

Twenty-one years ago Chance Vought Aircraft Company — now Vought Systems Division of LTV Aerospace Corporation — won the competition to design and build an air superiority, supersonic fighter airplane for the U.S. Navy. The result was the F-8 Crusader, an aircraft that lived up to and exceeded design expectations.

*This special report highlights a few of the outstanding accomplishments and program milestones of the Crusader from May 1953 to October 1974.*

The program began in September 1952 when the Navy issued requirements for a new airplane, a fighter with Mach-1-plus speed and embodying the usual requirements for Naval aircraft — rugged structure, folding wings, resistance to open-sea weather conditions, and with simplicity of maintenance and handling characteristics.

Eight aircraft manufacturers vied for the contract. It took Chance Vought, then a division of United Aircraft Corporation, only five months to design precisely what the Navy wanted and, in May 1953, the F-8 Crusader contract was awarded.

The company received an assignment to build two prototypes, designated XF8U-1, in June 1953 and, in less than two years, had the F-8 ready for its maiden flight on March 25, 1955 at Edwards Air Force Base, Calif. The F-8 exceeded Mach-1 on its first flight and went on to establish a number of service records, many of which still stand.

The Crusader won for the Navy and Chance Vought the Collier Trophy “for concept, design and development of the first carrier-based fighter capable of speeds exceeding 1,000 mph.” It won the Thompson Trophy for setting a national and world speed record in excess of 1,000 mph, it was the first airplane to span the nation faster than the speed of sound, and it won the first Certificate of Merit ever awarded by the then Bureau of Aeronautics.



**COLLIER TROPHY** — VADM James S. Russell, USN, and C. J. McCarthy, Chance Vought board chairman, hold replicas of the Collier Trophy awarded to the Navy and the company for “the greatest achievement in aviation in America.” T. J. Lanphier, Jr., right, National Aeronautic Association president, made the presentation on behalf of President Eisenhower.

*CRUSADER*

*FIGHTER  
REPORT*



# FIRST FLIGHT



**READY FOR FIRST FLIGHT** — Having been flown to Edwards AFB, Calif. from Dallas, Tex. aboard a U.S. Air Force C-124 transport, Crusader number one, an XF8U-1, gets a final going over by ground crews in preparation for its first flight on March 25, 1955, a mere 21 months after initial design work had begun.



John W. Konrad

## MUROC TEST

Early on the morning of March 25, 1955, John W. Konrad, chief test pilot for Chance Vought Aircraft Company, climbed into the cockpit of the first XF8U-1 Crusader, taxied the airplane onto the dry lake bed of the Muroc test area at Edwards AFB, Calif., and took off. That first flight of the F-8, an historic one, lasted 52 minutes.

Konrad pushed the F-8 past Mach-1 on its maiden flight and proved to the world that the Crusader was the airplane that would take the Navy "out of the third row and put it right up front" in aerospace history.

The prototype XF8U-1 was powered by a Pratt and Whitney J57-P-11 turbojet engine, developing 9,700 pounds static thrust and 14,800 pounds with afterburner.

That original, prototype F-8 Crusader made its last flight on October 25, 1960, a cross-country mission from Dallas to Washington, D.C. where it landed at National Airport and was presented to the Smithsonian Air Museum. It's on display there today.



# RECORD-SETTING FLIGHTS

**COAST-TO-COAST, CARRIER-TO-CARRIER** — President Dwight D. Eisenhower was standing on the bridge of the USS Saratoga on June 6, 1957, when two F-8 Crusaders screamed past the carrier, broke and then dropped down to a perfect deck landing.

The two Crusaders, piloted by CAPT Robert Dose, USN, commander of VX-3, and LCDR Paul Miller, also from the West Coast squadron, had completed the first ocean-to-ocean flight between aircraft carriers in history. The flight began from the deck of the USS Bon Homme Richard off the coast of California and ended on the Saratoga off the Florida coast.

One inflight refueling from tankers based at Carswell AFB, Fort Worth, Tex., was effected.

Total elapsed time for the record-setting mission was three hours, 28 minutes.



CAPT Dose



CDR Windsor

**THOMPSON TROPHY WINNERS** — A happy CDR R. W. "Duke" Windsor, USN, stands in the cockpit of his F8U-1 Crusader at China Lake, Calif., immediately following his record-setting flight that earned the Thompson Trophy for the most outstanding aviation accomplishment in 1956.

