is in honor of Calvin and Marjorie's tireless efforts of putting others before themselves and working for the betterment of our community.

Not only are these people pioneers in local housing, they have given back to the community time and time again. Perhaps Community Housing and Shelter Services Executive Director Diana Olsen summed it up the best when she said, ''I can't think of anyone else that deserves this award more.''

Calvin and Marjorie were volunteering their time and efforts before voluntarism became popular. I'd like to take a moment to focus on some of their achievements. Not only did they establish the Bright Family Foundation which includes the Marjorie H. Bright Scholarship Program for students at California State University Stanislaus, Modesto Junior College, University of the Pacific and San Jose State University and other universities in Utah and Oklahoma; they also sponsor a medical fellowship at the University of California, San Francisco School of Medicine.

Particularly poignant to me is the fact that despite their success, they have never forgotten their roots in helping provide scholarships for students from their high school alma mater, Beggs High School, in Beggs, Oklahoma. I am honored to call Calvin and Marjorie my friends. The Bright Foundation also actively supports the Children's Crisis Center and the Boy Scouts of America.

Calvin formed Bright Development in 1971 in Modesto. The firm has built approximately 3,000 single-family homes, in addition to townhouses, apartments and commercial office buildings. He founded Bright Foods in Turlock in 1956, one of the first frozen prepared food processing plants on the West Coast. Bright Foods and FM Stamper of St. Louis were merged and renamed Banquet Foods in 1966. Banquet was later sold to RCA Victor in 1969.

Marjorie Bright worked actively in the couple's food processing and building businesses. She was the personnel and labor relations manager of Bright Foods and now serves as the general manager of Woodside Management Group. Woodside has more than 100 employees and manages approximately 3,000 apartments.

Mr. Speaker, it is with great pride that I stand before the House of Representatives and ask my colleagues to join me in honoring Calvin and Marjorie Bright for their outstanding service to our community.

CONGRATULATIONS TO MINDY BACCUS, VFW VOICE OF DEMOCRACY SCHOLARSHIP WINNER

HON. JERRY MORAN

OF KANSAS

IN THE HOUSE OF REPRESENTATIVES

Tuesday, May 19, 1998

Mr. MORAN of Kansas. Mr. Speaker, I rise today to congratulate Ms. Mindy Baccus from Ada, Kansas on being named a National winner in the 1998 Voice of Democracy Scholarship Competition sponsored by the Veterans of Foreign Wars and its Ladies Auxiliary.

Ms. Baccus is a senior at Minneapolis High School and hopes to pursue a career in communications or Law. She has been honored for her scholastic and extracurricular activities and exhibits outstanding leadership qualities. She has again distinguished herself by writing and orating the best patriotic script in Kansas entitled ''My Voice in Our Democracy'' for this nationwide competition. Her insight into the importance of each individual's role in our democracy and the eloquence with which she states her ideas, exemplifies the principles this country was founded upon. I am proud to announce that as a result of her hard work, Ms. Baccus has been awarded $3,500.

The men and women of the Veterans of Foreign Wars and its Ladies Auxiliary deserve recognition for their generous sponsorship of this scholarship program. I especially commend VFW Post 3201 and its Ladies Auxiliary in Minneapolis, Kansas for their local sponsorship. This year fifty-six young leaders from across the nation received scholarships totaling $128,500.

I am proud that the VFW have honored Ms. Mindy Baccus with this year's award. I wish Ms. Baccus all the best in her chosen career path and in her studies at William Jewell College.

''MY VOICE IN OUR DEMOCRACY''

Ballots! Ballots! Get'em while they're hot! Here sir, have a ballot! What!? You don't want one! You're a US citizen 18 or over, aren't you? Well, then take a ballot. Oh, you think one person can't make a difference? What about you ma'am. You want one, right? After all, women fought for the right to vote for over a century. You'll take advantage of that privilege, won't you? What, you think your opinion doesn't matter. Well, you're wrong. You need to sit down and let me tell you about my voice in our democracy. In fact, all of you need to listen because anyone can have a voice in our democracy as long as they remember what voice truly stands for. My voice is vibrant, overcoming, insightful, confident, and educated.

