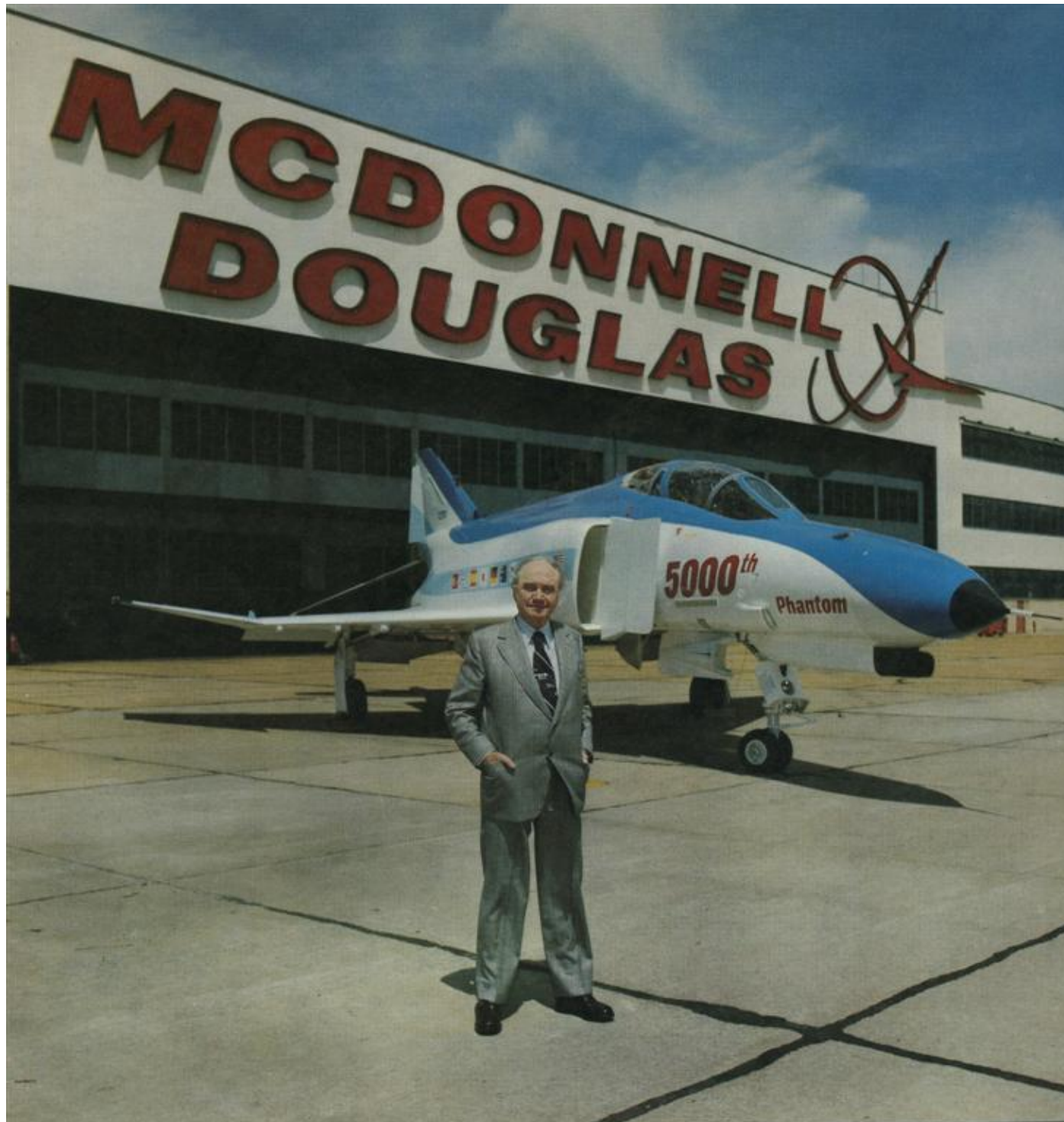


The Fabulous PHANTOM





**A history
of the airplane
that became a
legend in its own time . . .**



Some aircraft are remembered for the number produced. Some are remarkable for their long service life. Some are memorable for their effectiveness in combat. When one aircraft becomes renowned worldwide for all three, it is unique indeed.

Such an aircraft is the McDonnell Douglas F-4 Phantom II.

Produced by the McDonnell Aircraft Company division of McDonnell Douglas Corporation, the F-4 Phantom II exemplifies a tradition of more than three decades of eminent jet fighter design, and represents the most sustained

program of development and production of any modern military jet aircraft, with more than 5000 produced since its first flight.

The Phantom has written remarkable chapters in the history of fighter aircraft. There are few missions that it has not successfully undertaken in peacetime or combat. Our nation's first line interceptor, fighter bomber, escort, and reconnaissance aircraft, the Phantom has performed every classical fighter mission ever conceived.

The Phantom was the first jet fighter to fly simultaneously with the U.S. Navy, Marine Corps, and

Air Force, the first international fighter bomber to fly with the air arms of ten other free world nations, and the only fighter ever to fly concurrently with both U.S. aerobatic flight demonstration teams.

The most versatile, most popular jet fighter ever built, the F-4 Phantom II has truly become a legend in its own time.

This booklet commemorates some of the highlights of that achievement.

. . . published on the occasion of the 5000th delivery.



Phantom Development

McDonnell's concept of multimission, multiservice aircraft design is well illustrated in the creation of the F-4 Phantom, a supersonic, two-place, twin-jet, all-weather aircraft.

