REMARKS BY ADMIRAL JAMES B. BUSEY ADMINISTRATOR UNITED STATES FEDERAL AVIATION ADMINISTRATION ICAO AIR NAVIGATION CONFERENCE MONTREAL, CANADA SEPTEMBER 5, 1991

Good Afternoon, Mr. President, Mr. Secretary-General, Members of the Secretariat, Fellow Delegates, Observers and Distinguished Guests:

It is a privilege to represent the United States at ICAO's tenth Air Navigation Conference.

As you know, it's been 15 years since our last air navigation conference. There have been many changes during those years, two of which demand our attention today.

First, aviation technology has become more complex, sophisticated -- and useful. And secondly, there has been an enormous increase in air traffic throughout the world.

The continuing increase in air traffic is straining system capacity to the limits in many places. Congestion and delays are increasing, efficiency is declining, and costs are going up. Most importantly, the current high level of aviation safety is threatened.

We must act to meet these challenges.

We must recognize, today, the urgent need to move forward, together, to build a system that will give us greater capacity, increased efficiency, and higher safety.

I think we all realize that the system of the future must be global.

Fortunately, now, for the first time in history, we have the technology to create a global air transport system.

But we will need a truly <u>international</u> effort to build that system. And <u>that</u> is what this conference is all about. Here we have the opportunity to agree on the cooperative steps we must take to solve our common problems and reach our common goals in aviation.

In developing the concept for the future system, the Future Aviation Navigation Systems (FANS) committee started with a clean sheet. It considered the shortcomings of the present system and every practical way to improve it.

Ultimately, the committee concluded that satellite technology offers the best way to achieve worldwide improvements in communications, navigation, and surveillance.

We are living in the age of satellites, and we are already reaping enormous benefits -- in science, in weather forecasting, in agriculture, and in many other areas.

Now it is time to apply this new technology to civil aviation -- so that nations and peoples in every part of the world can realize the <u>full</u> benefits of modern air transportation.

There can be no question that a global satellite system will usher in a new aviation age -- in communications, in surveillance (tracking), and in navigation.

For communications and surveillance, satellites will provide links to aircraft anywhere in the airspace. For navigation, satellites will give us one basic system that can safely handle all facets of flight -- en route, terminal area, and on the ground -- anywhere in the world.

The global navigation satellite system will give us more accurate navigation in high density regions as well as over the oceanic routes that are not covered by radar. And this will give us the ability to make substantial increases in traffic capacity.

And, with some associated ground equipment, satellites can provide near Category I (precision) approach and landing capability. This could make every runway in the world an instrument runway and open the way for increased air service in many regions.

The U.S., of course, strongly agrees with the FANS committee, and we intend to do everything we can to help fulfill its vision.

That is why I am announcing today that the United States government is offering its global satellite navigation system to civil aviation around the world for a minimum of ten years, starting in 1993.

We believe that the U.S. GPS system can help provide a basis for the transition to the new world air system we need so much.

Coverage will be worldwide. And there will be no charge of any kind affixed by the U. S. Government to the users of this service during the initial ten-year period.

In addition, the world's developing nations will no longer be faced with the need to make substantial investments in the ground-based navigation equipment that is required by today's technology. That will be a terrific boon for these nations. They could save millions of dollars.

Surely, the whole world will reap enormous benefits from satellite technology. When fully in place, the future system envisioned by the FANS Committee will mean not only increased capacity, but higher safety and efficiency everywhere in the world.

Satellites occupy a central place in the U.S. view of the future. We're investing more than \$10 billion dollars in our Global Positioning System, and we plan to have it fully operational in 1993.

GPS will be a constellation of 21 satellites, plus three spares, 20,200 kilometers high, orbiting the earth every 12 hours. They will be spaced so that four will always be in view, 24 hours a day, everywhere in the world.

And it can be used in conjunction with other navigation systems, including the INS, Loran-C, MLS, and the Soviet Union's GLONASS satellite system.

In making GPS services available to civil aviation around the world, we will offer what we call a standard positioning service with an accuracy of 100 meters.

Now I want you to know that we recognize the obvious sensitivity involved in beginning the global navigation satellite system with the U.S. GPS.

We realize that there will be some concern about becoming dependent on the U.S. system. Some people may worry that we might suddenly withdraw or start charging high fees or take some other undesirable action.

Well, let me speak frankly. That is clearly not what we're planning. If we had anything like that in mind, I wouldn't be here today making this announcement.

Moreover, you may be interested in taking a look at one of the technical demonstrations we have brought to the conference. It shows how you can use off-the-shelf equipment to monitor the accuracy of the GPS signals, thus providing an independent assurance that the signals are usable.