Never half-hearted, my voice is pulsing with life, energy, and vigor. No one can resist being drawn to my enthusiasm. Whether writing letters to public officials, discussing policy decisions with those around me, or encouraging my peers to become more active in government; I always convey my beliefs with energy and vitality. By doing so, I set an example that others are compelled to follow because everyone can see that I truly believe in what I'm saying. However, regardless of how vibrant my voice is, someone is usually waiting to stifle it.

For that reason, my voice must be overcoming. I know that I must never let others make me compromise what I truly believe. Because so many policies in our society today are controversial, viewpoints often encounter strong opposition, but in order to be as close to a democracy as possible, many diverse opinions must be heard. Obviously, without a voice that's overcoming, having any voice in our democracy would be extremely difficult. Often, fully understanding a situation will help me overcome obstacles.

As a result, I must be insightful. By looking deeply into a situation, I can find details which support my opinion and by pointing out aspects of an argument that others may have missed, I can gain more support for my view. Additionally, thoroughly exploring a policy helps me to make the right decision from the beginning. Soon, others will recognize me as a strong analyst and will gain more respect for my views, even if they don't agree with them. Although my peers may not agree with me, I will never stop believing in myself.

That's why my voice must be confident. If I don't believe in myself, no one else will believe in me either. Regardless of the opposition I face or whether I feel like I'm alone in my views, I can never let myself feel defeated. As long as I know I am right and tenaciously defend my opinions, I will never be conquered. Even if I have to write a letter daily for years, make thousands of signs, or vote year after year for the same proposal, I will eventually make a difference as long as I believe in myself. Still, it's hard to be confident if I don't know about the issue.

In order to have a strong voice in our democracy, I must be educated. First, without being informed, I cannot know enough about issues to find the position I want to fight for, and without fully understanding my views, I cannot adequately defend them. Finally, since affairs in a democracy are constantly changing, education can never stop; it must be ongoing. Overall, knowledge is power especially when it comes to democracy.

Vibrant, overcoming, insightful, confident, and educated. Although the use of the acronym V.O.I.C.E. is clever, this actually is what voice truly stands for. I know my voice in our democracy embodies all of these traits and will as I continue to enter adulthood. Everyone has a voice in our democracy; they must simply learn to use it. One person can truly make a difference, and that one person could be me * * * or you. Ballots! Ballots! Get'em while they're hot. Here, would you like a ballot? Of course you would.

AIR FORCE SCIENCE AND TECHNOLOGY REINVIGORATION ACT

HON. TONY P. HALL

OF OHIO

IN THE HOUSE OF REPRESENTATIVES

Tuesday, May 19, 1998

Mr. HALL of Ohio. Mr. Speaker, today I join my colleague Mr. Boehlert in introducing the Air Force Science and Technology Reinvigoration Act, a bill to restore the role of scientific research as a driving force in the decision-making of the United States Air Force. The bill establishes the new positions of Assistant Secretary of the Air Force for Science and Technology and Deputy Chief of Staff for Science and Technology. The bill will require minimal expense. The two new positions are similar to positions which once existed in the Air Force. These changes could help reinvigorate Air Force science and technology and help return the Air Force to the spirit of its founding mission—a mission that established and maintained the world's supreme air fighting force.***HD***Background

Scientific investigation, accompanied by the new knowledge it generates and the foundation it lays for development of new technologies, is the cornerstone of air and space superiority. The Air Force as no other military service should recognize the singular importance of science to its beginning and survival. Technology has been an engine that drives the Air Force as an institution. More than the other services, the Air Force is where scientists and engineers must do their work years before the battle begins.

