





New Wings for Peace See Page 20

Meet the Men Who Guide the Missiles See Page 23



FOR RESULTS Rely on MARTIN:

YESTERDAY: Built for our Navy in 1929, the Martin BM-1 was the first practical dive-bomber. It was the forerunner of the high-speed, hard-hitting dive-bombers of World War II.

TODAY: Designed as one of the Navy's most potent weapons, the Martin AM-1 Mauler is intended for use on the largest type carriers. Mauler is among the heaviest and most powerful aircraft of this type. carries a very heavy bomb load and boast devastating firepower.

TOMORROW

TOMORROW . . . look to Martin for new, far-reaching advances in aircraft, electronics, rotary wing aircraft, aerial gun turrets, plastics, rocketry, jet propulsion, television, materials and alloys. The Military Services can rely on Martin for results in research! The Glenn L. Martin Company, Baltimore 3, Maryland.

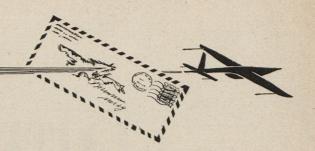


Builders of Dependable Aircraft Since 1909



The proudest planes in the sky





AIR MAIL

Droop Snoot

Gentlemen: In a recent issue of Am FORCE, I read about the use of a variable camber wing in the new Grumman Panther. Is this a new idea?

Quentin Jones New Orleans, La.

• No. The idea of a variable camber wing dates back to 1921. There was a racing version of the Dayton-Wright fighter that had a hinged leading edge and flew quite successfully. However, wing-loadings of that era were not high enough to justify the use of this highlift device.—ED.

More to Come

Gentlemen: I noted by the papers that all Benny Meyers collected for his misdeeds is twenty months to five years. Holy smoke! One of the misguided



Pfcs I once guarded drew a heavier sentence for "requisitioning" an armful of cigarettes.

> J. W. Thompson Leffing, Ohio

• Yeah, but Benny's worries aren't over. After the Air Force's bad apple ferments in the jug for a while, he will have to face the Bureau of Internal Revenue on income tax evasion which is about as much fun as a 1943 flight over Ploesti.—ED.

In the Black

Gentlemen: In a recent newspaper I read that the Veterans Administration has over a billion dollars in surplus funds. Some senators say it should be returned to the holders and former holders of the insurance. VA says that they haven't the money to hire the personnel necessary to handle this job, and that 2000 to 4000 people should be needed to handle the situation. Would it not be possible to simply extend the insurance of all veterans until the surplus is reduced?

W. T. Layton Rancocas Woods, N. J.

• At the moment the VA is withholding any decision as to what to do with the extra dough until the US Supreme Court makes a ruling on the Zazove case. Mrs. Zazove, an astute Illinois lady, contends that the National Service Life Insurance Act of 1940, literally interpreted, authorizes her, as the beneficiary of a war casualty, the face value of her policy (in this case \$5000 instead of the usual \$10,000) payable in monthly installments within ten years and thereafter for life, i.e., she wants five grand plus interest every ten years for the rest of her life. Furthermore, the State Supreme Court of Illinois says that she's entitled to it. If the Federal Court decides in her favor, it is quite likely that other beneficiaries by the thousands will file similar claims, which could of course bankrupt the VA and then some. If the case is thrown out, however, the VA does plan to declare a dividend as soon as it is administratively possible. A good guess is that it would take one to two years to accomplish, and that the dividend would be anywhere from \$30.00 to \$100.00. Incidentally, none of the surplus funds can be touched to finance disbursement costs. Such costs would have to come from Congress as a special appropriation-ED.

Retooling

Gentlemen: Last year I purchased a 40acre farm and have not been able to make it pay. I need a tractor, plough, disc harrow and mowing machine. Do



you know where I can get these on a 2-year credit basis?

K. E. Kirschner Paxton, Indiana

• This is a little out of our line, but if you can raise the cash we would suggest the War Assets Administration. If you prefer new machinery you might be able to arrange a loan at your local bank under the GI bill.—ED.

Lost Identity

Gentlemen: Can you inform me to whom I should write to get my marriage certificate and my daughter's birth certificate returned? I gave them to allotment officials in the Army and never got them back.

S. R. Ostroff New York City

• Your best bet is the Family Allowance Division, Army Finance Center, OCF, Building 205, St. Louis 20, Mo. —ED.

Navion Review

Gentlemen: I am glad that we were able to cooperate with you regarding the acceptance test on the Ryan Navion which appeared in the April issue. The article and the pictures are a very fair evaluation of the Navion, and I want to thank you for the opportunity to show it to your group.

Robert M. Hewitt Pres., Mallard Air Service Teterboro Airport, N. J.

• On behalf of the staff and the Montclair Squadron, AFA, thank you.—ED.

Drastic Overhaul

Gentlemen: On page 32 of your April issue is a picture of a C-54 which the caption says is a "C-45 modified by



Goodyear Aircraft." I wonder if they could modify an AT-10 into a B-29. Clever engineers, these Goodyear boys.

Stan Hildreth
Cambridge, Mass.

• To astute reader Hildreth and at least two dozen others like him who wrote in, our apologies for the typo. The plane was, as our proofreader now knows, a Douglas C-54.—ED.

Halford-P-80

Gentlemen: Is it true that the first P-80 ever built was powered by an English-built jet powerplant? I heard that the original XP-80 was not powered by a US-built engine.

Max Schindler Cleveland, Ohio

• Correct. The original XP-80 was powered by a British made Halford engine.—ED.



PLAN FOR SECURITY ...

The mission of the United States Air Force is to defend this country against foreign attack. THREE major operational commands synchronize to further this mission. The Air Defense Command... to protect continental United States against air attack. The Strategic Air Command... assigned to intensive, sustained long-range bombardment and fighter operations, alone or in cooperation with land and naval forces. The Tactical Air Command... for attacking enemy aircraft, wrecking hostile troop-lines of communications, and destroying supply concentrations. Republic's P-84 Thunderjet is designated for duty with ALL THREE commands. The fundamental versatility, ruggedness and striking power of its predecessor, the mighty P-47 Thunderbolt, is inherent in today's 600 MPH THUNDERJET. Through the closest cooperation between the Air Materiel Command and Republic Aviation Corporation... a rapidly increasing number of P-84's are daily going into active service at American Air Bases... to guard the security of our nation...

"This Is the Year of the Thunderjet"





(Coat of Arms Approved 6 September 1934)

SHIELD: Azure, a chevron nebule or.

CREST: On a wreath of the colors (or and azure) three fleur-de-lis or in front of a propeller fesswise azure.

MOTTO: Attaquez et conquerez (Attack and

10: Attaquez et conquerez (Atta conquer).

The 8th Fighter Group, originally organized as the 8th Pursuit Group, was authorized as an inactive unit of the Regular Army, 24 March 1923; activated 25 June 1932 at Langley Field, Va. The Hq, 8th Pursuit Group and the 58th Service Squadron were redesignated as Hq & Hq Sq, 8th Pursuit Group, effective 1 September 1936. Further changes were: 8th Pursuit Group (Fighter), 6 December 1939; 8th Fighter Group, 15 May 1942; Hq Sq ordered disbanded 22 July 1942, and Hq 8th Fighter Group, Single Engine, 20 August 1943. Because of World War 1 service of a component unit, the Group is entitled to a streamer in the colors of the Victory Ribbon without inscription.

Battle participation credit for the following World War II campaigns was awarded the Group;

East Indies Air Offensive, Japan Papua New Guinea Northern Solomons

Bismarck Archipelago Luzon Western Pacific Leyte

Two Distinguished Unit Citations were awarded the Group for outstanding performance of duty in action against the enemy on Mindoro, Philippine Islands, 26 December 1944, and on Papua, from 23 July 1942 to 23 January 1943, respectively.

DISTINCTIVE INSIGNIA

The distinctive insignia is an adaptation of the shield, scroll and motto without the crest and wreath.

Insignia Manufacturers





VOL. 31, NO. 5

AIR FORCE

MAY, 1948

11

THE OFFICIAL JOURNAL OF THE AIR FORCE ASSOCIATION

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Photo taken at MATS Fairfield-Suisun Air Force Base

Big loads-anywhere-fast

The Boeing C-97 Stratofreighter fills America's war-proved need for a cargo plane able to supply our Air Force under all conditions. It's the heavy-duty teammate of the Air Force's great new bomber, the Boeing B-50 Superfortress.

In recent weeks the new 14,000 horse-power YC-97A has been delivered to the Air Force. It incorporates important advances in speed, range and payload.

