DEBATE ON DEFENSE APPROPRIATIONS

HON. EARL BLUMENAUER
OF OREGON
IN THE HOUSE OF REPRESENTATIVES
Thursday, June 8, 2000

Mr. BLUMENAUER. Mr. Speaker, I voted against the Defense Appropriations bill last night because of its pricetag that is unprecedented in peacetime and unjustified by the threat, and the misplaced priorities within the bill.

Representative DeFAZIO'S amendment was a step in a more rational direction. It would have reduced the next two years' purchases of F-22 fighter aircraft, as recommended by the General Accounting Office, and redirected the savings to readiness and quality of life accounts.

It was a modest amendment, and it did not cut money from the defense budget. It just spent it on higher-priority issues at a time when the F-22 continues to experience technical problems and we already have the world's most advanced fighter, the F-15.

The $930 million saved would have been spent instead on items that were not funded at the level requested by the Department of Defense, or were included on the Pentagon's un-funded wish list. Those items include additional funding for troops on food stamps, nuclear threat reduction, bonus payments to sailors on sea duty, facilities maintenance, spare parts, and recruiting.

I want to also speak to the larger issues of the bill. We made some gains this year on the issue of military retirees' health care. Most important is the bill's provision of $94 million for the Medicare-eligible.

Unfortunately, there continue to be unmet needs. The Department of Defense Comptroller has just done a study that shows that the military health care system for active-duty and retirees up to age 65 as currently structured is underfunded over the next 6 years by $9 billion.

In addition to taking care of its people, our military has an important role to play in taking care of the environment. Congress needs to make sure that cleaning up after itself is a cost of doing business for our military just as it is for any other polluter.

DoD is responsible for environmental cleanup at thousands of what are known as Formerly-Used Defense Sites. At many of these properties, owned by private parties and state, local, and tribal governments, the public may come into contact with residual contamination. The cost of completing this cleanup is estimated at over $7 billion by the Army Corps of Engineers, yet funding in this bill is less than $200 million.

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The consistent underfunding of this challenge could begin to be addressed if it had its own line item in the defense budget. I call upon the Administration to create this line item in the request it is preparing now for submission to Congress for FY02 funding.

More than a decade after the Soviet Union collapsed, our investment in national defense has returned to cold-war levels. During the cold war, the United States spent an average of $325 billion in current year dollars on the military. This year's budget resolution gave the Joint Chiefs of Staff plan to submit budget requests that for the F-16 specifically stated that there was no requirement that it fly faster than Mach 1.6, a fact probably unknown to the general. Had the general been flying a 40 year old F104A-19, he could have flown with the F-22.

The fact that the F-16 flown by General Ryan could not keep up with the F-22 is again an irrelevant speed statement on the relative speed of the two aircraft. The requirements for the F-16 specifically stated that there was no requirement that it fly faster than Mach 1.6, a fact probably unknown to the general. Had the general been flying a 40 year old F104A-19, he could have flown with the F-22.

The distance number validates whether the F-22 is the right vehicle for the mission. Had the general been flying a 40 year old F104A-19, he could have flown with the F-22. It is not a speed. Proof of supercruise is never forthcoming because few know the definition of supercruise or are unwilling to reveal it.

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Pragmatic supersonic cruise is the ability to sustain significant supersonic speeds (like 1.6-1.8) for combat relevant distances. For perspective, the original design mission for the Advanced Tactical Fighter, cum F-22 was 100 mile subsonic cruise out to the Russian border, 400 NM supersonic penetration at Mach 1.6, consumption of the combat fuel and Mach 1.6 to return to the border at Mach 1.6, with a 100 NM return to land with normal reserves.

The true measure of the supersonic cruise potential of the F-22 is the penetration supersonic distance that can be flown at Mach 1.6 over and back, with the same 100 nautical mile legs and the same fuel reserved for combat and landing reserves. The supersonic penetration distance is the validation of supercruise. This number has not been established. The supercruise potential of the F-22 remains unknown.

If that number is 50 NM it is a fruitless achievement that the F-104 can easily fulfill using its afterburner. A 200 NM penetration is not a great achievement. 300 NM means the F-22 is a pragmatic supersonic fighter, 400 NM is proof of supercruise.