As critical as it is to military aviation, support for science and technology has been feast or famine throughout Air Force history. In times of war or national emergency, science and technology are almost always fully funded and encouraged. However, as soon as the crisis is over, science and technology are de-emphasized until the next crisis. As a result, in the past the United States has found itself technologically behind enemies and allies, and has

been forced to play catchup when responding to a national emergency.

The feast-or-famine approach has not yet failed us. However, as technology becomes more complex, the lead time from the inception of new research to fully-deployed weapon systems grows longer. For example, the smart weapons that worked so well in Desert Storm were the result of a technology build up that began in the 1960s. Unless the Air Force stabilizes long-range research at sufficiently high levels, our Nation could face a crisis without the technology necessary for victory.***HD***Air Force Science and Technology Policy

A HISTORICAL OVERVIEW

Air Force science and technology (S&T) grew from the technical revolution that began with development of the first airplane by the Wright brothers in Dayton, Ohio. The Army purchased a plane from the Wright brothers, but the service did not appreciate the value of scientific research in the new field of aeronautics. Few pilots received technical training. For the most part, they cared only about the finished product. Between 1909 and the beginning of World War I, the Army Signal Corps purchased 24 airplanes, but conducted no aviation research. During World War I, the Army designed no military aircraft, instead relying on foreign aircraft that were shipped to the United States and copies.

In October 1917, the Army established the Experimental Engineering Division at McCook Field in Dayton, Ohio, to help the fledgling American aeronautical industry design and produce military planes. McCook Field operated as no other Army Air Field. It employed primarily a civilian workforce of scientists, engineers, and support personnel who were exempted from many of the ordinary civil service rules, including those on hiring. The Army recruited the best and brightest scientists and engineers in the country from industry and academia, both seasoned professionals and new graduates.

In the early 1920s, McCook Field was the place to be for anyone interested in aeronautical science and engineering. It was the place to discover how to design and build military aircraft, and more importantly, to develop new concepts and technologies. It had beocme the United States' center of aeronautical research and development.

By the mid 1920s, the engineering staff designed and tested its own aircraft prototypes and equipment, including engines. The experimental engineering activities at McCook field came to an abrupt end when the aeronautical industry complained of unfair competition. World War I was over and industry leaders thought there was no longer any need for the Army Air Corps to experiment with aeronautics or develop new military aircraft. They—and the nation as a whole—felt there would never be another war like World War I.

The Army Air Corps found new importance in scientific research after President Franklin D. Roosevelt assigned the Corps the emergency role of carrying air mail in 1934. The Army Air Corps' men and equipment were unprepared to accomplish the mission. The Corps discovered that its inability to respond successfully to the national emergency was a direct result of the cancellation of its aeronautical experimental engineering program. This experience lead the Army Air Corps into an ambitious research and development program which reached its height by 1939. Some of the technological advances made during this period were all metal aircraft, pressurized cabins, retractable landing gear, and automatic landing systems. However, this technology was aimed at building better planes, not war fighting machines.

When World War II began, the Army Air Forces had already started to dismantle its aviation research programs and it was conducting little research to develop military aircraft. Aircraft developed during and after the air mail crisis was retrofitted for war service. Once again the country had to ramp up aviation research on a crisis basis.

By hiring outside expert scientific and engineering consultants, the Army Air Forces quickly developed a successful wartime research and development effort. Some of the most important aircraft of World War II and immediately afterward were developed during this period, including pursuit planes and giant, long range bombers, such as the B–29 and the B–36. Revolutionary new technologies included jet and rocket motor propulsion, advanced aerodynamics, gun and bomb sights, radars and communications equipment, and synthetic materials. However, after the war, it became apparent that the American program lagged behind both the German and British programs. This position was unacceptable to the men who would soon lead the new Air Force. They determined this would never happen again.