The Stratofreighter is big. With twice the capacity of a railroad boxcar, it can carry 137 fully equipped combat soldiers; has a maximum payload of 20 tons. Side doors at truck-bed level and self-contained power equipment permit completely loading the airplane in from 20 to 50 minutes. Its cruising speed is comparable to that of the B-50.

Designed in close co-operation with the U. S. Air Force, the C-97 is built to operate from the same fields as the B-50 and to be serviced by the same crews. Many components are interchangeable with the bomber's, vastly simplifying the vital problem of spares.

The Military Air Transport Service (formerly ATC-NATS), a leading developer of world-wide air routes, is using the Stratofreighter now on the San Francisco-Hawaii leg of its transpacific relay. It carries more than double the load of any other plane flying the same route . . . and carries it faster.

The commercial version of the Stratofreighter offers equal advantages of low operating cost, large payload, and maximum utility to the commercial air freight operator.

Boeing has designed and built the B-17, B-29, C-97, B-50, XB-47, and L-15 Scout liaison

plane for the defense of the nation in co-operation with the U. S. Air Force and U. S. Army.

BOEING

AIRviews

"Very definitely, it is not an exaggeration to state that our company believes that air freight can revolutionize merchandising."

This statement is taken from the testimony of the General Traffic Manager of a large mail-order firm given before the Civil Aeronautics Board.

It comes as the result of proved success in using air freight to save costs on interest-in-transit, inventory-intransit, swifter turnover of stocks, and the value of being first in a community with newest products and styles.

Here at Douglas we also believe in the growing future of air freight. And we are working with the air carriers and the shippers to lower air freight costs and to step up efficiency of operations.

Right now we are working on a freight version of the huge Douglas DC-6. This giant plane will, for example, carry up to 30,000 lbs. of payload. It will cut to 8 hours the flying time between New York and Los Angeles. New methods of handling and stowing cargo aboard the DC-6 also will be tested with individual air carriers.

Until the DC-6 enters service, freight versions of the Douglas DC-4 and DC-3 continue to carry the bulk of all air freight throughout the world.

Tarolo W. Touglos

DOUGLAS AIRCRAFT COMPANY, INC. SANTA MONICA, CALIFORNIA

IN RESERVE The SOP of AR and NG

Gentlemen: I joined the Enlisted Reserve in October, 1945, signing for three years. I am partially disabled due to a head injury incurred in combat while serving with the Eighth Air Force. Will this affect my re-enlistment in the Air Force Reserve?

Burrell L. Robertson New Kensington, Penna.

Gentlemen: Please send me confirmation of the article in the January Ara FORCE Magazine regarding veterans who are drawing disability compensation now being permitted to enlist in the Air Force Reserve. I understand we are eligible for inactive duty, but cannot accept pay or be called to active duty. Is that correct?

Kent Hawkins Kokomo, Indiana

• Both of the above writers are interested in the recent change of Army and Air Force regulations which permit Reservists drawing compensation pay to participate in the Inactive Reserve Program. This change was made last November in Department of the Army and Air Force message WCL 31919 and was confirmed in Department of the Army, Circular 28, Section IV, 4 February, 1948. Enlistment may be made at any Force Base or at any Air Force and Army Recruiting Station. Mr. Hawkins is correct in his final question. No pay may be earned by Reservists who already draw compensation, either pension, disability or otherwise.

Gentlemen: I have noticed recent attempts by Afr Force Magazine to bolster the Air Force Reserve, which is a worthy goal. Upon discharge from active service I immediately joined the Air Force Reserve. To all appearances it was going to be a great program. Then, for some reason, the flaps were dropped. No Reserve Units have been activated to my knowledge. How about some mail courses to the men with "spec" numbers to keep them abreast of the times and changes? Is it possible for an Air Force Reservist to serve with the National Guard without having to surrender his Air Force Standing?

Harold H. Holmes, Jr. Florence, South Carolina

• Headquarters, Air Defense Command, which supervises the Air Force Reserve Program reports that budgetary limitations prohibit the establishment of

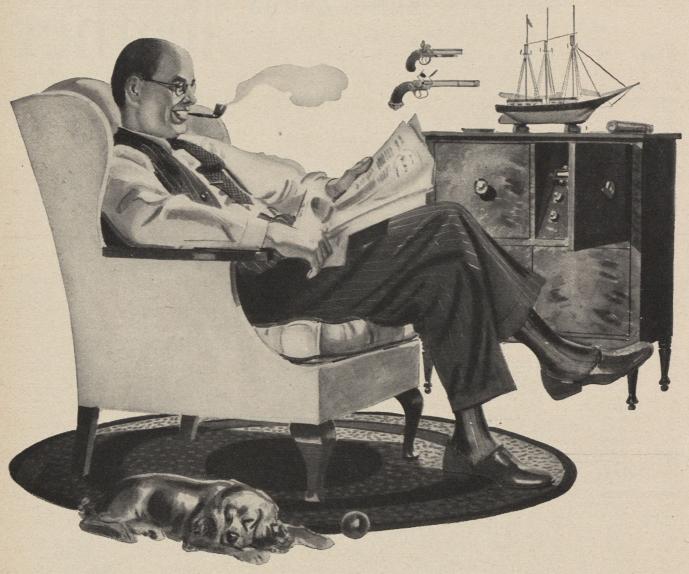
TOGE Units in every community in the country. Florence, South Carolina, has none. However, Reservists may participate in the program by joining Composite Units which exist in localities where there are no TO&E Units. Information regarding Composite Units may be secured by writing to the commanding officer of the 4204th AF BU (RT) at Marietta, Georgia. Information regarding extension courses on certain Air Force specialties can also be secured from Marietta at the same time. With reference to enlisting in the National Guard and remaining in the Air Force Reserve, this is impossible since an individual cannot be a member of more than one component at the same time.

Gentlemen: I am a member of the Air Force Association and I am interested in joining the active Air Force Reserve. I served in the Air Force as a Crew Chief and Mechanic. Upon being discharged I went to an aviation school and received my aircraft and engine mechanics license. At the present time I am working at a Marine Overhaul Base. I would prefer working with the Air Force in or near Texas where I hope to move. I would like to join the Air Force Reserve there. Please give me any information you can regarding the Air Force Reserve and whether or not jobs can be had with the United States Air Force as a civilian.

Peter Evans Morehead City, North Carolina

• Enrollment in the Air Force Reserve may be made at any Air Force Base or at any Air Force and Army Recruiting Station. All US Air Force bases utilize a certain number of civilian employees. These are hired through regular Civil Service examinations. It is suggested that you write to the Civilian Personnel Officer of the Air Force Base nearest to the city in which you would like to be in Texas. He will advise you on the possibility of any openings. Once you have established yourself in Texas you may contact the commanding officer of one of the three Reserve Detachments operating there. These are the 178th AF BU (RT) at Brooks Air Force Base, San Antonio, Texas; the 175th AF BU (RT) at Ellington Air Force Base, Houston, Texas, and the 4122nd at Hensley Air Force Base, Dallas, Texas. They can advise you regarding TO&E vacancies in Air Force Reserve Units.

orks in five states ...home every night



SUPPOSE your business were spread out over Missouri, Illinois, Kansas, Iowa, and Kentucky. Five big states. And suppose you had to travel constantly around that area—like the top men working for the Missouri Insurance Company. Using ordinary transportation, you'd live

out of your bag, and see your home once a fortnight, if you were lucky.

President H. G. Zelle and his associates got tired of doing that, so the firm bought a Bonanza. "With it," he says, "we are no more than $2\frac{1}{2}$ hours from our most distant office. Trips formerly requir-

ing several days can be completed in comfort and without fatigue in one day."

Economy? Operating cost as low as 1¢ per passenger mile! Of a recent trip, Mr. Zelle says: "Fare by other means would be about \$47 for myself and son. Fuel and oil cost by Bonanza—\$6.80."



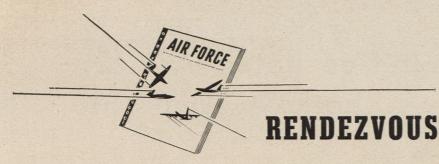
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Where the Gang gets together

MISSING — ONE BEST MAN: Back in March, 1943, the best man at our wedding was Lt. William H. Blackwell, who was stationed with my husband at Key Field, Meridian, Mississippi, with the 86th Bomb Group. When the group went overseas, its personnel was split up and they lost contact. I would appreciate any help I could get in re-establishing contact with this old friend. Mrs. Floyd E. Dixon, Ir., 217 N. 76th St., Birmingham 6, Ala.

