

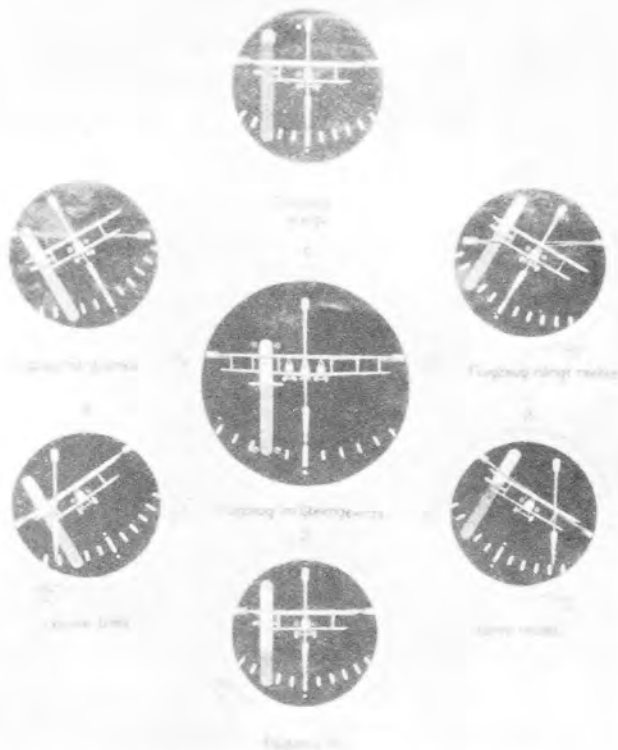
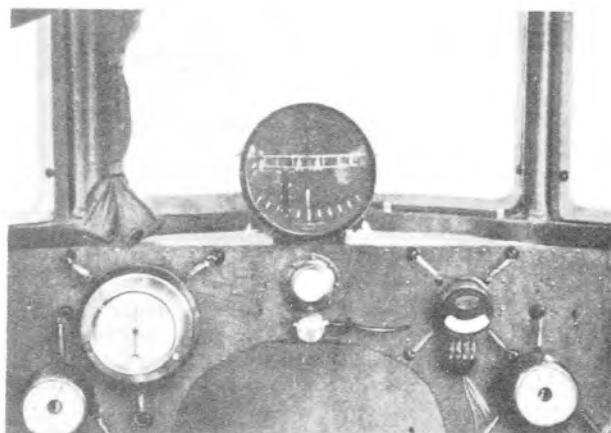


AIRPLANE DISPLAY ON INSTRUMENT FACE

The Drexler gyro-driven artificial horizon for R-plane use in 1917 - 1918. The vertical dial at left is a liquid-level climb indicator. (Photo from Riesenflugzeug)

At upper right - a complete Drexler artificial horizon assembly showing the propeller-driven generator and connecting cable. (Photo from Automobil & Flugverkehr)

Below - the Drexler artificial horizon shown installed in a Staaken R.VI. (From Riesenflugzeuge)



Key to display - At Center, aircraft in level flight. Clockwise from upper display - Climbing, Right wing low, In right bank, Descending, In left bank, Left wing low. (Automobil & Flugverkehr)



CANADIAN HS-2L DEVELOPMENT



WHATSSIT???

MAIL SACK

MAIL SACK

FIRST DISPLAY ON AIRCRAFT INSTRUMENT

Mr. Robert J. Scheppler's article on the development of aviation instruments was very informative and represented the kind of article I think we should have more of; i.e. the history of aeronautical engineering and technology. The story of technological advances can and does make fascinating reading as demonstrated by Mr. Scheppler's fine article.

There was a statement in the article to which I take exception. There is some doubt whether Sperry was the first company to produce an instrument showing the attitude of an aircraft on the face of the instrument. In the article it is claimed this first occurred in 1919. (1) While I do not know where the first attitude indicator with aircraft depiction was built, the Germans used a gyro-horizon as early as 1917 in their RIESEN-FLUGZEUGE (R-planes) which depicted the aircraft on the face of the instrument, which was a turn or bank indicator similar to the Sperry device illustrated in the article (Ibid. page 169). The ANSCHÜTZ gyro horizon was used before November 1917 until replaced by the lighter and much smaller DREXLER gyro horizon on bank indicator. The gyro as used in the ANSCHÜTZ system was not free from centrifugal effects and furthermore required some 10 to 15 minutes to reach operating speed. This prevented proper operation of the gyro during the take-off phase. (It is not known exactly why). To correct the first shortcoming the weight of the gyro was increased to some 40 kg. which made its continued use prohibitive from a weight standpoint even in an R-plane, though they were used for a short time. In November 1917 the DREXLER gyro bank indicator was introduced. It was light-weight (5 kg.) greatly simplified device that operated on the gyroscopic precession principle. It reached running speed in less than one minute, was powered by a small propeller driven generator and was used in all operational R-planes in 1917-1918. Peter M. Grosz, Prettybrook Rd., R.D.2, Princeton, N.J.