Flying a standard, production model F8U-1 (F-8A) Crusader over a 15 kilometer course at China Lake on Aug. 21, 1956, Windsor set a new national and world speed record for other than experimental aircraft of 1,015.428 miles an hour. The previous record had been set by an F-100 with a speed of 822.135 miles an hour.

CDR Windsor received the Thompson Trophy during a special awards ceremony at the National Aircraft Show in Oklahoma City, Okla. in 1957.





LCDR Demmler



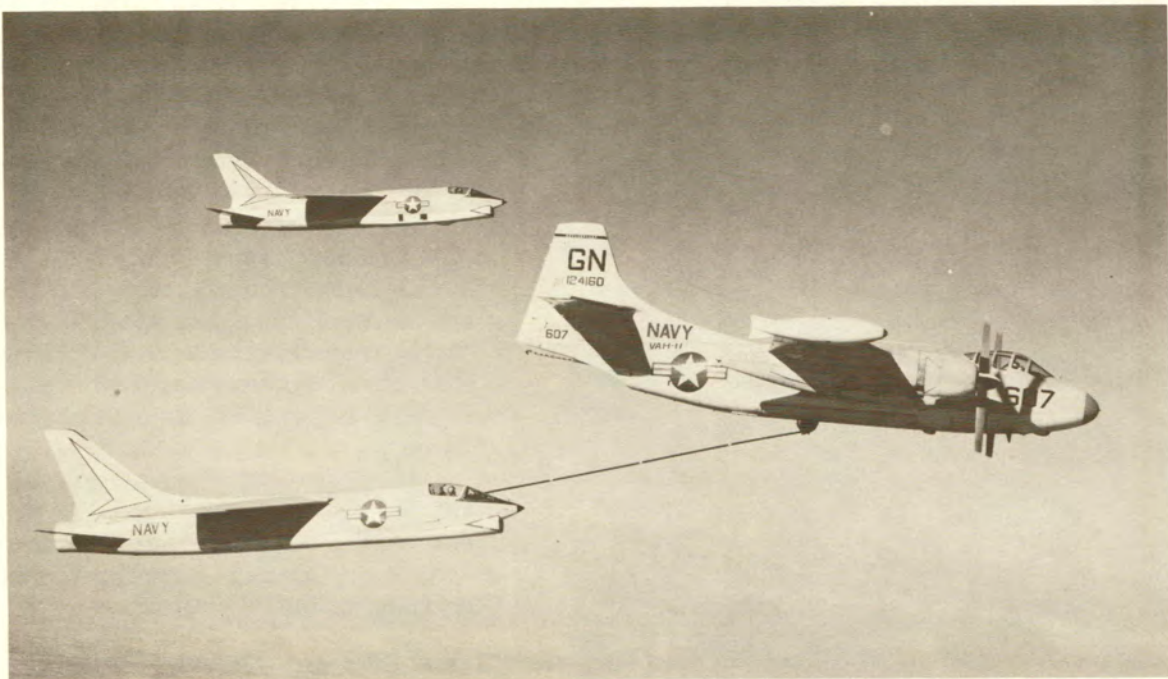
Maj. Glenn

## PROJECT BULLET

**CROSS-COUNTRY SPEED RECORD** — Steamy waves of heat shimmered over the runway at Floyd Bennett Field in New York City on July 16, 1957 when the F8U-1P (RF-8A), piloted by U.S. Marine Corps Maj. John Glenn, came in for a smooth landing at the end of a cross-country flight, a speed-record-setting flight.

Three hours, 23 minutes, eight and four-tenth seconds earlier, Major Glenn (later to become the first American astronaut to orbit the Earth) and his flying partner, LCDR Charles Demmler, USN, had departed Los Angeles, Calif. in their F-8 Crusaders on "Project Bullet," a transcontinental speed run. Demmler's F-8 sustained a damaged refueling probe en route, forcing him to land.

Glenn continued on, however, completing three refueling contacts with AJ-2 Savage tankers, forcing him to drop down to 25,000 feet and reduce speed to 350 mph. Despite these restrictions, he was still able to average 725.55 mph for the run, equivalent to Mach-1.1 at 35,000 feet. Using his cameras at predetermined periods, Glenn successfully documented the record-setting flight with continuous photo coverage over the entire route.



**FUEL FOR BULLET** — Practicing for "Project Bullet," LCDR Charles Demmler's F8U-1 gets an aerial "drink" while Maj. John Glenn, flying the F8U-1P, waits his turn.





