

Foundation FOR U M

**The U. S. Air Force --
Today and Tomorrow**

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MODERATORS:
Monroe W. Hatch, Jr.
Executive Director
AFA/AEF

Brian Green
Chief, Legislative
Research, AFA

The Aerospace Education Foundation, the non-profit affiliate of the Air Force Association, was established in 1956 to formulate and administer the Association's educational outreach programs. Supported through tax-deductible contributions (all donations to AEF are used solely for programs and scholarships) the Foundation sponsors scholarships, technical studies, symposia, educator workshops and contests designed to promote aerospace education and help meet the need for scientific and technological expertise. The Aerospace Education Foundation is a tax-exempt 501 (c)(3) corporation. Tax identification #52-6043929

About AFA and AEF ...

Air Force Association

The Air Force Association (AFA) is an independent veterans' organization whose objective is to promote greater understanding of aerospace and national defense issues. Among the ways AFA disseminates information are publication of *Air Force Magazine*, sponsorship of a series of national symposia, and through educational outreach programs of its affiliate, the Aerospace Education Foundation. AFA is a grass-roots organization. Total membership is nearly 200,000 of whom more than 38,000 are Life Members. There are 328 AFA chapters in the United States and 23 overseas. The Association has 226 Industrial Associates, and its chapters have established ties locally with more than 2,400 businesses in the Community Partner program. The Air Force Association was incorporated in the District of Columbia on February 6, 1946.

The Aerospace Education Foundation

On May 1, 1956, the Air Force Association established the Aerospace Education Foundation (AEF). The Foundation was established as a nonprofit organization in order to formulate and administer AFA's educational outreach programs. AEF is supported through tax-deductible contributions. Over the past thirty-six years, the Foundation has made progress in educating AFA's members and the public about the critical role aerospace development plays in the modern world. By doing so, the Foundation promotes a greater understanding of technological advancements and aerospace education. AEF's scholarship programs also encourage higher education in the technological career fields. The Foundation sponsors symposia, roundtables, workshops, contests, and many other programs in order to highlight the full range of educational interest of AFA and to help meet the growing need for scientific and technological expertise.

GENERAL MERRILL A. McPEAK

1

"The Future Air Force"

Good afternoon. October always brings the Los Angeles AFA Symposium, an event I look forward to as an opportunity to talk with AFA members on the West Coast. I think it's important to speak directly to as many Air Force people and supporters as possible, especially in this time of rapid change.

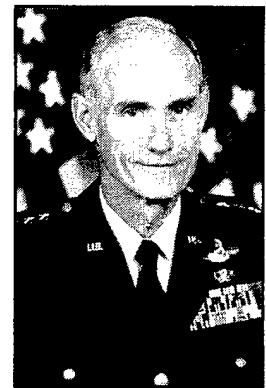
When I spoke here last year, I talked about how the world had changed and how the Air Force was adapting to those changes. Shortly after that talk, any last doubts about the end of the cold war were removed when the Russian flag went up over the Kremlin. But the end of the cold war did not send the Air Force into hibernation. On the contrary, our operating tempo remains quite high. We just finished hurricane relief in Florida and Hawaii and typhoon relief in Guam. We have three large flying operations underway in the Middle East. We've flown over 8600 sorties in Operation Provide Comfort in northern Iraq. In southern Iraq, to enforce the no-fly zone, the Air Force has flown almost 3400 sorties, and the Navy has added another 2300. We've put over 100 U-2 missions across Iraq to monitor the military situation there. We've flown 278 relief sorties into Yugoslavia. Our relief sortie total in Somalia is 865. We flew over 300 sorties in Angola as part of the process to separate warring factions and return the country to civil rule. In our own hemisphere, we flew 35 AWACS sorties in the last month to detect drug smugglers, and we have about 400 people deployed in Latin America to support that effort. We have more than 40 satellites on orbit — each satellite, and the launch process that put it up, a major technical achievement. We also have a heavy train-

ing commitment to maintain our readiness. Squadrons are deployed to Singapore, Australia, Guam, Korea, and Italy, training for regional missions. We just finished a joint exercise with the Army in Arkansas; another exercise is in progress at Nellis; and our air-to-air competition, William Tell, just wrapped up at Tyndall — the 18th Wing at Kadena took honors. So despite the end of the cold war, we remain a very busy organization, and we treat all these activities as if they were routine — as indeed they are — but we should remember that they are also complex, demanding, sometimes dangerous.

Our mission is to defend the United States through control and exploitation of air and space. It's clear from this review of our current activity that the mission still has tremendous relevance for the security of the United States, and our services will continue to be necessary in the future. What kind of Air Force will we have in the future to execute the mission? What will the Air Force look like in, say, 1995? I'd like to give at least a partial answer to those questions today. I believe we have an exciting future, a future holding the promise that we can be a better organization, even though we will be smaller.

The Objective Air Force — that is, the Air Force we plan to have — will be of a certain size, shape, and style. Let me take each of these three characteristics in turn and describe what the Objective Air Force will be like.

The first characteristic is size. The size of the Air Force has historically depended on threats, on our national strategy to respond to those threats, and on the resources given to us to implement the strategy. These



are all external factors over which the Air Force itself exercises little control. Today, all these factors — the perceived threat, our announced national strategy, our resource availability — are telling us to get smaller.

I believe that's appropriate. We face no obvious major league opponent. The threat of global war has greatly diminished. No region vital to our interests is dominated by a hostile power. At the same time, we see a decidedly unstable world situation — lots of potential problems, lots of nuclear weapons still around, and several more nations seem likely to acquire nuclear capabilities by the end of the century. Modern delivery platforms, including ballistic missiles, are spreading. So, in this condition of generalized uncertainty, we cannot know who the next enemy will be. But, we can guess that any fighting we do is likely to be at some distance, some place we are not. We need reach — the ability to cover the distance and get there quickly. We need power — we have to be effective when we arrive, and we have to sustain our forces. That much we know.

So the real question is, given these known and unknown factors, how much size do we need? What's the real minimum? From a planning perspective, the answer is always going to be a range. There is no precise right answer. But, we shouldn't want *our* last squadron to beat *their* last squadron. We need to win decisively, quickly, and that argues for an Air Force that is just a little too big. Remember, an air force that finishes second is not worth two cents. Ask Saddam Hussein.

There are a couple more facts to keep in mind when we think about our future size. First, given a choice, we will opt for short, low casualty combat, and we therefore need a high tech force. We can't be certain about a lot of aspects of the next war, but we can be confident CNN will cover it. In detail. Every half hour. The American people are not likely to support a conflict in which they see lots of blood spilled, ours or theirs, over a prolonged period of time. To maintain political support for military action, we will have to win quickly.

If for no other reason, this factor alone drives us to a high technology force, one that can achieve our combat objectives quickly, with low casualties.

A second thing to keep in mind is that modern air forces are not readily reconstitutable. You can't build any kind of air force in a short time. Leaving aside the problem of the industrial base, the training process alone is enormously time consuming. Individual skills in operating and maintaining aircraft and spacecraft take years to develop. It takes more years yet to develop connections between the constituent parts of air warfare: fighters, bombers, special ops, satellites, tankers, transports, EW aircraft, and all the rest of the equipment that has to be integrated in a modern air war. So, air forces are not quickly reconstitutable. We need to maintain a comprehensive, baseline capability that can be expanded if the nation calls upon it.

Now, with those thoughts in mind, let's take a look at trends in the size of the Air Force. As you no doubt know, the arrows all point down. By 1995, our budget will be off 43% from the mid-'80's peak. Our '93 budget is just over \$77 billion, compared to an annual average of about \$92 billion during our years as a separate service. \$15 billion less than average. We are a bargain Air Force these days. But I'm concerned that our investment budget has been even harder hit. It will be down more than 50% by 1995. We've already canceled lots of strategic programs — SRAM II, small ICBM, Peacekeeper rail garrison, the OTH-B radar, many more — and restructured other programs such as the B-2, the advanced cruise missile, and the C-17. I don't see much slack in our investment accounts. Additional cuts will start sawing on the bones rather than cutting the fat.

The size reduction is not just in budgets. Measured from 1986, the year our end strength peaked, one in three Air Force people will be gone by 1995 and not replaced. Think about that — we're losing a third of our personnel in a decade. As a service, we are, unfortunately, leading this drawdown. We closed seven major bases in the last two years. By 1995, we'll close

at least 20 more.

All of these statistics tell us *about* the size of the Air Force. But they don't tell us *what* our size as a combat force actually is. The closest we get to measuring this is in force structure, where we rely on a metric called the tactical fighter wing equivalent. The fighter wing equivalent is 72 airplanes. By that measure, we will be a 26.5 wing Air Force in 1995. This is the Air Force's share of the nation's Base Force.

There are several problems with using the fighter wing equivalent to size the Air Force. Most people who hear 26.5 wings assume the number refers to active duty forces. In fact, about 15 wings will be active and 11 will be Guard and Reserve. In addition, the fighter wing equivalent is an abstraction. Our 15 wing equivalent active fighter force will actually be spread among 22 real wings, with wing commanders, unit flags, bases, and so on. It does not include all tactical forces — OA-10's, EF-111's, and Guard air defense interceptors are not included. So the fighter wing equivalent metric does not measure even the fighter force accurately. But, the biggest problem is that the Air Force is a lot more than fighters. Space wings, bomber wings, airlift wings, refueling wings, special ops wings, many others obviously are not counters. In fact, the 15 active fighter wing equivalent accounts for less than 25% of the active force structure. So, when we tell people we will have a 1995 Air Force of 15 fighter wing equivalents, we tell a very incomplete story.

There is a better way to measure the size of the Air Force. The basic unit of the Air Force is the wing, so we can, if we wish, simply count the wings. Some of these wings perform Departmental functions: organizing, training, and equipping the Air Force. The Objective Air Force has 21 wings of this kind. A second group consists of wings in the combatant Air Force. These wings perform the four roles defined by our doctrine: air and space control; force application, such as strategic attack and interdiction; force enhancement, such as airlift, spacelift, and refueling; and force support, including on-orbit support,

combat support, and logistics. The Objective Air Force has 79 active wings in these roles.

Altogether, the Objective Air Force will be about one hundred active wings. Incidentally, that compares to the 205 wings we had when I became Chief. In other words, using actual wings as the metric, the 1995 active Air Force will be less than half as large as its 1990 predecessor. By the way, the Reserve Component adds 50 wings of all types. Therefore, the Objective Total Air Force is 150 wings.

To repeat, the size of the total 1995 Air Force will be 150 wings, or thereabouts. And that's how you'll hear me talk about our Base Force contribution from now on. It's a much more comprehensive description of what we do for the nation, a much better measure of the size of the Air Force.

So size is the first characteristic of the Objective Air Force. And basically, the resources and end strength that produce a given size come from decisions made outside the organization. We have a limited input. I can say how big I'd like to be. But, at the end of the day, size depends for the most part on external factors and decisions made by others.

The other two characteristics of the Objective Air Force are shape and style. These two characteristics, unlike size, are largely ours to determine. In fact, I'm surprised sometimes at the latitude we have on shape and style, given the crucial importance of these characteristics. But the fact that we do control them means that even though we're getting smaller, we have it in our power to get better as an organization.

I think most of you by now must be familiar with our restructure. We have reshaped the Air Force to streamline and cut overhead, to integrate airpower in a new major command lineup, to strengthen the chain of command up and down the line, and to push power down in our organization. The reshaping work for the Objective Air Force is mostly complete. We are down to 10 major commands from 13. Numbered air forces have smaller staffs. Air divisions are gone. Our wings have adopted the objective organization. 41

wings are commanded by generals, on our way to about 60. That is happening even as we cut the number of Air Force generals by about the same number, 60. Our senior leadership is out from behind desks and in the field, at the point of contact.

We still have some work to do to restructure our training organization. 1992 is the Year of Training. Of course, we announced last month that the next training commander, Butch Viccellio, will be a four star general. That will certainly help raise the profile of training. We are also adding more formal schooling in enlisted career fields and jacking up standards across the board. There will be additional announcements on training reform in the next few months. Anyway, I'm confident that we've got the shape of the Objective Air Force about right.

What of the third characteristic, style? Our style will be governed by a commitment to the concept of a Quality Air Force. Let me spell out what that means.

Our style includes what we want to be, and how we want to operate. What we want to be is our "vision" for the organization. Moses had a great "vision" — he told his people about "a land of milk and honey." Our "vision" is also inspiring: we want to be, plain and simple, the world's most respected air and space force. Our friends should want to work with us, to cooperate. We seek no enemies, but, should any appear, they ought to fear us. Nobody should be happy at the prospect of a contest of arms with us.

In addition to this "vision," the senior leadership of the Air Force has recently drafted a "credo" that puts into words the beliefs and values that guide us as an institution. We share certain ideals: integrity, courage, competence, tenacity, service, patriotism. These ideals are not just a laundry list of nice-to-have qualities. They are the heart and soul, the core values of our service. We adhere to a set of basic

principles that go with these core values: leadership involvement, dedication to mission, respect for the individual, decentralized organization, empowerment at the point of contact, management by fact. These basic principles represent the best ideas we know of for managing a large, diverse, multi-faceted organization. Those who have served in the Air Force will recognize all this as Leadership 101, principles advocated and used by the Air Force long before quality management became fashionable.

Finally, we have a certain operating style. We want to create a working environment that inspires trust, teamwork, and pride. Teams are especially important. Small teams — maybe ten, twelve people, about the size of a baseball or football team — can overcome the inertia that slows down any large, bureaucratic organization. Teams are the key to quality and innovation. We will delegate responsibility and authority to teams, and we will hold them accountable for results. To structure their work, we will set clear goals, measure progress, reward strong performance. Finally, we are dedicated to the principle of continuous improvement. From the teams on the flightline to the Air Staff, at every level, we will be on the lookout for ways to do it better.

So we know we will get smaller, perhaps a lot smaller. But the Objective Air Force will not be simply a miniature version of the cold war Air Force. We have radically reshaped and restyled ourselves. Watch us. We know what we are doing, we know where we're going, and we know how to get there.

The Objective Air Force has the capabilities needed to deal with an uncertain world. But, to do our job effectively, we will continue to need your support. AFA works wonders for the Air Force. Thank you for participating in this great organization.

General Merrill A. McPeak

GENERAL HATCH: *Thank you very much, Chief. You certainly have been doing a superb job in a very difficult and changing period. I thought the budget problems were tough a few years ago, but they have gotten tougher, and we haven't seen the end of it yet.*

The first question for the Chief of Staff has to do with the defense appropriation and authorization bills. The Appropriations Bill was signed a few weeks back, and the Authorization Bill was signed on Friday. There is always restrictive language built into these bills declaring that you cannot proceed with the B-2, or the C-17, or fighters until you have answered certain questions. Is there any language in these bills this year to which you cannot respond promptly or that will cause you any problems as Chief of Staff?

GENERAL McPEAK: I don't know.

GENERAL HATCH: *I assume we just have not sorted that out?*

GENERAL McPEAK: There is quite a bit of language in there, and I just don't know what the impact of all of it is.

I am not trying to be a smart aleck. The bills and reports are a couple of thousand pages long, and I am not sure we have crossed all the t's and dotted all the i's. It is an annual phenomenon. So, we will have our lawyers and accountants and auditors do their thing, and we will hope that in the next war our accountants have to fight their accountants.

(Laughter.)

GENERAL McPEAK: We are going to win that one, I will tell you.

GENERAL HATCH: *Well said.*

(Applause.)

GENERAL HATCH: *There are a num-*

ber of questions concerning the roles and missions discussions being conducted by the Joint Chiefs. Could you comment generally on these discussions and specifically on proposals relating to the Air Force and air defense beyond the battlefield, and the Army and close air support?

GENERAL McPEAK: The roles and missions discussion that is ongoing in the tank right now and on which the Chairman will have to report in a couple of months has been an interesting one. There are deep-seated issues, bureaucratic survival values at stake in many cases, and I would prefer not to comment directly on where we are in that process.

Let me not answer the question, and answer another that I would prefer to answer. The question is, "How did we get where we are in the roles and missions business?"

The answer is that we didn't have an Air Force until 1947. Now, had we had an Air Force in 1903, when Orville and Wilbur put up the first airplane, we would have organized the military air and space capabilities a lot differently. But we didn't. We had an army and a navy, and as a consequence, both of these institutions acquired aviation capabilities and both saw the value of this. You would have to be blind not to understand the value of air and space power in this century. Rome will be remembered for its army, Britain for its navy. This is the century of air and space, and we will be remembered as a military power for our excellence in air and space. That wasn't the case in 1903, however. So, over the years, the services rightly acquired various positions in the aviation busi-

ness.

These positions now give the impression that there is a lot of overlap and duplication in what Army and Navy are doing and what the Air Force ought to be doing and would be doing if we had designed the organizations starting with a clean sheet of paper. If we had built an air force from the ground up from the beginning of air and space capabilities, we wouldn't have roles and missions difficulties. We would have a unified service running the medium of air and space.

So, we have a situation here where there is a tension between the way we ought to be organized and the way we are organized. But it is too idealistic, I think, to argue that we ought to throw everything away and organize the way we should be organized. We are not starting with a clean sheet of paper. We have to live with the history we have acquired in this regard.

So, in a world in which adults deal with these problems, the effort needs to focus on how to eliminate as much duplication and overlap as possible. We don't have the money to waste on duplicating each other's efforts. That is the heart of the Air Force approach on this issue in Washington.

I will say that I think there is less duplication and less overlap than a lot of uninformed critics seem to assume. Most of the aviation capabilities that exist in the various services are complementary. They don't overlap. They don't duplicate. Our job is to make sure that they are complementary. That is the challenge, and so, that is the approach that the Air Force is trying to take.

GENERAL HATCH: *Thank you, Chief.*

Two or three other questions that I can combine into one speak to your comment about the reduced budget, the potential for even more reductions, and the sense of priorities within the Air Force. Within the Air Force, there are very important flying programs as well as space programs. If the budget that is provided to the Air Force continues to decrease, how will you work your priorities, and how will you approach decisions regarding the various

fields within the Air Force that must be funded?

GENERAL McPEAK: I remember a chess grandmaster was once asked how many moves ahead he thought during a chess game. The reporter who asked this question thought, "Well, he is going to tell me a dozen, 13, 15, some very large number of moves." The grandmaster said, "Just one, but I try to make sure it's the best one."

Our approach on making resource allocations is in some respects that kind of an approach. We try to do what makes the most sense to us as we approach each decision one at a time.

Now, we do have some overarching principles we apply in the business of resource decision making. "Global Power, Global Reach," a 13-page document, is a couple of years old now, but it merits rereading because it lays out our priorities, I think, very well.

I don't see, by the way, that we will have to trade off air capabilities for space capabilities, which seemed to be implied in the question. I know of no logical way to divide these two activities. In my judgment, it is not like land and water where you know where the beach is. I don't know where air stops and space begins. I suppose there is some perfectly good scientific definition of it, but in my judgment that medium is vertical, and that is our medium. It goes up forever.

So, I don't think that we would ever approach a decision and say, "Well, we don't have enough money to do what we need in space. Let us concentrate on what we are doing in the atmosphere." That is not an approach we will ever take.

We do pay a lot of attention to people-related issues. For me, the Air Force is its people. We have to have good people. Desert Storm, Chuck [then-Lt. Gen. Chuck Horner, Air Component Commander in Desert Shield/Desert Storm] will tell you, was a victory of great people: highly trained people, ready to fight, well led, and well organized. Those are war-winning factors in my judgment, and we will do whatever is necessary to keep a quality work force—

enlisted, officer, and civilian—in our organization. That often means we will fund things that are very routine. Common-place, work-a-day stuff like housing for our people on base has a high priority with me. That sort of thing will always be high on our list.

Next is the training program itself because we simply must be ready to fight every day of the year. We were lucky in Desert Storm in some respects because we had about a 6-month period to rehearse. Not that our forces were not ready when they got there; they were, including our Guard and Reserve forces. They were ready the hour they landed in theater, but that period was helpful because it gave us time for Chuck to work the whole thing together and to get everybody to do the andante part together with the presto part. When he conducted that air campaign everybody knew all the various tempos and the key modulations and so forth.

So, we will pay a high price to keep quality people, and we will pay a very high price for readiness. And, as I indicated in my remarks, we think we have to be a high-tech Air Force. We have to be a leading edge Air Force because we must win quickly and decisively against the full range of opposition that we see out there.

What that all comes down to is that there are no low priorities you can give up. We approach all the resource decision making exercises with a view to try to maintain appropriate balance in all these areas.

GENERAL HATCH: *Thank you, General McPeak.*

We have some specific questions in the personnel area. Could you discuss the number of pilot slots available in the future, banked pilots, and the probability that banked pilots will reach their goal of flying?

GENERAL McPEAK: I am reasonably confident that we will be okay, unless we get another big chop in force structure. We have, on the size issue, a number of problems, but two jump out at you. One is, "Where is the bottom?" For now, the bottom is stuck at this 26.5 fighter wing metric I spoke of, and a 150 wing total

force in 1995. That is what we are programmed for. We don't know that that is the real bottom, but that is what we are programmed for. If that drops further, then we have additional problems of personnel management across the board, but the pilot problem is the one that has attracted the most attention. So, the first problem is where is the bottom.

The second problem is, "What is the rate at which we are going to get to the bottom?" The real cause of the problem in the pilot area is the rate of reduction.

We are coming down very rapidly to the base force. I have closed 56 squadrons since I have been Chief in two years. The pilots from those squadrons that are closing must go to the residual force. So, they are occupying all the cockpits into which we would put our new pilot graduates. That is simply a rate problem, and if we had a few more years to come down to the base force, then we would be able to keep some open cockpits out there and continue to train at a fairly robust level.

As it is, we have programmed our pilot production down to 500 a year. For us that is a historically low production rate in pilots. It constitutes a significant risk that we are taking. We don't know who we are going to have to fight in the year 2005 or 2010. Whoever is left from these 500 guys is going to do our fighting for us and provide leadership in the remaining squadrons and wings 15 years from now.

So, it is a worrisome problem to drive pilot training down to such low levels. We must do it, though, so we can bring people back out of the bank. We have got upwards of 1000 or so banked pilots now who got their wings and have been put off into support duties while we wait for openings in cockpit positions.

We have driven our pilot production down low enough that there will be some slack for the guys in the bank to come back, assuming that our force structure doesn't get chopped again. If our force structure gets cut again following the election or anytime in the immediate future, we are going to have a very tough additional set of steps to do in the pilot training

area. I have not been having much fun with this subject so far, so if it gets worse, I am really not going to like it very much.

GENERAL HATCH: *That is a tough one, Chief, and we know you are doing the very best that can be done.*

This question is about promotion opportunities during the drawdown. Will we be able to keep the same pace of promotion that we have held for years?

GENERAL McPEAK: Yes. We don't have a problem on promotion opportunity for the residual force, but the real problem we are having is the individual little daily tragedies that are occurring. Last year we did not re-enlist 1000 people, young airmen who wanted to re-enlist at the end of their 4-year term and who their commanders wanted to keep, because they were very good people, already trained. We had invested in these guys, and they were about at the point where they were beginning to return on the investment. We did not re-enlist them because we are coming down so fast.

Now, these are youngsters who can go back to their communities by and large. They are good people with four years in the Air Force, training, and a disciplined environment. They probably won't have trouble getting a job in their communities when they go back. Sometimes I am told by congressmen that they displace others. I say, "Sure, they don't have a problem getting a job, but they come back to Cedar Rapids, and somebody else gets laid off. That happens because you are letting quality people go from the Air Force."

Anyway, for these people it is not a life-ending tragedy. They wanted to stay in the Air Force, but they are young enough. They can go back and do something. But we are also separating people at mid-career point — lieutenant colonels, colonels, senior NCO's. We are letting them go before they want to go, often right at the time when they have kids graduating from high school, getting ready to go to college and so forth.

This is a painful process that we are

going through. However, as part of that, we are keeping the overall organization in good shape, and promotion opportunity and phase points and timing and so forth have not been affected yet. I don't think they will be.

