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UNITED STATES NAVY AND MARINE CORPS BASES, DOMESTIC

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MIRAMAR, CALIF., NAVAL AIR STATION, MASTER JET BASE. See San Diego, Calif., Naval and Marine Corps Bases.

MOFFETT FIELD, CALIF., NAVAL AIR STATION, 1931-

Naval Air Station Moffett Field is located ten miles north of San Jose, Calif., at the southern tip of San Francisco Bay. More specifically, it lies along the easternmost border of the city of Sunnyvale along Bayshore Highway, which connects San Jose and San Francisco, and the western side of the bay.

For nearly fifty years Moffett Field has witnessed at least six major periods of development, several of which are unique. These have included: 1) the initial establishment of the air station, 2) a short period of glory as home for massive lighter-than-air (LTA) dirigibles, 3) seven years as an Army Air Corps—later Army Air Forces—training base, 4) a return of small LTA blimps during the massive World War II buildup, 5) eleven years as a major naval air station during the jet era, and 6) the station's current role in which four-engine turboprop aircraft perform essentially the same ASW patrol mission for which the LTA station was established initially.

Few if any naval or military bases enjoyed the spirited competition that resulted in the ultimate selection of the Sunnyvale site. This situation arose as a result of the Navy's considerable interest in large dirigibles in the 1920s, following Germany's successful use of airships during World War I. When the Navy procured the USS *Los Angeles* and USS *Shenandoah*, it took steps to obtain a suitable West Coast base for them and for other gigantic "Dreadnoughts of the Skies."

Progress was slowed by both restrictive disarmament pacts and periodic airship accidents. The wreck of the *Shenandoah* on 3 September 1925 caused certain members of Congress to conclude that the Navy should no longer "fool with flying balloons." German transatlantic airship flights and the round-the-world flight of the *Graf Zeppelin* brought renewed American interest in LTA, however. By the late 1920s a West Coast naval dirigible base had become a virtual certainty, with a San Diego site apparently all but chosen. When news articles revealed that San Diego had already floated a bond issue to buy land for subsequent donation to the Navy, the longstanding rivalry in California flared up, with calls of "skullduggery" being voiced by northern officials. The public outcry to Washington came all the way from Puget Sound to the Tehachapis. Somewhat belatedly, the Navy finally indicated an interest in obtaining donations of a level parcel of land of "approximately 2,000 acres, which had unobstructed approaches, adequate water supply, railroad and communication connections and good flying weather." San Francisco Mayor James T. Rolph appealed publicly for such a site in the Bay area. A newly established real estate broker, Mrs. Laura Thane Whipple of nearby Niles, was quick to respond. She visited several large tracts of land near Sunnyvale. As her mother reported, Laura "just gazed and gazed and seemed to forget all surroundings." When asked what she was looking at, she replied, "An air base."

Mrs. Whipple moved rapidly and soon had not only price options in her name on 1,750 acres of the Unigo Rancho but considerable support from the San Jose Chamber of Commerce. She sent a telegram to both San Jose's congressman and San Francisco's congresswomen reporting that she had found "the perfect site for a dirigible base." Uncertain how to sign this message, she simply appointed herself "Chairman of the Landholders Commission." All seemed to go well, and soon all Bay area chambers of commerce were backing her proposal. Meanwhile Rear Adm. Joseph M. Reeves, of the Navy's General Board, stated during an inspection visit that a "donated site, unless technically impracticable, will be regarded more favorably than the site for which the government would have to pay full value." If San Diego could buy a site and donate it to the Navy, why not San Francisco and San Jose? Despite the depression, group and individual subscriptions promptly raised the \$475,659 required to purchase this land. Despite its belated start, northern California was now ready to do battle with its southern neighbors.

Meanwhile the Navy finally announced its plans and gained congressional permission to obtain and construct such a base. The clear intent of both the General Board and of the Secretary of the Navy, Charles F. Adams, was to select the site in the Los Angeles-San Diego area. Once more telegrams and letters flooded into the nation's capital. Overwhelming support from the states of Washington, Oregon, and from northern California caused the secretary to modify his instructions; now he wanted the General Board to investigate all suitable West Coast base sites. Ultimately some ninety-four locations were considered and forty-two of them were actually inspected. Eight primary contenders emerged. The real battle, however, remained between Sunnyvale and Camp Kearney near San Diego. Despite all northern California efforts, the General Board stood by its original Camp Kearney choice. So did the secretary, although he admitted that either site would be "satisfactory." Consequently, El Centro's congressman introduced H.R. 6808 calling for Camp Kearney, while on the same day San Jose's congressman introduced a similar bill calling for Sunnyvale. With the secretary absent, his assistant recommended that either bill be enacted. Accordingly, the House Naval Affairs Committee took on the decision itself, and convened hearings on 14 May 1930. More than 500 pages of testimony was heard, and voluminous briefs were filed by both sides. The decision was postponed for six months for further study and visits, but a majority of the committee appeared to favor Sunnyvale. Finally, on 18 December, the long fight ended in a compromise: Sunnyvale would be an airship base and Camp Kearney an auxiliary base (it later became Miramar Naval Air Station [q.v.]).

