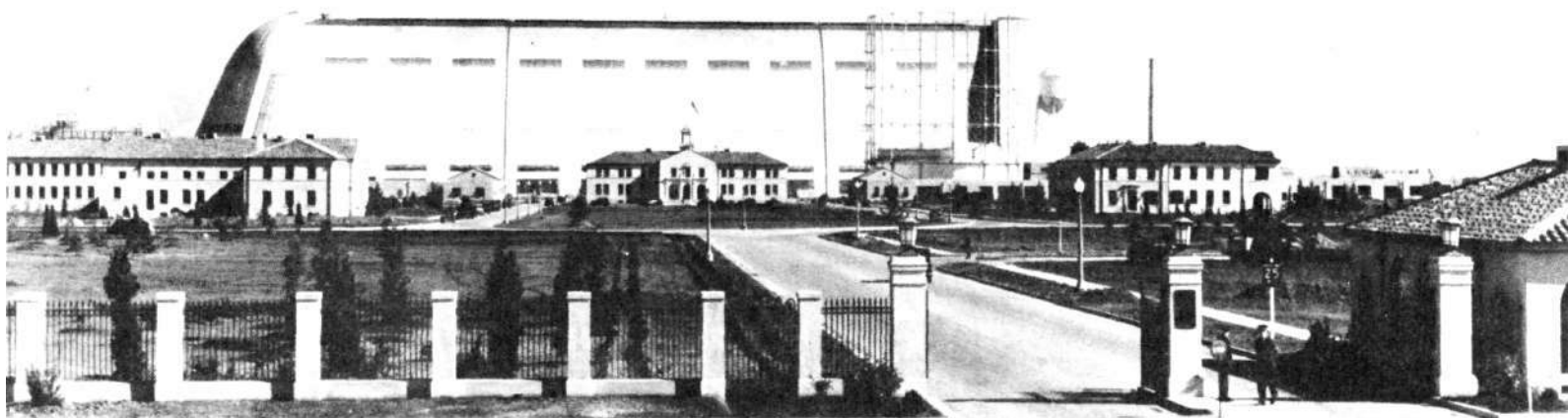


NAS Moffett Field: A PICTORIAL TRIBUTE

by Chuck Hansen



April 1983 marks the fiftieth anniversary of the commissioning of Moffett Naval Air Station in Sunnyvale, California. During the last half century, Moffett has hosted two of the Navy's largest airships, as well as several squadrons of blimps, fighters, patrol aircraft, transports and subchasers, spanning aeronautical technology from fabric-covered biplanes to the latest nuclear-armed flying electronic video arcades.

The Origins of Moffett—More than anything else, Moffett probably owes its existence to an event that occurred in late 1928. On October 6th of that year, contracts were signed for two six-and-a-half million cubic feet rigid airships (ZRS-4 and ZRS-5, which were subsequently christened *USS Akron* and *USS Macon*). Two bases for these proposed ships already existed: Lakehurst Naval Air Station on the East Coast, and Akron, Ohio, in the midwest. A Pacific coast base would be needed for operations with the fleet in the West.

The late Laura Thane Whipple (of what is now the city of Fremont, California), became the "godmother" of the West Coast base. Mrs. Whipple, a realtor and civic leader who passed away in 1966, was looking for a buyer for Irvington, financier Otto Hirsch's ranch near Sunnyvale, when she recalled a newspaper item about the Navy's search for a San Francisco Bay Area site for the new lighter-than-air craft (the protected Santa Clara Valley offered good flying weather year-round, due to the mild climate and the protection from inclement winds and weather afforded by ranges of hills on both sides of the bay). Mrs. Whipple was quick to see the land use potential for the 688-acre tract; she soon joined with Hirsch and her friend Arthur Curtner of Warm Springs to sell the idea of a Sunnyvale area naval airbase to Bay Area chambers of commerce and state legislators. Other communities soon joined the fight to gain acceptance for the site. When it became apparent that a gift of land might swing the deal, public fund-raising was launched with San Jose Chamber of Commerce acting as fiscal agent.

After two years of hard work, a sum of \$476,166 had been raised—a princely sum in the midst of the country's worst economic depression, and a measure of the desire of the local citizens for the presence of the airbase. In February 1931, President Herbert Hoover signed a bill which had been introduced and pushed through Congress by Arthur M. Free, a congressman from San Jose. This bill

Main entrance of NAS Sunnyvale, October 1933, looking east. Hangar One is visible behind administration building and helium gas holder. "Orange peel" doors at either end of the hangar could be rolled open on tracks; each door weighed 500 tons.
(US Navy via PIO, Moffett)

authorized the Navy to accept the Hirsch land. On August 2, 1931, the Navy took title to 1000 acres of land for the overwhelming sum of \$1. The residents of Sunnyvale and the surrounding communities had beaten out nearly 100 other possible airbase sites from Seattle, Washington, to San Diego. Their hopes were that the base would attract other aviation industry into the valley.

The Dirigible Years—The Free bill also authorized \$5 million for construction of facilities at the new base, which was to be called the Sunnyvale Naval Air Station. Actual construction began October 5, 1931, with the driving of the first surveyor's stake. Over the next two years, an average of 500 men would be employed building the base. A total of \$4,993,500 would be spent; half of this would go for the construction of Hangar One (the main dirigible hangar); the rest would be spent on mooring masts north and south of the hangar, power systems, a helium storage unit, officers' and enlisted men's quarters and barracks, and railroad tracks (for the mooring masts). Buildings for the base were designed in classical California mission style, with graceful arches and red tile roofs (much in the same style as the Army's Hamilton Field at the north end of San Francisco Bay). Hundreds of new trees were planted, and all utilities were placed underground.

