

B-25s FOR RUSSIA

W. A. Spencer, Mesa, AZ

AAHS Journal, Vol. 23, No. 1, Spring 1978, page 29. "Production and Delivery of B-25s," by W.T. Larkins.

I thought you might be interested to know what happened to some of those planes. The planes (B-25Cs) listed below were flown into Basra, Shaiba and Tehran, given a 100-hour check and turned over to the Russian Air Force. The work was done by a crew from the Douglas Aircraft Co. on Lend-Lease with the RAF in the Middle East.

AACS/N	MODEL DELIVERED
1. 41-12463	April 1942
2. 41-12461	April 1942
3. 41-12459	April 1942
4. 41-12479	April 1942
5. 41-12475	April 1942
6. 41-12469	April 1942
7. 41-12517	April 1942
8. 41-12473	May 1942
9. 41-12553	May 1942
10. 41-12547	May 1942
11. 41-12548	May 1942
12. 41-12551	May 1942
13. 41-12593	May 1942
14. 41-12549	May 1942
15. 41-12521	May 1942
16. 41-12471	May 1942
17. 41-12586	May 1942
18. 41-12557	May 1942
19. 41-12563	May 1942
20. 41-12594	May 1942
21. 41-12556	May 1942
22. 41-12554	May 1942
23. 41-12546	May 1942
24. 41-12526	May 1942
25. 41-12564	May 1942
26. 41-12569	June 1942
27. 41-12555	June 1942
28. 41-12550	June 1942
29. 41-12708	June 1942
30. 41-12520	June 1942
31. 41-12706	June 1942
32. 41-12583	June 1942
33. 41-12530	June 1942
34. 41-12588	Cracked Up, Tehran-Test Flight 6-2-42
35. 41-12744	June 1942
36. 41-12749	June 1942
37. 41-12752	June 1942
38. 41-12707	June 1942
39. 41-12753	June 1942
40. 41-12747	June 1942
41. 41-12537	June 1942
42. 41-12528	June 1942
43. 41-12715	June 1942
44. 41-12534	June 1942
45. 41-12584	June 1942
46. 41-12742	June 1942
47. 41-12710	June 1942
48. 41-12743	June 1942
49. 41-12746	June 1942
50. 41-12751	June 1942
51. 41-12745	June 1942
52. 41-12562	June 1942
53. 41-12712	June 1942
54. 41-12750	June 1942
55. 41-12457	June 1942
56. 41-12746	June 1942
57. 41-12714	June 1942
58. 41-12522	June 1942
59. 41-12709	July 1942
60. 41-12713	July 1942
61. 41-12567	July 1942
62. 41-12559	July 1942
63. 41-12705	July 1942

CREW IN TEHRAN SERVICING THE B-25S

Crew No. 1—Jolly, Bannister, Stroll, Dasch, Hopkins, Lucas.

Crew No. 2—Lysakaski, Hotine, Dragge, Coleman, Nettle, Jackson.

Crew No. 3—Bowles, Dziadul, Momat, Saffa, Davis, Woosley.

McDAMS IN CHARGE OF PROJECT

Radio—Cawway, Casterlin, Davenport, Lee.

Electrical—Benham, Peacock, Hawley, Everhart.

Turret—Parsons, Barney.

Armorer—Palmer.

Painters—Jackson, Jolly.

Hydraulics—Kaehler, Frasier, Davis.

FLIGHT CREW USAC PERSONNEL

T.Sgt. Davis, T.Sgt. Dean, T.Sgt. Grey, S.Sgt. Cawway, S.Sgt. Kublic, Sgt. Palmer, Sgt. Weaver, Sgt. Dillion, Sgt. Schacterley, Sgt. Hayzlett, Sgt. Casterlin.

TEST PILOTS

Capt. John Alison, First Lt. Keane, Second Lt. Stewart.

W.A. SPENCER—
SUPERVISOR DOUGLAS
AIRCRAFT MIDDLE
EAST CREW.



WILLIAM A. SPENCER'S CAREER

1922 to 1929 Army Air Service and Army Air Corps.

1929 to 1931 Standard Oil Co. of Louisiana Aviation Section.

1931 to 1932 American Airways.

1932 to 1936 Instructor with Chinese Air Force in China.

1936 to 1969 Douglas Aircraft Co. Product Support.

December 31, 1969 Retired from McDonnell Douglas Corp. Now living in Mesa, Arizona.