References:

Offermann, E. Riesenflugzeuge. Carl Schmidt & Co. 1927, p.391.
Automobil und Flugverkehr, 21 May 1919, p.118
 Ibid, 24 July 1919, p.171
 Grosz, P.M. and Haddow, G. The German Giants. Manuscript to be published, G. Putnam & Sons, 1962.

(1) JOURNAL, Vol. 6, No. 3 (Fall 1961), p.174.

CANADIAN HS-2L DEVELOPMENTS

Enclosed is a photo and a few lines on a little known Canadian development of the HS-2L which may be of interest to AAHS Members.

Following World War I the Curtiss HS-2L came into general use in Canada in the northern areas. It continued in use until about 1930, serving the various civil operators, the Ontario Provincial Air Service as well as the Royal Canadian Air Force and its predecessor the Canadian Air Force. In view of this wide spread use it is not surprising to find Canadian Vickers, Ltd. of Montreal, testing a modified version of it on the 11th of May 1928. This was known as the HS-3L as apparently they were unaware of the HS-3L flying boat developed in the United States about 10 years earlier. To keep the historical record straight it seems that this Canadian development must be called the Canadian Vickers HS-3L.

This new version embodied wings of Clark Y section but retained all other components of the original HS-2L except for a strengthened strut extending forward from the engine mount to the hull.

From a comparison of the performance of the HS-2L

MAIL SACK

and Can. Vickers HS-3L it may be noted that the improvement was in the low speed range and ceiling and doubtless this was what was mainly desired. Also one cannot help but suspect that the increase in the empty weight is probably accounted for by water soaked up by the hull.

At least three flying boats were converted and it is possible there may have been one or two more. Those converted were as follows:

G-CARO (original c/n not known)
 G-CANZ prototype (original c/n not known)
 G-CAFI Ex-Navy A.1258 built by L.W.F. Engineering Co.

All three were owned by Canadian Airways, Ltd. of Montreal, which was operated by H. S. Quigley the well known WWI pilot and not the Canadian Airways, Ltd. of Winnipeg. One of these, G-CANZ, was later sold to A.R.C. Holland of Nassau, B.W.I. and may have operated there.

Specifications:

Span upper 64'6" chord 7'6"
 lower 55'9" " 7'6"

All other dimensions unchanged from HS-2L

Weights (G-CANZ)

Empty	4504
Fuel 118 gals.	850
Oil 8 gals.	80
Water 16 gals.	160
Disposable load	906
Gross	6500 pounds

Performance:

Speed. max.	87 m.p.h.
" min.	47 m.p.h.
Rate of climb	360 ft./min.
Ceiling	6000 ft.
Time to "unstick" with full load	- 38 seconds

The Canadian Vickers test pilot reported: "With full load the machine is in perfect trim. Lateral control is easy and it responds well. The take-off is clean and easy and at all speeds the machine is comfortable to fly".

K.M. Molson, 65 Sir Williams Lane, Islington, Ontario, Canada

WHATSSIT???

The picture below was sent in by Member Bartlett Gould in the hope that someone can tell me who and what. Address him at 15 Walnut St., Newburyport, Mass.

AIRCRAFT STEAM ENGINES

I would like to enter a footnote to Mr. Lippincott's fine article on air-cooled engine history. Perhaps his research uncovered something on the subject of steam engines.

In the Navy's quest for a better aircraft power plant, culminating in the Lawrance engines of 1921, it appears that no reasonable prospect was overlooked: The steam engine was dragged out and re-evaluated. The Navy Department's Bureau of Engineering had built, probably in 1919, a remarkable flash boiler which, complete with a turbine, was to weigh 3 lbs. per HP.