**CRUSADER OVER BEIRUT** — During the Mideast crisis of July, 1958, F-8 Crusaders of Fighter Squadron 32 (VF-32) from the USS Saratoga in the Mediterranean Sea patrolled the coast of Lebanon.



**MAINTAINING VIGIL** — F8U-2s of Marine Fighter Squadron 333 taxi into position for catapulting from the USS Forrestal.

## MIDEAST CRISIS

During the Mideast (Lebanon) crisis of July and August 1958, F-8 Crusaders from the Sixth Fleet in the Mediterranean earned their spurs.

For instance, Crusaders assigned to VF-32, operating off the carrier, USS Saratoga, accumulated 533 flying hours in July and 762 hours during the 23 days of the operation in August 1958.

When the crisis broke, the Navy bolstered its Crusader strength aboard the Saratoga and the USS Essex by sending additional F-8s from the East Coast of the U.S., flying by way of the Azores, to Lyautey, Morocco, and then onto the carriers.

All ferry flights were highly successful and the F-8 patrols helped the Sixth Fleet and the U.S. stay abreast of actions that occurred during the crisis. After it was over, the USS Forrestal, with F8U-2s of Marine Fighter Squadron 333 on board, relieved the Saratoga for continued policing operations in the Mediterranean.





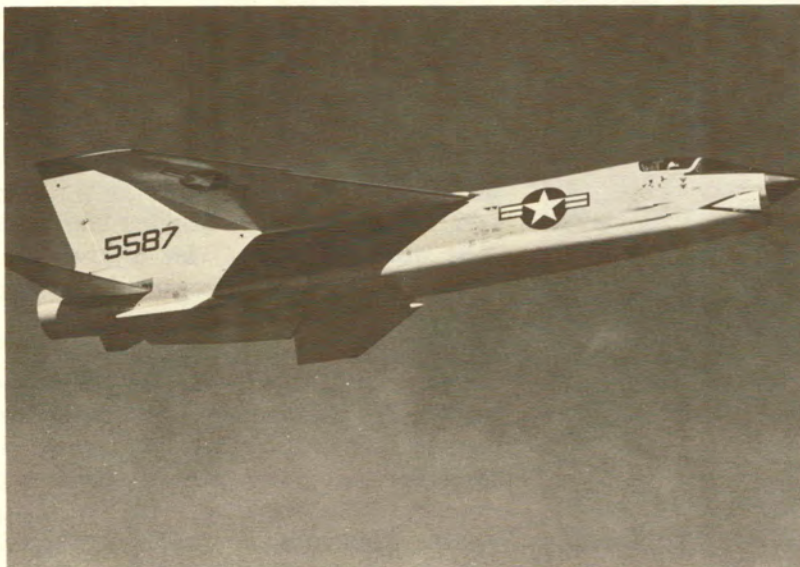
F-8H (F8U-2N, F-8D) on USS J. F. Kennedy



F-8E (F8U-1F)



TF-8A (F8U-1T) Two-Seater



F-8C (F8U-2, F-8K)

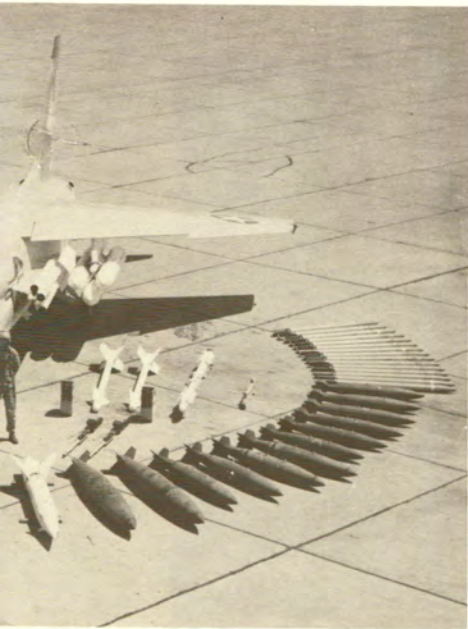
## 18 YEARS IN

The F-8 Crusader began life as the XF8U-1, selected from among eight designs for a Navy supersonic, air-superiority fighter in 1953. The F-8's shark-like appearance suited its performance as the first U.S. airplane to exceed 1,000 mph (in August 1956). The following March, the initial service model, the F8U-1 (F-8A), entered VF-32 and made its first deployment on the USS Saratoga later that year. The F-8 features a two-position variable-incidence wing which ensures good pilot visibility by allowing the fuselage to remain level though the wing assumes a high angle of attack for landing and takeoff. The Crusader was originally armed with four 20mm guns and 32 folding-fin 2.75 rocket carriers carried internally, plus two externally mounted Sidewinders.