And, of course, our satellites aren't up there alone. The Soviet Union is putting its navigation satellites into orbit too. And there may be other nations planning to do the same thing. We would welcome that.

In fact, we're working closely with the Soviet Union to develop civil avionics specifications and minimum operational standards -- and to develop an integrated receiver that can use signals from both systems. In addition, we're running cooperative satellite navigation flight tests, using both systems, over the North Pacific airspace right now.

If you're interested in how these two systems can work together, you'll want to take a look at our conference exhibit that demonstrates that technology.

The purpose of this conference is to endorse the FANS concept for worldwide implementation. The global community needs that endorsement so we need to begin the process.

We now have the opportunity, at this Conference, to choose a <u>practical</u> starting point for creating a global navigation satellite system. And we are offering our GPS system in the hope that it can serve as a practical starting point. It should be clear to everyone that other systems will certainly replace GPS in the future.

We view our offer of GPS as just the first step -- a first step that will provide the opportunity for all of us to work together to decide how we can cooperatively create the global navigation satellite system that will be so important to the future of aviation. Let me stress this point. The satellite systems that are being offered are essentially available platforms which the international community can use as starting points. But it is the international community which must decide in the coming years how to construct and operate a global system based on satellite technology. I pledge the full cooperation of the United States Government to that effort.

As I see it, we must now get started on the transition to the advanced, global system envisioned by the FANS committee. GPS will help us do that. It will give us the means to gather the operational data we need to test and refine the new technology.

While we're doing that, we must also prepare the agreements and mechanisms that will be needed to continue a satellite system after this initial commitment.

At some point down the road, the international community will have to deal with the question of replacement costs. We must recognize that the day when each nation could develop aviation systems and technology on its own is gone forever.

Now we have no choice but to create the institutional arrangements and economic structures that will be essential for maintaining the new global air control system on a continuing basis.

We have no illusions about the difficulty of coming up with a global approach to this question. It will require an unprecedented level of international cooperation, at all levels, in our governments and in the aviation world itself.

Our goal is to help build an <u>international</u> system that will work well for everyone.

While we are addressing the institutional issues, we hope the world will join us in using the GPS system -- along with other systems other nations may offer -- for experimentation and development during this 10-year commitment.

I want to emphasize, however, that we fully support the eventual replacement of our system by other systems -- and we are certain that will happen.

Let's take this time to come up with a global system that makes sense -- and that works well.

There's a great deal of research and development that still must be done. We need to gain experience in using satellites for navigation. And we need the time to profit from that experience.

So this will be a testing period that will show us how well the U.S. and other systems work and that will give us the time to make them work even better.

And that is our main task in this decade.

The aviation world is challenged today as never before in history. The time has come to build a truly international air transport system. And we must do it in this decade.

The blueprint for the future aviation system has been developed by the world. The technology and expertise are available.

Now the entire international community must demonstrate the desire and the determination to get the job done. We need to make a common commitment to work together, in a spirit of creative cooperation, to achieve our common goals.

Nothing less will do. It's time to get started.

REMARKS BY ADMIRAL JAMES B. BUSEY ADMINISTRATOR UNITED STATES FEDERAL AVIATION ADMINISTRATION ICAO AIR NAVIGATION CONFERENCE MONTREAL, CANADA SEPTEMBER 5, 1991

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The continuing increase in air traffic is straining system capacity to the limits in many places. Congestion and delays are increasing, efficiency is declining, and costs are going up. Most importantly, the current high level of aviation safety is threatened.

We must act to meet these challenges.

We must recognize, <u>today</u>, the urgent need to move forward, <u>together</u>, to build a system that will give us greater capacity, increased efficiency, and higher safety.

I think we all realize that the system of the future must be global.

Fortunately, now, for the first time in history, we have the technology to create a global air transport system.

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Ultimately, the committee concluded that satellite technology offers the best way to achieve worldwide improvements in communications, navigation, and surveillance.

We are living in the age of satellites, and we are already reaping enormous benefits -- in science, in weather forecasting, in agriculture, and in many other areas.

Now it is time to apply this new technology to civil aviation -- so that nations and peoples in every part of the world can realize the <u>full</u> benefits of modern air transportation.

There can be no question that a global satellite system will usher in a new aviation age -- in communications, in surveillance, and in navigation.

For communications and surveillance, satellites will provide links to aircraft anywhere in the airspace. For navigation, satellites will give us one basic system that can handle all facets of flight -- en route, terminal area, and on the ground -- anywhere in the world.

The global navigation satellite system will give us more accurate navigation in high density regions as well as over the oceanic routes that are not covered by radar. And this will give us the ability to make substantial increases in traffic capacity.

And, with some associated ground equipment, satellites can provide near Category I approach and landing capability. This could make every runway in the world an instrument runway and open the way for increased air service in many regions.