The *Akron* was the first airship to visit the Sunnyvale base, arriving at the as-yet-uncompleted facility on May 15, 1932. More than 200,000 Bay Area residents surrounded the airfield to watch the dusk arrival and mooring (large crowds would appear almost every time that the *Macon* left or arrived at Moffett in the following three years). Unprecedented traffic jammed the Bayshore Highway and the newly graveled Whisman Road, linking the field to Highway 82, El Camino Real.

On April 4, 1933, the *Akron* crashed in the Atlantic Ocean during a severe storm off Barnegat Light, New Jersey. Among the 73 fatalities (only four crew members survived) was Rear Admiral William A. Moffett, the Chief of the Navy's Bureau of Aeronautics. On the 12th, the Sunnyvale Naval Air Station was formally

commissioned; on the 21st, the *Macon* made her first flight at Akron, Ohio. She departed NAS Lakehurst on October 12, bound for Sunnyvale. Following the Atlantic coast down to her namesake city in Georgia and then westward over a southern route to California, she arrived on the afternoon of the 15th, completing the 2500-mile nonstop flight in approximately 70 hours.

The *Macon* operated out of Sunnyvale for the next 16 months until her loss off Point Sur in February 1935. In May 1933, the landing field at Sunnyvale had been named Moffett Field in honor of the Bureau of Aeronautics chief killed in the crash of the *Akron*. With the loss of the *Macon*, the Navy's lighter-than-air program at Moffett Field came to a temporary end; the base was used briefly for training carrier and bomber squadron pilots.

In October 1935, Moffett Field was transferred to the Army Air Corps for use as a training base (several Navy and Army air bases changed hands at this time, as a result of several years of study and discussion of the joint use of aviation facilities in certain areas). The Army built new barracks and other housing units; the field would be the base for the next five years for various pursuit groups and observation squadrons, as well as the West Coast Air Corps Training Center, devoted to training hundreds of new Army fliers.

World War II—With the outbreak of World War II in the Pacific at the end of 1941, a need arose for antisubmarine patrols off the California coast. Small blimps would be ideally suited for this work, and the Navy took custody of Moffett Field in April 1942; the site was formally named NAS Moffett Field. Hangar One was re-rigged to assemble and service blimps, and two new hangars were erected in 1943 on the opposite side of the airbase.

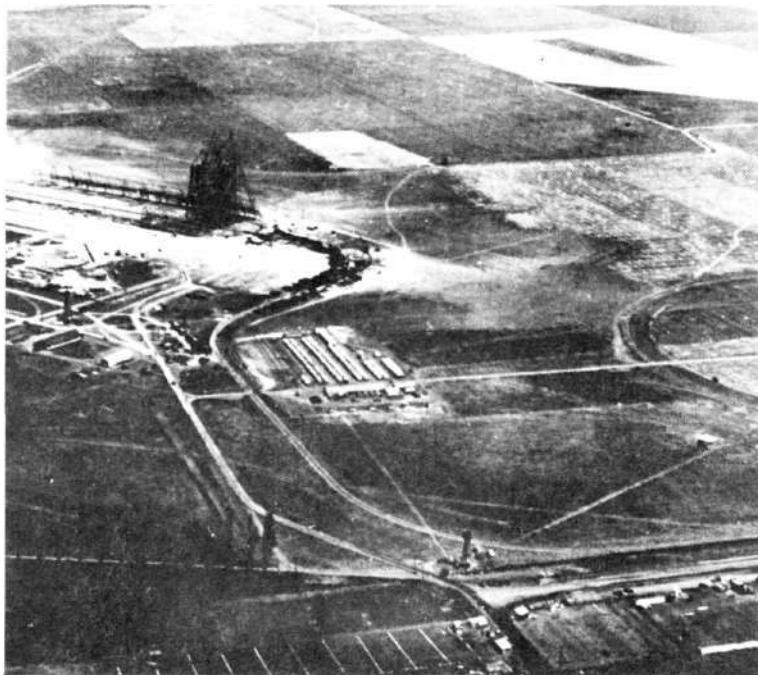
During the war years, Moffett hosted carrier-based planes, patrol-bombing squadrons and transport groups, in addition to the large contingent of blimps based there. Blimp crews were trained on free balloons (which frequently ended up in the fruit orchards surrounding the field); runways were extended and widened, and more housing and support buildings went up on the base. The station also became a major naval aircraft overhaul facility.

At war's end, the last of the blimps left Moffett in 1947, and the base became a major entity in the Naval Air Transport Service (NATS).

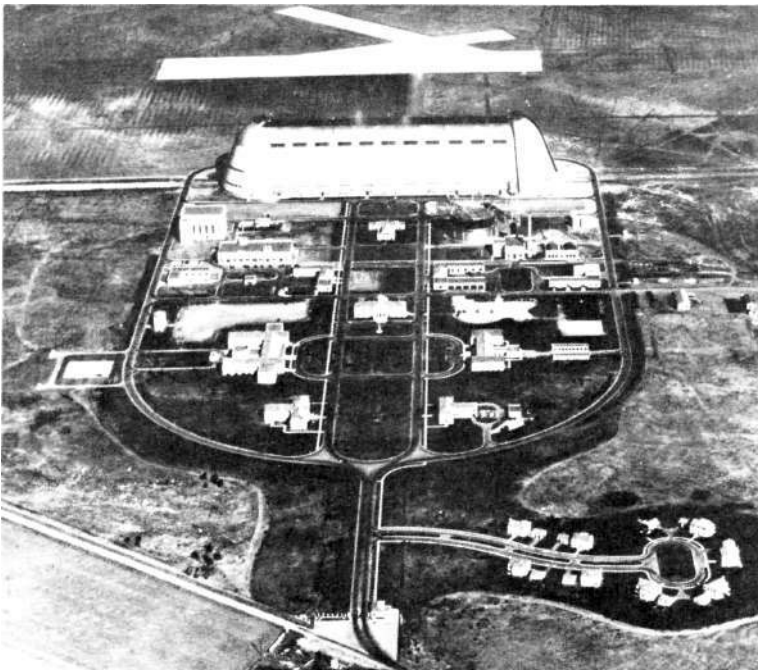
The '50s and '60s—In February 1950, Moffett was designated as the first of nine "All Weather" Naval Air Stations. New GCA (Ground-Controlled Approach) equipment was installed; the two parallel runways were extended and the base was enlarged. For the next 10 years, the base hosted many carrier air groups, as well as transport and experimental squadrons. The all-time high in operational units attached occurred in November 1955, when no fewer than 23 squadrons (including the entire complements of four carrier air groups) were located at Moffett.

