

THE OFFICIAL JOURNAL OF THE AIR FORCE ASSOCIATION, JANUARY, 1948



OFFICIAL SEAL . DEPARTMENT OF THE AIR FORCE

MAGIC CARPETS IN THE MIDDLE EAST Page 13 AFA NAMES ELEVEN COMMITTEES Page 11 PLANE PORTRAIT: CONVAIR'S XC-99 Page 24









































WHEN 20th Century-Fox undertook the filming of "Captain from Castile" right where it happened in the rugged mountains of Mexico, it faced some appalling transportation problems: four to six days' travel time between each of the three main locations, and an operating cost of \$60,000 a day!

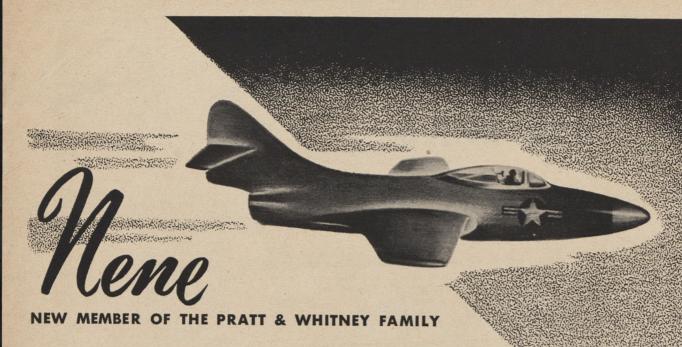
But Henry King, director, simply added a 200-mph twin-engine Beechcraft Executive Transport to the staff. The trip between each location—Morelia, Uruapan and Acapulco—was reduced to 50 minutes! The Beechcraft flew actors, supplies and technicians between these historic "stages" on a moment's notice.

"The Beechcraft was all-important to us in making this picture," says Mr. King. And in many other American industries similar records are hung up by the Beechcraft Executive Transport every day. Its prime purpose is the quick and efficient transportation of personnel and materials on a company's own schedule and between a company's own selection of destinations, whatever they may be.

Nearly 400 corporations are saving time and money with Beechcraft transportation. For a catalog describing this twin-engine Beechcraft, just write today on your business letterhead.

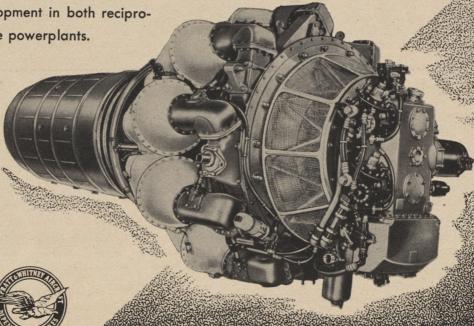






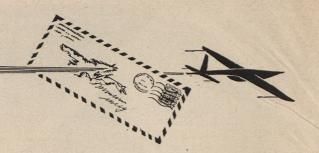
The Nene engine, first aircraft powerplant in the turbo-jet field to bear the Pratt & Whitney seal, will power a substantial part of the Navy's new fleet of Grumman F9F Panthers — latest type of shipboard fighter.

Tooling up for production of the Nene is progressing rapidly. At the same time, Pratt & Whitney is carrying on an extensive program of research and development in both reciprocating and turbine-type powerplants.



PRATT & WHITNEY AIRCRAFT

EAST HARTFORD, CONNECTICUT
ONE OF THE FOUR DIVISIONS OF UNITED AIRCRAFT CORPORATION



AIR MAIL

Suckers?

Gentlemen: You are the center of a big joke-the laughing stock. Somebody has just made a damned fool of you, again. The horrible part is this-it isn't funny.

Don't kick your enemy, forgive him. Kick your brother, instead. Brother will understand. Yes, kick your brother

again, for good measure.

What am I talking about? The Air Mail column, page 2, AIR FORCE for November 1947. I am talking about an alleged Horst Schmele from Nurnberg who wrote you a tender letter about the stars and made a sucker out of you. Not only that but the person who claims to be an 18-year-old dreamer applied a little psychology to the bighearted American character and made you so damned proud of your benevolent self you had to notify all AFA members and brag about your noble gesture.

Don't you suppose it was very poor taste to print such disillusioning drivel for the eyes of veterans? How do you think you rate with the guys who helped you win the war-the ones who fought it? What do you think is the reaction of Negro, Jew, or Japanese mem-

bers of AFA?

How about Horst? Horst says theirs is a "helpless poor situation." Marshall has a well publicized plan to help Europe help themselves. You remember Marshall, don't you? You know what he represents, today? Then there are the united organizations like UNRRA, ERP, CARE, etc., who speak of need in Europe, and plans to help like Friendship Train. All these things are before you constantly in national magazines, radio, newspapers, and newsreels.

But-do you send him a basket of food, a farm implement, a box of K-Ration, or a can of Spam? No! You send him a book. Do you send him a book on How to Be a Good Farmer, for instance? No! With all the suffering abroad of which you cannot claim ignorance, you send this German youth a book entitled "Rockets" and have the audacity to add an editorial note bragging you have sent him "an unusual book by the foremost rocket authority, with forecasts on rockets for research and travel.

Don't you feel simple?

Was the editor's comment meant to show AFA members the great pride you took in selecting the best book-or didn't you think Horst knew the quality of the book he ordered by title? Who was meant to be informed?

There is no doubt in anybody's mind,

even that of Horst, how you would ignore any such request for magazine or book, especially with "no dollars" originated by a Japanese youth on the West Coast (California, USA that is) or a Negro youth in the South (Yes, USAdistasteful to admit). In the year 1947 we have not yet banished segregation (racial) from our Armed Forces.

Yes, forgive the harbinger of world chaos-just keep busy kicking that brother!

And yes, Mr. Editor, some members of your staff or you alone have helped Horst make of you a complete fool.

Believe it or not, this letter is written to arouse your conscience, to make you more alert, to show you a dangerous mistake, and with no attempt to ridicule any individual but righteous anger at a foolish gesture made public which stings an open wound. You who reach so many with written word or spoken-you should witness the damage of your carelessness or intent. Here lies the same responsibility you lectured to Horst. The members of your Association, the citizens of these United States, look to you to bear this responsibility with considerable care. This letter is written to return one misbegotten idea, with its contagion and chain reaction, to its home and recommend quarantine. It is unfair for me to expose myself to a disease that spreads unchecked just because I am able to assume nonchalance in the face of it. When I return home ill from it, my family will receive my pain.

George J. Haley Bath, N. Y.

• In filling one request from one German boy for one book AIR FORCE did not propose a literary Marshall Plan; nor does it believe that man can live (in peace) by bread alone.-ED.

Bone Dry

Gentlemen: Major Willard Webb in "I Ditched a Thunderjet" (October) states, "I had never landed a plane on anything wetter than a concrete runway



after a slight drizzle." Has Maj. Webb so soon forgotten the puddles he landed on, in, and through, on the grass strip at Nagaghulie? While I was with the 88th Fighter Squadron our field at Dhalajan was less than a stone's throw from Nagaghulie and I often watched Major Webb fly.

Capt. Anthony deV. Hitzenhammer Chicago, Ill.

· As Captain Hitzenhammer recalls, anything in Burma under less than six inches of water was regarded as practically bone dry.-ED.

Report on "Report"

Gentlemen: On behalf of all the members of the 5th Air Force, kindly permit me to extend our compliments on the splendid article "Report from the Far East" which appeared in your October issue. The manner in which Miss Charlotte Knight depicted our activities, accomplishments and problems is a credit to herself and to your publication, which is widely read and enjoyed throughout this command.

George R. Acheson Brig. Gen. USAF Commanding, 5th Air Force

Gentlemen: In reading over your article, "Report from the Far East," I would like to ask one question. Why is Okinawa currently being billed as the "idyllic garden spot of the Pacific?"



left the Rock last June and in my mind it was a hole. They ought to give Okie back to the natives for the GI's sake.

Warren S. Benson Chicago, Ill.

• The "idyllic" phrase appeared in a newspaper advertisement for civilian construction workers. AIR FORCE merely reported that fact. Okie was hardly a garden spot when we last saw it.-ED.

Gentlemen: Your article "Report from the Far East" is excellent. How about a similar report on what goes in Eu-

Larry Weller New York, N. Y.

• AIR FORCE is now working on just such a story.-ED.

Gentlemen: Upon receipt of AIR FORCE

this morning, I immediately turned to "Report from the Far East" expecting to find at least a mention of my old squadron, the 421st Night Fighter Squadron, but no mention of it was made. I sure hope you may find room in some future issue for a writeup on the P-61.

> Francis A. Hamilton Mohonk Lake, N. Y.

Award Claims

Gentlemen: I would appreciate hearing from you or from one of your departments about the proper procedure in applying for various post-war medals



like the Good Conduct Medal, Victory Medal, New York State Medal.

Bernard F. Bopp Bronx, N. Y.

• Claims for awards given by the Army Air Forces during the war should be sent to the Awards and Decorations Branch, Department of the Army, St. Louis, Mo. Don't be impatient, though. At present St. Louis has a backlog of 1000 unprocessed requests. Claims for the New York State Medal can be obtained by writing Brig. Gen. Ames T. Brown, State Adjutant General, Albany 7, N. Y.-ED.

Annual Giving

Gentlemen: I am sending in my AFA dues at the new rate plus an extra \$10.00 as a sort of "annual giving" subscription. Perhaps there are others of us who would contribute in the same way if it were made known that good use could be made of the extra cash.

B. Gwynne Burr London, Ohio

· Now that AFA has met in convention and established specific objectives, there will be greater need than ever for funds. It is quite likely that the Association's success in obtaining its goals will be in direct proportion not only to the enthusiasm of AFA members, but also in ratio to the money available to back that enthusiasm. Member Burr can be assured that his thoughtful extra "subscription" will be put to the very best advantage. Every member can be assured that extra "subscriptions" in any amount will be most welcome.-ED.

No Raise

Gentlemen: I have noticed the posters advertising the re-opening of the Air Cadet program and am curious as to how much the Cadets are now paid. All other enlisted men got a raise in their monthly salaries. Did the Cadets get a raise from their \$75.00 per month?

Frank Raczynski Newark, N. J.

· No. There has been no increase in Cadet pay since the program was initiated in 1919.-ED.



with their membership in the new National Guard. Many of these young men have just turned 17 and have only recently become eligible to join the National Guard.

FIT AND READY

They are serving America-and in return, America is serving them. In the new National Guard they find the opportunity to study and learn the things that mean a better civilian job-more of the things that America stands for. The National Guard sports program keeps them fit and ready. And the fellowship they find in the National Guard gives new meaning to their American heritage.

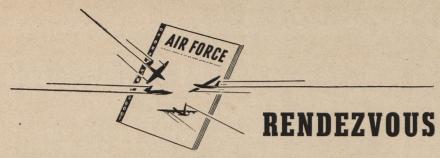
STRONG AND FREE

These members of the new National Guard know that a strong America will be a free America -a peaceful America. And they know that the few hours each week that they give of their time is an important part of the gigantic pattern for peace.

Here's how * Education the National Guard Fellowship * Training Helps You Sports * Leadership Write or visit your community's unit of the

of the United States

Veterans who join fe new National Guard probably can obtain same rank held upon discharge. Pay for the new National Guard is based upon the new, increased Army pay scale. For information, visit the National Guard headquarters in your community or write to the Adjutant General of your state.



Where the Gang gets together

SHOT DOWN: I have been trying for some time to locate one of my former crew members, but have gained no satisfaction. His name is Joseph G. O'Connell, whose home is in Watervliet, N.Y. He was a member of the 306th Bomb Group (H), 368th Squadron, stationed at Thurleigh, England. He was shot down January 11, 1944, on a raid to Halberstadt, Germany, and I am certain that he was taken prisoner. Warren W. Cole, 115 High St., Milford, Conn.

312th BOMB GROUP: I've been trying vainly to locate some of my former AF buddies. I wrote to the Adjutant General of the VA in Washington, D. C., giving names and Army serial numbers but have received no answer. I'm interested in fellows of the 312th Bomb Group. The CO was Col. Robert H. Strauss. If you can tell me where I may get this information, I shall be very grateful. Bob Munstedt, 30 Garnet Rd., West Roxbury 32, Mass.

LOST SON: Will anyone having any information pertaining to Lt. Keith Carrier, who was with the 19th Bomb Group, 28th Bomb Sq. (VH), please contact his father, whose address is given below. Lieutenant Carrier was shot down and taken prisoner by the Tokai Army Headquarters in Nagoya. Harry E. Carrier, 3187 Runson Rd., Cleveland Hgts., Cleveland, Ohio.

YEAR'S SEARCH: I am a member of AFA and I've been in search of a buddy of mine for the last year. He was last heard from in England and was with the 5th Station Co. His name is Anthony or Tony Georgeoff. If you could help me locate him,

I would appreciate it very much. Lee Cowell, Rt. 4, Box 40, Tulare, Calif.

PLANE PARTS: I am in search of a couple of condemned aircraft radial engines and propeller parts to be used for school purposes. I am also on the lookout for a hydromatic Hamilton-Standard propand a four-blade Curtiss electric propeller. I am a licensed ASE mechanic and ground instructor for airplanes and engines. Stanley J. Rogers, 7307 S. Union Ave., Chicago 21, Ill.

GOOD USE: I wonder if I can put Rendezvous to good use in contacting some of my former buddies of the 371st Ftr. Sq. of Glendale, Muroc, Salinas and Santa Maria, Calif. I would like to hear from my old engineering officer, Capt. James A. Thomas, and line chief, "Wee Willie Wilson," plus many more of the old gang. Also would like to hear from Harry Lee King of Cedar Grove, W. Va. Anthony J. Morelli, 1291 Gleason Ave., Bronx 60, N. Y.

LOST IN EUROPE: I am writing you in an effort to obtain information have been seeking for the past two years concerning what may have happened to my son between the time he escaped from German prison train and when he was reported to have been killed. I thought that perhaps someone in the AFA might have had contact with him and that a word in your Rendezvous column might disclose such contact. The details are as follows: Name: Flight Officer Charles R. O'Brien, Jr.; Outfit: 78th Fighter Group, 83rd Sq., 8th Air Force; down: Arnheim, Holland, February 26, 1945; Escaped: In vicinity of Siegen, Germany (jumped off train; reported to have been brought into German hospital with broken arm). Alleged body reported to have been found in isolated grove near Dusseldorf, Germany, approximately 80 miles from Siegen; identification; laundry marks on clothes. I will appreciate anything you may be able to do to obtain this information. Charles R. O'Brien, Plant Manager, The Dobeckmun Co., P.O. Box 6417, Cleveland 1, Ohio.

NICKY FROM TEXAS:
Would very much like to hear from a 2nd Lieutenant (Medical Division)
USAF, named Nicky, who I believe came from Texas. He arrived in England on February 10, 1944, and was stationed at a village called "Stone" in Staffordshire. He met me at a dance in Stokeon-Trent on February 12, 1944. He was a doctor in civilian life; he had a buddy named Austin. Would Nicky please write me as follows: Fred Davies, 31 Woodlands Rd., Trent-Vale, Stoke-on-Trent, Staffordshire, England.

357th FIGHTER: I would like to get in contact with any former members of the 357th Fighter Group who were stationed in either Augsburg or Schweinfurt, Germany. Howard H. Minick, 43 "A" St., Broadwell Courts, Grand Island, Neb.

ROSE MARIE: Am writing this in hopes you can help me locate a picture that was supposedly taken of our ship as it was shot down. The plane was named the Rose Marie. The action took place on December 11, 1943, over Emden, Germany. Robert N. Queener, 844 So. 3rd St., Cottage Grove, Ore.

LOOKING FOR SOMEONE? ANY ANNOUNCEMENTS TO MAKE? WRITE RENDEZVOUS AND RENDEZVOUS READERS WILL WRITE YOU.

This Month

The Cover

There were straws in the wind last month to indicate that the tedious job of unifying the armed services had be-



gun in earnest. One such straw apparent to the casual Washington observer was the removal of a sign above the door of a Pentagon dining hall which had read "General Officers Only." It was replaced with a sign

reading "General and Flag Officers Only."
Another straw—one of considerably more significance—was the unveiling of the new official seal of the Department of the Air Force. In it the USAF is symbolized by the American bald eagle with wings elevated and displayed in front of a puff cloud. The Air Forces' strength is pictorialized by a winged thunderbolt (taken from the shield of the god of war) striking from above a cloud-like base, represented on the Mars shield by a partition line between black and white backgrounds. There are thirteen stars surrounding the coat of arms and the numerals MCMXLVII—1947.

Middle East

George A. Brownell, author of "Magic Carpets in the Middle East" (page 13), served during the war as Executive Officer to the Assistant Secretary of War for Air. In 1946 he went to the Middle East as the personal representative of the President with the rank of Minister to negotiate certain air matters, among them the air transport agreement between the US and Iraq and India. He is now back in New York with the law firm of Davis, Polk, Wardwell, Sunderland and Kiendl. He holds the rank of Brigadier General in the ORC.

Knight Errant

In the near future our far-darting Knight (Charlotte that is) will be back on her horse and headed for Tokyo where she will establish a new Air Force Far Eastern Bureau. Awaiting transportation she is at present bemusing herself with "local" junkets of the type recorded in Bermuda Onion on page 28. Some time before sailing date she will also have a quick look-see in the Alaskan area. The other morning someone suggested too that maybe she could work out a fast flight to the new atom proving grounds on Eniwetok. And then there was the situation in Greece and in Palestine that should be investigated. The later junkets were reluctantly abandoned however. Charlotte forget that the painters were coming to redo her Manhattan apartment two days this month.

