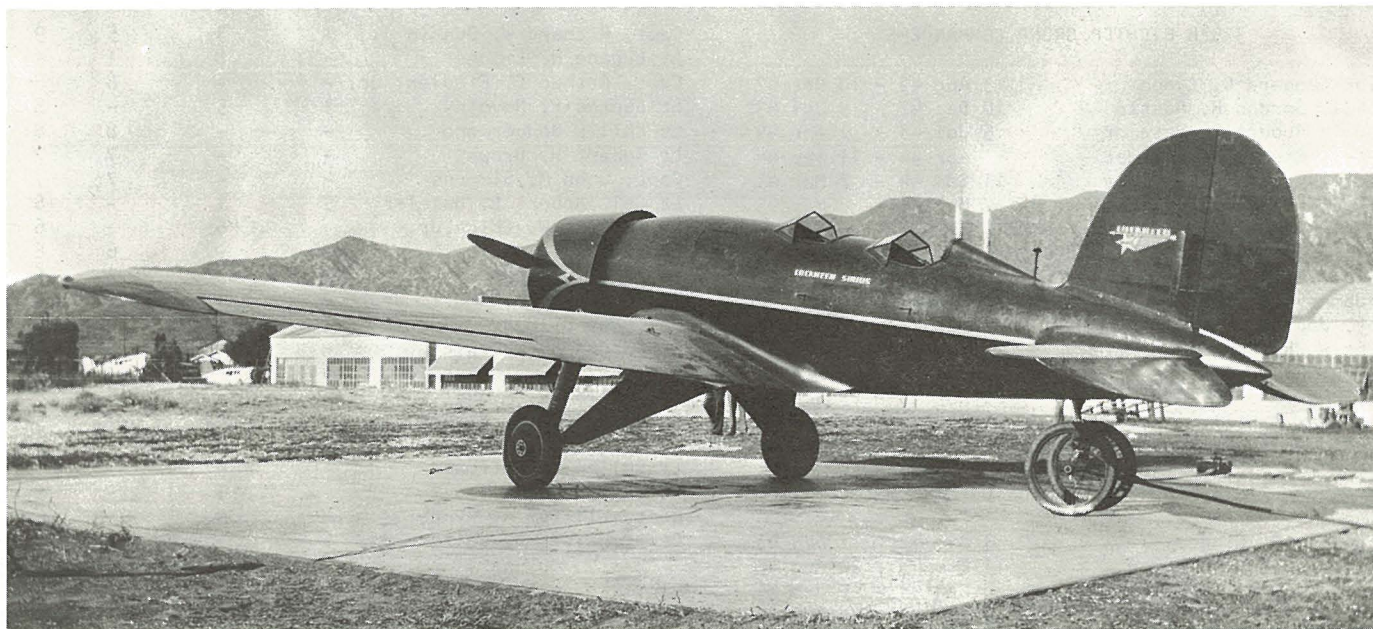




Col. Charles A. Lindbergh's Lockheed Sirius, c/n 140, NR-211, shortly after completion at the Burbank factory in late 1929. Earliest form of block-lettered name on fuselage and outriggers on rudder. (Photo - Lockheed Aircraft Corp.)

# The Lockheed Sirius

By RICHARD SANDERS ALLEN

Late in 1929, the Lockheed Aircraft Corporation developed a new plane which was to capture both the admiration and imagination of an air-minded America. This was the Sirius, the second model of the Lockheed line to bear the name of a brilliant star.

Designed by the gifted Gerald F. Vultee, the Sirius was evolved from a basic low-wing configuration first conceived in 1928 by Lockheed's original chief engineer, John K. Northrop. Using the same patented plywood monocoque construction with which the firm's famous Vegas were built, the Sirius used the identical mold, but had the fuselage cut away to accommodate a cantilever wing at the bottom, rather than the top. No external bracing marred the smooth clean lines of the plane, which were enhanced by an N.A.C.A. cowling and teardrop wheel pants.

Even if the Sirius had been an ugly aircraft, its fame would have been assured, since the man who conferred with Jerry Vultee and arranged to have the first one built, was the world's most famous aviator, Col. Charles A. Lindbergh. The prototype was hardly announced and test flown before Lockheed had orders for half a dozen of the new planes. "If Lindbergh wants one, it must be good", seemed to be the general opinion.

At the hands of Colonel Lindbergh and other competent pilots, the Sirius did prove itself as a fast personal transport plane. Its sleek good looks became firmly implanted in public consciousness as an example of what an airplane of the times should look like. Even after 35 years, its appearance is surprisingly modern.

Though one of the most publicized Lockheed airplanes, the Sirius was paradoxically one of the company's least successful models. This was due to a number of factors, the foremost being that its introduction coincided with the Great Market Crash of 1929. Not only prospective buyers, but Lockheed itself suffered in the ensuing financial crisis. Though it was producing fine aircraft,

the company was soon to be bankrupt, and barely survived the "payless pay days".

Over a ten-month period (October 1929 to July 1930), the California factory built 14 of the low-wing Sirius models, all with the regular wooden fuselages. In August a fifteenth and final example was fabricated and assembled with a duralumin fuselage, under the direction of Detroit Aircraft Corp. (Lockheed's holding company) in Detroit, Michigan.

An early advertisement offered the plane as a "Low-Wing Mail Ship", claiming that "it offers passenger, mail and express airline operators a low wing commercial plane that is easy to fly and which has a quick take-off and a surprisingly slow landing speed." Plans were made to fit the Sirius "with a four to six-place cabin, entered by a door over the wing", or with "a large capacity baggage compartment" or "other convertible features on special order."

Early in 1930, customers for a low-wing mail plane were exceedingly scarce, particularly one with a price tag of \$18,985. But there were sales possibilities in the plane as a personal transport, and Lockheed proceeded to put a number of Sirius demonstrators at the disposal of potential buyers. Two of these were destroyed in crashes during a disastrous two weeks in April 1930. Three more demonstration aircraft flew for many months before being given the newly-developed retractable landing-gear and converted to the Altair model configuration.

Col. Lindbergh's was by far the best-known Sirius, famed as both transcontinental record-breaker and ocean-hopping survey plane. Others in the series had their achievements overshadowed by the flights of the prototype. Among them are numbered the "Justice for Hungary", prize-winning Atlantic flight plane of Magyar and Endres, Roberto Fierro's "Anahuac" which made the first non-stop flight from New York to Mexico City, and Lt Antonio

Menendez' "4 de Septiembre" which pioneered the air route between Cuba and Spain.

Lockheed's low-wing speedster was also the envied personal plane flown at various times by well-to-do sports flyers such as Casey Lambert, Joan Shankle, Walter Blumenthal and Bernarr Macfadden. On the more mundane, but still colorful tasks, the Sirius advertised the petroleum products of Shell and Texaco, photographed news events for Paramount, and toted the U. S. mail for Delta Air Lines.

Previous to the introduction of the Lockheed Sirius, American aircraft manufacturers had shied away from the low-wing monoplane configuration. With every move of Lindbergh's plane on the front pages, however, the advantages of operation became apparent. The Sirius may be said to have influenced design trends slowly leading to more successful transport aircraft such as Lockheed's Orion and Electra, Northrop's Delta and Gamma, Boeing's 247D and Douglas' DC-2 and DC-3, to say nothing of similar European low-wing aircraft.

The Lockheed Sirius was a glamorous airplane exemplifying an exciting and eventful period. Its outline as land and/or seaplane was recognized immediately by both pilots and the man in the street. As a pace-setter, its impact on American aviation far exceeded the relatively small number built.

An account of each airplane follows:

c/n 140 NR 211 Sirius 8 (later Sirius 8 Special as seaplane)

Mfg Oct-Nov, 1929 A.T.C. None (later #300)

Orig. Eng. P&W Wasp 450 hp #2099

2nd Eng. Wright Cyclone 575 hp #13461 (1930)

3rd Eng. Wright Cyclone 710 hp #21256 (1933)

How the original Lockheed Sirius came to be is perhaps best told in the words of Charles A. Lindbergh, who recalls:

"I wanted to obtain a low-wing, long range plane for my survey flying (low-wing for safety in a forced landing, wider wheel spread, quicker take-off from rough fields, better vision in airport traffic, etc.). Nothing of this kind was being built in the United States.

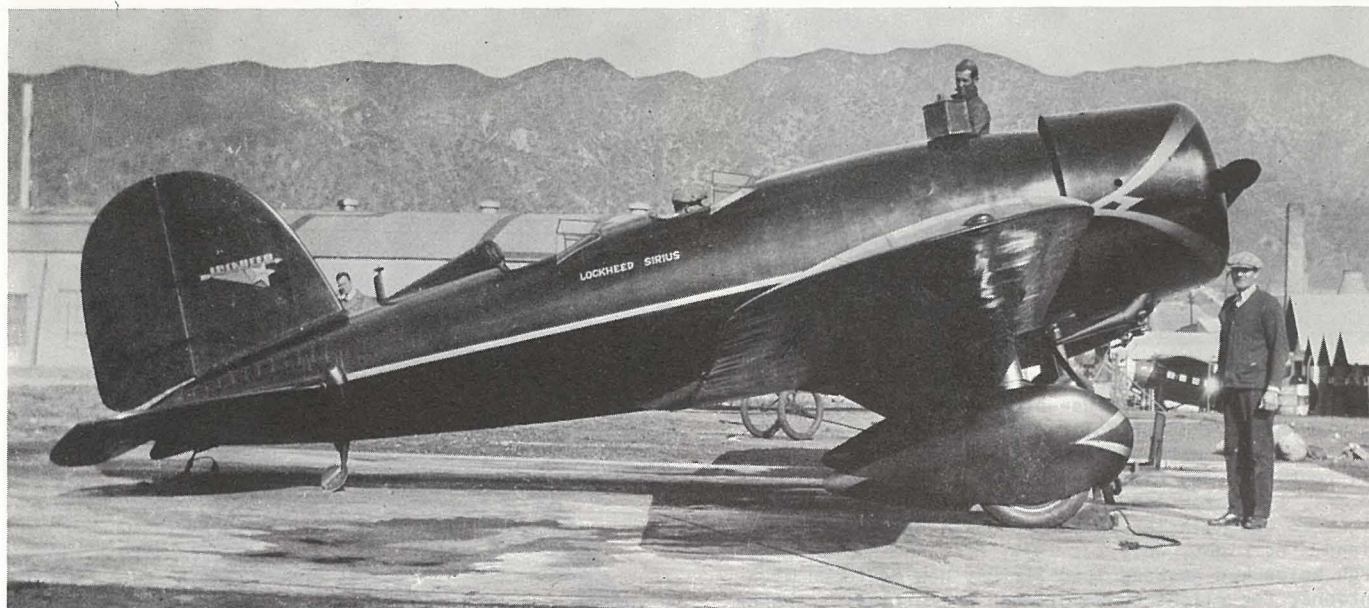
"I met Jerry Vultee at the Cleveland National Air Races in 1929. I had flown Lockheed Vegas and liked them. Vultee and I discussed low-wing types - advantages and disadvantages. I offered to buy a low-wing Lockheed at the price of a standard Vega (\$17,825.00),

and the deal was concluded on this basis. All the engineering and tooling costs of the new type were to be born by Lockheed and written off on hoped-for future orders."

For the little California aircraft factory an order from such a prominent customer was both a burden and a challenge. This new plane, put together and flown in what was bound to be the harsh light of global publicity, could not afford to be a failure.