Friend of Harry Gann, McDonnell Douglas Corp. Friend of Barrett Tillman, Arthur, and with the Champlin Fighter Museum in Mesa, Ariz.

COMMERCIAL DC-2s at WAR

W. A. Spencer, Mesa, AZ

Checking through the AAHS Journal, Vol. 15, No. 4, 1970, listing the production and delivery of Douglas DC-2s to the various airlines, I thought you would be interested to know what several of them were used for in the early part of the war, 1940-1943. They were turned over to the RAF in the Middle East and were used as transports in the Libyan campaign in North Africa.

The Douglas Aircraft Co. had a crew of men stationed in the Middle East on Lend-Lease to the RAF. Fifteen of these planes were brought in to an overhaul base at Helwan up the river from Cairo and were overhauled and returned to the Western Desert. After Gen. Montgomery had pushed Rommel back to his retreat to Italy, several of these planes were sent to India. After that I do not know what happened to them. We had stored plenty of spare parts for the overhaul in a cave south of Cairo on the Nile River, where some of the rock had been removed to build the Pyramids.

The Douglas crew was composed of the following men:

R.J. Gaechter; R.V. Burke; T.F. Whipps; R.J. Rogers; P.A. Bass; E.A. Balkus; W.P. Little; F.E. Downs; M.C. Fillmore; M.C. Mitchell; A.E. Shaw; J.A. Woosley; J.O. Brockless; J.E. Jackson; E.F. Lucas; H.R.

Kaehler; C.S. Sholte; W.E. Beck; W.A. Spencer, Supervisor.

There was also a crew of RAF mechanics.

DC-2 AIRCRAFT WITH THE RAF—Middle East

S/N 1310 ex-American—Complete overhaul of both engines and propellers necessary because of corrosion. Both engines in fair shape except for the corrosion. Aircraft overhauled, medium amount of corrosion found, otherwise the aircraft was in good condition.

S/N 1251 ex-American RAF DG-476—Inspection of both engines including a top overhaul on several cylinders. All accessories overhauled; both propellers overhauled. Both engines in bad shape. Aircraft completely overhauled, the aircraft was shot up pretty badly, was temporarily repaired to reach here. Replaced RH. Inboard oleo strut, LH inboard and outboard oleo strut, brake master cyl., four new wheel studs, rudder and elevator recovered. Ailerons recovered, RH front spar patched on center section, LH leading edge stringer patched at 2/3 span, numerous other small patches and repairs made on fuselage and wings. New shear bolts and fairing on tail wheel, center support frames of baggage compt. and floor reinforced.

S/N 1249 ex-Mex. RAF AX-768—Inspection on both engines, ignition trouble corrected. Top overhaul on several cylinders. Accessories overhauled. Both engines in fair shape. Aircraft complete inspection and some small repairs and replacements; aircraft in fair condition.

S/N 1308 ex-TWA RAF DG-473—Inspection on both engines, ignition trouble corrected, top overhaul on some cylinders, accessories overhauled, props inspected and overhauled. Both engines in bad condition. Aircraft overhauled, RH elevator tip repaired, LH flap rod on center section welded, rudder and elevator recovered, RH elevator trimming cable replaced, new tail wheel strut and other small repairs and replacements.

S/N 1314 ex-American RAF DG-468—Inspection on both engines, ignition trouble corrected, top overhaul on some cylinders, accessories overhauled. Carb. trouble corrected, repaired leaks in oil tanks and coolers. Engines were in bad shape. Aircraft cursory inspection only, some small repairs, new tail oleo strut installed. Aircraft in fair condition.

S/N 1367 ex-TWA RAF AX-769—Both engines removed, one for major overhaul and one installed another aircraft after 240 hour inspection. Aircraft in mediocre condition.

S/N 1406 ex-American RAF HR-821—RH engine removed for major overhaul because of broken cyl. hold-down bolts on No. 8 cyl. Another engine was installed after a 240 hour inspection and overhaul of four cylinders. Accessories were overhauled. Both props inspected. Aircraft cursory inspection, LH outer flap rod welded, two windows replaced and some other small repairs. Aircraft was in very good condition.

S/N 1237 ex-TWA 301 RAF DG-477—Both engines removed for major overhaul. Aircraft cursory inspection, tail oleo strut replaced and other small repairs. Aircraft in

mediocre condition.