AIR FORCE

THE OFFICIAL JOURNAL OF THE AIR FORCE ASSOCIATION

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a tribute to the lst Fighter Group



(Coat of Arms Approved 2 October 1924)

HE historic 1st Fighter Group, which grew out of the First Pursuit Organization and Training Center, was organized at Villeneuve-les-Verleus, France, on 16 January 1918, and was the sole American Training Center operated by and for American troops in France. On 5 May 1918, the Organization Center became the First Pursuit Group Headquarters. During World War I, the Group fought in five major conflicts and was disbanded on 24 December 1918 in France.

On 8 March 1919, the Hq 1st Pursuit Group was reconstituted and made active at Selfridge Field, Michigan. The designation of this Organization was changed in 1942 to Hq and Hq Sq 1st Fighter Group. (The Hq Sq was disbanded the same year.)

The Hq 1st Fighter Group and its component squadrons arrived at the overseas port of embarkation on 24 May 1942, and came into North Africa ready for action on 15 November 1942. This famous group served heroically in North Africa for one year and then shipped out to Italy on 29 November 1943.

AWARDS

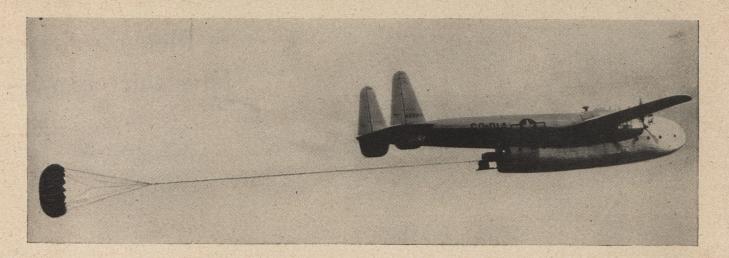
The Group was awarded three Distinguished Unit citations for outstanding performance of duty in action against the enemy during World War II.

The 1st Fighter Group was inactivated on 16 October 1945. On 3 July 1946, however, the Group was re-activated at March Field, California.

distinctive, attractive, durable INSIGNIA since 1868

N. S. MEYER, Inc. NEW YORK, N. Y.





THERE'S BEEN A BIG DROP IN HOWITZERS



No telling what the Army Air Forces will do next with the Packet.

They've transported Airborne Troops and Air Transportable Infantry. They've towed gliders, carried weapons and cargo on maneuvers that are setting the pattern for the swift mobility of our peacetime army.

The Packet has carried jeeps, trucks, even helicopters.

Now, through the ingenious application of ribbon parachutes, a Packet can deliver a 75 mm. howitzer — by air — ready for action to forces deployed on the ground. Engineers of the Air Materiel Command rig a small "extractor" 'chute and a 90-foot ribbon 'chute to the gun. The little one pulls the cargo load backward through the big rear doors of the Packet. Once in the clear, the big 'chute blossoms and the load of more than a ton floats safely to earth.

This method, the AAF has announced, makes possible air-delivery of cargo limited only by the size of the Packet's large rear doors.

The spectacular abilities of the Packet have made it a highly efficient tool in the hands of cooperating Air Forces and Ground Forces.

They are abilities conceived by Fairchild engineers — abilities that stem from a quarter century of aviation experience that creates "the touch of tomorrow in the planes of today."





Roll Out The Barrel!

The "shocking" case of the "rotten apple" in the Air Force barrel and what veterans can do about it



he stripling US Air Force was not lacking in problems. It had plenty. Sweating out the first two months of Unification and straining at the seams to meet its 55-group schedule, the Air Force was far from realizing the 70-group strength it considered basic to national security. Recruiting was moving nicely, but the task of finding qualified manpower for cadet training was becoming acutely serious. Reserve problems were running at many

tangents. The once potent aircraft industry was puttering along on one cylinder, fighting to keep its doors open.

Public opinion had not yet put its weight behind postwar air power, and the Air Force looked hopefully toward forthcoming reports from two high echelon investigating groups to break the deadlock. One was the President's own Air Policy Commission, which was digesting testimony that seemed to indicate the need for immediate expansion of air facilities. The other investigation stemmed from the Secretary of Defense, who had ordered a wide-spread and badly needed inquiry into the nation's reserve setup, including the Air Reserve and Air National Guard.

Now came the reports from another type of investigating body, a special committee of the Senate. Its disclosures thrust public attention on the Air Force, but with reverse English. Secretary of the Air Force Symington described it as "one of the most shocking scandals ever exposed in the history of any branch of our government—the sordid story of Bennett E. Meyers." General of the Army Arnold branded it the case of the "rotten apple" in the Air Force "barrel."

Air Force veterans and the general public soon became familiar with the nasty details surrounding this man who had served throughout most of the war as the second highest procurement officer in the Air Force. They learned from testimony introduced before the Senate War Investigating Committee that Bennett Meyers had apparently enriched himself by many thousands of dollars on Air Force contracts. Whether or not he was guilty was beyond the province of the Committee to determine. One thing was sure. In the blinding light of public suspicion the Air Force itself seemed to stand out in relief almost as sharply as Meyers. More and more people were implying that the barrel was just as bad as the apple. Veterans scratched their heads and mulled it over.

The war records of the veterans could not be touched by the scandal, anymore than their war wounds could be healed overnight or their dead comrades be brought back to life. Of some 60 billions of dollars expended on the wartime air effort, few of them had more to show for it in terms of Uncle Sam's greenbacks than the (Please turn the page)

"My Blood Is Boiling". .

Secretary for Air War Department Washington, D. C.

After having read the socount of financial manipula-s of vajor General Pennett E. Wayers, Retired, my d is boiling to such an extent I find it difficult to down and write a coherent letter. How long is the covering up of one brass hat by another going to continue to make a travesty of our Air Force and disgrace the hundreds of thousands who served it so well during the last wer? I during the twae wer:

If a sweeping investigation is not held in the near not brought in the graph of the dealers in blood money are not brought justice in the near future, a T will no longer consider an honor and a privilege serve in what I thought an honor and a privilege of men in the world, and will the first fichting body of men in the world, and will the first fichting body of the first f Would you be kind enough to tell me what action, if eny, is contempleted? /s/ Elmer S. Friedberg

Elmer S. Friedberg Captain Air Corps Reserve 0-438812

short-snorter bills they had long since tucked away in bureau drawers. Among the 3,000,000 men who wore the Air Force patch during the war, there were bound to be some who would bend low to make an extra buck. There were GIs who dipped into the profit-making eccentricities of foreign black markets, and Colonels who slipped their fingers around profit-bearing foreign jewels. But all this was different. This man, according to Senate committee testimony, had operated for profits almost next door to his Air Force procurement office, had performed his financial magic with taxpayers' money, not with foreign loot. This man was a general, held high by the faith traditionally reserved for generals; when he fell from his star-studded pedestal the thump was loud and hard. This man, veterans were given to understand, had shown great ability in his Air Force job, had done much to speed deliveries of aircraft to combat zones, and somehow this fact seemed to hurt all the more. In Time it said, "Never in modern times had a high officer suffered such dishonor, seldom had one brought more upon himself and his service.

The veterans were fighting mad about it. Secretary Symington officially substantiated that fact and made public a sample of their anger. It was a letter the Secretary had received from Elmer S. Friedberg of Pottstown, Pa., a combat veteran and a captain in the Air Reserve. "My blood is boiling to such an extent," wrote Friedberg, "I find it difficult to sit down and write a coherent letter." He raised the inevitable question as to whether his dead comrades had made the sacrifice "so men of Meyers' ilk could ply their filthy trade to 19 November 1947

Captain Elmer S. Friedberg 345 King Street Pottstown, Pennsylvania

Dear Captain Friedberg:

When your letter of November 14 arrived, I was sitting with two officers whose names are synonymous with all the courage and loyalty known to be characteristic of the Air Force. They both said, "We could not have written our own reaction more accurately.

Recently an Air Force general told me he was in a store the other day when two elderly women, noting his rank and insignia, started talking in loud voices about generals who stole while enlisted men were dying. He said he would never get over it.

Another officer of the Materiel Command from Wright Field asked yesterday, "Isn't Senator Ferguson going to say anything so the people will know that the rest of us are not dishonest?" and to that end I am seeing the Senator

I cite you these reactions and illustrations to show how shocked and saddened all of us are to find out what one man has done.

Except for what would appear to be an error in judgment last May in not passing to the Committee an anonymous letter, the Air Force as a whole is not involved.

The anonymous letter referred to in the press, which makes several charges against General Meyers, was but one of hundreds of letters regarding various members of the AAF. Investigations were made with respect to the letter in question. The specific charges were not supported by the facts. It now develops, however, that there is very strong evidence of the broad violations alleged against General Meyers.

The Air Force men as a whole are the same fine clean group of men with whom you fought to preserve our way of life, and of whom I am sure in your heart you are very proud.

I can report to you as your Secretary that since the first day we knew of any facts in this matter we have been working with all agencies of the government to be sure to see that justice shall be done.

As soon as it came to our attention, I personally dis-

be able to wallow around in the money gained through the blood poured by my fellow fliers?" Unless there was a fast-moving investigation, he said, he would resign his reserve commission and "no longer consider it an honor and a privilege to serve in what I thought was the finest fighting body of men in the world."

By now the whole barrel had rebelled against the "rotten apple" in it. The Air Force stopped Meyers' retirement pay of \$550 per month, stripped him of his decorations, and prepared court martial proceedings pending civil court action by the Department of Justice. Secretary Symington issued a public statement: "There is no indication whatever that Meyers' irregularities were known by any of his superiors, or that there was reason why they should have known. . . . Conviction of the head of the New York Stock Exchange as a thief did not mean that every banker and broker in the country was a crook. Nor did the conviction of the highest

• • "Your Record Is Unsullied"

cussed the matter immediately with the Secretary of the Army, Secretary of Defense, Treasury Department, the Attorney General and Senator Ferguson himself.

As you know, the average air officer is not an experienced business man. It is not his training. This is the reason a man with a business background can go very far wrong without his supervisors knowing it, especially when their eyes are facing west and east to the winning of the war.

Based on my own business experience, however, I can tell you that once an able and experienced man turns dishonest, especially if he is intelligent and well trained, it is almost impossible to catch him until a relatively long period of time has elapsed. This happens every day in the industrial and banking world.

In the future the Air Force plans to reward for logistic—business—efficiency as well as flying—operational—efficiency; and this should reduce to a minimum the chance of anything like this ever happening again.

So far as we know, there is but one officer involved. We have asked Senator Ferguson to turn over to us and the Department of Justice all records on this case as soon as they are completed; and I can assure you of our determination to see that justice is done at earliest opportunity. So far as we know, every department of the government that might cooperate to that end is now busy working on it.

To me this occurrance might be compared to a large family when it suddenly is told that one of its members is not straight. It is a sad and terrible business, but it should not affect the feeling or relationship of the other brothers and sisters, or their parents; and above all, it should not affect their attitude towards the institution—the family—which in this case is our Air Force.

The record you and your comrades, both living and dead, established over Europe and in the Pacific, is far too deep and enduring ever to be sullied by the dishonest action of any individual, regardless of his rank. I know you agree about that.

With appreciation for your letter and with my personal pledge to you that General Spaatz and I intend to see justice done in this or any other case of a similar character, I am

Sincerely yours, s/ W. Stuart Symington.

Federal Judge in the land below the US Supreme Court signify that other judges and lawyers in the country were crooks. . . . Thorough investigation of the Meyers' matter does not lay even the finger of suspicion on any other officer in the Air Force or the Army."

General Arnold had told the Senate investigating committee: "The old Air Corps, the Army Air Forces and now the US Air Force have never condoned and never will condone such conduct as is indicated by this evidence, regardless of ability, position or rank. If, to our regret, we of the Air Force did not find a rotten apple in our barrel, we are grateful that others have done so. If we were at fault in not finding it, we must admit our fault."

The inability of the wartime Air Force to find the "apple" was concerned, first, with the questionnaire it had issued to its principal procurement officers in 1943, ordering them to report whether they owned securities

in aircraft companies. In testifying on the subject General Arnold said, "The reporting officers, including General Meyers, gave me their words that their investments were as stated and were disposed of as stated," and added, "The military service rests on the word of its officers: We relied on what we considered General Meyers' word that he no longer held, directly or indirectly, investments from which he might profit from his procurement authority." Then the wartime commander answered Meyers' specific charge: "General Meyers had the effrontery to state that, after making his report, he verbally disclosed the full facts to me and perhaps to General Stratemeyer; that he received the approval of one or both of us to his continued indirect holdings; that he made what he calls verbal arrangements with his superior officers; and that I told him that the matter of sale of stocks was one for his own judgment. These statements I brand as absolute falsehoods, as does General Stratemeyer."

The second point at issue concerned an anonymous letter of 1945 said to have contained charges against Meyers. The letter was addressed to the FBI; copies were transmitted simultaneously to the Criminal Division of the Department of Justice, and to the Intelligence Division (G-2) of the War Department. The latter sent a copy to Headquarters AAF. There it was filed without investigation. Acknowledging that the wartime Air Force was under attack on the grounds that it should have been warned by the letter, General Arnold testified: "As to this incident I can only say for myself, personally, that the matter never came to my attention. I was at the Potsdam Conference when the communication reached Air Force Headquarters. The decision made elsewhere in the Staff to file the anonymous letter was, it now appears, a mistake. Investigation then might have developed the situation which has now been uncovered. But I think it unfair to attribute this decision to any desire to protect 'brass hats,' in view of the accompanying information as to the other agencies of Government involved and of the huge burden then being borne of transferring our airpower to the Pacific war. I wish the decision had been otherwise. The responsibility for it is mine as Commanding General. But in view of the circumstances I should find it hard to censure the man who made the decision." Commented Secretary Symington later, "Hindsight is better than foresight, but it is agreed with General Arnold that the letter should have

been investigated." So ran the arguments in the case of Bennett Meyers. Then General Arnold pointed to the rest of the Air Force barrel. "The evidence and the rumors and the innuendo that go with it," he told the Senate investigators, "reflect on the 3,000,000 men and women who served in the Air Force, on the vital part they played in the war and, perhaps, on the future of the Air Force as the foundation stone of our national security." He called attention to the 60 billion dollars spent on the wartime Air Force, and said, "I had and have faith that with the rarest exceptions this tremendous sum was spent honestly and well. We are dealing here with an exception. Let it be dealt with by military and civil agencies with all the severity this sordid evidence warrants. Not only for its great past contribution, but for its now high importance to our country's future, let not the Air Force suffer beyond its deserts. Let not public confidence in the integrity and high purpose of those who served and will serve in the Air Force be destroyed."

The case of Bennett Meyers had transcended his (Please turn the page)

Roll Out The Barrel! continued

alleged wartime manipulations. A larger and more important question had developed: Would the acts of one man smear the war record of 3,000,000 men and women and in so doing jeopardize the future of the Air Force? This seemed impossible on the face of it, and in the long run the answer would have to be a definite no. Yet, these were critical times. Our top statesmen could argue that world peace depended in large measure on the military strength of the US. The best military thinking could determine that air power was our first line of defense and offense. Investigations at the highest pinnacle of the government could reveal the need for far greater air strength. Yet, in the last analysis, public opinion would decide. Right now the people were having their troubles with rising prices, housing, and all the rest. An election year was coming up. The people were rather sick of "crises" and of military matters. In his message to AFA members at the time of the first national convention, General Arnold had explained, "It is easy to understand the indifference that 'fogs in' so many of our people after an abnormal effort such as we have just known. We can all sympathize with that 'tired feeling.' But this time we cannotwe dare not-stand by and let apathy again run its disastrous course. That, as I see it, is your No. 1 responsibility." The Bennett Meyers case could seriously shake the confidence of the public, not only in the Air Force and in the military, but in preparedness and air power as well. For this reason alone only the strongest action would suffice against Meyers, or anyone like him, if found guilty in due process of law. Justice must be served. But that was only part of it. The public must not lose confidence in the Air Force as an organization, in air power as the hope for peace. If it did, the results could be disastrous. To see that this didn't happen was the "No. 1 responsibility" of three groups-the Air Force, the Congress, and Air Force veterans themselves.

The responsibility of the US Air Force is clear cut. It must press charges in the Meyers' case to the full extent of its jurisdiction. It must encourage and cooperate with outside investigating agencies. It must reexamine its own procurement and inspection systemsdown to anonymous letters. There is ample evidence that a good start has been made. Secretary Symington has announced that a general reorganization of the entire procurement structure of the Air Force has been underway during the two months the Air Force has operated under Unification. "It is both our duty and desire," he explains, "to set up in the Air Force a procurement system which reduces to an absolute minimum the chances of any such disgraceful act ever happening again." He adds that the new Under Secretary, Arthur S. Barrows, an expert on procurement planning and administration and for many years President of Sears, Roebuck & Co., is engaged in a study of all procurement matters "incident to standardizing, streamlining and allocating of straight-line operating authority along with responsibility." Secretary Symington also reveals that Frank J. Wilson, retired head of the US Treasury Secret Service, will serve the Air Force in an advisory capacity "with a view to establishing an inspection organization which will produce maximum efficiency with the facilities available." Finally, he announces that it is planned to have future criminal investigations in the Air Force handled by the FBI.