Jerry Vultee had the advantage of previously designing two somewhat similar low-wing Lockheeds. The first was Harold Bromley's original "City of Tacoma", evolved in turn from an unfinished "Explorer" model devised by Jack Northrop. Wrecked and rebuilt, the "City" had been virtually destroyed again in a test hop accident September 18, 1929.

For Colonel Lindbergh's low-wing Lockheed, Vultee made a number of modifications on the basic Explorer design. Notable were the addition of wheel pants, another



By end of 1929, c/n 140, still under development, had pants, new block lettered name and improved rudder design. (LAC)

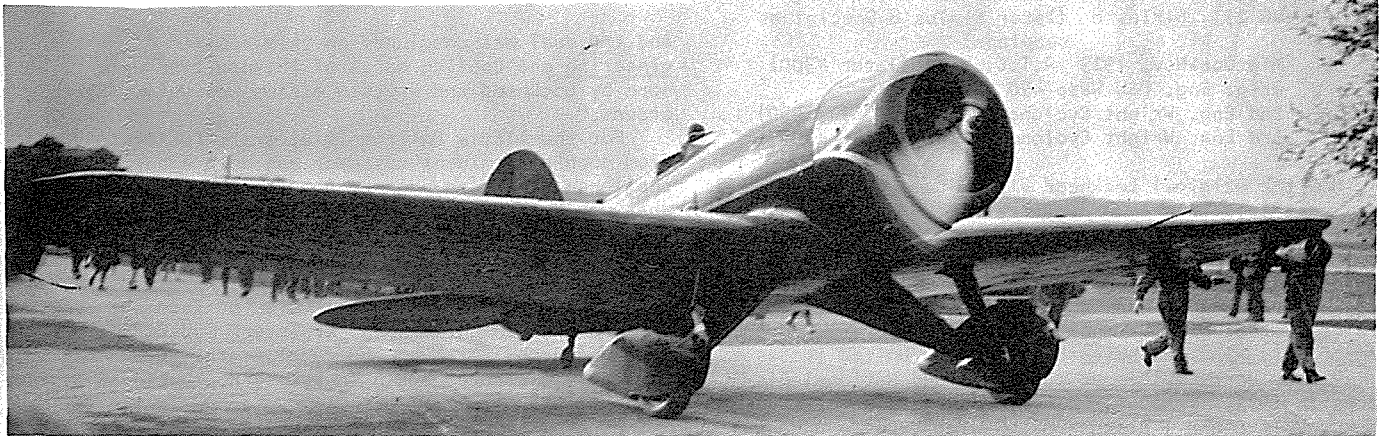
red-orange aircraft. Col. Lindbergh first saw the plane on November 17th, and after his first ride is quoted as commenting on the "beautiful stability and responsive controls". He of course made many proving flights in the plane, and experimented with minor modifications. Mrs. Lindbergh made the suggestion which resulted in a sliding canopy being devised to cover both open cockpits.

Charles Lindbergh further recalls:

"I had ordered a retracting landing gear for the Sirius, and a wing with this gear was completed...(in April, 1930). But the gear looked to me so wobbly that I did not want to attempt a heavy-load take-off on it, and left it at Burbank for further development."

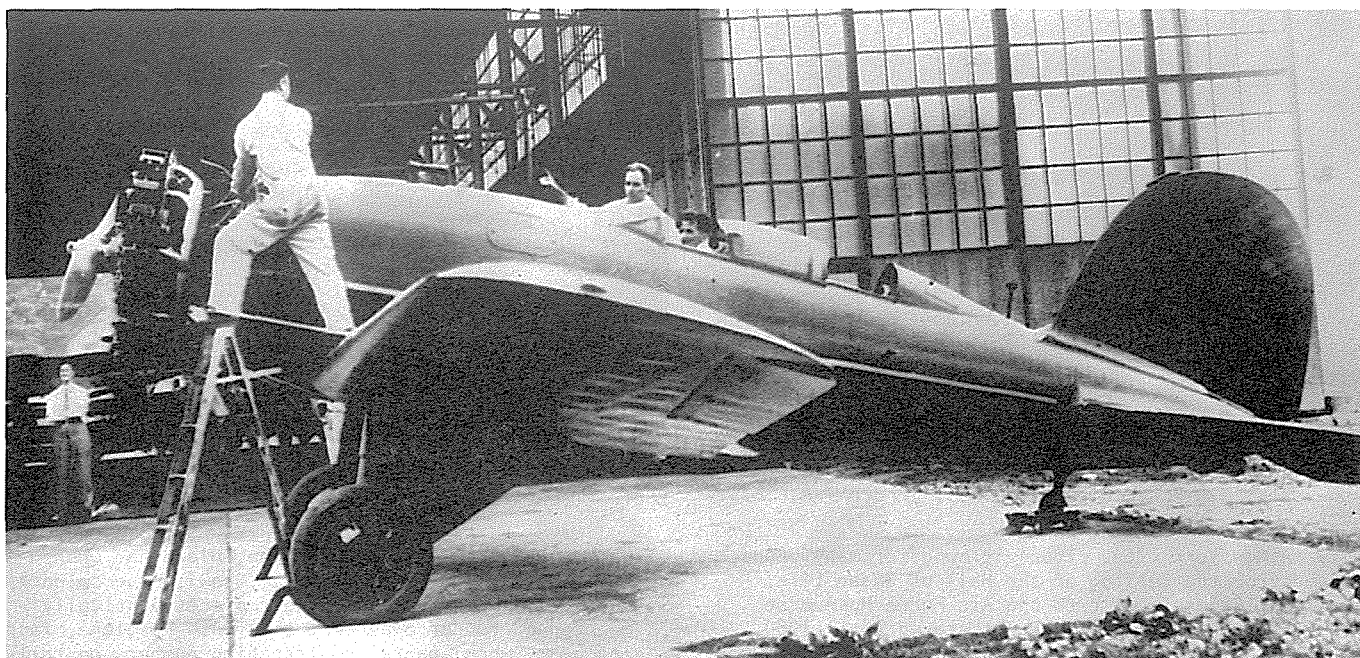
On Easter Sunday, April 20, 1930, Col. and Mrs. Lindbergh made a fast transcontinental flight with their new Lockheed. The trip, with a fueling stop at Wichita, was made at an average of 171 mph at heights of 14,000 feet and above. The pair were kept cozy in flying suits heated by an engine gear-driven electrical generator. Elapsed time was 14 hours, 4 minutes, 32 seconds, a new coast-to-coast record for the Los Angeles-New York trip.

Becoming a transcontinental record-breaker further



During the middle of 1930, Col. Lindbergh made many east coast flights in the Sirius--at top, he is shown arriving with his mother at Bolling Field, Washington, D.C. for conferences with postal officials on a proposed air-mail route between Miami and Panama. Above left, Col. and Mrs. Lindbergh leaving Newark on May 22, 1930 for a flight to the Aviation Country Club in Hicksville, Long Island. At right, July 27, 1931, Mrs. Anne Morrow Lindbergh helps her husband load Sirius, now equipped with pontoons, for flight to Washington where final preparations were made for their flying exploration trip via the northern, sub-polar route to the Orient.





Mechanics working on the new 710 hp Wright Cyclone engine installation on Col. Lindbergh's Sirius at Caldwell, New Jersey, June 1933. On July 9, 1933, the Lindberghs took the plane on a study flight of the northern air route to Europe, travelled through Europe and then returned to the United States via the South Atlantic.

assured fame and acclaim for the Sirius. Throughout the summer of 1930 the Colonel flew the plane out of Teterboro Airport in New Jersey, with passengers such as his mother, his father-in-law, Ambassador Dwight Morrow and General Hanson B. Ely, commander of the Second Corps Area.

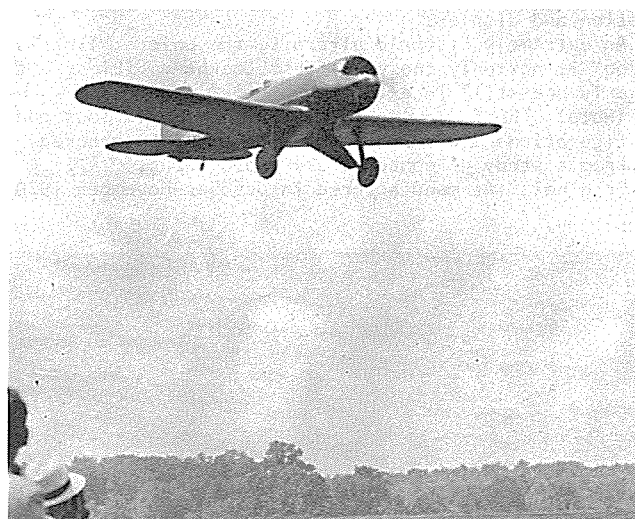
Late in August the original 450 hp Pratt & Whitney Wasp engine was replaced by a Wright Cyclone of 575 hp. The retracting-gear wing, still in Burbank, was expected to be installed, but the Lindberghs now had plans to convert the Sirius to a seaplane. (The Army Air Corps asked for this wing and the Colonel authorized Lockheed to turn it over to them. It was installed on Sirius c/n 153 (q.v.) and the model became known as the Altair.)

Conceiving a survey flight up across Canada and the North Pacific to Japan, Colonel Lindbergh next had his Lockheed fitted with Edo Model 6075 floats at the Edo factory at College Point, Long Island. Each Alclad aluminum float held 150 gallons of fuel, freeing the cabin for luggage and sleeping space. In this configuration, the only Sirius so flown, the pontoon-equipped plane became a familiar sight in the photo sections of the world press.

Collecting first-hand information on possible airline routes of the future, the Lindbergh's Arctic and North Pacific flight was carried out between July 27 and October 2, 1931. It is well recounted in Mrs. Lindbergh's famous book, *NORTH TO THE ORIENT*. With skilled piloting and fine navigation, the low-wing Lockheed performed admirably on floats.

The trip came to an unscheduled conclusion near Hankow, China. Slung overboard from the British airplane carrier HMS Hermes, the Sirius was held fast to a hoisting hook, while the swirling floodwaters of the Yangtze River inexorably toppled her over. Though half cut through by the steel cable, the Lockheed's plywood fuselage withstood the strain of being righted and rescued by the carrier.

Returned to the United States and rebuilt by Lockheed in 1932, she appeared on wheels for a short period. In June 1933, at Caldwell, New Jersey, a new 710 hp Wright Cyclone engine and a Hamilton Standard controllable pitch propeller were installed, and Col. Lindbergh tested the plane at Caldwell about July 1, 1933. She



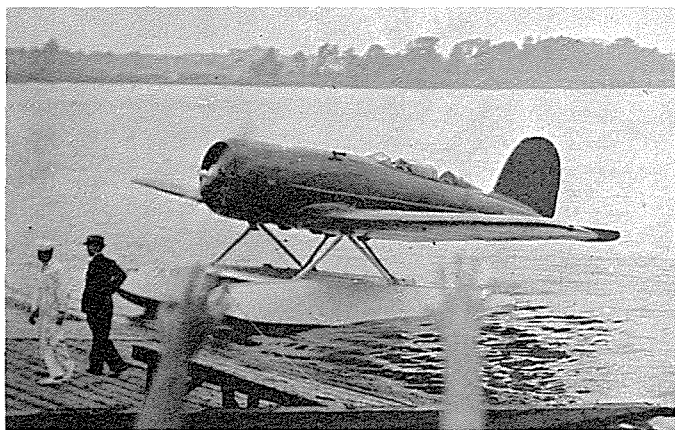
Col. Lindbergh testing the Sirius' Wright Cyclone engine at Caldwell, New Jersey on the 1st of July, 1933.

was thus made ready for still more adventurous travel.