"This investigation was carried on by a Committee on Experimental Power which included among its members some of the foremost American engineers who have been associated with steam-driven motor cars and gas turbine-driven torpedoes." Cdr. Eugene E. Wilson, in NACA Tech. Note 239 (1926) p.6.

In spite of the problem of a condenser, this project

MAIL SACK

must have held great promise for its proponents. I mention it as a forgotten episode in the larger history of naval aviation, and I would be grateful for any source on it. Who originated the idea; were the findings published as Power Plant Notes; and was it this same group who later designed a 2000 HP steam turbine unit at Great Lakes Aircraft Co. for the Navy?? (2) Harold A. Poole, 170 - 11th Ave., Seattle 22, Wash.

(2) Harvey H. Lippincott, "The Navy Gets an Engine", JOURNAL of A.A.H.S., Vol. 6, No. 4 (Winter 1961), p.247.

BENOIST AIRPLANE FOR NATIONAL AIR MUSEUM

I am not normally given - or driven - to writing letters to the editor, however, an item on page 279 requires correction.

Mr. Weeks has long been a valued friend of the National Air Museum and we hope he will continue to assist us in the future.

The error lies in the disposition of a Benoist aircraft. This airplane was offered to the National Air Museum. We expressed our interest but lack of transportation funds. When the airplane was faced with "eviction" from a midwest museum, we were able to arrange for flying delivery. Through the cooperation of an Air Reserve Squadron, we had arranged pick-up of the airplane. We might add this squadron juggled their training schedule and personnel volunteered for the flight to make it possible. The owner was so advised. In reply, two days before the flight, we were advised that the airplane was going to a museum in Wichita.

We are pleased that the Wichita Air Museum now has this specimen as it appears to be in fine condition. In a journal devoted to historical fact, it is well to insure accuracy in current facts. If within our power to do so, we will be pleased to explain the facts before damaging information reaches such a dedicated reader audience through the Journal. In short, we heartily subscribe to Paragraph 2 of your editorial on page 280. Louis S. Casey, National Air Museum, Smithsonian Institution.

NORTH AMERICAN O-47's

This photo of the O-47 in the JOURNAL recalls some I photographed in Tulsa in 1947. They had been registered and were used by the Aero Exploration Co. of Tulsa. This company was organized in 1935 and at the time I took the picture they owned 17 airplanes, including some P-38's. If they are still around I know not. One of the O-47's was registered NC-73723. (3) Robert Stachowiak, 1212 Bucklin Ave., La Salle, Ind.

(3) See JOURNAL, Vol. 6, No. 3, Page 207, The Air Museum.

PRATT & WHITNEY "WASP MAJOR" TEST BED

The enclosed photo shows a standard F4U-1 on the right and the P & W modified F4U-1 (WM) on the left. This installation of the R-4360 was the first in a "Corsair" airframe, preceeding the first XF2G-1 illustrated in Vol. 6, No. 2 of the JOURNAL. It was intended as an engine flight test installation and the later XF2G-1 installation differed considerably. The F4U-1 (WM) was the third flight test bed in the "Wasp Major" program. It was flown by a Navy test pilot from Patuxent River for a brief evaluation, but the results of this evaluation were considered of little significance in view of the fact that this was an early F4U-1 and that the XF2G-1 was a different modification. Photo on Page 59. Harold Andrews, 4022-25th Road North, Arlington 7, Va.

NAVY PHOTOGRAPHS TO NATIONAL ARCHIVES

One of the interesting aspects of the U. S. Navy photo files which have now been turned over to the National Archives, is that the pre-September 1945 aviation coverage included is not exclusively Navy. Some of these photos have a Navy tie-in, such as non-Navy aircraft being tested by the Navy or Army Air Force fighters taking off from carriers during WW II. Others, such as the two examples here, have either no Navy connection or, at best, a very slender thread.

Both of these aircraft do fit into another story, that which Basil L. Rowe tells so well in "Under My Wings", (Bobbs-Merrill Co., 1956).

The much modified Thomas-Morse S-4E, which carried the name "Space-Eater", was modified by Rowe for the 1925 Air Races. It was fitted with one of a series of liquid-cooled engines developed by Aeromarine in Keyport, N.J. which never reached production. The four cylinder upright Aeromarine B in the "Space-Eater" was rated at 145 hp. Rowe flew it to first place in the Free-For-All in the National Air Races at Mitchel Field.