Unfortunately for all this activity, the enlarging and encroaching suburbs springing up on the south San Francisco Bay peninsula did not make good neighbors for screaming jet engines (and occasional crashes). In 1961, all jet aircraft activities were relocated to Naval Air Stations at Lemoore (in the San Joaquin Valley) and Miramar (near San Diego). Two years later, the field was selected as the master patrol plane base for Pacific Ocean antisubmarine activities. The base has served in this capacity for the last 20 years.

Current Activities—Moffett is now the headquarters for Commander Patrol Wings U.S. Pacific Fleet. Nine squadrons are stationed at the base: VP-9 ("Golden Eagles"); VP-19 ("Big Red"); VP-31 ("The Genies"); VP-40 ("Fighting Marlins"); VP-46 ("Grey Knights"); VP-47 ("Golden Swordsmen"); VP-48 ("Boomerangers"); VP-50 ("Blue Dragons"); and VP-91. VP-31 is a training squadron for U.S. and foreign personnel in all P-3 models; VP-91 is a reserve squadron operating older P-3 aircraft. All seven other operational units are equipped with the latest P-3C *Orion* subchasers; two squadrons are generally deployed to Adak, Alaska, and Midway Island on a rotational basis. On some occasions, however, Pacific



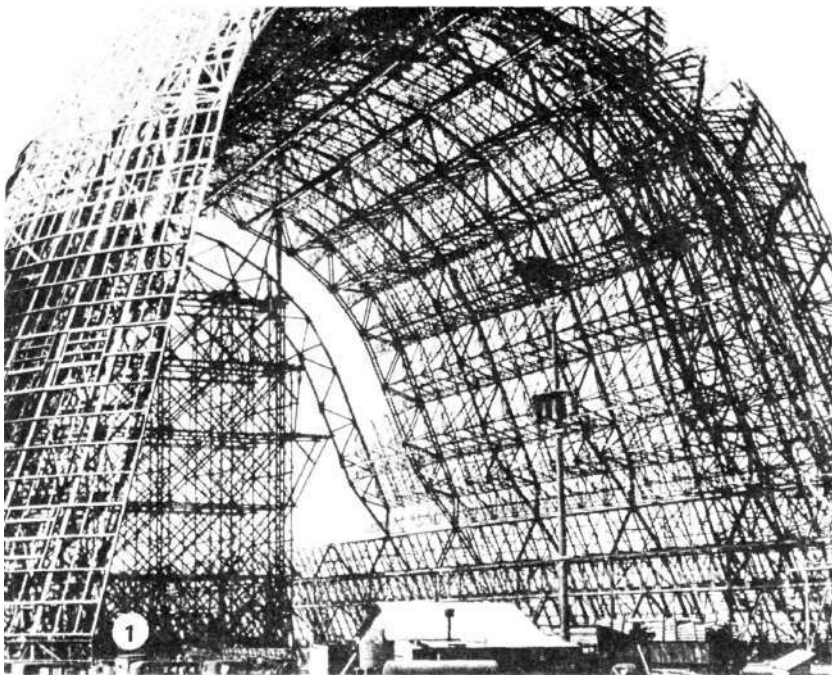
Looking northeast, early in 1932. Construction of Hangar One has begun, and most of the original 1000-acre airfield site is visible.
(US Navy via PIO, Moffett)



Aerial view of NAS Sunnyvale in 1933, looking east-northeast, showing Hangar One, and 1500-foot landing strip (for heavier-than-air craft) behind it. Tracks leading out of either end of Hangar One lead to dirigible mooring circles. Base buildings include powerplant, helium facility, fire station, administration building, officers' and enlisted men's quarters and housing, helium gas holder, garage, and gate house.
(US Navy via PIO, Moffett)

Fleet squadrons at Moffett alternate basing with Atlantic Fleet squadrons based on the East Coast of the U.S. On these exchanges, Moffett squadrons may be deployed to Iceland and European bases.

Moffett Field itself now occupies 2400 acres of land at the south end of San Francisco Bay, adjacent to the NASA Ames Aeronautical laboratory and the Lockheed Sunnyvale missile plant. The base includes two parallel runways, one 8120' long and the other 9200' long. Both are 200' wide. The base is generally open to the public once a year for either open house or a major airshow. During these openings, from 150,000 to 300,000 local residents visit the base. Moffett currently employs 5000 military and 1500 civilian personnel.



1 Birth of a giant: Hangar One under construction in 1932. This structure is 1133 feet long, 308 feet wide, and 198 feet high. Only the Goodyear Airship hangar in Akron, Ohio, is larger (1175' x 325' x 200'). Covering eight acres, the hangar was originally sheathed in redwood and asbestos felt; this covering was replaced in the 1950s by corrugated aluminum.