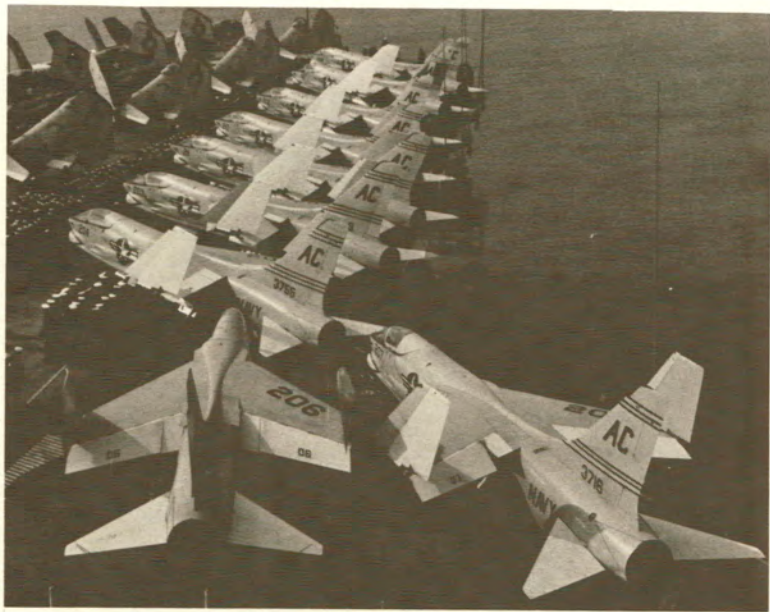
The F-8A was soon followed by the F-8B, which featured an improved fire control radar. Another version appeared in 1956, the RF-8A (F8U-1P) with six aerial cameras in its modified fuselage and a photo reconnaissance mission.

In 1959, the F-8C (F8U-2) entered service, distinguished from previous models





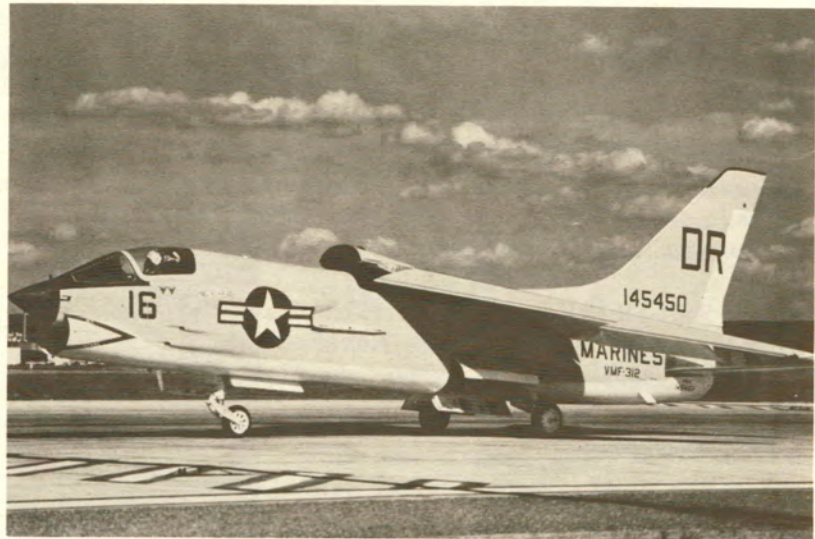
NE, F-8J)



