US ARMS TRANSFER POLICY AND THE F-X: CAN TIGERSHARK SURVIVE?

By

COLONEL JOHN N. BLOSE, USAF

On 4 January 1980, the Carter Administration announced a revision of its policy on the development of fighter aircraft specifically for export. This exception opened the way formally for submission of industry proposals for development and production of a new intermediate export fighter which was to be designated the F-X. Until this point, Carter's arms transfer policy had explicitly prohibited development or significant modification of advanced weapons systems solely for export, however, late in his term he was to realize that the sale of the F-X would be in the national interest and, thus, compatible with US arms transfer policy.

Carter guidelines for the new export fighter called for an aircraft having cost and performance characteristics which lie generally between the F-5E and F-16A fighters then in production. The aircraft was to be capable of defending recipients from projected air threats into the 1990s; have a secondary air-to-ground capability in close air support of ground forces but yet be sufficiently limited in offensive range-payload capability so as to be clearly out of the class of US advanced, fighter aircraft; and was to have lower cost and easier maintainability than current first-line US fighters. Unlike its predecessors in the export fighter arena, the F-X would receive no government funding for its development. Manufacturers were to assume all financial and marketing risks; however, the aircraft was to be sold on a strict government-to-government basis, in accordance with the provisions of the 1976 Arms Export Control Act. (11:17)

The purpose of this paper is to examine the rationale for developing a new generation intermediate export fighter, assess the impact that contemporary US arms transfer policies have had on its development and sale, and attempt to define the degree of US government support required to make the F-X a viable contender in today's export fighter market.

Two contenders stand in the forefront in competition for a potential market that could exceed 1,500 aircraft. (3:98) General Dynamics Corporation has entered a scaled-down version of its F-16A, reengined with a J-79 engine and designated the F-16/79. Key factors in General Dynamics development of the aircraft were its early availability and relatively low cost and low risk. The first article was flight tested on 29 October 1980, and its nonrecurring development costs were pegged at approximately $20 million. (20:98; 6:57)

Editor's Note: This article is adapted from a paper presented at the Eighth Air University Airpower Symposium, 5-7 March 1984, Maxwell AFB AL. The Symposium theme was "United States Air Force Role in Security Assistance."

Northrop Corporation took a design approach that was diametrically opposed to that of General Dynamics by replacing the F-5E's two J-85, 5,000 pound thrust engines with a single 16,000 pound thrust GE F-404 engine and adding a greatly enhanced avionics package to come up with a fighter originally designated the F-5G and recently redesignated the F-20 Tigershark. (1:136) Northrop's approach has been expensive with over $600 million of the company's funds invested to date. (9) The Tigershark made its first flight in late August 1982. Neither competitor, however, could claim a firm international sales commitment for its F-X aircraft by the close of 1983.

BRIEF HISTORY OF US ARMS TRANSFER POLICY

Since the end of World War II, the United States has been assisting friendly foreign countries in establishing and maintaining adequate defensive postures, consistent with their economic stability and growth, to maintain internal security and resist external aggression. The underlying reason for furnishing such assistance is based upon the tenet that the security and economic well-being of friendly foreign nations is essential to the security of the United States. (23:A-1)

Congressional concerns for the costs and dangers of US arms transfer began to grow during the 1960s as we witnessed India and Pakistan fight each other using US supplied weapons and as we saw a US military assistance effort in Southeast Asia transition into a US war and finally a US defeat. To guard against the United States again drifting into another Vietnam, President Nixon declared that "we would keep our treaty commitments, would shield our allies against nuclear threats, and would help develop allied strength through military and economic assistance, but we would look to the nation directly threatened to assume the primary responsibility of providing the manpower for its defense." (25:4) The decade of the 60s also saw US arms transfers begin the transition from grant to predominately sales under the Foreign Military Sales Act passed by Congress in 1968.

As we moved into the 1970s, the effectiveness of arms sales in preserving peace and securing US national interests was questioned more frequently. The Congress expressed its sense that the President should open arms trade control talks with leading arms-supplying nations, bring the debate to the floor of the United Nations, and generally use the power and prestige of his office to press for cooperative action among all nations to check and control the international sale and distribution of conventional weapons. Legislation was passed that would deny security assistance to governments which engaged in a consistent pattern of gross violations of internationally recognized human rights. (25:4-5)

A growing criticism of arms sales was that recipients were purchasing arms with scarce resources which should be used to address more urgent economic and social needs at home. (17:36) Basic US policy thus evolved to deny the sale of sophisticated weapons to such countries where a serious threat to security could not be validated. (25:4) The United States also attempted to gain leverage over the direction of a purchaser's policies by including language in the sales agreement that would limit the use of weapons to purposes of legitimate self-defense only. Likewise, our follow-on logistics support procedures were geared to influence a recipient's range of options for

employing his weapons since the United States was frequently the only source of spare parts, training, and ammunition. (25:5)