BALL TURRET GUNNER: I would like to hear from Cpl. Berger or anyone who knew Lt. Seefurth's crew of the 96th Bomb Group, 8th Air Force. We were knocked out over Magdeburg on 20 June, 1944, and only Lt. Kilps. Lt. Harris, Benny Berger and myself (the ball turret gunner) got out of the "Lil Nymph." Paul Whitestine c/o Airborne Coord in ators, Cleveland Municipal Airport, Cleveland, Ohio.

YUMA REUNION: The second Yuma Air Field reunion is now history. Sixty-four former YAAF personnel attended the dinner in San Francisco, and General and Mrs. H. H. Arnold were the guests of honor. They have already accepted the invitation to be with us next year. Any former YAAF officer who reads this note is invited to send his name and address to the undersigned, so that he can receive our steadily-growing list of members. At this writing, they number over 300. The next YAAF reunion will take place on the first Saturday in September. Details will be announced later. Dr. John R. Upton, 384 Post Street, San Francisco, Calif.

FROM EUCOM: Would like to hear from anyone stationed in Marianna,

Fla., in 1944-45; especially anyone from the Armament or Gunnery School. Dorothea Gerri Browne, Sec'y, General Staff, EUCOM APO 757 c/o New York, N. Y.

OPERATION REUNION: Plans are under way for the first reunion of the old 303rd Bomb Group. The success of this affair can only be assured by co-operation of all former members in their attempt to secure an up-to-date roster. If you are a former 303rd BG member, or know of any such, please send their names and addresses to Harold A. Susskind, 403 East 56th Street, New York 22, N. Y.

ATT: ONE DAMNED IS-LANDERS: My husband came home on a 45-day furlough during which the war ended. Among the belongings which he left behind was a book containing addresses of his buddies. Will anyone who served with Corp. Norman H. Ross of Seventh Air Force on Canton Island, Hawaii, or some of the other spots please communicate with Mrs. Norman H. Ross, 97 Atlantic Ave., Old Orchard Beach, Maine.

RIVIERA BUDDY: Am trying to contact Henry Magri whom I met during a furlough on the Riviera. Max Levy, 7 Love Lane, Hartford 5, Conn.

ITALY AND INDIA BUDDIES: I would appreciate aid in contacting Howard Green, who was last known to me as group photo officer with the 463rd Bomb Group (H) near Foggia, Italy. He probably now inhabits the Great Mid-west, more likely either Iowa or South Dakota. I would also like to contact Ronald W. Hall, ASN 0-861669, who was with the 51st Fighter Group

Hq. somewhere in India. He is probably either in Portland, Ore., or New York City. Edward B. Mayo, 1511 California St. Houston 6, Texas.

"POLLY": I would like to hear from anyone who was a member of the 527th Sq. 379th Bomb Group, stationed in England in January, 1944, who knew my son, 2nd Lt. Edmund J. Torpey, who was killed in a raid over Germany on January 30, 1944. His plane was a B-17 named "Poly" James J. Torpey, 109-58 213th St., Queens Village, N. Y.

ATT: COOKS! I would like to hear from someone in the 54th Air Base Sq. Fort Benning, Ga., from May to November, 1943, most particularly any cooks in the 54th Mess Hall. Mrs. Elizabeth M. Spens, W205 Fairview, Colfax, Washington.

C-54 PILOT: Trying to locate an overseas buddy, William J. Archibald. When I last heard of him, he was flying C-54s for ATC out of West Palm (Fall of 1945). We went overseas together in November, 1943, and served with the 12th Troop Carrier Sq., 60th TC Group in Sicily until February, 1945, when Archie returned to the States. His home at the time of entry into service was Long Beach, Calif. John H. Hicks, Oreana, Ill.

USO TRACER: I would appreciate any information about Miss Helene Mosier, formerly with YMCA-USO and the 9th Street USO in Sioux Falls, South Dakota, and the Mt. Home USO, Utah. Also Att: Johnnie Wallick, Manhattan — I have some pictures of you. Ray "Shorty" Hall, 250 Mulberry, N. W., Warren, Ohio.

92 ton feather

The U.S. Navy's Lockheed Constitution (big brother of the famed Lockheed Constellation) weighs 92 tons—twice as much as the average airliner.

Yet its five-ton, dual tandem landing gear is so finely articulated that the plane can land light as a feather.

So light, in fact, that there's a signal in the cockpit to inform the pilots when the prerotating wheels touch the ground during a landing.

The gear spreads the weight of the Constitution over such a large area that the airplane can operate from any normal CAA Class 4 airport without strengthening or lengthening of runways.

More than 50,000 engineering manhours went into Lockheed's development of the remarkable gear.

Such pioneering in design and research, in combination with resourceful production techniques, keeps Lockheed well in the forefront of aviation.

Lockheed Aircraft Corporation, builders of the U. S. Navy P2V Patrol Bomber, holder of the world's long-distance non-stop record (11,236 miles); the P-80 Shooting Star, the U. S. Air Force's standard jet fighter; and the Constellation, world's leading transport.



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Lockheed Constitution

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Now! An Even Bigger, Better Flying Boxcar -The Fairchild Packet C-119

Something new in the air.

Out of the tried and proved first plane ever designed specifically for cargo-carrying has come this latest creation of Fairchild engineers-a super Packet.

Like the original C-82 Packet, the C-119 is a product of close cooperation between Fairchild, the Air Force and the Troop Carrier Command.

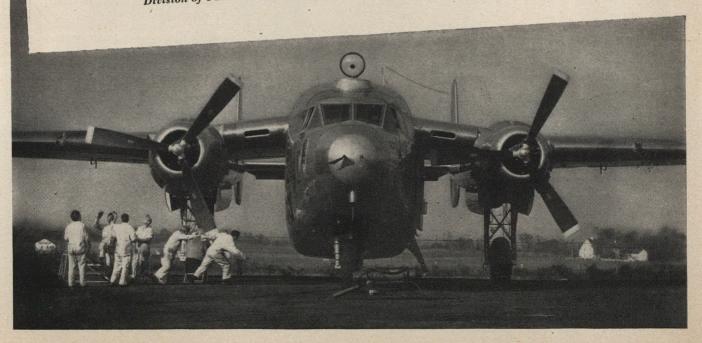
With increased payload, speed and climb,

the new Packet can transport 12 tons of men, equipment and supplies 1500 miles non-stop. As an ambulance plane it is equipped to carry 36 litter patients and attendants.

This new Flying Boxcar incorporates improvements and modifications proved in thousands of hours of actual service. All in all, it is flying evidence of an air-transportable Army . . . and of Fairchild engineering and research skill.

Fairchild Aircraft

Division of Fairchild Engine and Airplane Corporation, Hagerstown, Maryland





How Un-Unified Can You Get?

As the fight for adequate airpower reached a climax last month in Washington, the Unification skeleton rattled loud in the government closet.

There were some who plugged their ears to the rattle and attempted to avoid the Unification issue on the basis that it involved only "inter-service bickering." Fed up as we were with political thrusts and counter-thrusts, we couldn't see it that way.

It seemed to us that the airpower argument was more international than inter-service, more fundamental than what kind of uniform do you wear, or, do you call it a Head or a Latrine. The argument concerned basic concepts in our national security structure, and weighed heavily on our already overloaded national budget. As such, you couldn't avoid the issue or mince words about it.

As we saw it, the lines were clearly drawn. Behind the Battle of the Bulging Budget a definite attempt was being made to project a second full-fledged air force on the national economy. Navy maneuvers in Washington could lead us to no other conclusion. Would we have two air forces and pay the price, or one air force and an air arm of the fleet? Would we abide by the true spirit of Unification, with its organizational divisions of land, sea and air, or attempt to circumvent and find loopholes in the Unification Act to push through that second air force? Those were questions of real significance as Congress debated the 70-group Air Force issue last month.

The so-called Unified Defense Plan announced by the Secretary of Defense was to have provided the answers, but in its approach to the airpower problem that Plan fell far short of the mark. As AFA President Tom Lanphier commented, "What the nation requires at this critical time is a bold stroke to settle the Unification problem, not a program of appeasement that passes out doles to each of the services in an effort to appease all three of them. To effect its passage the Unification Act was compromised into confusion, and efforts toward military preparedness have seriously suffered as a result. Now is the time to face the issue squarely, to push aside vested interests, to outvote service loyalty and military tradition where they compromise efficiency and economy. Now is the time to assign military functions solely on the basis of military responsibilities."

And now is the time to "knock some heads together" to make Unification work. It is not our purpose or within our capabilities to outline all the changes that might be made in unifying our "unified" armed forces. Only a thorough investigation can do the trick. But we do believe that one proposal, already before Congress, merits immediate attention. We refer to a bill known as H. R. 5781 which would permit naval air officers to transfer to the US Air Force, a bill introduced in mid-March by Representative Carl Hinshaw of California. Its history is of more than passing interest.