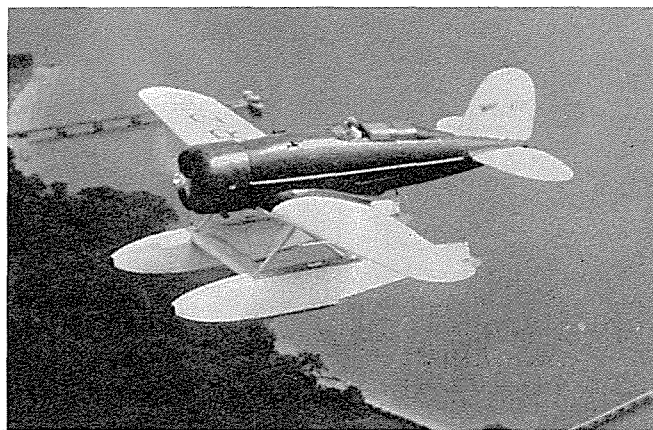
NR-211's final contribution to aviation history came with a 30,000-mile survey flight around the North Atlantic. Again, this was financed by Col. Lindbergh himself, in close relation with Pan American Airways (for whom he acted as consultant). Covering July 9 to December 6, 1933, this flight is beautifully described by Mrs. Anne Lindbergh in an article in the *National Geographic* (Sept. 1934), and in her fine book, *LISTEN! THE WIND*. Appendices by the Colonel give detailed listings of all equipment carried and a record of each succeeding flight.

The Lindberghs had always called their prototype Lockheed by its model name "Sirius". On the Atlantic survey trip it acquired a new one. At Angmagssalik, on Greenland's eastern shore, a young native laboriously painted it on the fuselage: TINGMISSARTOQ, Eskimo for "the one who flies like a big bird."

Home from its ocean journeying, the Sirius was presented, fully-equipped, to the American Museum of Natural



Well-wishers wave to Lindbergh as he taxis to float at North Beach, New York on July 8, 1933. (Photo - A.A.H.S.)



Col. and Mrs. Lindbergh departing North Beach to begin their flight across the North Atlantic, July 9, 1933.

History in New York City. There it hung for many years, suspended from the ceiling of the Hall of Ocean Life. In the mid-fifties it went to the Air Force Museum at Wright-Patterson AFB, Ohio where it stayed until 1960. Then, with the museum concentrating on the exhibition of purely military aircraft, the famous plane was shipped to the Smithsonian's National Air Museum in Washington, D. C. Today, still crated, this veteran of pioneer flights over five continents, is stored in N.A.M.'s Suitland, Maryland facility, with hopes of eventual restoration and display.

An extremely historic aircraft, the unique "Tingmissartog" is not only the very first Lockheed Sirius, but the only one still in existence.

(Note) The following is a study of the various configurations and color schemes of c/n 140 gathered from a study of contemporary photographs.

Original: As manufactured in October-November 1929

with P & W Wasp engine of 450 hp, plane had open cockpits, standard size N.A.C.A. cowl, nose spinner and small streamlined outrigger pieces vertically mounted on rudder away from the fin. Fuselage, landing gear, wheel pants, registration numbers on tail and wings were Black. Full wings, tail surfaces and spinner (?) were Red-Orange. Painted Gold were the Lockheed-type "horizontal funnel" cowl and fuselage striping, Lockheed insignia on fin, Lockheed-type "V" striping on front of wheel pants, teardrop on rear of pants and "Lockheed Sirius" in block letters below cockpits.

During tests: Outrigger pieces on rudder eliminated. A new script replaced original block letters below cockpits. Probably in white.

For Transcontinental Flight, 1930: Same as above except hydraulic propeller (no spinner), sliding canopy over cockpits. "Lockheed Sirius" under cock-



Now named "Tingmissartog", the Lindberghs' Sirius brings them back to the U. S. at Miami on December 17, 1933.

pits eliminated. "Detroit Aircraft" placed in Black above Lockheed insignia on fin.

For Flights late in 1930: Same as above except a new Wright Cyclone engine of 575 hp was installed. Engine had shielded face. New cowling installed; larger, extending back to leading edge of wing. Seams of cowl nearly parallel with fuselage stripe. No Gold striping on new cowl. (Short stacks?)

For Pacific Survey Flights, 1931: Same, but with Edo Model 6075 floats installed. Floats aluminum with black noses. Drift sighting stripes fanning out on top of horizontal stabilizer and elevators. Four painted on each side, apparently white.

For Atlantic Survey Flights, 1933: Same, with new Wright Cyclone engine of 710 hp and controllable pitch Hamilton Standard propeller. New cowling back to leading edge of wing. Circular seam visible at bend, and lengthwise seams above striping on right side of plane, and below it on left. Two Venturi tubes installed just forward of baggage hatch. (Lockheed insignia now black?)

Final, as Presented to American Museum of Natural History: Same as last except for new name "TINGMIS-SARTOQ" added. This name appears in somewhat wavy block letters just to the rear of the cowl above the stripe. On right side the word angles down, and on left side it angles up. (White?)

Original fuel capacity: 416 gallons (200 fuselage, 100 fuselage, 58 each wing)

As a seaplane: 516 gallons (100 fuselage, 58 each wing, 150 each float)

c/n 141 NC 349V Sirius 8  
Mfg Date: Feb. 10, 1930 A.T.C. 300  
Engine: P&W Wasp C #2100

In 1929 California's Shell Oil Co. set up an aviation department to make goodwill for the company, sell aviation petroleum products, and actually help in the

promotion and development of aviation. Head of the department was John A. Macready, the ex-USAAC flyer of non-stop transcontinental flight fame. Shell wanted the latest and best in aircraft for its varied activities, and the speedy new low-wing Sirius was a natural selection for their new department.

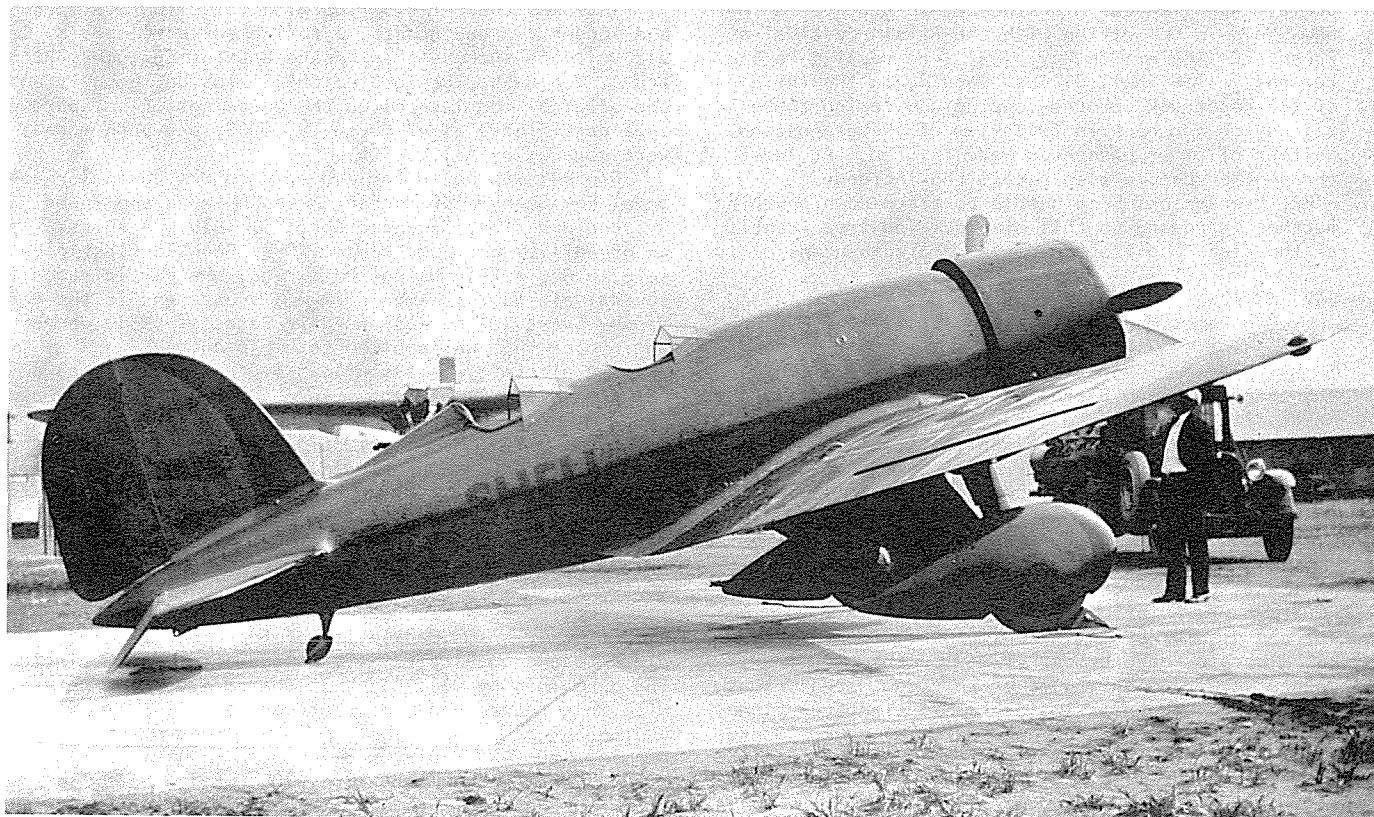
With Col. Lindbergh's Sirius under development, Shell Oil placed the first order for a sister plane, and it was ready almost as soon as the prototype. Both Capt. Macready and Lockheed test pilot Hugh W. "Ben" Catlin flew the new plane in preliminary tests. Macready recalls that both he and Col. Lindbergh flew the other's Sirius and exchanged ideas.

The Shell plane was a showpiece, painted in the colors which the oil company was splashing on all its service stations; a bright orange-yellow with brilliant red trim. Shell took title to it on March 7, 1930. There were minor changes in owners in April and June of the same year, with addresses identical to the firm's San Francisco headquarters. Over a mile course at Alameda Airport, California, in March 1930, Capt. Macready set an unofficial speed mark of 206 mph, with the new plane averaging 198 mph in six dashes, both with and against the wind.

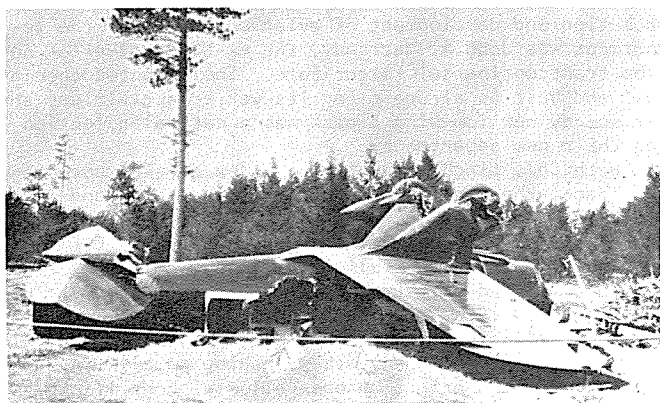
Macready was usually at the controls of the Sirius, but she was occasionally flown by Shell's other qualified pilot-salesman, John H. S. Skoning. One tour by the oil company's aviation promoters covered 3,500 miles of the Pacific Northwest.