Another way of saying that is once we get to the bottom in 1995 or beyond, this is going to be a fine, fine Air Force, a wonderful Air Force. There are not going to be very many people left in it who don't really want to be there and who aren't very, very high-quality people.

GENERAL HATCH: *One final question, Chief. Would you speak to the Air Force participation and perspective in the AX program?*

GENERAL McPEAK: It is a joint program, and we are fully signed up. This is not a sham exercise where we are half-hearted in our participation.

I foresee a lot of problems yet in the AX program, a lot of problems to solve, but we are in it for the long term. Frank Kelso [Chief of Naval Operations Admiral Frank Kelso] and I have handcuffed ourselves together; we are joined at the hip; we are jumping in the deep end together, and we are going to sink or swim together. Remember that about the time the AX would come on line, we need a replacement for the F-111, the F-117, and eventually for the F-15E. So this program is a requirement for us, as much as it is for the Navy. We are enthusiastic co-participants with the Navy in this program.

GENERAL HATCH: *Thank you, Chief, for the remarks, and your lucid answers to the questions. We appreciate the job you've done in the past, the job that you are doing today, and the job you'll do in the future for the United States Air Force, and you can be sure that AFA is in there with support for you and the Air Force at every step of the way.*

Thanks for being with us today.

GENERAL McPEAK: Thank you. I appreciate that.

(Applause.)

General Charles A. Horner

9

Space 1990 and Beyond... The Turning Point



Thank you very much. It really is a great pleasure to follow General McPeak.

I am going to talk about space, and I hope I am provocative. I want to put my words in context before I give this presentation.

I am very, very proud of the job done in Desert Storm by our Air Force, and I certainly agree with General Powell that the Air Force won the game ball.

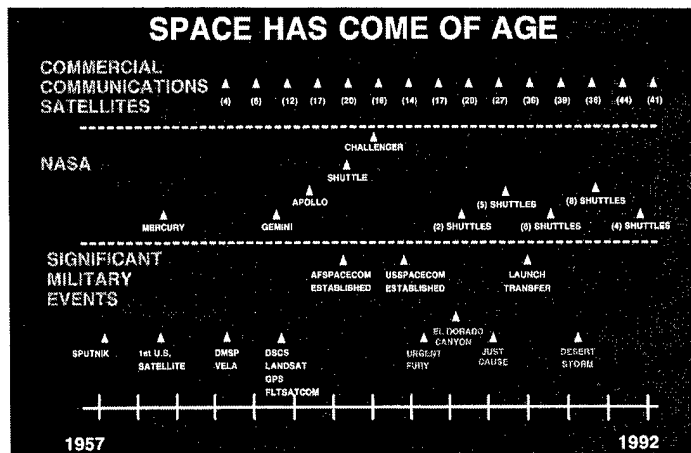
On the other hand, we didn't do it perfectly. We have a great deal to learn, if we are honest with ourselves. The only way we are going to be a better Air Force is by having the courage to take a look at what we did and be better.

The same goes for space. I am in awe of what the pioneers of space have done — the mountains they climbed — the technology — the fact that many of them were isolated in their efforts to get done what had to be done. It paid off in Desert Storm, and so, do not take anything I say today as condemning the efforts of those who have gone before me.

The point is that we are at a turning point with regard to space, and I will discuss some of the problems associated with that and where we ought to go.

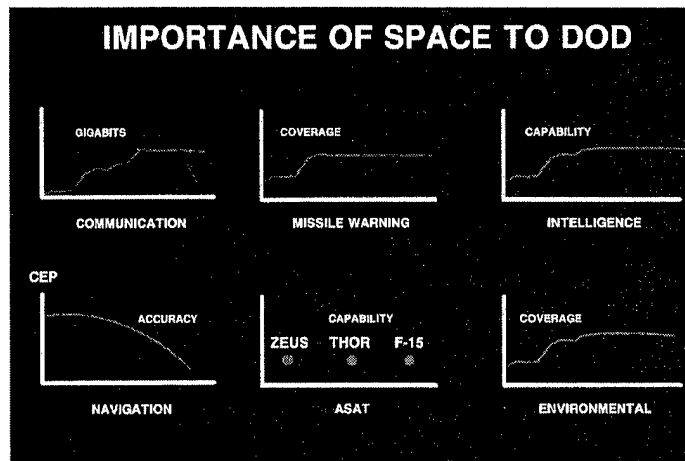
So, let us have the slides.

I am going to talk about space in the nineties and the turning point. Space has come of age. You see in commercial satellites the growth, and that just continues (Slide 1). Certainly in our civil sector, we have a very robust program going. In the military, we built over the years until we established both the organizations required to make space operational and come into play in conflict.



Slide 1

If you look at the importance of space to DoD, you can see that our communications (Slide 2), and if you figure in the civil contribution, that line continues to rise, and if you figure the things that are coming with Milstar it rises more.

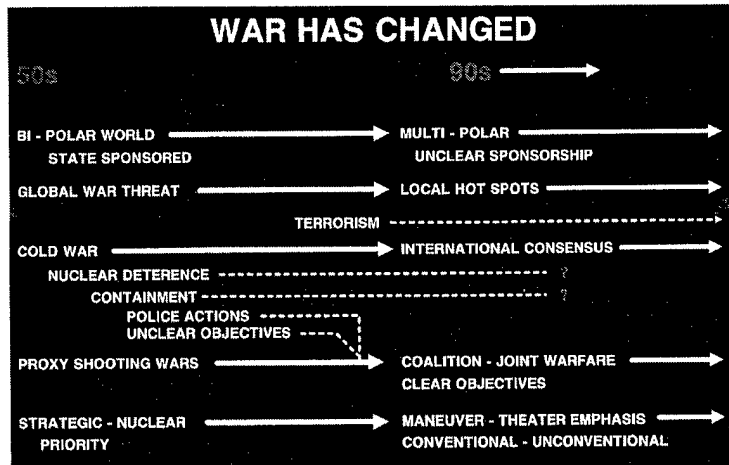


Slide 2

U.S. Air Force: Today & Tomorrow

We have coverage of the world, both from missile warning and intelligence, and one of the most significant things is the navigation systems that go from the early Navy system through the early GPS systems down to where they provide very accurate information to our people delivered from space.

In terms of space control, we had Army and Air Force develop ground based systems, and then we actually had tested a capability to provide a kinetic kill on a satellite.



Slide 3

The point here is that there has been a concomitant change in warfare (Slide 3). Warfare has been revolutionized. I don't know when the revolution started. It may have been Custer. It may have been media coverage of the Civil War, but historians tell us that there has been a revolution. The difficulty is we cannot explain it. We cannot identify it so that we can project what it means in the future. I would submit the reason we have difficulty with identifying the revolution in warfare is because

generally we look at it from a historical perspective. Many of those historians are land oriented in their viewpoints, and I would suspect that not until we have some intellectual giant of a historian with air and space background, will we truly understand the nature of this revolution in warfare. But we saw it, certainly, in Desert Storm.

Space has changed. Let's look first at the fifties and sixties:

- ◆ Use of Space - Ballistic Missiles
 - ◆ Emphasized Strategic Threat
- ◆ Sputnik - Initiated Space Race
 - ◆ U.S. Responds
- ◆ Use of Space - Emphasis on Nuclear Deterrence

It is more of an evolution rather than a revolution. Early it was strategic in nature.

Then in the seventies and eighties, truly it came of age, both in theater war for support and in strategic warfare:

- ◆ Manned Spaceflight
- ◆ Missile Warning
- ◆ Navigation
- ◆ Surveillance/Imagery
- ◆ Weather/Environmental
- ◆ ABM (Safeguard)
- ◆ Communication
- ◆ Kinetic/Explosive ASAT
- ◆ Nuclear Detonation Detection

And of course, finally it paid off, certainly in Desert Storm. The significant factors that came into play were missile warning, navigation, weather, environmental, surveillance, imagery, and communications. So, if you combine the revolution in warfare and the evolution in space, you find that space has had a multiplying effect, an accelerating effect on this revolution.

STATUS OF THIRD WORLD PROGRAMS - NBC PROLIFERATION

COUNTRIES	CHEMICAL PROGRAM	BIOLOGICAL PROGRAM	NUCLEAR PROGRAM
A			POTENTIAL
B			POTENTIAL
C	CONFIRMED	CONFIRMED	CONFIRMED
D	CONFIRMED	CONFIRMED	
E	SUSPECTED	POTENTIAL	SUSPECTED
F	SUSPECTED		
G	CONFIRMED	CONFIRMED	POTENTIAL
H	CONFIRMED	CONFIRMED	SUSPECTED
I	CONFIRMED	CONFIRMED	CONFIRMED
J	CONFIRMED	CONFIRMED	POTENTIAL
K	CONFIRMED	SUSPECTED	POTENTIAL
L	CONFIRMED	SUSPECTED	SUSPECTED
M	SUSPECTED	POTENTIAL	SUSPECTED
N	CONFIRMED	SUSPECTED	POTENTIAL
O	CONFIRMED	CONFIRMED	
P	CONFIRMED	SUSPECTED	POTENTIAL
Q	SUSPECTED		

"Space 1990 and
Beyond . . . The
Turning Point"

11

Slide 4

Let us stop a minute and look at one aspect of it, and this is the one lesson that really came home to me as we chased Scuds around Iraq and had them shot at us in Riyadh, Israel and Dhahran. Any country in the world, and these are actual countries (Slide 4), has the capability of having both a ballistic missile delivery system and the ability to put mass weapons on it.

And that means that one of our most vital programs we have is ballistic missile defense.

Growth of Threat

- ♦ Worldwide Ballistic Missile Threat
- ♦ Proliferation
- ♦ Technology Transfer
 - ♦ Ready-to-Launch Systems for Sale
 - ♦ No Technology Base Required for Buyer

Means to Counter Threat

- ♦ Space System Integration with Warfighter
- ♦ Missile Defense
 - ♦ Patriot Improvements
 - ♦ THAAD
 - ♦ AEGIS
 - ♦ Airborne Systems
 - ♦ Brilliant Eyes
 - ♦ Brilliant Pebbles

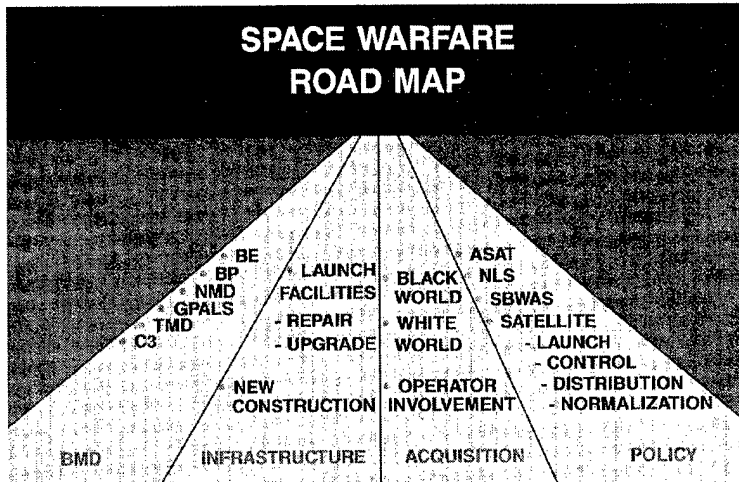
U.S. Air Force: Today & Tomorrow

Certainly you do not have to develop these systems. You can buy them, and certainly we have a number of systems designed to give us the capability to counter that, but that is a benchmark, and we need to pay attention.

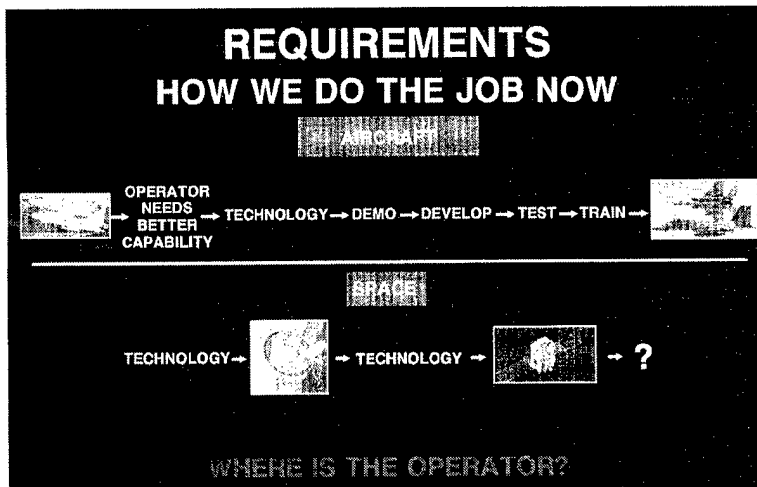
Let us talk very briefly about where we are today in space (Slide 5). We have some pretty good road maps in terms of systems, in terms of upgrading infrastructure, in terms of buying new satellites. One place I feel that we are lagging is in policy. Certainly there are those who do not want the military in space for good, philosophical reasons. But, the military is already in space, and that high ground is vital to any future warfare. As a result I think that as a nation, we will find someday that we will have to make a terrible revision of existing policy. It may be generated by facts, such as a group of Marines being turned into dead bodies because some sort of imagery was provided to some sort of actor that we were trying to persuade into rational behavior with military force. This certainly tops the list in areas where policy is behind.

We are lagging in the way we do our requirements for space (Slide 6). We know very well in the aircraft business where there is a system. The operator knows that he needs added capability combined with what technology can provide, and that operator gets together and works the requirements process — the acquisition process with the Materiel Command folks, gets involved in the testing and training, and we have a new capability.

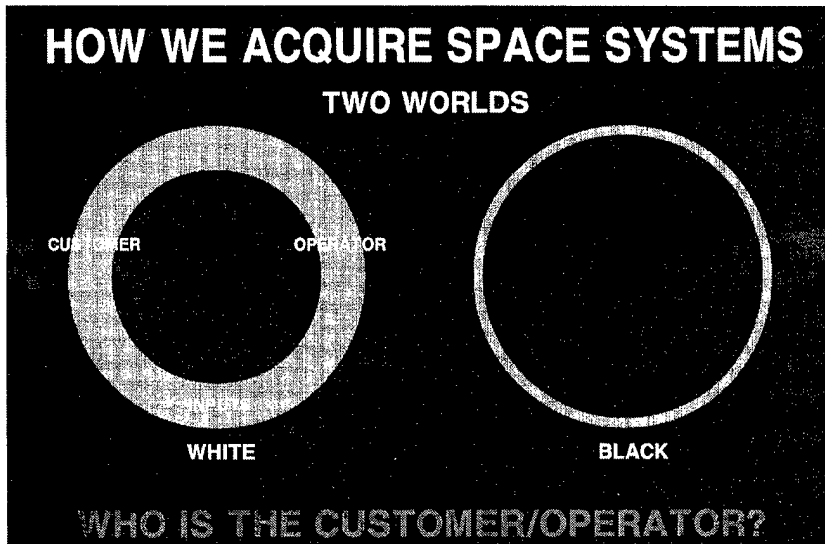
Unfortunately, our history in space is that we go from technology to technology, and the question often asked is, "Where is the operator in this system?"



Slide 5



Slide 6



Slide 7

How do we acquire a system? (Slide 7) We really have two worlds in space. We have the white world where the customer and the operator are gaining more and more access into the decision process with the modification of technology, but much has to be done. In the black world, the customer, the operator and the acquirer are all the same, and I am not sure that serves the black world well or the other world because certainly we found in Desert Storm that the customer happened to be operating out of the Middle East. And so, the question I would ask is, "Who is the customer and operator?" It needs to be thought about deeply.

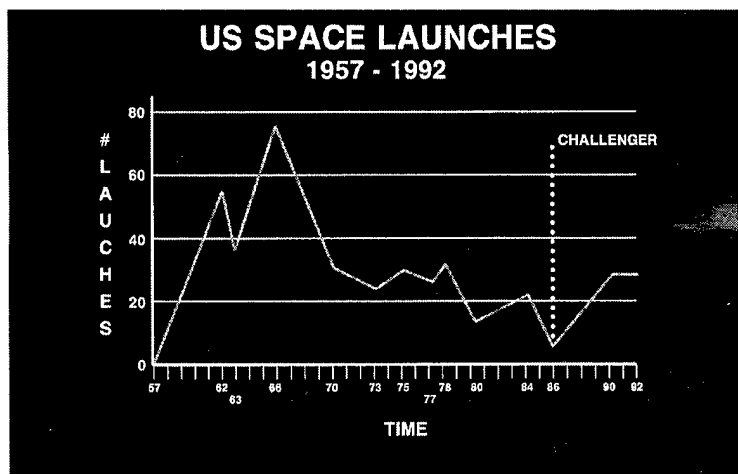
Let us talk about launch because launch is, of course, vital to our space operations (Slide 8). Here are our launches. The decision was made to put everything aboard the Space Shuttle. With the Challenger accident, then, of course, we had to rethink our strategy.

As a result, during the preparation to put everything aboard the Space Shuttle, we had these negative impacts occur to our space launch capability:

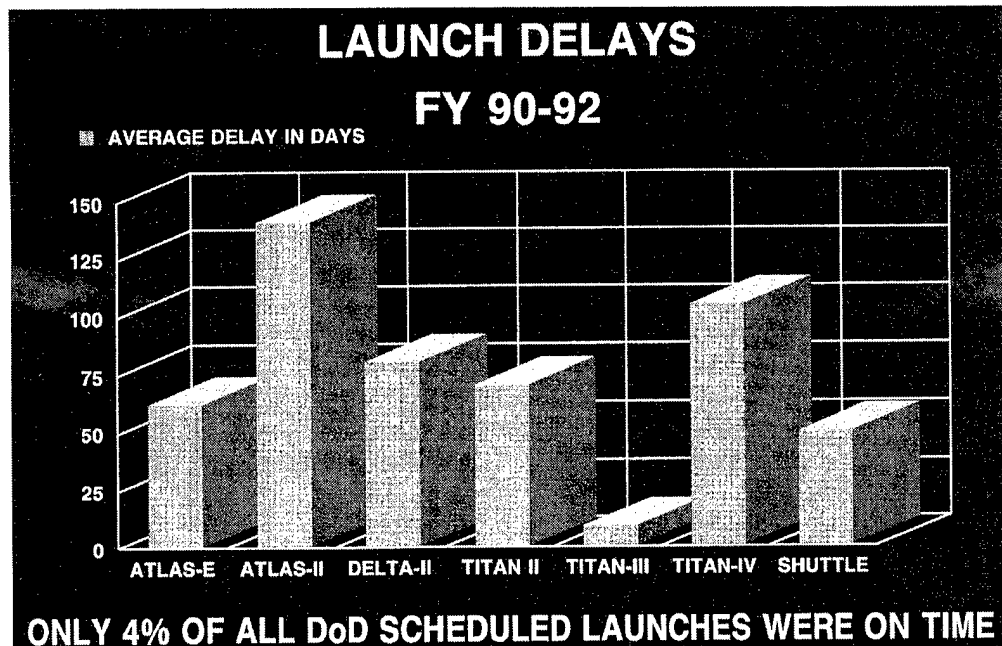
- ♦ Loss of Industrial Base
- ♦ Reduced Throughput
- ♦ Deteriorated Infrastructure

And obviously, post-Challenger we had to play catch-up. A review of launch policy led to:

- ♦ Commitment to Assured Access
- ♦ ELVs for Routine Launch
- ♦ Delta II/Atlas II Procured
- ♦ Titan IV Expanded
- ♦ NLS Program



Slide 8



Slide 9

As a result of that, and of previous mind sets with regard to space launch, we have had some serious problems. We have things like delay (Slide 9). Now, this is not to be construed as average delay caused by the booster only, because it involves things like the infrastructure. It involves things like the payload, a whole variety of things.

What I found when I got into space is that there is a moving baseline. If you cannot make the schedule on Thursday, then you make the schedule for the next Wednesday. Then when you launch on Thursday, you say that you are 1 day late.

It is like changing a tire on a car going 50 miles an hour down the highway. You don't know where you are; I think this is significant. Only 4 percent of all our scheduled launches were on time, and in some cases the delay was significant.

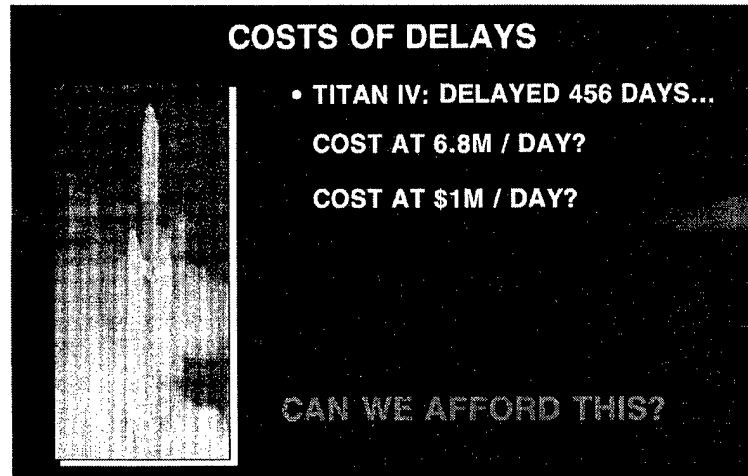
Now, I was out with the Delta [rocket] folks today, and they beat me up severely because their data shows their average delay was 1-1/2 days. So, I will give them that. So, it was the United States Air Force launch facility that didn't open the gate on time.

But what is the cost of the delay? Certainly when I came into the command one day we were in a meeting, and they said, "We have a late launch."

Now, in the aircraft business, 15 minutes after scheduled takeoff is a late launch, at which point you start examining why you had a late launch so it won't occur again because there is cost involved in delay. In this case, we had one payload, one missile that was late; at that time it was less than that, but that is what it was yesterday. One individual who was very knowledgeable in space told me, "Each day this payload and this missile are late runs us about that amount of money each day." (Slide 10) Well, that is pretty severe. Either way the point is that delays in launch are very costly and that is significant.

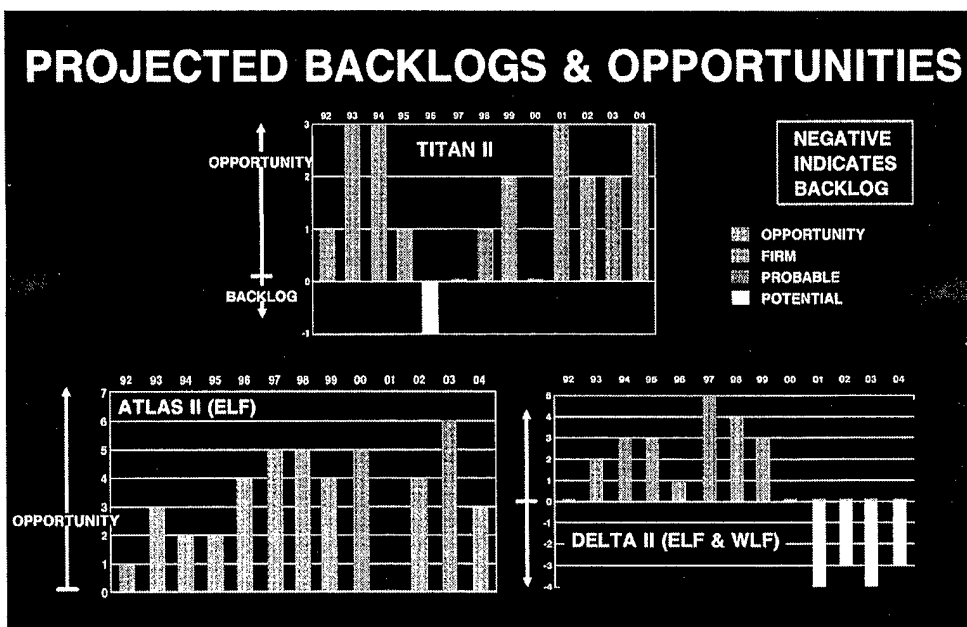
But even more important than the cost, because those are soft numbers, and they can vary, has to do with your launch opportunity, your meeting your program, serving the customer, delivering the goods on time.