This whole matter of transfers between the services was

studied at length by the Congressional Aviation Policy Board as a matter vital to Unification. The Board found that the 1947 National Security Act provided for the transfer of personnel between the Army and the Air Force, but not between the Navy and the other two services. Further, it found that the USAF suffered from "a dearth of experienced officers in the 43 to 53 age bracket" while the Navy had a substantial supply of air officers in this age group, and that these officers would be afforded greater opportunity for advancement and utilization of their "know how" in the USAF.

The Board drew up a comprehensive recommendation to permit such transfers, regardless of grade. This recommendation was authored and fought for within the Board by Representative Hinshaw, who was Vice Chairman of the group and perhaps its most powerful member. The recommendation became a definite part of the Board's report—then suddenly it was eliminated in the final editing. Why? We asked the man best qualified to know.

"This recommendation which was removed from the Report was mine," Mr. Hinshaw explained to AIR FORCE. "It was taken out because of protests of the Navy. I am greatly disappointed for I believe its adoption would have been a long step forward." Then Mr. Hinshaw added, "But the Navy has a strong lobby."

Not to be stopped, even by this powerful lobby, Mr. Hinshaw proceeded to put his recommendation into legislative form. In introducing it to the House, he argued that the need was never greater for a common understanding between the services, that his transfer proposal would increase the effectiveness of the two services involved. The Navy, he admitted, was opposed to the bill, but the Navy's position he described as a sign of weakness rather than strength.

In denouncing the Navy's opposition to a proposal that certainly represents the true spirit of Unification—and we call attention to the fact that the entire issue was conspicuously missing in Secretary Forrestal's Unified Defense Plan—we suggest that this opposition helps to explain many of the arguments that have been advanced against the 70-group Air Force. We suggest that it is right in line with the Navy's fanatical interest in building a full-fledged air force of its own.

In its determined and ofttimes brilliant struggle for its own "survival in the air age," the Navy faces its toughest problem, we believe, within its own ranks. This fact is the backbone of Navy opposition to transfers of its aviation personnel to the Air Force.

But the nature of the terrific airpower struggle going on within the Navy can be told adequately only by Navy airmen themselves. It has been told—by a Carrier Air Group Commander who has fearlessly spoken out in a manner that is reminiscent of the stand once taken by the Air Force's own Billy Mitchell. His name is Commander A. M. Shinn. His revelations are published on the following pages.

THE EDITOR

A Navy Airman Speaks

EDITOR'S NOTE: On June 21 of last year Secretary of the Navy James V. Forrestal, now the Defense Secretary, granted naval personnel permission to "speak their minds" on the then pending Unification of the Armed Services. One man who promptly accepted the invitation was Commander Allen M. Shinn, a regular Navy officer then commanding Carrier Air Groups, Fifth Naval District Hamston Boads Va

District, Hampton Roads, Va.

Commander Shinn did his speaking in a 9,000-word essay titled "A Discussion of Some Important Factors Which Make an All-Inclusive United States Air Force a Necessity to National Defense." Copies of this mimeographed document he forwarded through channels to the Navy Secretary and circulated to members of Con-

gress.

In his brilliant and forceful argument for "a unified national Air Force composed in prorated proportion of Army, Navy, Marine and Coast Guard airmen," Commander Shinn expressed his strong belief in "three broad divi-sions of military effort delineated by medium of movement-land, sea and Prophetically he argued that "to leave the naval aeronautical organization under naval control is to perpetuate inter-service rivalry and to risk in years to come over-emphasis upon 'naval' aviation merely to maintain what then will be the status quo, even though in those future years the usefulness of naval aviation may largely have been outlived." At the same time, much of his argument was based on the premise that only a single unified Air Force could prevent "a gradual but sure withering away of the naval aeronautical organization, probably before it has outlived its usefulness to the nation.

And while Commander Shinn's central theme was Unification, three sections of his "Discussion" were devoted entirely to the present status of naval airmen. We now publish these three sections, believing that the subject merits national attention as a key to many of our current airpower problems.

This concerns experienced and battle-proved airmen of the Navy whose capabilities are not being fully utilized today because they are prevented from transferring to the US Air Force. This is the inside story of their problems within the naval establishment.

In presenting Commander Shinn's revelations we wish to make it clear that we never have had communication of any sort with Commander Shinn or with anyone who knows him. It is fervently hoped that his superiors will make no mistake about that.

The importance of singleness of purpose in any field of endeavor is universally recognized; it hardly is conceivable that naval aviation, under its current system of half-sea, half-air administration, can continue to maintain itself in the forefront of the country's aeronautical effort

In essence, the stand firmly taken by the Navy Department with respect to aeronautics is that naval aviation and the surface Navy are one profession, combined but indivisible, inseparable in the best interests of the country. That the inseparability of the two is in the good interest of certain naval factions will hardly admit of argument, but that such a policy will develop through years to come either the best possible Navy or the best possible Aviation, in the best interest of the country, is open to serious question. Moreover, if it be assumed that the nautical and aeronautical fields together constitute but one profession, the entirely illogical corollary would follow that the Navy, prior to acceptance of aviation, or the

is such that even with the very best of intentions and the strongest desire to continue in active aviation duties, the naval aviator too soon reaches a stage in his career where he must cease his direct connection with airmanship and devote progressively more and more of his time and talents to seamanship, administration, and the problems of ships and of the surface Navy. Of course, in the career of any professional man there comes a time, as the individual nears the top of his chosen ladder of achievement, when a similar transition from professional specialties to administrative generalities must take place. The drift from technical specialization to general administration can be postponed almost indefinitely in fields of private enterprise such as private medical or legal practice. In aviation, the gradual relinquishment of active flying duties and assumption of administrative and supervisory responsibilities normally should come earlier than in most professions. Military aviation is and probably will continue to be a young



Though stressing carrier aviation at the moment, Navy has fought long and hard for land-based aircraft, now has them in planes like this new XP4M-1 patrol type.

surface Navy today, were but half a profession.

In truth, military aviation today constitutes a wide field of professional endeavor, one which demands not only full-time and full-career participation by the individual, but also one which is demanding ever-increasing specialization within the field. Further attempts to telescope nautical and areonautical careers can only result in developing officers who are "jacks" of two trades but masters of neither. World-wide experience to date in all fields of aviation —army, commercial, and naval—is clear on this point.

The situation in naval aviation today

man's game. But the naval aviator should not be forced to *shift* back and forth, during the early and specialized part of his career, between the airman's specialties and the seaman's specialties. He cannot do so and do justice to both. The days when statements such as "all planes are the same—just a stick and throttle" and "anybody can fly them" had a modicum of truth in them are long since gone and should be forgotten. Yet the Navy still officially maintains that its naval aviators can be both master mariners and master airmen.

In actual practice, many a compromise has had to be made in naval aviation between announced Navy theory

Out

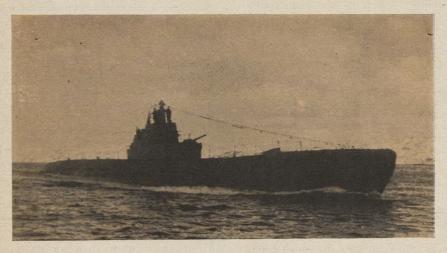
Revelations from within the ranks of naval aviation by Commander Allen M. Shinn, United States Navy



"The capability of the aircraft carrier," wrote Navy Commander Shinn, "is inherently limited by its size and the consequent restrictions on aircraft servicing and operating capacity." Above, fighting snow on the carrier Midway.

and policy, and what practically was necessary in order to get the job done. Specialization has been practiced in naval aviation to a very considerable extent; it had to be so in order to achieve the safe and efficient naval aviation of the past. But the high command chooses to overlook this fact, in furtherance of Departmental policy in the premises.

