Remarks by Administrator James B. Busey
Federal Aviation Administration
Miramar NAS - San Diego, CA
October 23, 1991

It is a real pleasure to be here today. For anyone who has ever been in the Navy -- and I spent 37 years in a Navy uniform -- a trip to San Diego is always something of a homecoming.

So let me take this occasion to recognize the presence of our distinguished Navy guests on the dais and thank them for helping to make this event possible. We at FAA very much appreciate their continuing cooperation and support.

One of the things I like most about my job as FAA Administrator is the opportunity to participate in ceremonies like this one that mark the continuing progress of our air traffic control modernization effort. We already have the best and safest air traffic control system in the world and this kind of event clearly demonstrates our determination to stay number one. The American flying public deserves nothing less.

The decision to build this new terminal radar control facility here in southern California recognizes the important -- even unique -- position of this area within the total context of U.S. aviation. Southern California has the busiest airspace on the face of the globe. By itself, it has more aviation activity than many of the world's leading industralized countries.

All told, there are over 15,000 aircraft based at airports stretching from San Diego to Santa Barbara. Together with transient aircraft, they generate more than 6.5 million operations every year. And that number does not include aviation activity at military facilities, like NAS Miramar.

Southern California always has been a Mecca for general aviation, of course. One of the reasons is the weather. It allows pilots to fly under visual flight rules, or VFR, most of the time and make maximum use of their aircraft.

In fact, it's been a rule of thumb around here for a long, long time that anyone thinking about buying an airplane better have a tie-down space lined up first. Otherwise, they're going to need a big garage and a long driveway.

And the situation has been going from bad to worse as more and more people flock to southern California to take advantage of the economic opportunities and enjoy the outdoor lifestyle. The population boom has increased the demand for commercial air travel and aggravated the problems of airport and airspace congestion.

Most of the airports in the region started out serving primarily general aviation aircraft but have evolved over the years into major air carrier hubs. Lindbergh Field here in San Diego is a good example. So are John Wayne/Orange County, Ontario, Long Beach and Burbank, among others.

As a result, many of the general aviation aircraft that previously were based at these facilities have been forced to move to smaller fields farther from the city centers. This has created it's own set of problems. But I'll save that discussion for another speech.

What I want to focus on primarily today is safe and efficient airspace management. In southern California, that situation is complicated by the geographic limitations of the area: the Pacific Ocean to the west and the mountains to the east. What it means is all that flying we've been talking about -- 6.5 million annual operations -- has to be done in a very confined area.

There are eight major radar Approach Control facilities in the southern California area. These facilities initially provided approach and departure guidance to a single primary airport and a limited number of secondary airports.

But these responsibilities have multiplied over the years with soaring traffic counts, the introduction of new higher-performance aircraft, and other changes. Look at the air navigation charts now and you see a solid block of adjoining terminal radar approach control areas stretching from San Diego to Santa Barbara. One result is that these facilities now direct a significant amount of low altitude enroute traffic in addition to approaches and departures.

Having so many air traffic control facilities in such a small geographic area complicates the problems of coordination and contributes to inefficient use of the airspace. Controllers not only have to separate aircraft from one another but also ensure that traffic under the jurisdiction of one facility does not infringe on the boundaries of other facilities.

We already have taken steps to improve this situation through a major restructuring of the Southern California airspace, a project we called STAR. This new expanded terminal radar control facility, or TRACON, is the second part of the effort.

It will combine existing TRACONs at five locations: Los Angeles, El Toro, Burbank, Ontario and San Diego. These five were picked for consolidation based on their traffic volumes and operational interconnectability.

Let me emphasize quickly here that we are not closing the control towers at any of these locations, just remoting the radar approach and departure functions. We'll still have those clear-eyed young men and women up there in the tower cabs controlling local airport operations.

It will take us a bit over four years to complete the transition. When fully operational, this new facility will be home to approximately 500 FAA employees -- air traffic controllers and Airway Facilities technicians.

The Los Angeles TRACON will be the first facility relocated with the commissioning date set for December 1993. El Toro, Burbank, Ontario and San Diego will follow in that order with all on line by September 1995.

The building itself, will have 115,000 square feet of floor space, which is almost as much as the Palmdale air route traffic control center. One feature of which we're particularly proud is the child care center. FAA has been a leader in the Federal government in providing child care facilities because we have seen the results in improved morale and increased productivity. This is another example of our continuing commitment to our employees.

The building also gives us the space we need to grow in order to meet the air transportation demands of the 21st century. One thing we all know for sure is that aviation is going to keep growing and we must be ready to meeting the resulting challenges.

Initially, this facility will operate with state-of-the-art automation equipment. But this is only a transitional phase. FAA currently is developing the Advanced Automation System, which includes not just a complete inventory of new, higher capability equipment but also incorporates new -- even revolutionary -- concepts of air traffic control.

The Southern California TRACON is certainly going to be an integral part of that exciting future. It is, in fact, something of a prototype facility that could serve as a model for other locations. That certainly is in keeping with the trend-setting reputation of southern California.

But the ultimate beneficiary will be the traveling public. What we are beginning here today will ensure that flying in the southern California area continues to be as safe and efficient as it is humanly possible to make it.

Thank you!