Preliminary design of what was to become the Phantom began in the summer of 1953 as single-place, long-range, attack aircraft - designated F3H-G. Prior to 1953, McDonnell had produced more than 1,000 carrier-based jet aircraft - the FH-1 Phantom (the Navy's first jet-powered, carrier-based aircraft), the F2H Banshee, and the F3H Demon. In 1953, however, the company lost a new

carrier-based fighter competitor.

Determined to continue to design and produce carrier-based aircraft, McDonnell prepared numerous studies and layouts of a full-scale mock-up of an aircraft which was believed to most nearly represent the Navy's desires. The company proceeded with this design, designated AH-1, while negotiating with the Navy in an attempt to prepare detail specifications.

There was no military requirement for such an airplane, but the Navy detailed the fleet air mission desired. The aircraft was to be deployed from a carrier,



McDonnell's company-financed mock-up of the Phantom-to-be, then identified as the F3H-G. Note particularly the single cockpit, the unbroken lines of the wing, and the undrooped tail.



The mock-up after reconfiguration into the F4H-1, with revised inlets, second cockpit, and drooped stabilizer. Sparrow missiles were to be launched from extendable rails.

◀ The prototype F4H-1, U.S. Navy Bureau Number 142259, making its first flight over the St. Louis area, 27 May 1958.



Carrier suitability trials were conducted with the sixth F4H-1 (Bureau Number 143391) aboard the USS *Independence* beginning 15 February 1960.



Three key figures in the F4H-1 program were (left to right) David S. Lewis, companywide project manager, Robert C. Little, chief test pilot, and Herman D. Barkey, senior project engineer.



McDonnell's F4H-1 was named the Phantom II in a christening ceremony during the company's twentieth anniversary celebration.



F4H-1 number five (Bureau Number 143390) was assigned to Navy test squadron VX-5 at El Centro, California for ground attack evaluation.



Number eleven F4H-1 (Bureau Number 145310) demonstrated the Phantom's prodigious weight-carrying abilities by lifting and dropping twenty-two 500-lb. bombs.



Phantoms as far as the eye can see. During the peak years of F-4 production, more than two aircraft were being completed every day.



An early F4H-1, Bureau Number 146817, shows maximum air-to-air armament of six Sparrows during missile system evaluation.

cruise out to a radius of 250 nautical miles, stay on combat air patrol and attack an intruder when required, and return to the carrier with a total deck cycle time of three hours. It was also to be armed with air-to-air missiles instead of guns.

McDonnell reconfigured the AH-1 design by removing the guns, changing the fire control system to be compatible with air-to-air missiles, and removing all external armament stations except one at the centerline for a large external fuel tank. At this time, Sparrow missiles were in the development phase, and the airplane was configured to carry four, semisubmerged in the bottom of the fuselage. This was the first such installation of missiles in a fighter. More powerful J79 engines were substituted for the earlier J65, with corresponding changes in the duct area. Other features would make the airplane the Navy's first Mach 2-plus carrier-based aircraft. During this period, the Navy was undecided on a single or double place aircraft, but McDonnell prepared configurations of both and the Navy selected the two-place version.

In August 1954, McDonnell submitted a formal development proposal to the Navy, and in October received a letter of intent for the fabrication of two prototype and one static test aircraft.

The configuration continued to change up to the signing of the detail specification in July 1955. By this time, the primary mission of the Phantom was all-weather fleet air defense, but the attack capability of the original design was retained, making the Phantom a logical choice for the U.S. Air Force Tactical Air Command later on.

Less than three years later, on 27 May 1958, the prototype, now designated the F4H-1, made its first flight from Lambert St. Louis International Airport.

In 1958, the McDonnell F4H-1 and the Chance-Vought F8U-3, a competing aircraft for the same mis-

sion, were flown by Navy Preliminary Evaluation pilots at Edwards AFB. Upon completion of this competition in December 1958, the Navy awarded McDonnell a limited production contract.

On 29 December 1960, the Phantom joined the fleet when Number 28 left St. Louis for delivery to squadron VF-121 at the Naval Air Station Miramar, California.

The Phantom was also qualified for land based operations, and within a few years several versions were procured for the U.S. Air Force. The latest USAF F-4E model is shown in the accompanying illustration.







World Record Holder

During pre-service preparations, the Phantom demonstrated its superior performance and mission versatility when it established numerous official

National Aeronautic Association (NAA) and Federation Aeronautique Internationale (FAI) world and class records.



During Project High Jump, conducted in 1962 from Brunswick and Pt. Mugu Naval Air Stations, several F4H-1s captured eight time-to-climb records.



Project LANA, a 50th Anniversary of Naval Aviation transcontinental race for the Bendix Trophy, was won by a VF-121 crew.