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That is why I am announcing today that the United States government is offering its global satellite navigation system to civil aviation around the world for a minimum of ten years, starting in 1993.

We believe that the U.S. GPS system can help provide a basis for the transition to the new world air system we need so much.

Coverage will be worldwide. And there will be no charge to the users of this service during the initial ten-year period.

In addition, the world's developing nations will no longer be faced with the need to make substantial investments in the ground-based navigation equipment that is required by today's technology. That will be a terrific boon for these

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GPS will be a constellation of 21 satellites, plus three spares, 20,200 kilometers high, orbiting the earth every 12 hours. They will be spaced so that four will always be in view, 24 hours a day, everywhere in the world.

And it can be used in conjunction with other navigation systems, including the INS, Loran-C, MLS, and the Soviet Union's GLONASS satellite system.

In making GPS services available to civil aviation around the world, we will offer what we call a standard positioning service with an accuracy of 100 meters.

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In this connection, you may be interested in taking a look at one of the technical demonstrations we have brought to the conference. It shows how you can use off-the-shelf equipment to monitor the accuracy of the GPS signals, thus providing an independent assurance that the signals are usable.

And, of course, our satellites aren't up there alone. The Soviet Union is putting its navigation satellites into orbit too. And there may be other nations planning to do the same thing. We would welcome that.

In fact, we're working closely with the Soviet Union to develop civil avionics specifications and minimum operational standards -- and to develop an integrated receiver that can use signals from both systems. In addition, we're running cooperative satellite navigation flight tests, using both systems, over the North Pacific airspace right now.

If you're interested in how these two systems can work together, you'll want to take a look at our conference exhibit that demonstrates that technology.

The purpose of this conference is to endorse the FANS concept for worldwide implementation. We need that endorsement, of course. But we need more than that. We need a decision to begin its implementation.

We now have the opportunity, at this Conference, to choose a <u>practical</u> starting point for creating a global navigation satellite system. And we are offering our GPS system in the hope that it can serve as a practical starting point. It should be clear to everyone that other systems will certainly replace GPS in the future.

We view our offer of GPS as just the first step -- a first step that will provide the opportunity for all of us to work together to decide how we can cooperatively create the global navigation satellite system that will be so important to the future of aviation.

As I see it, we must now get started on the transition to the advanced, global system envisioned by the FANS committee. GPS will help us do that. It will give us the means to gather the operational data we need to test and refine the new technology.

While we're doing that, we must also prepare the agreements and mechanisms that will be needed to continue the satellite system after this initial commitment.

At some point down the road, the international community will have to deal with the question of replacement costs. We must recognize that the day when each nation could develop aviation systems and technology on its own is gone forever.

Now we have no choice but to create the institutional arrangements and economic structures that will be essential for maintaining the new global air control system on a continuing basis.

Of course, we have no illusions about the difficulty of coming up with a global approach to this question. It will require an unprecedented level of international cooperation, at all levels, in our governments and in the aviation world itself.

I realize that we're not going to deal with these questions during this conference. But we must understand that they cannot be avoided, and that we have an opportunity during this transition period to work out the answers.

I am sure we can do it cooperatively, to everyone's benefit. The United States is open to any reasonable approach. We want the highest possible comfort level for everyone. And we are more than willing to work with the world and with ICAO.

Our goal is to help build an <u>international</u> system that will work well for <u>everyone</u>.

While we're hammering out the institutional issues, we hope the world will join us in using the GPS system -- along with other systems other nations may offer -- for experimentation and development during this 10-year commitment.

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There's a great deal of research and development that still must be done. We need to gain experience in usingleatellites for navigation. And we need the time to profit from that experience.

So this will be a testing period that will show us how well the U.S. and other systems work and that will give us the time to make them work even better.

And that is our main task in this decade.

The aviation world is challenged today as never before in history. The time has come to build a truly international air transport system. And we must do it in this decade.

We know how to build that system. We know what must be done. And we have the technology to do it.

Now we must demonstrate the desire and the determination to get the job done. We need to make a common commitment to work together, in a spirit of creative cooperation, to achieve our common goals.

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We view our offer of GPS as just the first step -- a first step that will provide the opportunity for all of us to work together to decide how we can cooperatively create the global navigation satellite system that will be so important to the future of aviation.

As I see it, we must now get started on the transition to the advanced, global system envisioned by the FANS committee. GPS will help us do that. It will give us the means to gather the operational data we need to test and refine the new technology.

While we're doing that, we must also prepare the agreements and mechanisms that will be needed to continue the satellite system after this initial commitment.

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While we're hammering out the institutional issues, we hope the world will join us in using the GPS system -- along with other systems other nations may offer -- for experimentation and development during this 10-year commitment.