The company's advertising was continuous, and the new low-wing Lockheed appeared in full-color magazine spreads as well as "in person" at Air Shows, County Fairs and exhibitions of all kinds throughout the west. Of those days, Capt. Macready has reported that "the Sirius was a good airplane". His own version of his final flight in her reads:

"We were putting on a show at Tracy, California. I was giving a stunt exhibition with the Sirius before the crowd. I took the plane up to considerable altitude with



Lockheed Sirius c/n 141, NC-349V, of the Shell Oil Company as it appeared at the factory, February 1930. (Lockheed)



Tragic end of Herb Fahy and the Sirius demonstrator, c/n 142, NR-12W, at Roscommon, Michigan. (Allen Coll.)

the idea of diving it down at great speed to very low altitude in front of the crowd, flying a short distance across the field, and zooming it up with a stunt maneuver.

"As I dove the plane down at great speed it developed a wing flutter that almost shook the wings off. The plane was almost unflyable, but I managed to get it around and land it, where it was left. I telephoned the Lockheed Co. at Burbank, and they sent their engineers to Tracy to examine the damage. The airplane was shipped back to Lockheed to correct the trouble."

Clearly this Sirius had been given the all-out treatment and subjected to strains in excess of all expectations. Lockheed re-took title to the plane as of October 28, 1930. In a letter dated December 31, 1930, they advised CAA authorities that this plane had been dismantled and would not be further licensed.

(Note) An interesting footnote which lends an air of mystery as to the ultimate fate of c/n 141 is provided by Lloyd W. Everson of Canoga Park, California. As a 17-year old student, he attended an Air Show held in connection with the Raisin Festival at Fresno, California in May, 1931. He recalls "a big red and yellow Shell Sirius" landing on the infield of the racetrack, ground-looping and laying there all day on her back in full view of the grandstand. Neither pilot or passenger were injured. At least three other people also recall the incident.

Mr. Everson has been unable to track down anything further in regard to this mishap. The true identity of the plane and its occupants remain unknown.

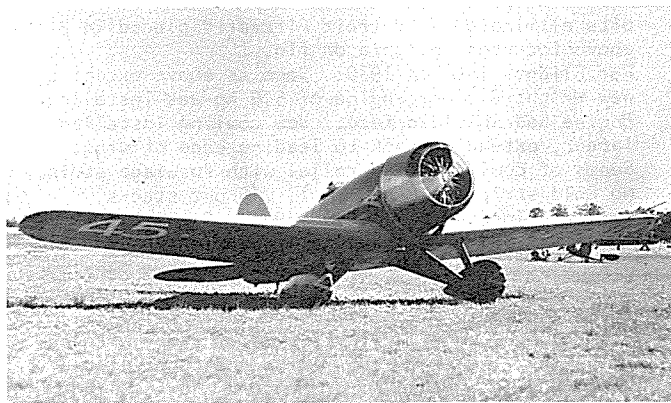
c/n 142 NR 12W Sirius 8  
Mfg Date: March 13, 1930 A.T.C. 300  
Engine: P&W Wasp C #2110

The third Lockheed Sirius assembled, this airplane was originally built to the order of Col. Roberto Fierro and the Mexican Government. Since Col. Lindbergh had the prototype and Shell Oil was in line for the second plane, only c/n 142 could be used for exhibition and demonstration purposes. Apparently the Mexican flyer was induced to take delivery of a later model from the production line.

NR 12W is thought to have been the Sirius exhibited at the St. Louis Aviation Show in February 1930. As part of the display by Lockheed's parent organization, Detroit Aircraft Corporation, it was on show together with a new Vega. Color scheme of this demonstrator was of a dark color and trim similar to the Lindbergh plane. It had extra fuel tanks with a capacity of 440 gallons.

After appearing in St. Louis, the Sirius was flown before prospective customers under the direction of Detroit-Lockheed's chief pilot, Herbert J. Fahy.

On April 25, 1930, Fahy arranged a demonstration of the Sirius for R. C. "Cliff" Durant, a wealthy Detroit



Joan Shankle's Sirius, c/n 143, NC-13W, carrying the 1931 race number, 45. (Photo - C. Mandrake Collection)

stockbroker, race driver, sportsman-pilot and son of W.C. Durant of General Motors. The story goes that if it were shown that the Sirius could be set down on a rough field near Durant's summer home at Roscommon, Michigan, there might be a sale in the offing.

Fahy, accompanied by his pilot-wife, Claire, made a valiant try. He brought the big Sirius in to land all right, but he tripped on some stumpage in endeavoring to take off. The plane went over on her back, trapping the two flyers. Chopped free, Mrs. Fahy was unhurt, but Herb, in the vulnerable front cockpit, suffered a head injury and died in a hospital two days later.

(Note) Though the ship was a washout, the engine was apparently salvaged, rebuilt and installed in Sirius c/n 146 (q.v.).

c/n 143 NC 13W Sirius 8A  
Mfg Date: March 13, 1930 A.T.C. 300  
Engine: P&W Wasp #2854

This was the first Sirius with the slightly-improved and larger fin and rudder, a refinement developed by Gerald Vultee's successor as Lockheed Chief Engineer, Richard A. Von Hake. Designated the Sirius 8A, both it and the original model received the blessings of an approved type certificate as of March 14, 1930, and both models were covered by A.T.C. 300.

C/n 143 was built for and sold to Mrs. Joan (or Joanna) Fay Shankle of Boston, Massachusetts and Tubac, Arizona and first licensed April 3, 1930. A sports flyer of ability and some renown, Mrs. Shankle first flew solo in May 1929. Using the Sirius, she participated in several air tours, women's flying events and in the Aerol Trophy Event at the National Air Races of 1931, where racing number "45" was applied to her plane.

The aircraft was also flown by the lady's husband, U. S. Army Air Corps Capt. Clarence E. ("Chris" or "Dutch") Shankle, who in 1930 was stationed in Fort Sill, Oklahoma. Army service, and commuting between Boston and their Arizona ranch kept the couple and the Sirius busy. At Tubac there was even a special Lockheed mechanic to service the plane. Occasionally it was employed in such work-horse tasks as hauling bales of hay out to the ranch.

After two years of Shankle flying, NC 13W was taken to the Lockheed factory in Burbank, where the fixed gear was replaced by a retractable landing gear. Still owned and flown by Mrs. Shankle, as of September 24, 1932 the plane became an Altair. Its subsequent history, including ownership by Col. Clarence Chamberlin, will be dealt with in a future study of that series.

c/n 144 NC 14W Sirius 8  
Mfg Date: March 13, 1930 A.T.C. 300  
Engine: P&W Wasp #2140

A standard open-cockpit Sirius, this plane is crypt-

ically called "The Detroit Show Job" on old Lockheed production lists. It is the plane exhibited at the All-American Aircraft Show in Detroit, early in April 1930.

Lockheed's test and demonstration pilot Herb Fahy took this Sirius to St. Louis, Missouri on April 11, 1930 intending to give a sales demonstration to young Stafford L. "Casey" Lambert, scion of the Lambert and Busch families and a local sportsman-pilot.

Fahy and Lambert tried out the plane next morning and Casey landed the Lockheed three or four times. As Lambert recalls the day:

"Later in the afternoon (a good friend) Herbert Condie came out to the field to look at it. I had just finished teaching him to fly and he had just gotten his license and naturally wanted a ride in it. I told him the plane belonged to the Lockheed company and that Mr. Fahy would have to take him for a ride. When Fahy heard this he said, 'Casey, you go ahead and take him because you can fly it just as good as I can.' At that point I asked Fahy if the airplane was very strong and he replied that it was and that it was a very rugged airplane. I told Condie to get my parachute and (borrow) one for himself.

"Condie and I took off around 3:30 in the afternoon and made a flight over the St. Louis County area. In a very shallow dive I reached an air speed of approximately 190 mph at about 1,000 feet, when an aileron flutter developed which resulted in a wing flutter. The ailerons became detached and the wings started to disintegrate. At that point, realizing a jump was inevitable, I nosed the plane up under full power and at the point of almost complete disintegration we both left the aircraft and got down safely.... It was obviously structural failure."

The red-painted Sirius was, of course, completely demolished, crashing into an orchard near Sappington,

Missouri. Undaunted by his experience, Casey Lambert put in an order for another one, c/n 146, (q.v.) and took delivery the following month.

c/n 145 NC 15W Sirius 8A  
Mfg Date: March 13, 1930 A.T.C. 300  
Engine: P&W Wasp C #2851

This was another Sirius of the early batch started when the model was well on its way to government certification. (Five aircraft, c/n 142-146, bore manufacturer's completion dates of March 13, 1930, the day prior to the awarding of the ATC.)

Licensed April 25, NC 15W appears to have had a useful period as a company demonstrator, but its exact amount of flying and travels are obscure. July saw tests of still another new type fin and rudder, one of a number tried by Von Hake and his Lockheed engineering staff.

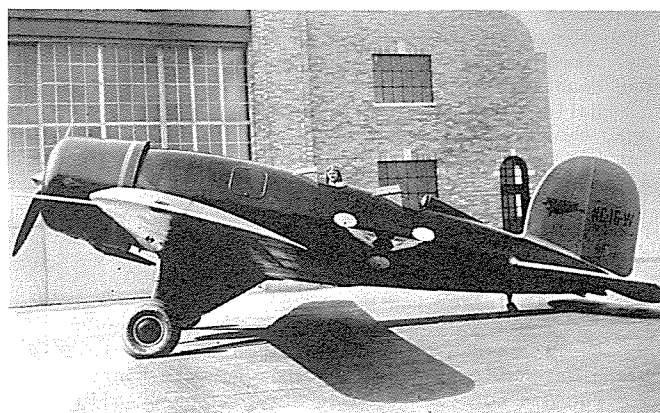
As of May 29, 1931 this plane was converted to an Altair, with retractable landing gear and sold to James Goodwin Hall of New York City.

c/n 146 NC 16W Sirius 8A  
Mfg Date: March 13, 1930 A.T.C. 300  
Engine: P&W Wasp C #2110

Although he had had a narrow escape in bailing out of a Lockheed Sirius (c/n 144, q.v.), 24-year old Stafford "Casey" Lambert still wanted one. He agreed to purchase (at a reputed \$18,895) another of the low-wing speedsters, provided that (1) Lockheed not fire Herb Fahy for letting him fly the demonstrator alone, and (2) that the company install counter-balanced ailerons. This was agreed upon, and the St. Louis flyer received his new plane May 10, 1930.



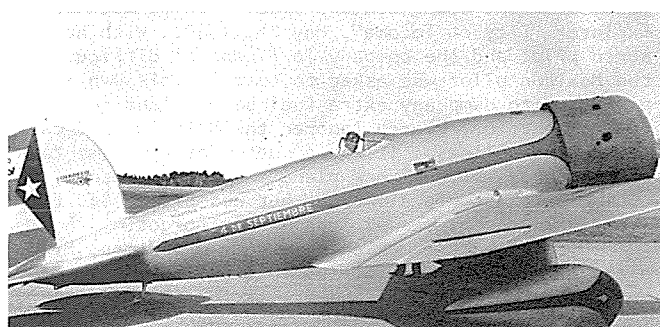
Remains of Sirius c/n 144, NC 14W, in a Missouri orchard after bailout by Casey Lambert and Herb Condie on April 12, 1930. (Photo - St. Louis Post-Dispatch)



Stafford L. "Casey" Lambert of St. Louis purchased this Lockheed Sirius, c/n 146, NC 16W. He is shown in plane during 1930. (Photo - Gregory Kohn Collection)



C/n 146 was sold to The Texas Company in 1932 and became number 16 in their fleet. (Photo - Texaco, Inc.)