With regard to the backlogs, we see a problem with regard to four Titan II

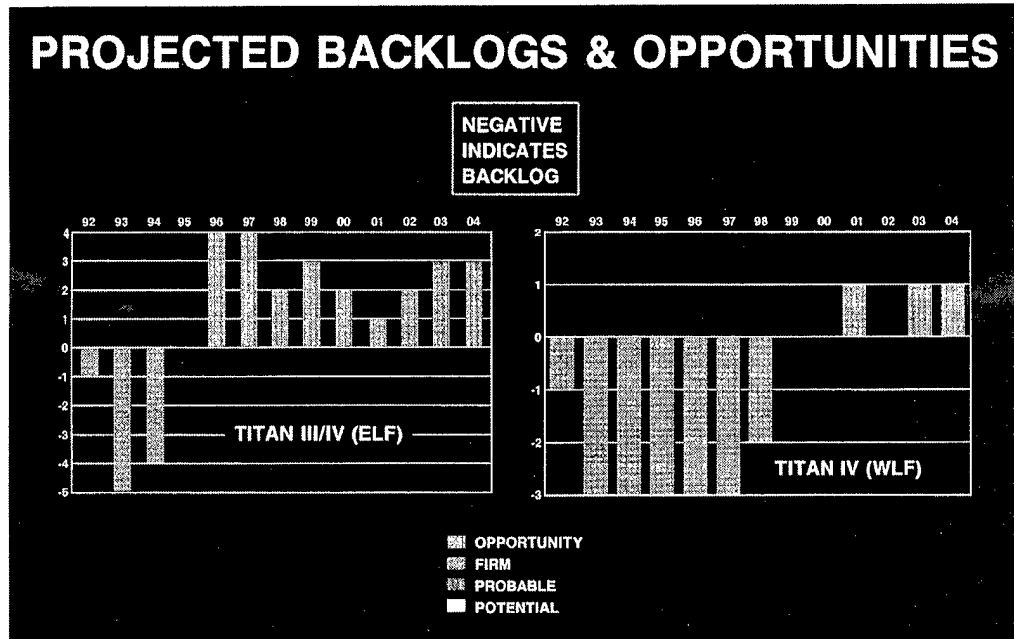


Slide 10

scheduled launches in 1996 (Slide 11). We may not be able to make it. Other programs are in pretty good shape, and some have potential for problems. But let us look at our really heavy hitter, Titan IV.



Slide 11



Slide 12

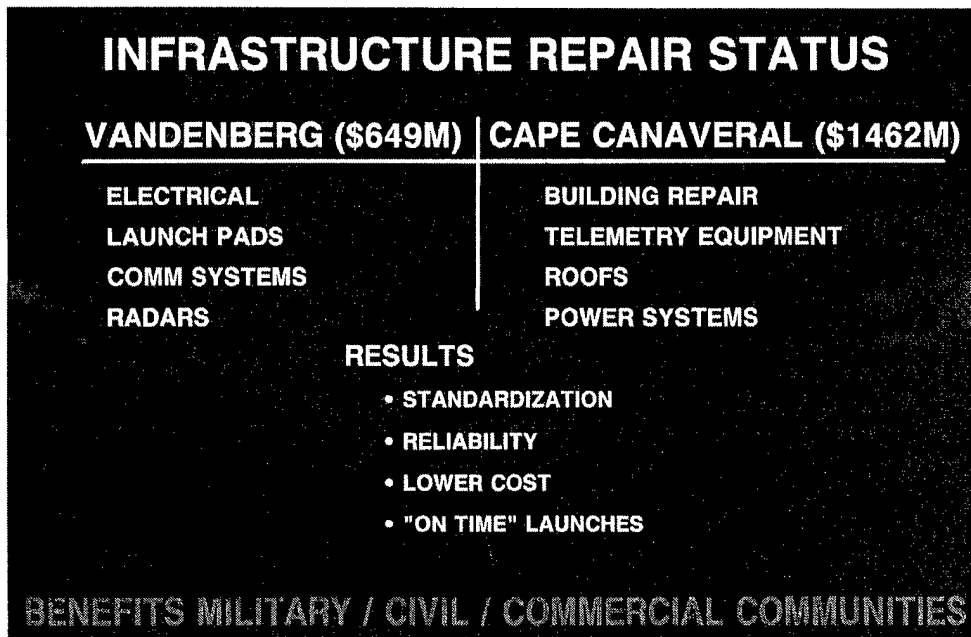
In this case, we are in a hole we cannot get out of (Slide 12). Now, do not blame the contractor because there is shared responsibility with a whole variety of things associated with playing catch-up after the Space Shuttle disaster. But right now we cannot execute, and I am standing before you as the commander of a command that cannot deliver the goods.

Let us take a look at costs. These are the average costs of these particular launch vehicles:

◆ Atlas E:	\$38.6 M
◆ Atlas II:	\$65.0 M
◆ Delta II:	\$38.0 M
◆ Titan II:	\$37.7 M
◆ Titan IV:	\$220.5 M

If you want to get down to it, you can get about any number you want for cost of launching payloads, but \$12,000 to \$16,000 per pound is a reasonable number for the United States, and we are in international competition. For the French and the European Space Agency, \$8,000 per pound is a reasonable number. And obviously in heavily subsidized countries like China and Russia, the price is even cheaper, around \$4,000 per pound.

The point is this, the military DoD space program and the commercial space program are inextricably entwined. We all must become more competitive because our commercial program is just as vital to the strategic importance of this nation as is our military.



Slide 13

Let us take a look at the infrastructure because it consists of a lot of old buildings (Slide 13). I will say this. The Air Force has been excellent. Dr. Rice, General McPeak have been excellent about stepping up to the cost of overcoming that backlog in our infrastructure. We have a huge program associated with our two main launch infrastructure bases.

We are looking at these kinds of results (Slide 13) from that investment and obviously it pays heavily in the lower cost of launch for both the military and the commercial market. We must never lose sight of the relationship between the military, civil and commercial communities. The civic community is NASA.

To the future. . .

We have to change the way we do business. It is not that the way we did business in the past was inappropriate for in the past, but space has changed. In the past we designed satellites. We would find a vehicle and build a vehicle to launch it, and then we would design a control facility to control it. In the future we have to take our customer needs, take a look at the

environment that the system will have to work in, take a look at what is available to put it into space and then design the satellites. It is a complete turning upside down of how we did business in the past.

We cannot start with the satellite or the launch vehicle and then go on to what it takes to do the job.

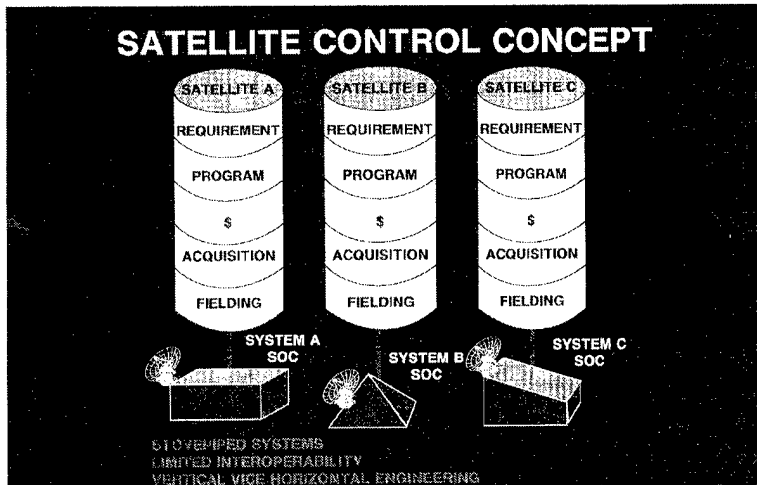
We have to view it all as a process:

- ♦ Satellite/Booster Must Be Ready to Go
- ♦ Minimum Checks Done on Pad
- ♦ Standard Vehicle
 - ♦ Crew Training (Sgts vs. PhDs)
 - ♦ Safety and Reliability
 - ♦ Cost
 - ♦ Response
- ♦ Launch Infrastructure
 - ♦ Get Out of "Booster Only" Mentality

The launch infrastructure is every bit as important as the booster or the payload. Also, we need to think in terms of launching things with sergeants rather than PhDs. Believe me, these people can do it. Safety and reliability have to be a product of everything we do. In the past, since space

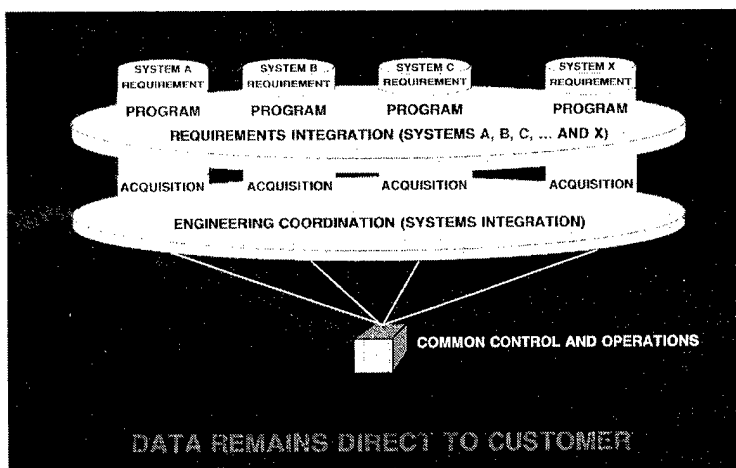
**U.S. Air Force:
Today & Tomorrow**

tended to be a first-time event, you operated safely by just not doing anything until you were absolutely sure. We cannot afford that anymore.



Slide 14

Let us take a look at satellite control (Slide 14). In the past we built different kinds of satellites. We went through the stovepipe, and we developed a control system for each one. We have squadrons now for GPS, squadrons for defense support program and squadrons for weather satellites.



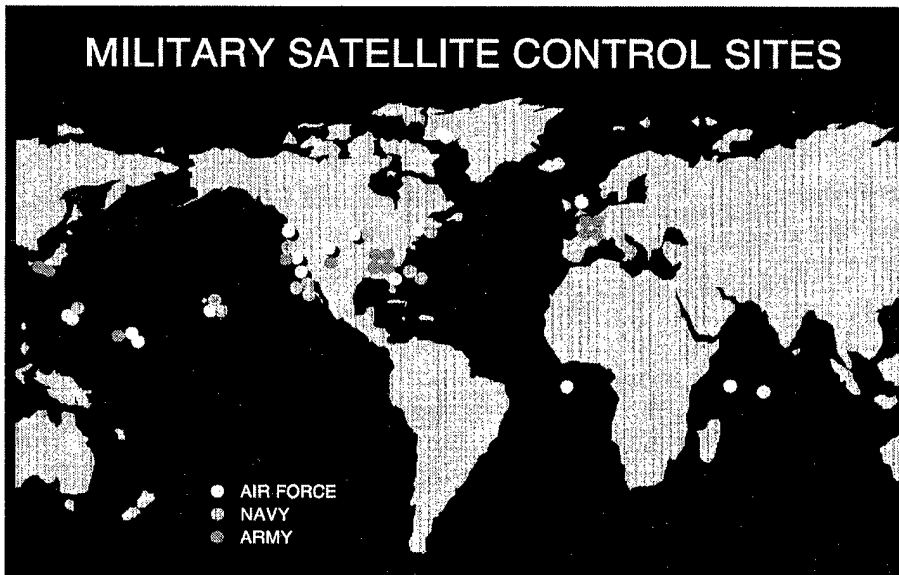
Slide 15

What we need to do is take the capabilities we have, take a look at how they integrate into standards in terms of control (Slide 15). I don't care what the satellite is, 28 volts is 28 volts. When we buy them, we must ensure they integrate into our standard system. It comes down to common capability.

This has only to do with the health, welfare and positioning of the satellite. It does not have to do with the product of the satellite.

The product — data — goes directly to the customer. So, what you have here first of all are NCOs or young airmen. You have them control four different satellites simultaneously because what they are doing for the most part is monitoring, and so, the satellite comes up and says, "I have got 29 volts." Then they can expand, take a look at it. They have checklists, and the checklists tell them what to do, and they do it, take the action. They are just like the SOFs (supervisors of flying) in a tower in a flying organization. If they run into an emergency condition, say, the nose gear of an F-15 won't come down, they try everything on the checklist. If that doesn't work, they call the factory — the PhD who designed the satellite. We have got to get the cost of the space control down, the manpower down, and we have got to have commonality.

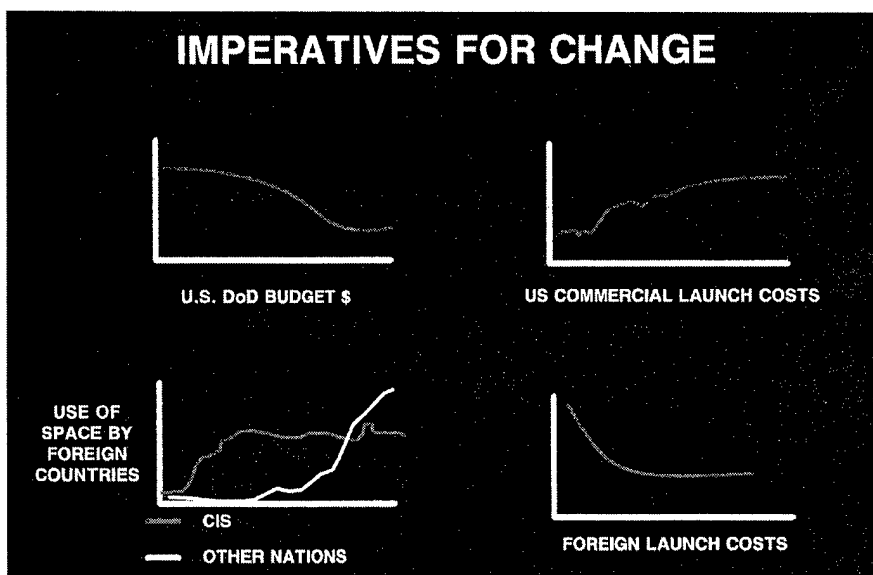
Meanwhile the data still goes directly to the user. For example, the GPS data will go to the sergeant in the foxhole with the GPS receiver or to the F-16.



Slide 16

The other thing we have to get a handle on is the cost of our space network (Slide 16). It is across the globe; it has evolved over the years; and it is expensive. In our efforts to get the cost of space down, we need to get rid of these overseas sites, and we can do that with satellite cross linking and things of that nature.

And even if we didn't want to change, we are going to have to (Slide 17). The reason, as you know, is that the money is not going to be there for the military. There are also imperatives: while the Russian threat has leveled off, other nations are big time in space and growing, both in terms of civilian and military capabilities.



Slide 17

U.S. Air Force: Today & Tomorrow

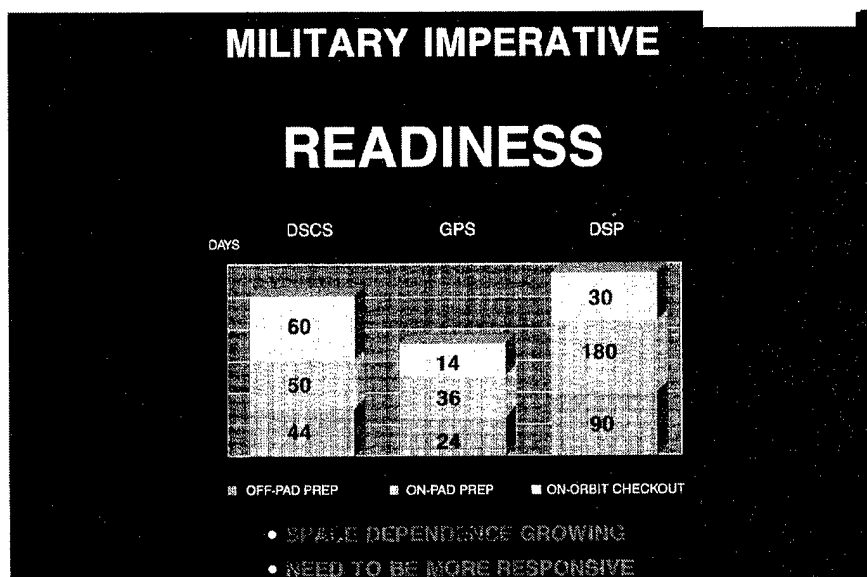
Again, military and commercial space are tied together. If we drive down the cost of military space, the cost of commercial programs also goes down. You will see the vector has been the other way. We have got to get that vector headed down, as you see other people have.

So, we are looking for this kind of a basic philosophical shift. Now we use one-of-a-kind, built-on-the-pad systems. What you do is you get out there, and you start waving the solar panels on the satellite. You start seeing if the eyelids open and close and the pressures build. You have a team of very expensive, very capable PhDs, and you make sure that you achieve success — based only on the fact that you get it airborne, and who cares when.

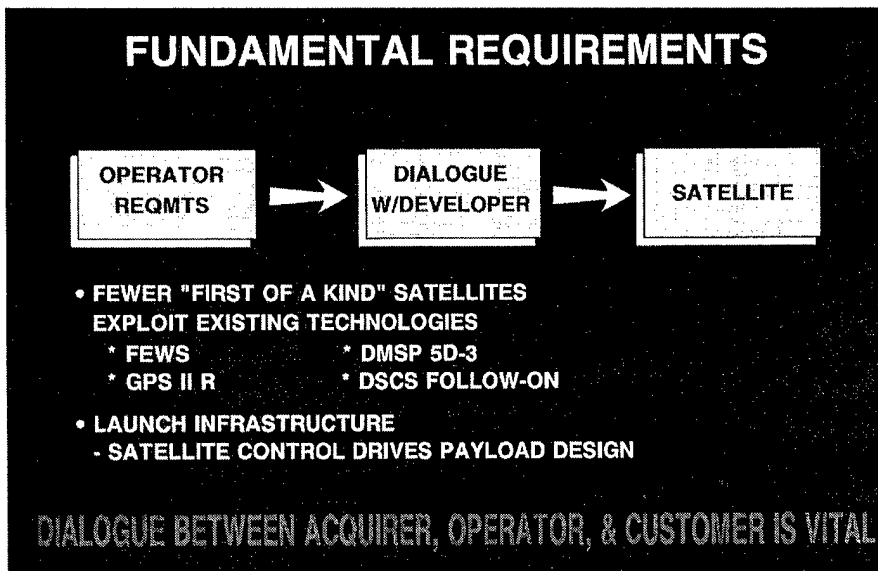
We have got to go from that kind of R&D focus to an operator focus that emphasizes responsiveness to our national requirements:

- ◆ Standard Design
- ◆ Delivered Ready to Go
- ◆ "On-Time" Launches
- ◆ Checklists
 - ◆ Safety
- ◆ Trained Enlisted Crews
- ◆ Responsive

Let us take a look at responsiveness because in the military, readiness is everything. If, in fact, we needed to augment our capabilities in any of these areas — communications, navigation, missile warning — it would take these kinds of times on average to get airborne (Slide 18). It runs from as low as 2 to 3 months to a little less than a year. That is not going to hack it. We don't know when the war is going to start, and we don't know where the war is going to be, and space is ever more important to warfare. We have to get responsive.



Slide 18



Slide 19

With regard to the requirements process, and I am talking here primarily of the people who build satellites, it starts with operator requirements, and we have to have a constant dialogue (Slide 19). We do this in the aircraft business. We do not necessarily do it in the space business because in the past the acquirer has been the customer and the operator, and then, of course, you get your final product.

We will find that we are getting out of the first-of-a-kind satellites, and we are doing that already. Certainly FEWS [Follow-on Early Warning System] is a follow on to our defense support program, which gives us missile warning. The launch infrastructure is very, very important in deciding our satellite control and payload design.

So, this dialogue is important.

We are doing things. We created a DCS [deputy chief of staff] for requirements in the Air Force Space Command. US Space Command has taken on the job of working with all the worldwide CINCs [commanders in chief] to make sure that

their needs are reflected in the requirements documents, both for the white and the black worlds.

The Air Force has stepped up to this and is paying the bill to upgrade facilities in the POM [program objective memoranda — essentially the service's draft budget request]. We need to develop standards (checklists, designs, procedures), and we are doing it every chance we get. While the National Launch System has died, in terms of the congressional funding, it is not dead because it is a necessity. We must have a new low-cost launch system, and there are a number of ideas out there that are worth examining.

We have had a revolution in warfare. We want to make sure that we are preeminent in space, that we are responsive, because that is the nature of modern warfare — and that our DoD efforts enhance our commercial operations because you cannot separate the war we fight on the economic front from the war we may have to fight on the battlefield. Space is the key.

Thank you.

General Charles A. Horner

GENERAL HATCH: *Thank you, Chuck. You covered a lot of territory in that briefing, and I can tell you that a number of the questions that were handed up early were answered in Part 2. I will do a little sorting here while we are under way, but there are two specific questions in the same area — and this, of course, everyone understands is an unclassified session. So, if we breach into any area there, why please tell us, Chuck. You had experience with the intelligence sensors for battlefield use in Desert Storm, and now you are in a position to work that problem hard, how do you see that one, and how are you taking it on?*

GENERAL HORNER: I don't know. It worked for the last speaker.

(Laughter.)

GENERAL HORNER: I think we have seen dramatic changes in our intelligence distribution, collection, and of course, that was one of the fundamental problems we faced in Desert Storm. It was not that there weren't hard-working, willing, intelligent people in the intelligence business. The problem was that the customer, the majors and lieutenant colonels who make decisions in warfare had never exercised the system, and as a result it was atrophied. Our secondary distribution was not there. Our ability to quickly send images down to the squadron so that the pilots could prepare their missions was not there.

The primary system coming out of the DC area had not been exercised, and we have seen since the war there have been a number of actions taken. Certainly people in the House and the Senate have become upset about it. Congressman [Dave] McCurdy (D.-Okla.) has had several very

energetic proposals in this area. Certainly our community on the national level has done various reorganization things to make them more available to the warfighters, things like exercising — people getting out of the beltway and coming down to the blue flags and going over to Korea and places like that to be part of the exercises will certainly enhance that. So, I think what you have is a lot of good people who realize that during Desert Storm we did not fully exploit the capabilities of the information we have, and they are taking measures to do that.

Certainly we at US Space Command and Air Force Space Command are working that very hard because of my previous experience.

GENERAL HATCH: *Thank you.*

A specific question about the Authorization Bill recently passed which mandates a cut in military space programs aimed at a savings of 15 percent; in responding to that general call for return to Congress with answers, is that going to fall to US Space Command or is that on General McPeak's territory and the Air Staff?

GENERAL HORNER: Certainly the Department of the Air Force — organize, equip and train — has a vital role in that, but we see under [the 1986] Goldwater-Nichols [Act] where the CINCs [commanders in chief] really are becoming more and more important in terms of guiding how the services organize, equip and train. I can say that for the most part I am very, very pleased with the support Congress gave the space programs.

Alternatively, I am also a member of the DoD, and I would not want to sub-

optimize our overall DoD for the benefit of space. So, we have to watch that closely. Space has not taken the hits that the other service — you heard General McPeak talk about going from 205 wings down to 100 wings. Space has not had to take those kind of cuts.

That is because space truly is a growth industry. It requires tremendous up front investment, but on the other hand, when you look at the benefits you get, say GPS, where in the future every vehicle and perhaps every soldier on the battlefield will have some sort of benefit from GPS, let alone the benefits to the everyday citizen in terms of where the fishing holes are out in the Gulf or things of that nature. Already my Saudi friends each have a GPS in their Land Rovers because they like to go out in the desert and have dinner, and so, I think that space right now has fared very well.

I am worried about protection against ballistic missile attack, and we need to watch that very closely because that is a significant threat and a growing threat.

I believe that we spend too much on our launch, that we spend too much on our control, and I will undertake measures to try my best, certainly in conjunction with the AQ [acquisition] folks to get those costs down.

So, there are things we need to do to get the cost of space down, things we need to do to become more efficient and more tough, and the reason, if there is no other reason for the DoD to do that, is we have got to make our commercial side tough, resilient and competitive, and the two are tied together.