(US Navy via PIO, Moffett)

2 Aircraft of the USS *Saratoga's* air groups in Hangar One, July 1935. Types shown (front to rear) include VF-6s F4B-4s; VB-2s BFC-2s; an FF-1; VS-2s SU-4s; and VT-2s TG-2s. Hangar interior walls are laced with catwalks (for airship servicing) and an elevator. Hangar walls have hinged joints at foundation, as well as one where steelwork intersects at crest of arch. This arrangement permits movement under high windloads and earthquakes.

(US Navy via PIO, Moffett)

3 Blimp being inflated in Hangar One during World War II. Base of hangar walls contained offices, classrooms, inspection laboratories and maintenance shops. Helium could be valved directly to a number of "filling stations" in hangar floor.

(National Archives 80-G-26257)

4 Free-flight training balloons being readied. Balloons were used to train blimp crews in balloon inflation and deflation, valving of gas, aerodynamics, and free-flight navigation. Many local flights often ended up amidst orchards in the Santa Clara Valley, when crews would occasionally partake of ripe crops.

(U.S. Navy via PIO, Moffett)

5 USS *Macon* (ZRS-5) at NAS Sunnyvale, February 1934. The nose of the 785'-long airship is tethered to a mooring mast; her lower tailfin is attached to a stern beam (car) on railroad tracks on the mooring outcircle. This arrangement allowed the dirigible to land or take off into the wind, then be moved into Hangar One. South mooring circle was used most often, to allow onlookers (on road south of field) a good view.

(US Navy via PIO, Moffett)

6 Hangars Two and Three under construction at NAS Moffett Field, May 1943. These two additional blimp hangars—built at a total cost of nearly \$4.5 million—were made of fire-resistant wood, as steel was at a premium during the war. A huge "Traveler" on rails (seen in Hangar Two) was used as movable scaffolding to construct roof arch. Construction of Hangar Two began August 22, 1942; work on Hangar Three began the following November 3.

(US Navy via PIO, Moffett)

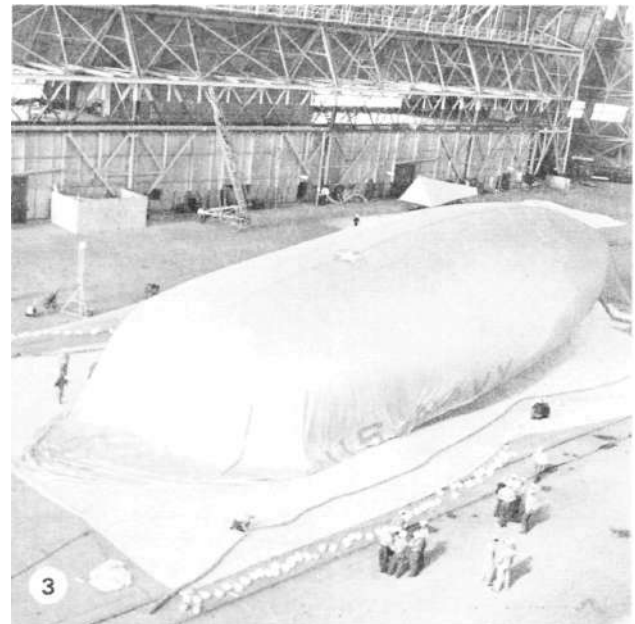
7 Work nears completion on Hangars Two and Three, July 1943, (both were ready for occupancy at the end of August). (US Navy via PIO, Moffett)

