

RESEARCH PROJECTS

GYPSY MOTH IN U.S.A.

In researching Project 6403, History of the Gypsy Moth Aircraft Co., Milton Sheppard has unearthed the accompanying photograph of a Gypsy Moth 60G bearing United States registration NC606E, but which also appears to carry "military" markings. The photo is from the D.J. Russell Collection, and since British roundels were almost never placed on the lower surface of an upper wing, it would seem the markings shown here are not "official."

The particular airplane, NC606E, was built by the DeHavilland Company at their Stag Lane factory as c/n 1064, in 1929, and shipped to the MOth Aircraft Corp. at Lowell, Mass. for erection and sale. It was registered to the Fairchild Airplane Mfg. Co. in 1929 and in 1930 to 1932 to a Mr. P.D. Reid of Floral Park, N.Y.

Additional details of this airplane and the purpose of the peculiar markings are needed by Milton Sheppard for his Project 6403, also the color and markings of the Moth owned by Laura Ingalls. Address Box 141, Concord Road, Ward, PA 19377.

CARRIBEAN AIR FORCES AT BEGINNING OF WWII

Many articles have been written and books published about the state of Hawaii's air defenses on the 7th of December 1941. The Philippines also have been covered extensively, and justly so, since both of these outposts of American military forces received the blow that drew the United States into World War Two.

Pre-war military planning shows that although these two Pacific bastions were important to the protection of the hemisphere and United States interests, Panama and its Canal were also the cause of much anxiety in the War Plans Division. Because it was excluded from original Japanese designs, and therefore attack, the Canal and its pre-war prominence in the overall defence of the continental United States faded considerably.

It might be interesting then, with respect to the articles covering Hawaii and the Philippines, to look at the air defenses of the Panama Canal Zone circa December 1941 through January 1942, and pose the interminable question, "what if.....?"

In surveying the situation in 1939, Army and Navy planners decided that the Continental United States and the Canal Zone could only be subjected to invasion or large-scale surface attack if such an attack was backed by airpower. Alaska-Hawaii- Panama-Puerto Rico constituted the Army's "outpost" line for the defence of the "main position," the Continental United States. The direct primary mission of these outposts was the protection of naval bases and other installations — most notably, of course, the Panama Canal - needed to maintain the Navy's freedom of action.

Panama, which the War Plans Division described in May 1939 as "the keystone in the defense of the western hemisphere," was to have the greatest overseas air strength, with the primary defensive mission of preventing the air bombardment of the Canal and the offensive mission of forestalling the establishment of any hostile



air base in Central or South America within bombardment range of the Canal Zone.

The decision in July 1940 to keep the bulk of the United States Fleet in the Pacific to check Japan and to guard the supply of vital raw materials was made on the assumption that the fleet could be moved swiftly to the Atlantic if necessary. The Panama Canal was therefore considered the key to the successful build-up of American military strength — the Army expressing its vehement concurrence in Mr. Charles R. Stillman's (business manager of *TIME* Magazine at that time) characterization of the Canal as the "most strategic spot in the world today."

When word was received in the Canal Zone of the Japanese attack and the subsequent declaration of war, Lieutenant General Frank M. Andrews, Commander of the Panama Canal Department/Caribbean Defense Command ordered the Caribbean Air Forces to their deployment positions, many of which were only recently opened to U.S. Army craft. These, some 29 major bases, ranging from Guatemala City, Guatemala to Salinas, Ecuador and east to Puerto Rico, provided an excellent means for protection of the Canal approaches, and details of their acquisition may be found in "The Framework of Hemisphere Defense," by Conn and Fairchild.

Involved in this deployment were some 385 tactical aircraft of the USAAC and 32 support aircraft. Details of Naval air strengths in the Canal Zone are limited, but it is known that 24 PBV's of Patrol Wing Three, out of Coco Solo, were also brought under Army control at this time to fly patrol missions which were beyond the range of Army aircraft; the scarcity of same in any form made imperative.

Following is a breakdown by tactical type of the aircraft available in the Caribbean area:

P-26A = 9
P-36A = 24
P-39D = 77
P-40B = 5
P-40C = 79
P-40E = 24
P-40 (unident.) = 25

In addition, the following miscellany of non-combat types were available for support:

BT-2BR = 1	ZOA-4C = 1	OA-9 = 1	C-49D = 5
BT-2CR = 2	BC-1 = 4	C-49B = 1	C-59 = 1
Y10A-8 = 2	C-39 = 3	C-49 = 1	C-61 = 10

These figures represent actual aircraft in the field, and do not include aircraft in the Panama Air Depot or those not ready for duty in any way. In the interests of accuracy, it should be noted that none of the P-39D's had their "hub" 37mm cannon.