ESTABLISHMENT OF THE U.S. AIR FORCE

The experience of World War II clarified the problems that had plagued military aviation from the beginning. The Army was not organized to conduct advanced research for two reasons: First the Army Air Forces was a branch of the Army and did not have control of its own budget, research, or weapons development. Second, and perhaps even more important, the Army's policy stated that military research and development should be confined to improving existing aircraft, tanks, and artillery.

Gen Henry H. ''Hap'' Arnold, Commander of the Army Air Forces in World War II, recognized the importance of the technological revolution that had taken place during the war, especially its potential to project air power. He knew all too well the historical pattern of feast and famine in aviation research and he set about to preserve and expand the military scientific cooperation that had been built up during the war.

In 1944, Gen. Arnold told a group of scientists, ''For twenty years the Air Force was built around pilots and more pilots. The next Air Force will be built around scientists.''

It was clear to Gen. Arnold that air power was essential to victory in World War II and research was the key to air power. He felt that research should be continuous, without the fits and starts of the past, and that it should tap the best minds of the nation. His deepest concern what that in the next war, unlike previous conflicts, advanced enemy technology would not give the United States time to get ready after the outbreak of hostilities.

Gen. Arnold commissioned Dr. Theodore von Karman, the prominent aerodynamicist and mathematician and head of the Guggenheim Aeronautical Laboratory of the California Institute of Technology, to survey wartime technological achievements and chart a future course for an independent Air Force. The result was Toward New Horizons, a 12-volume report delivered to Gen. Arnold on December 15, 1945. This work, written by 25 eminent scientists, became the blueprint of Air Force research and development.

Dr. von Karman believed that only a constant inquisitive attitude toward science and ceaseless and swift adaptation to new developments could maintain national security. He was convinced that the twentieth century had transformed war from a drama of human endurance to a technological contest for control of the air. In the introduction to his report (called, ''Science, the Key to Air Supremacy,'' Dr. von Karman recommended a peacetime research and development budget equal to five percent of the annual Army Air Forces wartime budget. Dr. von Karman forcefully argued for an institutional alignment in which science permeated the entire military structure. To do this, he recommended separating the management and funding of research from weapons systems procurement, working closely with industrial research efforts, and providing technical education of officers.

The efforts of Gen. Arnold and Dr. von Karman came to fruition with the National Security Act of 1947, which changed the Army Air Forces to the independent U.S. Air Force (USAF). The new USAF was no longer bound to the Army and its procurement-drive policies. It was now free to pursue the research that would be necessary to give the United States air and space supremacy.

RESEARCH AND DEVELOPMENT IN THE NEW U.S. AIR FORCE

General Arnold was not able to complete his vision of an Air Force lead by science and he retired due to ill health. Dr. von Karman continued the effort, resulting in the establishment of a permanent Scientific Advisory Board (1947) and the Office of Air Research (OAR) in the Materiel Command's Engineering Division (1948).

In the late 1940s the Air Force issued a master plan for research and development which was shaped by Brig. Gen. Donald L. Putt, Director of Research and Development. Like Gen. Arnold and Dr. von Karman, Gen. Putt thought that scientific research and development decisions were too much influenced by the need for procurement.

In keeping with the Arnold-von Karman vision, the plan gave top billing in the Air Force mission to research and development during peacetime. The plan also recommended that all research and development activities should be unified under the direction of a Deputy Chief of Staff for Research and Development.

Putt's efforts eventually lead to the establishment in 1950 of the Air Research and Development Command (ARDC) to concentrate resources and facilities on turning out new and radically improved materiel and techniques. These include supersonic flight, guided missile technology, ''swing wing'' aircraft, ramjet propulsion, ballistic missiles, ''century series'' fighters (F–100, F–102, *et al.*), and research aimed at reducing the radar cross section of air vehicles.

The outbreak of the Korean War and the creation of ARDC in 1950 brought temporary funding and manpower relief to Air Force scientific research and technology development. However, the research laboratories were still spending most of their resources on near-term engineering development of new systems and

engineering in support of the maintenance depots. ''Over the horizon'' (long-range technology) projects still took a decidedly back seat.