GENERAL HATCH: *That leads to a general question on DoD and civilian space efforts — the National Launch System [NLS], the National Aerospace Plane*

[NASP], a number of these efforts — you referred to Pete Aldrich's study group, can you expand a little bit in the joint civil-military area?

GENERAL HORNER: I don't want to preempt Secretary Aldrich's findings and announcements, but certainly he has worked closely with the Unified Space Command, the Air Force Space Command. Tom Moorman has a study group out at Maxwell, studying space, and the idea is to coalesce and focus what we all know to be generally true about our space operations. There are a wide variety of things that we may have to prioritize — manned space programs, national space plane, national launch system. They may become competitive, and the point is that I think we in the space business know where to put the priorities, and I think we can reach agreement. That has been a problem in the past. We have many, many voices speaking from the commercial side, military side and civil side. We cannot afford that, and that is in evidence by the fact that NLS was zero in the budget.

GENERAL HATCH: *A follow-up question. You did mention GPS. The way you talked about it, it is a healthy program, moving along the path you want it to move along; is that correct?*

GENERAL HORNER: GPS is very healthy, and our follow-on early warning system, the thing that provides us warning of ballistic missiles is very healthy. That received strong support both in Congress and on the [Pentagon's] third floor.

GENERAL HATCH: *Thank you very much, General Horner. It is a pleasure to have you here today. You are a superb operational commander, and you are off to a great start as USCINCSpace. We look forward to seeing a lot more of you in the future. Thank you very much.*

"PACAF Today & Tomorrow in a Changing World"

Thanks, Monroe. This is my fourth time to address the L.A. Symposium. As you may know, I retire in February, so it will be my last time to attend, at least in this uniform. I want to thank you for the outstanding support the AFA gives to the Air Force.

Your efforts have helped give America the most potent Air Force in the history of our planet. Thanks in large part to your commitment, the United States Air Force stands in first place — in a brutally competitive league where, as Tom Seaver said, There are only two ways to finish: in first place or *no* place.

You understand that in our business finishing first isn't a luxury; it's a necessity. That's why we need you to stay engaged on our behalf to make sure America's Air Force always stays in first place.

Similarly, our military forces need to stay engaged in the Pacific — for the sake of our country's security and economic well being. I'd like to spend the next few minutes telling you why.

To begin with, the threat to our country may have changed, but America's basic interests haven't. When you cut through all the rhetoric, we still seek three basic things:

- ♦ security,
- ♦ free trade and open markets, and most importantly,
- ♦ freedom through democracy.

The fact that we're a global power necessitates a global approach to securing those three basic needs. But being a global power doesn't mean we can or should go it alone.

The *Washington Times* said this morning that in this era following the cold war,

trade issues overshadow defense issues. I hope to remind you today how trade and defense are related, especially as it applies to the Pacific region.

Thus, our interdependence with other nations isn't optional; it's essential. If that's the case, *and* if we intend to remain a global power, we can ill afford to ignore the largest military and economic arena on our globe.

From an economic standpoint, the Asia-Pacific region is the global equivalent of a California boom town in the gold rush days. "Time International" Magazine graphically illustrated that point with this front-page headline: "Dragon power — in a staggering world economy, east Asia sets a booming pace." From an American perspective, the magazine indulges in understatement.

In fact, the Pacific rim is our country's largest trading partner. America conducts 35 percent of its annual trade — some 320 billion dollars — with Pacific nations. That's 50 percent more than our trade with Europe — and experts predict that figure will rise to twice the trade with Europe by the year 2000.

America also sends a third of its exports to the Asia-Pacific region. As you might expect, Japan is our largest trading partner at 140 billion dollars, and our second largest export market.

But there's more to America's Pacific trade than Japan. For instance, the six Asean nations (Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand) make up our third largest export market and fifth largest trading partner overall. The economic vigor of these and other Pacific nations continues to be impressive, and their growing markets will be increasingly im-



portant to America.

For instance, "Time International" referred to Asia's "little dragons" (Hong Kong, Taiwan, South Korea, Singapore, Indonesia, Malaysia and Thailand as the "super seven" — and well they should. These seven nations racked up 784 billion dollars in trade last year. America has interests in these markets which we can't afford to ignore.

I might add that we export more than durable goods to the Pacific rim. We also export ideas — such as democratic principles and free trade. In fact, 65 percent of the 400 thousand foreign students in American colleges come from Asia.

Similarly the Pacific's military credentials rival its impressive geographic and economic profiles. To begin with, three of the post-Cold War world's global power centers are Pacific powers (Japan, the C-I-S and the United States).

Six of the world's largest armed forces call the Pacific "home." North Korea, a long standing threat to stability in the region, has a million men under arms — and it's less than a third the size of California.

While negotiations between the two Koreas show promise, the north remains a renegade state with a history of aggression and an active nuclear program.

Other Pacific nations are busily spending considerable portions of their growing treasure to beef up their own military capabilities — and the world is watching. Recently London's *Sunday Times* noted with concern the following details of what they called a "far-eastern military buildup:"

- ♦ In Burma, the government has bought one billion dollars in arms from China, attack helicopters from Poland and strike aircraft from Yugoslavia.

- ♦ China has launched a massive modernization program including the purchase of Su-27s from Russia, new destroyers, frigates and submarines. The paper also noted the rumor that China may be considering launching a blue-water fleet by acquiring a Ukrainian-built aircraft carrier.

- ♦ Brunei's plans for military buildup include acquisition of British Hawks, off-shore patrol vessels and maritime patrol

craft.

- ♦ Taiwan plans to build 260 of its own fighter-bombers. The administration has announced an agreement to allow Taiwan to purchase 150 American F-16s. Taiwan also plans to acquire 400 main battle tanks, as well as new frigates and missiles.

- ♦ Thailand is buying American fighters, battle tanks, amphibious assault ships, a helicopter carrier and heavy artillery.

- ♦ Japan, already one of the world's biggest military spenders, plans to acquire or build more than 200 F-15s and several AWACS, plus tanks and a destroyer. It's also working on a new fighter.

- ♦ South Korea stepped up military spending as America is cutting back its presence on the peninsula. It's buying 120 F-16s, 100 Sikorsky helicopters, perhaps as many as 18 destroyers and 700 main battle tanks.

Let me add that Japan and Korea, especially Japan, are major contributors to the burden of defense in the Pacific. By 1995, the Japanese government will pay almost three-fourths of the cost of stationing U.S. troops in its country, \$3.8 billion. While Korea's host nation support of \$250 million this year is modest compared to Japan, it has come a long way and is still increasing its contribution to our defense costs.

The sizzling pace of Asian military spending simply verifies what we've been saying in this forum for quite some time: The Cold War may have ended, but confronting regional instabilities will be our greatest challenge for the foreseeable future.

In fact, the Stockholm International Peace Research Institute's annual report on world defense claims Asian nations imported more arms than any other part of the world in 1991. Why?

A recent article in a Japanese economic journal offers an explanation: "The recent military buildup in these countries is, indeed, closely related to the U.S. military standdown in the Philippines."

It's a telling point. Our Pacific friends and allies need our stabilizing presence. They want us to stay engaged in the re-

gion. The natural fear is that we might not, and instabilities abound in the Pacific. Potential hotspots include:

- ♦ India vs. Pakistan (both potential nuclear powers),
- ♦ Southeast Asia (factionalism in Cambodia, uneasiness in Thailand and Vietnam),
- ♦ China vs. Taiwan - Hong Kong - 1997
- ♦ The Japanese - Russian dispute over the Kurile islands,
- ♦ The Spratly Islands (which are claimed by six nations, including China, the Philippines, Vietnam, Indonesia, Malaysia and Taiwan; China claims all these islands and, as you may recall, fought a brief naval skirmish with Vietnam over this potentially mineral-rich area in 1989.

Other Asian nations such as China may be attempting to fill the perceived power vacuum left by the demise of the Soviet Union and a reduced U.S. presence.

China certainly is moving to acquire the military capability to fill that vacuum, taking advantage of Russia's willingness to sell arms. It's already contracted for 24 Su-27s and a large number of main battle tanks. Of course, what the Chinese are really after is the technology in those weapons, so they can improve, produce and sell more of their own systems.

Moscow's sale of missile guidance and rocket technology and rocket engines will allow China to upgrade its mediocre air-to-air and surface-to-surface capability. Top that off with the sale of Russian S-300s to China — similar to Patriot — and you have an across-the-board, substantial increase in Chinese military power.

Our country's leadership understands these concerns and our vital stake in Pacific affairs. Earlier this year President Bush told the Australian parliament that, . . . "We intend to remain engaged no matter what the changing security arrangements of our time . . . The United States has fought three wars in Asia over the past 50 years. We know that our security is inextricably linked to stability across the Pacific, and we will not put that security and stability at risk."

To be sure, the past year has brought noticeable changes to our posture in the Pacific, but that posture is one that looks

toward, not away from Asia. It should send all concerned a clear message: We're here to stay. Let me give you some details.

Our Pacific strategy continues to rely on forward presence and strong bilateral military relationships but without new bases. We're depending more on access and cooperation from our friends and allies, or as Secretary Cheney put it, "Places, not bases." Access replaces presence.

With four warfighting numbered Air Forces, PACAF has 48,000 people, nine main operating bases (including Hickam) and 300 combat aircraft. Considering the size of our A-O-R, that's unquestionably an economy of force — what I believe to be the minimum needed to do the task set before us. When we're through with planned reductions, we'll have shrunk by less than 15 percent of PACAF's recent Cold War strength, compared to a loss of some 60 percent in USAFE. That'll leave us with about three-and-a-half fighter wings — roughly equivalent to the air forces in Europe.

Let me emphasize that this modest draw-down doesn't alarm me, because it's balanced by the increased mobility and flexibility of our forces. Flying top cover in the Pacific depends on two things: rapid reinforcement and the continued forward presence afforded us through cooperation with our friends and allies.

We take the first of those two essentials as a given because rapid reinforcement comes from home in the U.S. On the other hand, we can't take the second essential ingredient for granted.

Our continued forward presence and access to facilities depend on America's ability to remain a good military neighbor to the Pacific community of nations. We do that in a number of ways, but especially through numerous joint and combined exercises, as well as foreign military sales.

PACAF's training schedule calls for more than 50 exercises a year — two thirds of these with our friends and allies. These international training opportunities help foster the mutual understanding essential to teamwork in combat.

As you might expect, these exercises

also emphasize the importance of the second pillar of our "good neighbor" policy, foreign military sales. If Desert Storm proved the value of coalition efforts, it also pointed out the critical need for interoperability with our coalition partners.

As I said earlier, the Asian nations are beefing up their militaries in response to the changes they see in their world. American arms sales account for a considerable portion of that trade. In fact, the Air Force manages more than 12 hundred foreign military sales cases with 14 Pacific countries. The value of these cases exceeds 13 billion dollars.

Frankly, that's good for America. It's good for our security and it's good for our economy. It promotes that all-important commonality of equipment which could help make the difference the next time we go into combat as part of a coalition force. Simply put, going to war with common, interoperable equipment is critical to success. We've made progress within the American services. We need to do much more with our international partners. This helps our unit cost and balance of trade.

From my view point, I'd like to encourage the contractors in our audience to be engaged or involved in Asia. I hope the 1992 Singapore Air Show and the sizable, successful U.S. presence there will spark increased interest by America's defense industry in the Asian market. The more American equipment you can provide to meet the legitimate requirements of the air forces I operate with, the easier my job is. Not only does it improve interoperability, but I know our equipment is top quality and battle-proven.

That commonality and confidence is just as essential for humanitarian efforts as it is in combat. Relief operations such as "Sea Angel" in Bangladesh taught us that lesson and we can count on supporting similar

efforts in the future.

In fact, Pacific Command has supported 19 disaster relief operations since 1989. Going into such situations with interoperable equipment simplifies operations — and more importantly, it saves lives.

Our country thus plays several roles in the Pacific. It remains the only nation on this earth with the ability and reputation to serve as a trusted, honest broker in the region. I've personally been told in every country I've visited that our friends and allies want and need us to stay engaged — and it's unquestionably in America's best interest to do so. We must capitalize on the many opportunities this changing world affords us, especially in the Pacific.

More than 22 centuries ago one of history's most celebrated generals, Hannibal, sat poised on the brink of similar remarkable opportunities. On August 3, 216 BC., Hannibal handed the Romans a devastating defeat which left the gates of Rome open to him.

Hannibal's cavalry commander saw the fleeting opportunity and urged him to march on the Capitol without delay. Hannibal, however, chose to wait — a decision believed to have saved the Roman empire that day.

Hannibal's indecision prompted his cavalry commander's famous observation that, "in very truth, the gods bestow not on the same man all their gifts; you know how to gain a victory, Hannibal; you know not how to use one."

Twenty-two centuries later, we've won a much greater victory. We've won the Cold War. Now it's up to us to wisely use the victory we've won. With your continued support, we in Pacific Air Forces intend to do our part.

Thank you.

General Jimmie V. Adams

GENERAL HATCH: *Thank you very much, Jim. You really have a wide-ranging set of responsibilities in a huge geographic area.*

The first question focuses on industry. It reads, "While we would like to be more involved in foreign military sales, we find it difficult to compete with foreign suppliers who have national support through their governments and embassies. Do you see this situation changing?"

GENERAL ADAMS: I have watched this over many years. The situation is compounded by the fact that many of those industries are partly owned by the governments themselves. So when the contractors arrive in town — and I watched this often while I was in Washington — the embassy goes through their briefing and looks for those things that are offensive or incorrect. They make sure that the contractors get to the right rooms in the Pentagon and meet the right people and hold their hand through the whole process.

I know that in many cases those of you who have gone out to sell American goods do not receive the same sort of reception from our embassies. I am not recommending that we ought to do that, but there ought to be a clear recognition, I believe, that it is to the benefit of the United States for US companies to sell those pieces of equipment over there.

I can tell you that I have seen a marked change, at least in the embassies that I visit in the Pacific, in the attitude towards assistance for foreign military sales, for all the reasons that we have described. From the operator's viewpoint, interoperability is a very important one, as well as knowing that our partners' equipment is reli-

able, is going to work, and we can count on it should we need to rely on our partners. The economic reasons for wanting to pursue this — helping to reduce our own unit costs and to assist in trade — are also very strong.

I find the attitude changing. I find more support out there, and I hope you are finding the same thing. I think it was epitomized at the Singapore Air Show where the ambassador there, Ambassador Orr, really worked hard to make sure that the US contractors felt welcomed. He and I worked hard together to get as much presence down there as we could, to be sure the American flag was shown in terms of aircraft and people. He asked me personally to come down and assist him at the reception that he held for about 3000 people in conjunction with the US contractors. I know he was a strong supporter and understands what this is all about. So, I have seen some encouragement all around in most of those capitals on the part of our embassy. I hope you are encouraged by it, and I hope it sticks.

I think, also, Mr. Yockey's [the Honorable Donald Yockey, Under Secretary of Defense, Acquisition] presence at the Singapore Air Show indicated that the DOD position is moving in the direction of assistance where it is legal and where it makes sense.

GENERAL HATCH: *That is a positive response.*

The second question is explicit and discusses training programs in the Pacific. With the loss of your training ranges in the Philippines, what are your other opportunities, and what progress is there in moving Cope Thunder from the Philip-

pinas to Alaska?

GENERAL ADAMS: The move is complete. We were last in the Philippines on November 27, 1991, and we pulled the flag down, got in a helicopter and departed. So, Clark is closed from the US Air Force standpoint, as of last November.

The Navy is out of Subic Bay and will be completely out of Cubi Point by the middle of this November. So, the US military presence will all be gone.

We have moved the equipment from the Crow Valley Range in the Philippines to Alaska, up at Eielson Air Force Base at Fairbanks. We have added that equipment to the equipment that was already in place at Eielson. It is a marvelous range complex from a size standpoint. It is larger by a factor of two or more than the Nellis Range. We have been funded by the Congress for a full-up instrumentation capability much like the Red Flag measurement and debriefing system. It will be ready by 1995. We have been funded for dormitories for the participants to use while they are there. We have been funded for an operations center much like the large operations center at Nellis. So, by 1995, we will be conducting exercises there with the same fidelity and the same realism that you have at Red Flag.

The four exercises that we had this summer were very, very successful. The PACAF participants were there, but also we had the Army, the Navy and the Marines all engaged in those exercises. The Canadians came over. We had the Brits in before one of the exercises began, but they did some workups with us, and they participated. We have had a squadron come from Europe to participate there at Eielson. I think we will have more European activity. It turns out that it is closer to go to Fairbanks, Alaska, from Europe than it is to go to Nellis, if you fly over the Pole. So, we are excited about the prospects of the training that will occur in Alaska. The air space is much freer. There are some environmental concerns, and we have to pay attention to those, and we are. But my view is that Alaska is the last national treasure for training that is available to us,

and we are developing it to the best of our ability, and we have gotten very good support from the Congress to fund this activity.

So, we will have a very good operation there. It is good now, and it is going to be much better by 1995.

GENERAL HATCH: *Thank you, General Adams.*

The next question is about reconnaissance assets. The authorization bill talked about competition between the RC-135's and the Navy EP-3. Both of those aircraft do a great deal of work in the Pacific theater. Do you see them as overlapping or complementary?

GENERAL ADAMS: The short answer is, of course, they are complementary. The longer answer is much the same line that both General McPeak and General Horner took as we look at the total DoD problem of where do you take cuts. I think we just have to be wearing our joint hat as we review those requirements. The peculiar capabilities of both of those systems don't totally overlap, but there are areas in which you can find some capabilities that each of them share. We have to look at the overall budget reductions.

This will be a part of the roles and missions discussion that the Chief jinked out on because the Chairman of the Joint Chiefs has not had his say. None of us want to get out in front of the Chairman on which of the services will have which responsibilities.

But there are some capabilities in those two systems that do overlap, and I think we will just have to look more closely at the absolute requirements. In some cases, the services have built their own requirements for their own systems without acknowledging what the other services are doing. I think a closer look by all of the CINC's [commanders in chief] will be required to ensure that, where cuts will be made in any case, we can continue to do the mission.

I don't know how the EP-3 and the Rivet Joint is going to finally come out, but I do know that these issues are being studied very seriously. CINCPAC [Commander in

Chief, US Pacific Command] has said he needs both systems. I don't know if the numbers are right. I don't know if the locations are right. But he said he needs both systems. So, we will continue to review that.

GENERAL HATCH: *Thank you.*

A question about Kadena [Kadena Air Base, Okinawa] and the composite wing: how is that major installation working out as home to one of the Air Force's composite wings? I would say that indications are good. The Chief talked about the F-15 wing there winning the William Tell competition. It is not in his bio, but Jim Adams was a William Tell winner a few years back. Talk about the composite wing at Kadena for a few minutes, if you would?

GENERAL ADAMS: It was more than a few years back, but in fact I was.

First, let me blow the horn for the shoguns of the 18th Wing for winning William Tell. They competed against all the guys that went to the Persian Gulf. They felt pretty good about winning because they felt a little left out when the wings at Bitburg, Eglin Air Force Base, and Langley Air Force Base all went to the Persian Gulf to fight the war with a very impressive score of 35 to zip. These guys in the 18th Wing were not asked to go, but they went to William Tell and came out first. You can draw whatever conclusions you want from that, but we all did well, and we were proud of them. The William Tell guys from Kadena won best team, top gun, best maintenance, best weapons load. So, it was a very impressive sweep for them. Whatever conclusion you would draw from the composite wing performance, certainly where the rubber hits the ramp, they are doing one helluva job.

It has been a very interesting period for us to take that air division, a SAC [Strategic Air Command] wing, and a tactical fighter wing and combine them, all 8,000 people, into one single wing under one general officer. We eliminated seven colonels while we did that, and we pushed some responsibilities down to levels where we all got a little nervous. But I can tell

you it is working very, very well. We are finding synergisms between the way the tankers and the fighters are working together. We are finding more savings than we originally had estimated, so we will eventually have some more manpower savings come out of it. I am very happy with the way that composite wing is working.

The one we have put together at Elmendorf has F-15C's, F-15E's and C-130's. That is working very well, also, and again, we are saving manpower. What's important there is that at the supervisory level we are saving colonel positions, and we are pushing down responsibility where it needs to be at the lowest level. So, I am very happy with the progress that has been made on the composite wing activities at PACAF.

GENERAL HATCH: *We are pleased to hear it.*

In your remarks, General Adams, you talked about North Korea, a relatively small country with a 1 million man army and seeking nuclear capabilities. On the other side of the ledger are the on-again, off-again talks between the South and North. What are the prospects in the near term?

GENERAL ADAMS: Again, we are all encouraged because they are talking. We were very encouraged in about the February time frame because it looked like progress was being made. The North Koreans demanded that we cancel Team Spirit, which I believe is now the largest free world exercise anywhere, and South Korea and the United States agreed to cancel Team Spirit. Then progress seemed to stall or slow down to a very, very slow pace. Then, when the talks looked like they were going to get better, the North Koreans demanded that we cancel Ulchi Focus Lens, the US-South Korean exercise this summer. We refused to do that because we were fooled once, and would not be fooled twice.

I read in this morning's paper that the North Koreans say that if we hold Team Spirit 1993, they will break off all dialogue. So, there is a lot of gamesmanship going on now between the North Koreans and the South Koreans.

The other piece of the puzzle here is

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that Kim Il Sung is over 80 years old. He has been the North Korean leader since before the Korean War in the early 1950's. He is committed to reuniting those two Koreas on his own terms, and he is running out of time. He has at his command a great amount of military capability. We are encouraged by the dialogue, but the Minister of Defense from Korea and the Secretary of Defense met two weeks ago and made the determination that they would continue the moratorium on further cuts in personnel in Korea through this next year. So, we have put on hold any further reductions in 1992 or 1993 to our forces in Korea until more progress is made at the talks.

We are hopeful, but we are keeping our

powder dry.

GENERAL HATCH: *Thank you very much, General Adams for being with us today. You talked about the fact that you won't be with us next year in your current capacity. Let me just say that you and I have been friends for many years and everyone in AFA and all of your friends here are extremely proud of the career that you have had in the Air Force and will continue to have, and we wish you the very best.*

Thanks for being with us.

GENERAL ADAMS: Thank you, Monroe.

(Applause.)

"NATO in Transition"

Ladies and Gentlemen, thank you for the opportunity to speak with you this afternoon. Perhaps it is indicative of an election year, but Americans are asking many questions about defense and with respect to Europe the constantly changing environment makes even the most apolitical person wonder what is going on "over there."

Let's go back a few years to the mid 1980s. The strategic environment had thawed somewhat though all the trappings of the Cold War still existed — the bipolar world, the two competing alliances, East versus West, etc. Basically, things had not changed appreciably since the early fifties.

But suddenly in October 1990 the two Germanies became one. In March of 1991 the Warsaw Pact disappeared. And in December 1991 the Soviet Union disintegrated into separate states only a few years after President Gorbachev had introduced Glasnost and Perestroika. Eastern Europe awoke, intent on developing market economies and instituting democratic reforms. And the most poignant symbol of the Cold War, the Berlin Wall, collapsed.

At long last the West started to feel that possibly the Cold War was over.

Though overwhelmed by the pace and the magnitude of these changes which no one could have anticipated, to NATO new relationships, new structures, and a new way of doing business was needed.

A series of historic meetings began in July 1990 with the London conference, followed by the Copenhagen conference, and finally the conference in Rome. In these conferences, the alliance's political leaders set NATO on a new path, a path of

dialogue and cooperation with nations of Central and Eastern Europe.

In June 1991, NATO's foreign ministers attempted to extend the sense of collective security throughout the Atlantic community by proposing that greater security could be attained by interlocking the existing security organizations and structures like the Conference on Security and Cooperation in Europe (CSCE), the European Community (EC), the Western European Union (WEU), and NATO which all shared an interest in security and defense in Europe.

But the end of the Cold War did not bring with it a world without problems, rather old problems were replaced by new, more unstructured ones.