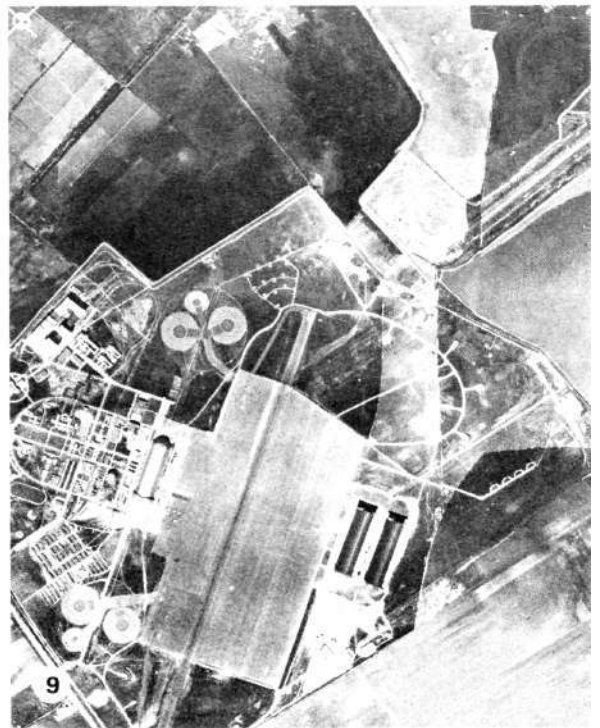
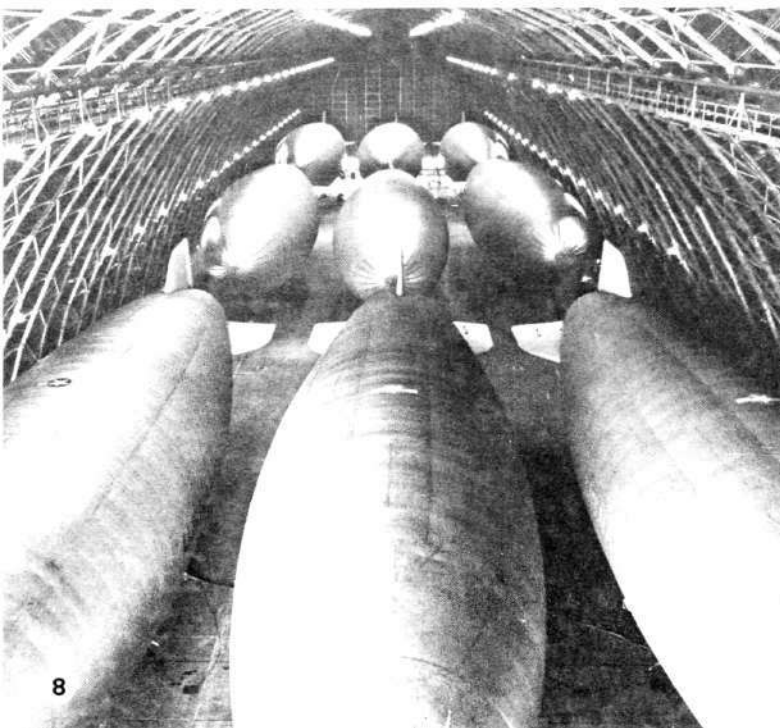
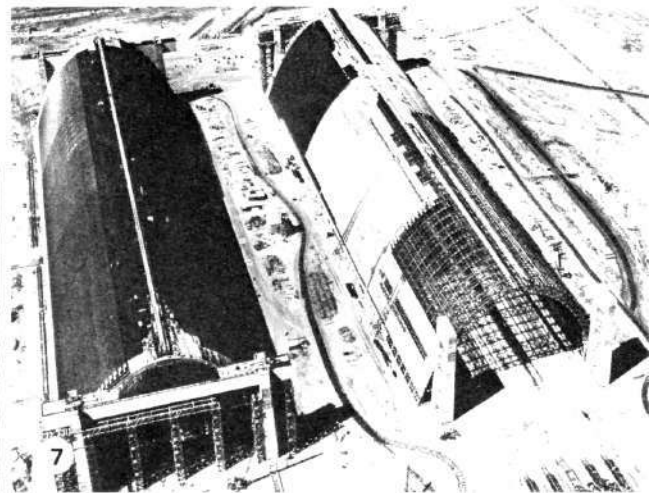
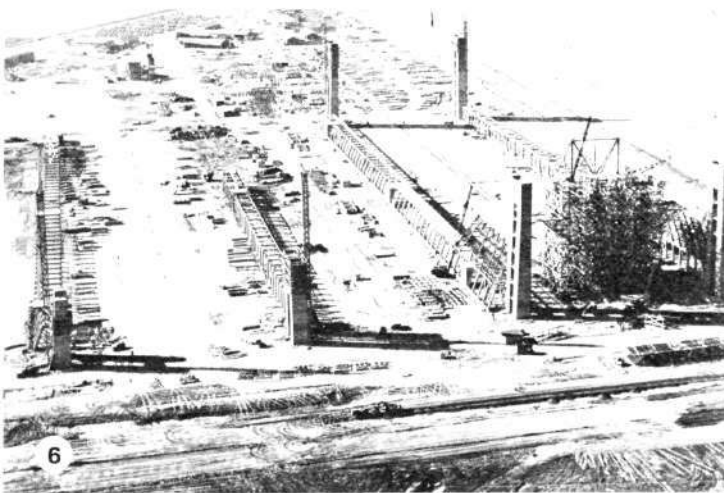
8 Nine "L"-class blimps in Hangar Two, 1943. Note wooden girders and trusses, catwalks alongside lower roof arch. Each of the new structures could house up to nine "K"-class airships, or up to 15 "L"-class ships.

(US Navy via PIO, Moffett)

9 Aerial view of Moffett in March 1944, showing fighter plane revetments (around airbase perimeter), bomb and pyrotechnics bunkers, and new hangars (Two and Three). The old dirigible mooring circles at either end of Hangar One have been repartitioned into smaller blimp handling circles, and new wooden barracks (a legacy of the Army's occupation from 1935 to 1942) to the immediate southwest of Hangar One. Also visible is 6400' long runway 32/14, large blimp launching apron between hangars, and NACA Ames Aeronautical Laboratory complex (which was established at Moffett in 1940).

(National Archives 80-G-230136)





- 1 Looking west, May 1944, showing Hangar One, aircraft parking apron, NACA Ames wind tunnel, and most of on-base buildings. "Splinter City" Army barracks were being used for classrooms at this time. Compare with similar view (looking east) taken in 1933. Construction has started (on Ames property) on a second, smaller, higher-velocity wind tunnel.

(National Archives 80-6-397658)

- 2 Original aircraft control tower at Moffett, December 1945. Two airship control towers were located at opposite ends of Hangar One; a new aircraft control tower was erected south of Hangar One in February 1954 at a cost of \$600,000. This was the first control tower constructed primarily for air controllers' use. In July 1946, a second 7500' long runway and taxiways had been opened; high-intensity approach and runway lights were installed in the spring of 1947.