1. Altitude - Top Flight	98,557 ft	6 December 1959
2. 500 km closed course	1216.76 mph	5 September 1960
3. 100 km closed course	1,390.24 mph	25 September 1960
4. Los Angeles to New York - LANA	2 hr 49 min 9.9 sec	24 May 1961
5. 3 km Sageburner	902.789 mph	28 August 1961
6. 15/25 km Skyburner	1,606.342 mph	22 November 1961
7. Sustained Altitude	66,443.8 ft	5 December 1961
8. Time-to-Climb - High Jump		
9,842.5 ft/3,000 m	34.52 sec	21 February 1962
19,685 ft/6,000 m	48.78 sec	21 February 1962
29,527.5 ft/9,000 m	61.62 sec	1 March 1962
39,370 ft/12,000 m	77.15 sec	1 March 1962
49,212.5 ft/15,000 m	115.54 sec	1 March 1962
65,617 ft/20,000 m	178.5 sec	31 March 1962
82,021 ft/25,000 m	230.44 sec	3 April 1962
98,425 ft/30,000 m	371.43 sec	4 April 1962
9. New York to London - Royal Blue 3	4 hr 3 min 57 sec	11 May 1969

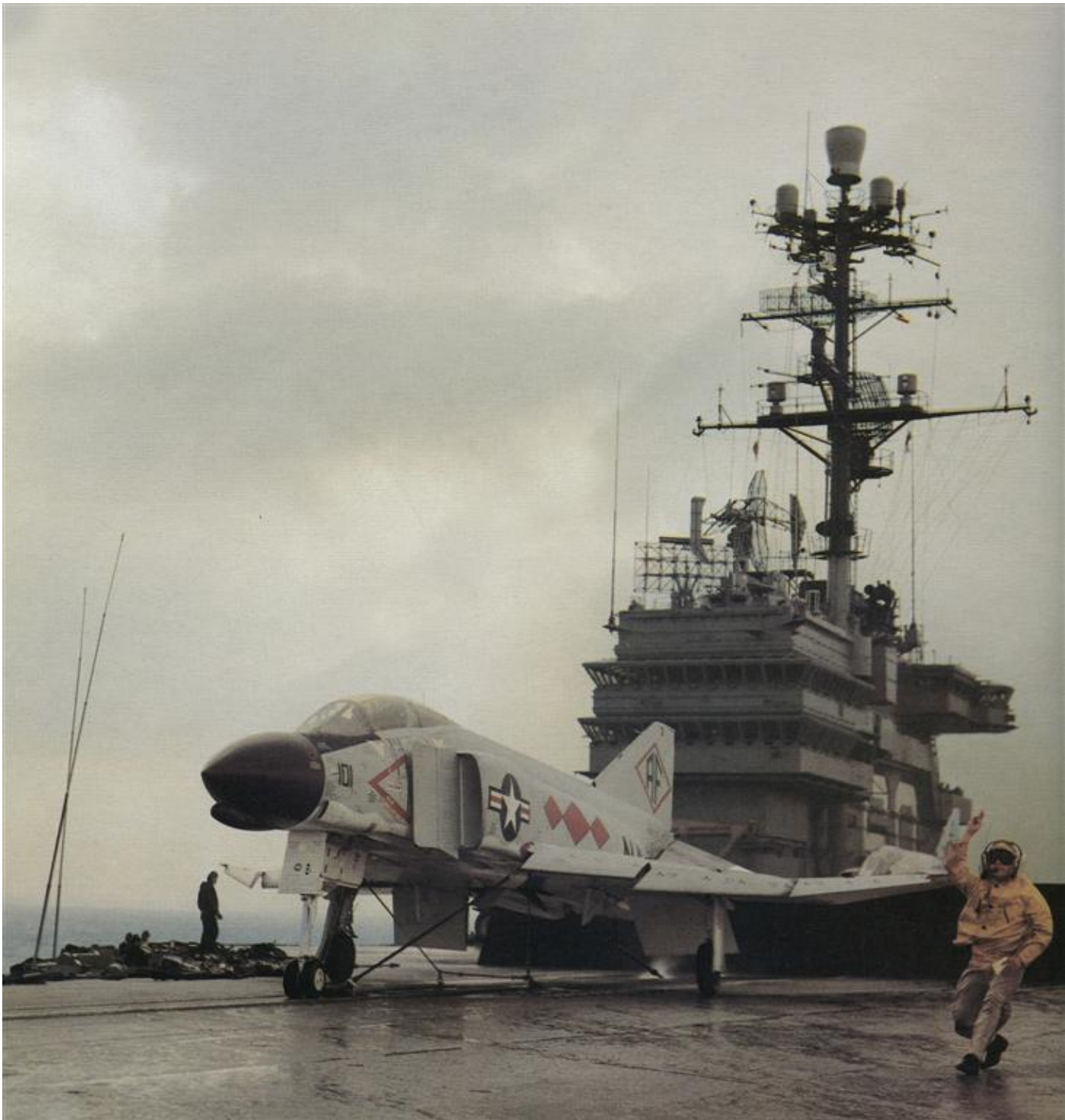


Sageburner, flown by an early F4H-1 (Bureau Number 145307), set a low-altitude speed record that has not been bettered.



The world absolute speed record was captured by the second Phantom prototype (Bureau Number 142260, now designated F4H-1F) during Operation Skyburner. The same airplane later established the sustained altitude record.

◀ On 6 December 1959, the prototype F4H-1 took off from Edwards AFB on Project Top Flight. By the time it landed, a new absolute altitude record of 98,557 ft. had been set.



U.S. Navy & Marine Corps Phantoms

McDonnell Douglas has delivered 1218 Navy F-4A, B, and G and 46 Marine Corps RF-4B models, which have seen service in 65 Navy and Marine

squadrons. The Phantom serves in its Navy role as a fleet air defense fighter and in its Marine Corps role as a close air support aircraft.



First operational Phantom squadrons VF-74 and VF-114 began receiving F4H-1s in July 1961. VF-74 went aboard the USS *Forrestal* for carrier qualification in January 1962, and deployed the following summer.