The distance number validates whether the F-22 has it, nothing else.

Retention of the wrong definition will forever bury it. Sincerely,

COL. EVEREST RICCIONI,
Rancho Palos Verdes, CA
The F-22 Program—Fact versus Fiction (By Everett E. Riccioni, Col. USASF, Ret.)

The dream
To provide the USAF Air Superiority for the period following 2005.

E952 CONGRESSIONAL RECORD — Extensions of Remarks June 9, 2000
To Conduct—Offensive Counter Air Operation deep in Russia—Its Primary Mission (300 Nautical Mile (NM) Combat Mission—100 NM cruise to the point of penetration—200 NM supersonic ingress and egress plus combat and fuel reserves).

To provide a 750-800 Aircraft Fleet to replace the aging F-15 Fleet.

To be a Low Unit Flyway Cost Limit in 1986 dollars—$35 Million.

To control cost by conforming to a Weight Limit—$00 lbs (Cost and Weight comparable). The F-15—Clearly the imagined F-22 would have been a bargain.

Dominant Characteristics: High Stealth; Effective Supersonic Cruise; Ultra-High Performance and Maneuverability; and Superior Avionics for Battle Awareness and Effectiveness.

Predicted performance.

Additional Aims: To rejuvenate the Fleet (Reduce—High Cost, High Numbers—2.2 never exceeded 1.4 Mach in combat over Vietnam).

High Cost, Low Numbers

The number of F-22s purchased will not provide a critical mass of fighters. The "Dream" of 800 fighters for $70 Billion fell to 468 for $64.2 Billion (after a 1992 Selected Acquisition Report) and a low of 442 for $64.2 Billion (after the Bottom-Up Review of defense strategy), and to 339 (after the Quadrennial Defense Review).

Study groups and the Congressional Budget Office seeking responsible Review). Study groups and the Congress were considering options of 175 and 450 F-15s and F-16s. This is a total program cost of more than $200M per aircraft—one-third the cost of the F-131s This cost (predicted in 1976) is worse than obscene.

Despite high funding levels—the future size of the Air Combat Command will soon be greatly reduced.

The low number of F-22s will not rejuvenate an aging F-15, F-16 fleet. (Algebraic averaging)

A mix of F-22s and F-15s cannot be a High Low Mix. It will be an Ultra-High—High Mix. The primary element. The F-15 and F-16 do both the air superiority and air-to-surface missions. The F-22 mainly does air superiority missions. Both have deserted our US Army.

The few F-22s possessing quasi-F-15 performance will degrade the air superiority capability of the Air Combat Command, composed of 1600 fighters.

Our decision-makers have (again) opted for unilateral disarmament in the face of their perceived threats.

VALIDATION

Stealth

The F-22 is not a Stealth Aircraft. Stealth means the proper suppression of all its important "signatures"—Visual Signature, Radar Signature, Infrared Signature, Electromagnetic Emissions, and Sound.

Visibility—The F-22, one of the world's largest, most identifiable fighters, cannot hide in daylight. Its role is in daylight. Stealth operations are night operations. Unfortunately stealth against radar invariably increases the size of a fighter making it more visible.

The radar signature is utterly inadequately reported. Only a single data number is provided to congressional committees and the GAO—the average radar signature in the level forward direction within 20 degrees of the nose, presumably to enemy fighter radars. In the B-1B reportingiasco, the 1001 signature equaled to the excellent F-131's that will become an L.B.L. I cannot design an aircraft to simultaneously hide from low and medium frequency ground radars and from high frequency all the time. All radar frequencies, if the data should be portrayed and reported—

for all azimuths, for all radar frequencies. Single data points constitute by omission and gross incompleteness.

The temperature increases of supersonic cruising makes flight of the F-22s in the sky to the sun. The outstanding Avionics will not be proving Performance have not been realized. The F-22, with radar to search for and find the enemy autonomously, at long ranges, cannot hide their high powered electric equipment. The Russians excel at this art and export their equipment to many nations. F-22 detection of enemies by radar is an inverse fourth power phenomenon, while detection of the F-22's radar is an inverse square phenomenon, giving the advantage to the Russians. The F-22's radar will be detected by an enemy plane before the F-22 detects the enemy. It appears that designing air superiority aircraft primarily for radar stealth is an error.