S/N 1238 ex-TWA 302 RAF HK-837—Inspection on both engines, ignition trouble cleared up. Top overhaul on some cylinders, props inspected. Both engines in poor shape. Aircraft cursory inspection, made small repairs. Aircraft mediocre.

S/N 1313 ex-American RAF HK-847—LH engine 40 hr inspection. RH engine removed for major overhaul, because of a cracked rear crankcase section. Engine was replaced by another after inspection, accessories overhauled and some cylinders were overhauled. Both props were inspected. Corrected ignition trouble. Aircraft fairly good condition.

S/N 1309 ex-American RAF AX-755—Inspection on both engines, some small repairs and replacements necessary. Corrected ignition on RH engine. Both engines in fair shape. Aircraft in good condition.

S/N 1239 ex-Braniff RAF AX-767—LH engine removed for overhaul, replaced by another after a 240 hr. inspection including a top overhaul of one cylinder. RH engine had a 40 hr. inspection with the replacement of some small parts and repairs. Aircraft cursory inspection, RH and LH landing gear oleo struts replaced. Wheels replaced with later type. Two new landing gear strut bushings and four bolts installed. Replaced tail wheel oleo strut. Aircraft in fair condition.

S/N 1403 ex-TWA RAF AX-478—Inspection on both engines, replaced No. 7 cyl., piston rings and cyl. assy. Replaced all S/R pads. There were other small repairs and replacements. Aircraft cursory inspection, some small repairs, replacements. Aircraft in fair condition.

S/N 1315 RAF DG-469—Sent to India-Iraq.

S/N 1240 ex-TWA 304 RAF ?—Sent to India-Iraq.

GERMAN AVIATION HISTORICAL SOCIETY?

David W. Menard, Dayton, OH

I've been a member of the AAHS since its beginning in 1956, with a membership number of 80. My latest *Journal* came this morning, and that back cover flat ticked me off, period! What does a GERMAN CRUISERS' painting have to do with the first two words of this organization's name? Or is it an advertisement? I hope this is the last time something like this happens. There *have* to be aviation paintings much more appropriate.

A numbered, signed print of that painting was donated to the Society by the artist, R. G. Smith, to be used as a prize in the 1983 Emergency Bailout Fund Drive. The AAHS in turn agreed to publish it on the back cover of the *Journal* as a sort of "reciprocal trade agreement." Unfortunately, the subject matter is outside the scope of the Society's charter. The whole idea was not too well thought out or coordinated, but when one is drowning, as we were, survival takes priority over style—and reflex action replaces studied moves. Our apologies. —Editor.

AVIATION HISTORY ON THE WING-REPLY

Fred Freeman, Flushing, NY

In reply to Jack D. Swaney ("Aviation History on the Wing"), Fall/Winter 1983 *Journal*. Today, Mr. Swaney and all of us aero buffs have at our fingertips the making of an incredible personal aviation film library. For as low as \$300, a video cassette recorder can be purchased to record from TV, aero films and exciting scenes from non-aviation films. Renting and purchasing old and the very latest titles on prerecorded tapes also is available, as well as trading tapes with fellow collectors.

HUDSON VALLEY AIRLINE

Jack Swaney, Las Vegas, NV

Re: Hudson Valley Airline questioned by Brendan P. Carmody in the Fall/Winter 1983 *Journal*, the aircraft pictured is a war surplus HS-2L Navy patrol boat, with 400-hp *Liberty* engine. The cabin modification was probably done by the Aeromarine Plane and Motor Co., as this firm specialized in these things, but admittedly this is just a guess.

N&C ERROR

Lawrence Pearson, Tuscumbia, AL

I feel compelled to write and reveal an error by Dick Phillips in an N&C article he wrote. Mr. Phillips, in his article, "Short History of a Civil A-36," said Woody Edmondson had to bail out of NX4E, in the eleventh lap of the Thompson Trophy Race. That is not the case. Woody didn't bail out, he made a crash landing.

MATTERN VEGA

Gregory C. Krohn, West Bend, WI

In reviewing the Forum of Flight section of the Fall/Winter 1985 *Journal* I find an error that should be corrected. Inasmuch as I have published the "Century of Progress" story in the July-September 1958 issue of the *Journal*

(Vol. 3, No. 3), which contains valuable input from Jimmy Mattern himself, I believe I am qualified to make this correction.