Primary armament of the Phantom in its original fleet-defense role has been the radar-guided AIM-7 Sparrow air-to-air missile.



Delivery to the fleet of early production Phantoms (F4H-1, later redesignated F4H-1F, still later F-4A) began in December 1960. The recipients were training squadrons VF-121 and Detachment A of VF-101.



An F-4B of the second Phantom squadron, VF-114, deployed aboard USS *Kitty Hawk*, intercepts a Russian Tu-16 Badger bomber in 1963.

◀ A VF-102 F4H-1 receives the launch signal from a catapult officer during flight operations.



An F-4B of VF-101 comes aboard the USS *Enterprise* during carrier qualifications off the east coast.



One of the first two Navy squadrons to go to sea with the Phantoms was VF-102, which took its F4H-1s aboard the USS *Enterprise* in mid-1962.



Flying from the USS *Constellation*, VF-142 and its sister squadron VF-143 were the first to take the Phantom into combat. Their F-4Bs struck North Vietnamese torpedo boat installations on 5 August 1964.



Adorned in experimental camouflage paint, two VF-213 Phantoms, an F-4G and an F-4B, prepare for launching from the USS *Kitty Hawk* off Vietnam in 1966. Twelve Navy F-4Bs were modified into "G" models by incorporation of a two-way digital data link and an approach power compensation system, both standard in the later F-4J.



The Marines were involved in the Phantom program almost from the start, and received the F4H-1 in June 1962. Many Marine F-4 squadrons flew close air support missions in Southeast Asia. Heavily-loaded F-4Bs of VMFA-323, "Death Rattlers", operated out of DaNang in 1966.



A total of 637 F-4Bs was manufactured. One of VF-41's Phantoms, armed for combat air patrol over an MDC Skyhawk strike force, is launched from the USS *Independence* on Yankee Station.



The Phantom first reached the Naval Air Reserve in 1969, when several F-4Bs were assigned to VF-22L1 at NAS Los Alamitos. Today, six Navy and Marine Reserve squadrons are equipped with the F-4.



Modified from F-4Bs, F-4Ns now serve with several USN and USMC squadrons, one of which is VMFA-531, the first USMC F-4 squadron to see combat in Southeast Asia.



F-4Js of VF-96 fly over San Diego harbor in 1969. During the squadron's 1972 deployment to Southeast Asia aboard the USS *Constellation*, LT Randy Cunningham and LTjg Willy Driscoll became America's first Vietnam aces while flying the lead airplane in this photo.



Among the numerous USMC squadrons to operate the F-4J is VMFA-232. The F-4J, featuring uprated J79-10 engines, aerodynamic improvements, and a new, integrated missile control system (AWG-10), superseded the "B" in production for the Navy in 1966.



CDR Sam Flynn, C.O. of VF-31 aboard the USS *Saratoga*, shot down a MIG with this F-4J. The first Navy aerial victories by Phantoms were scored by F-4Bs of VF-21 in June 1965.



U.S. Air Force Phantoms

The Phantom was designed for carrier operations, but proved to be equally effective for land based air-to-air and air-to-ground operations, and in March 1962 the Department of Defense approved its procurement for the U.S. Air Force Tactical Air Command.

Most Navy systems were adopted intact in the early Air Force Phantoms. One major change was the installation of flight controls in the rear cockpit.



Two F4H-1s (Bureau Numbers 149405, 149406) were redesignated F-110A and delivered to Tactical Air Command Headquarters for evaluation in January 1962.



One of the F-110As successfully evaluated by the Air Force displays a variety of air-to-ground ordnance — bombs, rockets, and napalm.



Initial USAF deliveries to MacDill AFB, Florida, in November 1963, were 29 "borrowed" Navy F-4Bs (given USAF serial numbers, but eventually returned). These 12th and 15th Tactical Fighter Wing aircraft were soon joined by production F-4Cs. Both types appear in this photo.

◀ The definitive version of the USAF Phantom was the F-4E, first delivered in 1967. Beginning in 1972, all production F-4Es were fitted with leading edge maneuvering slats, which were retrofitted to all earlier F-4Es.



The first deployment of USAF F-4Cs to Southeast Asia occurred in December 1964, when the 555th TFS, 12th TFW, was sent to Okinawa. Before long, Air Force Phantoms were undertaking combat missions.



An early production F-4C (USAF serial number 63-7445) makes a strafing run with one of its pod-mounted M61 Vulcan rotary cannons. The Air Force developed these because the Phantom had no internal guns.



Camouflage paint began appearing on USAF aircraft late in 1964, and all operational F-4Cs soon sported the new look. Inflight refueling was a standard element of Phantom operations.



An F-4C of the 391st TFS, 12th TFW, out of Cam Ranh Bay, dramatically rolls in on a target in the wooded hills of Vietnam in the late 1960s.



This F-4C of the 497th TFS, 8th TFW, is loaded with Sparrow and Sidewinder missiles for an escort mission. Operating from Ubon Air Base in Thailand, the 8th TFW "Wolfpack" scored more air combat victories than any other Air Force Wing in Southeast Asia (note MIG-kill markings on intake ramp.)



F-4Cs joined the Air National Guard in January 1972, when the 170th TFS, Illinois ANG, received its first Phantom.



Rippling, or sequence firing, its load of rockets, an F-4D of 334th TFS, 4th TFW, dives on a target during a training exercise in 1969.