The other photo shows the Keystone "American Legion" at Langley Field, Va. being readied for the New York to Paris flight by LCDR Noel Davis Lt. Wooster, both Navy Reserve officers. Two weeks after this photo was taken (12 April 1927), both were killed in a crash while carrying out heavy weight tests. The airplane was not severely damaged, and was subsequently purchased by Basil Rowe who had it rebuilt as a transport by Keystone. It became the "Santa Maria" of his pioneer West Indian Aerial Express.

Prints from negatives which were in the NPC files and transferred to the National Archives are now included in Records Group 80. They can be ordered under their former USN number preceded by 80-G. The S4E would be 80-G-6372, for example. Price is \$1.00 per 8 x 10 glossy print, and orders should be addressed to:

STILL PICTURE BRANCH
NATIONAL ARCHIVES
WASHINGTON 25, D.C.

Orders should include remittance by check or money order. Harold Andrews, 4022 25th Road N., Arlington, Va.

MORE ON NORTHROP "RAIDER"

Recently I learned that the YC-125B described as TG-DAH-84, was not the ex-USAF No. 48-618 but was in fact 48-619. (4) The ex-48-618 was totally destroyed in a crash in Mexico. The enclosed photo shows TG-DAH-94 with "Northrop YC-125" in the stripe near the nose. Gary Kuhn, 643-15th Ave. North, So. St. Paul, Minn.

(4) Refer to JOURNAL, Vol. 6, No. 1 (Spring 1961) p.39

ROADSIDE AIRCRAFT

The Cessna, NC53198, is atop a gas station on Highway 67 in Texarkana. There is also a BT-13 Vultee "Vibrator" on an Army recruiting sign about 3 miles west of Texarkana on the same highway. Mitch Mayborn, P.O. Box 6701, Dallas 19, Texas.

"SPIRIT OF ST. LOUIS II" - the F-100F

The article on F-100's was most interesting. (5) One of the F's was a "name plane" assigned to this wing for three years, the F-100F-1-NA, #56-3730, the SPIRIT OF ST. LOUIS II. It is one of the oldest "F" models flying and was the first "F" in Europe, coming over in July 1957 to commemorate the 30th anniversary of Lindbergh's flight. "Lindy" was to ride it over, but cancelled. After touring the continent with its first outfit, the 20th TFW, it transferred to the 417th TFS,

(5) JOURNAL, Vol. 6, No. 3 (Fall 1961) p.191.



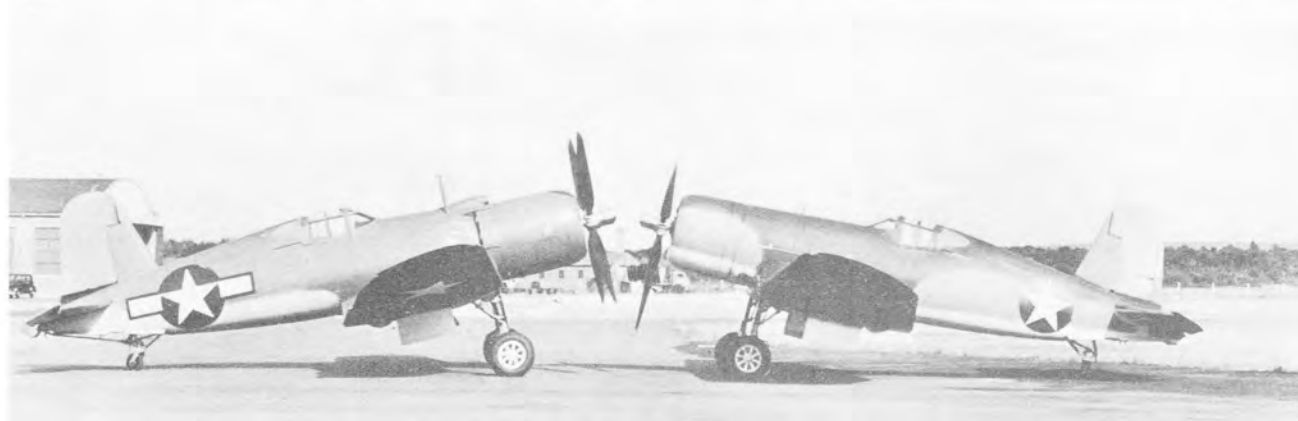
North American O-47's

(Photo - Robert Stachowicz)



Northrop "Raider"

(Mitch Mayborn)



F4U-1 and F4U-1 Modified for Pratt & Whitney's "Wasp Major" test bed.