REMARKS BY ADMIRAL JAMES B. BUSEY
ADMINISTRATOR
FEDERAL AVIATION ADMINISTRATION
AOPA EXPO '91
NEW ORLEANS, LOUISIANA
OCTOBER 25, 1991

It's a pleasure to be with you this morning.

This is my third year at the AOPA's annual get-together, and it gets better every year.

I'm not going to sing the praises of the FAA today, and I'm not going to give you the usual gloom and doom about the decline of general aviation.

We hear that message too often.

I'm going to follow the advice given in the old World War II song that said we should "eliminate the negative" and "accentuate the positive."

Sure, general aviation has some problems. We all know that. But let's not lose sight of the positives. General aviation isn't going to wither away. Far from it. It may even become a growth industry again.

There really is some good news -- but it's an untold story. We've hidden our light under a bushel -- even from ourselves, I suspect. There are a number of facts that should convince us that we need not be pessimistic about general aviation.

So today I want to tell you why I think the gloom and doom people are wrong. I want to state the case for optimism.

First, I'm optimistic because in the past two years we have built a <u>new</u> <u>partnership</u> between the FAA and general aviation.

This is of tremendous importance. If we can't work together, then we will never solve our problems. But we <u>are</u> working together now, better than ever before. And that's what our new partnership is all about.

Now I know you've heard the word "partnership" before. And I realize that some of you may think it's just public relations stuff. But it's not. We do have a stronger partnership today.

I can tell you from my own experience that the people in the FAA and the people in general aviation are communicating with each other better. They are cooperating with each other better.

We have a more positive atmosphere today. There is less antagonism, more willingness to listen to each other, a greater desire to work together to solve our problems.

Now how did this come about? It was a combination of two things: The FAA's new compliance and enforcement policies and the very positive reaction to those policies by general aviation people all across the country.

As you know, we're now putting the emphasis on counseling, education, and remedial training, rather than on mandatory punishments.

And while we still reserve the option to bring enforcement cases where the remedial training program doesn't apply, in many cases we'd much rather have a pilot in the cockpit flying safely than on the ground where skills get rusty.

Almost 700 pilots have taken remedial training. The vast majority have been enthusiastic. Many have written to tell us they were pleased with the way they were treated and with the training and counseling they received.

I want pilots to comply with the rules on their own volition, voluntarily, and not because they feel threatened by the possibility of harsh punishment. And that's happening. We're getting increased compliance -- which means a safer operating environment for all of us.

We're also giving our people greater flexibility in the way they work with pilots who have violated the rules. It's now possible to settle civil penalty cases without admissions or formal findings of violation.

And for those who have a record or are concerned about the effect of an enforcement case for your future, you'll be happy to know that I just signed off on a far-reaching expunction policy to systematically eliminate hundreds of thousands of enforcement records from our files. It should hit the Federal Register next week.

I'm not unmindful of the potentially devastating effect an enforcement case can have on your career--it can be a real black mark. So, I've directed that we launch an ambitious campaign to rid our files of certificate suspension cases after five years, depending on the violation and provided, of course, that no other violations occur.

It'll take some time to accomplish this, but I'm pleased to announce today that the policy is in place and the process has begun.

So these new policies are working. They have helped instill a spirit of cooperation and partnership. And, as I said, the people in general aviation deserve a lot of the credit.

You helped us develop these new policies in the first place, and you've helped to make them work. You joined the partnership.

And you can see the partnership at work right now, for example, in the FAA's new Rulemaking Advisory Committee. It brings representatives from throughout aviation into our rulemaking processes right from the very start.

The Committee gives us a way to hear your side of the story, before we make a rule. As you may know, Steve Brown, one of your vice presidents, is serving as the chairman of the committee's subcommittee on general aviation.

So this new partnership that we have created together is one reason why I'm optimistic about general aviation.

The second reason for optimism is that we are now beginning to solve problems that have plagued us for years.

Airport noise is one of those problems. As you know, we recently issued the final rule for the scheduled phaseout of noisier, Stage 2, aircraft by the turn of the century. For the first time, we have a national policy to deal with this complex problem in a way that will reduce the noise level for millions of people.

At the same time, we now have a process for airports that want to impose new noise restrictions. They'll need to make sure that there's adequate notice as well as opportunities for all affected users to comment.

They'll need to make sure that any new restriction doesn't interfere with the safe and efficient use of navigable airspace. The restriction can't be unreasonable, discriminatory or pose a burden on interstate commerce.

If it does, we won't hesitate to challenge these restrictions, just as we did in San Francisco--where the court recently found in our favor against a discriminatory access restriction.

We cannot and will not tolerate noise restrictions that threaten safety or unjustly discriminate against general aviation or an aicraft operator.

The new noise rules, of course, are not the whole answer to the problem. But they are major steps that will help address the vexing problem of noise.

There's another problem that may be solved in this decade--the high cost of product liability protection. General aviation, particularly the light-plane manufacturers, have been impacted like many segments of our society by the increased costs of product liability.

Cessna, which once produced more than 9,000 piston-engine planes a year, stopped making them five years ago -- part of reason they give is the product liability costs. And Piper is struggling too -- and product liability plays a part in their hard times.

Just look at the history of product liability claims paid by the industry. Ten years ago the industry paid out $24 million -- now the cost is $210 million -- a 900 percent increase.