USAF Fighter Wings in Europe were the first to receive the F-4D, which embodied major weapons-delivery improvements. This F-4D is assigned to the 52nd TFW based at Spangdahlem AB in Germany.



The F-4D arrived in Southeast Asia in the spring of 1967, initially serving with the 8th TFW at Ubon AB. This model was capable of delivering the new laser guided "smart" bombs, as this 435th TFS Phantom demonstrates.



The sharkmouth motif has been popular with F-4E units, including the 43rd TFS, which has been assigned to the Alaskan Air Command and based at Elmendorf AFB since mid-1970.



This bomb-laden F-4E of the 34th TFS, 388th TFW, carries the Wing Commander's stripes. The 388th, based at Korat AB in Thailand, was the first in Southeast Asia to equip with the "E" model.



Recon Phantoms

The reconnaissance versions of the Phantom use the same basic configuration and engines as the fighter and attack versions. They are all-weather, unarmed, tactical aircraft, capable of high or low altitude, day or night missions, with the speed and maneuverability to survive sophisticated air defense networks.

McDonnell's first reconnaissance Phantom,

the RF-4C, was designed for the Air Force. The RF-4B, designed for the Marine Corps, is basically an F-4B with the RF-4C nose. The international RF-4E is the only modern production reconnaissance aircraft available in the free world today.

All versions contain cameras and other detection equipment.



RF-4Cs are flown by a number of USAF squadrons in Europe, including the 17th TRS, 26th TRW, based at Zweibruecken AB, Germany.



Several Air National Guard squadrons now operate the RF-4C. First to equip with the type were the 106th TRS and 160th TRS of the Alabama ANG, which began receiving RF-4s in 1971.



Following their introduction at Tan Son Nhut airport on 1 November 1965, RF-4Cs served impressively in Southeast Asia. This RF-4C of the 15th TRS, 18th TFW, was based on Okinawa.



All RF-4Bs were recently reassigned to a single squadron, VMFP-3. One of FP-3's aircraft is seen here carrying several Elint and ECM pods.

◀ Head-on view of an RF-4B showing the reconnaissance Phantom's distinctive forward-looking camera port.



The International Phantom

In addition to being America's first-line fighter, the F-4 Phantom has become a desired export aircraft, helping to strengthen North Atlantic Treaty Organization (NATO) and South East Asia Treaty Organization (SEATO) commitments.

In September 1964, the Phantom became

international when the British government contracted with the U.S. government to purchase Phantoms for the Royal Navy and the Royal Air Force.

The U.S. government also made Phantoms available to other friendly nations.



The Royal Air Force FGR.2 (F-4M), similar to the F-4K, serves with numerous RAF units, including No. 29 Squadron at RAF Coningsby.



The Federal Republic of Germany's Luftwaffe F-4F is a variant of the F-4E.



West Germany has received more Phantoms than any other nation outside the U.S. The RF-4E shown here serves with AG 52, one of two Luftwaffe reconnaissance units.

◀ Afterburners spewing flames, a Royal Navy FG.1 (F-4K) Phantom of No. 892 Squadron stands ready for catapult. The F-4K is essentially a redesign of the F-4J to accept Rolls Royce Spey engines and British equipment.



Japan ordered F-4EJs in April 1969. All except two of these are being manufactured under license by Mitsubishi in Japan.



The Republic of Korea received these F-4Ds from the USAF inventory beginning in 1969. The F-4E is also being supplied to the ROK Air Force.



Since 1975, Turkey has been flying F-4Es. Turkey has also ordered RF-4E reconnaissance versions.



The RF-4E is flown by the Japanese Air Self Defense Force, which first received this type in 1975.



The Hellenic Air Force began obtaining F-4E Phantoms in 1974, and will soon add the RF-4E to its inventory.



Many F-4Es have been received by the Imperial Iranian Air Force. Deliveries began in 1971.



Iran began acquiring the Phantom by ordering F-4Ds in 1966. Deliveries began in September 1968 and continued through late 1969.



While awaiting deliveries of F-111C aircraft, the Royal Australian Air Force "borrowed" F-4E Phantoms from the USAF. These were delivered from the factory in late 1970 and have since been returned to the Air Force.



The only non-U.S. operator of F-4Cs has been the Spanish Air Force, which received them from the USAF in 1971-72. This aircraft belongs to Escuadron 121.



The Blue Angels

In 1968, the U.S. Navy chose the Phantom for its *Blue Angels* Flight Demonstration Team.

The *Blues* made their debut in F-4Js at the Marine

Corps Air Station in Yuma, Arizona on 15 March 1969, and for five seasons thrilled millions worldwide with their exhibitions of precision flying.