The responsibility of Congress is two-fold. It must continue to perform its great public service through in-

vestigations, as exemplified in the Meyers' case. In applauding that service, Secretary Symington has said, "We are equally sure, however, that just as the Committee is anxious to bring this man to justice, so also are they equally anxious to remove any semblance of stigma from the faithful and loyal members of our great Corps." That point cannot be emphasized enough. If Congress exposes a "rotten apple" to the extent that public opinion is influenced, Congress is obliged to roll out the barrel itself so it can be viewed by the nation.

Congress can fulfill its responsibility in any number of ways. One, which has come to the attention of AIR FORCE, is recommended in strong measure. It is a bill which Representative Ralph D. Gwinn of New York promises to introduce in the Congress at the regular session opening this month. The proposed Gwinn bill calls for creation of a grade of "General of the US Air Force" on a par with General of the Army and Fleet Admiral of the Navy. It provides for appointment by the President to the permanent grade of General of the Air Force "any individual who shall have served as Commanding General, Army Air Forces, or have served after September 26, 1947, and before January 1, 1948, as Chief of Staff, United States Air Force. Eligible for the new grade would be General of the Army H. H. Arnold and General Carl A. Spaatz.

Meyers or no Meyers, the General of the Air Force grade should be created. It seems particularly appropriate for such a measure to come to public attention at this time, and we commend Representative Gwinn for his foresight. In the aftermath of the scandal, it would serve as a symbol of faith and respect on the part of Congress—and therefore the people—for the Air Force as an organization. It would be a vote of confidence from the people for every man and woman who has served in the Air Force, from lowest to highest rank—to general officers, currently the center of attack, including the 19 Air Force Generals who lost their lives during the war, 10 in combat.

Veterans of the Air Force have a responsibility of their own making. They were part of the barrel, and the barrel is threatened, not from a long range standpoint, perhaps, but temporarily at a time when the barrel could suffer for it. Veterans can throw their weight around at the grass roots, where it counts most. They are the only ones on the civilian side who know the Air Force and air power from personal experience. They know the Air Force as a big barrel, far bigger than one man or any group of men. They can pick names and dates and events out of the barrel and toss them back at the skeptics in the drug stores and kitchens and offices and bars of the nation. Wherever people congregate, these veterans probably will be the strongest critics of the "rotten apple," and for good reason. That's the way it should be. But they also can be the strongest critics of those who don't bother to separate individuals from organizations. All this veterans can do on their own, in their own backyards, and people will listen to them.

Or, if Air Force veterans stick together, they can wield far greater strength in the cause of air power. They can fight back as a group. For this reason the Air Force Association was formed. And for this reason it is unique among veterans' organizations. The time is ripe for more and more veterans to link with and add to the some 200 local units of the AFA now spread across the nation. Singly or through group action, it is the time for Air Force veterans to roll out the barrel!

Workers for Air Power

President Lanphier announces 11 national AFA committees; 66 men from 20 states to serve

The first national convention had driven home the fact that coopertive effort was the key to AFA strength. Men from all sections of the nation, men with heavy responsibilities of their own, had volunteered for work on national committees of the Air Force Association, asking nothing more than the opportunity to serve the cause of air power.

There was much work to be done. The Statement of Policy adopted at the convention had established common denominators in the all-out campaign for aerial supremacy. But the Statement at best was but a blueprint of things to come. Continued study and action was necessary to support AFA's air power platform. For this, hard-driving committee work would be needed.

Meanwhile, only a well organized and soundly financed organization

could hope to measure up to the task. Standing committees had been provided for in the AFA constitution for such operational work, but during the first AFA year the burden had fallen on a relatively small group of men in a few eastern cities. At the national conven-

tion, an advisory committee was formed of all Wing Commanders, to bring state leaders in closer touch with AFA officers and directors. In like measure, it was evident that the standing committees would hereafter have workers from east, west, north and south.

This month 11 national AFA committees are announced by AFA President Tom Lanphier. The committees are made up of 66 AFA workers from 20 different states and the District of Columbia. Here are Air Force veterans who have seen war service in all theaters of operation, in all types of Air Force jobs. Here are former generals and former privates. Here are airline executives, salesmen, publishers, craftsmen, professors, farmers, movie stars, engineers, bankers, clerks, lawyers, airport managers. Whatever they are

and whatever they were, all have a common denominator—a steadfast belief in air power as the cornerstone of national security; a firm conviction that if the US is to remain at peace it must build an Air Force second to none. The roster announced by Lanphier follows:



Edward P. Curtis, Executive

EXECUTIVE COMMITTEE

MISSION: This small segment of the Board of Directors exercises Board powers as required.

CHAIRMAN: Edward P. Curtis, Rochester, N. Y.; Vice President, Eastman Kodak Co.; an AFA founder; former Chief of Staff, USSTAF.

REGULAR MEMBERS: John P. Biehn, Columbus, Ohio; Thomas D. Campbell, Hardin, Mont.; James H. Doolittle, New York, N. Y.; Thomas J. McHale, Dallas, Tex.; Sol A. Rosenblatt, New York, N. Y. EX-OFFICIO MEMBERS (AFA national officers): Thomas G. Lanphier Jr., Boise, Idaho (President); James Stewart, West Los Angeles, Calif. (1st Vice Pres.); Merryll Frost, Worcester, Mass. (2nd Vice Pres.); C. R. Smith, Washington, D. C. (3rd Vice Pres.); G. Warfield Hobbs III, New York, N. Y. (Treasurer); Julian B. Rosenthal, New York, N. Y. (Secretary); Willis S. Fitch, Washington, D. C. (Executive Director).

MEMBERSHIP COMMITTEE

MISSION: Examine all phases of AFA membership policies and procedures;



Roy Atwood Finance

John Caldwell Membership





Sam Clammer (with J. D.) Legislative

Julian Rosenthal Constitution





John Edmondson, Publications

Workers for Air Power continued



B. B. Geyer
Public Relations

Joseph Whittaker Air Reserve





Ray Ireland Air Transport

Sol Rosenblatt Air Force



Cass Hough, Research & Development

recommend action.

CHAIRMAN: John H. Caldwell, Hartsdale, N. Y.; Managing Editor, Sales Management magazine; former radar technician, 8th Air Force.

MEMBERS: B. E. Fulton, Akron, Ohio; Mary E. Gill, New York, N. Y.; Richard Krolik, Hollywood, Calif.; L. A. Larson, Milwaukee, Wis.; Thomas J. McHale, Dallas, Tex.: Frank B. Morgan, New York, N. Y.; Harold C. Stuart, Tulsa, Okla.; Joseph Turner, Tulsa, Okla.; Jerome A. Waterman, Tampa, Fla.; Otto H. Wellensiek, Nebraska City, Neb.; Ralph Whitener, Beckley, W. Va.

LEGISLATIVE COMMITTEE

MISSION: Examine and consider advisability of legislation of interest to AFA; recommend action.

CHAIRMAN: Sam Clammer, Tulsa, Okla.; attorney; also maintains office in Washington, D. C.; former chief of signal intelligence, SHAEF.

MEMBERS: Prof. W. Barton Leach, Cambridge, Mass.; Robert Proctor, Boston, Mass.; Sol A. Rosenblatt, New York, N. Y.

FINANCE COMMITTEE

MISSION: Examine all matters concerning financing of AFA and its activities; recommend action.

CHAIRMAN: Roy Atwood, New York, N. Y.; general partner, J. R. Timmins & Co.; former Deputy Commander, European Div., ATC.

MEMBERS: John Marshall Boone, Baltimore, Md.; Thomas D. Campbell, Hardin, Mont.; G. Warfield Hobbs III, New York, N. Y.; L. A. Larson, Milwaukee, Wis.; Rex V. Lentz, Dallas, Tex.; Albert I. Lodwick, Lakeland, Fla.; William D. F. Morrison, Woonsocket, R. I.; J. Dabney Penick, New York, N. Y.; Harold C. Stuart, Tulsa, Okla.; Thomas Stack, San Francisco, Calif.; L. Wallace Sweetser, Los Angeles, Calif.; John T. De Blois Wack, Santa Barbara, Calif.; Jerome A. Waterman, Tampa, Fla.; Walter R. York, Boise, Idaho.

CONSTITUTION COMMITTEE

MISSION: Examine constitutions and by-laws at national, Wing and Squadron levels; recommend amendments.

CHAIRMAN: Julian B. Rosenthal, New

York, N. Y.; AFA's national secretary; attorney; formerly with Air Technical Service Command.

MEMBERS: J. Stewart Ake, Canton, Ohio; William W. Dalton, St. Louis, Mo.; William P. Farnsworth, Rye, N. Y.; Murray C. Fuerst, New Rochelle, N. Y.; John L. Gushman, Toledo, Ohio; Nicholas S. Hare, Birmingham, Ala.; Keith Masters, Chicago, Ill.; Abraham Pervin, Pittsburgh, Pa.; John F. Woods, New York, N. Y.; Laurence D. Weaver, New York, N. Y.

PUBLICATIONS COMMITTEE

MISSION: Examine all matters pertaining to publishing of Am Force Magazine; recommend action.

CHAIRMAN: John P. Edmondson, New York City; Treasurer, E. P. Dutton & Co.; former Executive A-2, 8th Air Force.

MEMBERS: Corey Ford, New York, N.Y.; Carl Norcross, New York, N.Y.

PUB. RELATIONS COMMITTEE

MISSION: Serve as advisory board on public relations matters pertaining to AFA; recommend action.

CHAIRMAN: B. B. Geyer, New York, N. Y.; President, Geyer, Newell & Ganger advertising agency.

MEMBERS: Richard Krolik, Hollywood, Calif.; Robert Johnson, New York, N. Y.; Alphonse J. Madden, Hollywood, Calif.; John R. McCrary, New York, N. Y.; Samuel T. Moore, Jackson Heights, N. Y.; Rex Smith, Washington, D. C.; William Westlake, Washington, D. C.; Gill Robb Wilson, New York, N. Y.

AIR RESERVE COMMITTEE

MISSION: Study the Air Reserve program in all its phases and make recommendations for its improvement.

CHAIRMAN: Joseph B. Whittaker, Harrisburg, Pa.; Wing Commander of Pennsylvania; member of Air Reserve; former bombardier, 8th Air Force.

MEMBERS: Selby Calkins, New York, N. Y.; John C. A. Watkins, Providence, R. I.; Otto Wellensiek, Nebraska City, Neb.

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History stands out in high relief as BOAC's Lockheed Lodestar flies over Cairo's ancient Citadel.

Magic carpets in the Middle east A timely one of the

A timely account of new air trails in one of the world's most turbulent areas

By George A. Brownell

Condensed from a report by the author to the Middle East Journal, Washington, D. C.

Ever since Daedalus and Icarus essayed their fabled non-stop flight from Crete to Sicily, visionary men of the Middle East have conceived of soaring through the air, if not on wings, then on magic carpets. It is not surprising that they were among the first to conjure up such a solution to their transport problems. In few areas of the world can direct travel

by air over deserts, mountains, seas and wildernesses produce so great a saving of time and labor.

During the past few years the fantasy of the Arabian Nights has become reality. There are today few points in the Middle East where the airplane is not known, and where it is not eagerly utilized by those who can afford it. En route from Karachi in November 1946, aboard a comfortable British Overseas Airways Corporation (BOAC) flying boat, we picked up in Trucial Oman a half dozen scimitar-bedecked sheikhs on their way to Bahrein for a holiday

weekend. They were as much at home as any group of American businessmen on the New York-Washington run. At the appointed time they unrolled their prayer rugs in the aisle and, one by one, went through their evening ritual while the plane flew 5000 feet above the Persian Gulf. The courteous BOAC steward pointed out the exact direction of Mecca.

The war, of course, has been responsible for much of the air transport development in the Middle East. International air lines transited (Pléase turn the page)

Magic carpets in the Middle east continued



Trans World Air unloads mail at Payne Field in Cairo, Egypt. This former ATC station, since renamed Farouk Airport, was built by the Air Force and turned over to the Egyptians with the understanding that it would be maintained as a permanent international terminal for world air travel.

the area before 1939, and one or two local companies had started operations by then, but the schedules were thin. It was not until the construction and improvement of airfields by the military forces, the introduction of wartime navigational aids and other facilities, and the inevitable creation of postwar surpluses of flying equipment, that both international and local operations assumed their present importance. Today each one of the larger flying nations has established or planned routes through the Middle East, and within the past two years each Middle Eastern country which had not done so before has set up its own air line.

This sudden growth, however, must not lead the outside observer to overlook the many difficulties that remain to be overcome. One of the most critical problems arises out of the inability of several Middle East states to support and maintain the expensive and complicated airport and navigational facilities required for modern air transportation. In the immediate postwar period a considerable amount of this work was performed by the American and British

air forces, but with the inevitable withdrawal of their personnel such assistance has been greatly reduced, and presumably will be eliminated eventually. There is a vital need now for some form of assistance to certain of the local governments either by the airlines or by other governments concerned, or both.

The absence of established practice-as salt water shipping enjoys under the concept of "freedom of the seas"-presents airline operators with another type of problem. For example, an American airline seeking to operate through the Middle East countries must first apply for and secure from the Civil Aeronautics Board a "Certificate of Public Convenience and Necessity" permitting it to operate a carefully described route from which it may not vary without permission. The certificate, however, evidences only such approval by the United States Government. It is of no value unless and until the United States makes arrangements for the operation with each of the other governments having jurisdiction over the proposed ports of call. And even when such

a series of bilateral agreements is completed there is no assurance for the American carrier that the airports and other facilities along the route will meet the standards required by our aviation authorities.

Two American airlines have been "certificated" to the Middle East. Pan American Airways is now authorized to operate across Europe to Istanbul, Ankara, Beirut, Damascus, Baghdad, Karachi, New Delhi, Calcutta, and beyond to its own trans-Pacific routes. Trans World Airline (TWA) is similarly authorized to operate from Cairo (which it reaches from Athens and again via its route along the north coast of Africa) to Lydda (Jerusalem), Basra, Dhahran, Bombay, Calcutta, and beyond to Shanghai. There it connects with Northwest Airlines' trans-Pacific route through the Aleutians and Alaska.

It is not yet feasible, for economic and other reasons, for either American company to fly the above routes exactly as described, or to make all the authorized stops. TWA is currently seheduling fifteen round trip passenger flights a week from the United States to Cairo, three of

which continue on to Lydda, Dhahran and Bombay, and a fourth to Lydda alone. It is expected that the Bombay service will soon be extended to Calcutta. Pan American is running two planes weekly from London to Istanbul, Karachi, and Calcutta with connections beyond, and is serving Damascus once a week. Neither line has been operating long enough in the Middle East or India to permit accurate estimates of traffic potentials over a long period of time. However, TWA has reported that total passenger sales within the Middle East and India area from January to June of 1947 amounted to approximately 20 percent of its international division passenger revenues for those 6 months.

Cairo is and promises to be not only the hub of commercial aviation in the Middle East but also one of the most important air centers on the world trade routes. Payne Field (renamed Farouk Airport by the Egyptians), which was constructed and equipped by the US Air Force during the war, was turned over to the Egyptian Government in December of 1946 as part of an over-all settlement with Egypt and on the under-

standing that it would be maintained and used as an international civil airport. It should be capable of handling any commercial transport planes used in international services in the foreseeable future.

The US Air Force has been conducting a program for the purpose of training Egyptian personnel in the operation and maintenance of communications, navigational aids and other equipment originally installed by it at Payne Field. The US Weather Bureau has loaned two ex-

perienced weather forecasters and one raysonde technician to the Egyptian Department of Meteorology to assist in operations and to train Egyptian personnel. It remains to be seen what kind of a job the Egyptian Government will do over a period of years when the specialists furnished by the US Government have been withdrawn, and when maintenance and replacement costs begin to mount up. The service should continue to be adequate if Egypt recognizes the importance of making



Arab workmen shown above repairing the runways at Tel Aviv Airport in Palestine. US support of the Zion partition plan may complicate the task of negotiating air agreement with some states of the Arab League who are strongly opposed to the plan.



International air passengers shown above clearing customs at the Cairo airport. Frequency with which long-range air travellers must undergo this time-consuming process stresses need for some improvement in passport and clearance procedure.

the necessary appropriations and if trainees with appropriate backgrounds can be interested in the work. But these "ifs" carry big question marks.

Cairo is the largest and most important base for TWA on its route from New York to the Far East. In addition to maintaining and servicing aircraft used in its own trunk line operation, the company there maintains and services, on a contractual basis, aircraft of the Iranian Airways, Ethiopian Air Lines and Saudi Arabian Airways. It tends the personal aircraft of King Farouk of Egypt and King Ibn Saud of Saudi Arabia; it also services the aircraft of several American non-scheduled air carriers and some foreign air carriers which have occasion to pass through Cairo. With a staff of some 130 American employees and 840 Egyptians, the installation is today the largest American project in Egypt.