F8U-1 (F-8A) on USS Saratoga

## THE FLEET

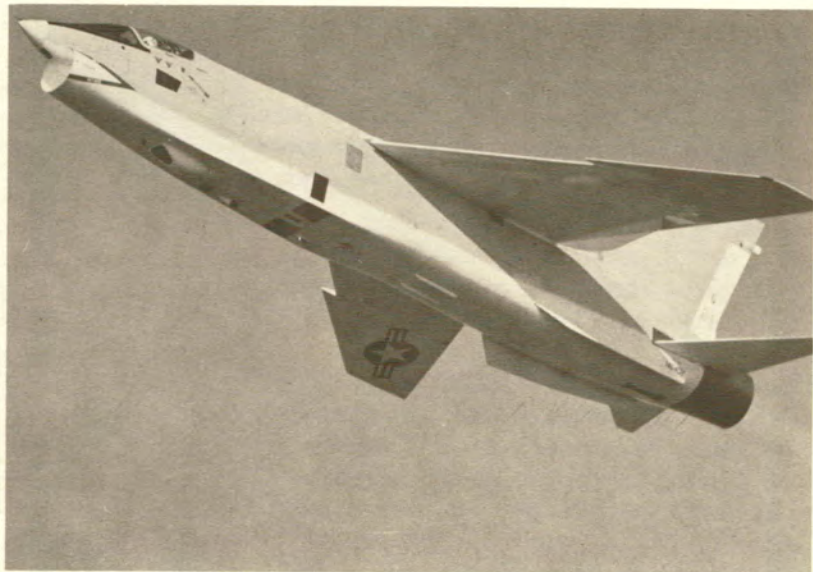
by ventral tail fins and an improved engine which gave it higher performance characteristics. The F-8C added two more Sidewinders to its armament. The next variation, the F-8D (F8U-2N), in addition to better radar, an infrared sensor and increased fuel capacity, featured a new engine giving it near Mach-2 speed with afterburner. The belly-rocket pack was deleted in the F-8D flown by the Marines and the Navy.



F-8B(F8U-1E, F-8L)

Next came the F-8E with two underwing pylons adaptable to a variety of bombs and missiles plus a more powerful radar requiring a new, larger nose. In 1964 the French Navy purchased 42 Crusaders (F-8E(FN), equipped with J-57-P20A engines, to replace their F4U-7 Corsairs.

Production of F-8s ended in early 1965. From 1966 to 1970, earlier versions were modernized with improved radar, fire control systems and beefed-up landing gear, and redesignated as F-8H, F-8J, F-8K, F-8L and RF-8G. A total of 1,261 F-8s were built and 446 were remanufactured giving the Crusader more than two decades of service life to the U.S. Navy and Marine Corps.



RF-8G(F8U-1P, RF-8A)





**INTELLIGENCE TEAM—** Four photo intelligence specialists of VFP-62 study five-inch film strips of suspected Soviet missile sites in Cuba during the 1962 crisis. LTJG Mack M. Cox, CDR Robert A. Koch, LTJG Joe E. Lynn and Chief Photographer's Mate Robert J. Reese (left to right) mark suspicious areas at NAS Jacksonville, Fla. prior to forwarding the film to Washington, D.C.

## CUBAN CRISIS

Crusader pilots and photo intelligence teams from Light Photographic Squadron 62 (VPF-62) and United States Marine Corps Squadron VM CJ-2 combined efforts in 1962 to help ferret out suspected Soviet missile sites in Cuba.

Flying F8U-1P (RF-8A) Crusaders, the Navy and Marine pilots dashed across Cuba, their cameras grinding, and returned to the Naval Air Station, Jacksonville, Fla., where the film was processed before being forwarded to Washington, D.C.

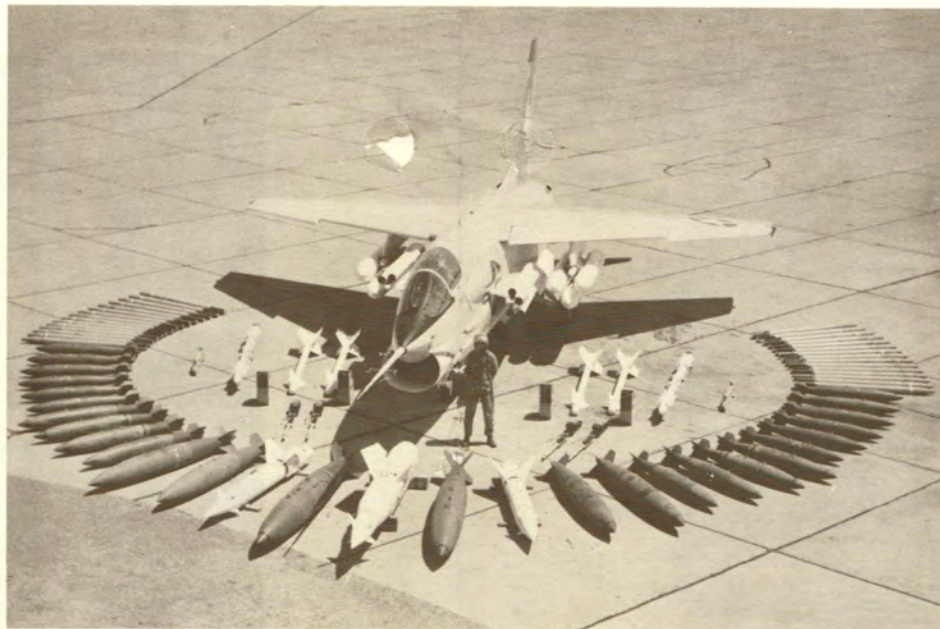
Documentary evidence of the missile buildup, thus acquired, provided President John F. Kennedy with the ammunition needed to force eventual withdrawal of the threat.