Probably the worst feature of the dual status of naval aviators is that our Navy's air arm, being half an aeronautical and half a seafaring organization,



Air warfare against submarines, hotly disputed during original Unification discussions, is now a "primary responsibility" of Navy. Above, one of Russia's K-21s.

lends itself readily to the career advancement of those aviators who are not only willing but quite anxious to let somebody else do the flying. Officers who do not desire to participate in active flying duties may avoid them by remaining in shipboard or ground administrative duties year after year and yet rise to the top of the naval aeronautical hierarchy. It is a commonplace comment at the senior table in a wardroom that "you aren't selected for promotion on what you know about flying but on how well you perform your shipboard duties," and it is an amazingly true statement. "Non-flying" naval aviators can spend years on end (and many have) without holding a post of duty which required active participation in military flying, yet without losing secure footing on the ladder of promotion. The "let-the-junior-officerdo-the-flying" rationalization has been easy to accept, if one wanted to accept it, in our half-air, half-sea naval aeronautical organization; it has been accepted to an alarming extent. Gross ignorance on the part of senior aviation officers aboard a carrier relative to the tactical employment of the ship's airplanes is no sin; it is condoned on the (Continued on page 39)

General Vandenberg Steps In

The Air Force's new Chief of Staff is the youngest man of four-star rank, but he is old in experience and mature in judgment



General Vandenberg, who was a major at the start of World War II, assumed command of the 9th Air Force in the Fall of 1944, succeeding Lt. General Lewis Brereton, Here he is "read in" by WAC Lt. M. J. Thompson, formerly Gen. Brereton's secretary.

n September of 1943 the Air Force sent one of its more youthful looking brigadier generals to Russia as the head of an Air Mission under Ambassador Harriman. Coordination of the Allies' military strength was essential for the final push against Germany, and it was the General's assignment to help synchronize the Allied air effort. The job called for the ultimate in salesmanship, for in Moscow the land-minded Russian high command, fully eight months before the invasion of Normandy, was loud in its demands for a second front. The General tackled this problem in his usual quiet manner that could be as deceptive in his own country as it was in Russia. For, while he used few words at the conference table, when he spoke he talked hard facts. And when he pressed his point that a second front already was well underway-in the airhe presented the bomb damage results to prove it. In the end his arguments were decisive, and the Air Mission was successful. Facts and results were a language the Russians understood.

Three stars have been added to his shoulder straps since General Hoyt S.

Vandenberg went to Russia, and so much experience has been added to his record that the Air Mission has become one of his minor wartime accomplishments. But the Russians will find that he still speaks a language of facts and results. And he now takes command of the one agency the Russians may yet understand—the US Air Force.

It is significant that this entire air organization today is no larger than a single segment of it—the 9th Air Force—which General Vandenberg commanded during the war, a fact the Russians no doubt have considered. But it is also a fact that Congress has expressed the mandate of the people to rebuild this Air Force to new strength. And the results may make it the greatest single force for world neares.

est single force for world peace.

The still youthful looking General who takes over from General Carl A. Spaatz as Chief of Staff of this Air Force is a seasoned air veteran of 49—only seven years young than General Spaatz—who has come to the top rapidly by way of some of the nation's most important military assignments. He contributed to the overall planning for the

air war, held wartime command posts in both strategic and tactical air forces, served on both the War Department General Staff and the Air Staff, became the nation's top Intelligence Chief, carried out successful diplomatic assignments with the British as well as the Russians, was on hand at the wartime international conferences at Quebec, Cairo and Teheran, and has participated in all major postwar Air Force policy decisions as Vice Chief of Staff.

With all this, General Vandenberg is not the type you know as "brass." Affable and easy to talk to, he has stayed close to the men of the Air Force, has lived with them on equal terms in the field and fought with them on equal terms in the air. Officially credited with 26 combat missions in bombers, he is known to have added a few more not listed on the record books. His string of ribbons is six rows deep, but he is inclined to wear only his DFC during working hours at the Pentagon in Washington. Staff members appreciate the respect he shows for the opinions of others. His habit of weighing those opinions carefully through a tightlipped silence belies his ability for decisive action. His staff men know that in the end he makes forthright decisions and sticks to them. Off or on duty, his easy manner shifts to dead seriousness when the conversation has anything to do with aviation. Enough on the handsome side to interest Hollywood (the West Point Howitzer (Continued on page 45)

Editor's Note: General Tooey Spaatz had become as familiar as the Air Force shoulder patch, had taken his place in the Mitchell-Andrews-Arnold legend. Now he was tired and worn, like Arnold before him, and ready to step out as Chief of Staff. For some time it had been assumed that the man "most likely to succeed" was General Hoyt Vandenberg, deputy to Spaatz for the past year. Last month Secretary of Air Symington announced the change, to be officially effective July 1. General "Van" had come up fast, had proved himself to the men in the

. . . General Spaatz Steps Out

The war's greatest strategic air commander is picking up his hat and leaving. But his doctrines of airpower will remain for years

It would be interesting to watch General Tooey Spaatz when he picks up his hat and leaves his office in the Pentagon for the last time this coming July. Chances are he'll walk out and close the door on a 38-year career without so much as a backward glance. The general—by long training—is not a sentimental man. He has been in a business that is often forced to deny the human element—a cold, methodical business or moving huge fleets of four-engined bombers and of sending great numbers of men on assignments of death and destruction.

Yet ruthless as Carl Andrew Spaatz learned to be by profession, he is, by nature, one of the most soft hearted of men. As director of the Strategic Air War first in Europe and then in the Pacific, he was without nerve or feeling in moving toward complete annihilation of the enemy. Yet wanton destruction for the sake of destruction alone sickened him; that is one of the reasons he was always such an advocate of precision-bombing, which called for the elimination of specific military targets, in opposition to area bombing, which caught its targets in the process of neutralizing an entire area.

Spaatz probably doesn't remember himself what it was that prompted him to undertake a military career. One thing is certain. It wasn't lineage. His father owned and operated a newspaper (for which young Carl wrote occasional articles) and his mother was simply a typical Pennsylvania Dutch housewife.

field and to the men in Washington. Now he took over an international responsibility of first magnitude. There was every indication that Van could handle himself in the Capital as well as he had in North Africa and France. As Tooey stepped out and Van stepped in, Air Force men could expect the new Chief of Staff to press home, in his own convincing way, the basic airpower concepts that were rooted deep in the Air Force legend, and to keep pace with the fast-moving developments that were the key to airpower's



Having finished his job in Germany, General Spaatz moved on to the Pacific in July, 1945, to direct strategic bombing there. Here he pauses at Guam to light up and confer with his new subordinates, Generals Twining, LeMay and B. M. Giles.

Whatever it was, when Spaatz was 19 he entered West Point where he promptly picked up the nickname of "Tooey"—because he looked like an upper classman of that name—and just as promptly acquired a burning ambition to become a flier-because he had been an eye witness to the famous 1910 flight of Glenn Curtiss from Albany down the Hudson to New York City. He never lost either his nickname nor his tremendous enthusiasm for flying. The fact that he was commissioned a Second Lieutenant in the Infantry upon graduation didn't diminish his ardor in the least. Winning his wings became the first strategic operation of his military career, and as was to be the case in all similar operations to follow, the general attained his objective with methodical sureness. One year after graduation he was in Aviation School at San Diego.

The first World War found Major Spaatz assigned by his great friend General Billy Mitchell, to run the American Aviation School at Issoundun, France . . . much to his displeasure. So determined was he to get to the front that instead of returning to the US late in 1918, as he was ordered, he begged for and received permission to move forward for 30 days with a pursuit group commanded by a 1st Lieutenant. On the day of a German attack west of the Meuse, he went out and shot down two enemy planes, won himself the Distinguished Service Cross and went home to the US reasonably satisfied.

After the war Spaatz made the rounds of Air Force assignments including tours at Rockwell and March Fields in California, Kelly and Ellington Fields in Texas, Selfridge Field, Michigan and Langley Field, Virginia. When war broke out in Europe he was serving (by now as a colonel) as Executive Officer in the Office of the Chief of Air Corps in Washington.

The peacetime feat which won for him the greatest prominence was the 1927 refueling flight of the "Question Mark" which he commanded and which stayed in the skies above Los Angeles for 150 hours. It was unfortunate that concurrently with this flight

(Continued on page 47)



Operation Retread

of all the post-war reorganizational headaches faced by the Air Force, none has been more persistent nor more severe than the one caused by the civilian reserve muddle. By the end of last year, the situation had become so confused that Secretary of Defense James Forrestal was compelled to issue an unprecedented directive calling for a complete re-examination of the entire problem-a directive which said, in effect, "Men, before we get into this thing entirely over our heads, let's back up and start over."

To direct the backing up, he appointed a six-man board composed of an assistant secretary and an officer of General or Admiral rank from each of the armed services. Gordon Gray, Assistant Secretary of the Army, was designated as Chairman. Mr. Gray set about his task at once. The extent of his retreat into the basic problems involved



Surprisingly clear-eyed, for such an early morning briefing, officers and men of the 319th Bomb Group (Reserve) assemble in one of Mitchel Field's empty hangars to get instructions. Mission was airborne three hours after 6 AM radio alert.

is indicated in the fact that the committee has been in more or less continuous session ever since November. It is only now winding up its study and preparing its report. How drastic its recommendations will be remains to be seen, but there are straws in the wind to indicate that a thorough job has been done. One such straw is the fact that legislation has recently been passed making it possible to pay and promote Air Reservists much in the same manner that National Guard men are paid and promoted. This step, while it may or may not have been taken as the direct result of Gray Board conclusions, was at least taken with full Gray Board concurrence. If all issues are met and acted upon as squarely as this one, there is good reason to hope that the worst is over.