(Pratt & Whitney)



Keystone

(National Archives No. 80-40608)



Thomas Morse S4E

(National Archives No. 80-G-6732)



Cessna NC53198

(Mayborn)



F-100F-1-NA, S/n 56-5370

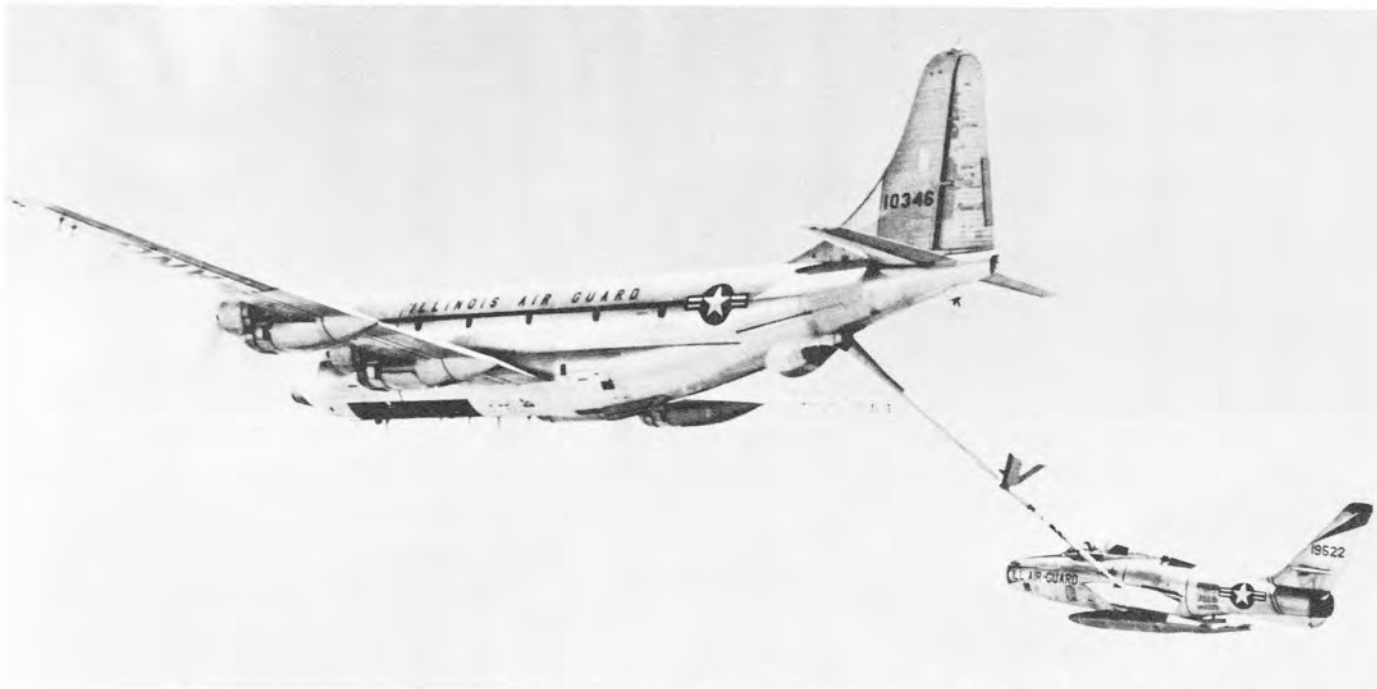
(David W. Menard)



McDonnell FH-1, ex-BuNo. 11783, ex-VMF-122 (Rob't O'Dell)

North American FJ-1, ex-BuNo. 3552

(O'Dell)



First Air National Guard in-flight refueling mission

(Courtesy David H. Brazelton)



Left - Pioneer aviator Harry Park (Courtesy J.J. Smith)

Below - J.E. Mais Biplane (Courtesy Earl Crossley, Jr.)