Now, if general aviation were unsafe or becoming less safe, I could perhaps understand these developments. But, general aviation has never been safer than it is today. So, I can't help but conclude that the tort liability system as it applies to general aviation is unfair and inequitable.

That's why the civil justice reforms recommended by the President's Council on Competitiveness are so long overdue. That's why I commend the Senate Commerce Committee's action, over the objections of the trial lawyers, to send a reform bill to the floor a few weeks ago.

This bill would severely limit the award of punitive damages against FAA certificated aircraft, and it is a good start.

When we do get some reform in the products liability area, we should see an up-turn in light-plane manufacturing in America -- which is another reason for optimism about general aviation.

A third reason for optimism is the continuous improvement in general aviation safety.

Last year was the safest year for general aviation, with the lowest accident rate and death totals since the NTSB started keeping track. And that great record is continuing this year. There were 21 percent fewer general aviation accidents in the first half of this year compared to the same period in 1990. That's great, but I think we can do even better.

I think we can hit the AOPA Air Safety Foundation's target of lowering the general aviation accident rate from approximately 7 for each 100,000 hours flown today to 4.5 in 1995. We can do it, if we have the total commitment of every pilot in the country. And I think we can get that commitment.

Promoting public confidence in aviation safety is our number one responsibility at the FAA. And we're going to do our level best to help general aviation pilots fly safely.

Let me talk pilot to pilot for a moment. We've all got to get back to the basics of safe flying. We should never forget that complacency and over-confidence are our mortal enemies.

Every pilot, no matter how skilled, needs continuing education. As the Baltimore Orioles manager Earl Weaver once said: "It's what you learn after you know it all that counts."

Now I just said the FAA wants to help -- and we are, in many different ways. But for these efforts to succeed, pilots must be receptive to what we offer. The pilots are the ones ultimately responsible for their own performance.

And the good news is that you are. Last year, more than a half-million people took part in the FAA's Back To Basics safety seminars provided by our accident prevention program.

I'm strongly in favor of this program, because the more we can help pilots improve their flying skills, the less enforcement and compliance we'll have to do. I'd much rather use our resources on education than on enforcement.

On a side note, I would just like to mention Keith Potts, the Assistant Administrator for Aviation Safety, who passed away recently. Keith was involved heavily in the Back to Basics program, and he did a lot of the preliminary work that led to the change in FAA's enforcement policy.

Keith's contributions to general aviation were many, and we at FAA are all pleased to see that he is being recognized posthumously tomorrow night at your Awards Banquet.

Now, before I close, let me briefly mention another topic that you have been hearing about more and more--Global Positioning System, or GPS. As announced, we're going to make the Defense Department's GPS satellite system available to civil aviation on a worldwide basis.

That means many of you will soon be installing GPS receivers in your planes -- and probably your cars, too.

Who knows? Maybe someday we'll even have a combination Loran/GPS system that will replace the current VOR system.

And as you all know, we're working closely with Representatives from AOPA, avionics manufacturers, the Coast Guard and others to solve the problems for Loran-C approaches. The meeting we held earlier this month got the effort off to the right start -- and we'll continue the partnership until we find the solutions.

When I was a boy, pilots used beacon lights to navigate at night. Now, in less than a single lifetime, we're moving to a satellite system that blankets the whole world. It's unbelievable.

What's the lesson? It's simply that change is the only thing we can count on for sure -- especially in aviation. We'd better be ready for it, because it's coming whether we like it or not.

That's not a warning. That's a challenge and further an indication that we have every reason to look forward to the future with hope and enthusiasm.

And, finally, this leads me to the same message I gave last year and the year before. The message is that the FAA is committed to making sure that the nation's airspace and air traffic control system will remain available and open to all -- whether you fly an ultralight or a 747.

We're not going to crowd general aviation out of the sky. Rather, as I have said this morning, we want to strengthen our new partnership with you. We want to join you in not only preserving general aviation but in making it stronger.

I believe we can do that. For all of the reasons I've just mentioned -- and for many more -- I'm optimistic about the future of general aviation. It will surely be here, stronger than it is now, when the new century rolls around.

Those of us who love to fly should, I believe, look to the future with confidence. It may well be brighter than we can imagine.

Thank you very much.

REMARKS FOR JAMES B. BUSEY
ADMINISTRATOR
THE FEDERAL AVIATION ADMINISTRATION
INTERNATIONAL WAKE VORTEX SYMPOSIUM
WASHINGTON, D.C.
OCTOBER 29, 1991

IT'S A PLEASURE TO BE HERE TODAY AND TO WELCOME ALL OF YOU TO THE FIRST INTERNATIONAL MEETING ON THE WAKE VORTEX PROBLEM IN 14 YEARS.

I'M IMPRESSED BY THE FACT THAT SO MANY OF YOU HAVE CHOSEN TO ATTEND THIS SYMPOSIUM. WITH THE HIGH LEVEL OF EXPERTISE WE HAVE IN THIS ROOM TODAY, I'M CONFIDENT THAT THIS MEETING WILL BE A SUCCESS.

THE PAPERS YOU WILL PRESENT AND THE DISCUSSIONS YOU WILL CONDUCT WILL SURELY LEAD TO A GREATER UNDERSTANDING OF THE PROBLEM.