This lack of long-range planning hit home on October 4, 1957, when the Soviets placed the first artificial satellite in orbit around the earth. The shock to the U.S. public caused by Sputnik was profound.

The Air Force responded with a sustained scientific research and technology development effort unparalleled in the history of aviation warfare. General Bernard Schriever, Commander of ARDC, successfully advocated expanded emphasis in research and development funding. As a result, in 1961 the Air Force established Air Force Systems Command (AFSC), with responsibility for all research, development, procurement, production, testing, and evaluation.

With most of the elements in place, the Air Force came as close to the Arnold-von Karmon vision as it has ever been. Some of the research conducted by Air Force laboratories under AFSC at this time included the advanced turbine engine gas generator program, a high-bypass turbofan engine for the giant C–5A airlifter, ramjet and scramjet power plants, aircraft and spacecraft electrical systems, composites (carbon-carbon) for use in structures subject to extremely high temperatures (i.e., jet and rocket engine nozzles and leading edges of aerospace vehicles), early research into revolutionary active phased array radars, airborne lasers, electronic warfare jammers, terminally guided laser weapons, and forward looking infrared technology. Also, new developments included fly-by-wire technology, which revolutionized aircraft maneuverability and control, and very large integrated circuit chips which were forerunners of today's electronics revolution.

Because of the long lead time from the inception of new technology to the deployment of a completed weapon system, much of this technology did not reach fruition until the 1990s when it performed with devastating effectiveness in the Persian Gulf War.

America's involvement in Southeast Asia in the late 1960s and early 1970s resulted in the diversion of funding from far-term research to support near term combat needs. Funding for research and development continued to drop with declines in the overall reductions in defense after the Vietnam War. Funding continued a boom and bust cycle through the 1970s, 1980s, and 1990s, resulting in some important gains during the boom times. But the ups and downs resulted in inefficiency and lost knowledge during the down times—exactly the situation Gen. Arnold had feared and tried to avoid.

AIR FORCE HAS RETURNED TO ''BAD OLD DAYS''

With the end of the Cold War, the Air Force science research and development budget entered into a slide. Worse, reorganizations pushed advocates for science funding lower in the Air Force bureaucracy. With the 1992 merger of the Air Force Logistics and Systems Commands into the Materiel Command, a major voice was lost in the chain of command for scientific research. Science and technology fell to a distant third place behind procurement and logistics/maintenance. With a 1987 reorganization, the position of Assistant Secretary for Research, Development, and Logistics was eliminated, reducing the voice for science among the civilian leadership of the Air Force. The 1987 reorganization also removed the position of Deputy Chief of Staff for Research, Development, and Acquisition. These administrative actions left research and development virtually without a voice at the highest levels of Air Force headquarters.

The 15 volume New World Vistas Study undertaken by the Air Force Scientific Advisory Board and reported to the Chief of Staff of the Air Force in 1995 made a number of recommendations to reinvigorate Air Force Science and Technology. Air Force leadership has implemented very few if any of the recommendations.

In the mid–1990's, in a complete reversal of Air Force policy, the Air Force decided to eliminate the graduate school of engineering within the Air Force Institute of Technology. This school ensured that scientific education was integrated into the training of Air Force officers and it provided additional research for the Air Force laboratories. Only after a storm of severe criticism did the Air Force agree to maintain the school.

The strongest evidence that the Arnold-von Karmon model for the Air Force has collapsed is the initial science and technology budget the service submitted to the Secretary of Defense for fiscal 1999. Despite specific Defense Department guidance to maintain science and technology funding at the previous year's level, the Air Force tried to slash its science and technology funding by 15 percent below the fiscal 1998 level. This represented a cut of $250 million below the previously approved baseline for fiscal 1999. Apparently, this was done in an effort to support procurement, maintenance, and supply accounts.