America's growing concern over the effectiveness of its arms sales, however, did not serve to reverse the overall upward trend in those sales. In the ten years from 1968 to 1977 the value of completed US arms deliveries increased by 150 percent, with over three-quarters of those deliveries going to developing nations. (17:46) A significant component contributing the upward trend in arms sales, and an exacerbater to attempts to restrain that trend, was the emergence of nonindustrialized economic powers with the 1973 oil price hikes and the consolidation of power by the Organization of Petroleum Exporting Countries (OPEC). OPEC members soon found themselves with large amounts of capital and resources with which to bargain with arms producers, and these producers were all the more inclined to sell their arms as economic pressures increased on the home front. (12:83)

Criticism began to focus as much on the manner in which the United States sold arms as it did on the quantity of arms sold. Many of these critics felt that policy under the Nixon-Ford Administrations had gone out of control and some went as far as to charge that at times there appeared to be no coherent arms transfer policy. Charges included that sales appeared to be indiscriminate or for short-term diplomatic gains and lacked adequate consideration for their long-term political and strategic consequences. (12:82; 17:46)

Congress remained determined to shift the focus of arms export policy from that of selling arms to a policy of controlling the sale of weapons. Congressional control initiatives were to culminate in 1976 with the passage of the International Security Assistance and Arms Export Control Act (AECA). This legislation was to force major arms sales to nonexempted states over $25 million to proceed on a government-to-government basis and strengthened the rights of Congress to reject such transfers. Other provisions of the Act were designed to provide Congress and the public more information concerning US arms transfers. The Administration is now required to submit annual reports describing and justifying the next year's arms transfer program and expanded quarterly reports were specified for the purpose of keeping Congress fully informed on current program status. (25:7-8)

By the time the Carter Administration had come into office in January 1977, the Congress had established a firm record of supporting restraints and controls on US arms transfers. President Carter's policy, announced on 19 May 1977, was in large measure a continuation and further development of those Congressional initiatives of the early 1970s. Mr. Carter declared that the use of conventional arms transfers would be viewed as an "exceptional foreign policy implement" to be used only in those instances where it could be clearly demonstrated that the transfer contributed to US national security interests, and he made it clear that "the burden of proof would be placed on those who favored a particular arms sale rather than those who opposed it." (25:10) As a candidate he stated that "the United States could not be the world's leading champion of peace and at the same time the world's leading arms supplier." (12:82)

The President wasn't advocating the complete elimination of arms sales, rather, he stressed restraint in those transfers that: (1) were regionally

destabilizing, (2) fueled local arms races, (3) stimulated confrontations with other powers, or (4) impaired social and economic development in poor nations. (26:22) Mr. Carter felt that arms sales limited the ability of the United States to control events in economically and strategically important areas, and he was intent on redirecting a trend which he perceived as moving in a way potentially damaging to US national security interests. To counter this trend, the President embarked upon an ambitious program of unilateral and multilateral initiatives aimed at controlling arms sales worldwide. (13:41)

To implement his arms transfer policy, President Carter established a set of qualitative and quantitative controls which were to be applied to all countries except those with which the United States had major defense treaties -- NATO, Japan, Australia, and New Zealand. However, the President gave himself the latitude to waive controls where "extraordinary circumstances" justified a Presidential exception. Those controls that formed the framework of the Carter policy were as follows:

1. Dollar Ceilings on the Volume of New Commitments: New commitments for foreign military sales and assistance programs, beginning in FY 1978 and measured in constant 1976 dollars, would be less than the previous year. The FY78 program would be the first in a series of annual reductions.

2. Newly Developed Weapons: The United States would not be the first supplier to introduce into a region newly developed, advanced weapons systems that would create a new or significantly higher combat capability. Further, these weapons systems would not be exported until they were operationally deployed with US forces.

3. Prohibition against Weapons Developed for Export: Development or significant modification of advanced weapons systems solely for export would not be permitted.

4. Coproduction Prohibition: The United States would not permit coproduction agreements with other countries for significant weapons, equipment, and major components.

5. Retransfer Restraints: The United States would not allow US weapons or equipment to be transferred to third parties without US government consent.

6. Promotion of Weapon Sales: The United States would require State Department policy-level authorization for actions by agents of the United States or private manufacturers that might promote the sale of arms abroad.