50th TFW in late 1958. In September 1961 it transferred to an ANG Squadron somewhere in the Mid-West. The enclosed photo shows it in the markings of the 50th TFW with "SPIRIT" on the nose.

Also, the F-100F illustrated on Page 195, #56-3870, is now at this base on temporary duty (Nov. '61). Its paint job has changed - silver nose and tail - with the TAC insignia and lightning bolt on the rudder.

Finally, I would like to correct the serial-and block numbers for the F-100C's listed.

F-100 C-1-NA	54-1740 to - 1769	(30)
F-100 C-5-NA	-1770 to - 1814	(45)
F-100 C-15-NA	-1815 to - 1859	(45)
F-100 C-20-NA	-1860 to - 1969	(110)
F-100 C-25-NA	-1970 to - 2120	(151)

David W. Menard, Box 336, 50th CAMRON, APO 109, New York.

EDITOR'S NOTE

John T. Wible, who provided us with the original listing in the JOURNAL, referred to above, also wrote recently with corrections, with the assistance of Member Ray Ruhe. However, by his listing the blocks should be:

F-100 C-20-NA	54-1860 to - 1970	(111)
F-100 C-25-NA	-1971 to - 2120	(150)

He also states: "Incidentally, the F-100F prototype was originally F-100C-20-NA, #54-1966, redesignated TF-100C prior to receiving the F-100F label"

John T. Wible, USAF, 2152 Comm.Sqdn., Box 33, APO 235, San Francisco, Calif.

EX-NAVY FH-1 and FJ-1

Enclosed are some photos and data on 2 aircraft currently in the New York area which I thought would be of interest to the Members, particularly those who specialize in U.S. Navy types. They are both examples of the Navy's early attempts at pure jet fighter design. The first is based at Teterboro, New Jersey and is a McDonnell FH-1 "Phantom". It is currently unregistered and is owned by the "Teterboro School of Aeronautics". While in service with the Navy it was assigned to VMF-122 (Marine Corps) for part of its life. It carried BuAer #111783. The 2nd is a North American FJ-1 "Fury". This aircraft is currently sitting in high weeds at MacArthur Field in Ronkonkoma, L.I., New York. I believe it is owned by the "Aero Trades" school based at the field. Like the FH-1 the FJ-1 doesn't seem to be used by the school and is slowly being reduced to junk by the elements and souvenir hunters. The enclosed photo was taken in October, 1959. The airplane was in fairly good shape then with only the wingtips missing. Member Ed Maloney wanted to purchase this one for The Air Museum but the deal fell through when the owner wanted \$10,000 for it. The only clue to this aircraft's past is the possibility that it was assigned BuAer #03552. Robert T. O'Dell, 64-21 73rd Place, Middle Village 79, N.Y.

"OPERATION HOOK-UP" A SUCCESS

The FIRST In-Flight Refueling Mission by an Air National Guard KC-97 Tanker and an F-84F Receiver aircraft combination was successfully accomplished by two Illinois Air National Guard Aircraft of the 126th Air Refueling Wing and the 169th Tactical Fighter Squadron on 6 September 1961, less than one month after receipt of the first tanker aircraft. Thirty-eight additional hook-ups, both wet and dry were accomplished on this same mission with five additional Air National Guard F-84F aircraft, with a total of 17,000 pounds of JP-4 fuel transferred.

All combat crew duties in both the tanker and fighter aircraft, with the exception of the tanker aircraft

commander and navigator were performed by Air National Guard personnel.

The tanker is a KC-97F from the 108th Air Refueling Squadron, Ill ANG, based at O'Hare International Airport, Chicago. The flight crew included Brig. Gen. Donald J. Smith, Chief of Staff of the Illinois Air National Guard.

The receiver is an F-84F-40GK from the 169th Tactical Fighter Squadron, Illinois ANG, Peoria. The pilot is Col. Harold C. Norman, Director of Operations, Ill ANG. and Base Detachment Commander at the Peoria ANG Base. David H. Brazelton, 5007 W. Linda Curve, Bartonville, Ill.