IN ADDITION, THIS CONFERENCE PRESENTS US WITH AN UNPARALLELED OPPORTUNITY TO OPEN NEW LINES OF COMMUNICATION AND TO ESTABLISH NEW PERSONAL AND PROFESSIONAL RELATIONSHIPS THAT CAN SERVE AS THE FOUNDATION FOR FUTURE PROGRESS ON THIS DIFFICULT PROBLEM.

SO IT IS INDEED HEARTENING TO SEE SO MANY PEOPLE FROM AROUND THE WORLD HERE TODAY.

IT HAS BECOME A CLICHE TO SAY THAT AIR TRANSPORTATION HAS CHANGED THE WORLD. BUT IT'S TRUE.

TODAY, IT'S ALMOST IMPOSSIBLE TO IMAGINE A SUCCESSFUL BUSINESS, ANYWHERE IN THE WORLD, THAT DOES NOT DEPEND ON AIR TRANSPORTATION. AND IT IS EQUALLY DIFFICULT TO IMAGINE A HUMAN BEING, ANYWHERE IN THE WORLD, WHO HAS NOT BENEFITED FROM AIR TRANSPORTATION IN ONE WAY OR ANOTHER.

AIR TRANSPORTATION -- FAST, EFFICIENT, SAFE AIR TRANSPORTATION -- IS ESSENTIAL TO MODERN LIFE.

THE WORLD'S AIR TRAFFIC, WHICH HAS INCREASED STEADILY FOR YEARS, WILL CONTINUE TO INCREASE, BRINGING MANY. BENEFITS -- AS WELL AS MAJOR CHALLENGES.

TOO MANY AIRPORTS ARE ALREADY STRAINED TO CAPACITY. WE HAVE TOO MUCH CONGESTION AND DELAY. AND THE CONTINUING INCREASE IN AIR TRAFFIC MEANS THAT THE PRESSURE ON SYSTEM CAPACITY WILL ONLY BECOME MORE SEVERE.

SO WE ARE CHALLENGED TO INCREASE CAPACITY -- AND, AT THE SAME TIME, MAINTAIN A HIGH LEVEL OF SAFETY.

I BELIEVE THAT MOST OF THE ACTIONS WE TAKE TO MEET THESE CHALLENGES MUST BE INTERNATIONAL IN SCOPE. AFTER ALL, AVIATION IS INCREASINGLY AN INTERNATIONAL ACTIVITY. THAT MEANS WE MUST ACT INTERNATIONALLY IF WE ARE TO BUILD THE CAPACITY WE NEED AND INCREASE EFFICIENCY AND SAFETY.

NEW TECHNOLOGY MUST BE APPLIED ON A WORLDWIDE BASIS. AND WE ARE DOING THAT. IN ADDITION, THE LEADING AVIATION NATIONS MUST HARMONIZE THEIR AVIATION RULES, REGULATIONS, SYSTEMS, AND OPERATING PROCEDURES. AND WE ARE DOING THAT, TOO.

MOST IMPORTANTLY, WE MUST WORK TOGETHER TO SOLVE THE REMAINING TECHNICAL PROBLEMS THAT CAN AFFECT EFFICIENCY AND SAFETY. ONE OF THESE, OF COURSE, IS THE PROBLEM OF WAKE VORTICES.

ONE OF THE MOST COMMON PHRASES THAT PILOTS HEAR FROM CONTROLLERS IS "CAUTION, WAKE TURBULENCE." THOSE WORDS INDICATE POTENTIAL DANGER. THEY SAY, IN EFFECT, SLOW DOWN, LOOK OUT, BE CAUTIOUS.

WAKE VORTICES CAN KILL, AS WE KNOW FROM BITTER EXPERIENCE. AND BY FORCING US TO DELAY TAKEOFFS AND TO USE LONGER SEPARATION STANDARDS FOR DEPARTURE AND LANDING OPERATIONS, THEY REDUCE EFFICIENCY AND RESTRICT AIRPORT CAPACITY.

NO DOUBT, AS TRAFFIC VOLUMES INCREASE AND AS AIRCRAFT GET LARGER, THE EFFECTS OF WAKE VORTICES ON EFFICIENCY AND CAPACITY WILL BECOME EVEN GREATER. BUT THAT IS A PRICE WE CAN'T AFFORD TO PAY IN THIS AGE OF INCREASING AIR TRAFFIC THAT IS ALREADY STRAINING SYSTEM CAPCITY.

SO WE ARE CONFRONTED BY A TRULY DIFFICULT CHALLENGE -- ONE OF THE MOST DIFFICULT IN THE HISTORY OF AVIATION.

WE MUST TRY TO FIND ANSWERS TO MANY DIFFICULT QUESTIONS:

* CAN WE SAFELY REDUCE SPACING REQUIREMENTS FOR ARRIVING AND DEPARTING AIRCRAFT?

* HOW CAN WE REDUCE THE SPACING STANDARDS FOR SIMULTANEOUS DEPENDENT AND INDEPENDENT ARRIVALS TO PARALLEL RUNWAYS?

* WHAT MORE CAN WE LEARN ABOUT THE SPECIAL REQUIREMENTS FOR AIRCRAFT THAT ARE OPERATING ON INTERSECTING RUNWAYS?