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So this will be a testing period that will show us how well the U.S. and other systems work and that will give us the time to make them work even better.

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We know $\underline{\text{how}}$ to build that system. We know $\underline{\text{what}}$ must be done. And we have the technology to do it.

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ADMINISTRATOR
FEDERAL AVIATION ADMINISTRATION
U.S. AND USSR DELEGATIONS
ICAO AIR NAVIGATION CONFERENCE
MONTREAL, CANADA
SEPTEMBER 6, 1991

I am glad to have this opportunity to be with you this morning.

This conference may turn out to be one of the most important international aviation meetings in history. We have the opportunity here to take a major step toward a new, global air transport system that will bring untold benefits to virtually every nation on earth.

I'm optimistic that we <u>will</u> take that step. And one of the reasons for my optimism is the long record of close cooperation between the Soviet Union and the United States. Our cooperation has paid enormous dividends for both of our countries -- and for the world. This very ICAO meeting is, in fact, one of those dividends.

In many important areas, the cooperation of our two countries has made the difference between success and failure. Without your support, for example, we would have had great difficulty in getting an agreement on the international standards for Mode S.

And without your support for MLS, we might still be struggling to get an agreement with the other leading aviation nations. Your support at the ICAO conference in 1979 provided the margin we needed to get the U.S. technology accepted by ICAO.

Another important agreement will open shorter and more efficient North American/Far East air routes through Soviet Far East airspace. Here again, I think we have an opportunity to cooperate in such a way that everyone can win.

Under our joint Transportation Agreement, I am glad to say, the close and productive cooperation between our two nations continues in many areas, including collision avoidance technology, MLS, and automatic dependent surveillance.

We are also now starting to work together in the ongoing effort to harmonize the world's aviation standards -- specifically, the three major aviation codes: The European Joint Airworthiness Regulations, the Federal Aviation Regulations, and the Civil Airworthiness Regulations of the Soviet Union.

We have benefited from the outstanding, long-term cooperation that you have given us. And we deeply appreciate the personal and professional relationships that we have established with all of you and your people.

Now we are confronted by a new challenge. I believe we must work together to help implement the FANS concept of the future air traffic control system. That concept, as you know, specifies a major role for satellites throughout the aviation spectrum.

The United States is firmly committed to the FANS concept. We believe it represents the best way to create an efficient, safe system for the whole world.

The Soviet Union and the United States are, of course, the leading nations in satellite technology and deployment. In my view, our GPS system and your GLONASS system represent the best possible first step toward making the FANS concept a reality.

These two satellite systems give us the opportunity to offer the world a global satellite navigation capability as early as 1995. Even though these two systems will operate independently, there is a very good possibility that we may be able to develop the standards and the technology that will allow users to benefit from both the systems.

As you know, we have already agreed to work on developing a minimum operational standard for a single receiver that can use signals from both systems. If we can do that, we may even be able to do integrity monitoring right in the receiver rather than having to do it at a ground station.

And I am very pleased with the cooperative Soviet/U.S. industry efforts on this new technology -- including, most importantly, the Northwest Airlines' operational test of GPS and GLONASS receivers on a route through Soviet Far East airspace.

I believe that our two nations must take the lead in getting the FANS concept implemented as rapidly as possible. The Soviet Union and the United States have cooperated beneficially in aviation for many years. Now it's time to build on that record, to strengthen our cooperation, and to do all in our power to help create the truly global aviation system that the world needs.

We in the FAA look forward to working with all of you in this great endeavor.

Thank you.

REMARKS BY ADMIRAL JAMES B. BUSEY ADMINISTRATOR FEDERAL AVIATION ADMINISTRATION BEFORE THE AIRPORT CONSULTANTS COUNCIL ARLINGTON, VIRGINIA SEPTEMBER 11, 1991

It's hard to believe that it's been a whole year since I met with you folks. A lot has happened, and not just in the Soviet Union. For one thing, we fought and won a war in the Persian Gulf -- and in the process we proved the superiority of American military technology, especially aviation technology.

A good example of that is the Defense Department's satellite Global Positioning System, which more than proved its worth, in the air <u>and</u> on the ground. You may have seen stories about our troops using hand-held GPS receivers to give them accurate position information in that trackless desert.

I mention that because I thought you'd be interested in knowing that we'll soon be using that new technology to improve civil aviation all around the world.

I was in Montreal last week, attending an ICAO conference, where I announced that the United States will make the GPS satellite system available to civil aviation on a global basis, free of charge, for a period of ten years, starting in 1993.

We think this will mark the beginning of a revolution in air transportation. We're going to use this new technology to give us vastly increased capacity, along with greater efficiency, and a higher level of safety.