The picture of the Lockheed Vega in photo No. 13 is not Jimmy Mattern's round-the-world "Century of Progress" as is indicated. Mattern's Vega carried the registration number NR-869-E and while it carried the flying eagle paint job quite similar to that shown on the Vega picture credited to Gordon S. Reublin, the color schemes on the two airplanes are different. The fuselage and fin/rudder as well as the wheel pants on Mattern's ship were basically blue with a red eagle trim. Mr. Reublin's picture shows the fuselage, fin/rudder and wheel pants to be basically white. Unfortunately the registration numbers do not show in the photo; however, there is an easy explanation for the apparent confusion.

In the early 1930s the Standard Oil Company had two identical Lockheed Vegas, serial number 117 registered NC-105-N, and serial number 118 registered NC-106-N. Both of these Vegas were painted with the red eagle on a basically white airplane. Both of the planes have the name *Stanavo* painted on a white panel on the side of the fuselage between the cabin and the tail of the airplane. It is impossible to compare the feather markings because there seem to have been several applications of the total eagle markings on the two ships and the artist who applied the detail was not careful in duplicating the original eagle trim.

There was yet another Lockheed Vega, serial number 156 NC-8495, a former Standard Oil airplane, which was borrowed from Braniff Airlines and hastily painted with the eagle trim and flown to Ottawa, Canada, for Jimmy Mattern's use so that he could arrive in New York, as he left, in an airplane painted to resemble an eagle following his rescue from the wilds of Siberia.

If the Vega shown in Mr. Reublin's photo is NC-106-N, then the caption of the picture is partially correct because the fuselage and tail section of NC-106-N was used to rebuild Mattern's Vega after his 1932 round-the-world flight failed in Minsk, about 470 miles southwest of Moscow in Russia.



Jimmy Mattern's Lockheed Vega NR-899-E "Century of Progress" at Floyd Bennett Field, New York, prior to takeoff on his solo round-the-world flight on June 3, 1933. (Bill Schneider Collection)

**FORUM OF FLIGHT MYSTERY PLANE—
FALL/WINTER 1983**

This photo with its plea for data created an influx of mail. Rather than run them all in their entirety, they are summarized in order of their posting dates.

R. A. Morley, Redondo Beach, CA

Regarding picture #10 of a rare vintage aircraft—the airframe is a Huff-Daland TA-2. Three were purchased in 1920 and delivered in 1921. Originally these aircraft utilized a Lawrence R-1 or one A.B.C. Wasp engine. The Lawrence engine was 170 hp, and the Wasp was 170 hp. The unusual wing supporting structure is the "giveaway" for this early training aircraft.

Paul W. Vineberg, Fort Worth, TX

The mystery aircraft (page 248, No. 10) was the Huff-Daland and HD-1B "Early Bird." It was a five-place "utility" aircraft with two 100-hp engines, and was the first Huff-Daland, flying in 1921. Originally this was the Model HD-1 with two 100-hp Anzani engines.

Robert A. Gordon, Gales Ferry, CT

The airplane is the Huff-Daland HD-1A or HD-1B "Early Bird" built in 1920. The HD-1A was used to test an aerial pickup device created by Godfrey L. Cabot. To quote from an article by Walt Boyne on the history of Huff-Daland in the Dec. 1977 issue of *Wings* magazine:

"Capt. Claud Devitalis flew the first series of tests (aerial pick-ups) in April, 1921 but the LeRhones were troublesome, and a forced landing in rough country forced a major rebuild. In the second version, the Anzani's were fitted, and pick-ups were made in July, 1921 from a device set on a scow in the Anacostia River at Washington, D.C.

'Lt. Harold R. Harris of McCook Field flew this second series of tests. . . ."

The three Army personnel around the plane seem to indicate it may have been taken at the time of these tests. The curious girder-like wing struts and the external longerons running from the fuselage top into the upper wing were used on several Huff-Daland designs of the early 1920s.

Paul H. Everson, Elmira, NY

The aircraft appears to be a twin-engine version of the Huff-Daland (HD-4) TA-2 which was built for the U.S. Army in 1921-22. I'm enclosing a copy of an ad from the Aug. 1, 1921, issue of *Aviation* magazine.

Edward Peck, Waddy, KY

Obviously it is a twin-engine adaptation of the TA-2 Army trainer as pictured on page 18 of Fahey's *U.S. Military Aircraft*.