In addition to the above, President Carter indicated that the human rights situation within the recipient country would be a consideration in future security assistance programs, as would the economic impact of the arms purchases for those less-developed countries also receiving US economic assistance. The President recognized that the United States alone could not reduce the worldwide traffic in arms and thus called upon other arms suppliers to cooperate in achieving this goal. (17:52-54)

EVALUATION OF THE CARTER POLICY

The Carter restraint initiatives were conceived by the Administration to be an obvious signal to other arms suppliers that the United States was genuinely interested in limiting worldwide arms sales and, at the same time, force recipient nations to plan more adequately for future weapons acquisitions. (12:86) Unfortunately, Mr. Carter's restraint effort was to become a victim of two conflicting demands: a demand for limiting the use of arms transfers as an instrument of foreign policy at a time when international demands for arms were increasing. (12:87) To many outside his Administration the ceiling lacked credibility because it provided for so many exceptions. In reality, only slightly more than half of the total US sales between 1977 and 1980 were covered by the ceiling. Weapons sales actually increased from $12.8 billion in 1977 to $17.1 billion in 1980. (17:57) Mr. Carter's policies failed to gain the support of other key arms supplying nations and they, in fact, where quick to fill the voids in the market place created by US restraint. The President came to realize that he was limited with respect to the instruments that could be used to effectively promote his foreign policy goals. And, increasingly, he learned that arms transfers were simply too useful for too many purposes to be extensively curtailed. (12:87-88)

The President's prohibition against the production of advanced weapons for export certainly had a delaying impact on the evolution of the next generation intermediate export fighter aircraft. For the better part of two decades the United States had been providing its friends and allies abroad various models of the Northrop lightweight fighter aircraft -- a simple and fairly inexpensive fighter of good but limited capabilities. Chosen by 30 countries, Northrop or its licensed partners abroad had produced 2,500 aircraft in more than 20 different model configurations to meet the specific defense requirements of recipient nations. (5:38; 21:7) Replacements for many of the earlier models would soon be required and many countries were looking for an aircraft more advanced than the current F-5E. The United States was manufacturing top-of-the-line F-14s, 15s, 16s, and 18s -- all of which have the most sophisticated technology and highest capabilities in speed, range and weapons -- but nothing was available in an intermediate range between these aircraft and the F-5E. Mr. Carter's dilemma was to either stay with his no-arms-for-export-only policy, thereby opening the intermediate fighter market to the exclusive control of West European manufacturers and the Soviet Union, or permit the development of the F-X to compete in that market place. The President, in January 1980, after extensive interagency study, decided that a policy exception was justified and authorized development of F-X candidate aircraft. (11:17)

A Carter directive, affectionately labeled the "leprosy letter" by American arms manufacturers, instructed US government representatives abroad not to initiate discussions on, or stimulate interest in, the purchase of weapons from the United States, unless authorized by Washington, and restricted them from assisting American businessmen to do the same. (17:64) While this policy strengthened the foreign policymakers' role in evaluating the potential ramifications for American policy interests of a given sale before being confronted with formal purchase requests, it did impede the US entry into the F-X market and may have resulted in lost sales for US industry in some cases. (25:29)

The prohibition against coproduction arrangements also could be seen as having a negative influence on the development and eventual sale of the F-X. The plane's simplicity makes it a good candidate for such programs, and serveral purchasers had already invested in such arrangements and would logically desire to expand production into the next generation aircraft. In 1978, Northrop was asked to submit preliminary design information on an aircraft capable of filling Taiwan's future interceptor requirements. Northrop's submission was the F-5G, the design for which was an outgrowth of Northrop's continuing F-5X product improvement studies. The specific requirement posed by the Defense Department was an aircraft capable of carrying a large number of air-to-air missiles without suffering a serious degradation in performance. (7:12) President Carter subsequently vetoed the proposed sale. (3:34) However, he inevitably made exceptions to his prohibition on coproduction arrangements -- the most notable of these was additional F-5Es for Taiwan's program, a 68-aircraft F5E/F coproduction program in Korea, and an agreement to allow Japan to coproduce the F-15. (17:59)

President Carter embarked upon an ambitious program of unilateral and multilateral initiatives designed to stem the tide of growing worldwide arms sales. The results achieved were far short of his expectations, owing largely to his underestimation of the value of arms sales as an effective instrument of US foreign policy and his overestimation of his ability to control events in the international system. (12:83) He ultimately came to realize that he had a limited number of instruments available to him for dealing with international problems, and arms transfers was one that was simply too useful for too many purposes to be extensively curtailed. President Carter entered office with a $27 billion backlog of undelivered arms orders. (17:57) Four years later he passed to President Reagan a backlog of $55 billion, (28:3) and critics were accusing the Carter Administration of suggesting that more was really less. (17:58)