The Air Force's budget request for fiscal 1999 would have set the level of funding for science and technology at only 1.3 percent of the total Air Force budget—one of the lowest levels in Air Force history. At this level, broad categories of scientific research would have been eliminated, forcing the cancellation of long-standing Air Force programs and threatening the irreversible loss of value institutional knowledge. This extraordinary attempt to cut science and technology funding represented a giant leap backwards to the Army Air corps mentality, when short-term expediency prevailed over ensured future excellence.

Fortunately, the Secretary of Defense overruled the Air Force recommendations and restored some of the funding before sending the budget to Congress. Still, the approved higher level of science and technology funding represents only 1.5 percent of the Air Force's total budget—the lowest of any of the three services in fiscal 1999 and unusually low for peacetime.

As we approach the 21st century, with future battles certain to be fought and won in the air and even space, technology looms as the dominant factor. Now more than ever, long-term investments are required to maintain technological—and thus military—superiority. Once, in an era of simpler technology, America's superior brainpower could overtake the enemy's technology through sudden spurts of scientific development. But that era is gone forever. A gap in today's science and technology funding may not show up as a warfighting deficiency for a generation or two. But by then, it will be impossible for even our nation's vast scientific resources to catch up. Gen. Arnold's prediction more than half a century ago has come to pass.

Likewise, another prediction of Gen. Arnold may yet come true—that the next war will be won not by pilots, but by scientists. Unfortunately, the Air Force is heading in a direction where our pilots will be inadequately supported by the best technology. The continued erosion of funding for scientific research and the continued aging of the science and technology community will leave the Air Force where it started—depending upon someone else's technology.

The vision of Gen. Arnold and Dr. von Karman is gone. What was intended to be the technology service is now behind the other services in future thinking. In short, today's Air force is eating its own seed corn at such a rate that tomorrow's Air Force could be flying with yesterday's technology.

The legislation I introduce today is a modest attempt to restore the role of science and technology in the Air Force through organizational change. First, it would separate S&T management and funding from the management and funding of procurement. This would ensure higher visibility of S&T funding and make it more difficult to shift funds from S&T to pay for other requirements. This is in keeping with the Arnold-von Karman model, and was the procedure followed from the inception of the Air Force until the creation of the Air Force Materiel Command in 1992. The historical record shows that investment in S&T by the Air Force and its processors provided tremendous returns when put under separate management (i.e., the Experimental Engineering Division, McCook Field; Materiel Division, Wright Field; Air Research and Development Command, Wright Field; and Air Force Systems Command).

Second, the measure would create the position of Assistant Secretary of the Air Force for S&T. (A similar position existed under administrative action until 1987.) The Assistant Secretary would be responsible for the Air Force laboratories, Air Force Office of Scientific Research, and S&T funding. This would ensure that S&T had an advocate at the highest levels in the civilian leadership of the Air Force.

Third, the legislation will create the position of Deputy Chief of Staff for Science and Technology. This change would not require an additional Deputy Chief of Staff since it would designate one of the existing five Deputy Chiefs of Staff positions already authorized under law. Again, this provision represents more of a return to the historical Air Force organizational structure. Between 1950 and 1987, the Air Force maintained a position of Deputy Chief of Staff for Development.

The legislation requires the Air Force to establish an independent, outside panel to review priorities of S&T programs each year. The goal is to eliminate 5 percent of S&T programs each year and apply funds from the discontinued programs to new developing S&T programs.

The measure calls for the Secretary of the Air Force to contract with the National Research Council of the National Academy of Sciences to study the technology base of the Air Force and make recommendations.

In addition, the legislation establishes a nonbinding goal that S&T funding should be 2.5 percent of the annual Air Force total obligation authority. This level is slightly higher than the actual amount spent by the Air Force over the last 9 years, but it is well below the 5 percent goal recommended by Dr. von Karman.