Photographs and additional documentation are needed by SSgt Daniel P. Hagedorn for his Research Project 6706, particularly in the area of personnel assigned to the Caribbean defense units and of aircraft of the Air Service, Air Corps and Army Air Force in the Panama Canal Zone, Puerto Rico and other stations except the Antilles Command. Address Sgt. Hagedorn c/o H.L. Dougherty, Rt. 2, Fairdale, Cambridge, OH 43725.

WWII CRASHES IN ENGLAND

A quarter century after the departure of the 100th Bomb Group from England the control tower at its wartime base, Thorpe Abbots remains standing although in somewhat derelict condition. The 100th B.G. had a notorious reputation for ill luck. Known as the "Bloody Hundredth," it was particularly hard hit on several missions and lost, all together, 229 airplanes from various causes.

One of these was brought down by its own flare, during the formup assembly on 7 May 1944, and crashed in the grounds of Herringfleet Hall, Suffolk. Five of the crew were killed: Lt. Ralph W. Wright, Lt. Jack W. Raper, Lt. Richard Curran, Lt. Carl A. Hermann and SSgt. Randolph C. Moore. The other crew members escaped before the B-17 exploded: TSgt. Alden P. Madsen, TSgt F.J. Montondo, SSgt J.A. Pontzious, SSgt A.T. Bridge, and SSgt J.S. Willburn.

Further information concerning the lost B-17 or any of its crew, deceased or living, is needed by Ian MacLachlan for his Research Project 6919. Address 51 Northgate, Beeches Estate, Lowestoft, Suffolk, England. He is also inquiring for information on the 5th E.R.S., based at Holton during the War.

MEDAL OF HONOR AIRCRAFT

The search for authenticity of aircraft markings used by airmen who were awarded the Congressional Medal of Honor has turned up much information that is not correlated. Some of the best sources include data which is either erroneous or not properly displayed. For instance, the *Profile No. 97, The American DMA*, shows the squadron insignia of the 50th Aero Squadron, the "Old Dutch Cleanser" emblem, forward of the rear cockpit and somewhat smaller in size than is portrayed in all of the photographs illustrating the history of the squadron. However, with the help of a number of Members and several government personnel and some of the MOH winners themselves, the information is being sorted out. The objective is to produce the actual markings data, supplemented by unimpeachable documentary information which will be completely authentic. All Members are invited to submit corrective information, if it should appear necessary. In fact, only by the airing of controversies can the truth be established sometimes.

The accompanying drawing of the airplanes used by the first six MOH winners is as authentic as can be determined to this date. The side views only are presented at this time. The documentation is largely actual photographs, and admittedly some conjecture, or rather, extrapolation of probable events. There has been discovered no photograph of Ens. Charles H. Hammann's airplane, a Macchi M.5, and it seems that it was in Italian colors and insignia since Hammann was attached to an Italian unit at the time, August 21st, 1918. (This is a correction to the date given in the citation for the Medal of Honor given on Page 57 of the *JOURNAL*, Spring 1970).

Lt. Rickenbacker's airplane, S.4523 is shown with five black crosses in the hat of the 94th insignia, appropriate for the time and event for which his recommendation for the MOH citation was forwarded. Luke's airplane is shown with the early form of the 27th Aero Squadron insignia. And although no photograph of USMC Lt. Ralph Talbot's and GSgt Robert Guy Robinson's D.H.4 has been made available it is known to be No. A-3295, with D-1 on the fin. It is a probability that the older form of the Marine Corps insignia was on the side of the fuselage as shown here since photos of airplanes D-2 and D-5 so indicate.

The official MOH citations for Goettler and Bleckley and for Talbot and Robinson will be presented as space permits. Those for Hammann and Rickenbacker, Ormsbee and Luke, were presented in the *JOURNAL*, Spring and Summer 1970 respectively.

Since publication of the Summer issue the following information has been gained: Lts. Gott and Metzger's squadron, the 729th B.S., had M3 as its squadron code, but this was not used during the War. According to Roger Freeman's *The Mighty Eighth*, the airplane letter should have been on the fin of the B-17 under the airplane serial number, and their aircraft was B-17G-45-BO, s/n 42-97306, named LADY JANET. (Desired information is the airplane code letter and the style of lettering for LADY JANET). Again referring to Freeman, Lt. Lawley's airplane was B-17G-30-DL, 42-38109, of the 305th B.G., code WF. He was in the 364th B.S. whose fin (Group) marking was a "G" inside a triangle. Steve Birdsall provided data, confirmed by *The Mighty Eighth*, indicating that Lt. Mathis' airplane was B-17F-25-BO, 41-24561, BN-T, named THE DUCHESS. Its Group marking, "C" in triangle, was not on the airplane at the time of his action, 18 March 1943.