Last month in New York, in the meantime, the 319th Bomb Group (Reserve) demonstrated quite conclusively that in spite of administrative confusion, the Reserve program even as it stands can be made to work practically and efficiently. At six AM one Saturday morning, radio station WCBS in Manhattan broadcast a brief, terse an-nouncement that Operation Retread was on. A hundred and fifty officers and men who had been awaiting the word piled out of their civilian beds, worked themselves into uniforms that by now strained a little at the seams and hied themselves out of Mitchel Field where after a 0800 briefing, they took off in AT-6s and AT-11s for Langley Field, Va. The entire group of 32 trainers plus three C-47s was airborne by 0900.



AT-11s as well as AT-6s were used. At Langley group used tactical type aircraft.

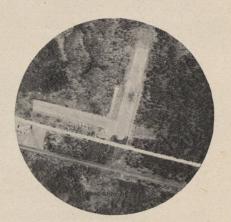
At Langley the group split into three squadrons and undertook separate assignments in A-26 tactical aircraft. In each of the Invaders a regular officer from Langley went along as 1st pilot. For an hour the first squadron flexed its muscles with formations of all types and then wound up with a high speed run at 1000 feet.

The second squadron went out on a night mission to photograph an island off the coast of Virginia. The next morning (Sunday) the third unit performed a similar recon mission over a

The 319th Reserve Bomb Group proves that the Reserve program will work in spite of administrative Snafu



With somewhat fuller faces and thinner hair than they had during their wartime combat missions, four of the 319th's pilots leave the briefing and make for the flight line. The mission was completed without a single operational failure.



Bullseye for the photog.

nearby civilian airstrip. After the three flights had been completed the boys climbed back into their trainers and returned to New York. By 1430 all the flying equipment was checked back in at Mitchel and the mission was complete.

The operation was not spectacular. It did serve, however, as a pattern for other Reserve units. It proved that on an operational level the Reserve program can work–regardless of paper work deficiencies upstairs. It also proved that the "old men" of the last war can still handle a pretty mean stick–regardless of the fit of their uniforms.

The Private Air Force Of Corporal

By Lt. Samuel W. Taylor

Illustration by Louis S. Glanzman

May, 1945: There wasn't as much hysteria as might have been expected. There were parades and ticker-tape and overseas the GIs began counting up their points, but actually the end in Germany came as something of an anti-climax. We had tightened the noose months before. Since then it had only been a question of when the victim would draw his final breath of resistance. As we raced into the center of Germany in the months prior to May we began to wonder how such a completely devastated country had managed to fight back so hard so long. We began, too, to make preliminary surveys of the effectiveness of airpower-to evaluate the efforts of units like the private Air Force of Corporal Weinberg. . . .

In November of 1938 the Gestapo threw a sixteen-year-old lad named Erwin Weinberg into a concentration camp. He was one of thousands taken in a roundup of Jews in Germany following the death of a member of the German legation in Paris, allegedly killed by a Jewish boy.

His mother secured permission to go to England. The Weinberg family had been trying to get to America since 1936, and their names finally reached the top of the list in 1940. Erwin arrived in the new land on a Tuesday and went to work Friday morning in a Philadelphia factory making Army uniforms.

Young Erwin sewed US Army uniforms and waited. The British began bombing Germany after the *Blitz*, and he got an idea of how to settle his score with the Nazis. But he was just one person, and he didn't know how to go about doing what he wanted to do. America entered the war, and he couldn't enlist because he was an alien. He wondered whom he could see, to tell his idea. It seemed impossible that anyone would listen to him.

Finally in June 1943, the Army accepted him, and for the Air Forces, where he needed to be. He became a US citizen, which helped. The following February he landed in England, where he had to be. But still he was only a private, at the very bottom of the tortuous Army channels. What could a private do?

He obtained permission of the first sergeant and spoke to an officer. "Sir, I have information of value to the Air Force. It's about my home town of with Major John H. Simone. The Major definitely was interested. He called for the target folder on Fulda. Intelligence data showed that a ball-bearing plant was known to exist at Fulda, but its location was unknown. Intelligence was



"They were forced against the wall



Weinberg and his father were flung into a boxcar crammed with other Jews. Their destination, Buchenwald, even in 1938 was a name to be spoken in a whisper. At Weimar they were ordered out, faced against a wall, and then beaten over the heads from behind with rubber truncheons by SS troopers.

"This wasn't the extermination program," Erwin Weinberg explains. "That didn't come until later. The Nazis merely wanted to discourage us and get us out of Germany. We were released if we could arrange to leave the country." Extermination or not, 500 Jews died the first month.

Fulda, in Germany. I have been watching the newspapers, and Fulda never has been bombed. Yet there is a ballbearing plant there—Gebaur and Moller—and our bombers are attaching ballbearing targets. And the Gummiwerke Fulda AG is a rubber factory. There is an enamel factory that probably is making war materials now. I know the location of those plants."

The officer was interested. He suggested that the soldier see an intelligence officer. Two days later Private Erwin Weinberg found himself transferred to headquarters of the US Strategic Air Forces in Europe. He talked

Weinberg

This determined GI called in the hard-slugging 8th Air Force to help him settle his account with the Nazis

not sure which of two factories was the rubber plant.

To prove he knew what he was talking about, the private took pencil and paper and drew a rough sketch of the location of the two plants in relation to roads and rivers. The Major requested air reconnaissance of the target.

The Air Forces were busy at the time, preparing the way for D-Day. Other reconnaissance targets had higher priority. Erwin Weinberg worked as interpreter and file clerk for reconnaissance pictures. He hoped each new photo would be Fulda. Meanwhile the attack on ball bearings was discontinued, its purpose of impairing the production of ordnance and aircraft having

been achieved. Weren't they ever going to bomb Fulda?

Then one day the Major called him in and handed him reconnaissance photos of Fulda. "Can you pinpoint those targets?"

"Yes, sir!" Private Weinberg circled the ball-bearing factory, the rubber plant, and the factory that had been making enamel.

Finally, in August, the Major called him in again and showed him more pictures—strike photos of bombs exploding in the rubber plant and marshaling yards, a reconnaissance picture taken afterwards, showing damage. The heavy bombers struck Fulda twice more in December, again in January 1945, and in March. The Ninth Air Force sent medium bombers to hit it a last time in April.

Erwin Weinberg collected spare pictures of the bombing of Fulda. His own target—bombed six times on the basis of information he had delivered.

"But they never really sent much strength over my target," he says disappointedly. "Never more than a hundred bombers or so at a time."

But a hundred bombers are a pretty fair air force for one GI.

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New Wings

No one knows better than the men who fought with the Air Force in the last war that today, less than three years later, we are witnessing the beginning of an aeronautical revolution of unprecedented proportions.

Technically, we are standing on the threshold of a period that will see the development of fighter and bomber planes with performance characteristics that will seem incredible to veteran pilots of World War II. It is safe to say that engineering advances in the period 1947-1952 will prove to be of greater scope than all the aeronautical achievements put together prior to that time—with the obvious exception, of course, of the first flight itself.

Aside from technical advances, we are also entering a new phase in military thinking in which the airplane stands unquestionably as the primary weapon of national defense. At the moment, when there is such widespread discussion of a "balanced" defense estabment, it cannot be denied-regardless of the arguments for a strong army and navy-that a strong air force is now and will be for many years to come, the most efficient of all instruments to intercept and crush an enemy attack. The airplane has amply proved its superiority over other type weapons just as the tank proved its superiority over the horse. Fortunately for the defense of our country, both the people and the Congress are now demonstrating that they have become aware of these facts -that they share the conviction that "airpower is peace power."

But the new era in military aviation

is bringing with it new responsibilities. If the airplane is to be our primary weapon, then the air Generals in Washington are going to have to assume the primary responsibility for the planning of our defense. In the field, the pilots, bombardiers, navigators, and mechanics who fly and service the Air Forces planes are going to have to be familiarized with the latest type of equipment and trained to new peaks of efficiency.

It is in accordance with this latter responsibility that the Air Force Training Command, under the direction of Lt. General John K. Cannon, able wartime chief of the 12th and Mediterranean Allied Forces, has inaugurated a new course of aviation cadet training that resembles wartime instruction mostly in that off-post passes are no easier to get than they ever were, and "gigs" are just as easy. Aside from these factors, the similarity is slight.