The legislation also establishes the goal that over the next five years, 15 percent of science and technology funding should be invested in ''new starts science and technology areas'' identified in the 1997 New World Vistas study. This investment policy will direct the Air Force to invest in the long term key technologies needed to create the quantum leaps in capability in the next century.

These changes would have little or no direct effect on the total amount of Air Force spending. However, they are aimed at shifting priorities to give greater emphasis to S&T. But even more important, these changes would better integrate the needs of scientific research into all levels of decision-making within the Air Force.

More and more, our Nation will depend on air and space power for victory during military conflict. More and more, air and space power will depend on technology. However, with longer lead times for technology development, the nation no longer has the luxury of ramping up scientific research only during the time of crisis. Establishing science and technology as a priority for military aviation has worked in the past and should continue to work in the future to maintain our Nation's security.

The text of the bill follows:

H.R.—

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Air Force Science and Technology Reinvigoration Act''.

SEC. 2. FINDINGS.

Congress finds the following:

(1) When the Air Force was established in 1947 as an independent service, its founders expected that it would ensure that scientific research and technology development would be a priority of America's aeronautical defenses.

(2) Scientific investigation, accompanied by the new knowledge it generates, is the cornerstone of air, space, and information superiority. To maintain air, space, and information superiority, a strong research base is critical. Sustaining a strong research and development base is a continuous effort, taking place both inside and outside the Air Force and involving the best minds of the Nation.

(3) The vision of Air Force founder General Henry H. Arnold and others—that the Air Force should be built around science—remains as vital today as it was more than 50 years ago.

(4) Investment in Air Force research and development has resulted in benefits to American industry, especially the aerospace industry, and made significant contributions to the American economy.

SEC. 3. SENSE OF CONGRESS REGARDING SCIENCE AND TECHNOLOGY FUNCTIONS OF THE DEPARTMENT OF THE AIR FORCE.

It is the sense of Congress that—

(1) to ensure sufficient financial resources are devoted to emerging technologies, not less than 2.5 percent of the funds available for obligation by the Air Force should be dedicated to science and technology;

(2) management and funding for science and technology by the Air Force should be separate from management and funding for acquisition by the Air Force;

(3) to increase long-term investments, not less than 15 percent of science and technology funds available for obligation by the Air Force should be invested in new technology areas, including critical information technology programs, for the next 5 years;

(4) to maintain a sufficient base of scientists and engineers to meet the technological challenges of the future, the Air Force should—

(A) increase the number of Air Force officers and civilian employees holding doctorate degrees in technical fields; and

(B) increase the number and variety of technical degrees at the master's level granted to Air Force officers and civilian employees from both the Air Force Institute of Technology and civilian universities; and

(5) to ensure Air Force science and technology does not stagnate, a concentrated effort should be made to eliminate 5 percent of science and technology programs each year, with funds from the discontinued programs used for new science and technology programs.

SEC. 4. AMENDMENTS RELATING TO SCIENCE AND TECHNOLOGY FUNCTIONS OF THE DEPARTMENT OF THE AIR FORCE.

(a) SEPARATION OF RESEARCH AND DEVELOPMENT FUNCTION FROM EQUIPPING FUNCTION OF SECRETARY OF THE AIR FORCE.—Section 8013(b) of title 10, United States Code, is amended—

(1) in paragraph (4), by striking ''(including research and development)'' and

(2) by adding at the end the following new paragraph:

''(13) Research and development.''.

(b) RESEARCH AND DEVELOPMENT FUNCTION OF THE OFFICE OF THE SECRETARY OF THE AIR FORCE.—(1) Section 8014(c)(1) of such title is amended by adding at the end the following new subparagraph:

''(H) Research and Development.''.

(2) Section 8014 of such title is amended—

(A) by striking out subsection (d); and

(B) by redesignating subsections (e) and (f) as subsections (d) and (e), respectively.

