies on DVDs for their schools based on the sts-125 mission then last year the National Science Teachers Association included an article describing our stem initiative and methodology international newspaper as a result we received emails from teachers across the country asking us about our experiments and how we went about doing them then last July the stem
Florida folks were kind enough to
00:34:07,019 --> 00:34:11,789
recognize our efforts with their
00:34:08,820 --> 00:34:12,930
improved student outcomes award this was
00:34:11,789 --> 00:34:15,119
followed by an article in a recent
00:34:12,929 --> 00:34:17,659
Florida Monthly Magazine identifying me
00:34:15,119 --> 00:34:23,909
as one of 21 intriguing Floridians for
00:34:17,659 --> 00:34:25,799
developing EFA news must be slow the
00:34:23,909 --> 00:34:27,359
Alan Shepard award in our collaboration
00:34:25,800 --> 00:34:29,310
with the astronauts Memorial Foundation
00:34:27,360 --> 00:34:32,610
is making a difference in the education
00:34:29,309 --> 00:34:35,130
of students and teachers today almost
00:34:32,610 --> 00:34:36,570
100 teachers and over 3,000 students
00:34:35,130 --> 00:34:38,670
have been to the museum to perform our
00:34:36,570 --> 00:34:40,620
experiments teachers report that
00:34:38,670 --> 00:34:43,139
students are genuinely engaged in
learning stem concepts students also display a growing interest in stem and in their assessments they demonstrate improved academic achievement after their museum visits but the orders especially encouraged our sponsors we are funded exclusively by grants full-timers we all do this on our own time the Shepard award has been instrumental in attracting sponsors such as the National Defense Education Program the Boeing Company the National Defense Industrial Association Target stores and others to provide us grant
funding in fact one of our contacts with
the National Defense Education Program
is working to get our lessons online so
teachers every work and have access to
them so clearly the Alan Shepard award
has provided us a great deal of
attention and resource support and we
are truly grateful John Rogers the
superintendent of a neighboring School
District once noted all students can fly
some just need a longer runway the AMF
and Shepard award along with our
sponsors for helping us build longer
runways for many students on this day
when we remember the Challenger crew and those who have made the ultimate sacrifice in our nation's exploration of space it is fitting to pause and challenge each other to become more involved in the STEM education of our students in the 80s NASA scientists astronauts and engineers collaborated with educators by inviting a teacher into space today the astronauts Memorial Foundation collaborates with educators by supporting stem initiatives like our engineers for America and together we
remain committed to the STEM education

of our students by this continuing collaboration we believe that the Challenger mission vision and memory live on in each of our students the Alan Shepard award has been and will continue to be instrumental in helping us achieve our engineers for America STEM goals but we need your help too each of us need to do our part to ensure America's continued technological and defence supremacy every teacher knows that there are a few endeavors more rewarding than the education of the next generation of American explorers
so I’m asking each of you to partner with us and to get involved in the STEM education in your community schools we need to start today because the future beckons thank you

thank you

William Gerstenmaier is the associate administrator for space operations at NASA he directs NASA's human exploration of space he has programmatic oversight for the International Space Station Space Shuttle space communications and space launch vehicles he has been a close
friend of the astronauts Memorial

Foundation and has attended every ceremony of any type that we've had for the past decade it's my honor to introduce William Gerstenmaier thank you very much I'm honored to be here to speak with you today again this year this is the most difficult speech that I give this speech becomes much more than words as I reflect on the failings of the human spaceflight team I was present at NASA and involved with the space shuttle and space station at both the Challenger and Columbia disasters today
I remain an active part of the human spaceflight team and the lessons learned from those tragedies are not academic or simple lessons but our lessons are but our lessons that must be implemented and learned every day it's not easy to look back and reflect the crews lost were my friends co-workers and I saw an engineering team that I loved fail after Challenger I dedicated myself to never allowing another tragedy to occur however Columbia occurred I failed and the team failed the seeds of Columbia failure were present with STS 1 and we
missed them we learned that little