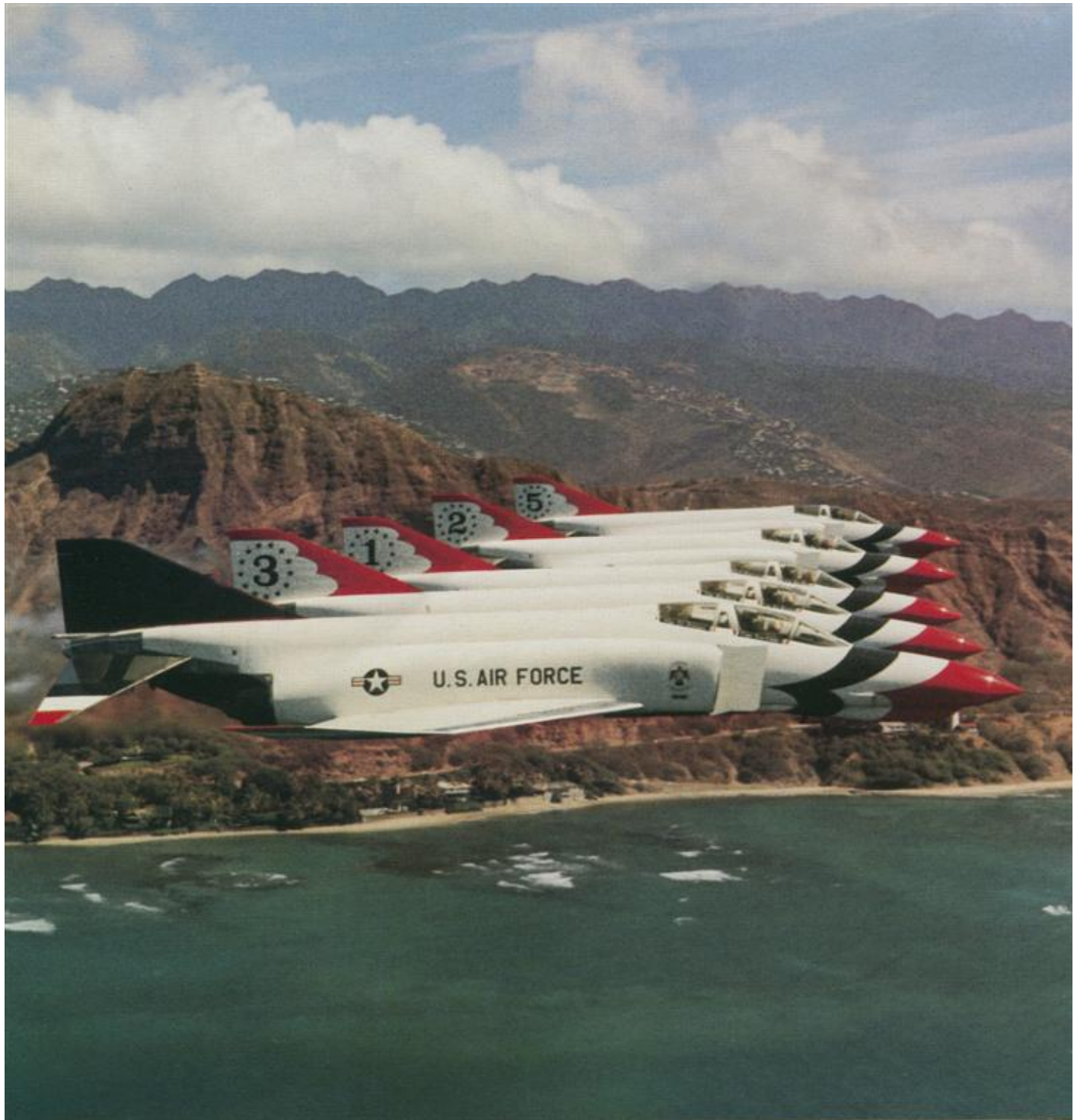
Three feet separate wing tips and canopies in Blues demonstration at Nellis AFB, home of the Thunderbirds.



The Blues move into a diamond formation on takeoff.



"Smoke On" for a diamond loop.



The Thunderbirds

The U.S. Air Force also selected the Phantom for its *Thunderbirds* Air Demonstration Squadron.

The *Thunderbirds* made their debut in F-4Es at the Air Force Academy in

Colorado Springs, Colorado on 4 June 1969, and for five years their exciting close formation maneuvers represented American air power and friendship all over the free world.



The traditional Thunderbird wedge.



Thunderbird solo in "Wing Walk" demonstration.



A Thunderbird diamond slow flight demonstration.

◀ Thunderbirds fly past Waikiki.



Rare Plumage & Wild Colors

Combat aircraft have traditionally been painted to minimize visibility. This has led to the development of a wide variety of exotic colors and unusual camouflage patterns, each intended for a different

operating environment. On the other hand, the need for identifying aircraft and the organizations to which they belong frequently results in colorful and distinctive squadron markings.



The squadron markings carried by F-4Bs of VF-51, the "Screaming Eagles," in the early 1970s, were among the most striking ever seen on the Phantom.



A unique experimental camouflage scheme appears on this F-4C of the 58th TFW at Luke AFB, Arizona. This "Deceptive Paint Scheme" was created by noted aviation artist Keith Ferris.

◀ These F-4s from VX-4, the Navy's test squadron for fighter aircraft and weapons, illustrate several distinctive color schemes. The bright red aircraft is a QF-4B drone, painted for maximum visibility rather than minimum visibility.



The patriotic enthusiasm stimulated by the country's Bicentennial celebration led to the appearance of many Bicentennial paint schemes. One of the most spectacular was carried on this F-4J of VX-4, based at Pt. Mugu, California.



VX-4's Bicentennial Phantom was brightly painted top and bottom, nose to tail.



An F-4C displays its Bicentennial colors to a passing Russian Tu-20 Bear reconnaissance bomber.



F-4Es of the 23rd TFS, 36th TFW, based at Bitburg AB in Germany, carried Bicentennial markings in 1976. The 36th TFW has since become the first F-15 Wing in Europe.