PIONEER AVIATOR HARRY PARK

Harry Park and his wife, Gertrude Park, lived in hotels along Hill Street in L.A. from 1947 to 1955. There is some evidence that after giving up his career in aviation, he became interested in trick bicycle riding and probably traveled the theater route, accompanied by his wife who was also a cyclist. They evidently had no children, and so far as is known, no surviving relatives. Mrs. Park died in a sanitarium about 1952. About this time the Los Angeles MIRROR sent a reporter and photographer to call on Harry Park at 360 So. Hill St., L.A. where they copied the picture submitted herewith. The story and the picture were never published. The reporter is a journalist in Europe now. The story was not filed.

Harry Park became almost blind and fell down the stairs at his hotel, Sept. 1955. He was removed to the county hospital where he died, Oct. 3, 1955. Two old men, who did not register their names, and a clergyman were the only witnesses to the service. All efforts to obtain any trace of survivors failed.

Harry Park was born in Maryland, Nov. 14, 1869. His father was Harrison Park, born in Illinois, died in 1882. His mother was Sally Peters, born in Wash., D.C., died in 1894. He had one sister, died in 1902. Harry Park lived in Maryland 40 years, Missouri and elsewhere 9 years, Oregon 16 years, California over 20 years. Aged 85 when he passed away. Occupation - Printer. No military record.

A copy of this report went to Member Harold Morehouse and to Reginald D. Woodcock, 13 Blackburn Lane Haverford, Pa. Mr. Woodcock had requested the information in connection with a plaque that was to have been placed at the St. Louis Airport which was to include the names of pioneer St. Louis aviators who at some time had connections with the Benoist School of Aviation there. This report probably failed, as a conclusive confirmation, to qualify Harry Park.

J. J. Smith, 5714 Rimpau Blvd., Los Angeles 43, Calif.

J. E. MAIS BIPLANE

Member Earl Crossley, Jr., sent in to the Editor this photo from a box of pictures he discovered labeled "Local aviation meet, Hawthorn, Chicago, Aug. 5, 1910". The picture itself was labeled "Biplane constructed by J. E. Mais, 3110 Fullerton Ave., electrician." Apparently the ailerons, if such they can be called, were let in near the leading edges of the wings.

REBUTTAL ON GERMAN WW-I SERIAL NUMBERS

Lt. Col. Jesse Thompson's letter in the MAIL SACK column illustrates one of the primary functions of this organization and its publication - good sincere discussion of historical fact and differences of opinion. (6)

(6) JOURNAL, Vol. 6, No. 2 (Summer 1961) p.125

He took exception to a statement in the Fokker Serial Numbers article in the Spring issue. (7) More power to him.

Col. Thompson points out that in some cases the serial number of a particular airplane was higher than the entire procurement of that type for the particular year, so the flat statement that Fokker D.VIII 7776/18 is the 7776th D-type ordered in 1918 doesn't stand up. He is right; some serials do exceed the type procurement, so I am on thin ice. However, one cannot completely buy the opposite implication - that the numbers indicated the total procurement to a given time, as in the case of the modern USAF fiscal procurement system. The truth probably lies somewhere between the two, but there is still as much evidence to support the original contention as there is to support the Colonel's - some of it supplied by him.

Evidence is pretty good that some types were combined for procurement purposes, as for example the two-seat B, C, and CL types, some numbers for the latter two being in the early 10,000's for 1917. However, certain other types seemed to run alone. The first batch of Fokker D.VIII's, for example, which were originally ordered in 1918 as E.V's, all have serial numbers (100/18 thru 266/18) which are LOWER than even the very earliest Fokker D.VII's, most of the production D.VII's being in the 4000-8000/18 range. The lowest D.VII serials I can find are in the 239/18 thru 286/18 range. If both the E.V/D.VIII and the D.VII serial groups are correct, there is an overlap here that proves the theory of separate serials by aircraft type.

Supporting my theory is the fact that all the R-types had very low numbers, under 100. The Colonel's reference to Zeppelin R.XVI 49/18 is matched by other low R-serials back to 1915. This contradicts the serials-by-total-procurement theory since it is inconceivable that the R-types were always among the very first models ordered every year and therefore received low numbers. The S.S.W. L.1, serial 898/18, indicates that this single trimotor L-type was combined with the conventional twin-engine G-type procurement. Most G-serials that I have seen, but not all, are under 1000 in any year.