Edward F. Arbogast, Cadillac, MI

The plane in question is the Huff-Daland HD-1B, using two 100-hp Anzani radial engines and sporting cowl. An article by Walt

Boyne entitled, "Huff-Daland in 3D," was published in *Wings*, December 1977, Vol. 7, No. 6. Enclosed is a copy for your research files.

Jack Swaney, Las Vegas, NV

In spite of its looks, it was said the machine performed very well for its day, and was tested at McCook Field in 1921, though was never purchased by the U.S. Army. It was later fitted with one Lawrence radial in the nose and sold to the Army Air Service as the TA-2 (Trainer, Air-cooled No. 2) in a small batch of three. Three listings were found in the McCook Field P-Numbers file under P-166, P-184, and P-238. Two entries indicate a Huff-Daland TA-2 was surveyed on October 20, 1926 (No. 24333).

ROCKNE/ SEVERSKY DISASTERS

John Underwood, Glendale, CA

There is, as Ernie Gunn has written, a degree of mercy beyond which anyone is rude to inquire and I was reminded of this while reading Mauno Salo's recount of the Rockne disaster.

My dad commuted regularly by air during the 1929-31 period and before that whenever he could catch a mailplane. He was punctual to a fault and missed but one connection, that being the TWA westbound out of Kansas City on March 31, 1931.

Fate was smiling on Capt. M.O. Bowen at the same time. He and Mathias were slated to take 999E out, but they were short a pilot on the coastwise service and Moe was diverted to San Francisco at the last minute. TWA was understaffed and it was either Moe or R.G.F. who, incidentally, spelled his name the same way as his boss, Jack Frye.

Ed Young's article on Siam prompts me to mention another sale of American aircraft to that country. Alex Seversky, unable to sell his escort fighters at home, turned to foreign markets. He sold 20 2PA-B3s to Siam in 1938 and they were ferried to Glendale for sea shipment by Babb & Co. Somehow they

ended up in the Japanese Navy where they saw service in China against American pilots. It was Seversky's undoing and, rightly or wrongly, his directors felt obliged to sack him. Seversky Aircraft then became Republic Aviation.

HOLLYWOOD'S 13 BLACK CATS

Ed Young, Burbank, CA

Reference: AAHS *Journal*, Vol. 28, No. 3/4, Fall/Winter 1983, I'm not purposely trying to get my name in the *Journal* again, but in the interests of accuracy (which the use of the word "journal" implies) there is a need to clarify a minor point or two in John Barclay's great article, "Hollywood's 13 Black Cats" in the referenced *Journal*.

Spider Matlock was primarily an auto racing riding mechanic in later years and was killed, not in a barnstorming accident, but in a two-man, Indianapolis-type car, along with driver Al Gordon, on January 26, 1936, at Legion Ascot Speedway in Alhambra, Calif. The resultant press coverage resulted in the shut-down of the famous oval.

Second point: In my collection of insignia pins and pilot wings (see AAHS *Journal*, Summer 1967), I have an insignia pin that Lyle Berry gave to my dad, "Brig" (AAHS *Journal*, Spring 1977), with the letters ACC, which represent the Aero Corporation of California, not of Southern California. The word southern must have popped up inadvertently in the article. My understanding is that Berry, as well as Walt Hamilton, later superintendent of maintenance for TWA, were involved with Jack Frye and Paul Richter in ACC. Also that ACC was therefore the start of TWA (T.A.T.).

Otherwise it's a great article. Barclay's ride with Richter was more exciting than mine, mine being a mundane delivery flight of DC-2 number 7 all the way from Clover Field, Santa Monica to Grand Central in Glendale. Jack Frye was copilot, Ralph Ellinger and my dad as the only passengers besides me—a 15-year-old being rewarded for washing the family car.



Defueling Seversky 2PA-B3 at Grand Central Air Terminal by Babb & Co. for shipment to Siam.

(Jim Stevenson Photo via J. Underwood)

LILLIE-VOUGHT FALLOUT

Arthur L. Schoeni, Dallas, TX

The Fall/Winter '83 *Journal* arrived today with my article on the Lillie-Vought biplane of Chance M. Vought. I thought it was presented well and hopefully will be of interest to buffs of the early days.

I am rather distressed, however, that two paragraphs got left out from my manuscript. They were paragraphs 11 and 12 which identified Kenneth M. Molson of the Canadian AHS who was of great help in getting my story together. The article mentions Molson in several instances but never identifies who he was. I would like to send him a copy of the *Journal* but hesitate since it had that obviously accidental omission.