What has happened in Europe lately:

- ♦ The former Soviet Union has broken into separate republics each unsure of which direction to go with its new found freedom, and in many of those republics, age-old ethnic rivalries have erupted into civil unrest, open rebellion and civil war.

- ♦ Old national rivalries and mistrusts dormant during the Cold War have resurfaced.

- ♦ European nations are looking inward focusing their attention on economic and social needs. They are less inclined to spend large amounts of money on defense. For example, Belgium will reduce its defense forces by approximately 62% over the next few years. Germany and the UK have already made significant reductions, and the Netherlands is considering substantial cuts as well. The reduced threat makes these cuts possible, but they are clearly economically driven.

- ♦ Regrettably, the hotly contested war



in Bosnia-Herzegovina continues unabated and captures European and world attention with its senseless and bitter fighting, intense hatreds, and human suffering. The notion of "ethnic cleansing" strikes an old, but all too familiar chord.

♦ And in America we have taken full advantage of the "peace dividend," brought home thousands of troops at an ever-increasing rate, and it is unclear where it will stop. The base force concept that we have developed for Europe calls for 150,000 troops: yet, the 1993 military authorization bill limits the number of U.S. forces in Europe to 100,000 by 1996. And some in Washington and elsewhere are suggesting additional cuts as low as 75,000.

This is the new strategic environment, and even as we sit here today, Europe changes.

For 43 years, the United States has been the undisputed leader of the alliance bringing with its leadership the forces, the power, the structures, and the energy that no European country is capable of providing. But again, as events occurred and Europe changed, so too the relationship between the U.S. and its allies changed.

Certainly, the Europeans would like more say in their own security affairs, but they publicly and privately state that they would like America to remain a contributing member of the alliance, and I don't mean in a purely economic sense.

A non-U.S. senior officer made a comment to a group of visiting American officers on American participation in NATO. What he said was quite telling — nothing works unless someone leads. If a European nation leads, the others would complain that it was being too parochial, too self-serving — Europeans view the U.S. as the honest broker.

But the Europeans are unsure of U.S. intentions and commitment. Look at it from their perspective — as they follow the U.S. media they see and read reports which call for greater European troop reductions, greater European burden sharing, and articles which suggest isolationism.

History provides us with some poignant examples of why we should consider our

continuing commitment to Europe.

Twice this century the United States deployed to Europe to protect our national interests making great sacrifices in both lives and resources. In each case, years of sacrifice were followed by a public outcry to withdraw from European affairs. The first time we withdrew only to return some 24 years later. The second time all of Eastern Europe was lost to communism. We must understand that peace, as well as war, has a price, and must be won.

We continue to have long-standing cultural, political and economic ties with Europe, and in a world that is becoming more economically interdependent, we are further compelled to stay closely tied to Europe. But this message is not being received in Europe; rather, they see hesitancy.

Because of their uncertainty, the Europeans are attempting to define a new security identity and, in the process, are looking towards other structures besides NATO. Some nations may view NATO as a U.S. dominated organization, and if the perception is that the U.S. is going to pull out, then why should they continue to support NATO? A better approach would be to use those structures and organizations that will be responsible for future European security needs. This may explain the reemergence of the WEU and the unspoken belief that the WEU or other organizations are better prepared to meet future European security requirements, especially if the U.S. commitment wanes.

American leadership is still needed, and our continued presence required. But what we as a nation must decide is what we want to bring to the table.

Continued NATO membership ensures the U.S. of a seat at the table of European affairs and allows us to try to influence the course of European events. Some say we may not have the influence that we once had, but we still have considerable influence. That influence translates into capability.

No NATO nation has the ability to project power like the United States. Our tremendous lift capability both in the air and at sea is unmatched. The U.S. pro-

vides NATO with intelligence data and augmentation forces that would be very hard if not impossible to replace. And unlike any nation in NATO, the U.S. can quickly bring to bear tremendous power anywhere in the theater. This capability is the essence of the Air Force's concept of global reach, global power, and it is something that the Europeans would be sorry to see leave.

Global reach, global power is completely compatible with NATO's new strategy. This may surprise some people who view NATO strategy in the context of the Cold War. How did we get this new strategy and why?

When the North Atlantic Treaty was signed in 1949, its purpose was clear: to deter any aggression or repel it, should it occur. The enemy was clear — it was a large, monolithic, theater-wide threat capable of simultaneous action across the entire front. There are days when I long for a monolithic enemy. You knew who it was, you could count his forces, he was almost predictable. The instability and ethnic strife which we have now are hard to put a face on.

Be that as it may, over NATO's first 14 years several strategies would come and go. But in 1967, after seven years of intense debate and deliberation, MC 14/3 became NATO's approved strategy, and it served us well for the last 25 years.

In the spring of 1990, we started a review of our strategy given the enormous changes in Europe. In NATO's view, MC 14/3 was out of date, steeped in the Cold War, and not representative of the new political realities.

My point in reciting this brief history lesson is to give some perspective: MC 14/3 took many years to develop and was perfected over the next 25 years. Through it all, the enemy remained constant — the geostrategic face of Europe remained constant — everything, if you will allow me that, remained constant.

Alternatively, NATO's new strategy was developed over roughly 18 months during times of dynamic change and because of dramatic change. Many of the changes that I have previously mentioned occurred as

we were developing our new strategy — the Soviet Union break-up, the reemergence of Eastern Europe, the reunification of Germany, etc. One other change that I have already alluded to was the threat — it's worth mentioning.

The threat is no longer clearly defined. It is multi-directional and multi-faceted. This phrase is quite descriptive. We are not sure from where a potential enemy will come, so we must be prepared to face him anywhere. And we must be prepared to fight many different types of warfare, from combating terrorism, to crisis management, or full-scale conventional warfare.

Against this backdrop we developed our new strategy. So, despite the dynamic environment we were working in, we did develop a coherent and effective strategy that we are confident will carry us well into the next century.

It is a strategy that stresses forward presence vice forward defense, conventional weaponry vice nuclear weapons, rapid reaction forces vice large standing formations. It places a premium on flexibility and mobility as well as early warning. I'm sure you can now see the similarities with the Air Force's global reach, global power.

Air forces and particularly the U.S. Air Force will have an increased role in the new strategy, which also incorporates multinational forces. These forces will be developed in the context of an emerging European defense identity.

What has emerged is a NATO better prepared to cope with an ever-changing world and a NATO with continued relevance despite the perception that it is a Cold War relic.

The current crisis in Bosnia-Herzegovina is a test case for our new strategy. So far, the community of nations has chosen the U.N. to address the problem. This, however, does not mean that NATO is not capable — it can bring great strengths to bear and rapidly if asked.

NATO air and naval forces are now conducting missions near the crisis area and are capable of more direct action if called upon. Air power in particular has played a

significant role by providing early warning and monitoring with NATO E-3As, and airlift for medical, reconnaissance, and support teams are being flown by NATO C-130s and other alliance aircraft. We also have the capability to rapidly augment these forces if required. No other organization can do this as quickly and as efficiently as NATO.

As we look ahead, NATO will continue to prepare itself to meet the necessary mix of missions demanded by the multi-directional and multi-faceted risks which now exist in the Euro-Atlantic region. NATO must remain Europe's primary security structure based on its legal standing and ability to act. And while NATO has the military might to react to any contingency, the political arm of the alliance is and will continue to be the preeminent element of the alliance's strategy with the function of promoting stability.

NATO's well established lines of communications and cooperation between the Western European nations is something that can not be overemphasized. Our success in the Gulf War was due in part to these long standing relationships.

NATO has an integrated military structure — no other current European organization can make this claim. NATO has the command and control network, the infrastructure, and a logistical system and capability unlike any alliance in the world. Again in the Gulf, many NATO-established procedures, such as command and control of aircraft, were used as a model, and they served us well.

NATO is capable of a wide range of responses. Peacekeeping, peacemaking, humanitarian aid, crisis and conflict management operations are all possible missions. NATO stands ready, and more importantly, able to act if called upon.

Throughout its 43 years of existence, NATO has come to symbolize hope and stability not only in Western Europe, but throughout all of Europe. There is a virtual flood of military to military visits between senior leaders of NATO and Central and Eastern Europe. These people understand the importance of NATO and continually

express their desire for NATO to remain a viable entity as their nations continue the difficult transition to a democratic form of government.

The question is, can we afford to throw this all away? NATO remains as indispensable today as it was at the height of the Cold War. NATO remains viable not only because of the factors I have cited but because it has not remained complacent, enamored with the success of its Cold War victory.

And what will be the role of the U.S. Air Force in Europe? Of the 150,000 troops in the base force for Europe, approximately 45,000 will be Air Force. This figure fully recognizes the reduced threat but at the same time it is large enough to react to the more likely forms of conflict facing Europe. Further, it is consistent with the new NATO strategy that stresses flexibility, lethality, and mobility. These forces are and must be capable, and in concert with our allies be ready to deter. Should deterrence fail, these forces can join the battle quickly and reinforce if necessary.

Flexibility, lethality and mobility are nothing new to the Air Force. These are the same inherent characteristics of air power that make global reach, global power a reality.

We will maintain a full range of capability in Europe but at a much smaller scale than in the past. Air-to-air, close air support, air interdiction, and airlift are all classic Air Force missions that must be maintained in theater. The ability of USAF aircraft to deliver both conventional and nuclear weapons makes them a key component of NATO's sub-strategic forces, which consist solely of dual capable aircraft.

So, though we'll be smaller, we'll be no less credible. And those who may question our credibility only have to go back two years to see what this Air Force can do.

United States Air Forces in Europe is at the mid-stage of a rapid drawdown of people, aircraft and bases. By 1995, USAFE will have reduced from over 84,000 people to less than 45,000. Fighter squadrons will be reduced from 30 squadrons to 11, and

main bases from 34 to 15 or less. This is a dramatic reduction in military capability.

However, I am confident that the capability left behind will be adequate to the task. Not only do we have the reach and the power to meet the tasks, and the ability to rapidly augment in-place forces, but we have the people who are smart and flexible enough to make things work.

The world's ability to predict the future is questionable at best and NATO may not be the answer twenty or thirty years from now. But today, and for the foreseeable future, it is the most capable organization in Europe. The Honorable William Taft IV, the former U.S. permanent representative to NATO, said it well: "NATO is the actual, operating manifestation of European commitment to a common European defense and security policy, as well as a transatlantic commitment to an alliance

security policy. More than form, NATO is today a way of thinking about security issues from a continental perspective."

This way of thinking has taken us 40 years to develop; to throw it away now could discourage the nations of Eastern Europe who look to NATO as an example of how democracies can work together. To do otherwise, to act hastily without fully considering the possible ramifications, may jeopardize the promising directions that the former communist states in Europe are currently taking and diminish U.S. influence in Europe.

I believe there is no turning back. We must resist isolationism and understand that continued commitment "over there" is not only the smart thing to do but the right thing to do — and our Air Force is the keystone to that commitment.

General James B. Davis

GENERAL HATCH: Thank you, J. B.

We have a number of questions. The first talks about the drawdown. We are quite familiar with the number of people coming out of Europe, from over 300,000 down to the base force number you talked about of 150,000. Others are using even lower numbers. What about the Air Force and Army equipment? Is that coming out at the same rate as the people? Is there a POMCUS [Prepositioning of Materiel Configured to Unit Sets] strategy for the future? What about rotational training? How will we operate with these reduced forces? Can you give us that perspective, please?

GENERAL DAVIS: I am not sure I can, but I will have a go at it. A lot of the equipment is coming out and being sent home. As you know, under the CFE Treaty we are dispensing some of that equipment to other nations within NATO; specifically Turkey and Greece, Spain, and Portugal are getting the majority of tanks, APC's and things like that.

As far as increased POMCUS, the answer is no, so far. There is a [position, created by Congress, called the] Ambassador for Burden Sharing. What an ugly title. [Allen] Holmes, [the current ambassador], is working with NATO so that NATO will pick up some of the infrastructure costs for storing equipment in Europe. That has been approved by NATO, but it has not been funded. As you know, the US just cut infrastructure funding to NATO from \$250 million down to \$60 million in this latest appropriations bill. So there is some question as to whether we can store equipment there or use NATO infrastructure

funds to build new POMCUS sites.

GENERAL HATCH: Thank you. The second question concerns the southern region. After moving out of Torrejon [Torrejon Air Base in Spain, at which F-16s were stationed] and the cancellation of Crotone [a base planned to be built in Italy], how are we planning to compensate for the forces we are losing in the southern region? Could you address that please, sir?

GENERAL DAVIS: That is still one of SACEUR's [Supreme Allied Commander, Europe] highest priorities. It is kind of nice to have a guy wearing a green suit saying, "I have got to have a fighter wing." General Jack Galvin used to say, "If I have got one fighter wing left, I want it in the southern region." As an airman I am sure that I would like to have more than one fighter wing, but clearly the southern region has been neglected for a lot of political reasons. Before, the central region — the Fulda Gap in the North German plains — was the big area of concern. A lot of people in this audience know that very well.

Now, suddenly, all that has gone away. You now have a new 500-kilometer buffer there that you never had before. So, the southern region is the focus of everybody's attention.

You know all about Crotone, so I won't go into that. But right now we are working on "Son of Crotone" which is a temporary deployment to Gioia del Colle and to Sicily. We are hoping to permanently base two squadrons, maybe one squadron on a permanent basis and one squadron on a rotational basis.

The Italians were a little concerned after

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we backed away the first time but they are now coming around. I think the first deployment, in fact, left last week. That will be about 10 airplanes to get it started, after which I think we will get up to a full squadron operating on a permanent basis. Hopefully, we will be able to put two squadrons in the southern region because we really need it. There are no Air Force airplanes there left anymore other than Rota [Spain] and Incirlik [Incirlik Air Base, Turkey] and places like that.

GENERAL HATCH: *It is a very important area.*

In your remarks, you mentioned NATO's new strategy and the rapid reaction forces. Would you discuss the current status and planning for the European rapid reaction force?

GENERAL DAVIS: For the air forces, rapid reaction forces are fairly easy because, as in the Pacific, we work with our allies all the time. So putting those rapid reaction forces together was really quite easy. The navy faces almost the same situation. We have the standing naval force — Mediterranean, Atlantic and the Channel. So, we do, in fact, have rapid reaction forces for the navy.

The army is the one that is most difficult. We have formed a rapid reaction corps. Some 10 nations have volunteered divisions for that. We stood up the rapid reaction corps on October 2, and the rapid reaction force planning staff stood up on the first of October.

So, I think from an Air Force perspective, the rapid reaction forces are up and running. However, it is going to take us several years to get the kind of training needed to train these multinational army units together.

It just goes back to what the Chief said and what General Adams said. We have been doing this sort of joint allied training for a very long time, and that paid very big dividends, as Chuck Horner will tell you, down in the Gulf.

GENERAL HATCH: *Thank you. We have a question about the Franco-German Corps and the purpose of these forces with respect to NATO in the future.*

GENERAL DAVIS: The Franco-German Corps right now consists of about 350 people, and as you know, 115,000 thousand is what it takes to make a corps. The French were hoping to have a lot of nations join them. The reason the Germans joined them was to keep the French engaged. As you know, the French used to have a division within Germany. Because the threat went away, they decided to take it home. The Germans wanted to keep them engaged, and so, we have this Franco-German Corps.

I think potentially that is one of the more dangerous things we have got. That's not so much because of the divisiveness within NATO, because I think we have got most of that sorted out with the French and the Germans and the Brits. But the danger is in what it could do with our Congress, frankly. If it suddenly takes on the mantle of the European army, our Congress might not like that very much. They would say, "Why do we have forces over there if the Europeans are going a separate way?"

So, the real thrust is to keep the Franco-German Corps on first call for NATO. We think we are about that close to getting the agreement from the French.

GENERAL HATCH: *Thank you, General Davis.*

The next question concerns the European allies and the possibility in the future of extending NATO membership to East European nations.

GENERAL DAVIS: For 35 years I have been trained to dislike the Warsaw Pact. Now, we have got Russians and Uzbeks and other people running around our headquarters on a daily basis. It has taken a real shift in my attitude to get used to all this. What is even funnier is that they would like very much to join NATO today. Poland would like to join today. Hungary would like to join today. Czechoslovakia is not quite sure yet, but [Chief of the General Staff and Deputy Defense Minister Lieutenant] General [Karel] Pezl is. They have different problems. They are going to split that country in half, probably the first of January.

But those nations don't have any concept

of what NATO is or what NATO can do for them. In fact, we are holding classes both at Oberammergau and Rome NATO Defense College on what NATO is and what it isn't. When they come and watch what we do, they cannot believe that we ask 16 nations, "What the hell are we going to have for lunch?" and we, in fact, get agreement nine times out of 10.

(Laughter.)

GENERAL DAVIS: They have never had a budget before. We are teaching them how to build a budget. They said, "Well, you know, we don't have a budget. We were just given 100 tanks, 100 airplanes and three ships. We don't know how to build a budget. We don't know how to build a strategy."

They want us to come over and teach them air defense. Air space management probably is a better drill that we ought to teach, but air defense is not in our best interests. They understand that.

Right now, we have a group called the NACC [North Atlantic Cooperation Council]. I won't bore you with the wiring diagrams of NATO, but I have spent a lot of time working on these things. We have the North Atlantic Council, which is all 16 nations. Then we have the North Atlantic Cooperation Council, where all the former Warsaw Pact nations plus the Baltic nations sit twice a year and discuss mutual problems. It is not very effective right now because, frankly, those nations are having trouble working on the agenda.

They would like very much to join NATO. I think that when these are democratic nations guided by democratic principles and are economically stable, then NATO will consider them for membership.

GENERAL HATCH: *Thank you very much.*

This is a specific question about the F-16 mid-life upgrade. A number of our NATO allies fly the F-16. It looks as if we will go ahead with the upgrade plans. Would you care to comment on that program?

GENERAL DAVIS: Our allies really want the mid-life upgrade very badly. They view that fighter carrying them well into

the 21st century. It is a very capable force over there. As you know, that consortium program was a very successful one. Many of our allies look at that one with great zeal, and they want the mid-life upgrade.

That's especially true since EFA [European Fighter Aircraft] looks like it is in big trouble. Consequently, now that EFA may not be built, the United States may have a better opportunity to participate [in European air force modernization]. However, in general, participating in NATO programs, as many of you here know very well, isn't always what it seems. NATO nations don't always follow economic analysis, but, rather, the principle of "what is mine is mine, and what is yours is negotiable." A lot of money in NATO nations isn't spent because the programs make economic sense, but because they provide a national industrial benefit. So, selling them something that is cheap and makes a lot of sense has to be followed up with a question about who makes it. If it is not our turn, then chances are they are not going to buy it.

GENERAL HATCH: *A final question, J. B. We have all talked about the resupply effort in Bosnia-Herzegovina. It is a difficult challenge under difficult conditions. Those are really combat sorties these days, and we have a very difficult winter coming up. How is that going to play out in terms of our ability to continue that operation through the cold winter months?*

GENERAL DAVIS: I think we are going to lose some people. I hope we are not going to lose any US forces or NATO forces, but we are going to lose some people in Bosnia-Herzegovina simply because that is Fort Apache of the first order. There are some banditos in that area that won't talk to each other on Monday, Wednesday and Fridays. We have labeled the Serbs as bad guys, but there are bad guys all over in Bosnia-Herzegovina.

We will be able to get enough relief supplies in there. As you know, the UN is stepping up the effort. NATO has not been asked to participate other than a coalition of those willing. We have provided some very structured NATO-

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trained officers to go in there.

But I don't see anything good coming out of that, simply because there are too many warlords to get the stuff through. To give you one example: the easiest route to go, and it is about 14 hours in good weather, is from Zagreb to Sarajevo. But you have got to go through 11 warlords to get there. The fastest route now and the most sure route is to go from Split to Sarajevo. You only have to go through three warlords to get there. If any one of them decides that you will not go, that food, medicine or whatever will not get through. The C-130's, the Italian aircraft, and the Ukrainian aircraft are doing a superb job. As you say, each one of them is a combat

mission. When you see the photos of them doing the combat assault coming in at Sarajevo, it is absolutely amazing we have not had more serious accidents. I will say that any group of 10 fighters probably could shut that airport down anytime they want to. We are only coming in there because they are allowing us.

GENERAL HATCH: *Thank you very much. Those are very insightful remarks about a very important area of the world, and we are really pleased, J. B., that you could be here today and that you came all this way. It is a treat for AFA and we are glad to have you.*

*Thank you very much.
(Applause.)*

"1000 Days of Change: Prelude to the Future"

Thank you, it's great to be with you and to see the electricity of the '92 election on the West Coast. This campaign season has showered lots of attention on past achievements and future plans — which also happen to be my topics. This morning I'll talk about the past 1000 days — what's gone on and what remains on our "to do" list.

Those of you who fly know the term "lead turn" — pointing your aircraft not where your target is, but where it's going to be. The Air Force has used this technique in the last 3+ years. We've tried to lead turn aspects of our changing world — get out in front, plan for it, adapt.

Three years ago the Air Force began work on a blueprint to organize, train and equip for a fast-changing world. This planning framework, called Global Reach-Global Power, rings a bell with most of you. Formulated in late 1989, it was released as a White Paper in June, 1990. It outlines our contributions in the post cold war world—like global situational awareness; rapid, long-range power projection; the ability to deploy quickly and go the distance unconstrained by geography; and the range of lethal or peacetime actions to build U.S. influence.

Even as Global Reach-Global Power was on the drawing board, we moved out to make the Air Force leaner, meaner and more efficient by reducing overhead, eliminating duplication, streamlining, consolidating. Quality principles firing up the whole Air Force include a customer focus, teamwork, continuous improvement, empowerment.

With Global Reach-Global Power as a vector and modern management tools, the Air Force designed a program and organi-

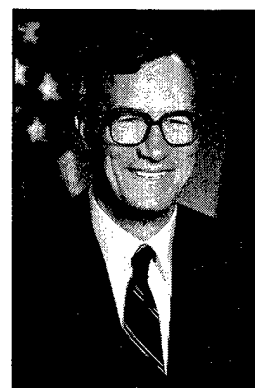
zation right for the times. The most dramatic results took place this year, as we pulled the chocks on Air Force Materiel Command; Air Mobility Command for global reach; Air Combat Command for global power.

When we asked Sergeant Tim Buerk, an F-15 crew chief in Air Combat Command, if he'd noticed any changes lately, he said, "One of our hangars has the words 'Global Reach and Global Power' painted on it. We're one team working together to do this job. And — as an added bonus — now we won't have to make a whole bunch of phone calls to get things done!"

Not a bad assessment. Most young troops I've talked to are living the change of the past 1000 days. I'd like to highlight some of the forces we've dealt with, using a timeline of the high points. (See p. 46) These charts cover just some of the global, fiscal, and Air Force change of recent years. Time, by one definition, is nature's way of keeping everything from happening at once. Seems nature got confused in the past few years, because lots did happen at once.

In the backdrop, you see a steady reduction in the Air Force budget — \$104.6 billion in FY90 to \$77.6 billion in FY93. Above the line, in general, are the external events we've dealt with. Below the line, steps we've taken to deal with the opportunities and challenges of a changing world that demands bold adjustments. You can't respond to geopolitical earthquakes and chop billions from your topline by putting the institution on autopilot.

That's why, under Secretary Cheney's leadership, the Defense Department kicked off 1989 with the Defense Management Review — lower left on the left chart. The



DMR tightened up business practices and delivered results like consolidation of finance centers, commissaries, and contract administration. These and other improvements will save DoD tens of billions of dollars through 1997.

Within the Air Force, in the logistics area alone, we're going to a two level maintenance system, which will save upwards of \$200 million a year when fully implemented; we've created leaner, more competitive depots; and disposed of \$2.6 billion in excess inventory in FY 92 alone. These kinds of bold management initiatives set the stage for a Quality Air Force.

So the Department transformed itself even as 1989 and '90 played out on the world stage. An amazing time. Freedom, the *L.A. Times* wrote, "took 10 years in Poland, 10 months in Hungary, 10 weeks in East Germany, and 10 days in Czechoslovakia."