Personnel of both squadrons received Presidential citations for their role in the action. The six Navy pilots and four Marines who piloted the F-8's on the photo reconnaissance missions received the Distinguished Flying Cross for their work.



**UNLOADING CAMERAS —** An F8U-1P photo recon crew hastens to unload cameras following a mission over Soviet missile sites in Cuba.





F-8E (F8U-2NE, F-8J)

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Kennedy





**FRENCH CRUSADER** — One of the 42 F-8E(FN) Crusaders purchased by the French Navy in 1964 to replace F4U-7 Corsairs operating off the decks of the French carriers Clemenceau and Foch, gets airborne on a test flight prior to delivery. The F-8E(FN) featured boundary layer air controls, double-droop leading edges on its wings and enlarged horizontal tail surfaces for better longitudinal control, and it was equipped to carry the French Matra missile on fuselage pylons.

## TOP GUNS

Four Crusader pilots have logged more than 3,000 flight hours in F-8 aircraft. CDR Richard A. "Pete" Peters, former C.O. of VF-191, was the first Top Gun. He reached the milestone in November 1971. CDR David R. Morris, former C.O. of VF-24, arrived there next, in July 1972 and his X.O., and successor, CDR John B. Nicholas, III, topped the 3,000 hour mark in August 1973. LCDR Jerry Unruh, now assigned to VF-211 at NAS Miramar, joined the select fraternity in September 1974. At the next plateau are 49 F-8 pilots who have logged more than 2,000 flight hours in the Crusader.

## FLIGHT TO ATSUGI

Typical of the many deployments of F-8 units from the United States to far-flung areas of the world was the rotation of U.S. Marine Corps VMF 451 in January 1962 from El Toro MCAS, Calif., to Atsugi, Japan, a distance of 7,078 miles. This was the first flight for a Marine Corps fighter squadron from the West Coast of the U.S. to the Far East.

VMF 451 replaced VMF 312, which returned to the United States by carrier. The deployment aptly demonstrated the Marine Corps' ability to move its units quickly from the U.S. to any place in the world on short notice. It also demonstrated the ability of the fighting forces of the Seventh Fleet in the Pacific to receive air reinforcements rapidly should the need arise.



## SOUTHEAST ASIA ACTION

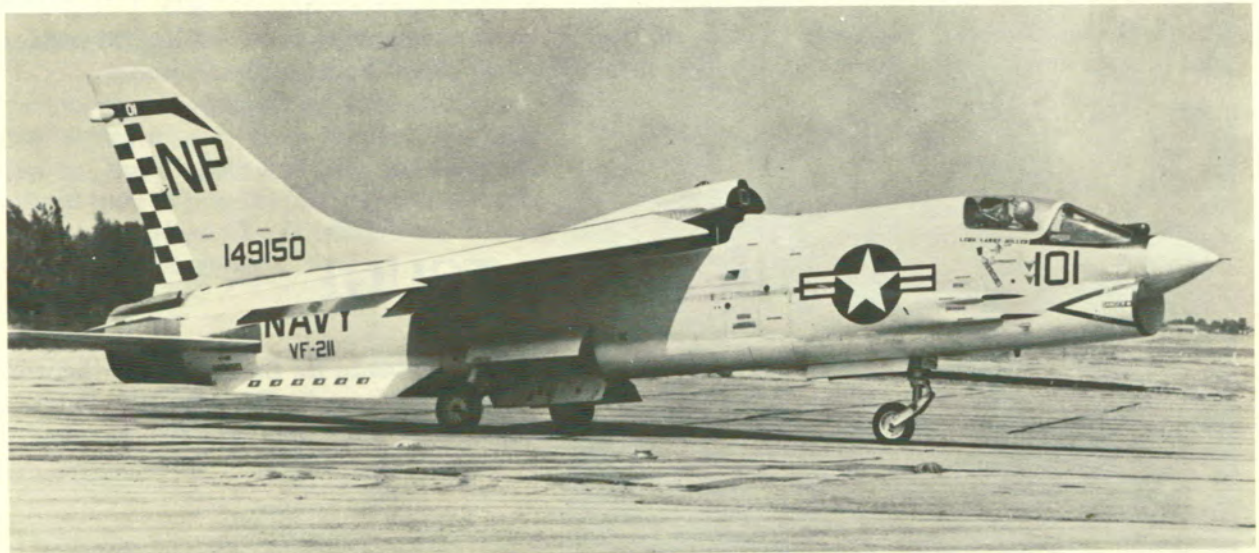
Crusaders flew into combat in Southeast Asia almost at the outset of the conflict in 1964. Functioning as day fighters, attack aircraft, all-weather and photo reconnaissance airplanes, F-8's and the Navy and Marine pilots who flew them admirably made their presence known to the enemy.

