A-7 Corsair II - GENESIS OF THE NAVY ATTACK BOMBER,LIGHT (VA(L))

In 1962, the Navy conducted studies to determine the best route to realize its desires for a close support aircraft that could carry a very heavy weapon load and achieve a radius of action well beyond anything previously considered. Cost-effectiveness was a major consideration and modification of an existing airframe was the Navy's choice to meet all of the technical and cost requirements. When the Navy was casting about for suitable candidates, the Douglas A-4, modified to accept the TF-30 turbofan engine, already in use with the F-111, seemed to be the answer. Thus, the program was headed toward a sole-source procurement from the Douglas Aircraft Company, maker of the A-4. The designation was to be the A4D-6. No doubt, the very fine marketing apparatus of the Douglas Company played some role in this decision.

The VA(L) Competition

Vought would have none of this, and through an outstanding counter-marketing effort, led by the brilliant Connie Lau, Chief of Advanced Systems at Vought, a competition was forced. It was known as VA(L), Navy Attack Bomber, Light. In late June 1963, the VA(L) Request For Proposal (RFP) was received by industry and the battle began. Four competitors responded, Douglas, Grumman, LTV, and North American.

The LTV proposal effort was spearheaded by the powerful team of Connie Lau as Program Director, Sol Love as Engineering Director, and Jesse Sanatmaria as chief designer. a competitive “blue team” effort was lead by Whit Mccormack. Lasting about six weeks, the proposal activity was probably the most intense and exciting event in the history of the company and the proposal a near-perfect product. All who participated considered this project the highlight of their careers. Great credit is due Sol Love, their tough and charismatic leader, who inspired superior effort by everyone involved. The team was sure it would come out on top in the competition and christened itself "the winning team" at the end of the proposal effort in early August 1963.

Long hours of work and the fun nature of the A-7 proposal effort inspired a series of cartoons by proposal team engineer, Dick Atkins. Inspired by the oft asked question, what did “Sol say about that?” and the response “Sol says,” created a series of 18 cartoons depicting “interesting” management decisions. There was not an appropriate event to cartoon at the end of the proposal effort, so Dick built a caricatured A-7 model, looking for all the world like Sol, and presented it to him as “number 19.” All had a good laugh as was the nature of the effort.

The Winner

LTV was announced as competition winner in February 1964, and negotiations began on the most unique contract in aerospace history. It was the only true fixed-price contract ever issued for a major weapon system. All incentives were negative, and the terms were so tough that LTV could have easily gone out of business trying to meet its obligations. For example, penalties were applied that required LTV to pay the Navy $50,000 per day per airplane (and there were 6 of them) for each day that Bureau of Inspection (BIS) trials were delayed. The weight target was missed by 600 pounds at a penalty to the company of $750,000. This was the only Navy requirement not met. Sol Love determined that the extra strength of the wing was worth the cost of the penalty. This turned out to be a brilliant decision because the extra strength of the wing allowed accommodation of many latter-day weapons that would have cost much more to accept if the wing had required redesign years later. The maintainability guarantee was an astonishing eleven Maintenance Man Hours Per Flight Hour in an era when the norm was 40 to 50 man hours. A $750,000 penalty was applicable in this area. LTV could have much more easily paid the penalty than meet the requirement, but that was not the Vought way. - They met the requirement!

A-7 Corsair II - IN COMBAT

The A-7A flew its first combat mission in Vietnam on 4 December 1967, only two years and three months after first flight! By the time the war ended on 28 January 1973, the A-7A's had been joined by the A-7B, A-7C, A-7D and A-7E. Navy A-7's were flown by 20 different squadrons from 10 different aircraft carriers involving 52 combat deployments by the U. S. Navy. The Navy flew 49,200 combat sorties in A-7A's and A-7C's, accruing 208,795 combat flight hours for an average of 2.25 hours per sortie. A total of 186,000 tons of ordnance was delivered against the enemy, with only 54 A-7's lost to enemy fire. This equates to an overall loss rate of only 0.00059 per sortie, or one loss for every 1670 sorties. In terms of ordnance delivered, that is a rate of 3444 tons on enemy targets for each airplane lost in combat. The newer A-7E's, with their one-pass bombing accuracy made possible by improved avionics, computer-driven systems, and the new engines, achieved a loss rate reduction of almost 25% over that of the earlier A-7's. This is an astounding record when it is considered that these airplanes provided the most accurate weapon delivery system in the war.

.The first U. S. Air Force A-7D's were deployed from Myrtle Beach Air Force Base, South Carolina, to Korat Royal Thai AFB in mid-October 1972. For the next 10 weeks, the 354th Tactical Fighter Wing's 72 aircraft averaged 62 missions per day, producing a total of 6568 sorties in 16,819 combat flying hours. Their radius of action averaged 350 miles and extended as far out as 550 miles. The Deputy Commander for Operations of the 354th TFW, upon arrival in Thailand, commented that, "This is one of the few times in history that a Wing of

fighter aircraft has departed from the United States and arrived at an overseas destination with all aircraft, and arrived on schedule."

Included in their combat tours, A-7D wings flew 5796 strike missions, 542 search and rescue missions, and 230 Linebacker II missions. Units that served included:

- 3d Tactical Fighter Squadron - SAR, Korat RTAFB, Thailand
- 65th Tactical Fighter Squadron, Nellis AFB, Nevada
- 354th Tactical Fighter Wing, Myrtle Beach AFB, South Carolina
- 355th Tactical Fighter Wing, Davis-Monthan AFB, Arizona

The A-7 did, indeed, distinguish itself in combat and was a favorite of the ground troops when they needed air cover. The reason was simple; the A-7 was the only combat aircraft that could be depended upon to put ordnance safely on targets close to the troops. Many are alive today because of the A-7's superior weapons delivery capability in such combat situations and its long loiter time in rescue missions. The A-7 was the only combat airplane that had long flight duration capabilities and could fly as slow or as fast as needed for the situation. It could not be matched then for these attributes, nor can it be matched today. When one veteran pilot was asked what could be done to make the A-7 better he replied, "About the only improvement I can think of is to make it a little prettier."

The end of hostilities in Southeast Asia did not end the combat life of the Corsair II. There was still more for the A-7 to accomplish in the coming years, as noted below.

- A-7E squadrons VA-15 and VA-87, from the USS Independence, provided close air support over Granada in October 1983. Vice Admiral Metcalf, Commander of the 2d Fleet was quoted as saying, "The A-7 provided the turning point in the battle of St. George, allowing the multinational force (Jamaica, Barbados, Venezuela, and the United States) to quickly gain he upper hand."
- In response to terrorist activities in 1986, A-7E's from the USS America were part of a task force that attacked suspected terrorist training camps in Libya on 15 April of that year. The six A-7E's that participated provided support in suppression of surface-to-air weapons.
- The 180th Tactical Fighter Group Ohio National Guard unit was in Panama when hostilities began in late December and participated in the invasion. They were among the ANG units that rotated there to provide a presence in Panama in an exercise called "Coronet Cove."

The last A-7E squadrons in Navy service, VA-46 and VA-72, provided support for Desert Storm from the USS Kennedy. Desert Storm operations produced 725 sorties, that averaged 4.3 hours each, for a total of 3100 combat flight hours. In these operations A-7's carried a variety of ordnance and also served as tankers during the action. No A-7's were lost to enemy action during the entire operation. The two squadrons returned to Cecil Field, Florida, and were decommissioned on 23 May 1991.