THE REAGAN APPROACH

On 8 July 1981, President Reagan signed a directive which was to govern the Administration's new approach to arms transfers. In May of 1977, Mr. Carter preferred to view arms transfers as an exceptional foreign policy implement, to be used only in circumstances where it could be clearly demonstrated that the transfer contributed to US security and the security of close US friends. President Reagan took a much different position on arms transfers than did his predecessor. He considered them to be an indispensable component of US foreign policy and an essential element of our global defense posture. (17:62) A comparison of the Carter and Reagan policies reveals some significant differences. President Reagan has: (28:3)

1. abolished the dollar "ceiling" on US arms transfers authorized each year;

2. eliminated the prohibition against export-only weapon systems development;

3. dropped the prohibition against introducing newly developed, advanced weapon systems into a region where it might be viewed that such weapons represented a significantly higher combat capability;

4. rescinded the "leprosy letter," replacing it with instructions to US embassies to assist American companies in marketing their products;

5. dropped the prohibition against the sale of newly-developed, advanced weapon systems until they were operationally deployed with US forces; and

6. eliminated the outright prohibition against coproduction arrangements and substituted, instead, the requirement to closely scrutinize such proposals taking into consideration economic and industrial considerations, the importance of arms cooperation, potential third party transfers, and protection of sensitive technology and military capabilities.

The Reagan Administration's policy directive indicated a genuine interest in arms transfer restraint but also warned that the United States would not jeopardize its security interests through a program of unilateral restraint if other leading arms producers were unwilling to seriously cooperate in such restraint. The President's directive concluded with the observations that "the realities of today's world demand that we pursue a sober, responsible, and balanced arms transfer policy" -- one that will advance the security interests of both the United States and the free world. "Both in addressing decisions as to specific arms transfers and opportunities for restraint among producers," the United States will "be guided by principle as well as by practical necessity. We will deal with the world as it is rather than as we would like it to be." (25:128)

The emphasis placed on arms transfers by the Reagan Administration is clearly indicated in the value of proposed sales during the President's first full year in office -- $25.3 billion. While FY82 totals for foreign military sales didn't reach this projected level, the $23.7 billion actually achieved was respectably close. (28:5; 30) Further evidence of the Reagan emphasis on expanded arms exports is indicated in the levels of foreign military sales credits and grants proposed by the Administration. The FY82 level of $4.7 billion, approved by Congress in December 1981, was over four times that of the previous year. The same legislation also included a funding authorization of $5 billion for FY83. Three months later the President requested that the FY83 level be increased by an additional $1.5 billion -- a 30 percent increase over his original request and a total of 44 percent above the FY82 authorization. In addition to increased levels for foreign aid, the President also succeeded in securing special extended repayment terms for selected countries and waiver of payment on military loans for others. Congress also approved his request for a Special Defense Acquisition Fund (SDAF), a revolving fund financed by money from previous weapons purchases of foreign governments. The fund was conceived as a source for procuring long-lead production assets in anticipation of future sales so that they would be available to meet emergency requirements without the need for diversion from US service stocks. Congress authorized $300 million in the FY82 SDAF and doubled that figure for FY83's fund. (28:5-6)

On the surface the Reagan approach to arms transfers appeared to be the "shot in the arm" the F-X program needed to get off the ground. The restraints that had impeded the F-X development in the past had been swept away by the new Administration, and it seemed that the United States was well positioned to compete in the export fighter market place. Not so!

As mentioned earlier, neither contractor had sold his first aircraft even though both competing aircraft are now flying. How does one explain this situation when market analysts have predicted potential sales of as many as 1,500 aircraft? The chief executive officer of one of the F-X manufacturers is convinced that the government in several FMS offerings over the past year did not represent the F-X as an "equally supported alternative" to the Air Force's own force structure aircraft. (20:104)

The South Korean Air Force possesses the largest fleet of F-5 aircraft in the world, and the country is currently coproducing F-5E/F aircraft under licensing arrangements with Northrop and General Electric. There exists a potential for future coproduction of the F-20. However, the Administration approved the sale of 36 F-16 aircraft at a cost to the Koreans approaching a billion dollars. Introduction of the F-16 into the South Korean force structure may increase pressure on the Soviets to provide more advanced MiG aircraft to the North Korean side, thus escalating arms competition on the peninsula. (17:67) South Korea continues to feel a pressing need to replace older F-5 aircraft and its aging fleet of Korean War vintage F-86s but will have to delay such modernization until it has paid the high costs associated with its F-16 buy.