IT WON'T BE EASY TO ANSWER QUESTIONS SUCH AS THESE. BUT WE MUST TRY. AND THE BEST WAY TO DO THAT WILL BE TO SHARE OUR KNOWLEDGE AND EXPERTISE. THE FEDERAL AVIATION ADMINISTRATION CAN'T DO IT ALONE. WE NEED PEOPLE LIKE ALL OF YOU TO WORK WITH US IN SOLVING THIS PROBLEM.

THE EFFORT MUST INCLUDE EVERYONE WHO CAN MAKE A CONTRIBUTION TO FINDING THE ANSWERS WE NEED -- AND THAT'S WHY I'M SO GLAD THAT ALL OF YOU HAVE RESPONDED TO THE CALL AND ARE WILLING TO COME TOGETHER IN A JOINT EFFORT TO SEE WHAT WE CAN DO TOGETHER.

SO LET ME EXTEND TO ALL OF YOU MY PERSONAL THANKS FOR BEING HERE. WITH THIS KIND OF SUPPORT, WE WILL SURELY MOVE FORWARD.

THANK YOU.

REMARKS BY ADMIRAL JAMES B. BUSEY
ADMINISTRATOR
THE FEDERAL AVIATION ADMINISTRATION
UNIVERSITY AVIATION ASSOCIATION
CONFERENCE
HOUSTON, TEXAS
OCTOBER 30, 1991

THANK YOU. IT'S A PLEASURE TO BE WITH YOU THIS EVENING.

I RECENTLY HAD A CHANCE TO LOOK AT SOME NEWSLETTERS FROM YOUR ASSOCIATION, AND I WAS GREATLY IMPRESSED BY THE WIDE SCOPE OF YOUR ACTIVITIES. I WAS ALSO IMPRESSED BY THE FACT THAT THE ASSOCIATION'S MEMBERSHIP INCLUDES NOT ONLY PEOPLE FROM ACADEMIA BUT ALSO INDIVIDUALS FROM ACROSS THE WORLD OF AVIATION.

YOU'RE WORKING NOT ONLY WITH EDUCATIONAL INSTITUTIONS, BUT ALSO WITH MAJOR CORPORATIONS AND INDUSTRY GROUPS, AS WELL AS GOVERNMENT AT ALL LEVELS.

IN MY VIEW, THEREFORE, YOU ARE DOING IT RIGHT.

ALL OF US WANT AMERICAN AVIATION TO BE THE BEST IN THE WORLD. BUT IT WON'T BE UNLESS IT HAS WELL-EDUCATED, TALENTED PEOPLE IN ITS RANKS. WE NEED TO FIND THEM. WE NEED TO EDUCATE THEM. WE NEED TO HIRE THEM. AND I AM SPEAKING NOT JUST FOR THE FAA, BUT FOR THE ENTIRE SPECTRUM OF AMERICAN AVIATION.

OBVIOUSLY YOUR ASSOCIATION IS PREPARED TO PLAY AN ACTIVE ROLE IN HELPING US GET THE PEOPLE WE NEED TO MAINTAIN OUR WORLD LEADERSHIP IN AVIATION.

THIS EVENING, THEN, I WANT TO TALK ABOUT THREE THINGS: THE IMPORTANCE OF PEOPLE TO AMERICAN AVIATION, THE PROBLEMS WE HAVE IN RECRUITING AND TRAINING THE RIGHT KIND OF PEOPLE, AND HOW WE CAN WORK TOGETHER TO DO THAT.

YOU MAY HAVE SEEN THE AEROSPACE INDUSTRIES ASSOCIATION'S RECENT STUDY WHICH RECOMMENDED A SIX-POINT ACTION PROGRAM TO HELP KEEP U.S. AVIATION ON TOP. THE STUDY PLACED A HIGH PRIORITY ON THE NEED TO EDUCATE, ATTRACT, AND DEVELOP A HIGH-CALIBRE WORK FORCE.

I AGREE WITH THAT RECOMMENDATION. IN MY VIEW, THE QUALITY OF THE PEOPLE IN AVIATION WILL SURELY BE THE MOST IMPORTANT ELEMENT IN MAINTAINING OUR WORLD LEADERSHIP. AND THAT IS WHERE ALL OF YOU COME IN.

I DO NOT THINK IT'S AN OVER-STATEMENT TO SAY THAT THE HEALTH AND VITALITY OF AMERICAN AVIATION ULTIMATELY DEPENDS UPON THE QUALITY OF EDUCATION THAT WE PROVIDE FOR OUR YOUNG PEOPLE.

WE NEED PEOPLE WITH A WIDE RANGE OF SKILLS AND ABILITIES. WE NEED PEOPLE WHO CAN FLY, OF COURSE. BUT WE ALSO NEED THOSE WHO ARE TRAINED IN MATH, SCIENCE, ENGINEERING, AND MANAGEMENT -- PEOPLE WHO CAN DESIGN THE AIRCRAFT AND THE SYSTEMS, PEOPLE WHO CAN OPERATE AND MAINTAIN THEM, AND PEOPLE WHO CAN MANAGE THEM.