Supersonic Cruise—"Supercruise"

The F-22 has not yet demonstrated effective supersonic cruise.

The USAF has never appreciated that speed without performance is meaningless. Proof—Six USAF aircraft capable of Mach 2.2 never exceeded 1.4 Mach in combat over Vietnam in 10 years of war, in hundreds of thousands of sorties. The F-15C has never demonstrated its performance guarantees of Mach 2.5 flight in a combat configuration on a realistic combat mission profile emissions. The F-22's supersonic signature has not been demonstrated. The "dream" design mission was continuously refined and degraded to—a) conform to physical reality, and—b) to reduce the uncontrolled cost and weight. (Flexible (rubber) requirements.)

Ultra-High Performance

The F-22 does not provide a Great Leap Forward in performance relative to the F-15C or MiG-29. At 65,000 lbs, with 18,500-18,750 lbs of fuel, with two nominal 150,000 lb thrust engines, it has the thrust to weight ratio of the F-15C, the fuel fraction of the F-15C, and a wing loading that is only slightly inferior to the F-15C. It will accelerate, climb, and maneuver much like the F-15C for reasons of basic physics.

There are two differences from the F-15—thrust vectoring and supersonic speeds in dry thrust. Thrust vectoring allows the F-22 to maneuver controllably at sub-stall speeds, which other aircraft cannot. This, in the helicopter speed domain, is in seeming contradiction to an aircraft designed for supersonic engagement with slashing attacks using its beyond visual range missiles.

Supersonic maneuverability is utterly inadequate. Using a single number—the maximum steady-state G at 30,000 ft at 0.9 Mach—on an aircraft that operates from sea level to above 60,000 ft is a throwback to the Dark Ages of aircraft evaluation. Proper presentations are global, all-altitude all-speed plots at the two major power settings. They must be compared to friendly and enemy aircraft. Comparison reveals progress, the whole truth, and even allows the formulation of battle tactics.

Superior Avionics

The expectations for the avionics are to provide great battle awareness and effective weapons management. The F-22 is to autonomously identify (ID) the enemy from friend, from neutral, regardless of the country that produced the aircraft.

But, testing will not be fully completed before going into production! The pressure is on to meet production schedules and to do incomplete testing to save time and money. Incomplete testing is fatal and extremely wasteful.

B-1 avionics, similarly treated, still have not functioned in the aircraft all or two decades, despite large transfusions of funds.

Such refined identification capability has never been achieved though frequently promised. Given failure and dependence on visual identification, the F-22 will be at the level of the F-15 and F-16. The requirement for visual ID made the AIM-70E, the Talos, the complex long-range Phalanx, the Aegis missile cruiser relatively worthless. The avionics are to be treated as "guilty" until tested and proven to be innocent.

The avionics software is more complex than that of the Aegis missile cruiser. Dependence on the integrated, complex system belies the dream of a low maintenance requirement.

Most likely result—The F-22 will be declared combat ready much before it is.
Relevance of Air Superiority

The relevance of air superiority in the modern world is vastly overstated. The USAF has faced no air superiority force since the Korean War. Nor have our ground troops faced an enemy air-to-surface threat.

US air superiority fighters are aimed at enemy fighters—the irrelevant half (of the problem). Our other half—enemy bombers—are best achieved by air superiority with competent, relatively affordable, highly mobile Russian vehicles carrying surface-to-air missiles (IR radar, and optical guidance) and two 30mm cannon (the Tangkuska). These are armed with SA-6, SA-8 and SA-10 missiles. The F-22 only counters non-existent enemy fighters. Hence air-to-air only, F-16s and F-15s are the de facto air superiority aircraft. Attempts to equip the F-22 to suppress enemy defenses are easily defeated by enemy tactics used in Vietnam and Serbia.

The USAF is already over-equipped to handle any imaginable air superiority problem. Today, Air Combat Command is capable of handling any coalition of air superiority threats. Air Combat Command has the most important factor—competent pilots. The second most important factor—large numbers (1,600-2,400 fighters), and the least important advantage—the best aircraft. In Germany during World War II US numbers, not quality, reigned supreme. The USAF has always had and has always depended upon superior numbers to win. Numbers guarantee victory. Numbers develop intensity and allow multiple attacks.