Pilot veterans of World War II will recall with mixed nostalgia that training for them usually began at a civilian contract school where for 17 odd weeks they studied the customs of the service, the weather and the mysteries of one of several different types of open-cockpit primary trainers. From primary training they graduated to basic where they learned a little more about customs and the weather and started practically afresh in the business of flying with a new and heavier plane known officially as the BT-13.

Today, both the primary and the basic trainers have been retired from active duty. Now cadets at Randolph Field begin their flying at once in North American's rugged and speedy AT-6 Texan-the same plane that several small countries still use as a combat fighter. Each cadet gets 20 to 25 hours dual instruction in the Texan before he solos. His first flight on his own usually comes at the end of the second month of instruction. In the old dayseven during the most critical part of the war when all "unnecessary" corners were cut to speed up production-a cadet worked for about nine months before he reached a parallel point in his student career. After he solos now he continues in the first phase of his training (now called basic) until he has amassed about 170 hours altogether.

How do the men who will play such a vital role in the future defense of our country respond to this "accelerated" instruction? Colonel George F. Schlatter, Commandant of Cadets at Randolph, says that when a cadet solos today for the first time, he knows how to handle himself and his ship better after two months training than he formerly did after nine months. He attributes this to the extended periods of dual instruction. The safety record, Colonel Schlatter says, compares favorably with previous periods. He agrees that this may be due in part to the lessening of war pressure as well as to improved training methods.

As radically different as the first phase of cadet training is today, it represents no greater departure from wartime methods than does the advanced stage.

After a cadet completes his 32-37 week basic instruction, he graduates under the new system into a senior course that is conducted entirely with

In the old days Cadets had to log nearly 150 hours in PTs and BTs before graduating to the souped-up AT-6s. Today they begin on the Texans and graduate to P-51s and P-47s.

The equipment and the methods of teaching have changed, but the requirements are the same. A cadet still needs an alert mind, an eagerness to learn, and a rugged constitution.





For Peace

Except for the reminiscent calls of "Look sharp, Mister," there is little similarity between Aviation Cadet training today and the training of World War II

tactical-type aircraft. The multi-engined pilots move on from AT-6s to B-25s. Fighter pilots use P-47s and P-51s. It will be remembered that during the war it wasn't until after a pilot graduated from advanced training and was commissioned that he was thought capable of flying ships such as these.

Of all the revolutionary steps, however, perhaps none is as radical as the experiment now being conducted with Lockheed P-80 Shooting Stars in advanced single engine training at Williams Air Base in Arizona. To date only a limited number of cadets have been given part of their advanced instruction in the jets, but if the experiment proves successful, it is possible that all advanced fighter training will be done in these planes. In fact Lockheed Aircraft Company has recently announced the debut of a two-place P-80 (the TF-80C) for this express purpose. Air Force officials, however, are explicit in the statement that no cadet will be allowed to fly the Shooting Star until he is entirely ready, which may or may not indicate that advanced training will be split in the future between reciprocal tactical types and jets.

The cadet quota established for 1948

As anxiously anticipated as ever are the rare moments during which a cadet is out of earshot of his instructor.



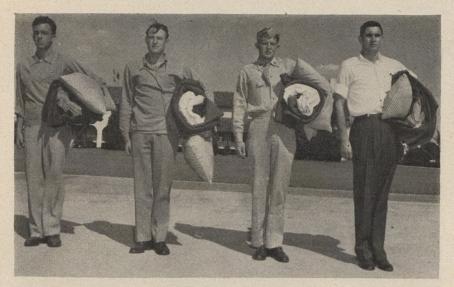


There are two ways to distinguish this from a picture taken in 1944—by the empty chairs which might have been filled in the heat of war, and by the shoulder boards. Cadets will have high priority when new USAF uniforms are issued.

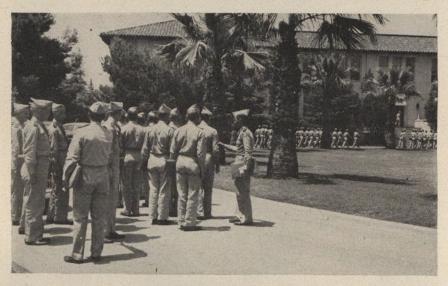
by the Air Force is 5000, an admittedly small fraction of wartime production which once reached a peak rate of nearly 110,000 a year. It is likely, however, that the 5000 figure will be substantially increased in the near future. It should also be remembered that during the war, cadets who graduated with their commissions from advanced schools were still several training months away from combat proficiency. Transition

training during which they learned to fly combat ships added a healthy number of additional weeks to the 52 they already had behind them. Today when a cadet is given his diploma, he is ready, theoretically, for immediate assignment to a theater of operations.

Eligibility requirements for pilot training have gone back up to just about what they were in 1940 and 1941. This is due primarily, of course, to the fact



Four future pilots start their fifty-week training program by drawing bedding. The more experienced Sergeant seems to have the least trouble handling the issue.



As long as men wear uniforms there will probably be no substitute for marching. Here a tardy platoon assembles hurriedly while two others march off to class.



It may look like horseplay, but as every veteran Cadet of World War II will remember, physical conditioning is one of the most important phases of training.

NEW WINGS FOR PEACE

(Continued)

that the pressure of war is off. But in part at least, it is also due to the fact that from now on in, the art of flying is going to become more and more demanding of the individual-both physically and mentally. The age bracket for entrance into pilot training has been set at 20 to 261/2 years inclusive. An applicant must be an unmarried male citizen and must agree to remain so until he completes the 52-week course. As was the case during most of the war, he must have one-half or more of the credits necessary for a degree at an accredited college or university, or he must be able to pass an examination designed to measure the educational equivalent.

In addition he must be able to pass the Air Force Qualifying Examination, the physical examination and a moral and personal exam. Anyone who has been eliminated from a service flying school because of failure in flying or has been previously rated a pilot in any branch of the armed forces of the US is automatically ineligible.

Non-rated officers are eligible to take training in grade, but under the present set-up they must relinquish their rank—whether it be captain, major or colonel—upon the completion of their training to accept their commissions as rated second louies. Similarly, members of the National Guard, and the Navy, Marine Corps, and Coast Guard Reserves are eligible, providing they first secure their discharges from those components.

Enlisted personnel on active duty are eligible and welcome. In fact it is from these ranks that the USAF has drawn a good proportion of the successful applicants. Priority for cadet assignment to training classes is normally based on educational attainment. But in the event there are more qualified applicants in a priority group than can be included in a prescribed quota, priority is based on previous service-a break for the enlisted man, and for former aviation cadets whose training was terminated as a result of retrenchment of the program late in the war. Incidentally, it is now possible for cadets who successfully complete their cadet training to compete for Regular Air Force commissions in addition to the one they hold in the Reserve-provided they have successfully completed two years of college and are between 21 and 27 years of age.

At present cadet pay is still \$75.00 a month. There is now a bill before Congress, however, which, if passed, will up the amount to \$117.00. Upon completion of training, a cadet is now commissioned in the Air Force Reserve (not in the AUS) and is given a \$500.00 bonus for each year of active service.

Yes, there have been many changes since the veterans of World War II fought the Maytag Washers and lived for the day they could fly combat.

Meet The Men Who Guide The Missiles After thirty years of experiment

After thirty years of experimentation they are now

approaching a new and promising phase of their carefully shrouded work

he USAF officers whose pictures appear in the chart on this page are perhaps more talked about than any other group of soldiers in the armed services today. Yet only a handful of people know their names or what they are actually doing. At bridge games and in night clubs throughout the country these five men are alluded to simply and ambiguously as they. "They" have developed a missile that will reach the moon in 80 minutes, and "they" have invented a rocket that can pick off a rowboat in the Adriatic from our own mainland without half trying. The truth, of course, is that they have done few of the things for which they are continually given such irresponsible credit. It is also true that since they are the men answerable for the Air Force's guided missile program, they would like nothing better than to be able to state publicly, once and for all, exactly where the US stands in this new and important field, and where it is going. This, they feel, would be the best way to put to an end the idle and wild speculation which at best can do no good, and at worst could do considerable

damage. But for obvious reasons of security this is impossible.