I could talk about this new global air navigation system all day. But I've mentioned it only because it's an example of the way we should be approaching all of our major problems in aviation.

It took creativity and imagination to visualize a global navigation satellite system. And I think we need to use that same high level of creativity and imagination to help us develop new ways to solve old problems.

We need to stretch our minds, search for new answers. That doesn't mean that we should get rid of the old answers. It just means that we should think and rethink everything, to make sure that we haven't overlooked any good possibilities.

Let me give you an example of where I think we could do a little more creative thinking.

We all know that America's infrastructure has been seriously neglected. Roads and bridges all over the country are in bad shape. And we haven't dedicated a major new airport since 1974. That's 17 years.

Yet during every one of those years, the number of air passengers and the volume of air traffic has increased steadily. And you know the result.

Our airways and our airports are overcrowded. We have chronic delay and congestion. Six of our major airports have more than 50,000 hours of delay a year. Fifteen others have more than 20,000 hours.

Congestion costs money. It wastes fuel. It wastes time. It consumes resources that should be used productively. And, it's going to get worse -- unless we move fast. We don't have the luxury of time. Traffic volumes are growing too rapidly.

Now the standard answer is that we need more concrete on the ground. No one will dispute that, I'm sure. But as you folks know as well as I do, it isn't as easy as it sounds.

More concrete? Sure. But how are we going to get it? Concrete costs money. And money is in very tight supply, on all levels, national, state, and local.

To compound the problem, in many communities -- even if the money is available -- there is strong, active opposition, not just to <u>new</u> airports but to <u>any</u> kind of airport improvement. In some places, there've been real battles over just getting a new taxiway built, believe it or not.

So we've got two tough problems -- the supply of money for airports and the local opposition to airport improvements.

These problems are not new. They've been around for, years. But now, at last, we've got a couple of new solutions, which were created by the reauthorization bill that I mentioned to you last year. That bill was passed and signed last fall.

Of course, we didn't get everything we wanted. But we got a lot. As Secretary Skinner said, this landmark legislation is "the most significant aviation legislation since airline deregulation."

I certainly agree. The legislation maintained the airport grant levels at just under \$2 billion dollars a year. But it also went well beyond that, authorizing the first new airport funding mechanism in many years — the passenger facility charge that will increase dramatically the ability of airport authorities to finance improvement projects.

On a national basis, PFCs could bring in up to a billion dollars a year in new financing for airports. That could buy a lot of additional airport capacity.

As you know, we published the new PFC rule in May. The funds must be used only for specified purposes, such as increasing capacity, or reducing noise, or expanding passenger facilities.

But the reauthorization bill didn't stop there. It also mandated the development of a national aircraft noise policy. That is tremendously important in my view, because a national policy is the only effective way we can deal successfully with this chronic problem.

As you all know, noise has been a major factor in limiting airport construction and expansion. More than 400 airports in our country have some form of operational restriction because of aircraft noise.

Sure, we've reduced aircraft noise significantly in recent years. We've got quieter aircraft. We're rerouting traffic away from built-up areas. And millions of people have benefited.

Millions more will benefit from the new national noise policy. It will provide relief for two-thirds of the most affected Americans by the end of the decade. As Secretary Skinner noted, that will put our nation ahead of all other nations in addressing aircraft noise -- and it will give us a much more fuel-efficient U.S. fleet.

We expect to be able to publish the final rule in a matter of days. It's taken longer than we expected. For many people, it's an emotional issue. And, of course, it's also a tough economic problem, because it means aircraft operators may have to invest money in hushkits or new aircraft.

Once we get the noise rule and the forthcoming new entrant slot notice of proposed rulemaking in place, then airports can move ahead with PFCs -- providing, of course, that they agree to comply with the new noise policy. Congress tied the two together.

Now I'd like to say a few words about the increasing interest we're beginning to see in building new airports. The legislature in North Carolina, for example, is making 6 million dollars available, and they're putting about \$24 million dollars more in a trust fund that can be used for loans.

We clearly need to improve our airports and build new ones. In fact, we probably could use another 6-8 additional major civil airfields. And now there's a lot of discussion that could lead to increased activity in this direction.

I'm in favor of that, of course. But I also think we should be careful not to fall into the trap of trying to duplicate Denver all over the country. Not every city needs an airport that big.

It seems that when people talk about the problem of congestion and delay, they always seem to end up by saying that most of the problem can be solved by building more runways and airports.

We keep coming back to that same solution. But maybe this is one of those problems where we ought to step back, once again, and take a fresh look. Maybe this is one of the areas where we ought to be absolutely certain that we are considering all of the possibilities. Maybe its time to widen the focus.

We ought to recognize that more concrete on the ground may not always be the <u>only</u> answer -- or the <u>right</u> answer.