During the early days of the action, when the enemy actively challenged U.S. aerial fighter expertise, F-8 Crusaders accounted for more than half of the MIG aircraft downed by Navy and Marine pilots. A total of 19 MIGs fell to the deadly Crusader. The enemy gave the F-8 a healthy respect, as evidenced by the last MIG kill credited to the airplane, if not its pilots.

Near Haiphong, NVN, on May 23, 1972, two F-8 pilots off the USS Hancock closed in on a MIG-17. Realizing the peril of his situation, the MIG pilot elected to do the only sensible thing under those conditions — he ejected and his aircraft crashed in flames without a shot being fired by the Crusaders. Unfortunately, since neither F-8 pilot had fired a shot neither was credited with an official kill.



**NORTH VIETNAM STRIKE** — An F-8 Crusader from the USS Oriskany approaches a North Vietnam seacoast target in August 1965.



**COMBAT VETERAN** — An F-8E from Fighter Squadron 211 (VF-211), taxis at the LTV Aerospace plant in Dallas shortly after returning to the U.S. from Southeast Asia. Six North Vietnam flags adorn the ventral fin, signifying the number of MIGs shot down by the squadron during combat in Vietnam.





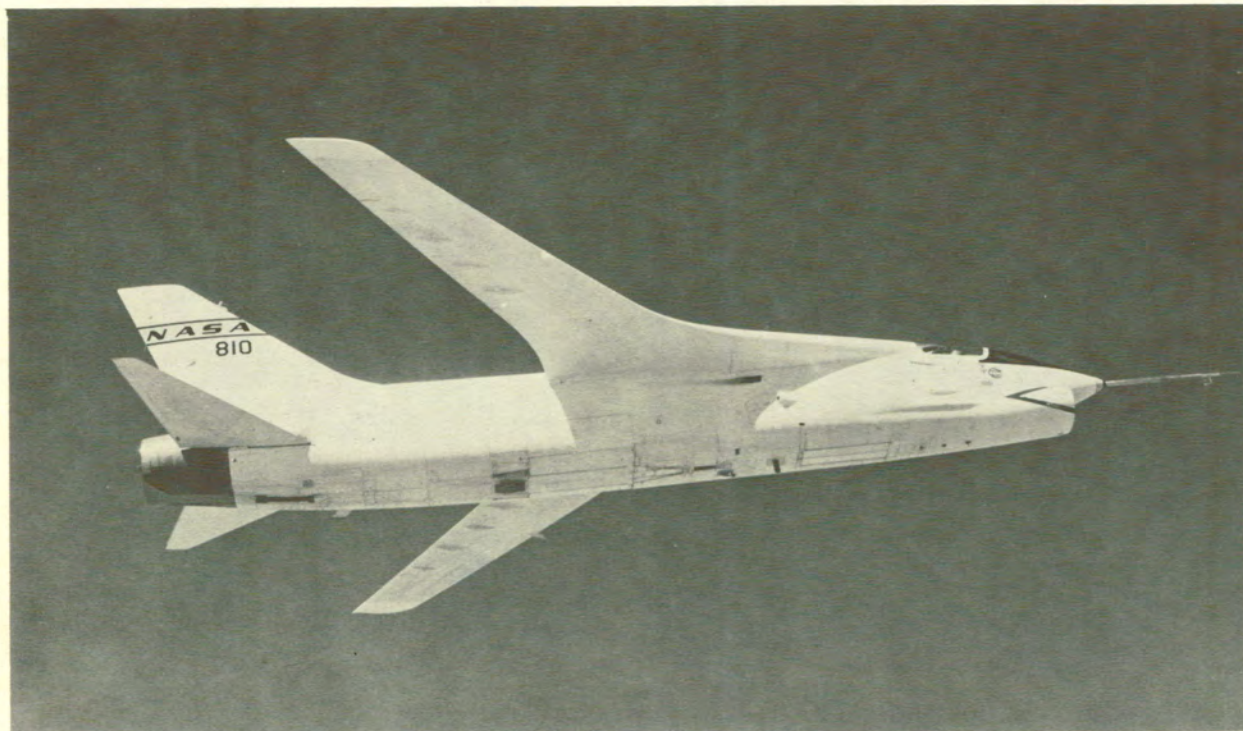
**ARMING FOR ACTION** — U.S. Navy munitions loaders aboard the USS Ticonderoga arm an F-8 Crusader with rockets for its next strike against North Vietnamese PT boat installations. The action occurred just a few days after the Gulf of Tonkin incident touched off the Southeast Asia conflict in August 1964.