785
00:39:00,380 --> 00:39:07,490
things that seem harmless can become

786
00:39:03,820 --> 00:39:10,769
catastrophic events we need to be ever

787
00:39:07,489 --> 00:39:13,769
vigilant and remember that we are human

788
00:39:10,769 --> 00:39:16,349
and as humans we will make errors and we

789
00:39:13,769 --> 00:39:20,460
need to ask for help and check and

790
00:39:16,349 --> 00:39:22,589
double-check our work we cannot let the

791
00:39:20,460 --> 00:39:24,599
fear of failure stop us from doing the

792
00:39:22,590 --> 00:39:27,930
challenging and risky work of discovery

793
00:39:24,599 --> 00:39:29,730
I see the courage of the families I see

794
00:39:27,929 --> 00:39:31,679
the good work that can come from the

795
00:39:29,730 --> 00:39:33,480
tragedies such as the Challenger Center

796
00:39:31,679 --> 00:39:36,449
and their efforts with student education

797
00:39:33,480 --> 00:39:38,190
I also know the wonderful and almost

798
00:39:36,449 --> 00:39:40,829
impossible things that this human
spaceflight team can accomplish the
human spaceflight team has learned
tremendous lessons from these events
there is no better team in the world
than the human spaceflight team and we
are no better than we pull together and
stay focused the ability to come back
stronger from adversity gives me the
strength to work with the teams and
press on with new discoveries and see
things such as the International Space
Station come to life 130 years ago the
world's first purely scientific
expedition set sail from Port Miss
Portsmouth England on a four-year 70,000 mile journey during the course of the voyage the discoveries of the scientists and crew formed the basis of the current knowledge of the oceans that cover three-quarters of our planet including the deepest section of the ocean that was ever discovered and was named for the ship that discovered it these discoveries were not free these discoveries were part of the HMS challenger who returned to port without a large portion of their crew these discoveries were not easy and and we
pressed on twenty-five years ago another

ship named challenger left port faded

not to return with the crew that she sailed this crew our co-workers friends

teachers sons daughters mothers fathers

boarded a ship named honor the legacy of knowledge our most sacred pursuit with

the goal of accomplishing the same their sacrifice was a stark brutal reminder

that our knowledge our technology our science and our dreams are often paid for in the dearest possible way the has been the case throughout human
history and will be the case as long as

00:41:27.239 --> 00:41:31.259
we're willing to push the boundaries of

00:41:28.920 --> 00:41:34.740
our capabilities towards destinations of

00:41:31.260 --> 00:41:37.440
which we can only dream what we do as

00:41:34.739 --> 00:41:42.000
explorers is not easy Michael

00:41:37.440 --> 00:41:46.110
dick Ronald Ellison Christa Gregory and

00:41:42.000 --> 00:41:48.389
Judy knew this and accepted the risk we

00:41:46.110 --> 00:41:50.940
who remain underground and asked them to

00:41:48.389 --> 00:41:53.519
fly failed them that day as we would

00:41:50.940 --> 00:41:56.309
fail the crew of Columbia 17 years later

00:41:53.519 --> 00:41:58.889
and as we failed the crew of Apollo 1 19

00:41:56.309 --> 00:42:01.199
years before the only possible

00:41:58.889 --> 00:42:03.809
compensation that we can offer is our

00:42:01.199 --> 00:42:05.759
renewed devotion to the jobs we have

00:42:03.809 --> 00:42:07.710
been asked to do by the nation to
explore the universe that surrounds us

we seek to answer the most difficult

questions imaginable and formulate new

questions the Hubble telescope is

rewriting astronomy textbooks every day

the farthest seen galaxy was just

reported yesterday

the space station is proving is

providing insight into basic biological

processes that will change the way we

understand biology and affect our health

here on the earth

Apollo Challenger in Columbia were not

the first ships to carry those names and
they will not be the last
every generation stands on the shoulders
of the generation that came before not
on the shoulders of giants but of
ordinary men and women who performed to
the best of their knowledge and
abilities and often failed the legacy of
those we have lost will be in the
dedication to never repeat the mistakes
and learn from those mistakes and learn
to anticipate future problems that are
yet unknown do not only listen to my
words today but stop today reflect on
the events of the past digest analyze
distill the real learning from these
events tuck this learning away in your
heart and use it every day and all that

you're doing do not be afraid of failing

do not foolishly press on but rather

rededicate yourselves to expanding the
frontier of knowledge in a manner that

is fitting of the huge sacrifice made by

those who have

before us thank you

we appreciate the fact that all of you

have taken a time to be with us today to

honor and remember the great men and

women whom we lost on challenger as we
look up at this wall behind me we also

remember the crews of Apollo 1 and

Columbia and the t-38 accidents as well

as all of the other astronauts who made

the ultimate sacrifice for our nation

and our space program we pray for the

successes of all of our future

astronauts who continue to lead us into

this last frontier to conclude today's

ceremony I would like to ask June Scobee

Raja's and Bill Gerstenmaier to place a

wreath at the base of the memorial under

the names of the Challenger crew

thank you all for coming and have a safe

trip home thank you