There was jubilation in Santa Clara County. Schools closed for the day, and a spontaneous parade of automobiles drove through area towns and communities. For nearly three years the cities of San Francisco, Alameda, San Mateo, and others in Santa Clara county had worked together for mutual good. On 20 February 1931 President Herbert Hoover signed the bill authorizing the Navy to accept title effective 2 August to 1,000 acres of farmland for a dirigible base

for the sum of one dollar. Construction began in October to convert the acquired farmland into a modern LTA base.

Predictions of regional prosperity proved accurate. Initial construction alone provided 500 depression-era jobs for two years. And once the air station opened, its payroll made a significant contribution to the area—a contribution that continues today. Perhaps the greatest long-term economic significance took place in 1939, however, when Ames Aeronautical Laboratory was established at the station. Subsequent postwar developments brought many aerospace firms to this area, such as Lockheed Missiles and Space Co., the producers of *Polaris* and *Poseidon* fleet ballistic missiles. This aerospace growth helped spawn additional area interest in electronics, and the region is now known as Silicon Valley—an international center for all manner of semiconductor, solid state, and electronic components and products.

It was no wonder that 28 September 1962 was declared to be “Laura Whipple Day” by NAS Moffett Field. That pioneering woman became an honorary naval aviator complete with gold wings and a pilot’s card. A month later the commanding officer told the Santa Clara Valley Chapter of the Navy League of the United States that “the secret formula for good community relations for a military installation appears to be for the community to fight for the establishment of the base at the outset and then donate the site.”

Construction of this new airfield also represented a considerable technological challenge for the period. Specifically required was the gigantic “Hangar One” to house the Navy’s second giant dirigible, the USS *Macon*, being built by the Goodyear Zeppelin Company in Akron, Ohio. Nearly half the almost \$5 million authorized for base construction was allocated to this objective. Also required were a massive mooring mast, helium storage units, railroad tracks to help move the massive dirigibles, and gas cell storage and repair shops in addition to laundry and refrigeration plants, storehouses, officers’ quarters, barracks, and miscellaneous station equipment. Ultimately, the primary hangar was 1,133 feet long, 308 feet wide, and 198 feet high. Its spectacular “orange peel” doors weighed 600 tons each. Placed on tracks, they are controlled electrically. The mooring mast—developed by naval engineers at Lakehurst, N.J.—was a 76-foot-high triangular pyramid of steel weighing 115 tons. The helium storage tank had a capacity of 2,077,000 cubic feet. NAS Sunnyvale was one of only three helium storage activities in the nation.

On 8 August 1931, only a week after the Navy took title to NAS Sunnyvale, Mrs. Herbert Hoover christened the ZRS-4, the *Akron*. Designed to be the largest, safest, and fastest airship ever built, its maximum speed was 83 mph. Fully loaded, it could cruise nearly 11,000 land miles at 60 mph. It could communicate over fully a third of the globe. She was manned by a crew of twelve officers and forty-five enlisted men. Her primary mission, like that of the *Macon*, which was still under construction, was to serve the fleet as a scout cruiser. She could also serve as a convoy escort, to bombard enemy territory or ships, protect US lines of communication, disrupt enemy communications, and

destroy enemy commerce. On 15 May 1932 this giant visited the uncompleted NAS Sunnyvale, attracting well over 200,000 civilian observers. Crowds of 20,000 to 30,000 visited her each day during the next two-and-a-half months of this visit by the “Queen of the Skies.”