In 1936, c/n 146 became property of the Cuban Navy and was flown across South Atlantic. (P & W "Bee Hive")

Mr. Lambert's comments on it are not reassuring. He says in retrospect: "The Sirius was probably the most dangerous aircraft ever built by Lockheed. I am quite sure that I am the only one that owned and operated one for a year and a half that wasn't killed in it."

Still, the ship was quite a challenge to fly, and Casey proudly sported his red "SL" monogram, with gold wings, on either side of the fuselage. She had three fuel tanks with a capacity of 155 gallons.

On July 8, 1932, Lambert sold the aircraft to The Texas Company of New York City. Repainted in red with white trim, it was renamed, appropriately, "Texaco 16". Lesser-known than Frank Hawks' Travel Air Mystery Ship, "Texaco 13", the Lockheed was usually flown by company pilot, J. D. "Duke" Jernigan.

Texaco had the plane's Pratt & Whitney Wasp C converted to an SC-1 giving 450 hp. They kept it only a year and then it went on the used plane market to Diversified Shares, Inc. of Cleveland, Ohio and, later, Dubois, Wyoming. It is thought to have been piloted by Ed G. Thompson of the Thompson Aeronautical Corporation of Cleveland and was probably his personal aircraft. The U. S. license expired on September 15, 1936 and the CAA could find no trace of its owners or whereabouts. They closed out the file on 16W.

About the time of expiration the five-year old Sirius is reported to have been sold by "a Miami, Florida sportsman" to the Naval Department of the Republic of Cuba. On January 9, 1936 she was christened "4 de Septiembre" in honor of one of Cuba's changes of government. (Cuban naval colors and insignia now graced her fin and rudder.)

Cuban navy pilot Lt Antonio Menendez y Palaez was assigned to fly the Lockheed across the ocean to Seville, Spain. This was accomplished between January 9 and February 14, 1936, with the solo flyer going by both easy and difficult stages straight across the Caribbean to Venezuela, on to Trinidad, British Guiana and Brazil, then out across the south Atlantic to French West Africa. Menendez sealed off the rear cockpit of the plane and doubtless added extra gas tanks.

Hailed in both Spain and Cuba, on his return to Havana, the Cuban lieutenant received the Naval Merit Cross for his successful trip. Kept in Cuba as an historical aircraft, the Sirius is reported to have been destroyed in a hangar fire in 1945.

c/n 149 XB-ADA Sirius 8  
Mfg Date: April, 1930 A.T.C. 300  
Engine: P&W Wasp #2889

Replacing the third Sirius (c/n 142, q.v.), this plane was built to order for Col. Roberto Fierro of the Mexican Air Force. It apparently was never allotted any U. S. registration. A standard Sirius, with twin open cockpits, it was painted with "sun red" trim on gleaming white and named "Anahuac" (Aztec: "Land of Herons").

Colonel (now General) Fierro recalls that his plane was to have been test-flown the same day as Ben Catlin's fatal accident with Harold Bromley's third Lockheed Explorer "City of Tacoma", May 24, 1930. With no insured pilot and the company in financial difficulties, the Mexican pilot was asked to test fly his own new plane and to dump any extra fuel before landing. As it seemed wasteful, Fierro ignored the briefing and caused some hard feelings. It was a custom at the time to give a small model of each new plane to the purchaser. Colonel Fierro got his all right but was billed \$10 for it, a small thing but one which he never forgot.

In order to put Mexico on the aviation map, Fierro planned to fly the new Sirius from California to New York, then on to Brazil and across the south Atlantic to Africa and Paris. The "Anahuac" was the pride of all Mexico, for she had been purchased at a cost of some \$25,000 with money raised both by popular subscription and by donations from state governors and Mexican military personnel.

Accompanied by pilot-mechanic Captain Arnulfo Cortes, Fierro flew cautiously across the continent to New York and there waited for two weeks. Finally the weather looked good for winging south. On June 23, 1930 the Mexican pilots successfully completed the first non-stop flight from New York to Mexico City. Fighting heavy winds, rains, cloud banks and hail which had not been predicted, they were unheard from for several hours. But flawless planning and navigation took them the 2,152 miles southwest in 16 hours, 30 minutes.

Fierro and Cortes were wildly acclaimed in Mexico for their feat, but President Ortiz Rubio forbid any further long-distance attempts, or the south Atlantic flight. The "Anahuac" became the property of the Mexican government, and bore green, white and red striping on her rudder.

As a quasi-military aircraft, the record-breaking Sirius was later used by other officers of the Mexican Air Force, and Colonel Jose Leon Diaz made some fast flights in her to and from Los Angeles. Eventual ownership of the plane was given to Colonel Fierro, who flew it as his personal plane until 1936.

An avid partisan of the cause of the embattled Spanish Loyalists during the Civil War of 1936-39, Colonel Fierro arranged the procurement, sale and shipment of a number of transport and other aircraft to the Spanish Republican Government. Among them was his own Sirius, which was sent by steamer to Spain, probably via Barcelona, late in 1936.

In the maelstrom of civil war, the exact fate of the "Anahuac" is unrecorded. Rumor has it that the trim white Sirius was fitted out and used as a fighter, with bomb racks attached below the wing. It is supposed to have been shot down and burned by Nationalist anti-aircraft batteries on the Madrid front at an unknown date, probably 1937.

c/n 150 NR 116W, NC 116W Sirius 8C  
Mfg Date: April 18, 1930 A.T.C. None  
Engine: P&W Wasp C #3087 (later Memo 2-374)

A bit of variation was introduced with this plane, utilizing both a twin, hooded cockpit and a passenger cabin for two. The NR license was originally issued to Lockheed "for cross-country flights", and the plane had six gas tanks with a total capacity of 288 gallons. Paint scheme was of special "teardrop" design, with a bright red cowl scalloping off into a white after-section and wings.

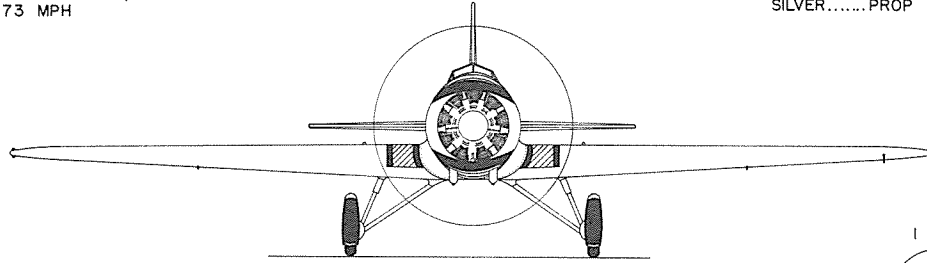
The prototype "Sport Cabin Sirius" was originally sold July 1, 1930 to H. Walter Blumenthal of New York. Mr. Blumenthal had both the desire and the \$18,985 to join the ranks of the city's "sports flyers." He hired well-known test pilot Jimmy Collins to supervise final arrangements for the new Lockheed, and to test-hop it in Burbank before delivery. Jimmy describes the clean-lined Sirius in his book TEST PILOT as a "ship which took everybody's eyes as the latest and sleekest thing yet developed by the engineers."

The ferry flight from California to Roosevelt Field took place on July 4, 1930. With a valiant try, Collins assaulted the transcontinental record set by Colonel and Mrs. Lindbergh in their Sirius the previous Easter Sunday. He flew at an average of 9,000 feet, and did not even get out of the cockpit during a brief fueling stop at Wichita. A fireworks display on Long Island made it difficult to find Roosevelt in the dark and Jimmy landed an hour, 46 minutes over the Lindbergh time.

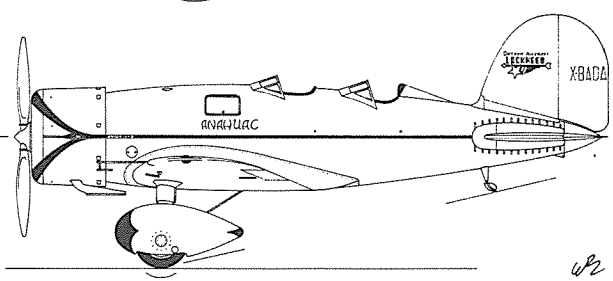
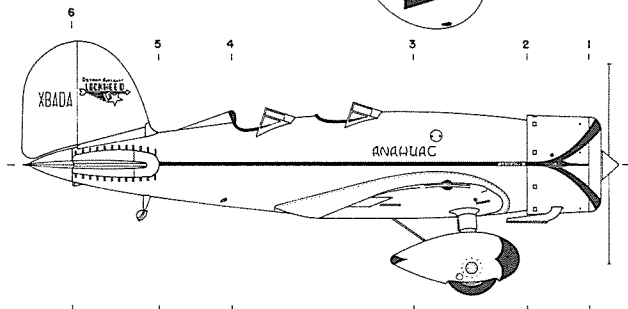
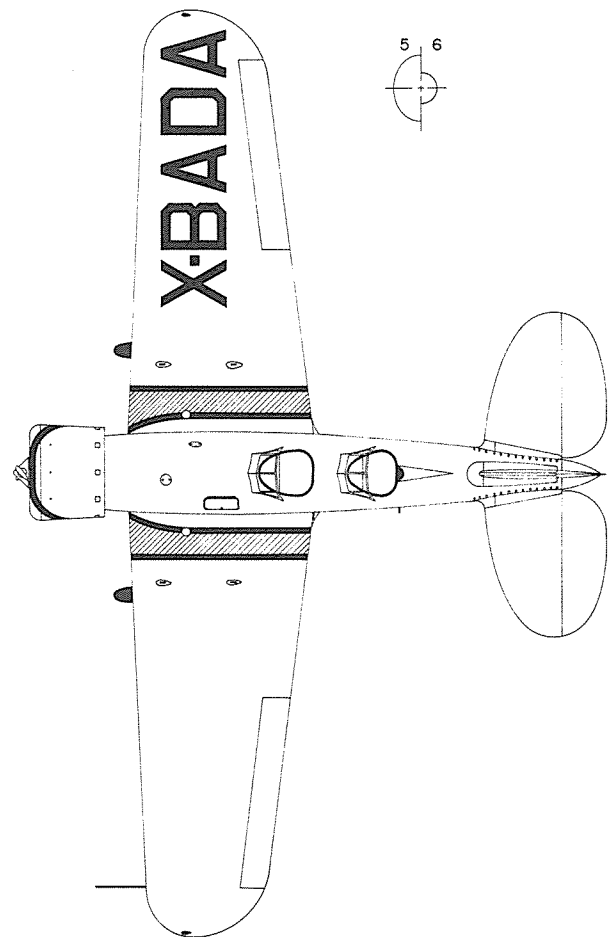
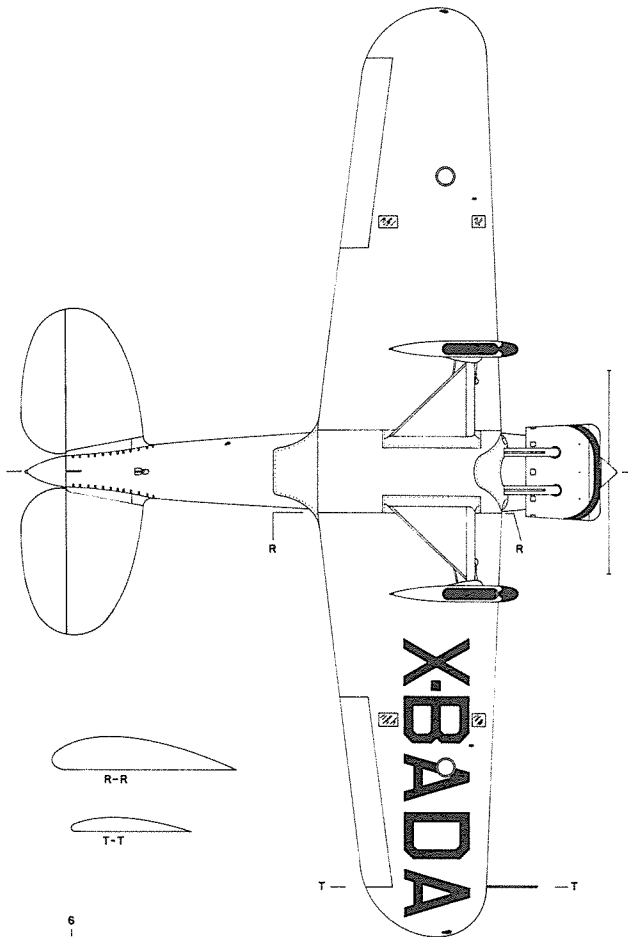
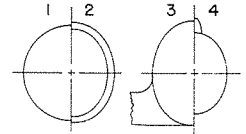
Blumenthal used Collins as his personal pilot, and even took flying lessons in the Sirius. The two made numerous cross-country and pleasure flights with the plane, including one which terminated in a hair-raising forced landing near Whitehall, New York, described in Collins' book. A clash over political beliefs finally caused Collins to resign his job with the New Yorker, and Blumenthal carried on by himself and with other co-pilots.