A bilateral air transport agreement between the United States and Egypt was signed in June 1946 after many months of negotiations. It has re-

(Continued on page 17)

ISTANBUL • ANKARA • TEHERAN BEIRUT BAGHDAD AIRD ABADAN

Magic carpets in the Middle east continued

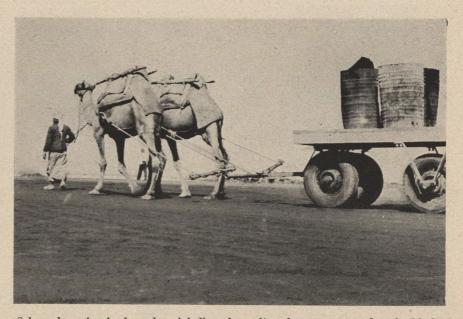
cently been ratified by the Egyptian Government, and is the first such agreement which that government has concluded. It follows the principles of the so-called Bermuda Agreement completed between the US and Great Britain in February 1946 and, subject to the Bermuda formula, permits unrestricted Fifth Freedom privileges to any air carrier certificated by the US. That is, in addition to through-traffic between the US and Egypt, its authorizes the air line to carry traffic to Egypt from third countries and away from Egypt to third countries, subject to the "general principles" that such traffic shall be related:

- "To traffic requirements between the country of origin and the country of destination,
- "To the requirements of through line operation,
- "To the traffic requirements of the area through which the airline passes after taking account of local and regional services."

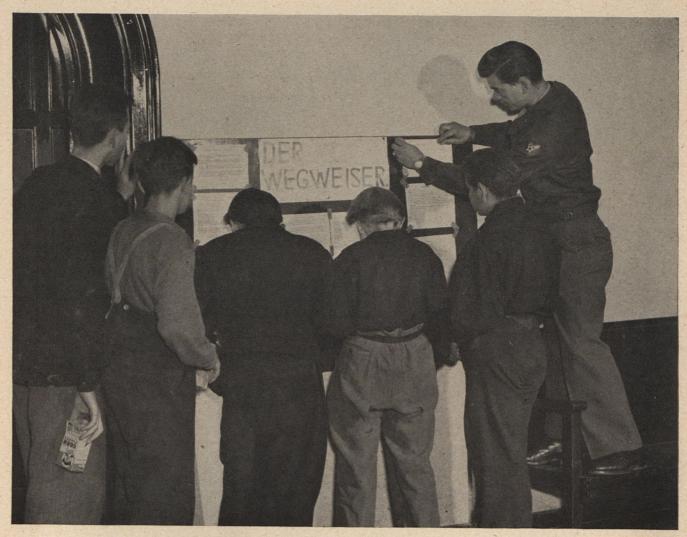
The ratification of this agreement by Egypt is of particular importance and interest because of the leading part which that country has played in the Arab League Council in the formulation of a proposed standard type of bilateral agreement for use by all of the Arab countries. The Arab League draft placed severe restrictions on operations by foreign air lines within the Arab area, and in effect reserved as a monopoly for the Arab lines all local air traffic between the Arab states. This principle would have been impossible of acceptance by the US as a matter of policy, for if it were applied generally it would tend to limit the longrange international carriers to traffic within their respective homelands and their various points of destination. No international air line can survive without enormous subsidies unless it can handle, to an appropriate degree, traffic between intermediate points on its routes. The fact that Egypt concluded an agreement with the United States in the latter's standard form, and the fact that Lebanon and Syria have also signed similar agreements, would seem to indicate that a change in the Arab League's air policy relative to restricting traffic routes within the Arab area can be anticipated in the near future. On any long-term basis it would seem clear that the prosperity of the trunk lines transiting the (Continued on page 42)



Native sentry stands guard beneath an international signpost at the famed Marine Airport at Karachi, India. The distance indicated on the horizontals shows key position held by the Middle East in the future development of air transportation.



Salvaged truck wheels and rock-ballasted gasoline drums were used to build this camel-powered roller, used to smooth the interspaces at Tel Aviv Airport. Compare this with US-built equipment that maintains other Near Eastern air terminals.



Early each morning notice of the day's activities at Boys Town, Germany, go up on the sign-post or "Der Wegweiser". Boy at left has beaten chow-call with box of American corn flakes.



Boys Town youths receive from 2600 to 3200 calories a day as compared to the basic German ration of approximately 1550.



Colonel W. B. McCoy, CO of Oberpfaffenhofen Air Depot, gives Eberhardt Braeuer a few pointers on a favorite US pastime.



Boys Town, Germany

The USAF goes beyond the line of duty to help homeless kids

Fifteen miles south of Munich the US Air Force has established a German counterpart of Father Flannagan's famed Boys Town of Omaha, Neb. In a pink stucco mansion, formerly the property of a Nazi war criminal, 42 homeless German youths have been gathered together from all parts of the American Occupation Zone and are being given an opportunity to learn for themselves the advantages of the democratic way of life.

There is no goose-stepping at Boys Town; no stiff-armed salutes or thin, adolescent shouts of "Sieg heil." The boys are too busy digging potatoes, chopping wood or playing baseball. Running their own constitutional government with its parliament, council members and mayor (Obergurgermeister), takes time too

Boys Town was set up by the Oberpfaffenhofen Air Depot in May 1946, in an attempt to reduce juvenile delinquency. Many of the officers and men who participate in the program do so on a purely voluntary basis. Average age of Boys Town residents is 14. German Youth Administration Officers, who are in supervision of the project, declare it is succeeding beyond their "greatest hopes."



Pfc, Lloyd Malone of Seneca, Kansas, volunteer GYA worker, shows two attentive youths how to make beds Air Force style.



When measles or mumps catch up with Boys Town youths, they are given attention of both Air Force and civilian docs.

Boys Town, Germany continued



Something new for the youths of Germany is the privilege of governing themselves. Here a violator of the constitution is being tried by the mayor and the members of his council.



To a large degree, Boys Town is self-supporting. Here teenage members dig potatoes. Farm workers get special diet.



Thirteen-year-old Seigfried Kassera, an expellee-war orphan from Prague. is learning how to become an expert dairyman.



Proof that these German youths managed to keep their sense of humor through the dark days of Naziism is evinced by their smiles as they listen to T/Sgt. C. E. Hoffman read the comics.



Wolfgang Seyfert chops wood for winter fuel. Light chores are performed by younger boys after morning school session.



In their spare time these homeless youths read the "Light Tower", a weekly paper published by boys of Munich area.





The X C - 9 9

The science of aerial logistics will

have to be slightly rewritten to accommodate

Convair's 130 ton transport

It can be argued with good logic that any future war would be fought so quickly and with such rapier-like thrusts that there would be little or no time for the slow, strategic maneuvers of yesterday's battles. If this is so, then a tactical substitute for the old strategic means of moving large numbers of men and quantities of equipment—by ship and rail—must be evolved, for no war can move any faster than men and supplies can be assembled at the battlefront.

Last November at San Diego, Consoliated Vultee unveiled an airplane that will certainly come close to filling the specifications of the required substitute. The new XC-99 has a volume equal to 10 standard railroad ears. It will earry 400 troops. A fleet of 40 can move an entire army division in one flight. Like ships and trains, it is probable that the 99 will be used primarily to move arterial traffic; that is, it will operate on basic routes from points in the interior to forward "airheads," thence its cargo will be moved to using agencies by smaller planes or

No, it isn't the inside of the Lincoln tunnel. It's the top deck of Convair's gigantic XC-99. Vertical clearance is seven and a half feet. Lower deck is two feet higher. Above, plane dwarfs surrounding buildings as it approaches runway after test flight at San Diego.

by other conventional means. Thus, the logistics of war will be speeded to match the pace of the fighting.

As a matter of history, the XC-99 was originally conceived as a secondary invasion craft back in 1942. The contract for its development was signed shortly after negotiations for Convair's XB-36 were completed, but it was given a low priority, and as a result there were constant delays in material and labor allocations. At one period, while the heat was on to turn out B-24s and B-32s, construction ceased altogether.

While the B-36s are being built at Fort Worth and the XC-99 in San Diego, both aircraft are similar to an extent that many major assemblies and most accessories are identicala feature which should simplify supply and maintenance. Both aircraft are powered by six R-4360-25 Pratt & Whitney engines rated at 3000 hp. The plants are packaged in "power egg" installations, to allow complete unit interchangeability. Three-bladed nineteen-foot reversible Curtiss electric propellers are used on all units. De-icing is achieved by ducting hot air into the hollow steel blades.

The X-C99 is rated to carry 100,000 lbs. of cargo in its 30,000 cubic foot 2-deck cargo hold. Typical section of the cigar-shaped fuselage is 20½ feet high and 14¼ feet across. Vertical clearance on the lower deck

9½ feet; on the upper, 7½. The maximum stress on the floor is 150 pounds per square foot. Floors are reinforced locally to carry concentrated loads up to 20,000 pounds.

Access to the lower deck is through openings in the belly, one forward of the wing, another forward of the tail. Personnel and vehicles are loaded by means of a retractable ramp. To save weight the ramp is split in the center and can be adjusted to match the tread of the vehicle being loaded. For access to the top deck, hatches are placed over the lower deck entrance, so that cargo can be lifted the full distance by a winch. The fuselage is lighted by 86 windows. Twelve escape hatches are placed at strategic locations.

Comparative data indicating variations between the Convair bomber and transport designs follow:

	B-36	XC-99
Gross		
Weight	278,000 lbs.	265,000 lbs.
Span	230 ft.	230 ft.
Length	163 ft.	182 ft. 8 in.
Height	46 ft. 7 in.	57 ft. 6 in.
Max. Speed	300 mph plus	300 mph plus
Service		
Ceiling	40,000 ft.	30,000 ft.
Takeoff	5000 ft.	5000 ft.
Stalling		
Speed	93 mph	90 mph
Range	10,000 mi.	8100 mi.

Convair's XC-99

The world's largest landplane can carry 400 fully-equipped troops. Its capacity equals ten standard boxcars





Our search for guided missiles

One of "Holloman's Buck Rogers Boys" traces the little known geneology of the Air Force's Special Weapons Program

Boss Kettering of General Motors stood with a group of Air Force technicians in an isolated clearing in Florida and watched as experiments were conducted with a new radiocontrolled buzz bomb, a project still high on the hush-hush list. Kettering and the group with him had great hopes for the weapon-but before their experiments were concluded the war ended, and in the economy wave that followed the job was abandoned. The Florida clearing was given back to the 'gators and the palm trees. Kettering returned to General Motors and the rest of the group scattered to all corners of the country. The Air Force's guided missile program was filed on the "pending" spindle until more money could be made available.

No, this isn't the story of what happened in 1945 and 1946. This happened in 1918 and 1919.

For what it is worth, it should be recorded at the beginning of any discussion on guided missiles that it was the US and not Germany that initiated research in this field. And for what it is worth it should also be recorded that it was Germany and not the US that carried a guided missile program to a conclusion.

One of the foremost American authorities on guided missiles (or "special weapons" as they were called in the early days) was the late Col. George Holloman of Wright Field. Between 1918 and 1940-the years when there was little or no money for missile work-he was associated with many notable advances in other fields of aeronautical science, including the development of the original blind landing system. When the Air Force finally reinstated its guided missile program in 1940, Colonel Holloman was placed in charge. In the autumn of that year I was assigned to Wright's engineering division to work with him. There was a big job ahead of us. We had lost a great deal of time.

Late in 1940 and early in 1941 several projects were started more or less simultaneously. They included a

radio-controlled target plane, a glide bomb (GB-1), a controllable high angle bomb later known as Azon, the "buzz bomb" later called the G. M. "Bug," a glide bomb known as the "Bat," and a few others which, for one reason or another, were subsequently discontinued. Working at top speed, we were ready by September of 1941 for our initial tests. Accordingly, a month later a group of some two dozen people from Wright Field descended on Muroc Lake, Calif., with many boxes and crates of highly classified material. A little later we were augmented by technicians from the National Defense Research Council and General Motors, including "Boss" Kettering himself.

The first "special weapon" to be tried was the GB-1 glide bomb-a standard 2000 pound demolition bomb slung in an airframe with a wing span of 12 feet, and stabilized for automatic flight by an arrangement of converted aircraft gyros. Our test airplane, an old Douglas B-23, was fitted with a special bomb rack. The bomb bay doors were removed; the glide bomb's wings extended out beneath the airplane's wings. The object of the device was to enable the bomb to be dropped at a considerable distance from the target, outside the ring of heavy antiaircraft fire, and still have it fly on to the target on its own plywood wings.

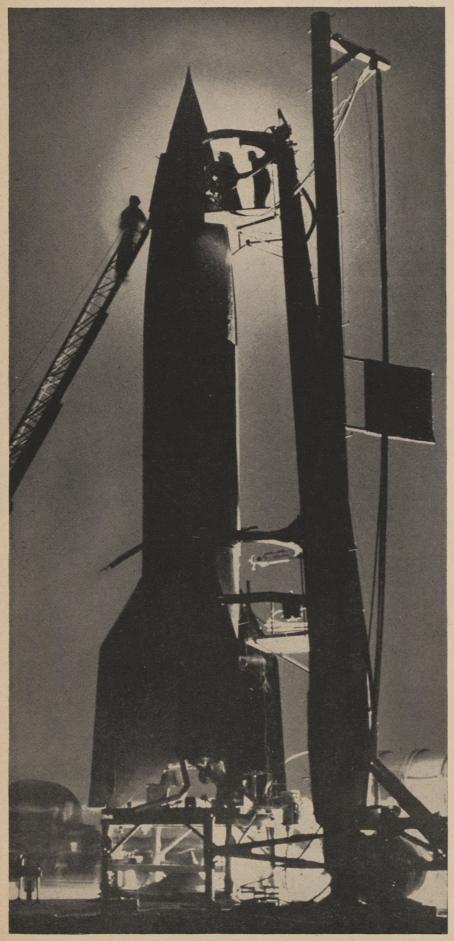
The plane was ready and loaded by 10 o'clock one morning, and we prepared to take off. As I climbed into the pilot's seat, I was the recipient of numerous sympathetic looks, to say the least. The takeoff and climb were uneventful. We squared away for the bomb run at about 12,000 feet and dropped the bomb at the specified point. It immediately rolled over and spun to the ground. Thus began a series of tests on glide bombs, which extended until December 7, 1941, when we had to pull up and move out of the highly excited West Coast area.

During October and November of

1941, however, we got off several G. M. Bugs, dropped a couple of the experimental Azons, and successfully flew the radio-controlled target plane -an old biplane basic trainer, modified to tricycle gear. What failures we had with Azon and the Bug did not discourage our group, but made us only anxious to get back to the laboratory and change our equipment. Before we left Muroc, we achieved several partially successful flights with the glide bomb and one with the G. M. Bug. Several other flights were more exciting and spectacular than successful.

After we returned to Wright Field we worked feverishly for about three months in improving and re-designing various pieces of flight-control equipment, and then left for Eglin Field, Fla., to continue the test and development work. Off in one of Eglin's remote corners we set up shop-generally regarded as a bunch of crackpots and known as "Holloman's Buck Rogers Boys." This time. in addition to continuing the GB-1, Azon, and G. M. Bug tests, we had some NDRC people with us for work on the Bat. This instrument was a flying wing of plywood construction about 12 feet in wing span. It carried a 2000 pound bomb and was to be directed to a target by means of send-and-receive radar. The first tests, however, were only for flight characteristics and stabilization studies. Dummy equipment was used in place of the radar apparatus. I dropped the first Bat at Eglin early in 1942. (Later, when it was recognized that the Bat might be an excellent weapon against naval targets, the whole project was transferred to the Navy.)

During the same period we achieved success with the GB-1, and by early fall it was ready for production. Tom Mayrath and I continued some final tests after the rest of the group returned to Wright Field, and by November the final kinks were ironed out and the GB-1 was released to production. Concurrently the G. M. Bug was successfully flown and radio-controlled, but was considered



Thirty years after the pioneer guided missile trials in Florida, night crews rig a V-2 for test launching.

By Col. P. F. Helmick

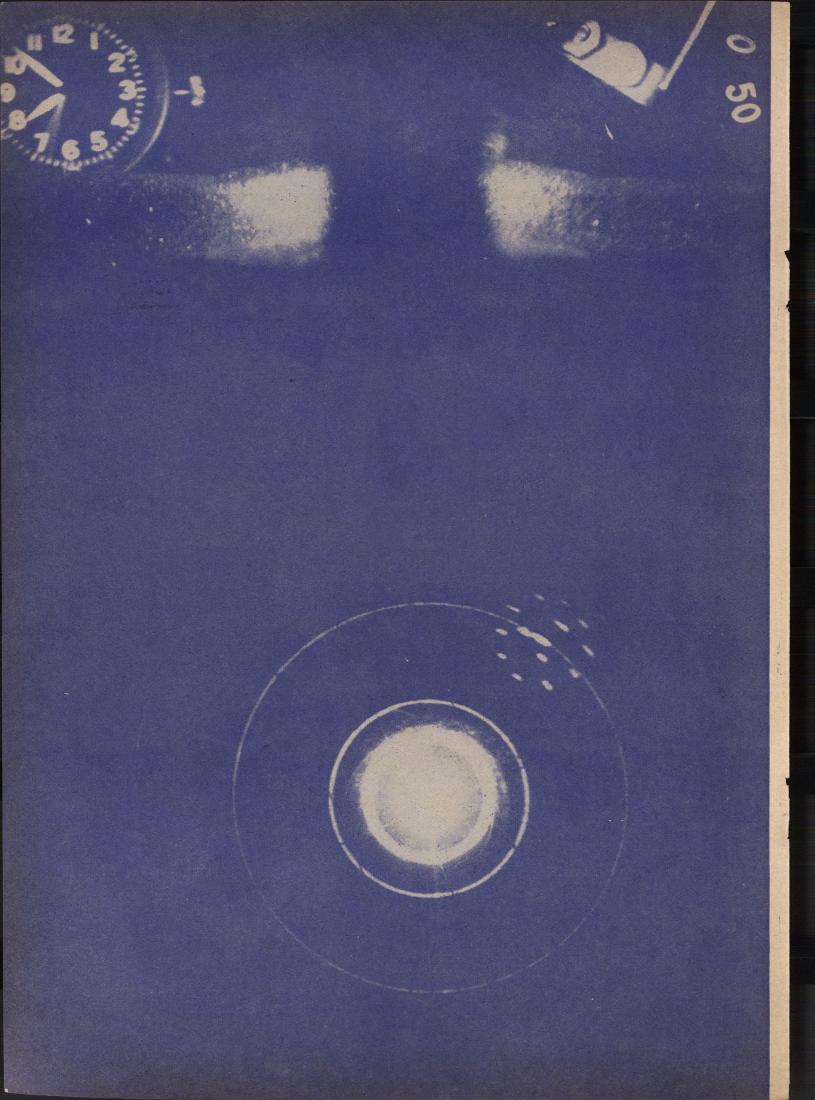
quite complicated and costly and we could not arouse much interest in further expenditures on it; the Bug gradually became inactive as a project. The Azon tests were also continued and gradually the "bugs" were ironed out. It was not until 1943, however, that it was finally considered ready for tactical use.