We should keep in mind that although a new airport is an economic engine, it can also be a very expensive entity. So we should approach it carefully and not ensure that new airport development will be well-utilized.

In addition to badly needed development, I think it's time to look more thoroughly into some of the other ways we can create greater airport and associated airspace capacity.

Let's start by taking a really hard look at the airports we have and making sure we're really doing everything we can do to improve their capacity and increase their efficiency.

We're doing that now, of course, with new technology, better radar, and automated flow control systems. But I'm sure there are other things we could be doing too.

For one thing, we are looking more closely at the possibility of joint civil/military use of military bases —both for bases that are being closed and those that are not being used to full capacity by the military.

The people at Scott Air Force Base, in Illinois, for example, are already working closely with the FAA and State and local government to develop joint use that would help reduce congestion in St. Louis. There's a bunch of other bases out there where we might be able to do the same thing — big bases, with lots of runway capacity. Under the approved 1988 Base Closure Commission, six major military airfields are in the process of closing and the 1991 Base Closure Commission has recommended another 18 for closing.

And let's also start to think seriously about the bases that Defense plans to close. Let's take a look at the closure list and see what can be done for civil aviation. We might get a lot of new capacity for very little investment.

After all, we've already made huge investments in these bases -- in real estate, runways, utilities, and buildings. In many cases, the only thing that's lacking for a civil operation is a terminal and public transportation.

Putting in a terminal and some transportation would cost a lot less than starting from scratch and laying down a couple of 12,000-foot runways and associated instrument landing systems, but we must make sure they will be used by the airlines.

As you may know, recent legislation set up a military airport program which provides a 1.5 percent set-aside in airport improvement funds during fiscal '91 and '92. The money is earmarked for conversion of eight current or former military airports to civil use.

Now that's a good beginning, but we need to do a lot more to ensure that we get the biggest possible payoff for civil aviation from our existing excess military capacity.

We must also not forget that a key foundation of airport development is sound land use planning to protect airport neighbors. We must step up our close relationships with local governments to achieve this.

In addition, there are some other very important issues we should be considering.

When we \underline{do} improve or build airports, how can we make them safer?

Aviation is getting safer all the time. Last year was the safest year in history for general aviation and for our regional airlines and commuters. And it was the second safest for our major airlines.

But, as good as the record is, we still have work to do. One of our major goals must be to reduce the number of runway incursions.

Runway incursions are a continuing safety problem. We've had a couple of fatal accidents in recent months, and we continue to have an increasing trend of runway incursion incidents.

Many of those events happen because people get lost on the airport and blunder onto runways. Some airports are very confusing. Unless you are careful, it's hard to tell where you are and where you need to go. The concrete goes every which way. Runways and taxiway configurations are complex. And signs are misleading or hard to understand.

So a major answer to the incursion problem is to simplify airport design and layout and improve the markings and signs. Of course, those are not the only answers. Airport surface traffic management technology can help at our larger more congested airports. Better training and advanced technology will also help too.

But we need to pay a lot more attention to making things simpler and easier to understand on the airport surface -- so that an ordinary human being can understand where he or she is and how to get where he or she wants to go.

It's just that simple.

This problem really starts at the beginning, when an airport or an improvement is being planned. And that's where you folks come into the picture.

As consultants and airport designers, I would urge you to pay more attention to the effect your designs and layouts can have on the human beings who must get aircraft and vehicles around the airport.

Our airport design as well as human factors are also important consideration. Make the runways and taxiways easy to understand and follow. Make signs that can be understood quickly by everyone.

Those are really just common sense things. But they can get lost in the shuffle if someone doesn't ask the right questions at the right time during the early design stage.

The FAA of course has a responsibility in this area. We've developed a national plan to deal with the problem. We've set up a national runway incursion team. The plan includes a commitment of \$30 million dollars in airport improvement grants for four airport demonstration projects involving better marking, lighting, and signs.

But we can't do the whole job. We need the active help of the whole aviation community -- especially professionals like you, who are directly involved in airport planning and construction.

We also need your help as consulting engineers involved in the hands-on oversight of the contractors that come in to lay out runways and taxiways. You can help assure the quality of the product -- the quality of the concrete or the asphalt mix.

Let's make sure the taxpayers get their money's worth, which means let's make sure the runways, taxiways, and ramps don't wear out too soon.

An airports have to with stand a tough environment -freezing and thawing, heavy weights, and so on. If the
contractor cuts corners -- uses inferior materials or hurries
the job -- then we've all got problems.

When an airport has to be partially closed for repair, then operations are affected, capacity is reduced, congestion and delay are increased, and costs go up.

So I would urge you folks to do everything you can to make sure we get what we pay for when we spend airport development dollars.