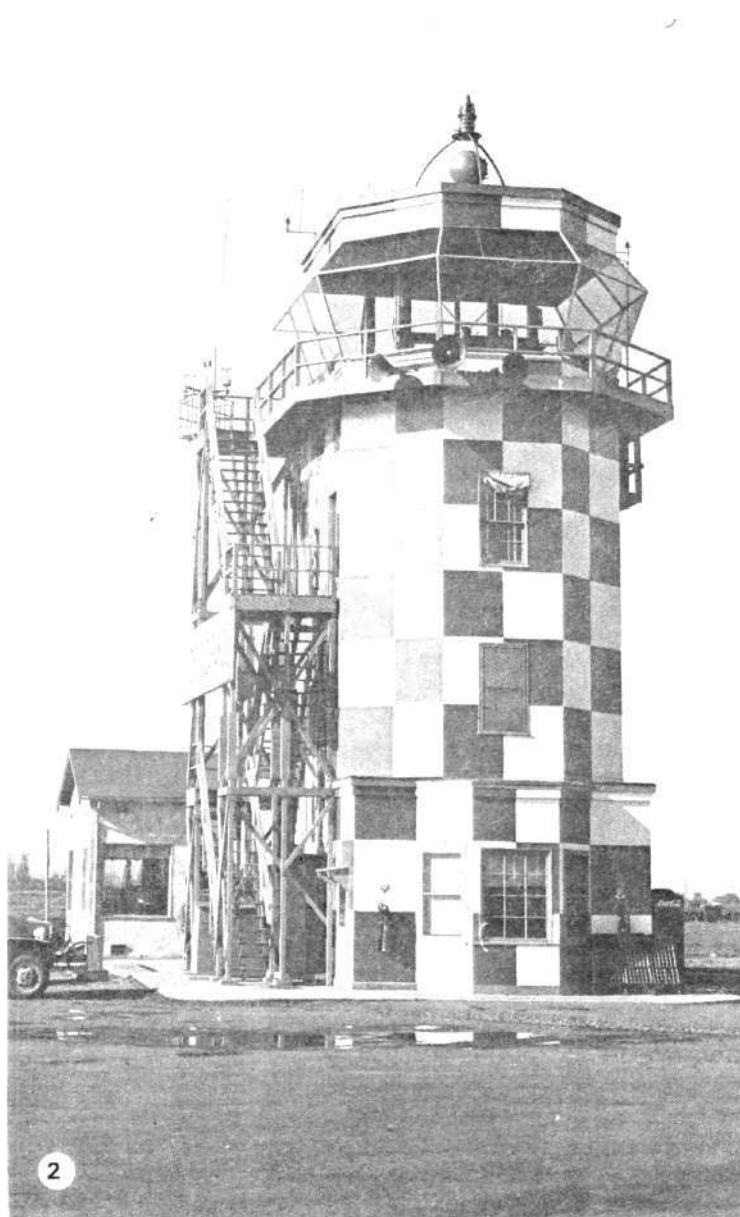
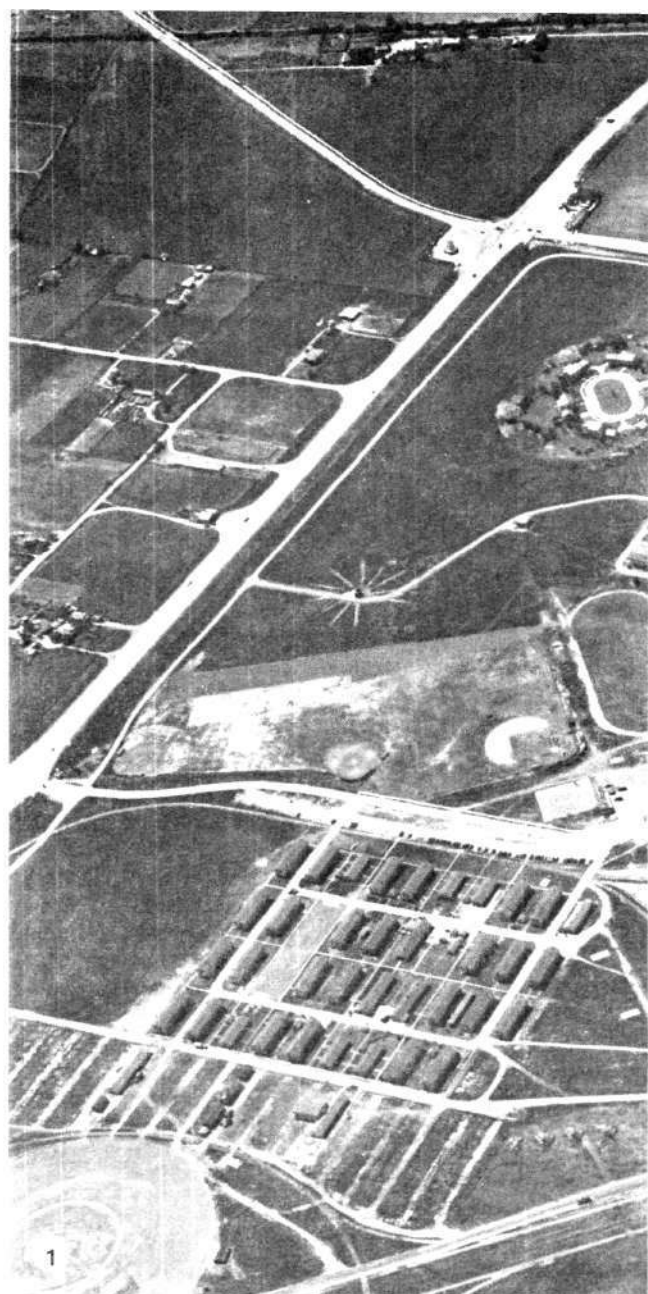
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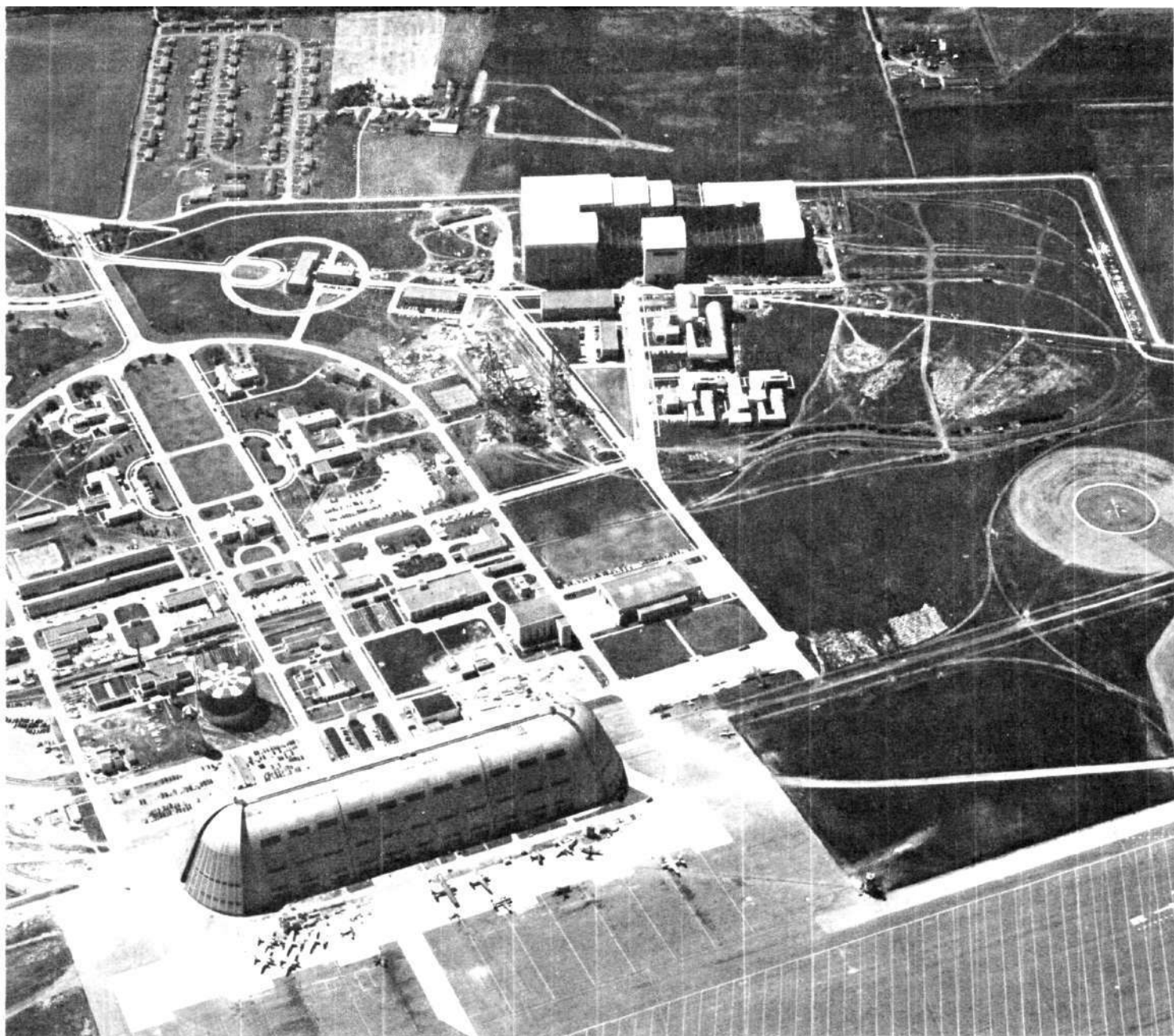
- 3 R5Ds being serviced in Hangar Three, April 1947. Moffett had begun acting as a transport base as early as November 1945; Air Transport Squadron VR-3 arrived in December 1949, and VR-5 arrived in May 1950. Squadron VR-4, which had been moved to California in November 1945, was decommissioned at Moffett in April 1950.