In the autumn of 1942 and the early months of 1943, we worked on a radio-controlled version of the GB-1. The regular GB-1 was aimed by means of a Norden bombsight and after release flew on a straight course to the target. Our radio-controlled version was intended to allow correction after the dropaway to enable us to hit moving targets and to permit a greater degree of accuracy.

At the same time, we began development of various types of targetseeking devices. These, mounted in the nose of the glide bomb, took control after the bomb was dropped, and automatically steered it into the target. The first to work successfully was a light-seeker built for the tests by Laurens Hammond, of electronic organ fame. Other target-seekers under development were the heatseeking devices with which we flew GBs into a target heated to represent such an objective as a steel mill or power plant. A third was the photo-comparator type which would select a target such as a ship on the open water, or even the shadow of a cloud. These queer gadgets were finally, in 1943 and 1944, perfected to the point where we could drop a GB at a point 20 miles or more from the target and have it guide itself into a 24 foot target for a direct hit.

During this time our most ardent supporter was General "Hap" Arnold, AAF Commanding General. With various other high-ranking officials, including Mr. Robert Lovett, Assistant Secretary of War for Air, he frequently dropped in on us to witness our tests, and in the fall of 1942 we were instructed to put on a "mass drop" of GB-1s. Working feverishly, we made the necessary installations on eight B-17 Flying Fortresses, and conducted a formation drop of 16 GB-1s out over the Gulf. This showed the tacticians the possibilities of the

(Continued on page 46)



bermuda onion

In the largest air-sea maneuver since VJ-Day the 8th Air Force proves that it is still in excellent combat trim



Flying 26000 feet above Bermuda, a group of 8th Air Force B-29s go on the prowl for an "enemy" fleet bent on neutralizing the tiny Atlantic island prior to attacking the US. "X" at bottom is Bermuda air field.

By Charlotte Knight

To the combat veterans who made up a large percentage of the 700 Air Force men participating in the recent Air Force-Navy maneuvers off Bermuda, the show was strictly a this-is-where-I-came-in routine. Air commanders had been instructed to simulate battle conditions and they were conscientious almost to a fault. At the "forward base" (Langley Field, Va.) more than one crew member, standing ankle deep in water while sweating out a midnight chow line in one of the year's worst storms, could be heard to mutter,

During a good part of the operation visibility was so bad that bombing had to be done by radar. At left a B-29 radar scope spots the aircraft carrier Midway surrounded by twelve escort vessels. "Bombing" was done by camera.

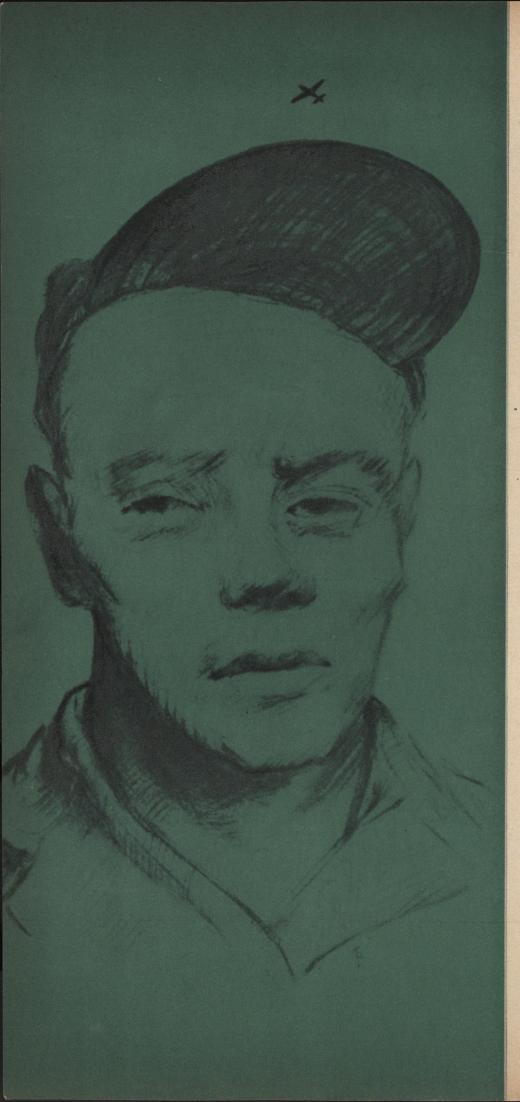
"Geez, just like my old base in England." Some of the same pre-strike excitement was in the air, only this time the worries were not flak but how the engines in those not-so-new B-29s would behave at 32,000 feet on the morrow.

The mission for this exercise (unofficially tagged Bermuda Onion) was to seek out an "enemy" fleet reported some 400 miles southeast of Bermuda. This naval force was presumably converging upon the resort isle with the sole aim of neutralizing the strong defenses there before launching an all-out attack upon the American mainland. The air problem was to neutralize the fleet. To do the job, Strategic Air Force formed a striking force of 8th Air Force units from the 43rd Bomb Wing of Tucson, Ariz., the 509th Composite Wing of Roswell, N. M., the 7th Wing of Ft. Worth, Texas,

and the 307th Wing of MacDill Field, Florida. Responsibility for plans and operations went to the 43rd Wing, and the overall Air Commander was Col. James C. "Bromo" Selser, the 43rd's CO and a wartime B-29 Group Commander. Lt. Col. O. F. Lassiter, Wing S-3, outlined the plan of attack:

The strike would be a coordinated effort between the 43rd Wing, whose VHBs would take off from Langley, and the 307th, whose planes would leave from MacDill. Search aircraft from the 307th, incidentally, had spotted the naval force three days previously and had continued to track them up to briefing time. For the strike itself, one decoy squadron from MacDill would approach the fleet from a point 75 miles due south of the "enemy" to suck away carrier fighters. This feint would be so

(Continued on page 44)



Sweating

By Lt. Roswell G. Ham, Jr.

January, 1944. Things were moving our way now. Each morning, it seemed, the papers in the States carried headlines of new highs in tons of bombs loosed on the enemy. In the Pacific the 5th AF dropped 665 tons on Jap installations and communications in New Guinea. The 8th dropped 1000 on Ludwigshaven and 1258 on the JU-88 factory at Halberstadt. Over in the Balkans the largest B-17 mission yet flown from Italian bases let 418 tons fall on the rail yards at Sofia, Bulgaria. But the story of the Air Force could never be adequately told in tons of bombs. The headlines were never concerned, for example, with the emotions of an armorer on a field in England waiting for his ship to return . . .

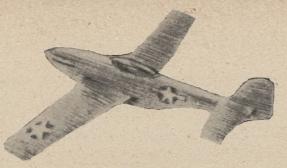
There isn't a lonelier spot in the world than a fighter field after the planes are gone. You sit there on the ammunition and wait. A squadron of fighters has roared over the Channel to fly top cover for a flight of B-17s. There are fourteen men in those fighters. Thirteen of them are your friends. You have swapped addresses and hoisted beers with them. But the fourteenth is more than a friend. He is flying your plane. It is your plane, just as though the government had placed it in your hands. You have armed it and cared for it and now you are sweating out your ship.

As you sit there on a bleak, windy airfield, you feel lonely and apart from everything. You are shut off even from the few men in the nearby dispersal area who go about their own business, and you try not to think about what is happening 25,000 feet over the target for today.

But you do think about it, about the man in your ship. You are responsible for his life. It is your job to make sure that his guns don't stop firing when an enemy fighter comes blasting into the formation. You swear and pray and feel better for it. You wonder what he is do-

Illustrated by Sgts. Lee Grubaugh and Louis Glanzman

Em Out



When his fighter plane is aloft, an airfield is a lonely place for an armorer. There's nothing for him to do but sit on his ammunition and wait

ing. You hope he'll be able to tell you about it himself.

You are sure you sent him on his mission without any ammunition. You know you looked up that ejection chute thirty times and saw the ammunition, but that could have been yesterday. You are positive that the breeching wasn't exact. You are certain there was a split cartridge case. Then you realize that you went over the ship with a mother's care and it was perfect. But you worry.

The wind sweeps across the lowlands and bites into your sheepskin coat. There's a heavy ground fog and the sun is hidden behind an overcast. You have never been so

lonely in all your life.

Then the strange stillness is shattered by an RAF pilot on a bicycle who yells, "Naafi oop." That means tea and doughnuts at the mobile canteen. "Naafi" is British for Navy-Army-Air Force Institute, which is like our USO. You walk over for tea. Sometimes you get good old American coffee.

After a while, you wander into the radio room and listen to the pilots in your squadron talking to each other. They are only about sixty miles away, over the French coast, and you can hear everything they say. Most of the time you don't know who is talking, but when a voice says, "They've got me. I'm going into the water," you stretch and strain and try to recognize the inflections and the tone. Then you sit back. It isn't your man.

An armorer stands up and asks for a cigarette. He offers an excuse and walks out. It was his ship. You know how he feels. "They've got me" means death. And it hits you hard. You expect it and live with it and see it many times. But still it hits you.

You watch the poker game. The

When the ships come in you get ready to ream them, for most of the time they'll go right out again. You stand on the edge of the runway, and as soon as their wheels touch, you start running. You look for your ship and your man. When he doesn't come back, you go over and help another armorer. But your heart isn't in it.

You walk into the radio room again to find out if your man has landed at an advanced airdrome. There's always a chance, and you



players are ground men like yourself, and they are playing poker with one eye on a pair of aces and one eye on the sky.

The first thing you learn as a ground man in a combat zone is how to count. When your squadron comes home you learn to count them while they are still barely visible. You look for holes in the formation, the obvious sign that somebody is missing. Identification experts will tell you that all P-47s look exactly alike. But you can pick out your ship while the formation is still miles away.

Then you start listening. You can always tell if there's been a battle by listening to the whistle of the wind in the cannon blast tubes. If they have met the enemy the patch over the gun ports has been shot away, and the eerie whistle always causes a cold sweat no matter how many times you may have heard it.

play that chance right into the ground. Maybe he's in the Channel and the Air-Sea Rescue outfits have him. You don't show your feelings. No one does. When it's all over, you casually walk up to a returned pilot and ask him what happened.

Very often a lost man will turn up a couple of days later. He'll just walk in as if he had been in the barracks all the time. You never show your enthusiasm. It would be out of place. You merely look up and say, "Glad to have you back." Then sometimes you walk across the field where nobody can see you. You blubber a little, and you aren't too ashamed. Then you go about your business as if nothing at all had happened.

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"Little Henry," the world's first workable ram-jet helicopter, completes initial test flights at McDonnell Aircraft plant at St. Louis. The power units at the blade tips weigh only 10 lbs each.

Little Henry

Engineers called it a "flying test stand." Air Force officers said it was a "three-dimensional aerial motorcycle." Newspaper correspondents tagged it a "cross between a kiddie car and a pinwheel." Line crews called it simply "Little Henry."

called it simply "Little Henry."

But by any name McDonnell Aircraft of St. Louis recently unveiled an Air Force research plane that is undoubtedly the most unique helicopter yet developed. It is an open steel structure that supports a pilot's seat, fuel tanks and controls. Behind is a simple rudder. On top is a twin-bladed rotor, carrying on each of its tips, a 10-pound ram-jet burner. The craft weighs 310 pounds and under the skilled touch of test pilot Charles R. Wood, Jr., has already proved that it can lift 300 pounds in pilot and cargo and carry it at 50 mph.

While Little Henry was built essentially to prove the practicability of the ram-jet rotor disc, the ease of operation and maintenance demonstrated by the tiny craft undoubtedly presages its use for such things as short-range observation, artillery spotting, communications and courier service. Extensive testing has encouraged McDonnell to consider a commercial model for later development, to sell for \$1500 to \$2000.

The ram-jet helicopter indicates certain possible advantages over conventionally powered units. For instance, the ram-jet power plants weigh only 10 pounds each. These apply power directly to the blade tips, thus eliminating engine parts, gear systems and transmissions. Thus, weight is greatly reduced, maintenance pared to a minimum.

The rotor spindle in the ram-jet helicopter is merely a means for attaching the 18 foot main disc to the structure. The control is direct, eliminating the usually complex swash plate system. As the blade tip jets generate no torque, the auxiliary tail rotor is not required.

The major problem in the development of Little Henry was selecting the proper heat-resistant steels for the ram-jet burners. The present machine burns propane gas -the same bottled fuel that is used in some gas ranges. While this fuel has certain advantages, gasoline burners are being developed to simplify the supply problems under military conditions. In the current model, fuel is supplied by two tanks attached to the fuselage. It is funneled to the blades through a simple line circuit. After initial fuel pressure is built up for starting, the centrifugal force of the rotor is sufficient to keep the system going.



Ram-jet copter, super-powered transports and collision warning lead month's advance



Ed Coulter of Pacific Airmotive explains the new Hughes collision warning indicator to pilot Royce Stetson.

The major problem in ram-jet helicopters is the one common to all reactive power plants; that of exorbitant fuel consumption. McDonnell's engineers have conjured up several refinements which they think may reduce fuel requirements and make the ram-jet helicopter suitable for conventional use.

Possible military advantages of the ram-jet system are obvious. In cold climates Little Henry, or his progeny, could take off without any warming up period. When the burners are lighted, the craft is warm. Another is that the craft is easier to fly, because the lack of torque reduces the close physical coordination required by conventional helicopters.

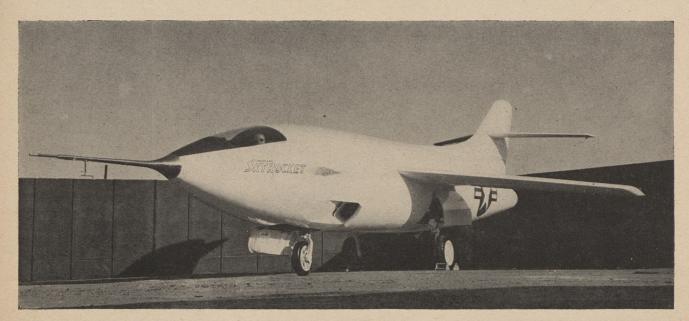
New Packet

Headquarters Air Force has announced that a \$22,000,000 order had been placed for 37 new C-119s—improved versions of the Fairchild C-82 Packet.

While the general configuration

of the new C-119 is generally similar to the C-82, there are several major changes which should enhance the craft's military value. The 2100 hp R-2800-85 Pratt & Whitney engines have been replaced with 28-cylinder 3250 hp P & W Wasp Majors. Cargo capacity has been upped from 2916 to 3095 cubic feet. The new "flying boxcar" can carry a 9-ton payload 2000 miles. It can accommodate 42 paratroopers plus 20 paracans which can be dropped

(Please turn the page)



Skyrocket

Built to explore the transonic speed range, the Douglas D-558-2 carries both a jet engine for take-off and landing and a rocket engine for extreme speeds. Swept-back wings and tail are used.



continued

with an automatic monorail system. As an ambulance plane, it accommodates 36 litters plus attendants.

The external feature that distinguishes the new plane is the new nose section which is designed to improve pilot vision ahead and below when flying formation. To furnish downward vision during paradrops windows are installed on each side of the nose section on the floor level below the pilots.

Lightplane Progress

The trend in personal aircraft in the US appears to be swinging further toward maximum-utility light powered four-place designs. Two new prototypes produced by established companies indicate increased faith in this field. Aeronca is conducting test flights on a four-place highwing monoplane with a fixed landing gear and conventional controls. The new craft bears a general family resemblance to the two-place line. Powered by a 145 hp Continental, it has a 900 lb useful load.

Cessna Aircraft of Wichita, which recently re-entered the larger personal plane field with a high performance five-place 300 hp design, is trying a lower priced model to get into the competitive utility field.



Hole In Clouds This L-shaped hole, 15 miles long and three miles wide, was cut in the clouds by seeding the area with dry ice pellets. This is part of a series of experiments on weather control conducted by General Electric.

Cessna unveiled the new Model 170, a four-place braced high-wing monoplane, powered by a 145 hp Continental.

Sweptback Fighter

The North American XP-86, the latest of the Air Force's new stable of jet fighters, has completed its initial test flights at Muroc Air Base, under the cloak of considerable official secrecy. The new plane is the first US fighter type to use the Busemann planform for both wings and tail. This system of canting the leading edge back at 35° delays compressibility by "fitting" the wingform behind the shock wave caused as the plane approaches the speed of sound.