In response to the Soviet invasion of Afghanistan, the Administration effected a six-year, $3.2 billion economic and military aid package for Pakistan. Along with the program, came approval for the sale and "expedited" delivery of 40 F-16 aircraft. (2:601) Critics of the sale charge that the F-16s are too advanced for the Pakistanis. Also, they point to a creation of an imbalance between Pakistan and India which could alienate the latter and thrust her more decisively to the side of the Soviet Union. (2:602)

The sale of F-16s to Venezuela was also open to question principally because of the precedent that it set. This was the first time that one of the most technologically advanced supersonic fighter-bombers had been sold to a Latin American nation. The critics charged that if Venezuela, with no real need for such an advanced aircraft, was to be permitted to purchase the F-16, it would be difficult to turn down other potential buyers. (17:67) Peru is a good example. Having originally expressed an interest in the F-16/79, the Defense Department put together a 26-aircraft sale package and dispatched a team to Peru in August 1982, to present the price and availability data to the Peruvian Air Force Chief-of-Staff. When it was learned that the "full-up" F-16 wasn't being offered, the Peruvian Air Force Chief cancelled his appointment with the team. (29) Will other potential F-X customers such as Brazil and Chile take a similar stance?

Of those countries that have previously purchased F-5 aircraft, 13 now appear to be unlikely F-20 candidates. Four of them -- Iran, Libya, Ethiopia and Vietnam -- could hardly be considered prospects for any American aircraft today. Norway, the Netherlands, and South Korea have already purchased F-16s. Canada and Spain have signed contracts to buy the F-18, while Turkey has signed a contract to purchase 160 F-16s, and Greece has stated its preference for either the F-16 or F-18. (Greece would like to buy 96.) Jordan, which has begun to assume a leading role in the Middle East peace process, also is pressing for the F-16. While Jordan has indicated she might be interested in the F-20 at some future date, she is pressing hard for the F-16s up front fearing that acceptance of the F-20 now will prejudice her

chances for the F-16 later. (20:98) Taiwan, once considered Northrop's leading prospect for moving its F-5G production line into gear, was planning to buy some 150 aircraft until President Reagan rejected the latest proposed sale in January of 1982. (20:98, 104) Egypt's President Mubarak sees a place for the F-20 in his force structure but not until he has acquired 120 F-16s. Egypt, however, is specifying that she be allowed to coproduce the F-20 and that any eventual agreement must include certain offsets and authority to participate in third-country sales.

COST AND ITS IMPACT ON FUTURE ARMS TRANSFER DECISIONS

Acquisition of today's sophisticated weapons systems can place substantial financial burdens on potential recipients, and the technologies represented in these systems can seriously challenge the capabilities of indigenous personnel in maintaining them at an effective operational readiness level. The Reagan Administration includes among the factors it will use in evaluating potential arms transfers the ability of the recipient to absorb the system without overburdening its military support system or financial resources. (26:33) This factor deserves special attention in today's environment of worldwide recession and mounting Third World debt. As of January 1981, Third World nations were in debt to the tune of $500 billion; (10:1) and of this amount over $100 billion is charged to non-oil-producing developing countries. (23:56) With interest rates and oil bills still high, prices for their commodity exports low and the slow pace of emergence from world recession, they are finding it increasingly difficult to service this debt, let alone finance security and other basic needs. Many of these nations face legitimate threats to their security; and, in many cases, it will be in the national interest of the United States to provide security assistance through the transfer of arms. It is equally incumbent upon the United States that such assistance be effectively tailored to meet the recipients real security requirements. The alternative of an F-X weapons system gives the United States greater flexibility in accomplishing this end.

Both F-X contenders cost less than present first-line US force structure fighter aircraft. They are remarkably close in performance, except the F-20 boasts the higher thrust-to-weight ratio. The Tigershark's $10.7 million flyaway cost in 1983 dollars also gives it about a two percent price edge over its General Dynamics rival and brings it in well below its West European competition -- the French Mirage. (24:1528) Life-cycle costs, likewise, emerge as an important consideration. Given the limited financial resources and the quality of human resources available to many of the emerging air forces today, the acquisition of the F-X can be presented as a very reasonable, cost-effective choice.

GOVERNMENT SUPPORT ESSENTIAL

Thomas V. Jones, Chairman of the Board of Northrop Corporation, in his 1980 annual report, stressed the value and benefits of Northrop's financial independence. He emphasized that "the F-5G will be purchased on a commercial basis by foreign countries. This greater reliance on commercial practices in foreign military sales is consistent, again, with the need to free the government and the American taxpayer from bearing the commercial risks and

responsibilities which are normally part of the private sector." A year later, however, in his 1981 report, Mr. Jones was willing to admit that government support would be required by saying: "We would expect the US government to begin offering the F-5G as an effective lower-cost alternative to other US aircraft in the course of government-to-government discussions. (20:100)