(National Archives 80-G-396687)

- 4 PV-1s of VB-142 on line outside Hangars Two and Three, November 1944. Heavier-than-air traffic had increased at Moffett during the war, with several patrol squadrons using the base alongside the blimp squadrons. A large number of Martin JMs (Navy B-26s) were stationed at Moffett, used as target tugs for air-to-air and ground-to-air gunnery training. Moffett was designated as a major fleet aircraft overhaul facility in 1945.

(National Archives 80-G-290944)





- 1 Lockheed P-3 of VP-31 "The Gerties" over Moffett Field, January 1976. Eight patrol squadrons are currently based at Moffett.

(US Navy via PIO, Moffett)

- 2 Another view in May 1949, looking east-northeast, showing bachelor officers' quarters, powerplant and public works department buildings. Note helium gas holder, PV-2s on field apron, and R5Ds in background adjacent to Hangars Two and Three.

(National Archives 80-G-402751)

- 3 Aerial view of base, looking north-northeast, May 1949, showing main gate, officers' quarters, and most of NACA Ames complex. Two years later, in June 1951, the largest expansion of the base since WWII at a cost of \$10,000,000 included a 1000' extension of both runways; additional parking and taxiway runup areas; a new supply department building; new transportation and repair garage buildings; and a barracks extension to accommodate an additional 550 enlisted men.

(National Archives 80-G-402750)

- 4 Aerial view looking east-northeast, 1967. Compare with identical view taken in 1933. P-3s are now based on the east side of the field; the old helium gas holder is gone; and new homes are being constructed near the main gate alongside the old officers' quarters.