The XP-86 is powered by a GE-Allison J-35 axial-type jet engine,

rated at 4000 pound static thrust. Top speed is forecast in excess of 600 mph. Cockpit pressurization, pilot ejection and steerable nosewheel are features of the plane.

Lightplane Collision Warning

National distributorship for the 16-pound radar-operated collision warning unit manufactured by Hughes Aircraft Corp. was arranged recently through Pacific Airmotive Corp. of Burbank, Calif. The device, demonstrated a short time ago by the designer-builder, is designed to give the pilot visual and aural warning when the plane approaches ground, mountains, buildings, radio masts and other obstacles. Other aircraft are also registered by the unit.

The Hughes radar-warning unit is essentially a lightweight radar system. The dimensions of transmitter-receiver are only 8x15x9 inches. It is permanently connected to the plane's electrical system and is in automatic operation whenever the master switch is on. A simple rod antenna is mounted in the plane's belly. This mounting permits the unit to give indications only of objects at the same level with the airplane or below it.

In flight, as the surface of the terrain varies, the pilot receives radar signals from the nearest object within a seven mile radius.

The signals are fed into a selective distributing system which lights an amber light when the plane comes within 2000 feet of an obstruction. If the pilot desires, a bell or horn can be cut into the circuit. By flipping a switch, the pilot can alter the range setting to 500 feet.

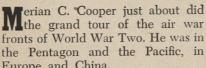


Newest "flying boxcar," the Fairchild C-119 has an improved nose section which provides superior vision, increased cargo space and more powerful engines. It can carry a load of nine tons a distance of 2000 miles. Top speed is also raised.

who's who in the Afa

INTRODUCING

Merian C. Cooper



Europe and China.

He was at his desk in the headquarters of the AAF on the fateful Sunday it all began and he was standing on the quarterdeck of the USS Missouri in Tokyo Bay the day

it all ended.

Back when the Japanese were knocking hell out of the Australian suburb of Port Moresby, Colonel Merian Cooper-affectionately known as "The Pipe"-was one of the good reasons an outnumbered Fifth Air Force was keeping its head above water-or more literally, above ground.

They used to say that "Coop" operated on three priorities: Winning the war, his pipe, his telephone.

Each complemented the other and his devotion to all was legendary at Air Force headquarters in New Guinea. He worked an 18 to 20 hour day with a kind of fanatical zeal. His staff could follow him into any given point in New Guinea simply by scouting his tobacco trail. He in turn could follow them, at any given time and usually at God-forsaken hours, by his deft maneuvering of the standard field telephones which have driven stronger men to insanity but on which Cooper flourished.

Cooper was a motion picture excutive and treading lightly on the half-century mark in the spring of 1941 but he was among the first in filmland to hasten back to active

duty.

During the first global unpleasantness he had been a member of the 20th bomber group in France and earned credit for the destruction of one German aircraft. Later, he was CO of a special observation group hand-picked by Gen. Billy Mitchell to provide extreme-close reconnaissance for GHO of the AEF.

It was just after that assignment that Lieutenant Cooper and his observer crashed in flames in German territory, victims of enemy fighters.

Two years after the Armistice

Coop was in Poland as a flyer in the famous Kosciuscko squadron. He emerged as one of the living legends of the Russia-Polish conflict despite another annoying setback. He was shot down by Russian flak and languished ten more months in prison.

Finally released, he managed to keep himself moderately busy for the next few years. He pounded out several books and innumerable articles, sailed around the world, moved into the stock market and helped finance Pan-American Airways.



"Coop" and His Pipe

In 1925 he went to the Middle East and made the immensely successful documentary film "Grass," and followed it up with "Chang."

This led to Hollywood where, as executive vice president in charge of production for RKO-Radio pictures, he produced such epics as "King Kong" (conceived by Cooper and Edgar Wallace), "Little Women," and "The Informer."

When the faint drums of battle sounded in 1941, Cooper and his partner, the brilliant director, John Ford, were the first to hear and answer. At the beginning, Coop was executive A-2 in headquarters of the AAF. But by early 1942 he was in China as chief of staff to Maj. Gen. Claire Chennault and was rationing his time between staff duties, leadership of the air re-supply over the Himalayan hump and direction of several remote air task forces.

But bacillary dysentery felled him and he was returned to the ZI for rest and recuperation in the spring of 1943. Rest was nil and the recuperation period short. Gen. George C. Kenney, then commander of the Fifth Air Force, was in Washington on a flying visit after the smashing success of his flyers in the Battle of the Bismarck Sea. He encountered Cooper in the Pentagon. Two nights later, Coop accompanied Kenney back to New Guinea-this time as chief of staff for Maj. Gen. Ennis C. Whitehead, then commanding Kenney's advanced striking forces.

Coop was with Whitehead for nearly two years, all during the occasionally stiff but always inspired climb up the Pacific ladder to the Philippines. In 1945 he was sent to Europe by Kenney as a liaison with Gen. Carl Spaatz to give the quick once-over to European AF units earmarked for re-deployment to the Pacific. But he was back with Kenney by the summer of 1945, this time as deputy chief of staff of FEAF.

He wound up the second round of unpleasantness flying to Japan aboard the first group of air transports to land at Yokohama.

He went back into civvies-and the motion picture business-in December of 1945, rejoining Partner John Ford. So far they have completed two pictures with Ford directing and Cooper producing: "The Fugitive," which was made in Mexico and will be released this winter, and "War Party," tentatively set for a premiere this spring.

Coop is married to Dorothy Jordan, and is the father of three children.

He remains one of the major reasons American pipe tobacco companies continue to declare record dividends. He also is a source of constant joy to Walter Gifford and the telephone company. He's glad to be back on a dial 'phone again, though.

Bob Pike, National Flight's Director of Sales, started his own pilot and mechanic school at tender age of 17, was with ATC during the war.



James Brown, agency operator in Washington, D. C., visits NFS headquarters in Los Angeles to talk it over with President Dick Powell.

Pilots First— Planes Later

Student, instructor and operator
assume unique roles in National Flight's
new system of learning to fly

By Ralph G. Tuchman

The old question of which comes first, the-chicken-or-the-egg, has its modern counterpart in the-plane-or-the-pilot.

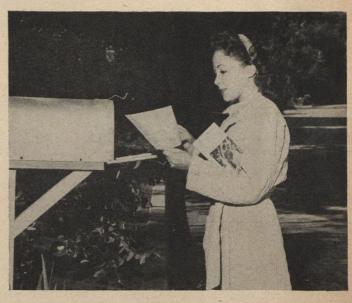
At the end of the war most of the big wheels in private aviation were certain they knew the answer. With thousands of service-trained pilots returning and with public interest in flying at an all time high, the plane makers figured all they had to do was produce, and the flying instructors figured all they had to do was hang out their shingles.

Bob Pike was one of the instructors who hurried home after V-J Day to set up shop. Los Angeles wasn't really his home. Bob was a Canadian by birth—and it was in Vancouver that he had caught the aviation bug, at 16 had taught a ground school course to high school students, and at 17 had entered the aviation business with his own school for pilots and mechanics. Later he had served as technical director of Aero Industries Technical Institute in Oakland, Calif. But it was in Los Angeles, in 1940, that Bob Pike had organized his Airport Ground Schools, Inc., and had begun to ponder the student pilot potential in big scale terms. The war interrupted all that. During the war Bob served as a civilian director of mechanic training for the AAF's Air Transport Command. Shortly after V-J Day he was back in Los Angeles, ready to take up where he had left off.

Only 31, Bob Pike was a veteran of 15 (Continued on page 47)



1. Starlet Caren Marsh gets instruction certificate from Ralph Alexander. Surprisingly, 40 percent of NFS customers are women.



2. Miss Marsh's ground school lessons arrive by mail. NFS "welcomes rather than tolerates" female students.



3. In typical California attire, Paramount's Caren Marsh begins her dual instruction under the direction of Wilford Morrison.



4. Caren waves a somewhat apprehensive farewell to instructor Morrison before taking off on her first solo flight.



5. Well on her way to being a full fledged ladybird, Miss Marsh gets her student license from California dealer Ben Hitchins.

COUNTRY

Toward Aerial Supremacy

AFA's program to make America "air power conscious" had entered a new phase. With local action assured through Wing and Squadron efforts in every section of the country and national committees at work on detailed air policy objectives, the Association was well organized for the program within its membership. Now it could enlist the support of others not eligible for AFA activity by virtue of wartime service in the Air Force.

The new phase of the air power program was auspiciously inaugurated on November 25, when a group of prominent New York business men, representing widespread industrial and financial interests, met with AFA and Air Force leaders at the University Club in Manhattan. Featured guests at the luncheon forum were Secretary of the Air Force W. Stuart Symington, General Carl A. Spaatz, Air Force Chief of Staff, and such aviation authorities as Capt. Eddie Rickenbacker, Alexander P. de Seversky and James H. Doolittle, AFA Chairman of the Board. In hard-hitting, off-the-record talks these men told the group that it was more important than ever to make America strong in the air, and explained that the Air Force Association was the 'chosen instrument" to drive home the need for aerial supremacy.

Significant results were achieved, according to G. Warfield Hobbs III, national AFA Treasurer and chairman of the committee in charge of this special AFA activity. He reports that many of the business men who attended the meeting have pledged their support to help expand AFA's air power program and to obtain the working capital necessary for the expansion. It is expected that similar meetings with business leaders will be held in other cities.

In the Air Reserve

Men drawing pensions, disability allowances or retirement pay who were formerly ineligible for participation in the Air Reserve program may now take part provided they

can meet standard physical requirements. This change was jointly announced by the Army and the Air Force. Lt. Gen. George E. Stratemeyer, Chief of the Air Defense Command, has instructed all commanders to act accordingly.

Under previous regulations, men drawing any type of compensatory pay from the government were not eligible to take any active part in the Air Reserve program. The new standards require a physical examination prior to appointment or enlistment, regardless of the length of time which has elapsed since the applicant's separation from active duty.

Because reservists are not paid for the voluntary participation in the inactive training program, there is no conflict with the ruling which forbids dual compensation. However, because of this ruling, members of the Reserve drawing a pension, disability allowance, compensation or retirement pay will not be eligible for those active duty training tours, during which Reservists receive full pay and allowances.

Great White Father

The rancher from California in the pin stripe suit stood beside the easel that held the portrait of a General of the Army—a General who wore the wings of a Command Pilot and the shoulder patch of the Air Force. The painting was the work of Gerald L. Brockhurst, famous New York portrait artist. This afternoon of November 3 it was to be presented to the United States Air Force by the Air Force Association in behalf of its members and other friends of the man in the pin stripe and the man in the painting—General of the Army H. H. "Hap" Arnold.

In the little group that had gathered in General Spaatz' office in the Pentagon for the ceremony



A California rancher in a pin-stripe suit and a silk print tie came to Washington one day recently to attend AFA's presentation of an oil portrait to the US Air Force. Presentation was made in behalf of all the friends of man in painting.



were such notables as Secretary of State George C. Marshall, Admiral William D. Leahy, Chief of Staff for President Truman, Lt. Gen. J. Lawton Collins, the Army's Acting Chief of Staff, and Dr. Gilbert Grosvenor, President of the National Geographic Society.

The rancher in the pin stripe heard Tom Lanphier, AFA President and former fighter pilot in the Pacific, make the presentation. Re-calling the early days of the war, when men in the field judged Headquarters pretty much by the equipment available, Lanphier told how the AAF's wartime commanding general had earned the nickname of 'The Great White Father" from the fighter pilots on Guadalcanal. General Arnold had visited their base on the island, Lanphier explained, and had heard their complaints about equipment, or lack of it. The General had told them he would send planes that not only would enable them to fight the Japs on even terms but would bring them back from missions. After he had left Guadalcanal the boys mulled over the promise. The General had emphasized getting back from missions. Why this interest? It was radically different from the Japanese attitude toward combat pilots, and all in all it sounded too good to be true. In a short time new planes arrived, shiny new twin-engine P-38s. And on their first mission every plane came back. It was then, Lanphier said, that one pilot expressed the sentiments of the group. Bending low to the ground in a full salaam, he exclaimed reverently, "Thank God for The Great White Father.'

When it was time for the man in the pin stripe to reply, he smiled and said, "Now I'll tell you how this Great White Father stuff works." And Hap Arnold, civilian, told this story on himself: Seeking a tractor for his ranch, he went to a War Assets Administration sale in California, a sale held away from his home town of Sonoma. After waiting in line, like any ex-GI, the General finally got his tractor and then

(Please turn the page)





Estes Evans, left, and Howard Simpson, center, acting Commander and Program Chairman respectively of the Oahu AFA Squadron go over a double page layout of the forthcoming 7th Air Force book, "Wings over the Pacific," with editor Stewart Fern.

FLORIDA

Tampa Squadron was organized October 30 at a meeting at MacDill Field. More than 40 AFA members signed an application for a charter from the national organization. Porter H. Stiles was elected Commander. Other officers elected were Hugh A. Tate, Vice Com-mander; Alfred T. Hearin, Secretary, and Frank V. Perritti, Treasurer.

Headquarters has received an application for a charter from the Kankakee County Squadron. The Commander is William K. Giroux. Father Joseph W. Peoples, former Air Force chaplain, is Vice Commander, Lawrence D. Weeks, Secretary, and Ernest J. Vollmer, Treasurer. The new Squadron meets at the Skyline Airport on Highway 17, east of Kankakee. For further information write to Secretary Weeks at 556 East Oak Street, Kankakee.

A Squadron now being formed will include members from the region sur-

rounding Cumberland. Former Air Force men living in the Cumberland area are asked to contact Lt. George J. Gocke at the Recruiting Service.

MASSACHUSETTS

One of the largest groups of aviation enthusiasts to assemble in Chicopee Falls since the Air Force Day celebration, gathered recently to watch a model airplane contest sponsored by the local Squadron. Prizes were awarded to two outstanding models.

MONTANA

With the assistance of Tom Campbell and other former Air Force men, the Black Otter Squadron of Billings has been activated and chartered. Officers of the Squadron are: Everett F. Hamilton, Commander; J. E. DeFrance, Vice Commander; William E. Gray, Secretary; and Robert F. Giddings, Treasurer. Inquiries about this new unit should be addressed to: Black Otter Squadron, AFA, P. O. Box 786, Billings.

The Helena Squadron held an election of (Continued on page 41)

CROSS

COUNTRY

stopped in at the local bank to cash a check in payment for it. He introduced himself to the bank executive and explained his request. "Any identification?" he was asked. The General pulled out his billfold and produced his AGO identification card. "Anything else?" asked the banker. The General pointed to a card authorizing him to visit US military establishments, and another clearing him for visits to US State Department agencies, but the banker showed little interest. "What's that?" he asked, peering at the General's short snorter. Then he inquired about the names scribbled on the long string of bank notes. The General pointed out the signatures of such men as Franklin Delano Roosevelt, Winston Churchill, George C. Marshall. "Say," he said, "you must be Hap Arnold!" The banker was obviously impressed. Short snorter bank notes and signatures had done it. But the General took delight in pointing out to his listeners that he didn't get his check cashed until the banker had called his home bank in Sonoma and had satisfied himself about the personal bank notes in the account of this rancher named Arnold.

The ceremony came to an end when General Spaatz accepted the painting and explained that it would hang on his wall in Headquarters as a symbol of accomplishment. It was apparent to everyone that this General of the Army in the pin stripe suit, despite his peacetime veteran's problems, was still The Great White Father to the Air Force.

Cadets Can Fly Again

Wartime-qualified Aviation Cadets whose pilot training was curtailed by the 1944-45 slash may resume their flight training, according to a recent USAF announcement. Approximately 35,000 men who qualified as aviation cadets were either in training or awaiting assignment when the famed slash arrived. Tripling of the pilot program for 1948 makes it possible for flight training to be offered to cadets who were qualified but not commissioned during the war. Men in this special category may be reinstated if they can pass their physical examination. subject to the following conditions: they must be unmarried American citizens between the ages of 20 and 26½ years of age, and have a minimum of two years of college education or be able to pass a test assuring an equivalent study record.

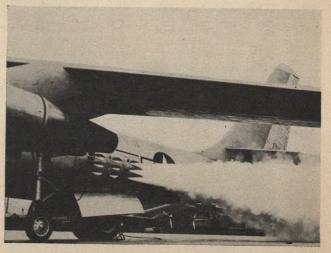
The latest developments in training technique, much of which stems from wartime experience, will be expanded into the cadet's courses. They will receive instruction in such subjects as radar and GCA. The cadet course will take about 52 weeks, divided into three phases as follows: Basic Phases I and II, 35 weeks; Advanced Phase, 17 weeks. Men who have previously qualified as Aviation Cadets can obtain detailed information on this new program by writing to Headquarters, Air Force Association, 1616 K St. N. W., Washington 6, D. C., Att: Aviation Cadet Information.

Button Reinstated

The famed winged-star insignia, once designed to be the Air Force's own discharge insignia, will go back into official circulation for an entirely new function. According to Lt. Gen. George E. Stratemeyer, the small lapel pin whose issuance as a discharge button was stopped by War Department directive will be issued to all active airmen for wear with civilian gear. Under this cate-



Colonel Alan D. Clark, left, CO of Forth Worth Air Field, greets Lt. Col. J. H. Thompson, Capt. Warren Baulch and Lt. Col. O. E. Schaaf after record B-29 flight of 22 hrs. 15 minutes on normal gas load. Plane was combat equipped.