The paragraphs that were omitted should have come on the first page at the bottom of column one, before the paragraph starting "Vought carried on his writing, etc."

I'm enclosing a copy of my manuscript with the missing paragraphs in case you don't have my original copy handy. I want to thank you for returning the illustrations I submitted to go with the article. Recently I turned over to the Vought public relations office my file of several hundred copy negatives made from Chance's photo albums so they would have them for future reference and printing.

That article about the Lillie biplane represents my "swan song" in aviation writing. My eyesight is such that I cannot devote the hours further writing would require researching data. I note the "About the Author" mentions that I had placed 164 of my photos in U.S. and 16 foreign countries' magazine covers. After I wrote that I decided to make color slides of all of my covers, which I have. I found I had "scored" 183 covers instead of 164—not that it matters. I have them all in my files but never counted them, just added a number as I went along over the years.

OMITTED PARAGRAPHS

Vought Company in 1971 sent copies of the three prints to aviation historians, looking for information on the plane. One of these, Kenneth M. Molson of the Canadian Aviation Historical Society, sent a copy of a 1913 *Aero* and *Hydro* magazine article describing the aircraft. It was a half-page feature on details of the design, illustrated by a full-page, three-view drawing of the plane. The article did not credit Vought as the writer but he signed the drawing that went with it—and he was technical editor of the prestigious magazine at that time.

Molson had been interested in the Lillie biplane because of a flight it had made from Montreal to Ottawa. He believed it was possibly the most advanced American design of the period.

No matter how careful, we still make errors. With consecutive paragraphs starting with the same word, the typesetter jumps the track—and we ride along with him. My apologies for failing to catch this omission.

—Editor

MYSTERY SHIP

Dustin W. Carter, Lake Elsinore, CA

I believe I may have the answer to the question of the "missing struts" referred to in the letter from Jesse Davidson in Vol. 28, No. 2, JAAHS.

Last year I did some research on the Travel Air racers at the request of an editor for a French aero magazine. In the process I uncovered a number of things I had not seen in print before. Among them was what I believe to be the solution to the "missing struts" on the final version of the Shell racer. The accompanying photo was a clue to what happened to the struts. I have also enclosed a sketch to illustrate my conclusions.

As noted in the Ed Phillips story, "Mystery Ship," Vol. 27, No. 4, Winter 1982, the Shell racer was taken to Parks Air College for modification. It was hardly "the remains" of an accident as may be seen in the photo. The airplane had more than just "aeronautical refinements." It had an engine change to a larger, higher horsepower P&W, the pilot seat was raised a few inches and completely new wheel pants were made and installed. Those changes were accompanied by a complete refairing of the fuselage. The resulting fatter fuselage fairing hid a portion of the "struts." The very large wing fillets that extended out to the first rib outboard of the root rib completed the job of hiding the "struts." See attached sketch.

The "struts" are really an integral part of the welded steel tube fuselage and a vital part of the overall structure of the airplane. They cannot be removed. The photo on page 286 of JAAHS, Vol. 27, No. 4, is a superb picture of the steel tube fuselages of R613K and R614K. It illustrates the vital part these "little struts" play in the basic integrity of the entire airplane.

I have read two separate accounts of the infamous curved aileron torque tube as the cause of aileron flutter. I have looked for some verification to those accounts as they tend to cause one to think that some of these changes may have been done in a frivolous

manner. I would think this is far from the case. In my more than 40 years as an aero engineer, I have had the honor of working with alumni of Parks Air College and they were all outstanding designers due to their basic skills taught them while at Parks.