Another interesting point revealed by the examination of available serials is that there seems to have been a minor change made in 1917. With the exception of the quoted R.XVI 49/18, I can't recall seeing any two-digit serials for either 1917 or 1918. All serials that I have for R-types other than that particular one are for 1916 or earlier. It seems that for some bookkeeping reason the Germans went to a minimum of three digits in the serial in 1917. There are plenty of two-digit serials for B and E-types in 1915 and 1916, but I can't find any for 1917. The Fokker F.1 triplanes started with 100/17 many months after large quantities of Albatros D's had been ordered. As with the later E.V/D.VIII, continuity of serials was carried over to production under the new designation of Dr.1, the first of which was 104/17. That batch ended at 220/17 and another covered 400/17 through approximately 596/17, with a lone special at 100/18 providing still another overlap into the first batch of E.V/D.VIII's. Since this appears to be the only triplane fighter procured in 1918, it, along with the E.V. assignment, seems to confirm both serial assignment by type and the 1917/18 practice of starting each serial range with the three-digit number 100. A partial contradiction is Pfalz Dr.1 3050/17.

Another contradiction is that Zeppelin R.XVI 49/18, and I have a feeling that this might be a misprint for 49/16, since there are quite a few similar R.VI's in the ranges 25/16 through 35/16, plus 52/16 through 54/16 that were delivered between June, 1917 and the middle of 1918. It took a year or two to build those large aircraft and there just weren't enough of them to confirm

two separate batches of continuous serials as high as 54/16 and 49/18. It just might be that these giants were such individualistic articles that they were given individual airframe numbers like the Zeppelin airships, but this is not consistent with "The System". We may find clarification in Haddow and Gross forthcoming book about the R-types. (8)

With the amazing amount of WW-I material that has survived both wars, plus the well-known German reputation for methodical procedure, it is remarkable that so little official information is available on the German serialization system. Perhaps this little interchange of correspondence will bring others into the act who might happen to have the essential information tucked away somewhere, or who can tell us where to find it. Peter M. Bowers, 13826 Des Moines Way, Seattle 88, Wash.

- (8) Gross, P.M. and Haddow, G., The German Giants. Manuscript; to be published. G. Putnam & Sons, New York, 1962

EDITOR'S NOTE:

We have, in the JOURNAL, revised the method of presentation of German aircraft type numbers to that shown in the most contemporary documents of WWI. Upon re-examination of this, however, we may have been consistent only to a degree. Using Janes' All The World's Aircraft, 1919 as the chief reference we find Fokker D.VII's pictured with

Fok. D.7 (O.A.W.)
2009/18

on the fuselage. (Pages 292a and 293a) Many writers designate it as D-VII or D-7. Also, E.I, E.II and E.III appear on many photographs, not E-I, E-II or E-III. And since Dr. has appeared in many places as the abbreviation for Driedecker it is felt that the Fokker Triplane should be known as the Dr.I. (Here though, the British label on the Fokker Triplane photo, as printed in Janes' 1919, page 291a, was DR-I).

In the interest of consistency though, we will continue to list German WWI types as C.V, E.II, Dr.I, D.III, D.VII, R.XVI, L.I. etc. until evidence clearly indicates the necessity for revision of this policy.

BREAKAWAY WING TIPS

I wish to comment on a statement in Mr. Greene's excellent "Wildcat" story. I believe that the wingtip breakaway was incorporated in all early F8F's. One of the "Blue Angels" lost one wingtip and was killed during a show at NAS Jacksonville, Fla. when the Angels first received F8F's. And there was also a further development along this line when an explosive charge arrangement was installed whereby if only one wing tip came off, the other was supposed to go off automatically by the charge.

Referring to page 271 of the JOURNAL, Vol. 6, No. 4 at the bottom of column 1, the note on the photo of the P-39 from the Kalamazoo, Mich. Gazette is in error. I was following the daily trials and tribulations of Mr. Miro and Mr. Redick in the disassembly of the aircraft. It took place at Sky Harbor Airport, Indianapolis—not Cleveland. Their main difficulty was the large wing bolts which required an unusually large allen wrench, so that the wings could be taken off. LCDr. Keith D. Boyer, (USN), U.S. Naval Avionics Facility, Indianapolis, Ind.

A.A.H.S. LAPEL PINS AVAILABLE

Attractive dark bronze lapel pins, in the emblem of the Society with letters and propeller raised, and approximately 3/8" square are available at \$2.00 each, postpaid.

(7) Ibid, Vol. 1, No. 1 (Spring 1961) p.43