Correspondence has been received from Sgt. Smith, stating that the airplane he was in was B-17F-65-BO, 42-29649, squadron code RD. He was in the 423rd B.S., 306th B.G., but the airplane code is unknown. (RD-?). Freeman reports that Lt. Morgan was in B-17F-70-BO, 42-29802, JW-C, named RUTHIE II. Style of lettering is unknown.

William Bennett's Research Project 6910, MOH Aircraft, is currently in need of new information for MOH winners Gordon, Van Voorhis and Walmsley. The correct identification of Lt. Nathan Green Gordon's PBY-5A of VP-34, flown by him on 15 Feb. 1944 in the rescue mission into Kavieng Harbor for which he was awarded the Medal of Honor, is needed as are the names of his crew members.

Lt. Cdr. Bruce Avery Van Voorhis was awarded the MOH for an action over New Ireland on 6 July 1943 while flying a PB4Y-1 of VP-102. Identification of his crew and of the airplane are requested. Likewise, the identity and markings of the specific B-26 (A-26) flown by Capt. John S. Walmsley of the 3rd Bomb Group in Korea on 14 Sept. 1951 are needed.

Information should be forwarded to William J. Bennett, 17017 Orchard St., Gardena, CA 90247.

The next phase of research will take up the following aircraft of peacetime MOH winners.

Name	Airplane	Citation date
Lt. Cdr. William Corry Jr.	JN-4H	3 Oct. 1920
Cdr. Richard E. Byrd and CAMM Floyd Bennett	Fokker Trimotor	19 Feb. 1927
Capt. Charles A. Lindbergh	Ryan	20 May 1927
Lt. Christian F. Schilt	02U-1	6-8 June 1928
Lt. (jg) Carlton B. Hutchins	PBY-2	2 Feb. 1938

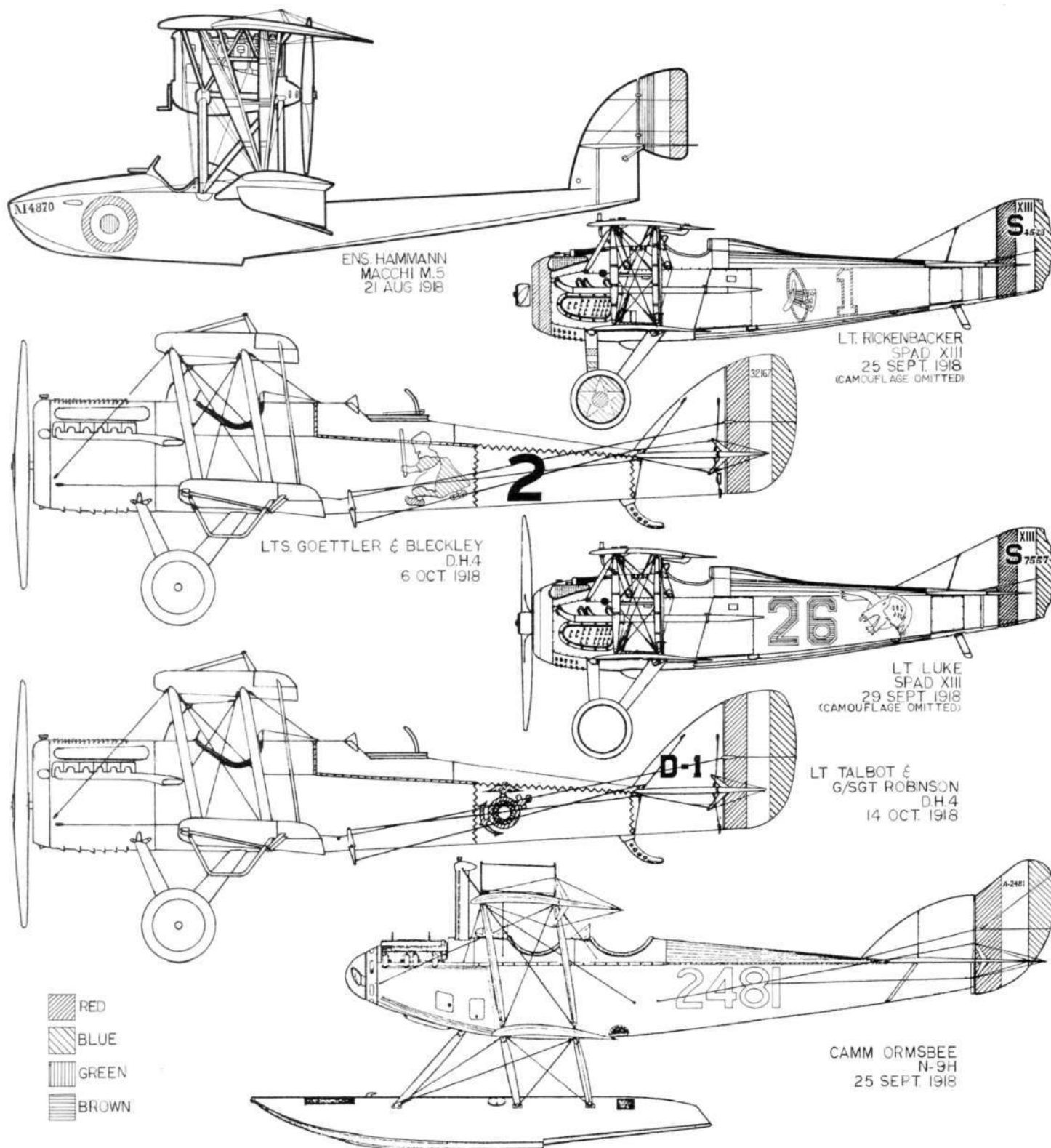
Sideview drawings used for the accompanying drawing are from sources as follows:

Macchi M.5 - Lamberton, W.M. *Fighter Aircraft of the 1914-1918 War*. Letchworth (Herts., England): Harleyford Publications. Ltd.

SPAD XIII C.1 - William A. Wylam, *Model Airplane News*, July 1946.

D.H.4 - MSgt William F. Gemeinhardt, USMC (Ret).

Curtiss N-9H - Bob Parks, *Air Progress*, Feb./March 1966.



F4D SKYRAY OPERATIONS

The operation of the F4D by Navy and Marine Corps squadrons during its existence is currently under research in Nick Williams' Research Project 6923. Until very recently there were two still flying at the Naval Flight Test Center, Patuxent River, Md., and possibly one other bailed to a private firm for test. A few were also reported to be cocooned at Davis-Monthan AFB.

The Skyray, in its active service life with the Navy, set several world records for speed and climb at a time when heavy emphasis was being placed by the armed services of all nations on new records, the era from 1950 to 1960. Speed and altitude records went back and forth between the U.S. Navy and Air Force, and air forces of Britain and France with great rapidity in this period.

As a side development of the Research Project on the Skyray, a means of depicting the operational use period of a given aircraft with specific military and naval units is being evolved. Shown here is a graphic presentation of the units in which the Skyray served, squadron codes assigned, and base or ship to which they were attached, as far as is known at this time. It is intended that this graphic means will be expanded to show the unit insignia and other pertinent information needed for identification.

Members having additional information to add to the chart for the Douglas F4D or F-6A Skyray are invited to forward it to Nick Williams, 813 Bungalow St., El Segundo, CA 90245.

SERVICE UNIT	CODE	BASE	1956	1957	1958	1959	1960	1961	1962	1963	1964
VC-3 FAWTUPAC	NP	North Island									
VFAW-3	PA	North Island									
VU-3	UF										
VX-4	XF	Pt. Mugu									
VF-13	AK	Cecil Fd.									
VF-23	ND	Alameda									
VF-51	NF	Miramar									
VF-74	AF	Oceana									
VF-101	AD	Key West									
VF-102	AQ	Cecil Fd.									
VF-103	AJ										
VF-141	NK	Miramar									
VF-162	AF	Cecil Fd.									
VF-213	NP	Alameda									
VF-881	7K	Olathe									
VF-882	7K	Olathe									
FAGUPAC	TR	El Centro									
HAMRON 1	YV	El Toro									
H & MS-15		El Toro									
VMF-114	EK	El Toro									
VMF-115	A	Cherry Pt.									
VMF-215	7K	Olathe									
VMF-314	VW	El Toro									
VMF-513	WF	El Toro									
VMF-531	EC	Key West									
VMF-542	WH	El Toro									

FLYING WINGS OF NORTHROP, THEIR DEVELOPMENT AND DEMISE

Shown here turning sharply, is the eight engine YB-49. Until the deployment of the F-86 this 100-ton bomber could outclimb and out-maneuver any contemporary fighter. Its speed was reported to have been greater than 500 mph, yet it could go as slow as 83 mph. So popular were these great wings that large crowds gathered along the fence at Northrop Field (now Hawthorne Municipal Airport) to watch them take off. Through magazines and newsreels people learned that, on the drawing boards, there was a transport version capable of carrying people across the continent for an estimated total operating cost of less than \$12 per passenger, while offering the comfort and safety of an oceanliner. Just when this magnificent aircraft seemed to be in everyone's future, the project was put behind great dark curtains. When the curtains were removed, all of the wings were gone; not even a museum piece was available.