Three of the rocket motors of Boeing's XB-47 jet bomber pour out smoke during initial tests at the company plant in Seattle. In all, plane is equipped with 18 of these motors capable of producing a total thrust of 18000 lbs.



gory will come regular Air Force personnel, active reservists and members of the Air National Guard.

Freedom of the Town

From medieval days "Freedom of the Town" has been a symbol of distinction in European countries reserved only for the greatest of heroes. Originally it placed individuals so honored beyond the reach of common law, and on temporary par with nobility. Today, as in olden times, it is the highest honor a community can bestow.

South of London, in Essex, is the County Town of Chelmsford. Within the boundaries of Essex 19 airfields were active during the war. On these airfields lived men of the 8th and 9th American Air Forces. From these airfields thousands of missions were flown.

Chelmsford in Essex recently bestowed "Freedom of the Town" on Maj. Gen. Samuel E. Anderson, wartime commander of the 9th Bomber Command, representing all of the American Air Force men who saw war service within the Town. General Anderson flew to Chelmsford to receive the honor at the inaugural luncheon of the Essex Anglo-American Goodwill Association. This organization is dedicated to husbanding the friendship and goodwill which grew up between the people of Chelmsford and members of the 8th and 9th. One of its objectives is to see that appropriate markers and memorials are erected on the sites of the 19 airfields to remind future generations of the war effort once centered there.

The Association carries out its role of friendship by furthering correspondence with Americans, by arranging travel resources and shelter for Americans visiting in the county. While membership in the organization is primarily a local activity, Americans who are sympathetic with the aims of the group are invited to apply for admission. Forms may be secured by writing the Secretary, Essex Anglo-American Goodwill Association, Territorial Offices, Chelmsford, Essex, England.



continued



AFA's Duquesne University Squadron opened the campus social season this winter with the first annual skyline ball. Ticket sellers above are, from left, Norman Juick, Mary Cooper and Betty Machak. Eager buyers are Sgts. Kumpan and Koval.

officers at the first meeting in November. The new Commander is Harland S. Herrin, head of the Morrison Flying Service in Helena and president of the Montana Pilots Association. Frank W. Wiley was named Vice Commander and Allen H. Sweeney was elected Secretary-Treasurer. This Squadron meets on the second Monday of each month at the American Legion Hall; out-of-town guests are welcome at the meetings.

NEW YORK

WAC Squadron No. 1 of New York City has just sponsored its third successful party for hospitalized vets at Halloran General Hospital. Starting off the fall season on October 25 with a Country Fair motif, the Squadron entertained approximately 300 patients at the hospital auditorium. The show included a barn dance, with music by Henry Levine, and entertainment by Smiling Jack Smith and members of his troupe.

NEW JERSEY

Donald Gerhard of Camden was elected Commander of the South Jersey Squadron at an organizational meeting in mid-October. Other new officers: Benjamin Lowry, Vice Commander; James Ross, Junior Vice Commander; Harry Demarest, Recording Secretary; Fred Hess, Jr., Secretary; Henry A. Kranz, Treasurer; Phillip Smith, Sergeant-at-Arms.

OHIO

James C. Sloan was named Commander of the Marion Squadron, succeeding George Hildebrandt, at the annual election of officers held October 3. Other new officers for the coming year: Donald Sims, Vice Commander; William Steward, Secretary; and George Flood, Treasurer.

WISCONSIN

The newest Squadron to be activated under the leadership of Wing Commander L. A. (Duke) Larson is the General Billy Mitchell Squadron of Milwaukee, which promises to be one of the largest and most active AFA outfits in the nation. Although it had not been chartered on Air Force Day, the Squadron sponsored an all-day celebration attended by more than 50,000 persons, and a dinner attended by 1000. Officers of the Squadron have not been announced.

MAGIC CARPETS IN THE MIDDLE EAST (Continued from page 17)

Middle East cannot fail to increase rather than diminish the traffic handled by the local networks; it is believed that experience to date has proved this to be the case. It will probably always be true that the local airlines can afford to offer rates lower than those of the big international operators.

The Arab League's air policy also has influenced the situation in Iraq. Negotiations looking toward a bilateral agreement have been in progress between Iraq and the US for well over a year. A special mission for that purpose was sent to Baghdad by the State Department in September 1946, but difficulties were encountered because of the desire of the Iraqi Government to adhere to the proposed restrictive policies of the Arab League. When it seemed as though this problem might be solved, public statements on the Palestine question by officials of the American Government and other public men in the US so angered certain high Iraqi officials that our representatives were advised that no agreement of any kind would be possible. It is difficult to exaggerate the feeling that existed on this subject throughout the Moslem nations, even before the recent action by the United Nations on "partition."

In the early part of 1947, when it was announced that Pan American Airways was ready to extend its service from Ankara, Turkey, to Karachi, India, and that it would overfly Iraq because of the lack of a bilateral agreement with that country, the Iraqi Government, anxious that the country be served by the two American trunk lines, had a change of heart; despite the Arab League policy, it granted Pan American and TWA unrestricted traffic rights, but only for one year pending further discussion of a permanent contract. Pan American has indicated that it will initiate scheduled stops at Baghdad when the terms of a final arrangement are known; for understandable reasons it is not prepared to institute a regular service on the basis of a temporary permit. It also is not certain when TWA will begin letting down at Basra. One of the factors is the ever present question of the maintenance and operation of airport and navigational facilities: another factor concerns relative traffic potentials.

The same difficulties that were encountered in Iraq delayed the consummation of a bilateral air transport agreement between the US and Syria. However, as was the case in Iraq, when Pan American announced that it would overfly Damascus on its route from Ankara to Karachi, the Syrian Government rejected the Arab League policy and in April 1947 signed an agreement granting Fifth Freedom privileges on the Bermuda pattern. Pan American now operates a weekly flight to Damascus.

In Saudi Arabia as recently as 1942, when James Smith (now Vice President of Pan American in charge of its operations to Europe, Middle East and India) landed his C-47 at Ibn Saud's capital city of Riyad, the first question asked him by the assembled Arabs was "Is it a male or a female?" Since that time the King has acquired one of the great aluminum birds by gift from President Roosevelt and five more by purchase from US Air Force surplus property stocks. However, efforts of the Saudi Arabians to operate the fleet themselves were not successful. Late in 1946 a contract was concluded with TWA whereby that company took over all operations and maintenance on a cost plus fee basis.

An operation of equal and perhaps greater size is that of the Americanowned Arabian American Oil Company, which holds the great Saudi Arabian oil concession and which is setting up a large aircraft division at Dhahran for the purpose of transporting company personnel and supplies. It has recently purchased five C-47s, and is said to be acquiring more of this and other types. It also operates a DC-4 on regular bimonthly flights from San Francisco to Dhahran and return.

The US has been given unrestricted air traffic rights by Ibn Saud on a temporary basis. A draft of a proposed bilateral agreement is now being considered by his government and it is not unlikely that it will be agreed on in the near future. TWA serves Dhahran on its scheduled service from Cairo to Bombay. It is also used as a fueling stop by several American non-scheduled air carriers making special or charter flights from the US to India and the Far East. The Dhahran airport, built by the US Air Force during the war, is scheduled to be turned over to Saudi Arabia early in 1949. Whether or not the Saudi Arabians will be able to operate it themselves by that time is doubtful. US Air Force personnel on duty at the airport during the past two years have carried on certain training activities, but qualified candidates are not numerous. Even with the extension of training now contemplated it will be a long time before this airport can function properly without foreign technical assistance. One of the difficulties is that by the time any native is trained and educated to the work, his newly acquired language and other capabilities make him eligible for even more important and better paid positions elsewhere in the country.

In Iran air relations with the US have been quite satisfactory. Iran has granted temporary operating rights, and it is expected that a bilateral agreement following the standard form will be concluded in the near



BOAC flying boat on the White Nile.

future. The Shah of Iran has shown considerable interest in flying. He pilots his own twin-engined Beechcraft, and has recently acquired for his personal use a converted US Air Force Flying Fortress.

Pan American's certificate authorizes a stop at Teheran, but this will not be practicable until improvements now under way at Nehrbad Airport outside that city are completed. Much US Air Force communications and navigational equipment was purchased by the Iranians for use at Abadan and Mehrabad Airports; again the question of the proper training of personnel for its maintenance and operation is the crucial one.

The great peninsula of India is by far the most important part of the Middle East from the point of view of aviation. It furnishes what is doubtless the best channel, and now the only channel, for traffic passing from Europe and Africa to the Far East and back. It will itself be a terminal of constantly increasing importance. Though its per capita wealth and commerce output can hardly be compared with those of the industrialized nations of the West, 400,000,000 people weigh heavily in the scales when one is measuring the traffic potentials of the future.

Six domestic companies now operate 16 air services within India, flying a daily average of over 23,000 miles. Load factors and regularity of service are good. It is interesting to note that despite British and other precedents, and the fact that India has the largest State Railway service in the world, India has to date followed a policy in air transportation of controlled private enterprise without direct or indirect subsidies.

Prior to the fall of 1946 India had made no postwar bilateral air transport agreements with foreign nations. BOAC continued to operate some 13 services a week under the old Empire agreements, shortly to be revised. China National Airways carried on their line from Chungking to Calcutta under their wartime permits, and KLM (the Dutch Air Line) and Air France are operating services for their governments that pass through India without commercial rights.

In September 1946 a Department of State mission was sent to New Delhi to continue negotiations in progress since the close of the war for a US-Indian Agreement. It was concluded in November with Pandit Nehru and Abdur Rab Nishtar, Minister of Communications, after long conversations justified by the fact that the document in many ways set the patterns for India's future international air policy. The agreement conforms with the principles involved in the Bermuda Agreement, but secures to each party a greater measure of control over the application of those principles and the air services to be operated.

Final action on the agreement included unanimous approval by both the Hindu and Moslem members of the government, a fact which probably will be of importance in the light of the recent constitutional changes in India. The US Government has been advised by the representatives of the new Dominion of Pakistan that it will continue to adhere to the November 1946 agreement until a new agreement can be negotiated. Pursuant to the authority of the agreement, TWA started flights to India in January 1947 and Pan American two months later.

ssuming no new world upheaval, Ait should be safe to predict that the next decade will see substantial growth in air operations, passenger and freight, throughout the Middle Eastern area, and particularly that the relative development will be greater there than in other more "advanced" portions of the globe. This will be due primarily to the larger part that the Middle East is destined to play in the world's commercial and political life, and to the fact that in few places does air travel produce such enormous time savings. These factors have already generated new classes and categories of traffic; they will breed more in their turn. TWA alone, in the first six months of its operations to India, when the service was struggling to get started, carried fifty percent more through-passengers from the US than made the trip by all boats sailing from both our coasts during an average of six months in 1938.

The possibilities of air cargo to Middle East desinations are just beginning to be realized. During the war the US Air Transport Command demonstrated what could be done when cost was not a factor. TWA's experimental beginnings with an allcargo plane once a week, with guarantees that shipments will not be offloaded to make way for passengers, are demonstrating that on a straight commercial basis this type of transport may become a most important part of trunk line operations. Present shipments, according to a recent survey, show as might be expected that a majority of the air cargoes from the US are destined for the Middle East and further points where the time savings are greatest. Outward shipments appear at the present to include office equipment and supplies, especially fountain pens (20%); clothing (16%); Samples (15%); pharmaceuticals (10%); diplomatic pouches (7%); gold (6%); and a balance made up of such items as machinery, skins and furs, auto replacement parts, newsprint and films, electrical equipment, photographic prints and equipment, watches, radios, optical supplies, etc. On the return trip one is not surprised to find such items as leopard skins from Ethiopia; birds, reptiles, and various other animals for American zoos; honey, wine, and silk from Greece, caviar from the Caspian Sea; civet from central Africa; and Oriental rugs from India and Afghanistan.

Experience to date has indicated that the local air transportation companies in the Middle Eastern countries not only have nothing to fear, but have much to gain from the healthy development of both passenger and cargo traffic by the international trunk line. It is obvious how important it is to them to have the assistance that foreign operators can make available. In all cases, they benefit from the air traffic fed to them by the through lines. Proper division of Fifth Freedom traffic within the Arab League area has as

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MAGIC CARPETS IN THE MIDDLE EAST (Continued from page 43)

yet presented no problems, nor is it likely to do so. This does not mean, however, that such problems will not arise on other stretches of the through routes. The importance of intermediate traffic to successful throughline operation is becoming more obvious as times goes on, and there is not much question but that sooner or later the International Civil Aviation Organization will have an interesting time in administering the necessarily flexible but hitherto untested Bermuda formula.

The future picture presents certain complications that must not be disregarded. One already has been mentioned: the lack of trained personnel to man the complicated and technical ground facilities that are almost as necessary for safe commercial flying as the altimeter and the air speed indicator in the cockpit. In most countries of the Middle East. men with the necessary background and sense of responsibility who are willing to go into this type of work are not numerous. The governments appear to be unwilling to pay salaries which are sufficient to make the positions attractive and to inspire young candidates with the required education. The raw material that is available must undergo a long period of schooling and there is a dearth of instructors. As a result many essential services have to be manned by foreign airline personnel. The same type of difficulty arises with respect to the actual physical equipment, and even the construction and maintenance of the airports themselves. Local governments, which inherited military fields built during the war and which purchased at low surplus property rates the instruments and other machinery that once made them function, do not understand the importance of keeping them operating at high standards and fail to make the appropriations necessary for new construction, replacements, and spare parts. They want all the benefits without the burdens. Theoretically some of these burdens might well be assumed by the international organizations. Eventually they probably will be, but it will take time.

The current world exchange crisis has of course had direct repercussions on American operations to any overseas area, including the Middle East. If payments for tickets sold abroad must be made in dollars, the exchange control boards are obliged to limit travel to what they regard as necessary. Similar limitations restrict the importation of luxury goods that are frequently particularly adapted to air transport. If payments to our air lines abroad are accepted in local currencies, the funds cannot easily be made available in this country. They can, of course, be utilized to a certain extent in paying operation expenses abroad. Another use for them might be the construction of terminal and overnight facilities for passengers which at many points have not been set up by local initiative, and if set up are frequently deficient. But this, again, would place on the international carriers a financial burden that is difficult for them to assume at the moment.

It is true that world peace and the survival of any world organization calculated to preserve it depend on the mutual understanding by the peoples of the world of each other's problems; it is equally axiomatic that such understanding can come only as a result of personal contact and free interchanges among those peoples. Air transport will do more in a year to produce those contacts and

interchanges, particularly within the area which we have been considering, than the steamship and railroads could do in ten. Air travel will stimulate personal relations between businessmen-the soundest foundations of commerce-and the US has only begun to develop such relations in the Middle East. It will promote more frequently those face-to-face conversations between government officials that are essential in any international organization such as the United Nations, and vitally important in any intergovernmental relationship. One would be interested in knowing, for example, the extent to which the recent settlement of the acute Indian problem was due to the fact that the airplane brought together the principals in Great Britain and India at the various crucial stages of the negotiations.

But there is another side to the picture. Although close contacts and interchanges are necessary to the international understanding which we all know is so important in the years which lie immediately ahead, they do not of themselves ensure it, and they sometimes produce conflicts and misunderstandings more readily than accords. Aviation in the Middle East will profit all the nations engaged in it only so long as foreign and domestic operators alike remember that each can benefit from the other, and that close cooperation and fair dealings are the only keys to their mutual success. Exploitation in any degree will defeat this goal no less than local efforts to hamper the trunk line operators by uneconomic or inequitable restrictions. If the men responsible for the air transportation policies in all the countries and companies involved bear this in mind, they will have their own reward.

BERMUDA ONION (Continued from page 29)

timed that the fighters would then be returning to their carrier and landing when the B-29s struck. Another 307th Squadron would rendezvous with the Langley planes at the Assembly Point, which was to be 20,000 feet directly over Bermuda. Each B-29 would "drop" eight 2000 lb armor-piercing bombs, with bombardiers sighting on the squadron leader. If the target were obscured, bombing was to be accomplished by radar.

Since actual bombs couldn't be dropped, the success or failure of the bombing mission was to be determined on the basis of strike photos taken automatically as bombardiers pressed toggle switches. Therefore, each bomber carried either a K-18 or K-22, together with gunsight cameras with which Superfort gunners could record in similar fashion the "hits" they scored against enemy fighter aircraft. On the Navy side, this same pictorial means of evaluation would record both their fighter hits and anti-aircraft scores against the B-29s.

The storm along the Virginia Coast had developed into a blinding gale by the time we had left the briefing

room and piled into the trucks that were to take us to the Superforts. There, in the blackness and the rain, could be heard that peculiar cacophony which always fills the air just before take-off and invariably gets into the blood of an airman the way grease paint and footlights do in the veins of an actor. There it was, the metallic clank of mechanics' wrenches making last-minute checks . . . the grunts of crew members as they strained to pull the giant props through . . . somebody whistling the chorus from the Whiffenpoof . . . the racket of voices trying to top the din

of nearby engines warming up . . . the sudden whish of prop wash and howls of protest when caps blew off and went sailing down the wet runway . . . and finally the deafening, throbbing roar of 30 bombers all set for takeoff. It was only Langley Field, but it could have been Foggia or Tinian or Chengtu or Framlingham.