In March 1933 the *Macon* was christened by the wife of Rear Adm. William A. Moffett, Chief of the Bureau of Aeronautics, a longtime champion of LTA and a supporter of Sunnyvale as a site for the Navy’s West Coast LTA facility. Only two weeks later, however, on 4 April 1933, just eight days before NAS Sunnyvale was commissioned, the *Akron* was lost in the Atlantic and seventy-three of her seventy-six officers and men were killed. The loss of this craft and her skilled crew was a terrible blow to the Navy’s LTA efforts, but even more disastrous was the death of Rear Admiral Moffett, who had been aboard at the time as an observer. On 13 May 1933, effective 1 June, Secretary of the Navy Claude A. Swanson issued General Order No. 50 designating the landing field at NAS Sunnyvale as Moffett Field.

By 16 October the San Francisco area had recovered sufficiently from the loss of the *Akron* to give a tumultuous welcome to the *Macon*. She hove in view about 1300 after a seventy-hour cruise from Lakehurst. Measuring 785 feet in length and 146 feet in height, she was indeed an impressive sight. The fact that aviation was in its ascendancy and that she was able to launch and recover aircraft added further to her glamour. While the large dirigibles took most of the bows, there were other LTA craft that also performed vital missions. These craft ranged from spherical balloons to cigar-shaped blimps, both nonrigid. Instead of being buoyed by individual gas cells, as were their larger sisters, they floated merely by having their entire bag inflated with helium.

For almost two years the *Macon* performed outstandingly in all kinds of operations. As an official Navy history states,

The period from October 1933, to February 1935 was one of breathtaking activity for the Naval Air Station and the people connect (*sic*) with it. The residents of Santa Clara Valley were aware that their Air Station was the home of the greatest behemoth of the skies. Their pride and sense of proprietorship was understandable and one which they merited.

However, far more suddenly than it began, this dramatic phase of American aviation ended on 12 February 1935 when the *Macon*, while engaged in fleet exercises near Point Sur, encountered a line squall. While she had weathered far heavier storms previously, unaccountably her fabric-covered steel frame began to crumble. One crewman in the stern section reported the top fin and a portion of the envelope had torn loose. The captain, one of three survivors of the *Akron*, tried valiantly to bring the crippled giant back to the NAS. After an hour and a half, however, the ship slowly disintegrated into the sea. Her crew of eighty-three, including a few survivors of the *Shenandoah* and *Akron* disasters, dived into the sea or shinned down lines onto life rafts hurriedly flung from the airship. Only two lives were lost.

Hangar One now stood empty save for a few nonrigid LTA craft. President F. D. Roosevelt stated that he did not recommend further expenditures on LTA at the time. Obviously the Navy had no further need for an exclusive LTA facility. After giving brief consideration to expanding the field for use by squadrons from the aircraft carrier *Saratoga*, the Department of the Navy vetoed the idea. Eight months after the loss of the *Macon*, Moffett Field was reassigned to the U.S. Army Air Corps on 25 October 1935.

Army control brought to Moffett the Eighty-second Observation Squadron and the Ninth Air Base Material Squadron with ten observation planes and the TC-13, the Army's only LTA craft. Some one hundred officers and a thousand enlisted men accompanied their aircraft. Among them was Hollywood actor Jimmy Stewart, later a brigadier general in the Air Force Reserve. In 1938 five pursuit squadrons were added (the Nineteenth and Twentieth Air Groups), bringing the complement to three hundred officers and 5,000 men. Eventually the Army made the station the headquarters of its West Coast Air Force Training Center. During this period the Ames Aeronautical Laboratory, with its high-speed wind tunnel, now part of the National Aeronautics and Space Administration, was also established at Moffett.

In December 1941 the Japanese attack on Pearl Harbor concentrated attention on Moffett Field as a site for airships to protect our Pacific Coast from enemy submarines. The army endeavored to retain control, but even while it was negotiating with the Navy, the latter commissioned its first LTA squadron (ZP-32) in January 1942 and based it at Moffett. This squadron thus launched the first LTA patrol flight on the Pacific Coast during World War II. By 16 April 1942 the Navy's view had prevailed and U.S. Naval Air Station, Moffett Field, was reborn. Coincidentally, the duty officer at her first commissioning, Lt. D. M. Mackey, was now her new commanding officer.

The war years saw much activity at Moffett. An extensive LTA training program for aviation cadets and enlisted personnel was initiated in June 1942. Also, the station was soon assembling both L-type and K-type LTA craft procured from Goodyear. By August 1943 Moffett began specializing in primary LTA training while Lakehurst handled advanced training.