The design and development of flying wings, culminating in the YB-49, is a most interesting story; far more intriguing, and as yet mysterious, is the story of its destruction. Additional information for Research Project 7019 is needed on the politics of the cancellation, and flight test data on the *only* crash the flying wing suf-



fered. Also needed are data and pictures of Northrop's Project 16 flying wing buzz bomb, and any unusual stories, photos, or newspaper clippings concerning the flying wings of Northrop. Address D. Walter Clark, 1402 N. Bush St., Santa Ana, CA 92701.

RECENT RESEARCH PROJECTS LISTED

Any Member of the Society may instigate a Research Project. These are for the purpose of researching some part of aviation history which will eventually appear in the *JOURNAL*, and it is hoped that all Members will make special efforts to assist the authors of these projects. Announcements of the assignment are made in thy next publication of the Society, either *NEWS-LETTER* or *JOURNAL*, and are repeated periodically as new information is sought. The Editor will assist wherever possible in directing researchers to sources or knowledgeable persons for furthering the project. Write James J. Sloan, Managing Editor, P.O. Box 99, Redondo Beach, CA 90277.

7015 -- History of 410th Bomb Group in WWII, consisting of 644th, 645th, 646th and 647th Bomb Squadrons. Used Douglas A-20 and later A-26/B-26 airplanes. Stationed in England (at Birch, Gosfield) and France (Coulomiers, Julvinctourt). Need anecdotes, personal mementos, diaries, photographs, orders. Gregory A. Moreira, 88 No. Passaic Ave., Chatham, NJ 07928.

7017 - History of Estonian aviation and contact with American interests, 1919-1945. Need contact with former Estonian pilots and mechanics, other airmen. Wish to borrow photos and documents, will return safely. Bo Kallqvist, Vanadisvag 2 ltr. Stockholm 113 46, Sweden.

7018 - Need data on Convair 880, particularly photographs of certain Delta, Alaska, Japan Airlines, and Northeast airline Model 880 airplanes. Need photos of N8495H, preferably in TWA colors, and of N820TW and N821TW, both in TWA paint. Needed for in-depth study of 880 operational use. Jonathan H. Proctor, 605 Third Ave., 38th Floor, New York, NY 10022.

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7019 — Flying wings of Northrop, a design and development study covering evolution of these from earliest N1M to the last of RB-49A's, including the influence of previous developments on Northrop and related flying wing designs. Need photos, documents, and test data on early designs, and contact with persons associated with Northrop on these aircraft. D. Walter Clark, 1402 N. Bush St., Santa Ana, CA 92710.

7020 Information, anecdotes, photos, anything on Barksdale Field, La., and the units that were stationed there (3rd Attack Gp., 20th Pursuit Gp., 3rd Wing GHQ Air Force, 13th and 90th Attack Sqdns., 55th Pursuit Sq., etc.) during 1933-1942. For history of base for submission to *JOURNAL*. Rowland P. Gill, 7414 Hastings St., Springfield, VA 22150.

7021 - Development and operational history of little-known B-25 airplanes, including B-25E heated wing, R-2800 engine conversion, and executive transport versions known as Whiskey Expresses. Need photos of latter, and contact with pilots. Norman L. Avery, 17451 Raymer St., Northridge, CA 91324.

7022 — Development history of the F-15 fighter program, including all stages from design conception to actual aircraft, from mockup to first delivery. News clippings, publicity releases, anything on air superiority fighters welcomed. Rick Alexander, P.O. Box 3545, E.T. Station, Commerce TX 75428.

7023 - Current record of WWII aircraft in Arizona, listing all existing combat and transport types, not including dusters and trainers. Need photos of examples, and research of local records. Probably 50 aircraft. Assistance wanted. Charles K. Krause, Jr., 2033 N. 11th Ave., Phoenix, AZ 85007.

7024 - Information needed for Fairchild PT-26. Need photos, handbook data, construction details. Have restored one. William D. Lake, 1094 Madrone Way, Livermore, CA 94550.