In testimony before the House Foreign Affairs subcommittee on international security and scientific affairs in April of 1982, Mr. Jones lauded the Air Force Systems Command and Logistics Command for their "excellent support" but criticized the Air Staff elements responsible for foreign military sales planning activities for giving less than enthusiastic support to the F-X. He cited that "there has been a noticeable difference at that level between the support and actions on the F-5G and the support and actions we continue to receive on the F-5E." This was understandable, he said, as the F-5E's development was a government-funded program "and the Air Staff recognized clearly its share of responsibility for the success of the program." Mr. Jones emphasized, however, that both the F-5E and the F-5G were developed as a result of US policy initiatives, the only difference being that the F-5G was not government funded, by presidential policy direction. The "bottom line" of his testimony was that the F-5G's success as an export aircraft will depend on the continuing support and understanding of both the Executive Branch and the Congress. (4:23)

Mr. Jones was not alone in seeking a shift in government emphasis. Despite the fact that exports of US inventory weapons systems have been credited with offsetting our own services' development and procurement costs, many officers are increasingly concerned that US acquisition delays could result from such sales. As one Air Force official recently put it: "Each time we find a new buyer for the F-16, the requirements of the US Air Force are delayed because we have to share limited production schedules with the new recipient." (13:46)

Moves were underway to stimulate F-X production within the Department of Defense even before Mr. Jones presented his case to the Congress. Secretary Weinberger, on 11 March 1982, directed his Air Force and Navy secretaries to choose by 1 October 1982 an F-X export fighter to be purchased by the new Special Defense Acquisition Fund. The same Congressional Committee that heard Mr. Jones' plea for government support for the export fighter subsequently received testimony from the Department of Defense in support of Mr. Weinberger's proposed "start-up" buy. Mr. John T. Tyler, Deputy Director of Plans for the Defense Security Assistance Agency, assured the committee chairman that if any SDAF-procured F-X aircraft were not sold to foreign buyers -- a situation he considered remote -- they would be used to meet projected US acquisition requirements for its aggressor training squadrons. (14:20) The committee, however, was not impressed with DoD's move to speed up F-X production in advance of firm orders and, in fact, voted to prohibit the use of the SDAF for the purpose of acquiring any aircraft which was designed specifically for export and which was not in the inventory of the Department of Defense. (8:15) Even had the use of the SDAF been approved, potential problems lay ahead; as neither the Air Force nor the Navy, both of which currently fly F-5Es in their dissimilar air combat training units, could generate sufficient "headroom" in their FY83 budgets to fund a start-up order for a replacement aircraft. (20:99)

Unable to fall back on the SDAF to get the F-X into production, Defense had but one viable option remaining -- one which should well have been implemented back when the basic decision was made to proceed with an export fighter program. On 29 July 1982, Deputy Defense Secretary Carlucci signed a memo directing the Air Force and Navy to support actively both F-X candidates in discussions with potential customers abroad -- a move rescinding DoD's earlier plan to select an F-X SDAF purchase and, instead, allowing both to compete for its share of the market. (22:26)

Sanford C. Bernstein & Co., a financial analyst firm that tracks the aerospace industry, was predicting in the Fall of 1981 that the F-5G would "capture the lions' share" of the market. (20:98) Even former Air Force Secretary Hans Mark, who was supposed to be neutral on the subject, admitted that the F-16/79 wouldn't sell well because countries didn't like to buy airplanes whose performance had been degraded. (20:96) Regardless of who might have won, it appears to this author that the present decision to permit an open competition is only proper, since President Carter, in approving the F-X development, specified that there would be no direct competition for selection of one aircraft as had been the case for the earlier export fighters. (11:17)

Mr. Carlucci told the service secretaries "your strong support for the US government position vis-a-vis the sale of F-X in dealing with Congress is expected regardless of which F-X candidate is selected by the country. When necessary, you should actively support exceptions to national disclosure policy if such an exception is required, either to provide information to a prospective buyer or to complete a sale that has been determined to be in the US national interest." Mr. Carlucci indicated that the United States had been responsive to requests for information on F-X aircraft performance, capability, and cost, but stressed that "we now must go further and actively plan with the nations for sensible acquisitions." He emphasized that the marketing effort should not be left to the manufacturers alone and that Defense Department representatives should selectively, but actively, promote the sale of the F-X. Mr. Carlucci specifically singled out Turkey, Egypt, Jordan, Bahrain, the UAE, Oman, Saudi Arabia, and the ASEAN nations as strong candidates for F-X sales. He also said "once our post-Falklands policy toward Latin America is clarified that we will likely find it advantageous to selectively promote the F-X in our own hemisphere." The Deputy Secretary concluded by saying "few US allies and friends, now or soon to be engaged in modernizing their tactical air forces, can afford firstline fighters and because of fiscal and other restraints it is important that the United States have alternatives to firstline aircraft available for export. The alternative is the F-X, either as a stand alone capability or as an element of a low-high mix." (22:26-27)