The US has no realistic future air superiority problem facing it. A sane US will not war with India, China, of Russia. Nor will we war with France, England, Japan, and Germany. None of these nations will attack the US. Other countries are not threats. Nor will we war with our friends to whom we sold USAF aircraft. The USAF can be a force to minimize the enmity of these nations, or they can be friendly to the USAF. Even Canada has been a possible threat! Yet, the USAF continues to seek foreign sales before our modern aircraft see service in the USAF and US Navy. (Examples—the US Navy’s F-14, F-18, and the F-22.)

The conjured need to cope with our weapons places our country in a self-perpetuating arms race with itself.

CONCLUSION

Money expended on the program will weaken Air Combat Command and the USAF in two ways—

By getting involved with an aircraft that has no function, and no relevance to modern wars.

By denying themselves funds they really need—for training and for new aircraft to support a US Army, completely shipped of supporting airpower.

Approximately 90 percent of the program funding is money that otherwise could be saved, and reprogrammed to relevant Air Force programs.

ARTICLE BY JAMES L. HECHT

HON. MARK UDALL

IN THE HOUSE OF REPRESENTATIVES

Friday, June 9, 2000

Mr. UDALL of Colorado. Mr. Speaker, as we go forward with the budget process, I’d like to bring the attention of my colleagues to an article published in the Baltimore Sun. The author is a senior fellow at the Center for Public Policy and Management at the University of Denver. Although I don’t necessarily agree with all the points he makes, I think the article is valuable for purposes of informed debate.

For a while, it looked as if Congress might do the right thing: kill an unneeded weapons program, saving $50 billion and increasing security. But in 1995 Congress gave a higher priority to the interests of Lockheed Martin, providing $1 billion in this year’s budget to buy up to six F-22 fighters—and keeping alive the possibility of buying more than 300 more at a cost of at least $187 million each.

The F-22 is an example of how the military budget is driven more by the desire of members of Congress to get re-elected than by security. The program has no function, nor is it a way to catch up with the deficit of the military-industrial complex who in 1996 contributed an average of $18,000 to every member of Congress, almost three times the level of tobacco-industry influence peddling.

Why is the F-22 an unneeded weapon? The American F-15 and F-16 fighters are the best in the world and, if more fighters are needed, these can be built for less than one-quarter the cost of an F-22. The F-22 may be outdated by the joint Strike Fighter, an even better plane on which the Pentagon is spending billions for development.

We spend more than $30 billion a year to maintain more than 4,000 older warplanes. A 1,000-warhead force with the destructive force of 40,000 Hiroshima explosions would be more than enough—and save about $17 billion a year.

How political pork supersedes military needs is demonstrated by the appropriation in last year’s budget of $435 million for seven C-130 cargo transport planes. The Pentagon requested only one. They got seven because manufacture of those planes provided jobs in New Gingrich’s district.

Huge expenditures for unneeded weapons is one reason that U.S. military spending is more than twice as much as all potential adversaries combined, including Russia, China, Iraq, Iran and North Korea. While polls indicate that 72 percent of Americans believe it better to have as much defense than too little, 83 percent think that spending should be no greater than that of all potential adversaries combined.

America’s unreasonable military spending also results from the policy that the United States is capable of winning both major wars. Winning one means we win two major regional wars without the help of allies. This two-war doctrine is rooted in the idea that the United States should be able to exercise unilaterally its “global responsibilities.”

But having this capability and then using it to act alone or with little military support from allies—as we did in Kosovo and continue to do in the skies over Iraq—decreases our security. We make bitter enemies of people who have no threat to us militarily, but can be a serious threat if in anger and frustration they resort to terrorism.

Our security also is decreased because our huge military spending consumes money that otherwise could be spent on education. With the economic success of nations becoming increasingly more dependent on a well-educated work force, shortchanging educational needs is a threat to the economic security of Americans in the 21st century.

Security is the most important function of government. But we should not—in the name of security—needlessly spend tens of billions of dollars a year for the benefit of politically connected interests.