SPAN.....42' 9<sup>1</sup>/<sub>4</sub>"  
 LENGTH.....27' 6<sup>1</sup>/<sub>4</sub>"  
 HEIGHT.....9' 3"  
 EMPTY WEIGHT.....2974 LBS  
 GROSS WEIGHT.....4600 LBS  
 DIHEDRAL.....2 DEG  
 ENGINE.....P & W WASP C, 450 HP  
 TOP SPEED.....173 MPH

SUN RED.....TRIM, LETTERING, REGISTRATION  
 NUMBERS, WING WALK OUTLINE,  
 & LOCKHEED EMBLEM.  
 WHITE.....ALL EXTERIOR SURFACES  
 GRAY.....WING WALKS  
 BLACK.....TIRES  
 SILVER.....PROP



COL. ROBERTO FIERRO'S ANAHUAC  
 FIRST NON-STOP FLIGHT NEW YORK-MEXICO CITY, 1930  
 C/n 149 ATC 300



DRAWN FOR AAHS BY  
 W.A. EBERSPACHER 10-20-65  
 SCALE: 1/4" = 1'0"  
 CM 2 3 4 5 6 7  
 FT 2 3 4 5 6 7 8 9 10 11  
 IN 1 2 3  
 LOCKHEED  
 SIRIUS 8

Finally certificated under Memo 2-374 of August 10, 1931, the Sirius was issued an NC license six days before that. A year later it was sold to publisher Bernarr Macfadden of New York, another sports flyer who used various hired pilots before eventually learning to fly. On August 1, 1933, title was transferred to Miss Katherine Daufkirch of East Elmhurst, New York. She in turn sold the plane to Samuel R. Sague of the Interstate Aeronautical Corp. of Cleveland, Ohio on September 16, 1933. Under Sague's ownership the plane appeared with a new, larger fin and rudder, and in late 1934 or early 1935 was painted entirely white. At one stage it bore the racing number "2" just forward of the horizontal stabilizer.

Under its last ownership, 116W was involved in three accidents, the final one on September 14, 1935. Details are lacking, but the best reports state that Sam Sague cracked up at Detroit on that date. After salvaging the engine, the remains of the hulk were burned. As late as August 28, 1937 Sague still registered 116W, but as an identification number only.

c/n 151 NC 117W Sirius 8A  
Mfg Date: April 18, 1930 A.T.C. 300  
Engine: P&W Wasp C #3103

Still another Lockheed Sirius demonstrator went to Air Services, Inc. of Roosevelt Field, New York, who licensed it July 10, 1930. Air Services, which did all types of air charter and maintenance work, was headed by a wealthy shoe manufacturer, William B. Leeds. In addition to the boss, who flew the all-white Sirius on aerial tours, it was also ferried about by other pilots associated with the firm, including Russell K. Thaw, Edward Conerton and Frank Cordova. A sometime passenger was Air Services mechanic Douglas Corrigan. NC 117W came equipped with the sliding canopy over the cockpits such as was found on the Lindbergh and Blumenthal planes. Repainted with red striping and wing filets, it served as official plane for the Leeds and Lawrence Trophy events at the 1932 National Air Races. The year 1933 saw the low-wing Lockheed sold to a baking company executive, John English of Schenectady, New York. Mr. English's pilot overshot the field at Raleigh, North Carolina, and he traded the wreck to Frank Cordova for another airplane. In turn, Cordova sold the battered craft to Anthony Stinis, who had it trucked up to Floyd Bennett Field and rebuilt.

Putting the Sirius back in shape involved the installation of a new wing from Lockheed (part of cancelled c/n 113), a new engine mount, and a new Wasp C engine (#1921). Re-licensed in May 1934, Andy Stinis flew the plane about 100 hours.

Mr. Stinis recalls: "You always had to apply full right rudder before opening the throttle, to overcome torque, unless a strong wind was blowing!"

Paramount Productions of Jersey City, New Jersey owned 117W during 1934-36, and presumably used it in connection with the making of movie newsreels.

Paul Mantz' United Air Services, Ltd next acquired the Sirius and ferried it west to the town where it was originally built, Burbank, California. Sometime prior to April 1937 the plane was remodeled and repainted red, with white trim. Photographs show that it was apparently rebuilt to the "Sports Cabin" configuration (probably under ATC Memo 2-374) though this is unrecorded. Another Wasp, SC-1 (#1815), went on the nose as of July 7, 1938.

For movie work, Mantz reverted to use of two open cockpits. At various times he had wing cameras installed on the Sirius, and also a gun camera ring mounted over the rear pit. Feature films in which it was flown as a camera plane included "Wings in the Dark" and "The House Across the Bay".

On May 9, 1940 chief United Air Services pilot Walter Quinton took the Sirius up over Downey, California, accompanied by photographer Marshall Coombs and Marshall

G. McCarroll, head of Paramount newsreels on the Pacific coast. Their object was to make movie and still pictures of the new Vultee 48 (NX 21755, prototype of the Vanguard), being test-flown by Vance Breese. After completing the assignment both planes were on the way back to Vultee Field. Coming in for a landing, about 400 feet up, Quinton's Sirius got into a blind spot below Breese. The Vultee's propeller severed the Lockheed's tail, and the plane dove into an alfalfa field to explode in flames. Quinton, Coombs and McCarroll died instantly, but Breese, with one severed main under-carriage leg, was able to make a safe crash landing.

c/n 152 NR 118 W, NC 118W Sirius 8A (later 8 Special)  
Mfg Date: July 21, 1930 A.T.C. 300  
Orig. Engine: P&W Wasp #3104

This Sirius was a special job built for Captain George R. Hutchinson of Baltimore, Maryland. Sponsored by the Lions Club of Richmond, Virginia, it was planned to use the plane on a special New York-To-Paris record flight. The forward cockpit was closed off (so that it resembled the Lockheed Explorer model), and the wing had beefed-up spars to support special tanks holding 633 gallons of fuel.

Painted light blue and white and named "Richmond, Virginia, USA", this Sirius also had a headrest extension filet from cockpit to tail fin.

Captain Hutchinson's plans did not progress very far. Unfamiliar with an aircraft of this size and performance, he attempted a test flight from the Los Angeles Municipal Airport late on the afternoon of August 2, 1930. Losing control, Hutchinson and the Sirius careened off the runway into a parked car, knocked down two women bystanders and came to rest minus a wing against a fence.

Hutchinson's financial backing suddenly evaporated and the damaged plane went on the Sheriff's auction block. An advertisement in Western Flying for October 1931 reads: "Sirius Wasp, 800 gal. cap., all known navigational instruments. Flown only 1 hr."

A buyer that November was movie director Victor Fleming of Beverly Hills, California. Famed actor Douglas Fairbanks, Sr. was supposedly in on the purchase but probably could not fly because of movie insurance contract clauses. Fleming used the Sirius for sports flying after converting her to a regular two-place configuration again under Memo 2-400 of February 4, 1932. Later the same year he sold her back to Lockheed, where she was given a new engine and a new wing with retractable landing gear, to become an Altair. Her subsequent history includes service as the "Lady Southern Cross" with Sir Charles Kingsford-Smith.

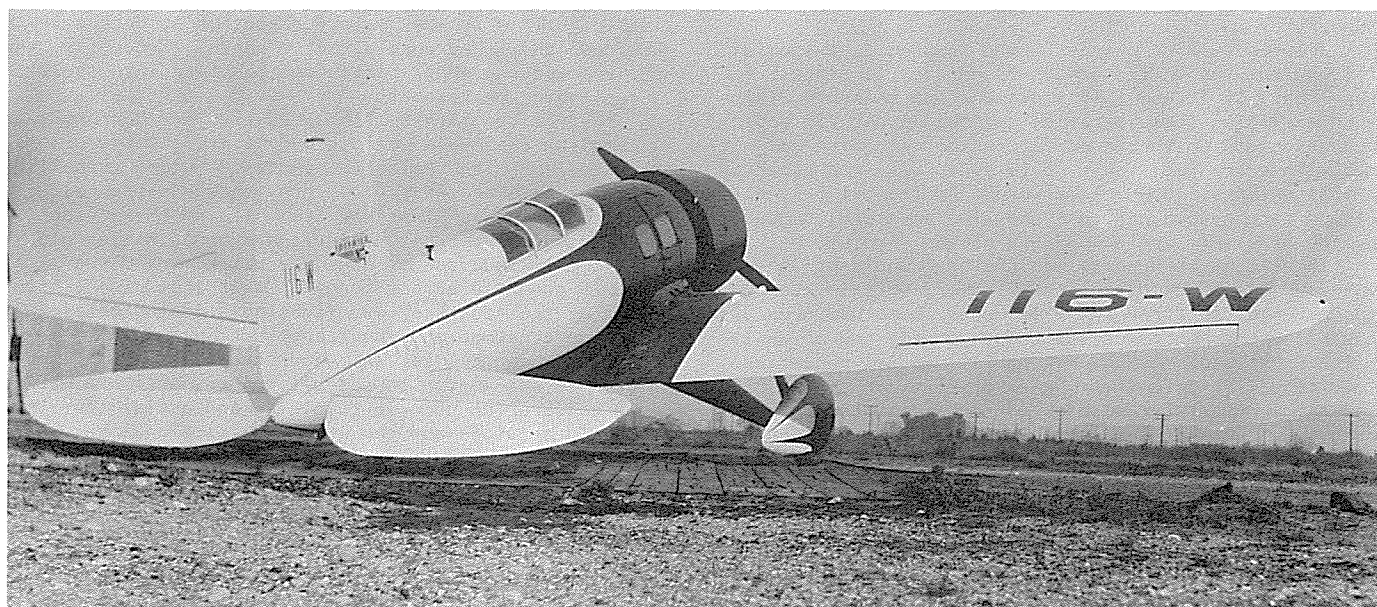
c/n 153 119W Sirius 8A  
Mfg Date: April 18, 1930 A.T.C. 300  
Engine: P&W Wasp C

Completed at the same time as the Blumenthal and Leeds planes 119W was another Lockheed Sirius demonstrator. Nothing is known of its use during the summer of 1930, but it was doubtless flown as a regulation Sirius, probably with the sliding hatch over the cockpits.