THE PROBLEM IS THAT SUCH PEOPLE ARE ALWAYS IN SHORT SUPPLY, MORE SO TODAY THAN EVER BEFORE. AND THEY ARE ALWAYS IN GREAT DEMAND, WHICH MEANS VERY TOUGH COMPETITION FOR THEIR SERVICES.

THOSE OF US WHO LOVE TO FLY HAVE A HARD TIME UNDERSTANDING ANYONE WHO WOULD NOT GIVE AN ARM TO BE IN AVIATION. BUT WE'VE GOT TO FACE THE FACTS. THERE ARE A LOT OF PEOPLE WHO HAVE NEVER CONSIDERED AN AVIATION CAREER, WHO NEED TO BE TOLD ABOUT WHAT WE HAVE TO OFFER.

THAT'S BEST DONE WHEN THEY'RE IN HIGH SCHOOL AND COLLEGE. SO WE'RE DEPENDING ON YOU FOLKS TO HELP US. YOU'RE IN THE FRONT LINES.

I HOPE YOU REALIZE HOW IMPORTANT THIS WORK IS. IN HELPING US TO STRENGTHEN AVIATION, YOU'LL ALSO BE HELPING TO KEEP OUR NATIONAL ECONOMY STRONG AND OUR STANDARD OF LIVING HIGH.

TODAY, AMERICA'S BUSINESSES AND INDUSTRIES DEPEND ON EFFICIENT AIR TRANSPORTATION FOR THE COMPETITIVE COST ADVANTAGE THAT CAN MAKE ALL THE DIFFERENCE BETWEEN SUCCESS OR FAILURE IN TOUGH WORLD MARKETS.

YOUR WORK IN ACADEMIA, THEN, IS TREMENDOUSLY IMPORTANT -- MAYBE MORE IMPORTANT THAN MANY OF YOU REALIZE -- BECAUSE IT BEARS DIRECTLY UPON HOW WELL AMERICA FARES IN THIS HIGHLY COMPETITIVE WORLD OF OURS.

OF COURSE, YOUR TASK IS NOT JUST TO ATTRACT TALENTED YOUNG PEOPLE TO AVIATION. YOU MUST TRAIN THEM. AND THAT, TOO, IS A TREMENDOUS CHALLENGE.

WITH EACH PASSING YEAR, AVIATION TECHNOLOGY BECOMES MORE SOPHISTICATED AND COMPLEX. JUST LOOK AT WHAT'S HAPPENED OVER THE PAST FEW YEARS. COMPUTERS ARE MOVING TO CENTER STAGE. WE'RE ENTERING THE AGE OF AIRCRAFT AUTOMATION, THE AGE OF THE GLASS COCKPIT.

PILOTS ARE STILL CALLED PILOTS, BUT NOW THEY NEED TO KNOW A LOT MORE THAN JUST HOW TO USE THE STICK, RUDDER, AND THROTTLE. THEY'VE GOT TO BE SYSTEM MONITORS, PROGRAMING COMPUTERS, MAKING SURE THAT EVERYTHING GOES AS PLANNED, AND TAKING OVER IN CASE OF EMERGENCY.

TO DO THAT, THEY MUST KNOW A LOT OF ENGINEERING, MATH, AND SCIENCE. BUT THEY WON'T GET THAT AT THE LOCAL AIRPORT. THEY'VE GOT TO GO TO SCHOOL.

THE SAME TECHNICAL REVOLUTION THAT'S HAPPENING IN THE AIR IS ALSO HAPPENING ON THE GROUND -- IN AIRCRAFT AND AVIONICS DESIGN, MAINTENANCE, MANUFACTURING, AND AIR TRAFFIC CONTROL. HERE, TOO, SOPHISTICATED TECHNOLOGY IS THE ORDER OF THE DAY.

AT THE FAA, FOR EXAMPLE, WE'RE WELL ALONG IN MULTI-BILLION DOLLAR PROGRAM TO MODERNIZE THE AIR CONTROL SYSTEM. WE'RE INSTALLING THE LARGEST, REAL-TIME COMPUTER SYSTEM EVER DEVELOPED. WE'RE GETTING EVER HIGHER LEVELS OF AUTOMATION, EVENTUALLY INCLUDING ARTIFICIAL INTELLIGENCE THAT WILL TAKE OVER MUCH OF THE WORK OF CONTROLLERS AND PILOTS.

WE'RE GETTING A NEW GENERATION OF ADVANCED RADARS THAT WILL PROVIDE FAR MORE PRECISE AND ACCURATE INFORMATION ON WEATHER AND AIRCRAFT. AND WE'RE PREPARING FOR SATELLITE-BASED NAVIGATION, SURVEILLANCE, AND COMMUNICATION SYSTEMS.

I COULD TALK THE REST OF THE EVENING ABOUT OUR MOVE TO ADVANCED TECHNOLOGY, BUT YOU GET THE POINT. THE TECHNOLOGICAL REVOLUTION THAT IS CHANGING AVIATION IS ALSO CHANGING THE SKILLS THAT WILL BE NEEDED BY THE PEOPLE IN AVIATION.

WE'VE GOT TO HAVE PEOPLE TO MATCH THE NEW TECHNOLOGY, PEOPLE WHO UNDERSTAND IT, WHO CAN USE IT, AND WHO CAN MAINTAIN IT.