With precision born of long practice, pilots rolled their bombers down the runway at 0445 and took off at exact 60 second intervals. The plane to which I had been assigned was being flown by two veterans of scores of combat missions, Major Paul Beard of Beaumont, Texas, and Lt. L. D'Neil of Gooding, Idaho. The flight, despite the weather, was without incident except for a fire which started in one of our radio cabinets and which fortunately was extinguished by the time we got our Mae Wests on. "And a good thing, too," drawled Beard. "The way that sea looks right now, I'd last about 10 minutes in it." We arrived at the AP at 0817 and for several minutes circled over Bermuda, a tiny gem of green coral and sand beneath us, until we were all in tight formation, and then we headed southeast to seek our prey. Meantime, we had climbed above 30,000 feet and Number 1 and Number 4 engines began to act up as feared. The combined skill of pilot and engineer kept everything nicely under control, however . . . almost to the disappointment of some of us who had remembered Colonel Selser's final words at briefing when he warned pilots of the possibilities of engine trouble at very high altitudes and said that if any planes did develop such trouble, it would be permissible to land at Bermuda.

The first enemy fighters, Navy F-4U Corsairs, were spotted at 0955 coming in at two o'clock. In nothing flat they were all around us coming in from everywhere.

"Look at those guys! They wouldn't be trying those passes in actual combat. They couldn't get near this tub if our guns were really going."

"Right! They're probably telling one another how they've already shot us down. How does it feel to be crashing in flames, huh?"

"Holy cow, look at those babies close in for the kill."

"Well, their gun cameras will prove they shot us down and our gun cameras will prove we nicked them off, so who wins?

And so went the mock air battle. It was fast and furious while it lasted. The fighters left after a bit but came up again to attack us just before we reached target. Ten or 15 F-4Us swarmed around at altitude and became even more aggressive than the first attackers. Two fighters at three o'clock were indulging in a most impressive series of acrobatics and suddenly Beard said to O'Neil, "My God, did you see those snap rolls! Well, I know one thing I didn't know before-I'll never underrate those Corsairs again. I wouldn't have believed they could do that at this altitude." Other pilots later compared similar reactions, and if the maneuver did nothing else than make some of us less smug it should be considered immensely worthwhile. This also was apparent: In spite of the excellent radar countermeasures, in spite of decoys and other tactics designed to confuse, the "enemy" Combat Information Center was still operating effectively. Had it been a real battle, they would have intercepted enough of our planes to make serious dents in our formations. Of course we had no way of knowing what manner of hypothetical flak might be bursting all around us as we kept serenely on our way, but it is safe to assume that the AA guns also would have dealt lethal blows.

Target was partially obscured by clouds when we reached it; for an instant or so a ship could be seen here or there and then it would be gone. We made one BTO radar run and then circled to make a second run. This time we could spot the BB in a perfect opening and we "bombed" visually. Next time around it was even better.

Having decided we had dealt the enemy task force a paralyzing blow, we turned for home. After bucking a severe storm about an hour off the Virginia coast, a storm which, incidentally, tore off our K-22 and jerked the radar operators' seat completely out of the floor to which it was screwed, we finally landed at Langley at 1600.

From every possible standpoint it had been a most successful operation. Of the 30 aircraft at Langley, 29 had been airborne. Together with the planes from MacDill, 39 B-29s were over the target, not counting the decoys. The only "aborts" were in the target area and were due to malfunctioning of engines at the extreme altitude. Strike photos produced within minutes after landing indicated excellent results with hits scored on the major elements of the fleet including a battleship, a carrier, two cruisers and some of the destrovers. In any event, it was assumed we had "destroyed the effectiveness" of the enemy task force.

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Introduction by
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OUR SEARCH FOR GUIDED MISSILES (Continued from page 27)

weapon: the bombs were dropped, the B-17s turned around and headed for home, and the GBs continued straight on their way for some 20 miles to land in a nice pattern in the target area. Immediately, plans were made for an all-out effort to get the GB-1 into action from English bases against the heavily-defended German

Consequently, in February of 1943, a group of us from Wright headed for England with our equipment, the object being to train B-17 crews of the 8th Air Force in the technique and use of the GB-1. In England we were doubtfully received by the 8th Bomber Command, and finally given one B-17 and one crew to train and equip. This we did, making practice drops over the northern part of the Irish Sea, and demonstrating the weapon to such high-ranking officers as we could interest. Finally, we were given an additional B-17 to equip, and another crew to train. After three months, however, our time was up and we returned to the States to continue work on our various other projects. Many months later we learned that the GB-1s in England were used against Cologne with favorable results. Drops were made from some 54 bombers at high altitude: 108 GBs streaked for the target, and the bombers headed back for England without having a shot fired at them.

An amusing sequel to this first Glide Bomb attack appeared in the form of a German news release. The Nazi command in the Cologne area announced: "A high altitude attack by American bombers against Cologne has been turned back by the fierce antiaircraft fire defending the city, and no bombs were dropped. The accompanying fighter cover, however, composed of small and exceedingly fast twin-tailed aircraft, came over the city at low altitude in a strafing attack. So good were the defenses that every single fighter was shot down; much damage was done by these falling aircraft, all of which exploded violently." The latter statement was undoubtedly correct, inasmuch as each "small aircraft" was mainly composed of a 2000 pound R.D.X. Demolition Bomb.

In the winter of 1943-44, we prepared to take Azon-the controllable high angle bomb-into combat in the European Theater. In January six B-17Gs were assigned to us along with six crews for training. I was given this job and immediately moved the entire outfit from Eglin to Orlando. There we made the modifica-

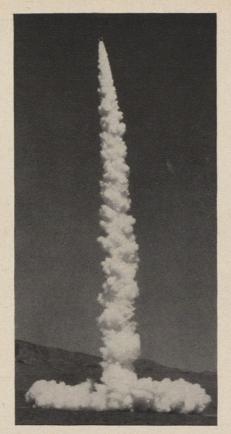
tions on the airplanes and spent about a month training the crews in dropping and controlling techniques. In February, with the planes loaded with spare parts and equipment, we took off for Italy. At headquarters of the 15th Air Force it was decided to base us in the Foggia area in eastcentral Italy, attached to the 301st Heavy Bomb Group. Gathering the group in Tunisia, we flew direct into Foggia and started getting ready to try Azon on the railroads and bridges of eastern Italy, over which the Germans were getting all supplies for their troops in the east part of the Italian "boot." During April, May and June we had considerable success with the weapon and on the strength of that other units were prepared in the States and sent into England to work in France and Germany, and another routed to the Burma Theater. In the latter area bombs and supplies were difficult to come by and it was here, perhaps, that Azon most thoroughly demonstrated its true value. Heavy area bombing was not the order of the day and one or two Azons did the work most effectively against such targets as bridges and rail lines.

Returning once again to Wright Field, we carried on with the various GBs and Razon work. Meanwhile, Major Pomykata had taken a television-directed GB-4 to England where he flew several missions with a unit of the 8th Air Force. The weapon was intended for use against the submarine pens along the Channel coast. Pomykata received very little help or encouragement, however, and the thick weather made the use of television impracticable except on rare occasions.

At the same time, Anderson, Hoffman, Murray and Merrill were in England with several radio-controlled. television-directed B-17s and B-24s -war weary airplanes which were loaded with some 22,000 pounds of high explosive and flown against certain vital heavily-defended German targets. The complete story of this cannot be given here, but one mission against Helgoland may be mentioned. The B-17, loaded with HE, was flown into the built-up area of the German installations at Helgoland and the ensuing explosion destroyed an estimated square mile of warehouses, shop buildings and other

In the summer of 1944 we started work on an air-to-air missile, which had long been on our minds. Lack of rocket motor experience in the United States had always been our handicap in developing powered missiles, and there were apparently no funds or demands for such a power plant. Consequently, we were very much limited in developing any type of missile that required a power source. Our first attempt, the air-to-air missile we called "TIAMAT," was long on the drawing boards, but it was not until jet-assisted takeoff rockets were developed that we had any promise of a means to power our device.

By July of 1944, Washington had become convinced by the Germans and their V-1 buzz bomb that guided missiles were something to reckon with. We received hurry-up orders to make a "Chinese copy" of the V-1 and have it ready for its first tests by September 15. We had long before begun development of the JB-1-our own buzz bomb version, a flying wing built by Northrop using two small Westinghouse jet engines. This new order, however, forced us to stop the IB-1 work and concentrate on the JB-2, which was the designation given to the German version. For the first time the entire facilities of all laboratories were placed at our disposal and by October we had successfully flown the JB-2 at Eglin Field. Considering the difficulties that had to be overcome, this record time of July to October was really phenomenal. We had only a crashed



Boeing; Wright Field developed GAPA.

sample of the V-1 to look at—a pile of twisted junk and sheet iron, corroded, rusted and blown to pieces. The airframe was designed and a

contract given to Republic Aircraft for the test items. Production was later taken over by Willys-Overland.

The JB-2, in the winter of 1944-45, was released to production, and plans were made to get it into combat. The war in Europe was fast drawing to a close, and so it was planned to use it against the Japanese. In the spring of 1945, a group of officers went to the Pacific to make plans for employing the weapon. These plans were ready to be put into effect when it became apparent that the Pacific war also was about over; so the JB-2 never was used.

I left Wright-Field to go to the Pacific in February of 1945, and shortly after that George Holloman was transferred to Guam. Since that time, the old "Special Weapons" group has been dissolved, and all missiles work has been done by contract with various companies throughout the country.

There have been a lot of changes since that first glide bomb out in the desert at Muroc in 1941. We have come a long way. We have regained the lead that slipped from our grasp shortly after World War I. But this is no time for self-satisfaction. It would be as easy to lose our first place position now as it was in 1918. Now that we *know* the possibilities

in this field, it would be twice as

criminal.

PILOTS FIRST—PLANES LATER (Continued from page 36)

years' experience in aviation, and he approached the student pilot problem cautiously. But Bob wanted to know the answers to these two questions: Were prospective pilots interested enough to buy a complete course in aviation and flight training? What did they expect and demand from such an aviation course?

With Los Angeles as a merchandising laboratory, Bob soon resolved the first question. "By using every type of promotion we succeeded in reaching our buyers," he reports. "And shortly afterward, we became convinced that if the prospective student could be reached, his questions answered and the program explained, there was an excellent chance he scon would be taking a first session in dual instruction."

On the second count, he also got his answer: "We learned many things a student expects from a complete course in aviation. But one point stood out. He wanted more than verbal words of instruction.

After learning the market and its

demands, operations came next. By this time Bob had organized his efforts under the name of National Flight Systems, with the headquarters office in downtown Los Angeles. NFS delivered a complete course in aviation to the student, including actual flight training. Within the System there were local sales agencies to contact the prospects and sell the course. The original plan called for this local agency to conduct its own flight operation, and at the start the company operated one Taylorcraft and offered dual instruction through a licensed instructor working part time. Although sales grew steadily, to the point where within a few months the firm owned three Aeroncas, experience proved that sales should be divorced from dual instruction. National Flight Systems sold its three planes and granted its first franchise to A. L. Sharp of the Gardena Valley (Calif.) Airport. Sharp reports today: "It now takes 15 airplanes and 6 full-time instructors to care for our NFS business.

In one month alone we flew 1,356 hours on 9 Aeroncas. One airplane flew 187 hours for the month."

But success could not come from one program at one airport. Expansion was made to five airports in the greater Los Angeles area. An extensive promotion campaign drew an average of 1,000 inquiries about the plan per month, and this interest was sustained month after month. National Flight Systems grew steadily. Agencies were established in the scattered California communities of San Diego, Ventura, Santa Barbara, Bakersfield, Fresno, and San Jose. The experience of Frank Demeter in Ventura was typical. He started out as an Ercoupe salesman for Parks Air College in Columbus, Ohio, then came to Los Angeles. He investigated the NFS program and in March of 1947 acquired the NFS sales agency for Ventura, a small community 65 miles from Los Angeles. Starting with limited capital resources, Frank quickly developed

AFA COMMITTEES

(Continued from page 12)

AIR TRANSPORT COMMITTEE

MISSION: Study air transport problems and prepare recommendations, particularly with regard to new types of transport aircraft.

CHAIRMAN: Ray W. Ireland, Chicago, Ill.; vice-president, United Airlines; formerly with ATC.

MEMBERS: Arthur F. Kelly, Los Angeles, Calif.; Malcolm A. MacIntyre, Washington, D. C.; Leigh C. Parker, Atlanta, Ga.

AIR FORCE COMMITTEE

MISSION: Study reorganization of US Air Force in all its phases; make recommendations for consideration by Headquarters, USAF.

CHAIRMAN: Sol A. Rosenblatt, New York City; attorney; AFA director; Past-Secretary; former Asst. Chief of Staff, Supply, 20th Air Force.

MEMBERS: Fred L. Anderson, Los Angeles, Calif.; Richard Krolik, Hollywood, Calif.; Robert Proctor, Boston, Mass.; C. R. Smith, Washington, D. C.

RESEARCH-DEVELOPMENT COMMITTEE

MISSION: Study aviation research and development problems; prepare report and initiate action for establishment of coordinated national program in this field.

CHAIRMAN: Cass Hough, Plymouth, Mich.; vice-president, Daisy Manufacturing Co.; former fighter group commander and CO of Operational Engineering Section, 8th Air Force.

MEMBERS: Elmer E. Adler, San Antonio, Tex.; Henry Berliner, Riverdale, Md.; James A. McDonnell, New York, N. Y.



CREDITS

Page 13—British Combine; Page 15—Black Star; Page 17—British Combine, Black Star; Page 29—Press Association; Page 40—Press Association; Page 42—British Combine.

PILOTS FIRST—PLANES LATER (Continued from page 47)

sales to the point where he was netting an income of \$1,000 per month. The flight operator who had contracted to handle his dual instruction business found his operations expanding so rapidly that flight instruction was extended to a second airfield. In October of last year Demeter sold his Ventura franchise to Roy Marrs, another AAF veteran, and obtained the NFS franchise for San Francisco.

When Bob Pike found that his test markets in California proved out, the time had come for national expansion. That was in May, 1947, and it necessitated reorganization of the company. Dick Powell—film star, private pilot and long-time aviation enthusiast—was named president of National Flight Systems.

National Flight Systems today is organized to sell flight instruction through a nation-wide system of interlocking sales agencies and flight operators. Dick Powell reports that NFS already has established sales agencies in New York, Chicago, Boston, Houston, Detroit and Washington, in addition to its charter agencies in California, and that plans are underway for programs in other major cities. "Eventually we will have 400 agencies blanketing the United States," he adds.

The sales package offered by NFS is described as a "combination of services." The complete course costs \$245, payable at the rate of \$15 per month, and it provides the following:

- Eight hours of dual instruction under government-licensed instructors (enough time for the average student to solo).
- A complete ground school home study course covering all phases of aviation, including the study of aircraft, theory of flight, meterology and cross country flight.
- A postgraduate course in preparation for a career in aviation, including such subjects as airport management, traffic control, radio communications, field base operations.
- A 15 percent discount on plane rentals for a period of 3 years.
- Social events such as breakfast flights, hangar dances, cross country flights to recreation centers.

So, after two years of the-chickenor-the-egg experience, National Flight Systems has determined that the pilot comes first, the planes can come later. It is made up of three components: parent organization, local sales agency, flight operator. It has found that each is mutually dependent upon the other for total suc-

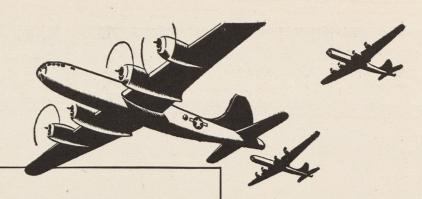
cess.

"The great responsibility," believes president Dick Powell, "rests with the sales agencies across the country." Operationally, each of these agencies is autonomous. Guided and assisted by NFS headquarters in Los Angeles, each agency stimulates interest in flying in its community through modern merchandising methods-newspaper and radio advertising, car cards, promotion stunts, personal contacts. Each agency works on the broad base of promoting flying interest before concentrating on individual prospects. Then the agency turns the NFS student over to the flight operator for dual instruction.

Although the operator is vital to the success of the overall program, he is not actually a part of the NFS organization. His regular job is to rent and sell airplanes, and carry on other phases of his airport operation. By affiliating with the local sales agent for NFS he enjoys a continuous supply of students, without being concerned with the problem of

selling flight courses. Bob Pike can look back on two vears of National Flight Systems experience and find that 10 percent of all inquiries have resulted in a sale. Of this 10 percent only 13 out of 100 NFS students have failed to complete their flying course, and the main reasons for dropping NFS were "human reasons" - moving to another city, objections on the part of parents, husbands or wives. Only eight NFS students have failed to complete their courses for reasons such as air sickness, fright or learning they didn't like to fly. Although the national average of women student pilots is 17 percent, NFS has found fully 40 percent of its total customers among women. Bob Pike. who feels this comparison is enough "to make any flight operator stop and think," offers two reasons in explanation: first, that NFS representatives seek women customers, while most base operators don't have either the time or the desire; second, that women taking their instruction under NFS are made to feel they belong in aviation, are welcomed rather than merely tolerated.

And, thinking it all over, president Dick Powell exclaims, "We believe National Flight Systems is going to play an important part in the development of civil aviation. Above everything else, that is motive enough."



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Technical Sergeant			Corporal or Technician, 5th Grade	. 90 to 135.0	0* 108 to 153*
Staff Sergeant or			Private First Class .	. 80 to 120.0	0* 96 to 136*
Technician, 3rd Grad	de 115 to 172.50*	138 to 195.50*	Private	. 75 to 112.50	0* 90 to 127*

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