(c) ESTABLISHMENT OF ASSISTANT SECRETARY OF THE AIR FORCE FOR SCIENCE AND TECHNOLOGY.—(1) Section 8016 of such title is amended—

(A) in subsection (a), by striking out ''four'' and inserting in lieu thereof ''five'' and

(B) in subsection (b), by adding at the end the following new paragraph:

''(4) One of the Assistant Secretaries shall be the Assistant Secretary of the Air Force for Science and Technology. The Assistant Secretary shall have as his principal duty the overall supervision of science and technology functions of the Department of the Air Force.''.

(2) Section 5315 of title 5, United States Code, is amended in the item relating to the Assistant Secretaries of the Air Force by striking out ''(4)'' and inserting in lieu thereof ''(5)''.

(d) ESTABLISHMENT OF DEPUTY CHIEF OF STAFF FOR SCIENCE AND TECHNOLOGY.—Section 8035 of title 10, United States Code, is amended by adding at the end the following new subsection:

''(c) One of the Deputy Chiefs of Staff shall be the Deputy Chief of Staff for Science and Technology.''.

SEC. 5. STUDY.

(a) REQUIREMENT.—The Secretary of the Air Force shall enter into a contract with the National Research Council of the National Academy of Sciences to study the technology base of the Air Force.

(b) MATTERS COVERED.—The study shall—

(1) recommend the minimum requirements to maintain a technology base that is sufficient, based on both historical developments and future projections, to project superiority in air and space weapons systems, and information technology;

(2) address the effects on national defense and civilian aerospace industries and information technology by reducing funding below the minimum level described in paragraph (1) of section 3; and

(3) recommend the appropriate level of staff holding baccalaureate, masters, and doctorate degrees, and the optimal ratio of civilian and military staff holding such degrees, to ensure that science and technology functions of the Air Force remain vital.

(c) REPORT.—Not later than 120 days after the date on which the study required under subsection (a) is completed, the Secretary shall submit to Congress a report on the results of the study.

THE BORDER PROTECTION AND INFRASTRUCTURE ACT OF 1998

HON. RON PACKARD

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Tuesday, May 19, 1998

Mr. PACKARD. Mr. Speaker, I would like to take this opportunity to applaud Congressman DUNCAN HUNTER (R–CA) for his ongoing efforts to curb the importation of illegal drugs at our Southwestern border. Last week Congressman HUNTER introduced the Border Protection and Infrastructure Act of 1998, an initiative that provides vital support along specific points of our border with Mexico.

This legislation falls in line with our recently launched plan for winning the war on drugs: decreasing demand, stopping supply, increasing accountability. Stopping supply hits close to home in my district, which lies just north of the San Diego border with Mexico. Nearly 70% of the nation's illegal drug supply comes across the borders in our region.

Congressman HUNTER'S bill authorizes the construction of multi-barrier fencing at high-traffic corridors, including San Diego. The areas outlined in this legislation are generally stretches of border that have urban areas on either side and lack natural obstacles, making them ideal locations of smuggling drugs. Multiple barrier fencing has proved to be an effective tool in the battle against the importation of illicit substances. After the construction of fencing began in San Diego in 1991, cocaine interdiction increased by 1000% and murders along this border are now virtually non-existent.

I am pleased to join Congressman HUNTER in his effort to prevent illegal drug abuse by assuring that these substances never find their way into our country. Mr. Speaker, stopping supply is a key battle in the war on drugs. I urge my colleagues to support the Border Protection and Infrastructure Act of 1998.

HONORING CLARISA F. HOWARD

HON. JANE HARMAN

OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Tuesday, May 19, 1998

Ms. HARMAN. Mr. Speaker, I rise today to recognize Clarisa F. Howard and her efforts on behalf of City of Hope National Medical Center through her sponsorship of the celebration, ''Commitment to Excellence—Commitment to Life.''

Twenty-six years ago, Mrs. Howard began her corporate leadership in financial management, strategic business planning, operations