AS I MENTIONED, SUCH PEOPLE ARE IN SHORT SUPPLY. OUR SCHOOLS ARE JUST NOT TURNING OUT ENOUGH OF THEM. STUDY AFTER STUDY SHOW THAT AMERICAN STUDENTS TRAIL THEIR COUNTERPARTS IN MANY OTHER NATIONS.

IN A RECENT SURVEY, 42 PERCENT OF EMPLOYERS REPORT A SKILLS GAP. THEIR EMPLOYEES JUST DON'T HAVE THE BASIC SKILLS THEY SHOULD HAVE.

SO WE'VE GOT TWO PROBLEMS. ONE IS TO MAKE SURE THAT ENOUGH YOUNG PEOPLE CHOOSE AVIATION, AND THE OTHER IS TO MAKE SURE THAT THEY GET THE EDUCATION THEY NEED IN TODAY'S HIGH-TECH WORLD.

UNFORTUNATELY, ONLY ABOUT 450 OF OUR COLLEGES AND UNIVERSITIES OFFER PROGRAMS IN AVIATION. I WISH WE HAD A THOUSAND, TURNING OUT A STEADY SUPPLY OF PEOPLE WITH A SOLID GROUNDING IN MATH, SCIENCE, TECHNOLOGY, AND

OF COURSE, IN ATTRACTING AND EDUCATING PEOPLE FOR AVIATION CAREERS, WE MUST BE AWARE OF THE CHANGING DEMOGRAPHICS OF THE AMERICAN WORKFORCE.

A STUDY BY THE HUDSON INSTITUTE INDICATES THAT 85 PERCENT OF NEW WORKERS AT THE TURN OF THE CENTURY WILL BE WOMEN AND MINORITY MEN. WHITE MALES, ALREADY A MINORITY, WILL BE EVEN MORE SO THEN. BY THE YEAR 2000, HALF THE WORKFORCE WILL BE FEMALE.

THIS MEANS THAT WE MUST OPEN THE DOOR TO OPPORTUNITY FOR THESE PEOPLE. WE MUST SEEK GREATER CULTURAL DIVERSITY IN OUR RANKS. AND WE ARE DOING THAT AT THE FAA RIGHT NOW. IT IS ONE OF OUR HIGHEST PRIORITIES.

BUT WE NEED YOUR HELP. IN YOUR STUDENT RECRUITING PROGRAMS, I HOPE YOU WILL JOIN US IN FOCUSING MORE ON WOMEN AND MINORITY PEOPLE. WE NEED THEM. THE AEROSPACE INDUSTRY NEEDS THEM.

I'M GLAD TO SEE THAT MORE OF OUR MINORITY COLLEGES ARE NOW OFFERING AVIATION EDUCATION. AND I HOPE MANY MORE WILL DO SO IN THE FUTURE.

WE ALSO NEED TO WIDEN THE FOCUS ON THE KIND OF TRAINING THAT SHOULD BE INCLUDED IN THE AVIATION PROGRAM.

LET ME CITE JUST ONE EXAMPLE. WE MUST INCREASE BOTH THE CAPACITY AND THE SAFETY OF OUR AIR TRANSPORT SYSTEM. THESE WILL BE CONTINUING GOALS FAR INTO THE FUTURE. HOWEVER, WHEN AVIATION PEOPLE CONSIDER HOW TO INCREASE CAPACITY AND SAFETY, THEY RARELY INCLUDE AIRPORT LAYOUT AND DESIGN.

YET THE DESIGN OF OUR AIRPORTS -- THE PHYSICAL LAYOUT OF THE RUNWAYS AND TAXIWAYS AND RAMP AREAS -- CAN HAVE A MAJOR EFFECT UPON EFFICIENCY AND SAFETY.

AND, IN ADDITION, THE MANAGEMENT SUPERVISION THAT OVERSEES THE ACTUAL CONSTRUCTION OF NEW AIRPORT FACILITIES CAN HAVE A TREMENDOUS EFFECT UPON THE AMOUNT OF MONEY THAT MUST BE INVESTED -- AND HENCE A MAJOR EFFECT UPON TAX REVENUES THAT MUST BE ALLOCATED TO

GOOD MANAGEMENT OVERSIGHT DURING ENGINEERING AND CONSTRUCTION CAN ASSURE HIGH QUALITY AT THE RIGHT LEVEL OF INVESTMENT.

SO WE NEED TO SEE MORE ATTENTION PAID TO THE TRAINING OF PEOPLE WHO MAY SOMEDAY BE DESIGNING AND ENGINEERING OUR AIRPORTS. AND I HOPE YOU FOLKS WILL BEGIN TO THINK NOT JUST ABOUT WHAT HAPPENS IN THE AIR BUT ALSO WHAT HAPPENS ON THE GROUND AS WELL.

I HOPE MORE SCHOOLS WILL CONSIDER DEVELOPING COURSES ON AIRPORT PLANNING AND DESIGN AND FINDING A WAY TO INTEGRATE THOSE COURSES INTO EXISTING PROGRAMS, POSSIBLY AS SUB-SPECIALTIES IN MORE BROADLY BASED DISCIPLINES.