There was also considerable activity in addition to LTA. New wooden hangars, Nos. 2 and 3, were begun in the fall of 1942 to assist these endeavors. In January 1944 training classes were begun for LTA crews to recognize, identify, and report schools of fish, thereby both saving time for fishermen and increasing the nation's food supply. By mid-1944 LTA activity had reached the point where the station was designated a joint LTA/HTA facility. By January 1945 Moffett was designated a major overhaul facility. In April Naval Air Transport Squadron VR-4 was based at Moffett, flying the then huge R5-Ds. By May 1946 the first B-29 had landed there, and HTA began to overtake LTA in NAS activity. By the time blimp K-99 had been dunked off Cape Mendocino in July 1947—without loss of life—the LTA era had ended. By 27 August the last blimp was deflated, and LTA had completed its final chapter at Moffett. In March 1948

the NAS was designated a helicopter overhaul and repair base. There followed the commissioning of the first atomic weapon squadron in the Navy, in September, and of VC-3 in October.

Changes were many in the early postwar years. While the Naval Air Transport Service (NATS) was closed in October 1949, it was followed closely in December by VR-3, the first Military Air Transportation Squadron to be based at Moffett. When VR-5 arrived in 1950, Moffett became the West Coast's largest naval air transportation base. Moffett was also designated as the first of nine all-weather naval air stations in February 1950.

After the Korean War began in June 1950, Moffett was rapidly equipped to serve as home base for fighters that would fly from the decks of carriers based in the Pacific. The jet era began in December 1950 with the arrival of an F3-D for Squadron VC-3. This was the first jet night fighter in any American military service. Jets brought about a major expansion of the base. Both runways were extended by a thousand feet, and many new facilities were constructed. Fleet aircraft service squadrons and carrier air groups were commissioned, as was Detachment B of the Fleet Air Wing Training Unit Pacific. By November 1953 Moffett had become the first of nine Master Jet Bases. The following month a deep-water canal, dock, and pipeline system were completed. Also in 1954 an auxiliary landing field was reopened at Crows Landing, some fifty-four miles to the east. This same year national attention again focused on Moffett in August, as POGO (XFY-1), a radically new "vertical take-off" aircraft made its first "free" flight while tethered to steel cables inside huge Hangar One. In addition, a new high-speed refueling system that could handle as many as eight aircraft simultaneously was completed in October 1956, and the supersonic era began at Moffett in the spring of 1957 with the arrival of the F-11F and F8-U. However, the combination of crowded skies, jet noise, and the area's increasing population caused the Navy to transfer aircraft to NAS Miramar (q.v.) and build a new air station at Lemoore (q.v.) to be used exclusively by jet aircraft. With the commissioning of NAS Lemoore on 8 July 1961, another proud era at Moffett Field ended.

When its attack squadrons were transferred in November 1962, it appeared to many that Moffett was again headed for oblivion. Word soon arrived, however, that Moffett was to introduce on the West Coast the Navy's newest, fastest, and most effective hunter-killer patrol aircraft, the P-3A *Orion*. Thus in January 1963 Moffett added two more landmarks: its first admiral and its first fleet command (Commander Fleet Air Wings Pacific). Consequently it became headquarters for all P-3 operations, all West Coast ASW operations, and administrative headquarters for ASW throughout the Pacific. By the mid-1970s nine patrol squadrons, including one manned by naval air Reservists, were based at Moffett, with Early Air Warning Squadron 8 and Fleet Airwing 10 involved in the Vietnam Market Time operation. Patrol Wing 10 was reestablished on 1 June 1981 to exercise direct operational control over the seven operational squadrons and the Antisubmarine Operational Center there. Commander Patrol Wings Pa-

cific has the awesome responsibility of patrolling eight-three million miles of ocean, from Alaska down the West Coast of the United States, out to Hawaii, and across to the Philippines, Okinawa, and Japan.

Moffett thus currently carries out its dual missions of training and operations support for the versatile and technologically improved P-3C and as master base for patrol plane aviation in the Pacific. Hangar One, built in 1933, has been declared a naval historic site and now displays a plaque reading, "Hangar 1, built in 1933, home of the U.S. Navy dirigible *Macon* until the *Macon's* tragic loss off Pt. Sur, California in 1935. The hangar is 1,000 feet long, 200 feet high and 300 feet wide."

NAS Moffett continues to serve the nation as a tribute to the operational and technological aviation pioneers of her past. Rather than remaining static, it has adjusted to each new era with admirable adaptability. While its commanding officer reported in public articles in 1982 that today's neighboring community of Mountain View does not offer the Navy the same quality of good neighborliness that brought the air station to the area initially, the role of government vis-à-vis its citizenry has also undergone major change during the more than five decades since the establishment of Moffett Field. In view of the dramatic changes NAS Moffett Field has weathered, it appears well-equipped to participate fully in whatever the future may bring.