Finally, I guess my message today comes down to this:

We have an airport capacity problem that's been growing for many years. We have some good, obvious solutions to that problem, including building more runways and more airports. But let's make sure we invest our airport dollars wisely. Let's make sure that we build only what is really needed. Let's make sure that we consider every possible way to increase capacity. And let's make sure that we invest our funds wisely and well.

Thank you very much.

Remarks by

Barry L. Harris FAA Deputy Administrator

National Black Coalition of FAA Employees Annual Training Conference

St. Louis, Missouri Thursday, September 18, 1991

Thank you. I appreciate your introduction and I appreciate the opportunity to be here this morning and to address the Black Coalition at your 15th Annual Conference.

Your theme this year is "Controlling our Destiny

Through Empowerment." That's impressive. It has a grand

and noble ring to it, a transcendent almost seminal quality.

But what does it mean? Conceptionally, what is empowerment? Is it authority? Responsibility? Maybe a combination; after all, one without the other is pretty useless, or worse. Think about it: authority without responsibility. Isn't that called totalitarianism? Responsibility. Without authority, it's meaningless.

And there's another powerful word in your theme:

Destiny. Destiny! An interesting word. The New Webster

Encyclopedic Dictionary of the English Language defines

destiny this way: "A person's destined fate or lot;

ultimate fate; doom; fortune; invincible necessity; fate;

order of things fixed or established by divine decree, or

by connection of cause and effects."

Well, it doesn't sound much like a concept you and I have much control over. It sounds to me that, by definition, to seek our destiny is to place ourselves in the hands of fate, to be the victims of someone else or something else.

I know that's not what you mean. I know you're not going to willingly place your future in someone else's hands. You've already come too far. You want to seize the moment; take the initiative. We're not talking about destiny, we're talking about achievement! We're talking about success. You're talking about succeeding. You're talking about the dream!

Now then, let's get back to empowerment. Where does it come from? How do you get it? Does the boss give it to you? You've seen people, I'm sure, in the work place who've been empowered. Do they all succeed? Some do, some don't.

What's the difference? What makes the difference? The difference is the real source of empowerment.

The real source of empowerment is you. It comes from you.

It's not getting in the game that counts; it's what you do on the field, and that comes from within. It's the winning run in the bottom of the 9th; it's the 3 pointer from 40 feet with 2 seconds on the clock; it's the 80 yard run with less than a minute to go in the fourth quarter. It's reaching down deep inside and finding that something extra.

We're talking about what it takes to succeed, and you succeed at the FAA like you succeed any place else.

A few weeks ago, I shared a few thoughts on the subject of empowerment, and achievement, and success with members of the Hispanic Coalition at their annual Conference in Baltimore. I'd like to share some of these same thoughts with you.

And I guess the first thing I'd like to tell you is that if I've learned anything in the last 30 years it's that it's not where you get in life so much as it's how you get there.

When he retired after a long and distinguished tenure as president of Harvard University, James Lowell commented that what was really meaningful to him was not, in his words, "not what we accomplished, but what we shared."

The point Dr. Lowell was alluding to, is I believe, central to any discussion of success. That is, the process may indeed be more important than the product.

Now this is not to say that I don't think goals and objectives are important. They are. But they are no more than milestones. Let me give you an example that some of you will recognize and some of you may be in the process of recognizing. That example is raising children.

I think every parent aspires to be a successful parent. But, how and when do you measure that success?

Is the job done when your child enters kindergarten, graduates from high school, becomes a doctor, has a first child? The point is, the task is never done. The important thing is the sharing, the relationship, the process. The rites of passage are just that: moments in the journey of mutual growth and satisfaction and even joy. They give us pause to reflect, but they do not signal an end to anything. They are not the achievement, they simply punctuate it.

And how do these principles translate into success or achievement in the work place? Well, again it's a question of relationships. The relationship between you and your boss, or you and your subordinates, or you and your colleagues. Do you feel good about what you're doing? Do you look forward to coming in each morning? Do you feel like you're making a contribution? Are you giving more than you get? If the only satisfaction you get from your job is your paycheck, I've got some news for you. You're in the wrong job!

If you look around you in the work place I'm sure you'll recognize those co-workers who are pleased with what they're doing and get personal satisfaction out of doing it. That's success, my friends. That's achievement.

But what about the jobs at the bottom of the organization? Most of us at one time or another have had one. I know I have. I've worked as a newspaper carrier, a busboy (now a bus person) and a laborer at a chemical plant in New Jersey. The question is, how does one get personal satisfaction from jobs like these, the so-called menial jobs? Well, some years ago, I knew one fellow who had figured it out. His name was Jimmy.