On September 19, 1930 this aircraft was approved for experiments with retractable landing gear. It was fitted with the wing and folding gear (now vastly modified, strengthened and improved) which had originally been ordered for Colonel Lindbergh's prototype Sirius. It became the first Lockheed Altair, and was acquired by the U. S. Army Air Corps.

c/n 166 NR 115W Sirius 8A  
Mfg Date: April, 1930 A.T.C. 300  
Engine: P&W Wasp C #3163

One of the most colorful and historic aircraft of the Lockheed Sirius line was 115W, the "Justice for



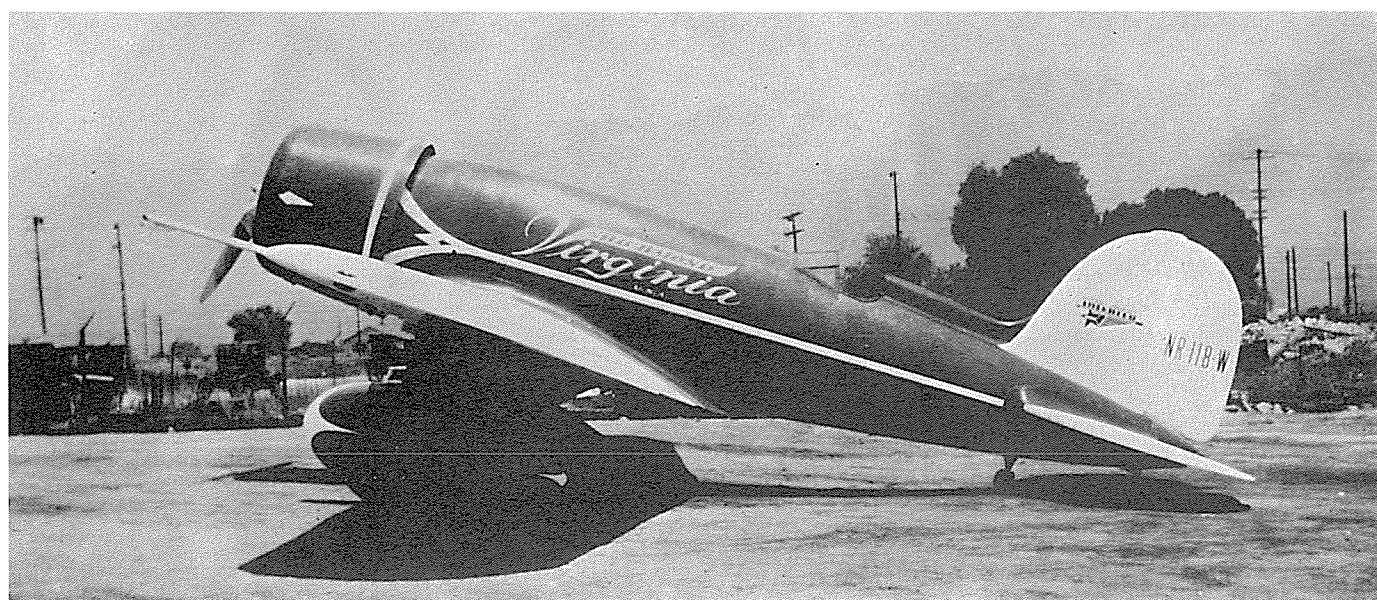
Factory photo of the new "Sports Cabin" Sirius 8C, c/n 150, (NR) 116W, taken during April of 1930. (Photo - Lockheed)



The brand new c/n 151, NC 117W, on the day of its delivery at Burbank, April 18, 1930. (Photo - Lockheed)



William Leeds' pant-less Sirius, c/n 151, as an official plane at the 1932 National Air Races. (Emil Strasser)



Built for an Atlantic flight by George Hutchinson, c/n 152, NR 118W suffered an accident ending flight plans. (LAC) WINTER - 1965

Hungary".

Ordered by a committee formed to promote a special flight from the United States to Hungary in protest to the Treaty of Trianon, this plane was a standard Sirius with a sliding cockpit canopy and the larger fin and rudder common to the 8A configuration. It also was fitted with extra fuel tanks (8 in all), giving a capacity of 633 gallons. Down below were experimental full cantilever struts combining air and oleo pressure, produced by the Gruss Air Spring Company of Los Angeles.

The flight to Hungary was the brainchild of Sandor Wilczek (Alexander Magyar) of Windsor, Ontario, Canada, an ex-Hungarian Air Force pilot whose home had been disrupted by the controversial treaty at the end of WW I. Wilczek enlisted the support of influential Hungarian-Americans, including Emil Salay of Flint, Michigan, a sausage manufacturer with a yen to "do something for Hungary". Further impetus to the idea was given by Lord Rothermere, owner of the London Daily Mail. A champion of Hungarian causes, this British viscount was moved to post a \$10,000 prize for the first non-stop flight from America to Hungary.

Salay and his Hungarian-American Ocean Flight Committee originally planned a non-stop Detroit to Budapest attempt. After careful consideration they ordered the best-publicized aircraft available in early 1930, the Lockheed Sirius. To fly the plane, along with Wilczek (Magyar), another Air Force reserve officer, Captain George Endres, was brought from Hungary.

Though completed in April, the new Sirius was not flown until August 5, 1930. It was black with red wings and white trim, and bore the Hungarian coat-of-arms on the vertical fin, above the stock Detroit-Lockheed trademark. Valvoline Motor Oil was advertised with decals on the engine cowling.

Since both pilots were unfamiliar with the type, much caution was used in their learning to fly the Sirius. As the weeks slipped by, it became too late to attempt the long overwater hop during the 1930 season.

To meet extra expenses, and to give the average Hungarian-American a sense of participation in the flight, several thousand special postcards were prepared and sold at a dollar apiece. Carried as 32 pounds of air mail, they made worthwhile souvenirs. Magyar and Endres even took on the chores of hawking the cards themselves at street fairs and cultural gatherings in the Detroit area. Careful and thorough preparations at last bore fruit in July 1931. The flying Hungarians trundled their Sirius off from Roosevelt Field on the

13th. After a two-day wait for weather at Harbor Grace, Newfoundland, they were airborne again. Prudently, they had removed the wheel pants from the Sirius to avoid any mud-clinging on takeoff.

Most of the flight of the "Justice for Hungary" was accomplished above a solid cloud layer, and the pilots never glimpsed the Atlantic. A radio helped establish position with bearings flashed by unseen ships below. Magyar and Endres first saw land over northern France.

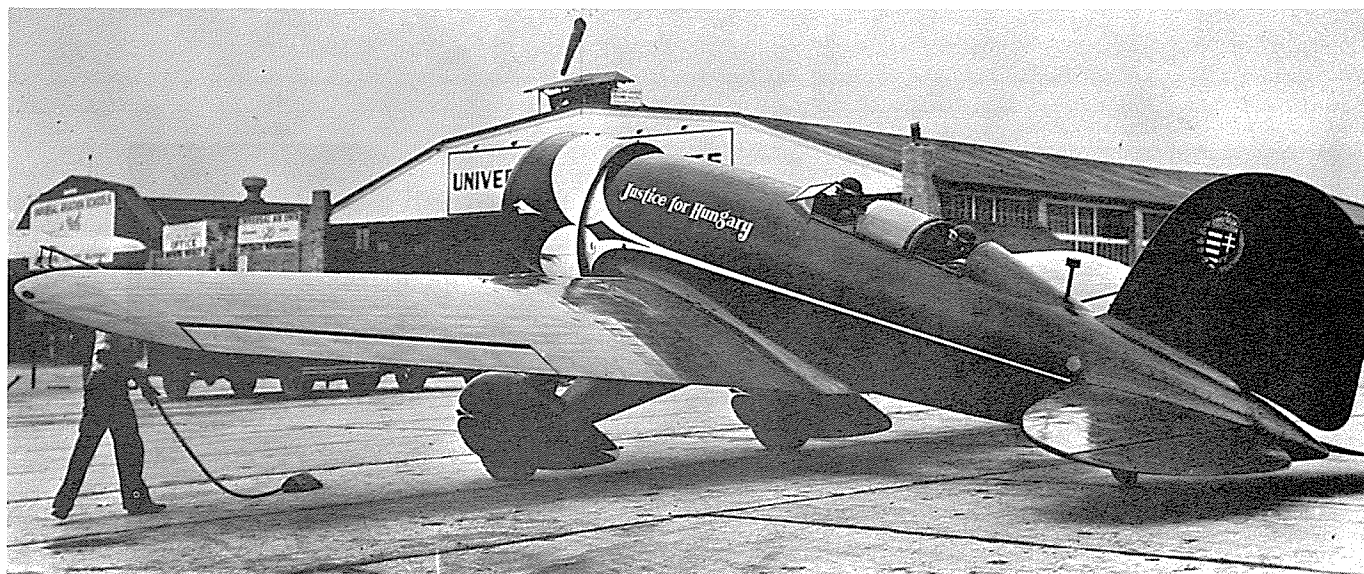
180,000 hysterical Hungarians crowded Matyasfold Airdrome in Budapest as news sources reported the plane's progress across Europe. What they didn't know was that the "Justice" was fighting a losing battle with gasoline consumption. Endres brought her down in a cornfield near Bicske, only fourteen miles shy of her goal. It was enough to set all Hungary off in a week-long celebration of wild rejoicing and acclaim for "the intrepid aviators and the wonderful airplane that had flown from America." Garlanded with flowers, the slightly damaged Sirius was rolled triumphantly through the streets of the Hungarian capitol.

With the \$10,000 prize awarded, the flyers split up. Wilczek (Magyar) returned to the United States in November. In Budapest, Endres retained control of the famous Lockheed. Any later Hungarian registration of the plane is unknown, but her likeness was perpetuated on two sets of the nation's postage stamps.

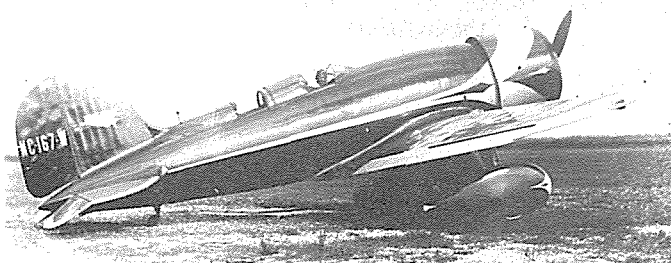
On May 21, 1932, Endres and Captain J. Pittay flew the Sirius to Rome to attend the "Congress of Transatlantic Flyers" called by General Italo Balbo and Benito Mussolini. While making a turn to come in for a landing, the plane was struck by "a small whirlwind", sideslipped and crashed in flames. Both pilots were killed. Salvaged from the accident were the Pratt & Whitney Wasp #3163, pieces of the propeller and parts of the fuselage. These are reported to be still on display at the Museum of Communications in Budapest. Other small parts of the historic aircraft are in the possession of private Italian and Hungarian citizens.

|           |                |            |
|-----------|----------------|------------|
| c/n 167   | NC 167W        | Sirius 8A  |
| Mfg Date: | July, 1930     | A.T.C. 300 |
| Engine:   | P&W Wasp #3168 |            |

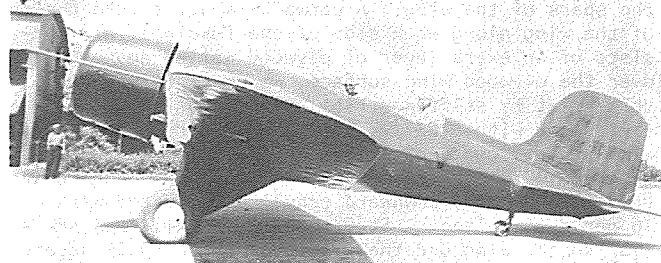
The last of the fixed-gear, wooden Lockheed Sirius line to leave the Burbank factory, 167W went to Wedell-Williams Air Service, Inc. of Patterson, Louisiana. W-W was the extensive combination of airline, charter service, flying school, distributorship and aircraft fac-



An aerial protest against the Treaty of Trianon, the "Justice for Hungary", c/n 166, NR 115W, was flown across the Atlantic from Newfoundland to Hungary on July 15 and 16, 1931. (Photo - Charles G. Mandrake Collection)



Purchased by the Wedell-Williams Air Service, Inc., c/n 167, NC 167W, was the final example of the Sirius line. (Photo - H. Wedell, via Truman Weaver and C. Mandrake)



In 1935, c/n 167 was converted to the "Sports Cabin" configuration with the new tail. In April it was registered to Bowen Air Lines. (Photo - Chalmers Johnson Coll.)

tory financed by millionaire lumberman Harry P. Williams, and operated under the practiced (and only) eye of famed speed flyer Jimmy Wedell.