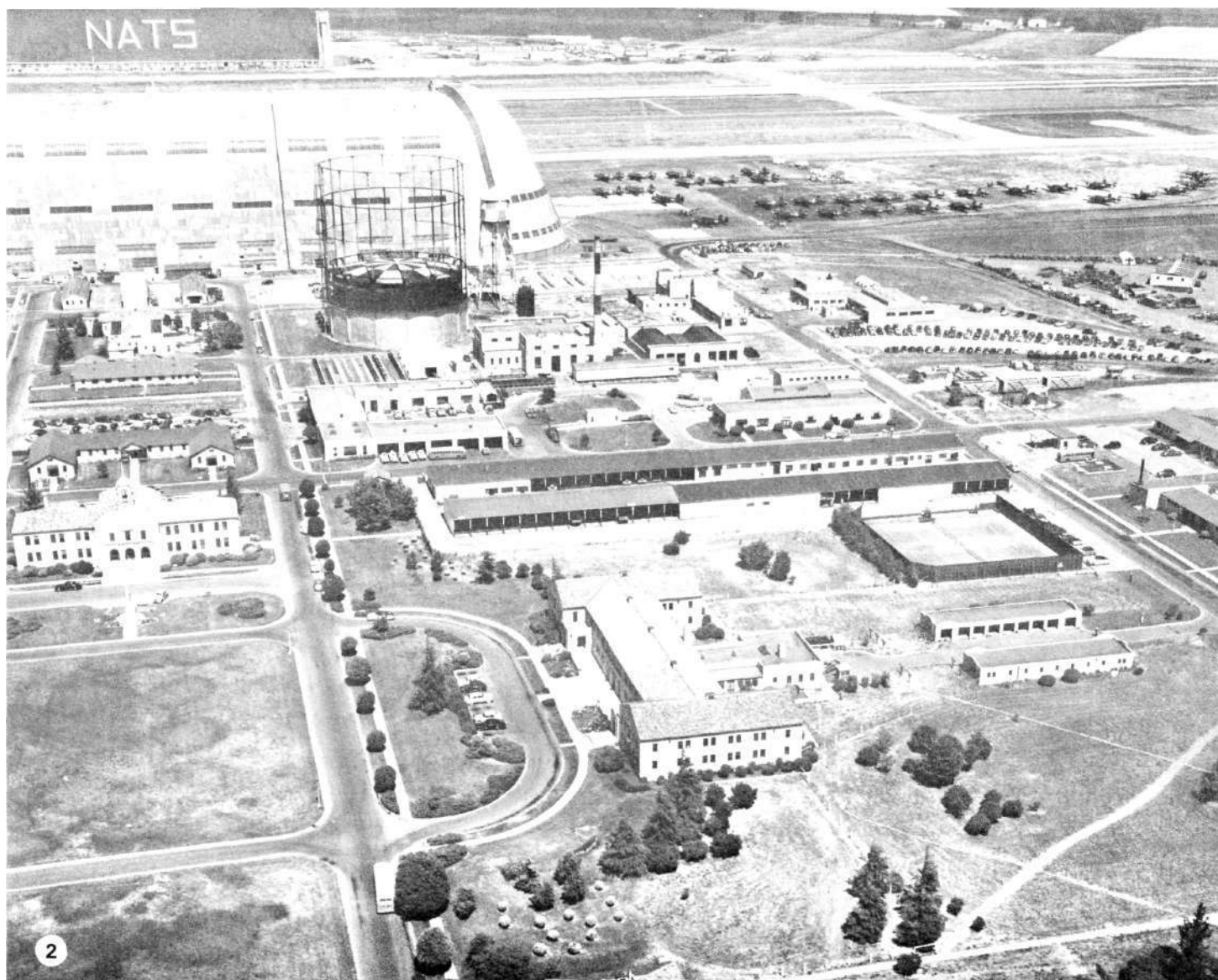
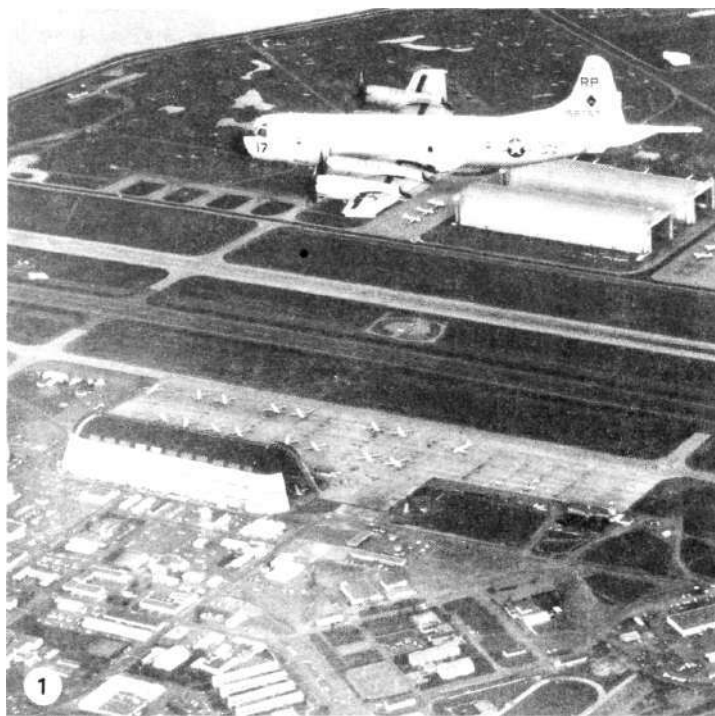
(US Navy via PIO, Moffett)

- 5 Hangar One, 1968, showing open "orange peel" doors, and P-3s on ramp and taxiway. Aircraft taxi and parking patterns are painted on the flight ramp.

(US Navy via PIO, Moffett)

- 6 p-3s on ramp south of Hangars Two and Three, 1968, showing sliding hangar doors.

(US Navy via PIO, Moffett)





ABOUT THE AUTHOR

The author, a resident of Mountain View, California, has been a close neighbor of Moffett Field since 1973. Since then, he has not missed a single open house or airshow at the base.