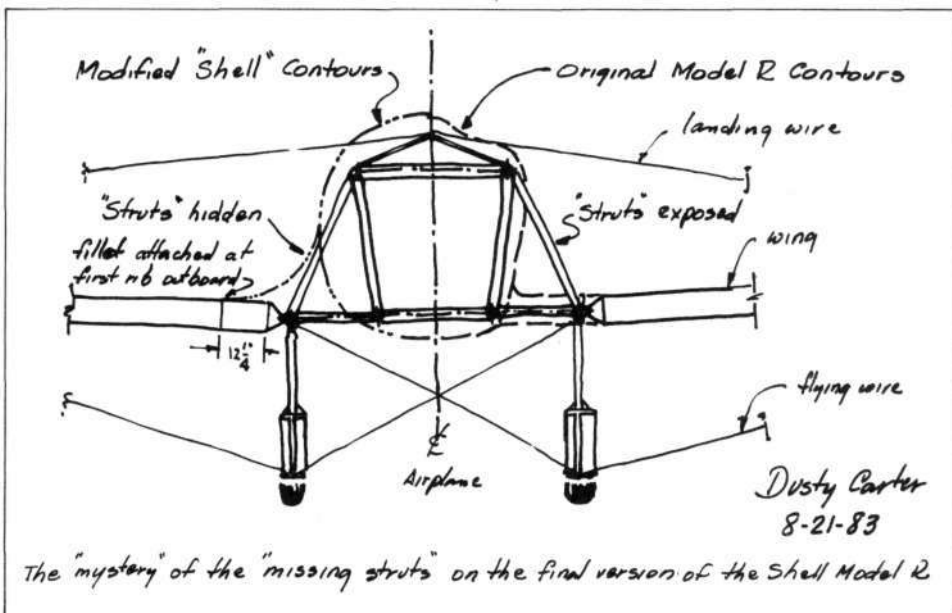
In my opinion, flutter analysis is nearly a "black art" science even today and I am always reluctant to believe the "obvious." Other airplanes of that time period were suffering from flutter as they installed larger engines and went faster. Maybe someone can shed some light on this question.

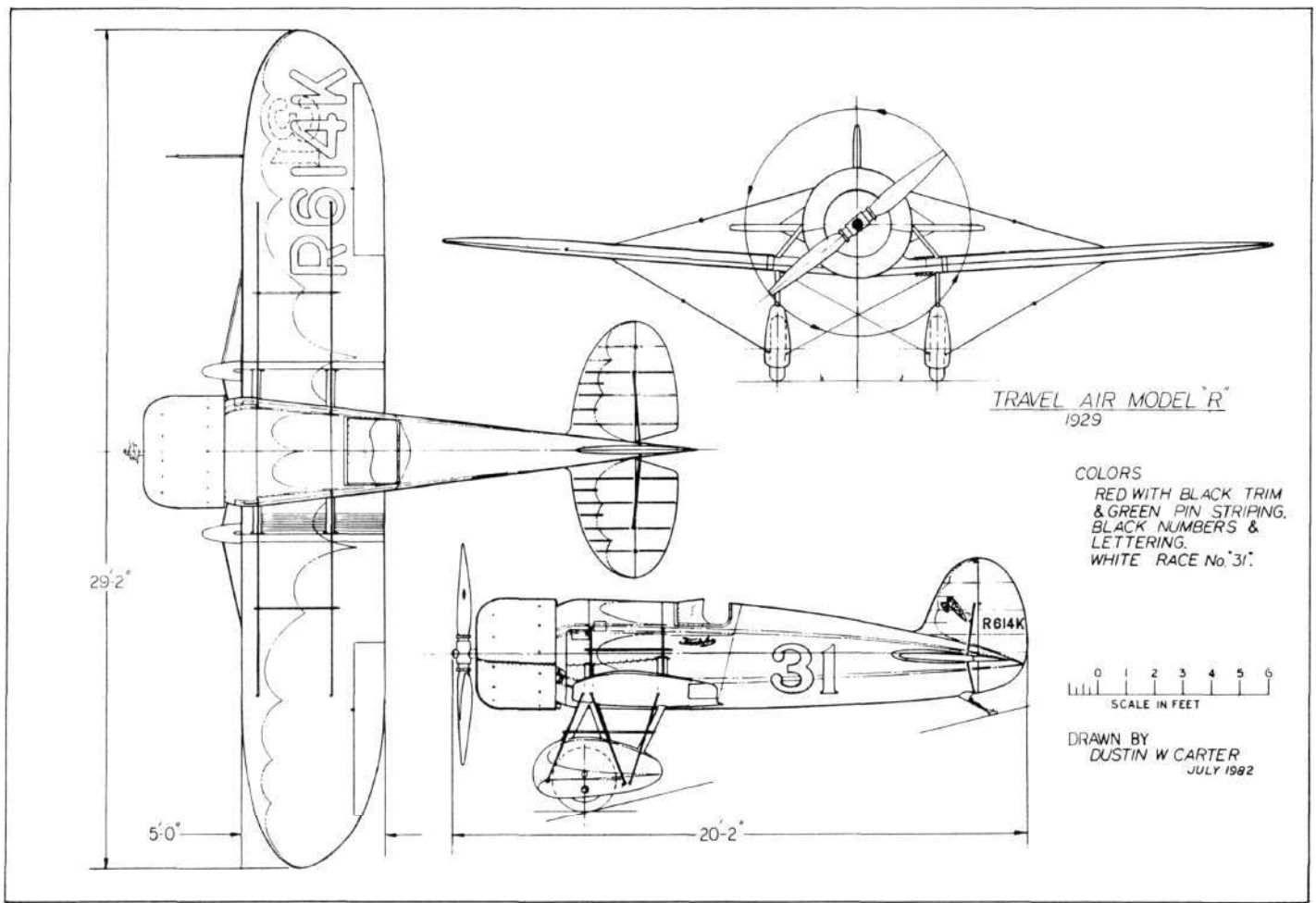
I have some questions of my own regarding the Model R airplanes. Even though I have researched the subject fairly well there is a couple of points I have not resolved:

Color of the original "TEXACO 13"—Everyone seems to agree that the striping was red but the basic color seems to be in question. I have seen writings that described the basic color as pale yellow, grey and light tan or buff. I would tend to agree with the tan or buff description. The Texaco service stations were, and some still are, painted tan or buff with red and green trim. I would appreciate some verification of this.

Long wing vs. short wing—The only actual data I have is a copy of a Walter Burnham letter that describes in detail the "TEXACO" airplane. On this airplane there were two sets of wings, the short wing being the same as the original wing of R614K. A longer wing was made for Texaco's long-distance flights. The "long wing" was actually a bigger wing with a span of 30'6" compared to the standard span of 29' 2" and with a chord of 5' 3" against 5'0". I have noted that most authors refer to R614K having "long" and "short" wings. I have been unable to detect the differences in the many photos I have of R614K but I am able to see the differences in the "Texaco 13" photos I have. I would appreciate any comments on this subject.

Before I leave the "Mystery Ship" subject there is a point I would like to make regarding "the little civilian racer beating the best the military had to offer." Much has been written about how superior the design of the





Travel Air over the military entrants in the 1929 race. The following is not intended to downplay the great design done by Herb Rawdon, whom I worked with at Douglas Aircraft, and Walter Burnham. They did an outstanding job and their design genius really paid off in the field of air racing. Their design concepts also greatly influenced the future design of military aircraft. The point I want to make is the value of a "point design," that is, a design with a single set of performance parameters, in this case a "racing machine." The only goal was to provide the best design to satisfy the racing requirements. Minimum fuselage cross-section was designed around the pilot to the extent of the upper longerons

being just far enough apart to clear the pilot's shoulders while the lower longerons were spaced closer together to just clear the pilot's feet. This practice is still used today in some of the midget racer designs. The fuselage was designed for an in-line engine to further minimize the cross-section area and when a suitable in-line engine could not be found they substituted a radial engine of sufficient horsepower to accommodate the additional drag of the larger frontal area. Apparently this was the only compromise to the "point design." On the other hand, the "military racer" had the reverse design approach, that is, they had a fighter aircraft that was designed to a number of parameters such as,

performance with a military load, maneuverability, range, maintenance, etc. The resulting design was no doubt a series of compromises to attain the best overall fighting aircraft. To make a pure racer of such a machine was nearly impossible because the aircraft had been designed and sized to meet different requirements. The best that could be done was to improve its speed by careful streamlining and removing as much weight as possible without changing the basic airframe. The result: improved speed but certainly not equal to a "point design" racer.

One further point: When the basic Model R design was changed to accommodate the "TEXACO" requirements of increased range (more fuel) and improved cockpit (full panel with navigation aids and improved pilot comfort) the airplane rose in weight from 1940 pounds, for R614K, to 2742 pounds for Hawk's "TEXACO." As a result "TEXACO 13" was never the competitive airplane that R614K was. It was a compromise to the "point design."

Editor's Note:

Dustin W. "Dusty" Carter is a retired aerospace engineer with design experience ranging from the Vultee V1-A/V-11 to the space shuttle. He has had experience in design of armament installation, powerplant installation, landing gear, structural assemblies and has supervised preliminary and conceptual design groups. Air racing is one of his major interests in aviation history.