I SAID EARLIER THAT WE MUST WORK TOGETHER TO RECRUIT AND TRAIN THE PEOPLE WE NEED IN AVIATION. AND I THINK WE'VE MADE A GOOD START.

AS YOU KNOW, THE FAA HAS PUT A LOT OF MONEY AND EFFORT INTO THE AIRWAY SCIENCE PROGRAM. LAST WEEK, WE ANNOUNCED NEW GRANTS TOTALING $8.4 MILLION DOLLARS. WITH THESE NEW GRANTS, WE HAVE NOW INVESTED MORE THAN $61 MILLION DOLLARS IN THIS PROGRAM.

AS YOU KNOW, WE DIDN'T GET THE NUMBER OF AIRWAYS SCIENCE GRADUATES THAT WE HAD EXPECTED, BUT WE LEARNED A LOT.

ONE OF THE THINGS WE LEARNED WAS THAT THE CURRICULUM NEEDS TO BE MORE FLEXIBLE. UNDER THE DEMONSTRATION PROGRAM, WE DIDN'T HAVE THAT FLEXIBILITY.

SO WE'VE TERMINATED THE DEMONSTRATION AND TURNED THE AIRWAY SCIENCE PROJECT INTO AN ONGOING FAA PROGRAM. NOW WE HAVE THE FLEXIBILITY TO FIT THE CURRICULUM MORE PRECISELY TO YOUR NEEDS AND THOSE OF THE FAA AND THE AVIATION WORLD.

OF COURSE, WE'RE DOING MORE THAN JUST THE AIRWAY SCIENCE PROGRAM. AND I AM GLAD TO SAY THAT MANY OF YOUR SCHOOLS ARE LENDING STRONG SUPPORT TO THESE OTHER EFFORTS, SUCH AS OUR AVIATION RESOURCE CENTERS AND OUR AVIATION CAREER EDUCATION ACADEMY PROGRAM.

THANKS TO MANY OF YOU, OUR AVIATION EDUCATION RESOURCE CENTER PROGRAM IS A GREAT SUCCESS. IN FACT, WE JUST DEDICATED THE 50TH CENTER, IN BOSTON, A FEW DAYS AGO. AND I'M SURE THERE'LL BE MORE IN THE FUTURE.

AND I ALSO WANT TO EXPRESS MY GRATITUDE TO THOSE OF YOU WHO SUPPORTED OUR ACE ACADEMIES. I'M CONFIDENT THAT WE WILL BE ABLE TO REACH OUR GOAL OF HAVING ONE IN EVERY STATE NEXT YEAR.

FORTUNATELY, TODAY PUBLIC ATTENTION IS BEGINNING TO FOCUS ON THE NEED TO IMPROVE EDUCATION IN AMERICA. WE ARE BEHIND OTHER NATIONS, AND WE JUST CAN NOT BE SATISFIED WITH THAT.

PRESIDENT BUSH, AS YOU KNOW, IS DETERMINED TO IMPROVE AMERICAN EDUCATION. HIS GOAL IS TO MAKE AMERICA THE WORLD LEADER IN EDUCATION BY THE TURN OF THE CENTURY. NOW SOME PEOPLE MAY FEEL THAT THAT IS TOO AMBITIOUS A GOAL, BUT I DON'T AGREE. I BELIEVE WE CAN REACH THAT GOAL -- AND I WANT THE FAA TO DO EVERYTHING IT CAN TO HELP.

WE ARE CHALLENGED TODAY AS NEVER BEFORE IN HISTORY. AMERICA'S AEROSPACE LEADERSHIP COULD BE LOST. I DON'T BELIEVE WE WILL LET THAT HAPPEN, BUT IT IS A POSSIBILITY -- IF WE ALLOW THE QUALITY OF THE PEOPLE IN AVIATION TO DECLINE.

THERE ARE TWO SIDES TO EVERY EQUATION. IN AVIATION, ONE SIDE OF THE EQUATION IS THE TECHNOLOGY. THE OTHER SIDE IS THE PEOPLE WHO CREATE AND USE THE TECHNOLOGY.

WE CAN INVEST BILLIONS IS THE BEST TECHNOLOGY AVAILABLE. BUT WE WON'T GET A FULL RETURN ON THAT INVESTMENT, IF WE DON'T ALSO HAVE THE BEST PEOPLE AVAILABLE.

YOU EDUCATORS DON'T CREATE THE TECHNOLOGY, BUT IN A SENSE, YOU CREATE THE PEOPLE WHO WILL USE THAT TECHNOLOGY. WE ARE DEPENDING UPON YOU FOR A HIGH QUALITY PRODUCT.

IF WE ARE TO MEET THE AVIATION AND EDUCATIONAL CHALLENGES OF TODAY, THEN WE MUST WORK TOGETHER. WE NEED TO BUILD A TRUE PARTNERSHIP THAT INCLUDES THE FAA, THE ACADEMIC WORLD, AND THE AEROSPACE INDUSTRY.

I KNOW THAT WE CAN DO WHATEVER IS NECESSARY TO KEEP AMERICA THE WORLD'S LEADING AVIATION NATION. WE HAVE ALL OF THE RESOURCES TO DO THE JOB. NOW WE MUST ALSO DEMONSTRATE THAT WE ALSO HAVE THE VISION AND THE WILL TO SUCCEED.

THANK YOU.