Jimmy drove a laundry truck. He picked up soiled laundry and delivered clean laundry to hotels.

He had, in a word, an invisible job. But Jimmy made it visible. His delivery truck was always clean and shiny. His deliveries were always on time. He took the time to place the delivery on the proper shelves in the housekeeper's office instead of dumping it in the middle of the floor as had his predecessors. He asked for suggestions from the head housekeeper on how the laundry company might improve its' product and service; and he took that information back to his management. He became not only the laundry company's driver, but its agent, sales rep, advisor and consultant who was in constant touch with its customers. In short, Jimmy had a dead-end, minimum-wage job, but he did it better than anyone else ever had. That's because he saw opportunities to expand it beyond what it had ever been. gained the respect and confidence of his customers and thus became valuable, almost irreplaceable, to his company. I knew Jimmy years ago. Today he is manager of the company. Someday, I suspect, he will own it.

I suppose there are those who, without knowing the whole story, would say that Jimmy was lucky. I can't discount luck as an ingredient to success, but most successful people make their own luck. We're all subject to random events. Some are positive, some aren't. But each offers an opportunity. It is how we recognize and respond to these opportunities that creates our luck.

A very long time ago I was a quest in a very elegant Palm Beach household served by a very old, diminutive houseman by the name of Suki. One day I walked into a room to find Suki lying on the floor virtually motionless. He seemed to be in no hurry to get up. When he saw me he looked a little embarrassed. "Suki fall down" he exclaimed, referring to himself in the third person. He paused, and then went on, "before Suki get up, he look around, maybe find something!" At the time I was young and thought the whole incident was mildly amusing. But later, perhaps much later, I realized that Suki, in his own eccentric way, had taught me a valuable lesson. He had turned a minor mishap and embarrassment into an opportunity. He had demonstrated a fundamental element of success: the ability to turn stumbling blocks into stepping stones. We can all learn to do that.

What it comes down to is worth repeating: success is a very personal thing, a relative thing, and very much a matter of attitude. I would like to give you a guaranteed formula for success at the FAA. I would like to but of course, that's not possible, and I suspect you don't expect that.

A few years ago I had occasion to go rafting on the upper Kennebec River in Maine. This is a Class Three River, one of the more difficult and dangerous in the world.

For six or so miles we crashed through the rushing white water, frantically bailing the rubber boat and fending off huge granite boulders as we catapulted through the roaring cataracts of this tumultuous river.

Finally, we reached the end of the rapids and the river became a wide, slow-moving, lethargic body of water which meanders for several miles until reaching the landing area where we were to leave the river. We had successfully traversed the upper Kennebec! But floating down the serene miles at the end of the journey was neither the measure of, nor the reward for, our success. Our success was meeting all the challenges, some of them harrowing, along the way.

Here in the FAA you will find your own challenges, and you will meet them. Maybe it's working through a technical problem, maybe it's finding a way to get along with an impossible boss. (I know you will find it hard to believe, but there are some.) You will work towards a promotion and get it, only to begin planning the next step up the ladder. The process is dynamic, ever-changing and ever-rewarding. And we are committed, the Administrator and I, to making sure you enjoy full access to the process.

Now let me take just a moment to discuss another important component of the success formula: risk-taking.

Too many people assume that risk leads to failure and failure is bad. I agree that risk <u>can</u> lead to failure, but I <u>disagree</u> that failure is always bad. Think about it for a moment.

It is the act of failing and recovering from that failure which reveals us as people. It forges our character and brings us to confront our weaknesses and recognize our real strengths. To never fail is to never appreciate life as it really is. To have experienced the agony of defeat is to define the ecstasy of victory. Both are required to make us whole; they are our emotional and psychological balanced diet. There is a Chinese proverb I've always treasured. It says, "greatness requires the taking of risks, that is why so few achieve it."

I have become, over the years, increasingly aware of my own mortality. It is, I suspect, part of the aging process. And with that awareness comes the realization that those things the world bestows upon us like fame and power and money — the conventional measures of success and achievement — do not always last. What does last, what can never be taken away from us is the satisfaction of a job well-done, the companionship of colleagues and friends, and the sense of accomplishment and pride that comes from knowing we have done our best.

I believe that each of us must make a conscious, purposeful choice to succeed, to be an achiever. There will always be choices. It often takes personal courage to make a selection and to commit to it. And while it is prudent to learn from our mistakes, it is wasteful and unproductive to dwell on them. Each choice we make leads on to others, and those to still others. It is the journey we celebrate, not the destination.

You have before you, here in St. Louis, an opportunity to define and prepare for success -- to empower yourselves to achieve your goals.

Dare to have a dream. Have the courage to fulfill it.

You can be the source of your empowerment. You can be the master of your own destiny.

God Bless You.