Licensed August 9, 1930, the Wedell-Williams Sirius, equipped with the sliding cockpit canopy, was flown for nearly two years on special charter by the firm's pilots.

By March 1932, the plane was registered to Lucille Trautwein Bottenfield of Dripping Springs, Texas. Next it was owned by oil operators in the Lone Star State-- C. E. Gates of Houston (June 1932-May 1933) and Harry B. Barnhart of Dallas (May-July 1933). John (or Jobe) Pundt of the American Liberty Oil Company of Dallas was reported as the plane's pilot in 1932.

A still later ownership of 167W was in the name of Glen Harroun, c/o Bowen Air Lines, Fort Worth. The Sirius is rumored to have been used by Temple Bowen, the line's president, as his personal aircraft.

As of March 13, 1935 the low-wing Lockheed was converted to a Model 8C under ATC Memo 2-374, by the factory in Burbank. With the "Sports Cabin" configuration, it was also reverted to open cockpits, returned to Fort Worth and registered April 2, 1935 to Bowen Air Lines itself.

Though details are obscure, Bowen apparently leased the converted Sirius to Delta Airlines Corp., who flew it as a mail and cargo carrier on some of their routes.

On the day before Christmas, 1935, Delta had the Sirius flying on Air Mail Route 24 eastbound between Dallas and Charleston, South Carolina. Coming in for a landing at 5:15 A.M., pilot R. C. Reinhard misjudged his altitude at Birmingham, Alabama. The Lockheed struck some trees at the edge of the airport and crashed. Reinhard received injuries, but some 861 pounds of Christmas mail were salvaged with no damage. The plane had ended its career.

c/n 165 NC 8494 Sirius DL-2  
Mfg Date: August, 1930 (at Detroit, Michigan)  
ATC 378  
Engine: P&W Wasp C #2036

The Detroit Aircraft Corp. holding company for Lockheed, was in the airplane manufacturing business as well. Seeking to get away from dependence on all-wood construction, they built several duralumin Lockheed fuselages and mated them with wooden wings built in Burbank. This metal version of the Sirius was assembled in Detroit during the summer of 1930. It was part of a last-ditch effort by Detroit Aircraft to stay in business.

As a "Sirius DL-2" the plane was certificated October 27, 1930. Due to the precarious financial condition of Detroit-Lockheed, it was never put into production, and this lone aircraft was the only example. It was also the last Lockheed Sirius to be built.

The prototype was flown as a demonstrator in many parts of the country. Douglas Corrigan has written in

his book, THAT'S MY STORY:

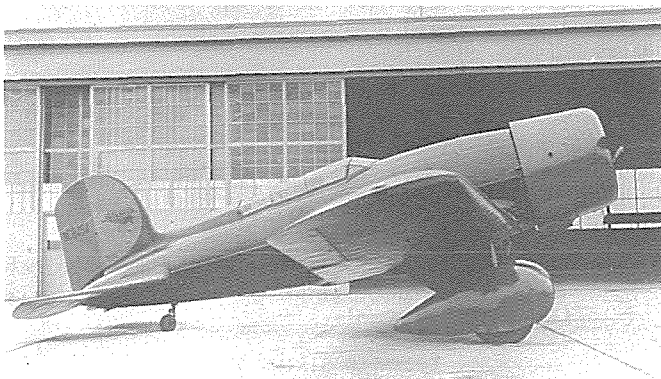
"On October 6, 1930 Lindbergh came out to Roosevelt Field and took a flight in the Low Wing Lockheed with an all-metal fuselage which we had there as a demonstrator (for Air Services, Inc.). I don't think he liked it as much as his own wooden (Sirius). The metal fuselage made more noise and vibrated more than the wooden fuselage. Just the day before this I had flown in the metal job with Frank Cordova, and when we landed, Cordova looked around and said: 'Did you hear something?' I said: 'It sounded to me like the tail skid tore out.' Then I got out and looked but everything was all right. The metal fuselage just made more noise than we had been used to."

As of April 27, 1931, this Sirius was converted to an "Altair DL-2A", with Pratt & Whitney Wasp E Engine and retractable landing gear. It was subsequently utilized as a speedy command transport by the United States Army Air Corps, out of Washington, D.C.

#### TECHNICAL DESCRIPTION OF THE SIRIUS (excerpted from Aviation, October 1930)

The weight empty of the Sirius 8A including 900 pounds for the power plant is 3,056 and the gross weight 4,600 pounds giving a wing loading of 17.35 pounds per square foot and a power loading of 10.2 per hp.

The Sirius wing has a dihedral of 2 degrees measured on the top surfaces and 5 degrees on the bottom surfaces. The wing is set at an incidence of 1 degree. The wing is tapered in plan form and thickness, the maximum thickness at the root being 18 inches and at the tip 8 inches. The chord varies from 8 feet 6 inches at the root to 5 foot 6 inches at the tip and the mean aerodynamic chord is 84.7 inches. The center of gravity is located at



The one and only Lockheed Sirius DL-2 model, c/n 165, with duralumin fuselage. (Peter M. Bowers Collection)

34 percent of the mean aerodynamic chord. A normal Clark-Y airfoil section is employed at the tips and somewhat varied at the root.

Additional spruce cap strips are incorporated in the spars of the wing. A catwalk is built into the top of the wing along each side of the fuselage, and consists of an extra layer of plywood nailed and glued on over the plywood wing surface, which is reinforced at this point by stiffener ribs. The interior of the wing is treated with Lionoil, while the exterior is sprayed with several coats of primer and lacquer paint. Frise ailerons with a differential action producing an upward travel double the downward travel are mounted with a 16 per cent balance. Structurally the ailerons are similar to the wing and their combined area is 25 square feet.

One of the new features of the Sirius is the retractable wing lift lugs. These lugs, which in previous models were exposed to the air stream, are now made flush with the top surface and provided with a small wire by which they may be brought up into the service position for use.

Retractable landing lights, two of which are normally provided, have been developed by Lockheed engineers working in conjunction with the technical staff of the S. & M. Lamp Company. These lights may be adjusted to any one of 13 positions ranging from full vertical to full horizontal ahead, and, when fully retracted, are flush with the lower surface of the wing. With a special 15 amp. G. E. bulb and a special S&M reflector, each lamp develops 18,000 c.p. from a 12 volt storage battery. These retractable features are representative of the constant efforts made by Lockheed engineers to reduce parasite drag.

Each cockpit is provided with a parachute seat of the bucket type and built with sheet duralumin padded and upholstered in leather. The seat is suspended on a rubber shock cord and held in place by two approximately vertical tubes. The pilot's position may be readily changed by moving the seat up or down in the tubes and clamping it at any desired point. Dual controls are standard equipment, and engine controls are operated by means of push and pull rods extending down the left side of the fuselage.

Complete instrument equipment is furnished in the front cockpit of the standard model, while the rear cockpit contains only the more important instruments.

#### SPECIFICATIONS LOCKHEED SIRIUS 8 & 8A 1929-30

ATC: 300 March 14, 1930

Config: 2POLM

Powerplant: Pratt & Whitney Wasp C 450 hp

Wing Span: 42' 9 $\frac{1}{4}$ "

Wing (sq.ft.) 294.1

Length: 27' 6" (Sirius 8A was 27' 10")

Height: 9' 3"

Wt. Empty: 2974 lbs. (Sirius 8A was 3056 lbs.)

(As floatplane with Wright Cyclone 4289 lbs.)

Gross Weight: 4600 lbs.

(As floatplane with Wright Cyclone 7099 lbs.)

Top Speed: 173 mph

Stabilizer Area: 38 sq. ft.

Elevator Area: 21.6 sq. ft.

Rudder Area: 10.2 sq. ft.

(Sirius 8A & later models 12.8 sq. ft.)

Fin Area: 12.5 sq. ft.

(Sirius 8A & later models 11.0 sq. ft.)

(Note: The "larger fin & rudder" was approximately 10" higher than original Sirius and earlier Lockheed Vega models.)

#### LOCKHEED SIRIUS DL-2

ATC: 378 October 27, 1930

Same except: Wing 42' 10", Length 28' 6", Height 9' 2"  
Wt Empty 2958 lbs, Gross Wt 5200 lbs, Top Speed 175mph.

#### LOCKHEED SIRIUS 8C

ATC: Memo 2-374 August 10, 1931

Same except: 4PCLM, Wt. Empty 3354 lbs, Top Speed 175 mph

#### LOCKHEED SIRIUS 8 (Special)

ATC: Memo 2-400 February 4, 1932

Same except: Gross weight 5200 lbs.

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Also A.A.H.S. Members: John C. Barbery, Joseph H. Barry, Peter M. Bowers, Lewis S. Casey, Stephen J. Hudek, Walter Jeffries, Chalmers Johnson, Gregory Kohn, William T. Larkins, Harvey H. Lippincott, Charles G. Mandrake, Russell Plehinger and Adolfo Villasenor. And to Member Warren A. Eberspacher for the outstanding scale drawing of the Sirius, "Anahuac", on page 275.

ABOUT THE AUTHOR: Well known to nearly every Member for his outstanding book on Lockheed single engine aircraft, REVOLUTION IN THE SKY, Rick Allen has continued with his study of individual Lockheed types. His new work brings to the pages of the JOURNAL word and photo portraits of these planes in far greater depth than in his fine book. The discerning researcher will find, in the Sirius article here, a number of new facts plus a truly representative photo presentation of the many Sirius aircraft. The author's address is simply, Round Lake, N. Y. 12151.

## Looking Up

As the JOURNAL comes to the end of its first ten years, with this issue, it is already looking ahead to bigger and greater things for the future. Often the JOURNAL is complimented for the fine work of the Members and the articles they have prepared for it, but rarely is it recognized for the pioneering work accomplished from its very beginning. Nowhere else can a person seeking information on aviation history find definitive articles on all periods of such length and detail as in the JOURNAL, or such complete coverage of individual aircraft types, or such a wealth of information on aircraft markings and numbering systems.

Such material has opened many new windows into the history of aviation. In the year and years ahead, the pace will continue and be further expanded. New and better ways will appear to tell in depth of man's conquest of the air. The Society Project, leading to the full account of oil company planes up to WW II, will present an amazingly broad view of commercial aviation in the 1920s and 1930s. A new approach to U. S. Naval Aviation in the Golden Years will tell that story as never before. A new kind of technical piece will be a boon to historians, modelers and artists. And there are even more new approaches, just now being born.

Kenn C. Rust, Editor