The famous "Playboy Bunny" F-4J of Navy squadron VX-4 takes on fuel from a Marine tanker.



VF-161, assigned to the USS *Midway* and based in Japan, painted this F-4N as its tribute to the Bicentennial.



The F-4Js of VMFA-312, the Marines' "Checkerboard" squadron, display the latest and most colorful version of that unit's traditional markings.



Several 58th Tactical Fighter Training Wing F-4Cs had bright stripes painted on fuselage and wings to add to visibility for training purposes.



This white and red Phantom is a YF-4E that was originally built and flown as an F-4D.



F-4J 155838 VMFA-251 (1975)



F-4D 66-7749 49th TFW (1975)



F-4J 155731 VF-142 (1974)



F-4B 152972 VF-32 (1971)



F-4J 153817 VMFA-235 (1975)



F-4B 152291 VMFA-312 (1971)



F-4B 153059 VF-151 (1971)



F-4J 158378 VF-21 (1975)



F-4N 150643 VF-41 (1975)



F-4C 63-7475 57th FIS (1973)



F-4J 154786 VMFA-333 (1973)



F-4N 151000 VF-111 (1975)



F-4J 153795 VF-121 (1973)



F-4C 63-7584 58th TFW (1975)



F-4C 64-776 170th TFS (1976)



F-4N 150642 VF-201 (1976)



The Timeless Phantom

The Phantom represents the most sustained development and production program of any modern military jet aircraft. Production peaked at a rate of more than 70 aircraft a month, the total has surpassed 5,000 aircraft, and the line is still going on.

One reason for the Phantom's longevity has been the ability of McDonnell Douglas to adapt new technology to new missions. The Phantom has been produced in thirteen different models for both carrier and land based operations. The same basic airframe has been adapted to air superiority, close air

support, interceptor, air defense, interdiction, long range strike, and reconnaissance roles.

The Phantom's growth potential is represented by conversion of the F-4E to F-4G Wild Weasel, F-4B to F-4N, F-4J to F-4S, and modification of the RF-4B with the latest sensor and navigation systems. F-4Es are also now being delivered with new digital inertial navigation systems that provide better bombing and navigation accuracy, as well as better maintainability and reliability. The Phantom will be operating in the U.S. inventory well into the 1990s.

◀ The timelessness of the Phantom, resulting from continued development of the basic aircraft, is epitomized by F-4 Number 266, USAF Serial Number 62-12200, shown in its most recent test configuration with a pair of canard control surfaces mounted on the inlet ducts.



Number 266 entered production as a Navy F4H-1 airframe and was modified during construction into the YRF-4C reconnaissance prototype.



Modified into the testbed for the M61 Vulcan rotary cannon installation and improved J79 engines, Number 266 flew as the first YF-4E prototype.



The next milestone for Number 266 was "Project Agile Eagle," the flight testing of leading edge maneuvering slats, beginning in June 1969. The success of these tests led to the installation of maneuvering slats on all F-4E and F-4F Phantoms. This aircraft also served as a test bed for a beryllium rudder.



A "Fly-by-Wire" control system was installed in Number 266, and a distinctive color scheme was applied to the airplane for this flight test program, which commenced on 29 April 1972.



One recent development in the Phantom program was the conversion of several Navy F-4B airframes into QF-4B drones for use by the Naval Missile Center at Pt. Mugu, California.



"Project Bee Line" was a Service Life Extension Program (SLEP) in which 228 F-4Bs were rebuilt and modified by the Navy into F-4Ns.



The Navy has begun a similar SLEP to modernize over 250 F-4Js, the first of which is shown here. This program will result in the F-4S model, equipped with leading edge maneuvering slats.



An Air Force program has been established to convert more than 100 F-4 aircraft into the F-4G Wild Weasel configuration, the prototype of which is shown here.

Phantoms by the thousand . . .



The 1000th Phantom delivered was an F-4B (Bureau Number 152276), turned over to the Navy on 7 July 1965.



Phantom delivery number 2000, on 12 March 1967, was a USAF F-4D (Serial Number 66-7533).



A Navy F-4J (Bureau Number 155772) was the 3000th Phantom to be delivered, on 5 September 1968.



On 1 February 1971, the 4000th Phantom, an F-4E (Serial Number 69-7294) for the USAF, was delivered.



Number 5000, an F-4E (Serial Number 77-0290), delivered on 24 May 1978.