Northrop introduced its F-5G as a derivative of the firm's highly successful family of F-5 tactical aircraft, describing the Tigershark as custom tailored to fit the Carter Administration's F-X criteria. The potential sale of the airplane to Taiwan also influenced its christening as the F-5G. Northrop recognized that a Taiwan sale was destined to be a politically sensitive issue in Congress and thus opted to present the plane as a derivative of moderate capabilities rather than a new frontline fighter. The Reagan Administration's decision not to sell the aircraft to Taiwan prompted Northrop to request the Tigershark be redesignated the F-20 to enhance the aircraft's competitive

image. With a redesignated aircraft and the officially approved popular name "Tigershark," Northrop has dropped all pretense that their F-X is a fighter of only moderate capability but, rather, a modern, high performance, reliable fighter plane equal to any of its competitors. (15:13)

A key element in Northrop's sales strategy is a memorandum of agreement (MOA) signed 20 May 1983, which defines the procedures and management responsibilities to be exercised by Northrop and the US Air Force in sales of the Tigershark. Culminating nearly three years of negotiations, the agreement in essence gives the USAF stamp of approval for the Tigershark via certification of the aircraft's performance and air worthiness. Northrop will produce and deliver the Tigershark as a commercial, fixed-priced program with firm delivery schedules, performance guarantees, and life cycle costs. The USAF, for its part, will verify that the F-20 meets its specifications, oversee and participate in air crew and maintenance training of foreign purchaser personnel, and develop with Northrop a worldwide logistics support program for the weapon system. The Air Force will also determine reasonableness of price on behalf of the customer. (16:93) A similar agreement between General Dynamics and the US Air Force covering the F-16/79 has been negotiated and is in the coordination cycle. Northrop obviously views its agreement as an essential element in building consumer confidence in its non-DoD inventory Tigershark.

CONCLUSION: THE FUTURE

We have seen over the past two decades a move within our Congress to establish a firm record of supporting restraint and controls over US conventional arms transfers. We have seen one President attempt to further strengthen those Congressional initiatives, embarking on an ambitious program of unilateral and multilateral initiatives designed to institutionalize arms transfers and an "exceptional foreign policy implement." Mr. Carter soon came to realize that his initiatives were not supported by other arms producers and that he had a limited number of instruments available to him for dealing with international problems, of which arms transfers was one of the most effective. He also, late in his term, recognized the value of a new export fighter aircraft as a means of enhancing the realization of national security goals and thus waived his prohibition against the development of such an aircraft.

The Reagan Administration significantly altered the emphasis on US arms transfers, holding that these transfers represented an indispensable component of US foreign policy that was an essential element of our global defense posture. On the surface, it would appear that this fundamental change in direction or emphasis would have favored the development and sale of the export aircraft, but results so far suggest something else.

Recent agreements between the USAF and the F-X manufacturers will likely enhance the image of the export fighter in the eyes of potential purchasers. In addition to exercising management responsibilities to ensure that the interest of the United States is served in Foreign Military Sales of the aircraft, the Air Force is also playing an active role in development, flight test, and production programs, to verify that the aircraft meets its specifications. USAF participation in aircrew and maintenance training programs in support of potential buyers, its commitment to verify reasonableness

of price, and its efforts to develop viable worldwide logistics support programs should certainly enhance prospects for future sales of the export fighter.

With these added measures in force and assuming continued aggressive support from the DoD security assistance community, 1984 could well be the year that launches the export fighter into full production. This author feels that one additional incentive might be offered which would facilitate this end. The idea suggested is to obtain Congressional approval for selective use of concessional interest rates in FMS credit to finance the F-X programs. Such a concept of concessionality is seen as attractive in leveraging those countries whose security needs could best be satisfied by the F-X and for which economic realities tend to dictate a less expensive alternative.

The United States is now capable of providing effective weapon systems necessary to satisfy the broad security requirements of our friends and allies and, at the same time, strengthen our own security interests around the globe. The Tigershark is poised to effectively compete in the export fighter market place. It is now incumbent upon our many players in the security assistance arena to faithfully implement the Administration's arms transfer policies. This being the case, it is this author's opinion that the Tigershark will fly and survive to fight from many bases throughout the world just as so many other "Tigers" have done before her.

BIBLIOGRAPHY

1. Braybrook, Roy. "Tiger into Tigershark." Air International, March 1982, p. 111-116, 136-138.

2. Campbell, John C. "The Middle East: A House of Containment Built on Shifting Sands." Foreign Affairs. Vol. 60, No. 3, 1982, p. 593-628.

3. "Carter Vetoes F-5G Sale to Taiwan." Aviation Week & Space Technology, 23 October 1978, p. 24.