## CRUSADER MIG MASTERS

F-8 Crusader pilots credited with MIG kills during the Southeast Asia action were:

CDR Hal Marr		LCDR M. H. (Red) Isaacks	
MIG-17	12 Jun 66	MIG-17	21 Jul 67
LT E. J. Chancy		LCDR R. L. Kirkwood	
MIG-17	21 Jun 66	MIG-17	21 Jul 67
LTJG Phil Vampatella		LCDR R. G. Hubbard	
MIG-17	21 Jun 66	MIG-17	21 Jul 67
CDR Dick Bellinger		LT Dick Wyman	
MIG-21	9 Oct 66	MIG-17	14 Dec 67
CDR M. O. Wright		CDR L. R. (Moose) Myers	
MIG-17	1 May 67	MIG-21	26 Jun 68
CDR Paul Speer		LCDR J. B. Nichols	
MIG-17	19 May 67	MIG-17	9 Jul 68
LTJG J. Shea		CDR Guy Cane	
MIG-17	19 May 67	MIG-17	29 Jul 68
LCDR Bob Lee		LT N. McCoy	
MIG-17	19 May 67	MIG-21	1 Aug 68
LT Phil Wood		LT A. Nargi	
MIG-17	19 May 67	MIG-21	19 Sep 68





**SUPERCritical WING** — The F-8 Crusader, fitted with the National Aeronautics and Space Administration supercritical wing, undergoes a successful flight test at Edwards AFB, Calif. NASA is employing the F-8 in these tests to determine the wing's potential use on future commercial jet transports. The tests indicate the new airfoil shape can effectively reduce operating costs of future air travel.

## TODAY'S MUSTER

The U.S. Navy accepted its first operational F8U-1 Crusader in December 1956. Navy pilots still flying the Crusader today are assigned to:

STATION	ACTIVITY	SKIPPER
NAS Dallas, Tex.	VF-201	CDR P. J. Smith
NAS Dallas, Tex.	VF-202	CDR J. T. Tapley
NAS Dallas, Tex.	VMF-112	Lt Col J. M. Kretsinger
NAS Dallas, Tex.	SRU-1011	CDR J. E. Summerville
NAS Dallas, Tex.	SRU-1111	CDR A. M. Gore
NAS Guantanamo Bay, Cuba	VC-10	CDR W. W. Miller
NAS Miramar, Calif.	VFP-63	CDR C. H. Haines
NAS Miramar, Calif.	VF-24	CDR J. B. Nichols, III
NAS Miramar, Calif.	VF-211	CDR J. A. Kuechmann
NAS Miramar, Calif.	VF-191	CDR R. E. Lester
NAS Miramar, Calif.	VF-194	CDR L. R. Ermis
NAS Atlanta, Ga.	VMF-351	Lt COL. F. D. Hadden
Andrews AFB, Md.	VFP-206	CDR R. Maughflin

## WHEN YOU'RE OUT OF F-8'S, YOU'RE OUT OF FIGHTERS

This special F-8 CRUSADER FIGHTER REPORT was compiled by the Public Relations and Advertising Department of LTV Aerospace Corporation for those who built, flew and maintained the Crusader in the past and for those who are still involved in F-8 activities today. It is the last CRUSADER FIGHTER REPORT which will be published. Requests for additional copies should be addressed to LTV Aerospace Corporation, Dept. 1-32000, P.O. Box 5907, Dallas, Tex. 75222. Tel: Area Code 214, 266-4765.