BIBLIOGRAPHY

A. W. M. Richman, "The Establishment of the United States Naval Air Station, Moffett Field" (Sunnyvale, Calif.: NAS/Moffett Field, 1964, typescript), and "History of NAS Moffett Field" (Sunnyvale: NAS/Moffett Field, 1964, typescript); "Command History for 1983," Naval Air Reserve Center Moffett, Naval Air Station (Washington, D.C., Navy Yard: Naval Aviation History Office).

B. Spencer Gleason, *Moffett Field: From Lighter-Than-Air to Faster-Than-Sound* (San Jose, Calif., Globe Printing Co., 1958).

DAVID L. WOODS

MOJAVE, CALIF., MARINE CORPS AIR STATION, 1942-1947

Early in March 1942 a letter of intent called for building two Marine Corps air stations in California, one at El Centro (q.v.), the other at Mojave. Each station was to be operational, accommodating one carrier replacement group of about eighty planes. On 5 May Lt. Col. William Fox was designated the Navy representative on a site selection committee to serve jointly with Army and Civil Aeronautics Administration (CAA) representatives to survey southern California and report adequate sites to the Interdepartmental Air Traffic Control Board. About 175 miles slightly northeast of Los Angeles, a few miles north of Needles, and in the shadow of the Tehachapi Mountains was the Kern County Municipal Airport. The airport also lay just east of Mojave City. An emergency landing strip had just been built on a property including 2,311.879 acres. Involved were two 4,500-by-150-foot runways, 50-foot taxiways, a small concrete platform, tetrahedron, and code-beacon tower—all leased from the CAA. Although the

Council of Kern County worried about how the Marines would use the airport and the impact it would have on their community, they not only offered no impediment to the acquisition of their airport but were willing to lease additional county land for \$1 a year.

Pursuant to authority of the acts of Congress of 27 March and 28 April 1942, on 3 October 1942 Acting Secretary of the Navy James V. Forrestal selected for acquisition in fee simple 1,546.20 acres of land for the amount of \$12,435. Meanwhile, beginning on 1 July 1942, construction at Mojave had begun by Vinson & Pringle and Del E. Webb Construction Co. While the first buildings were living quarters and a mess hall, final plans called for ninety buildings, three runways, and other needed facilities. Lt. Col. John S. Holmberg, USMC, arrived on board on 6 October to organize the station. He was soon followed by various other officers and men, and on 1 January 1943 Holmberg placed the station in commission. On board at the time were a scout bombing squadron and a defense air group. By 23 January all departments were operating on a twenty-four-hour schedule with half of all personnel being aboard at all times. The first Marine Air Reserve Women arrived on 29 November 1943. With the continued growth of the station, early in January 1944 a Homoja Village—one comprised of quonset huts—was built to improve the housing situation. As for combat aircraft squadrons, these included fighters and bombers, as well as observation, defense, air warning, and torpedo craft, with thirty-two squadrons under training after 1 January 1943. By early 1944 all tactical squadrons aboard were fighter squadrons flying the F4F *Wildcat*. In February 1944 work began on widening the runways from 150 to 350 feet and on a new taxiway that generally bisected the triangular layout of the runways. With the Aviation Woman Reserve Squadron activated on 10 April, including 14 officers and 233 women, still further construction took place to complete the squadron area. This work cost an additional \$693,720. Whereas early service-type aircraft included a Brewster SB-2a-4, in August 1944 Mojave received its first transport utility type plane, a JRB Beech. On 10 September Marine Air Group-52, comprised of a Headquarters Squadron and Fighter Squadrons 511 and 512 and Observation Squadron 351, came on board. Soon thereafter training for both Army and Navy men commenced in an amphibious training program in which solutions were sought to air-ground support problems. On 31 May 1945 Col. Frank D. Weir, commanding Marine Air Support Group-51, departed for Santa Barbara (q.v.) to set up group headquarters at that station.

The selection of the Mojave site had been wise. More flights could be put up there with one MAG than two groups at the MCASs at El Toro (q.v.) and Santa Barbara, in part because only occasional strong winds hit the station. Designed originally to accommodate one MAG and approximately 1,800 men and 200 officers, MCAS Mojave reached its peak in personnel when two MAGS and an air warning squadron were attached to the base in addition to the Headquarters Squadron and the Women's Squadron. Moreover, rather than improve upon the runways of the Kern County Airport, three completely new hard-surfaced run-