Eastern Europe tore the iron curtain and the Baltics declared independence. Though the Communist party would not be abolished for over another year, by July of '90 it was clear some missions were no longer necessary. Looking Glass, on 24 hour hairtrigger alert since 1961, stopped operations.

Reform followed reform, and a threatening Soviet Union moved out of the center of the arena. In a wise admiral's words, the arena was temporarily empty, around its perimeter a series of doors, behind each door a potential adversary. We wouldn't know which door or combination of doors would fly open next. We did know adequate military forces would be needed to face whatever emerged.

On August 2, 1990, President Bush delivered a historic speech in Aspen, Colorado, calling for "not merely reductions, but restructuring" of America's defense forces. He outlined a new regional defense strategy to preserve hard won gains of the Cold War and guard future interests. The President had confirmation of his new strategy the very day of that speech. That was the day Iraq invaded Kuwait.

Among other things, the Gulf War marked airpower's ascendancy in the post

cold war era; imprinted the term "air campaign" in the lexicon; shattered artificial distinctions between "strategic" and "tactical"; and proved the clout of unified airpower.

All of these came to bear on force structure plans: the value of precision weapons and stealth, for instance. This combination on the F-117 meant fewer sorties, more damage, and minimum loss of life on both sides. The war solidified the B-2's conventional role, with long range and payload added to stealth and precision. A new B-2 mission statement emerged in February of '92; and we briefed a new Bomber Roadmap to Congress in June.

Today's security realities call for a bomber force tailored for conventional operations over long distances, with fewer forward bases. Plans are for a fleet of 170 operational bombers, all with precision munitions. The stealthy B-2 will spearhead the force, with the B-1 as backbone, and the B-52 adding standoff punch.

The unified employment of airpower in Desert Storm confirmed too that change was needed within the institution. Within 7 months of the end of the air campaign, we announced the restructure of new commands and new composite wings for easier allocation of forces.

One sidebar story to the Gulf War is on the chart. You'll see that as we faced down Saddam, the two Germanies united. The potential flashpoint for World War III ... gone. We waited most of our lives for unification. When it happened, it was almost a footnote to history, overtaken by events.

Other geopolitical earthquakes across the timeline: the dissolution of the Warsaw Pact, the Soviet coup attempt, the Middle East Peace Conference. The latter's a soaring tribute to U.S. leadership. Ancient rivals sitting down for the first time in 40 years, called together by President Bush, talking about the future of the Golan, options for the West Bank, and other formerly intractable issues. The world is willing to listen to the U.S. as an honest broker. A Saudi Prince said to General Schwarzkopf the day he left Riyadh, "If

the world is going to have one superpower, thank God it's the United States of America."

In my travels, I've heard that sentiment time and again. It cuts to the heart of what we owe ourselves as a nation, and what we mean to the rest of the world. On the right chart, you'll notice humanitarian missions of late. We kicked off this year with Operation Provide Hope, blanketing 11 former Soviet Republics with medicine and food.

Every week brings another opportunity to extend the helping hand of airpower. Last weekend a C-141 crew evacuated Americans from Dushanbe, Tajikistan. Some fierce fighting broke out between opponents of the communist party previously in power, and the ousted communists. Russian security forces were there to protect key government sites and the Russian population. To help our people, Russian forces took the airport, guaranteed the safety of our plane, crew, and civilians, and transported them to the flightline. We heard that the Russian commanding general and the American ambassador stood shoulder to shoulder in the tower, clearing the C-141 to land.

Peacetime operations ranging from relief to enforcing no-fly zones prove airpower offers more than a clenched fist; it offers support for what's right. That's not just what airpower's about; it's what America's about.

At the end of our timeline, you notice some unfinished business. The Blue Ribbon Space Review is one. The new Air Force mission is to defend the United States through control and exploitation of air *and space*. (emphasis added) We're looking at ways to bring space and space people more fully into the warfighting focus. And the Year of Training isn't over yet. More initiatives will stem from our deep look at training.

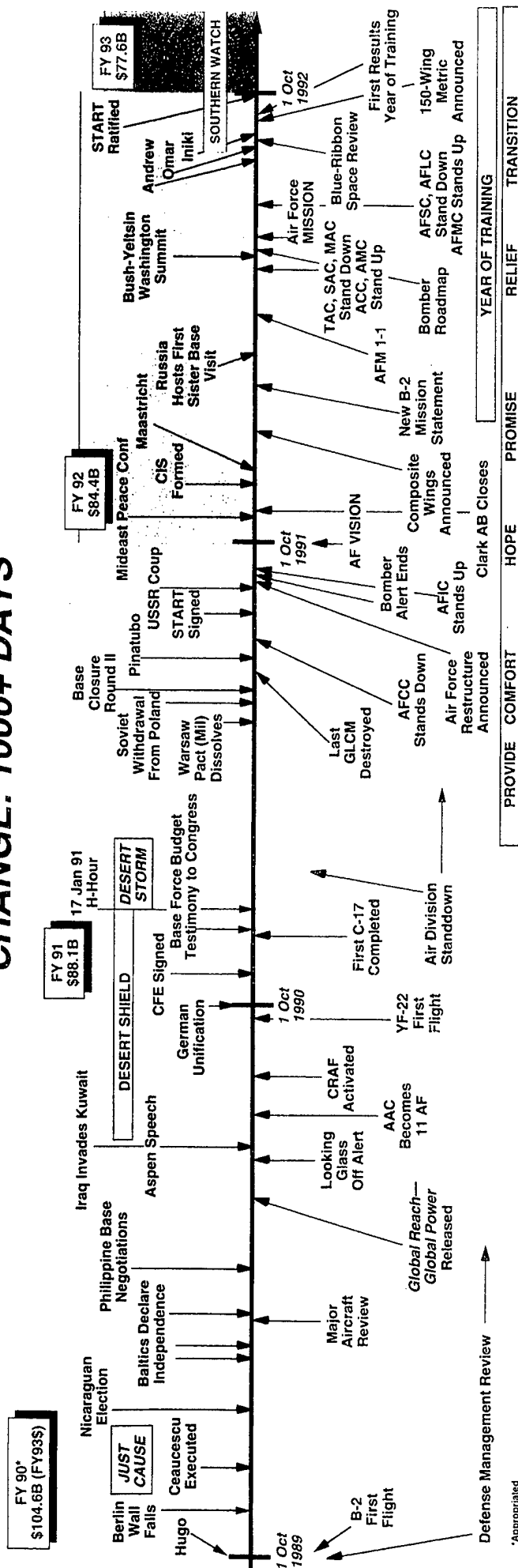
If this timeline extended a few more months, you'd see another round of base closures on the horizon for all the services. And you'd see the budget firewall coming down. For the past three years, defense money couldn't be transferred to domestic programs. That agreement expires next year, and the fiscal situation could change.

The Air Force is now postured to say exactly where further reductions will cut into bone and muscle. At this point the Chief and I think the Air Force has harvested its big-ticket efficiencies. Beyond these, the Department may need a fresh approach to roles and missions to find new efficiencies and guide any redistribution of DoD spending. Can we make air, land, and sea forces more complementary? Have we built artificial barriers that restrict combat power? Are we learning from experience?

Dynamic times still await, lots more milestones. Air Force people in 1000 days have helped shape more history than most people see in a lifetime. It's good to step back and appreciate a momentous era as it unfolds. I'm reminded of a wonderful letter FDR sent to Churchill in 1942. He wrote, "It is fun being in the same decade with you."

To come full circle, the Air Force intends to stay expert at lead turns — get out in front of change. That's a tribute to our people, who've built a post-cold war service from the ground up. For the Air Force, they want to maintain cutting edge capability. For themselves, they just want the opportunity, in the words of a great president, "to stand for freedom until freedom can stand on its own." It's fun — and a great honor — to be in the same decade with them.

Thanks very much; I'll be glad to take questions.



Appropriated

Question & Answer Session

"1000 Days of Change 47
Prelude to the
Future"

Secretary of the Air Force Donald B. Rice

GENERAL HATCH: *Thank you, Mr. Secretary. We are here in Los Angeles, and you mentioned base closures. So, as you might imagine, the first two questions concern your view of the base closure process next year and the chances that Space and Missile Systems Center here at Los Angeles Air Force Base will remain where it is.*

SECRETARY RICE: Somehow I was waiting for that last part of the question. I knew it had to be in there somewhere. The base closure process, as I think most of you know, is rather carefully embodied in the law. It requires us every two years to start with a clean sheet of paper, review all the bases, and evaluate everything on an evenhanded basis. We obviously do that looking hard at the economics of it, but with foremost attention to the Air Force's long-term needs and to the operational capabilities that the different bases provide us.

We are projecting that we are probably going to have to find at least one-half dozen major bases to propose closing for the Air Force in this coming review, and it may be even as much as a couple more than that.

On LA Air Force Base, I am literally enjoined by law from getting into anything that seems to prejudice any of those hard choices we have to make early next year. I would simply say that it continues to enjoy the same advantages that we saw in the analysis that went on last year, and it is I think helpful that the local authorities are trying to work on the problem of the housing shortage that we have been concerned about at LA Air Force Base for a number of years. I think I had better just leave it at that.

GENERAL HATCH: *Thank you, Mr. Secretary.*

The second question speaks to the program executive officers, the PEO system that we have in acquisition management. It has been in force now for two years. How do you evaluate that management?

SECRETARY RICE: I think it has been an important innovation. I think we are probably still in the stage of learning some about how to execute it most effectively. I think we are, also, still in the period of making sure that industry understands that the roles of our program executive officers are important.

I see, at least on the Air Force side, the parts of it I see up close, our PEO's more and more over time stepping up and playing the strong line management role over their package of programs that we had intended when those positions were created. I think to the extent we can build on that over time, the better we will do at making the short chain of command we have established for the acquisition system work — not having to have everything float up to Washington to be reviewed 47 times before it is accomplished.

We are still in the middle of getting the full benefit out of this change, but I think we are making a lot of headway.

I would say for the industry people here that it is important that you recognize the significance of that role and work with those executives. They have a line responsibility for those programs. More and more, they are the ones to whom we are turning to work problems as they arise in the conduct of major systems acquisitions. More and more, we are going to be relying on them and expecting them, together with

you, to anticipate problems before they arise and to be working on them before we even hear about them.

GENERAL HATCH: *The third question is women in combat, Mr. Secretary. What are your personal views on this subject?*

SECRETARY RICE: We are, as I think most of you know, waiting for the results of the commission that the Congress legislated to study that subject. There are many different aspects to it, and I won't try to comment on those that belong to other services. The part of it that applies to the Air Force pertains to women pilots. There are a few other roles, too, besides pilots, but it is mostly air crew roles. My personal view is we are dealing with when, not whether.

Some of the changes, I think, are going to be relatively easy to make. Others are going to be harder. We already have women pilots well qualified in U-2's, RC-135's, tankers, airlift aircraft, and so on. They are today, in principle, not supposed to be flying the missions those aircraft fly that are classified as combat missions. For example, in the airlift business, they don't fly the air drop missions.

I think, in fact, we may even have had a case or two of a woman pilot flying something that technically was classified as a combat mission in the case of the U-2 force. Depending on where you fly in the world, you cross certain lines on a map and the mission can get coded combat. That may even have already happened once or twice. I think in those kind of aircraft the transition will be a relatively easy one for the Air Force. The women pilots we have are already well qualified in operating those aircraft.

The tougher area is going to be fighters and bombers, not because women cannot qualify to fly them but because this is a terrible time to introduce a new source of supply of pilots. We have a lot of already trained pilots banked, and it is going to take us several years to be able to find cockpits to assign them to in order to honor the commitments we have already made to them. We have commitments to a number

of other potential pilots, but we have had to delay their admission to pilot training for some period of time.

So, I think in some mission areas such a transition would be relatively easy to make. In others it is going to take years to get it done.

GENERAL HATCH: *Thank you, sir. The next question has to do with our depots. There are two questions in the same area. One refers to the Defense Management Agency which might result from an ongoing study of the potential consolidation of depots across the services. The other question has to do with competition for work between civilian agencies and our government depots. Could you speak to those issues, please, sir?*

SECRETARY RICE: My own personal view is that we have two stark facts that seem a little contradictory, but we have to find a way to bring them together. One is that, given the declining workload and the excess capacity in the depot structure of the Department of Defense, there are a lot of opportunities to consolidate operations and to accomplish significant efficiencies in economies.

The other point, though, I think, is every bit as important. It is that, in my view, if the services are going to be able to maintain their responsiveness — to actually carry out their responsibilities under the law to organize, train and equip — I think they have to keep responsibility for the depots at the service level.

Having that responsibility and authority over the depots is critical, for example, to what we are doing in the Air Force to implement two levels of maintenance where the reliability of systems allows us to do that. That means, in my mind, that the services have to get together to a greater extent than they have so far. We are, in fact, talking about and exploring options along those lines. That would be my preferred response to the opportunity to accomplish efficiencies rather than to see them all collected into another defense agency.

The second part of it had to do with competition?

GENERAL HATCH: *Competition between the civilian industry and our government depots for contracts.*

SECRETARY RICE: I think that, whatever anyone thinks of it, in fact it is going to be a prominent feature of the future. The challenge that we have is to work hard to make sure that it is a level playing field. A lot of work has gone into understanding how to adjust costs that are faced in government versus in industry so as to make it a level playing field competition. But I think you are going to see more of the pressures to compete the work, not just between and among the government depots but at least to some extent between public and private performers as well.

GENERAL HATCH: *The next question refers to the JPATS [Joint Primary Aircraft Training System] trainer program. We are in a directed pause, Mr. Secretary. Will this affect our future schedule? Is this just a temporary stop?*

SECRETARY RICE: I continue to believe it is a temporary stop. If one of you has a stick of dynamite available, I will take it back to Washington with me.

We are trying to do everything we can to meet the schedule that we had committed to for the RFP and first delivery. We have a few administrative wrinkles to iron out, and we are working on them.

GENERAL HATCH: *The final question, Mr. Secretary is about the industrial base needed to support our ICBM's in the future. There are no new programs coming down the road, but ICBM's will be with us for a long time. How do we meet the challenge of sustaining the industrial base to support those weapon systems?*

SECRETARY RICE: That is a question that applies both to the industry sector and frankly to our in-house resources in our depots. I have just been to Ogden Air

Logistics Center at Hill Air Force Base and looked at the resources we have there. Some parts of their operation are going to be quite busy for a while to come as we go through the transition. As the numbers of ICBM's we have to maintain come down, however, that's obviously going to be one of the areas in our depots that has excess capacity. We are going to face up to how to downsize and make some efficiencies there.

On the industry side, you are quite right. We are not going to have a new ICBM program. I wouldn't try to be in the business of predicting what is going to happen well beyond the turn of the century, but maybe we will never see another ICBM program. We are, however, going to continue to see space booster programs and a lot of the same technologies and industrial capacities obviously apply to both. We are going to have to worry some about the special capabilities that apply uniquely to ICBM's that don't get carried along by the space booster's work. That is where I think we have not yet focused enough attention.

We have a little time to work that out, but we are going to have to try to make sure that we maintain those essential capabilities that would allow us to crank up an ICBM program if that should be necessary.

GENERAL HATCH: *Mr. Secretary, we thank you very much for being with us this morning. We appreciate your insightful remarks. We appreciate your foresight and what you have brought to the Air Force.*

Thank you very much, Mr. Secretary.

SECRETARY RICE: Thank you very much.

(Applause.)

"New Directions in Acquisition & Logistics"

Fifty-four years ago today, a man sat down at a microphone and in a few short minutes had panic-stricken people all over America scrambling for their lives. That man was Orson Welles, and it was on this day in 1938, that he gave his famous War of the Worlds radio broadcast.

Now, today from this microphone, I don't expect to have quite so dramatic an effect. In fact, instead of a panic-stricken audience, I would settle for interested. How about casually interested?

The Secretary talked about what has happened in the last 1000 days and the dramatic changes that we have undergone. I think there is another historical note that would be interesting for us to think about because today marks another day in history that illustrates the effects of change.

Just over three decades ago, the Soviet Union under Krushchev was in the middle of a dramatic period of reform. This was known as de-Stalinization, and it appeared to be a very positive development to those of us in the West. Stalin's name was removed from the books and on this day in 1961, even his body was removed from its tomb in Red Square.

Yet it is important to remember that despite all promise of reform, just 1 year later in October 1962, we came the closest we have ever come to nuclear war with the Soviet Union in what has been subsequently called the Cuban missile crisis. A lot can happen in a very short time in our world. The world we face today is certainly very different from the height of the Cold War, but it is also very uncertain.

In order to adapt and evolve, we have had to make a lot of changes, and part of that change in the Air Force has been the

creation of the Air Force Materiel Command. For the very first time, we are integrating the management of research, development, test, acquisition and support in our program offices. The way we are going to do this is what we call IWSM, integrated weapons system management. It is a radical new approach to developing the technically complex weapon systems that we require.

I am sure you heard us talk about it. We have talked about cradle to grave, single face to the user, having a single program director, a single point of contact for the user throughout the systems life cycle, organizations with seamless processes, on and on.

Our objective under IWSM is to give our program managers the widest possible authority to satisfy our war fighters' needs throughout the life system of the weapons system. We have to break down a lot of barriers, barriers between acquisition and support. You in industry probably have not seen a lot of change, unless you are associated with one of the 40 programs that we have now in IWSM.

Next year at this time, we will have 450 programs in IWSM. So, you are going to see a lot more change very shortly. What kind of changes are we talking about? They are certainly too numerous for me to mention up here, but I would like to talk to you just about two to give you an idea of the magnitude of change that we are working on.

Today, a weapons system program, including all its aspects from development, acquisition, through sustainability, involves 11 different pots of money. Ideally, I would like to have one pot of money, and I would



like that pot of money to go to the program director. He would make the trade-offs that determine where he spends the dollars. We are working hard on reducing the number of pots. As you know, if you are familiar with the business, each pot represents somebody's livelihood. Somebody has made a career out of being an expert on that pot, in the service, in OSD, on Capitol Hill. They don't like to see these pots go away.

We are having some success. This year in FY 1993, we have eliminated three of the pots. Sustaining engineering, interim contractor support and replenishment spares will all be put into our weapons system procurement lines. That is a great step forward. By 1995, hopefully, we will eliminate two more pots, initial common support equipment and initial training.

We also have dramatically changed the system engineering process. To begin with, we have combined system engineering with configuration management. That was always an artificial differentiation that really should not have existed. But the biggest change we are making is to allocate the performance baseline and then manage risk reduction through hardware and software demonstrations prior to the preliminary design review and the critical design review [PDR and CDR]. If you have been a participant in the PDR and CDR to date, you know them to be dog and pony shows, paperwork exercises based on what the government has as a written statement of requirement and what the contractor can promise. I don't think they are effective at all.

What I want to see is incremental accomplishment of PDR's and CDR's through demonstrations of what we say we are going to do. That is going to be a dramatic change for us.

Let me give you one example of what IWSM brings to the process. Before we started the IWSM program, this is simply the way it was. It seems hard to believe. However, I have been in the business, and I know how it works, and this is the way it was.

The F-15 program office at Wright-

Patterson was working on a radar improvement program. Unbeknownst to them, the F-15 system program manager was working on a radar improvement program for the A's through D's at Warner-Robbins. The F-15 program is one of the programs that we have in IWSM now. Under IWSM, not only do they both now know about it, but both programs are being managed by the same guy.

Now, we have the right kind of oversight to ensure that we drive ourselves toward using the same piece parts, toward using the same support equipment, toward getting the most efficient deal for the government out of one type of development contract.

So, IWSM is going to improve our program by bringing those things together thousands of times over. The key to IWSM, as I look at how we are going to work, is integrated product teams, IPT's. Many of you have already gone to IPT's in your company. They unite functional areas. They provide common goals. They establish ownership of processes and products, and they streamline the management process. We have dictated integrated product teams. It is the way we manage the F-22. It is the way we manage the B-2. The SPD [System Program Director] under an integrated product team understands that he cannot make major acquisition decisions without calculating the impact of the decision on the life cycle costs and supportability.

IPT's speed up the development process. In the past, we would do the design and achieve the right performance and then ask, "Can we manufacture this?" Then after we'd decide how to make that iterative process between design and manufacture, we would ask, "Can this be supported?" Then we would have to go back and change manufacturing and change design. We now do that all in parallel, and it reduces the process.

What does that mean to people in industry? First, if you are dealing with us, it means you are going to see a consistent set of practices and a single focal point throughout the life cycle. The system program

director will be responsible for integrating all aspects of the weapons system. It means that you are going to have to combine the development side and the support side of your company. Otherwise you are not going to be able to talk to us.

It means that you are going to have to form integrated product teams, too, if you are going to deal with us. If we go on contract with you for new weapons systems, we will demand that you organize yourself into integrated product teams. What I mean by that is your company has to have a team focus which has a product orientation and a product control versus a functional control, which is where most of us are now.

The payoffs for this are high: better management, better use of resources, greater customer satisfaction and saving the taxpayer money.

Now I would like to shift a little bit and talk about what all this means for technology development. As a result of the cradle-to-grave approach in the Air Force, our labs are going to have to broaden their focus versus what they've had in the past.

IWSM means labs will no longer focus solely on supporting new systems. The major trend now will be to insert new advances into existing systems and to extend their capabilities and their service life. We are going to greatly increase our technology efforts to reduce the adverse environmental impact of our systems and to restore our bases to an environmentally sound condition.

After all, today environmental dollars come off the top of our budget. The Secretary went through with you how the budget is declining. I would expect that would continue. So, that will tell you that there is a growing percentage of our budget which will go to redressing environmental concerns. Every dollar that we save on restoring the environment is another dollar that we can devote toward developing combat power. We have to learn how to do the environmental job more efficiently, so we are going to focus our labs on that.

Fundamentally there are two main roles of our laboratories: to develop quality

technologies that are relevant to the war fighter's needs and to rapidly transition those technologies into use. After all, if we develop the technology but the user never embraces it, then frankly that is an exercise in self-gratification that we can no longer afford. We did a lot of that in the past.

The way we approach this is that we begin with a strategic technology plan based on the Air Force road map, as well as OSD guidance. That plan embodies an investment strategy to bring new technologies along so that they are available when the user needs them. In effect, what we do is we establish a contract between the laboratory, the system developer, the maintainer, and the user.

It involves upfront user participation to increase the probability of transitioning that technology. We specify what we are going to develop, and as best we can we specify when that technology will be available.

This improves the effectiveness of our laboratories and better meets our user's needs. So, we work with the users, determine what their technology requirements are, and then, as we get to the point where we are going to demonstrate this technology, we ask the users to grade us on which technologies are the most important to them. Those technologies that the users value most highly are the technologies we take into advanced technology transition demonstrations.

All along we are asking the Scientific Advisory Board to look over our shoulder and grade the quality of our science. So, we are focused on both relevance and quality.

All this upfront planning and documentation and essentially trying to establish a contract early on between ourselves and the war-fighting community is an effort to ensure that we transition that technology out of the laboratory faster. In other words, I want the users to start planning on the technology being available a decade ahead of time. I want them to start counting on it. I want them to be upset if we are slow with it.

To help us do all this, this month in my DCS [Deputy Chief of Staff] Technology headquarters at Wright-Patterson, we opened a technology transition office. That office has four functions. First, it manages a few technology application programs like PRAM [Productivity, Reliability and Maintainability] and RAMTIP [Reliability and Maintainability Technology Insertion Program]. It focuses on pervasive applications, solving technology problems that extend across multiple weapons systems, problems that everybody suffers with, but for which nobody has a primary development responsibility. Traveling wave tubes are a good example.

They also focus on infrastructure technologies, technologies which are not weapons system related but help us perform the mission better. I mentioned the environment earlier. That is the type of thing I am talking about. Paint removal at air logistics centers was a huge problem for us. We have now got it solved, but every air logistics center went out to solve this on its own. We could have done it better in a coordinated fashion.

Another function of the office is to serve as a consolidated information source for both government and industry. In other words, it's a clearing house for technology information and solutions to problems, to facilitate technology transition to industry, not only defense industry but non-defense industry.