4. "F-5G Success Linked to U.S. Support." Aviation Week & Space Technology, 26 April 1982, p. 23.

5. "F-5G Tigershark -- Continued Evolution of a Successful Fighter." Armada International, 3/1981, p. 38-44.

6. "F-16A Export Version Planned with J79." Aviation Week & Space Technology, 26 November 1979, p. 55-57.

7. Fink, Donald E. "Taiwan Offered F-5 with Sparrow." Aviation Week & Space Technology, 21 August 1978, p. 12-13.

8. "House Unit Curbs Defense Dept. F-X Funding." Aviation Week & Space Technology, 10 May 1982, p. 15.

9. Hawthorne, California. Interview with Mr. Bob Gates, Vice President and F-20 Program Manager, Aircraft Division, Northrop Corporation. 4 November 1983.

10. Janssen, Richard F. "Third World Debts Totalling $500 Billion May Pose Big Dangers." New York Times, 28 January 1980, p. 1.

11. Johnson, Katherine. "Guides to Clear Way for Export Fighter." Aviation Week & Space Technology, 14 January 1980, p. 17-18.

12. Louscher, David J. and Michael D. Salomon. "Conflicting Trends for Arms Transfer Restraint." Naval War College Review, Nov-Dec 1980, p. 82-88.

13. Louscher, David J. and Michael D. Salomon. "New Directions and New Problems for Arms Transfers Policy." Naval War College Review, Jan-Feb 1982, p. 40-47.

14. Mann, Paul. "Defense, State Ask Eased Arms Sales." Aviation Week & Space Technology, 12 April 1982, p. 20-21.

15. "No More the F-X Jingle: Northrop Whistles a New Tune as it Peddles the Tigershark." Defense Week, 31 May 1983, p. 13.

16. "Northrop, USAF Agree on F-20 Duties." Aviation Week and Space Technology, 30 May 1983, p. 93.

17. Pierre, Andrew J. The Global Politics of Arms Sales. Princeton, NJ: Princeton University Press, 1982.

18. Prina, L. Edgar. "A New Look for FMS." Sea Power, April 1982, p. 56-66.

19. Robinson, Clarence A., Jr. "U.S. Eyes Egypt as Market for F-5G." Aviation Week & Space Technology, 18 January 1982, p. 18-20.

20. Schemmer, Benjamin F. "Pressures Build for DoD to Buy and Help Sell Northrop F-5G as Its Business Prospects Look Bleaker than Advertised." Armed Forces Journal International, September 1982, p. 88-104.

21. Senia, Al. "Northrop Takes a $300 Million Gamble: Company Develops F-5G Fighter with No Buyers Lined Up." Washington Post, 8 August 1982, p. G1.

22. "Services Ordered to Push Both Export Fighters." Aviation Week & Space Technology, 9 August 1982, p. 26-27.

23. "Third World Debt Crunch." Newsweek, 7 June 1982, p. 56.

24. "Tigershark Takes on the Export Fighters." Flight International, 28 May 1983, p. 1525-1528.

25. U.S. Congress. House Committee on Foreign Affairs. Changing Perspectives on U.S. Arms Transfer Policy. Report, 97th Cong., 1st Sess., 1981.

26. U.S. Congress. Senate Committee on Foreign Relations. Fiscal Year 1980 International Security Assistance Authorization. Hearings Before the Committee on Foreign Relations, 96th Cong., 1st Sess., 1979.

27. U.S. Department of Defense. Military Assistance and Sales Manual. DoD Directive 5105.38M -- Part I. Washington, D.C. 1 October 1981.

28. "U.S. Weapons Exports Headed for Record Level." The Defense Monitor, Vol. XI, No. 3, Center for Defense Information, Washington, D.C. 1982, p. 1-12.

29. Washington, D.C. Telephone Interview with Lt Col Jake Dolwick, USAF/PRIA, Headquarters United States Air Force. 23 December 1982.

30. Washington, D.C. Statistics provided by the Office of the Comptroller, Defense Security Assistance Agency. 29 November 1983.

Colonel John N. Blose (B.B.A. in Marketing, University of Cincinnati; M.S. in Logistics Management, Air Force Institute of Technology) has been actively involved in the security assistance arena since his assignment to the Joint US Military Assistance Group - Korea in 1971. In addition to his joint staff assignments with the JUSMAG-K, he has also served in key international logistics positions at HQ AFLC and, most recently, with the Directorate of International Logistics, San Antonio Air Logistics Center, Kelly AFB, Texas. He is a distinguished graduate of the Air Command and Staff College and a graduate of the Air War College, class of 1983. Colonel Blose is currently assigned as Deputy Director, Security Assistance Accounting Center, Lowry AFB, CO.