Milestones

19 September 1953	Unsolicited proposal submitted to BuAer for a single place all-weather fighter called the F3H-G/H (general purpose VF).	October 1959	Airplane released for carrier suitability trials.
15 June 1954	Need for an all-weather aircraft arises (no written agreement). BuAer evaluated McDonnell F3H-G/H, F3H-E2 (single engine version), Grumman proposal, and North American proposal. Selected McDonnell design with two J79 engines.	February 1960	Sea trials begin with first carrier catapult takeoff and arrested landing aboard USS <i>Independence</i> .
23 July 1954	Chief of Naval Operations recommended the procurement of two AH-1 aircraft.	July 1960	Board of Inspection and Survey (BIS) trials begin at Patuxent River, Maryland.
18 October 1954	Letter contract placed with McDonnell for two AH-1 aircraft.	29 December 1960	First aircraft delivery to training squadron VF-121, NAS Miramar, California.
7 December 1954	BuAer-CNO conference reached following agreement: BuAer-CNO jointly to take necessary action to redesignate AH-1 to F4H-1; CNO to write a requirement for a two-seat aircraft; BuAer to initiate a design competition for an all-weather attack aircraft following receipt of CNO requirement.	March 1961	F4H-1 airplanes below No. 48 redesignated F4H-1F. Airplanes 48 and up retain designation of F4H-1.
7 June 1955	CNO letter indicated a requirement for a two-seat version of the F4H-1 (AH-1).	25 March 1961	First flight of a production F4H-1.
23 June 1955	AH-1 redesignated F4H-1.	June 1961	First F4H-1 airplane (No. 50) delivered to fleet.
19 July 1955	CNO letter defined configuration of F4H-1.	14 September 1961	Last of 47 F4H-1Fs delivered to Navy.
2 September 1955	BuAer authorized procurement of five F4H-1 aircraft.	October 1961	Navy's first F4H-1 operational squadron, VF-74, qualified for carrier duty.
November 1955	Mock-up review.	January 1962	President's Budget submitted to Congress requesting procurement of the RF-110A reconnaissance version and the F-110A fighter version for the USAF.
27 May 1958	First flight of F4H-1 aircraft from Lambert Field, St. Louis, Robert C. Little, test pilot.	January 1962	Two F4H-1 fighters, newly designated F-110A for the Air Force, delivered to TAC Headquarters, Langley Air Force Base.
17 December 1958	Navy decision to buy the F4H-1.	April 1962	Letter Contract for first F-110A aircraft received.
3 July 1959	F4H-1 christened Phantom II in a ceremony on McDonnell ramp during celebration of company's 20th anniversary.	May 1962	Letter Contract for two prototype RF-110A airplanes received.
		29 June 1972	First F4H-1 delivered to a Marine Corps squadron, VMF(AW)-314.
		July 1962	Conversion of F4H-1 to reconnaissance configuration.
		August 1962	First two Navy F4H-1 squadrons (VF-102 and VF-74)

	deployed (Project Short Cruise).	30 June 1967	First flight of production F-4E, two months ahead of contract delivery schedule.
September 1962	F4H-1, F4H-1F, and F-110A redesignated F-4B, F-4A, and F-4C, respectively.	June 1967	Peak production rate of 72 aircraft a month reached.
February 1963	First F-4B delivered to USAF training squadron.	3 October 1967	First squadron F-4E delivered to TAC, Nellis AFB, Nevada.
February 1963	USMC authorized to procure RF-4B; letter contract for nine RF-4Bs received.	26 December 1967	First flight of F-4M.
20 March 1963	First flight of Navy F-4G.	28 February 1968	Last of 793 USAF F-4Ds delivered.
27 May 1963	First flight of F-4C.	25 April 1968	First transatlantic deliveries to United Kingdom begin.
July 1963	First F-4C aircraft delivered.	November 1968	U.S. and German governments sign Co-Production Logistics Agreement.
8 August 1963	First flight of YRF-4C prototype.	January 1969	Seven modified F-4J aircraft delivered to El Centro, California for Blue Angels Flight Demonstration Team.
20 November 1963	First F-4C delivered to TAC squadron.	15 March 1969	First official Blue Angels demonstration at Yuma, Arizona.
18 May 1964	First flight of RF-4C.	19 April 1969	F-4E Thunderbirds aircraft numbers 1 and 2 delivered to Nellis AFB.
June 1964	First production RF-4C aircraft delivered to USAF.	4 June 1969	President Richard Nixon attends first F-4E Thunderbirds demonstration at Air Force Academy.
12 March 1965	First flight of RF-4B.	15 September 1970	First flight of RF-4E.
May 1965	First RF-4B delivered to VMCJ-3, El Toro, California.	24 December 1970	Last of 46 RF-4Bs delivered to USMC.
May 1965	Phantom II awarded 1965 Glenn H. Curtiss Memorial Award as outstanding aircraft of the year.	7 January 1972	Last of 522 F-4Js delivered to the Navy.
4 June 1965	First flight of YF-4J.	11 February 1972	First flight of F-4E with production slats installed.
7 August 1965	First flight of YF-4E.	4 June 1972	First flight of F-4N.
8 December 1965	First flight of F-4D.	18 May 1973	First flight of F-4F.
4 May 1966	Last of 583 F-4Cs delivered to TAC.	16 January 1974	Last of 505 RF-4Cs delivered to USAF.
27 May 1966	First flight of F-4J.	10 December 1976	Last of 831 USAF F-4Es delivered.
27 June 1966	First flight of YF-4K.	4 November 1977	First delivery of F-4J slats prototype aircraft to Naval Air Test Center, Patuxent River, Maryland.
28 June 1966	F-4J accepted by Navy.		
2 November 1966	First flight of F-4K.		
21 December 1966	First production F-4J delivered to fleet training squadron VF-101, Key West, Florida.		
27 January 1967	Last of 637 F-4Bs delivered to U.S. Navy.		
17 February 1967	First flight of YF-4M, three months ahead of contract delivery schedule.		

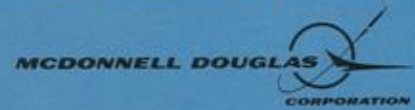


ACKNOWLEDGEMENTS

Photographs and Information

U.S. Air Force, U.S. Navy, J. W. Brophy, R. W. Downey, F. W. Roos, R. N. Pukala, D. A. Kasulka, R. A. Burgess, and R. L. Lawson

MCDONNELL AIRCRAFT COMPANY



MAY 1978