The Secretary talked about a couple of things about what we are doing in logistics, and in fact, we are embarked on some new directions in logistics. There is uncertainty about the business base. Obviously it is shrinking. There is less production, there are fewer facilities, fewer suppliers, and fewer employees, and new starts are difficult to initiate. Any that we do initiate will be joint, I feel certain.

The question is how do we differentiate between what work should be done in industry and what is done in the Air Force depots. That was the question asked of the Secretary. Let me tell you what I think the answer to that is. The answer is we differentiate through competition.

Now, clearly we must have a level playing field from which we compete. Not only do we have to have one, but it has to be perceived as a level playing field by industry.

Your perceptions are important to me. I don't always agree with them, but they are high on my priority list. Right now, this playing field is not perceived as level. We do our costing based on a cost comparability handbook which is available to industry. I have invited the CEO's of all the major contractors for the Air Force to send teams of people in and look at the cost comparability handbook and see how we are costing things. I am trying to convince you that we are doing this right.

Thus far nobody has caught us off base. Thus far everybody who has come in has said, "This looks like this is pretty good," but people still aren't convinced. I want you to be convinced.

A lot of people in industry think that all we are doing in these competitions is making a "make or buy" decision. That is not true. By law, we must have a barrier between the buying function and the selling function at an ALC [Air Logistics Center]. We work very hard at this. We are working harder because the competitions are getting bigger, and they are getting more important. We are finding that the way that we have constructed this barrier in the past is getting onerous to the fundamental management of the depot. So, as we get more demanding about keeping the buyer and selling functions segregated at a depot, what I am finding is that it is no longer going to be appropriate to have the source selection authority be a depot commander.

So, I will change that for future competitions. That is something people in industry have been concerned about, and so, it is something that we are going to fix, and I am going to fix it because of the perception.

Okay, what are we talking about? What kind of business are we talking about? In FY 1992, we offered up \$102 million for competition. In FY 1993, we will offer up \$163 million, but 1990 through 1993, the program value of what we offered up is

just about exactly \$1 billion.

Now, I have gotten complaints about this from people in industry, and I think we ought to think about it. The way the command is run now, in the depot side, 65 percent of the work is done in the depot; 35 percent of the work that we do is done on contract. Almost all of the billion dollars that I am offering up is from the 65 percent we do in-house. That is another 5 percent of our work. I am trying to get some laws changed so that subsequent to this year the legal restriction to do 60 percent in-house is wiped out.

I have talked to almost 20,000 of my people who work at depots, face-to-face, in the 120 days since I have had this job. What I have told them is that they are in charge of their jobs, not me. I am going to compete with you in industry. I want you to compete with me. I am convinced that we are going to win a lot of those competitions. It is my objective for the Air Force to be the aviation depot source of repair for the Department of Defense. I am saying that what I want to do is I want to take the Navy's work out of the Navy's depots and put them in Air Force depots, and I am going to put my side of the business up for competition with you.

So, for those of you that have always thought Air Force depots would be easy to beat, then I know that you will be looking forward to the fight. The field will be level, and I am not planning on losing a lot of these.

The Secretary mentioned two-level maintenance. Two-level maintenance is important to us. Let me tell you why. In Desert Shield and Desert Storm, 63 percent of the people that we deployed to the Persian Gulf were logisticians. We have got to reduce our deployment footprint. If you look at our requirements in terms of our newer airplanes, for instance the F-22, we specify deployment in terms of how many C-141's it will take to deploy the weapons system.

The biggest thing that we can do to reduce the deployment footprint is to go to two-level maintenance. Our goal is to deploy a reliable weapons system with only

those people required to perform "remove and replace" maintenance, to replenish consumables, and to build up expendables, along with a minimal battle damage repair capability. The rest of it we are going to try to do two level.

We know have about 450 F-16's in two-level maintenance. In an exercise called Coronet Deuce II our mission capable rates have not been adversely affected. They are still well over 90 percent. We have avionics on F-16C, Block 40 aircraft. Our pipeline time from the base to the time that we have the part fixed and on the shelf, from the time it is taken off the airplane is about 7.2 days worldwide. In the States, it is obviously shorter.

There are things that we have to fix as we expand this to other weapons systems. The R&M [reliability and maintainability] of some of our equipment is too low. When you try to do two-level maintenance with equipment which does not have the required R&M, you are in for big trouble. The risk goes up. The pipeline fills up. The dollars go up. So, we are going to have to fix that problem.

Now, this is a place where we are going to need help from you in industry, and it is a place where we are going to have to concentrate in the Air Force. We have asked our system program directors to come up with a comprehensive approach to attack low mean time between failure (MTBF) LRU's [line replaceable units] and a comprehensive plan to attack those things which have a high CND, or "cannot duplicate" rate.

Twenty-seven percent of all the LRU's we send back to Ogden off the F-16's are okay. In other words, you cannot duplicate the problem. Some of that, you have to deal with with hardware fixes and software fixes. I will tell you where I think the biggest change can be made. It is the way we write tech orders in the Air Force. The most important thing in our tech orders now is to return the airplane back to service, and that is the way we write tech orders. If the pilot writes an airplane up, the tech order is written perhaps to say, "You have a 99.6 percent chance of re-

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Today & Tomorrow**

turning this airplane to service if you pull these three LRU's." So, we pull those three LRU's. When you pull those three LRU's, you are almost sure to have two CND's. That was okay when all this was kept on a base, but now that we are shipping this back to a depot, it is not okay anymore. So, we have got big tech order changes ahead. You need to help us with that. We have got technology insertion problems ahead to help us increase the R&M. We need better CND-type testers at the field to help us do away with CND's. So, we have got a lot of work to do, and we need to do it together.

Let me conclude with a Will Rogers quote. He said, "Even if you are on the right track, you will still get run over if you are just sitting there."

I hope that you get the impression from what I have said today that I believe that in Air Force Materiel Command we are on the right track, and we are not just sitting there. We are making a lot of changes. They affect you, as well as us.

In this new environment, both government and industry have to find our niches. Working together we have created a proud heritage, but as futurist Alvin Toffler said, "Nothing is more dangerous than yesterday's success."

We have heeded that message in AFMC, but to continue our success, we and you in industry must share the commitment to exploit the opportunities inherent in today's changing environment.

Thanks very much.

Gen. Ronald W. Yates

GENERAL HATCH: *Thank you, Ron. You covered a lot of territory, and we have a lot of questions. There is a little levity in the first one. You talked about the cost comparability handbook. The question was about competition between industry and the government. You have already answered the first part of the question, but the second part reads, "Do you have any openings for experienced salesmen?"*

You indicated that the Air Force will demand that industry organize around integrated product teams. This questioner asks, "We, also, do business with the Army and the Navy, and this could present a major problem unless they share your views on IWSM and IPT. How do the Army, Navy and Air Force stack up?"

GENERAL YATES: That is a really good point. I have a very close relationship with the other logistics commanders. I will tell you that my sense is that we have more of a meeting of the minds with the Army than we do with the Navy on this issue. But I see the Navy, at least the Naval Air Systems Command under Admiral Bowes [Vice Admiral William C. Bowes], moving very fast in this direction. So, I believe that all you are really seeing is sort of a temporal disconnect. In other words, I believe we are all heading toward integrated product teams. It is just that one of us may be a little bit ahead of the others. I think that we will all be demanding it.

This is a dramatic change, and it will be traumatic as many companies transfer to this. If you have a functional organization, the people that sit down at the table with the CEO at the morning staff meeting

are the functionals, and the people against the walls are the program managers. When you go to integrated product teams, they change seats, and everybody understands what that means in terms of a lot of things, including salaries.

So, this is a traumatic thing. I think we are together with the other services, and we are heading in the same direction.

GENERAL HATCH: *Thank you, Ron. The second question addresses the preservation of the defense industrial base in this country. We have been discussing more development and more prototypes, but less procurement. How are we going to balance that and preserve the industrial base of the United States?*

GENERAL YATES: I don't believe that the Department has addressed this in any comprehensive fashion. I, personally, will tell you that I think the concept of developing technology and putting it on the shelf is naive. It doesn't work that way. Any technology changes. Take a weapons system: that's why you have the F-16 Block 25's, Block 30's, Block 40's, and Block 50's. This is technology, and it is technology on about a 4-year center.

So, if you invent a technology, and you put it on the shelf, and you come back to use it five or ten years later, are we assuming that nothing else has happened in the intervening period? What happened to the people that invented that technology? How far did we go with it? The critical part is not just inventing technology. We have to understand how to integrate the technology into our weapons system. We have to understand how to manufacture the technology. Did we do that portion of it?

I don't think this has been well thought

out, and personally, I don't believe in the concept of putting technology on the shelf. I believe you have to devote it to an application and that application then has to pull the integration and has to pull the manufacturing technology that implements the fundamental performance technology along with it.

In terms of the industrial base, frankly, I have already given you my answer to that. If my concept was collective manufacturing, and I am avoiding the use of the word "communism," then I wouldn't be taking the work out of my depots and offering it to industry. If my concept was that all the work ought to be done in government depots, I wouldn't be lobbying Congress to knock down the directed 60 percent that I have to keep in my depots. That is not my concept. My concept is that we offer it all up and that we compete for it. That drives us both in the most competitive position, and I think that is best for the country.

I think there will be casualties on both sides of that.

GENERAL HATCH: *I have heard you comment in the past about prototyping, the need for high reliability, and the fact that if we have prototypes on the shelf, we won't have the opportunity for OT&E [operational test and evaluation] when we really need to bring these systems in. What kind of guidance and direction will you put into the prototype business in order to establish some set of specifications, such that they will be producible very rapidly?*

GENERAL YATES: I think we are in universal agreement, more than ever before, that the kind of wars that we will face are what we have always called "Come as you are" wars. If you look across the Secretary's chart at the things that have happened in the last 1000 days, these are not times where you have much time to prepare yourself.

So, I think we still have to fight with our existing forces. I do believe the environment has changed, and we have more time.

Now, what we have to do is be smart enough to utilize the time, and I believe

that means that we have enough time now to take more risk out of our programs than we did in the past. I don't think we have to be in quite such a hurry. I think we have more time to work on the manufacturing technology than we took in the past.

I don't think we have to have quite the concurrency, but I don't think we can stop the process. I don't believe we can stop the F-22 program today and then double back on the F-22 program in five years, because we won't want to build exactly that airplane in five years. We might change avionics or we might change something else. Unfortunately for people who advocate this, we just keep getting smarter. We are going to learn things in the next five years that would be a sin not to put in a weapon if you were building it then.

So, we have to continue the process. Again, I will just repeat, I don't see setting it on the shelf.

GENERAL HATCH: *Thank you, Ron.*

The next two questions concern a subject that the Secretary addressed. The Defense Management Agency is a proposed consolidation of depots across the services. The creation of a Defense Information Systems Agency is also under study to put all communications and computer systems under one defense management agency. If these defense management agencies come to pass, how will that affect the way you do business at Air Force Materiel Command?

GENERAL YATES: Well, I won't have very much to do. The proposal is that we will take almost all of our software development and put it under the Defense Information Services Agency. We also have this Defense Depot Management Agency that is being conceived.

I think we have a fundamental disconnect with those in OSD about how we organize ourselves for productive activity, and it is just about as basic as that.

We in the Air Force believe that the way you organize most effectively to get things done is to organize yourself into teams. We form wings. We form program offices, and when we do, we give those people as much authority as we can to get

that job done. We try to take down the artificial restrictions that inhibit their ability to get the job done. That is why I talked earlier about eliminating those pots of money and giving the program director more responsibility and flexibility.

Now, you can have a different approach, one of centralization. I don't see any cases where that has been effective. Look at the automobile industry. This has not been an effective way to organize the automobile industry. Centralization for management or control belongs in OSD. But if you look very specifically at those things that have been centralized for execution in OSD, I don't see many success stories. I just don't see it. They are not supposed to be an executing agency. Execution has to lie with the services.

So, it is fine to set policy. It is fine to oversee. It is fine to be answerable to them. It is fine for them to overview the budget, to demand certain levels of performance. But as far as execution, it is a service responsibility. That is why, as the Secretary said before me, what we see is that a service can control those depots. We believe that should be the Air Force through competition with the other services, and of course, we are embarked upon that course. But it is kind of a fundamental argument between the Air Force and the forces of evil in OSD.

GENERAL HATCH: *We have a program question on the C-17. Congress*

awarded six C-17's this year versus eight requested. How is the program going, what are the cost implications for the stretch out, etc.?

GENERAL YATES: You are right, it is a clear question, but I am going to hark back to the Secretary's admonition of just a few moments ago. The Secretary said that when you want to talk about a program, go to the PEO's. That is not me. So, I am going to allow the PEO's to answer that.

GENERAL HATCH: *Here's another specific question. How do we get in contact with your technology transfer office? Who is the leader there?*

GENERAL YATES: Brigadier General Dick Paul, who is on my staff back at Dayton. I am happy for that question because I want you to get in contact with him. We want to share everything we have and everything we know with you.

GENERAL HATCH: *Thank you very much, Ron. That was very interesting, and we look forward to having you with us in the future. I am sure there are a lot of friends in the audience who will take advantage of your time, and we appreciate your being here.*

GENERAL YATES: Always a pleasure.

GENERAL HATCH: *Thank you very much.*

(Applause.)

"ACC...Stepping Up to Tomorrow's Challenge with Global Power"

Thanks General Hatch. This is a very exciting time for the Air Force — and clearly the most amazing period in my (and your) adult life.

I think "amazing" is probably an appropriate way of categorizing how I feel — because, even though I see a lot of pressure on our defense establishment, I really feel good about what's on the horizon — specifically, for Air Combat Command, but also for the Air Force as a whole.

All you have to do is pick up any daily newspaper to see examples of how American airpower is having an impact.

Operation GTMO (GIT-MO) in Guantanamo Bay, Operations Provide Comfort and Southern Watch in the Gulf, Homestead AFB hurricane relief, are just a few examples where Air Force people and airpower are making a difference.

While I feel good about what's happening, I'd like to call your attention to some unique challenges that are going to require our immediate attention.

Secretary Rice and General McPeak have already pointed out some pretty basic challenges that we're all going to have to come to terms with if we expect to remain the world's only full-service Air Force.

In the broadest sense these challenges for airpower advocates fall into three basic categories: intellectual, organizational and fiscal.

How we meet these challenges will ultimately determine how we're judged in terms of meeting our responsibilities to the Air Force as a whole.

The intellectual challenge is fairly straightforward — when the old paradigm was destroyed we were left without any readily acceptable alternative to take its

place.

In 1990, the Air Force provided us with an alternative — Global Reach/Global Power. Others have also provided their own alternatives. Isolationism is one example — it didn't work in the thirties and most of us would agree it's not the way to go today.

Now it is up to us. We have the power to make this new framework succeed, or we can undermine it by simply paying Global Reach/Global Power lip service, which will doom it to failure.

In Air Combat Command there is no question about our support. The Global Reach/Global Power framework is sound, and we're behind it 100 percent.

So, the responsibility lies with us to assure that we have the power available to project, and work diligently to build a force structure that is consistent with this new intellectual framework.

We're doing this by way of some pretty dramatic changes in our force structure, in our acquisition programs, and even in the way we train.

In terms of force structure we're seeing that the Air National Guard and the Air Force Reserve will be taking a more active role.

We're choosing our acquisition programs more carefully, making sure that the new technologies we foster will offer a quantum leap in capability.

And finally, we're getting more involved in worldwide training exercises and unit deployments.

Organizationally — the Air Force as a whole is searching out those anomalies in our organizational structure that have grown over the years — and which detract from



our mission effectiveness now.

Back in the days when the defense budget represented 8 percent of America's gross national product we could afford some redundancy and some anomalies — but, no longer!

In Air Combat Command, we're restructuring from the top down, shedding the residue of the Cold War — changing RECCE community focus by looking at overseas operating locations, and drawing down ICBMs, taking bombers and tankers off alert.

Today, objective wings are a reality. One wing, one base, one boss means we're doing things as "one team."

More importantly, it places the responsibility where it belongs — with the wing commander.

Since we're a closed meritocracy and can't hire from the *Wall Street Journal* we're carefully picking the right people to lead, and at every level we're giving them the authority and the responsibility to make things happen.

The quality culture has been very effective in empowering people and aligning responsibility with resources.

Fiscally, the entire Defense Department is feeling the effects of cutbacks. By 1997 our country will only spend 3.4 percent of its GNP on national defense, compared to the 8 percent thirty years ago. That's the lowest level of spending in over 50 years.

The Air Force is dropping from 205 wings in 1988, to 100 active duty and 50 Guard and Reserve wings in 1997.

The central challenge for Air Combat Command is to keep the right resources and eliminate what we don't need. So far, here's where we stand:

- ♦ personnel, down to 440,000 by this time next year/409,000 by 1995
- ♦ bombers, down 60 percent from their Cold War peak
- ♦ fighter and attack aircraft, down 30 percent by 1995
- ♦ and ICBMs, down 52 percent.

Air Combat Command also has nine bases on the closure list from previous years' base closure and realignment committee actions, and we'll probably see more

in the near future — so, we're working diligently with reports to the base closure committees to assure that future cuts will be in the right places.

A key thing to remember is that while we have nine bases already on the closure list we've actually only physically closed two so far — but we've already lost the O&M funding for almost all of them.

The important thing is that we separate out our emotion from the decisionmaking process, and maintain only the base structure necessary to support our existing force structure.

In sum, we simply don't have the force structure to justify keeping the number of bases we have today.

In addition to the changes inspired by the Air Force leadership, our actions are also being driven by DoD planning requirements.

It often appears, at least on the surface, that these Defense Department level programs don't always integrate well with our new Air Force initiatives and responsibilities as a service or as a major command.

While we as an Air Force are striving to decentralize and build independently strong numbered air forces capable of projecting global power to any corner of the globe in support of unified commanders, the Defense Department is telling us to consolidate and centralize some functions for efficiency, and to acquire new systems jointly with other services.

The fact of the matter is, because of budgetary constraints, a smaller force structure, and a reduced forward presence, we're going to have to consolidate in some areas and to become more joint if we expect to remain the world's most respected Air and Space Force.

In addition to these DMR initiatives (like joint acquisition, joint intelligence centers, DBOF and DFAS) there are inescapable geopolitical realities with which we must deal.

First, the active/reserve relationship is continually evolving as our command responsibilities become clearer. We simply have to become more integrated as we become more heavily dependent on the Air

Reserve forces.

Second, our forward presence continues to diminish. As our overseas forces return and we transition to a more expeditionary force we will require a different force mix and organizational structure as well as a different training philosophy.

Third, we will have a significantly smaller force with which to meet these worldwide responsibilities.

Fourth, the decision authority is shifting directly to the unified and specified commanders and the chairman.

Fifth, we'll be increasingly called upon to perform in less traditional roles than we have in the past — i.e. counter drug operations, humanitarian relief, base closures.

And finally, we've got to become more aware and involved in the environmental issues that impact our operations.

So as you can see, we can't simply focus on one aspect of this evolutionary process. Whether our requirements stem from the DoD, the Air Force, or larger geopolitical realities, we can't isolate them as individual events — they operate in concert and often seem to pull us in opposing directions.

All sound good individually in theory, but if we in ACC don't put them into practice carefully and well, the "theory" will be discredited, undermined.

If asked today for a report card on how we're doing as an Air Force, I would have to say — great!!

If pressed to give Air Combat Command a grade I'd say it would probably be at least an A-minus — that's today.

We don't have all of the angles covered yet, but we're doing pretty well — and we're continuing to get better every day ... working on an A-plus through continuous improvement.

Let me give you a quick look at some of the things we're working on today that are going to make us even better.

As we reduce our force structure and personnel, and transition to a more expeditionary force we will rely heavily on the Air National Guard and the Air Force Reserve to fill in the gaps. To prepare these forces for a larger, more active role, we're

taking several steps.

First, and most importantly, we're going to have to examine ways to send some of our better people to these combat units and perhaps even to state adjutant general offices as advisors. We already have plans for temporarily, periodically swapping staff officers with Air National Guard headquarters. Second, we're equipping them with newer and more current weapons systems, and finally, we're helping them get the quality training they need.

By shortening the length of our requirements for deployment periods our ARC forces can deploy and participate more often in composite training exercises like Red Flag without risk to their civilian jobs.

As we reduce our presence overseas realistic training exercises like Red Flag and Checkered Flag will become more critical.

Red Flag is probably our best known training exercise and simulates an aircrew's first ten combat missions — the time when inexperience makes them most vulnerable.

Our friends and allies also recognize the value of Red Flag and send their own units to participate or observe.

Since Air Combat Command stood-up in June, Italy, France, Canada, and the United Kingdom have already participated ... And other nations will follow.

Another Air Combat Command program called Checkered Flag helps our units focus on fighting effectively after deploying to an overseas location.

By assigning our operational units specific theaters of responsibility overseas, they can tailor their training to that particular area of the world, where differences in weather, language, and customs could limit the initial effectiveness of our forces.

Checkered Flag deployments are the capstone of this program. Today, we have B-52s from the 5th Bomb Wing at Minot deployed to Guam, participating in Coronet Boomerang.

For FY 93 we have 37 Checkered Flag deployments on the schedule — 10 bomber, 13 Air National Guard, 4 AFRES, and 10 ACC fighter deployments.

Checkered Flag also offers us the opportunity to share operational expertise with

our likely partners in future conflicts and assures that we know how to fight alongside each other.

This is particularly critical as we have less permanent overseas presence. Remember, flying world-wide is always in English. So, we'll have to work hard to learn other languages and acquaint ourselves with other cultures to be effective in the future.

In addition to these operational training programs, Air Combat Command conducts continuation training for many of our allies.

For instance, this coming May, pilots from Singapore begin F-16 continuation training at Luke Air Force Base, and over the next three years, 80 pilots from Taiwan will receive currency training in the AT-38 at Holloman AFB.

Right now there is some uncertainty and confusion about what the defense community is doing and where the American military is headed.

Today, we are successfully and routinely performing missions, and in roles our national leaders never imagined when they stood up the U.S. Air Force as a separate service back in 1947, the war on drugs, humanitarian assistance, etc.

In spite of these new roles and missions, we're continuing to streamline our organization and improve our operational combat capability.

To help us manage this diverse area of responsibility, we've developed fighter, RECCE, C4I, bomber, and ICBM roadmaps to assure we make Global Reach/Global Power a reality.

We also have a well-defined new jointly focused concept of operations that closely matches our current investment strategy.

As an example, we don't want the F-22 just because it gives us a first-look, first-shoot capability.

We need it because, as an expeditionary force, wherever we go we will likely have to fight our way in through an established air defense network — and then fight our way out again.

In Air Combat Command we're working real hard on implementing two-level maintenance. At the beginning it was a

great theory — but no one had any hard data.

So, our own Coronet Deuce programs have enabled us to collect facts and to identify those specific aircraft and systems most suited to the two-level maintenance concept. We started by learning to walk before we run — doing it in the F-16 community (our most reliable aircraft).

These programs have also highlighted several areas for improvement, such as the processing, tracking and transporting of wing repairables to and from our depots.

For example, in the early days, during Coronet Deuce-One, the lack of an effective tracking system and numerous bottlenecks in the transportation system threatened the overall effectiveness of the program.

In contrast, our ACC Gold Flag program helps us emphasize unit level self-sufficiency through individual maintenance training.

Working directly with AFMC our units eliminate waste by training to do some maintenance functions locally.

With the focus of power shifting to the unified and specified commands, and the establishment of the joint intelligence centers (JIC) and the joint electronic warfare center (JEWEC), 35 percent of our experienced and well-trained intelligence personnel are being pulled out of the command. We simply can't support it.

They could potentially spend a majority of their careers outside of their service . . . And we can't fill in-house billets.

Our challenge will be to help them keep their individual service identity and assure that they remain focused on the products their service needs . . . And to make the case for service Intel organizations below "JIC" level.

The importance of computers in modern combat has never been more evident than in Desert Storm.

The JFACC concept proved indispensable; however, the lack of an integrated computer planning system capable of integrating with the Navy and other allied air components made the planning and dissemination of daily air tasking orders cum-

bersome.

The development of the contingency TACs automated planning system here in ACC completely automates our ATO process and develops a common view of the battlefield for our air component commanders.

This new system has proven successful as recently as this year, when it was used in support of ocean venture, where we simultaneously sent air tasking orders to our fleet participants in both the Atlantic and the Pacific.

The principle challenge faced by our hospital personnel is to stretch a dwindling budget without cutting services to our active duty or retired personnel.

Our pharmacies have developed an innovative program that allows them to cut their stock, but not their service.

And with a new Defense Department program called Tri-care, residents from Charleston, South Carolina, and in the Tidewater area near Langley, benefit from a new coordinated-care system. But again we've had to turn the theory into reality here in ACC.

DoD calls it Tri-care because it uses all of the military health facilities in the area, regardless of service — and augments those facilities with civilian medical professionals.

As we draw down it becomes imperative that we manage our people more efficiently. In this closed meritocracy within which we operate, matching the right people to the right jobs becomes critical to the success of the mission.

We simply have to hand-pick the right ACC people and make sure they receive the proper training to do their jobs effectively.

Since the waivers for joint PME are no longer available, we will have to identify our future leaders earlier in their careers and give them solid joint jobs.

This further complicates the personnel process — making it even more critical that our people get the joint opportunities they need for advancement early in their careers.

Our reorganization also allowed us to

streamline our command structure so that it is consistent with the objectives of the Global Reach/Global Power philosophy. This is probably most evident at our numbered Air Force headquarters.

By reducing the size of these staffs we've relieved our NAF commanders of much of their management responsibilities and redirected their emphasis toward their role as warfighter.

As operational commanders they are qualified mission-ready crew members and evaluators, and are responsible for assuring the operational readiness of the active and gained units under their commands.

So as you can see, we've been working hard at fine-tuning our organization, and we're making some sweeping changes that we hope will serve us well in the future.

At the same time, it is important to remember that there are some things that just can't be done through organizational change alone. It is ultimately people who win wars — they always have. They always will.

We must continually evaluate and improve our warfighting force. We must improve our training, our strategy, and our process across the entire spectrum.

For all of these reasons the Air Force Association is absolutely vital in helping to explain what's happening, and in garnering the broad-based support we need if we are to survive this period of turmoil intact.

Earlier, I categorized our Air Force reorganization as the most fundamental change we've ever undertaken. Air Combat Command is playing a key role in this new organization — and so are you!

As members of the Air Force Association, you've been one of our most effective means of spreading the word. Through the *Air Force Magazine* and your contact with military members and the public alike, you are helping to make this a smooth transition. I thank you for that.

But the job is not nearly done. All of us here understand the necessity and the wisdom of the changes we've made, but it's still not obvious to some in our community.

**U.S. Air Force:
Today & Tomorrow**

Many look at our reorganization, and all they can see is the base closures, the reduction of forces, and our dwindling presence overseas. It is our responsibility to help them look beyond the hood ornament on their cars and look out down the highway ahead.

We are part of a new era — an exciting, albeit uncertain era, but this is no time to mourn the past. The smaller force we'll be seeing is a direct result of our victory during the Cold War — not any kind of failure.

We won that one . . . Now it's time to move on and step up to the task at hand

. . . "Building the world's most respected Air and Space Force."

It's not the bottom of the ninth anymore. It's not even the same season.

It's a new season, a new game in fact, and it's the top of the first (inning). The field is in great condition: and everyone is healthy. I'm looking forward to a great year.

In Air Combat Command, we stand ready to provide the world's best combat air forces . . . Delivering rapid, decisive airpower . . . anytime, anywhere.

Thank you!

Lt Gen Stephen B. Croker

GENERAL HATCH: *Thank you, Steve. I think everyone in this audience will agree with me. That was an excellent set of remarks, and one thing that I can assure you, along with the leadership of the Air Force Association sitting here in the front row, you can count on the Air Force Association for many years to come. That is our purpose; that is what we are all about, and we intend to be there when it counts.*

The first question for you: the Air Force budget took an O&M cut this year. Have you forecast how that might affect the flying hour program in the coming 12 months?

LT GEN CROKER: Yes, we have. I would like to say a couple of things about the O&M budget. We have nine bases on the first base closure list, and we have actually only closed two. But basically the O&M for those nine bases has gone away. We are having to spread the O&M money we have a lot thinner among our 37 installations and our 44 wings. So, the first thing we are doing is trying to close those bases as quickly as we can, while still doing it carefully so that we don't put the Guard and Reserve people that are going to inherit those bases in difficult positions.

Secondly, for the first time in I don't know how many years we are actually taking a flying pay reduction. We are going to take about 3 percent out of flying pay and civilian pay in order to absorb those O&M cuts, but we are trying very, very hard, also, not to have a hollow force.

We have too small a force for the base structure we have today. So, thirdly, we are trying very, very hard, as we go through the surveys the Secretary talked about for

the upcoming base closure round, to give that commission accurate information so that they can make the right choices and close the right bases in the future.

GENERAL HATCH: *Thank you. We are in "The Year of Training," and Air Training Command and Air Combat Command are working together on combat crew training. How will that set of responsibilities split out?*

LT GEN CROKER: That is another new initiative that I didn't talk about. I am not sure if the Chief talked about it yesterday, but we are taking the basic crew training from Air Combat Command and putting it into the new revised Air Force Training and Education Command. So, the new Air Force command — I guess we will call it AFTEC — commanded by General Viccellio will have Air University, the Academy, the current technical training centers, pilot training, as well as things like fighter and bomber lead-in training, plus our three largest CCTS's [Combat Crew Training Schools], F-15, F-16 and A-10. Those very, very small CCTS's like B-1, B-52's, Rivet Joint, U-2's, and F-15E's will all stay in Air Combat Command.

The deal we have struck is that even though the training command will do the training, ACC will control the curriculum and the ranges, the doctrine and tactics, so that they are still responsive. For example, during the war, we were changing the curriculum in our fighter lead-in almost within days of lessons we learned in the war. We want to be able to do that in the future. So, even though the new larger training command will take over this responsibility for our larger CCTS's, we will still have control of the curriculum and the ranges,

and we will do the follow-on training.

About 45 to 50 percent of the training we do today will stay in Air Combat Command.

GENERAL HATCH: *We have a follow-up question in the area of interactive training simulators. Will use of these simulators increase, and what is their potential for the future?*

LT GEN CROKER: Well, in theory, I think we would like very much to utilize simulators more than we have in the past. But again, there is a difference between theory and practice. We have had some great difficulties bringing on simulators and some real serious problems in acquisition over the past few years, many of which have been ironed out.

I don't think we will see the acquisition of new simulator systems as much as we will see the redistribution of the assets we have. For example, as we move more to the Guard and Reserve, one of our challenges will be literally to physically relocate simulators from formerly active Air Combat Command bases to places where combat crew training is done and that have large Guard and Reserve organizations. But I think you will see more emphasis on a redistribution of the assets we have and less emphasis on the acquisition of new types of simulators.

The only other thing that probably will change is that technology now permits us to do more electronic combat training with small simulators in each aircraft rather than using those expensive ranges that we were familiar with in the past, the strategic training ranges and others where the utilization rate today is low.

So, I think you will see some fairly marked changes in electronic warfare training, but that is probably about it for any startling changes.

GENERAL HATCH: *A final question for the Command regarding requirements: do you still have a requirements shop,*

and how are you working with General Yates' command with the integrated weapons system management?

LT GEN CROKER: We do the requirements for all the combat air forces. In other words, just like TAC [Tactical Air Command] used to do the requirements for USAFE [US Air Forces Europe] and PACAF [Pacific Air Forces], we still do the requirements at Langley for all the combat air forces.

We are putting a lot of time and energy into requirements to make sure that we have a concept of operations that is consistent with our new paradigm of "Global Reach, Global Power." We are making sure that wherever possible we have joint requirements that we can defend, that we have user friendly requirements that we can explain, that we know what the cost drivers are, that we know what the risk assessment is, and that we know where we are going, and with whom we are dealing with in the contractor world.

I would say that requirements are probably more important than ever. That's because one of the lessons we have learned from the last four or five years is that as users, we can cause more distortions, more turbulence and more problems in acquisition than the companies themselves just through poorly articulated requirements or requirements laid out without regard to cost.

I think we are doing a far better job than we used to, and yes, we do have a requirements shop. [Brigadier General] George Muellner heads it, and it is probably more important than it ever was.

GENERAL HATCH: *Thanks very much, Steve, for being with us today. You have given us an excellent presentation. We are proud to have you here, and we look forward to great things from you at Air Combat Command. Give General Loh our best regards and thanks, again.*

LT GEN CROKER: Thank you, sir.
(Applause.)

"AMC - Evolving to Meet America's Challenges for the 21st Century"

There are several kinds of change sweeping the world: some good and some not so good. We see, for example, Sarajevo, proud host of the 1984 Winter Olympics — compare it to the Sarajevo of today: a besieged city. On the other hand, superpower tensions have eased, which has allowed the innovative structural and organizational changes underway throughout the Department of Defense.

From an institutional perspective, some changes are external; those factors beyond our control — the rise and fall of nations . . . the political climate . . . the amount of the nation's treasure the nation is willing to provide for defense. Other changes are internal . . . those which we control and initiate. Those changes — initiated by the Secretary and the Chief — preserve and enhance the most critical capabilities of our Air Force as we move into the 1990's and prepare for the 21st Century.

In 1990, President Bush introduced a new National Military Strategy; at the same time, our Air Force released a new strategic vision: Global Reach . . . Global Power. Following those two events — almost concurrent with them — we ended up fighting a war where our airlift and tanker crews did a magnificent job.

What they did, while magnificent, was not perfect (just as was the case with surface transportation and sealift). The result of all that was a new charter, signed by Secretary Cheney in February 1992, for the United States Transportation Command. This charter made TransCom the single manager for Department of Defense transportation. This defense transportation team with its three components — Air Mobility Command, Military Sealift Command, and

Military Traffic Management Command — will play an ever-increasing role in the defense of the nation with a National Military Strategy which has as its cornerstone a CONUS-based contingency force dependent upon mobility assets to get it to the area of interest.

What I'd like to talk about today is the vision for Air Mobility Command. While I have been the commander at Scott for only two months, I was alerted to the possibility that I would be considered to take command about nine months prior to the actual event. Therefore, I had the opportunity to do considerable research and study on the subject. In fact, I prepared a think piece for the Chief that spelled out how we might approach the Air Mobility Command on my watch.

I've got to admit that early on my primary reference source was the AFA Almanac . . . you know, what we all look forward to — the May edition. I got in there and I looked at everything I could. There was a lot about MAC and there was a lot about SAC, but not much about AMC — because it hadn't stood up yet. But in the Spring issues there were a lot of articles about the restructure of MAC, SAC, and TAC which would lead to AMC and ACC on 1 June.

I also talked to people who had been in the tanker and airlift business and read everything I could get my hands on. The more I talked and the more I read about the emerging command, the more excited I became. I couldn't wait to get started. What came into focus was a basic set of assumptions relative to Air Mobility Command.

The four assumptions were: (1) Air



Mobility Command is the cornerstone of the National Military Strategy. It is absolutely critical in nearly every realm — from support of combat projection to humanitarian relief. Events of the last two months, let alone the last two years, bear this out. (2) While there has been considerable restructure of the United States Air Force . . . and to a lesser degree the Department of Defense, we are not nearly done with the restructure of either of those organizations. (3) Whatever continuing restructuring occurs, we should not forget that the United States of America is fundamentally a militia nation. And so, if a restructure plan does not include a good understanding and use of Guard and Reserve forces, it is destined to fail. (4) Finally, if you're going to be good at something, you must focus on your core values and capabilities. To put it another way: on my watch at Air Mobility Command, we decided our focus would be on Air Mobility. That's our primary mission; that's what we should be focused on!

If the business of Air Mobility Command is air mobility, then what we must do is divest ourselves of all those things that do not contribute directly to air mobility. As MATS and MAC grew over the years a great number of functions attached themselves to the headquarters.

So we drew up a list of divestiture candidates that fell into three categories: (1) Bases. For example, Hurlburt — host to headquarters Special Operations Command — has been transferred to that command. (2) Missions. For example, air rescue is a critical mission, but it is one that primarily supports tactical air forces. (3) Functions. In support of the one base, one wing, one boss concept, we divested ourselves of functions like weather and audio-visual services. There will be further changes as we look at things like training, air weather, SAR craft and administrative airlift (OSA).

While we must focus on our primary mission and divest ourselves of everything else, we must at the same time recognize what the elements of air mobility are and take stock of where we're at and where we're going in that respect. The three

elements of air mobility are: (1) our people, (2) our basing structure or — if you will — our worldwide en route structure and (3) our equipment, that is, aircraft and material handling equipment.

Before coming to the Command, I was told we have magnificent people doing their wartime mission every day, but for some reason they did not seem very proud of what they were doing. This lack of pride manifested itself in low retention of critical aircrew members, a generally sloppy appearance (the old plastic spoon, rolled up sleeves, slept-in flight suit syndrome) and a reluctance to embrace the general standards and changes being adopted by the rest of the Air Force.

Since taking command, I've discovered that our people are proud of what they do — in the air and on the ground — but they believe that those in positions of authority do not appreciate what they are doing. They believe that because they get too little recognition. They are also disturbed because they perceive that they have no control over their lives. We're going to try to change that. As part of a total force initiative, we've begun a concerted program to address these issues.

In my view the appreciation issue is more one of perception than reality. Nonetheless, perceptions are people's "realities." As I made my calls on the Chairman, the Secretary of Defense, the Chief, the Secretary, I found that these people clearly appreciate what our tanker and airlift forces are doing out there. I'm working at ways to convey that sense of appreciation to my people. The senior leadership and the Air Force Association have pledged to help.

Secondly, under the issue of recognition, we are working to increase both individual and collective awards. There are a lot of heroes in our ranks: we're going to give them the recognition they deserve. Just recently, I had the opportunity to recognize some C-5 aviators . . . superb aviators who saved an airplane when they ended up with an engine pylon fire.

Those of you with big-airplane experience know that once an engine fire gets into the pylon, you're in deep trouble. This

crew put that C-5 down on a small municipal field and worked with the local fire departments for 20 minutes to put the fire out. Things like this happen all the time, all around the world. And the fact of the matter is, we have made the extraordinary look routine for so long that many people take us for granted. For too many years what these folks do has been looked on as "business as usual."

This C-5 crew saved a national resource: we just aren't making C-5s anymore.

It takes a rare kind of courage, discipline, and crew coordination to do what they did. I would tell you that throughout the air mobility force, things like that are happening all the time. It is my desire to raise actions such as these to the forefront and give out the recognition these professionals deserve. You can help me.

Air mobility crews go in harm's way every day of the year. Let me tell you another story: Last week we got tapped on short notice to send a C-141 deep into the former Soviet Union to a country called Tajikistan to evacuate American citizens threatened by a civil war. We pulled the aircraft and crew out of the normal channel system and — with nothing more than a quick briefing — sent them on the mission. When they arrived over the airfield designated for the evacuation, they were to be contacted by a very specific US official to determine if it were safe to land. The official did not come up on the radio . . . the crew circled the field which was ringed by armed forces . . . weighed the risks versus the mission and the fact that American citizens needed their assistance. The crew — whose senior member was a captain — made the decision to land. Result: American citizens were taken out of harm's way.

That's the kind of thing our people face each day as they fly into places like Somalia, Kenya, Egypt, Yugoslavia, Honduras, Chile, Argentina and all parts of the former Soviet Union. Last week, we flew nearly 2,000 missions around the world.

But being such a key element of national military policy has its price. We are in

great demand and, as a result, our people have little control over their lives. This is a difficult problem because, quite frankly, in the command we have not come up with a measure of merit that shows when too much tasking is being experienced; but, clearly, aircrews are on the road too much. And so, we are trying to address this through a total force program called Phoenix Pace, wherein every active duty airlift wing — strategic and tactical — and tanker wings — including Geographically Separated Units — will get two consecutive weeks of not being tasked in the system.

We recently implemented this program after discussing it at our commanders conference. At that conference the Guard and Reserve Commanders made a commitment to pick up the slack to allow our active crews a respite. Now we're starting to publicize it. We'll get the news on the street. We will make it happen because the Guard and the Reserve have agreed to take up the slack along with the other bases.

The base realignment and closure commission is underway. It's very timely and the outcome is critical to Air Mobility Command.

The Air Force senior leadership has taken a laudable approach to this current round of BRAC activity. MajComs have not been issued quotas. Instead, we are taking a total look at the entire basing structure and the bed-down of our forces. This may result in the exchange of real estate between MajComs. Once again, these decisions will be made on operational considerations, not tradition. Once these decisions are made, we are going to embark on a program to build air mobility bases for the 21st Century.

Among those bases, we are going to have three or four air mobility wings, that is, wings that are a combination of tanker and strat lift; three or four core tanker bases; and three or four core airlift bases. Reserve and Guard units will be collocated in some cases or be stand-alone tenants on bases of other commands and civilian airfields.

As far as preserving the en route structure

is concerned, I will tell you Air Mobility Command is getting out of the overseas base business. However, it's absolutely critical that if you have a force with global responsibilities, you must have the en route support structure to provide that capability. That was recognized as early as 1945 by Hap Arnold, and is still true today. We are embarked on a study to size and place that en route support structure so that it makes sense in peace and war.

Relative to equipment — our airlift fleet is tired. We have too many C-141s at Warner Robins Air Logistics Center. We even have more C-5s in depot than we should have. General Ron Yates and the people at AFMC are working this hard. Heavy commitments are taking their toll on our air fleet. Our current fleet of C-130s is not in as bad a shape from a maintenance standpoint, but the aircraft are simply old and equipped with old technology which makes them crew and maintenance intense. We've embarked on a modernization program to replace the fleet incrementally over a 20 year period. We are looking at modification programs to replace avionics suites, provide defensive systems and generally sustain the force.

At the center of our airlift modernization or equipment upgrade program is the C-

17. I've flown it: it's an agile aircraft for its size. The C-17 will allow us the ability to deliver overwhelming ground power to forward and remote areas without well-developed infrastructure. We're working hard on the issues of produceability and affordability; but, I will tell you, absolutely no one should doubt the requirement for the C-17 airlifter.

As an operator, I need that airplane. The Congressionally-mandated Mobility Requirements Study, our bible for mobility requirements in the 1990s, complements the National Military Strategy. MRS supports a minimum buy of 120 C-17 aircraft.

As we look to the future, we must build forces and capabilities that support our National Military Strategy. We must seize the opportunities to operate in joint environments involving all our military components. We must not lose our ability to project forces to protect our national interests around the globe. As our strategy evolves to meet America's challenges for the 21st century, airpower, air mobility, will be the key to employing forces more effectively at greater distances with fewer casualties. And that's what our internally generated change is all about.

Gen Ronald R. Fogleman

GENERAL HATCH: *Thank you, General Fogleman. There are two or three questions concerning the C-17 program, the pace of the program, the size of the airlift fleet, and the heavy flying requirements. What about the need to modify or SLEP [Service Life Extension Program] the C-141? How does the program for the future lay out?*

GENERAL FOGLEMAN: As many of you know, even with a full C-17 buy, we envision keeping C-141's in the force well beyond the turn of the century. The mobility requirements study was based on a 1999 force structure, and that force structure was predicated on a C-17 buy that has already been disrupted by the last congressional action that we have had. As that force structure continues to be disrupted, the issue of the viability of a C-141 SLEP becomes more and more important.

As you know, the legislation this year tells the Secretary that he should engage a scientific advisory board on this issue. I met yesterday with some of the key players on the mobility panel of the scientific advisory board. I think that we are together on the issue of truly needing to understand what we can and cannot do with SLEP.

But I will tell you that I do not think that we can determine the advisability of doing SLEP on the C-141 through engineering analysis. The airplane has been modified and used in too many different ways other than what it was originally built for. I feel so strongly about this that I am advocating to the Chief and the Secretary that we should ask whoever referees this decision to pick a C-141 out of the fleet. I would make that available to them so they

could start with a teardown analysis and we would go from there. That is kind of where I come down on that.

The bottom line is I think we need to do the study and the analysis. But quite frankly I am a history major and I don't understand the numbers stuff. Even my people who are not history majors, however, will tell you that this is a tough nut to do analytically. We simply don't have the technology and the tools to do corrosion types of analysis these days.

GENERAL HATCH: *Thank you, Ron. The second question pertains to the Civil Reserve Air Fleet, CRAF. That has done very well for us in the past. How about plans for the future?*

GENERAL FOGLEMAN: I would tell you that when Ron Fogleman talks about Total Force while he is wearing an Air Mobility Command patch, that includes the active force, the Guard, the Reserve and the civilian industry including the civil air carriers.

Right now, we are in a position where the air carriers have agreed to a 9-month extension on the CRAF program as it fundamentally exists. We know that we are in a holding pattern here. One of the best things that happened to me was that General H. T. Johnson, the day he left this command, signed off on a CRAF white paper. I think it is a good document. It offers some new approaches to try to incentivize people to participate in CRAF.

It addresses the disincentives that have been there for a long time. It puts some new incentives on the table, and it also takes some new approaches to things. An example: there are certain areas of the country where our commercial airports are

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simply saturated to the point where overnight package carriers and other carriers are having a lot of trouble getting the access that they need. In that same region of the country, however, is an air base or a naval air station that essentially doesn't work at all at night. We might be able to arrange, not a joint use agreement, but an agreement to allow them to use those facilities in return for participating in CRAF. These are the kinds of new incentives and approaches that we are looking at.

I will be at the NDTA [National Defense Transportation Association] airlift committee meeting next month in Seattle, and we will be talking about some of those things.

GENERAL HATCH: *Thank you. We have an explicit question regarding air refueling capability. The Navy uses probe and drogue. Will the Air Force have the capability in the future to serve probe and drogue aircraft?*

GENERAL FOGLEMAN: Yes, sir. As you know, because you and I were there and worked this issue together some years ago on the air staff, we have modified 40 airplanes in the KC-10 fleet, and we bought 20 pod kits. So, we are looking at multipoint capability with the KC-10 right now.

We have another initiative in the POM [program objective memoranda] and in the budget to modify some KC-135's, both with refueling pods and with a capability to be refueled. This is independent of the Navy requirement, but if you look at the most efficient use of tankers, you need a percentage of your tanker force that can both refuel and is refuelable. We have that, of course, with the KC-10. We currently lack that in most of the KC-135 fleet. We have a program funded to do that now.

GENERAL HATCH: *A final question on tankers concerns the KC-135R, which is the modified aircraft, and the E models of the KC-135. What kind of mix are you shooting for in the future, sir?*

GENERAL FOGLEMAN: Clearly, this is one of those Guard and Reserve and Total Force issues. The first priority for me is to complete the modification of the requisite number of A's to R's so that we have the core of the force that is very capable. The Air Force had never really envisioned an E to R modification program. At least I don't remember us looking down the road at that during my watch on the Air Force Board.

There are those in the Congress that have started telling us to do that for our Guard and Reserve units, because if it is good enough for the active force it ought to be good enough for the Guard and Reserve. I must tell you I cannot argue with that, but I would also tell you that there are no thrust reversers on KC-135R's. We have Guard and Reserve outfits right now operating off of air fields such that, if you were to convert 135E's to 135R's, they could not use that equipment on those fields.

So, we really need to look at the mix as we go out there, General Hatch. That's what I am looking at. I think we are going to be issued that program. Again, if we are issued more conversions from E's to R's, then we need to accept them in the smartest way that we can and make people aware of where we can use them and where we cannot.

GENERAL HATCH: *Let me wrap it up, Ron, and say that we are proud to have you as the new Commander-in-Chief of US Transportation Command and the Commander of Air Mobility Command. We are looking forward to great things. Thanks so much for being here, and you can be sure that the support you talked about from your Air Force Association is going to be there when you need it.*

Thank you.

GENERAL FOGLEMAN: Thank you, General Hatch.

(Applause.)