Perhaps the second best way to accurately determine the paths along which they are guiding our guided missiles is to study the assignments they are now working under and to review their acknowledged successes and failures to date

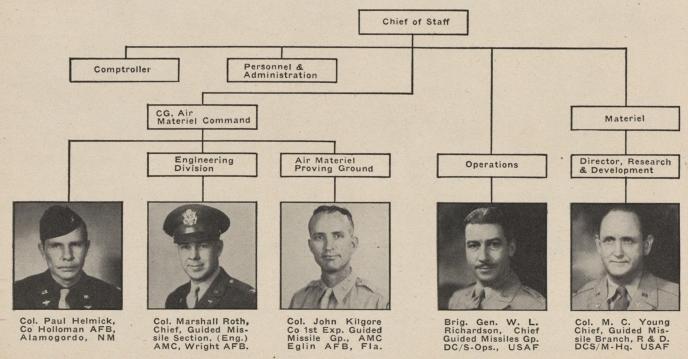
These, then, are the assignments:

First in the production line (but not necessarily in command) is Brig. Gen. William L. Richardson, Chief of the Guided Missiles Group, DCS/Operations (Hq. USAF). General Richardson occupies the position of the constructive dreamer. It is he who tells the engineers what is needed operationally, whether it is a one-ton air-to-air missile with a range of 30 miles, or a ten-ton ground-to-ground projectile with a range of 2000 miles. As the state of the art progresses General Richardson's staff also studies possible tactical application of missiles that come out of the labs more as the result of natural evolution than as a result of efforts to meet prestated requirements. Next comes Col. Millard C. Young, head of the Guided Missiles Branch, Directorate of Research and Development Section, DCS/M. Colonel Young is the go-between and the mediator who coordinates General Richardson's operational requirements with research and development capabilities. He is the link between the front offices in the Pentagon and laboratories at Wright Field. He is also responsible for coordinating USAF projects with those of agencies such as the Army, Navy and NACA to avoid duplication.

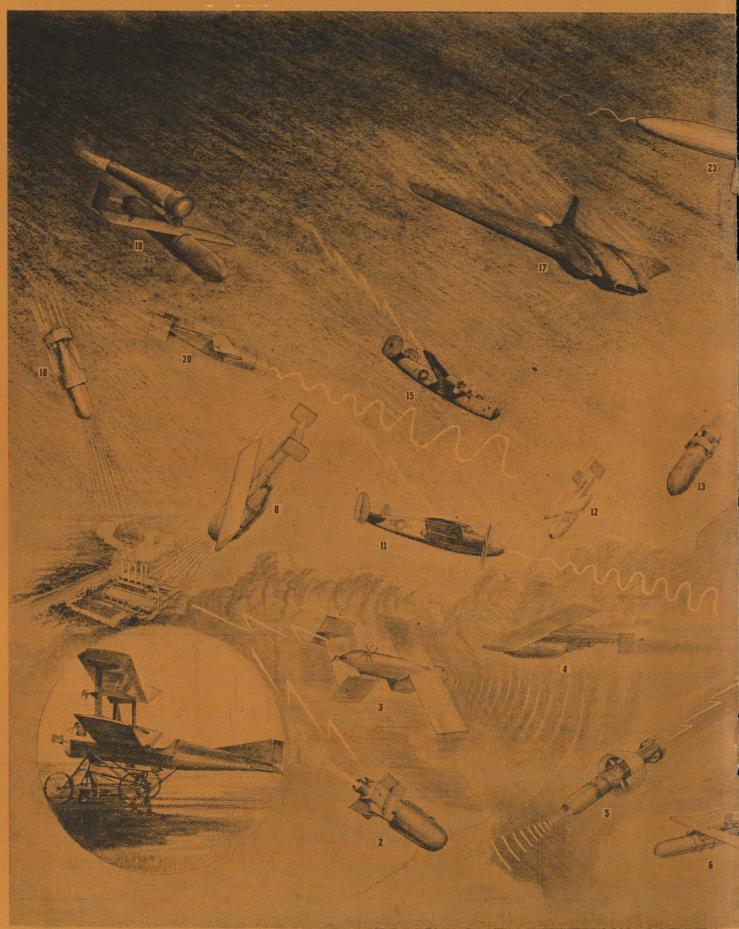
The first office down the line that really gets into the job with dirty hands is the Guided Missiles Section of the Engineering Division, Air Materiel Command, Wright Field, headed by Col. Marshall S. Roth. Colonel Roth has the job of bringing to fruition the Buck Rogers dreams of the boys in Washington. It's no small assignment.

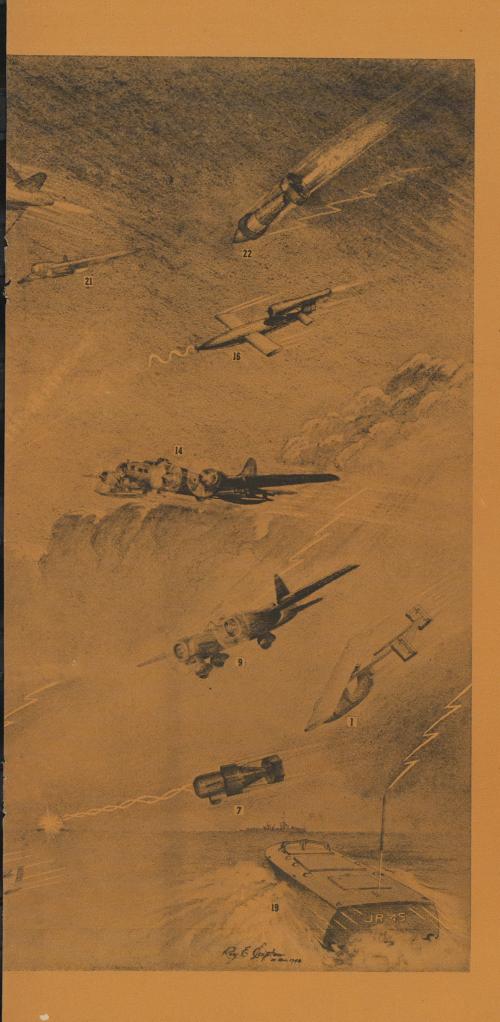
After Colonel Roth and his staff have "produced," the missiles are turned over to the test base at Alamogordo, N. M., where Col. Paul F. Helmick and his staff put them through a rigorous series of flight tests.

The final stage of guided missile de-(Continued on page 48)



Meet The Men Who Guide The Missiles (Continued)





Thirty Years of **Guided Missiles**

he spoke-wheeled contraption in the lower left corner that looks like a cross between a PT-17 and a Neapolitan hurdy-gurdy is, instead, a sketch of the world's first guided missile. It was developed by the United States Air Force in 1917 and actually hit a target (of unchronicled dimensions) at a distance of 90 miles. The rest of the missiles are what the USAF has developed since, up to and including VJ-Day, Dates indicate first flight.

1. GB-1. An air-to-ground glide bomb with present guiding device and 2000 lb warhead. Nov., 1941.

2. VB-1 (Azon). A 1000 lb vertical bomb guided to right or left by radio. April, 1942.

3. GB-4. An air-to-ground glide bomb with 2000 lb warhead. Controlled by television. June, 1943.

4. GB-8. An air-to-ground glide bomb using flares and controlled by radio. 2000 lb warhead. June, 1943.

5. VB-10 (Roc). An air-to-ground vertical bomb with 1000 lb warhead controlled by television. July, 1943.

6. GT-1. An air-to-surface torpedo controlled by preset gyro. Sept., 1943.

7. VB-5. An air-to-surface light seeker. 1000 lb warhead. Nov., 1945. 8. GB-12. Air-to-ground gliding heat

seeker. 2000 lb warhead. Nov., 1943.

9. XBQ-2A. A ground-to-ground radiocontrolled aircraft of unspecified explosive capacity. Dec., 1943.

10. VB-6 (Felix). An air-to-ground vertical-falling heat seeker with 1000 lb warhead. Jan., 1944.

11. XBQ-3. Radio controlled ground-toground aircraft. Explosive capacity unannounced. April, 1944.

12. GB-7. An air-to-ground radar seeking glide bomb with 2000 lb warhead. April, 1944.

13. VB-3 (Razon). An air-to-ground missile guided in range and azmuth. 1000 lb warhead. June, 1944.

14. A piloted B-17 with JB-2s slung under each wing.

15. XBQ-8. Drone B-24 controlled by radio. Explosive capacity not indicated. July, 1944.

16. JB-2. US adaptation of German V-1.

2000 lb warhead. Oct., 1944. 17. JB-1. Northrop jet "Bat" guided from air-to-ground by preset gyros. Never used with warhead. Dec., 1944.

18. JB-4. Air-to-ground preset jet missile with 2000 lb warhead, Jan., 1945.

19. A-2. Radio controlled boat. Explosive charge not disclosed. Jan., 1945.

20. GB-14. Radar-seeking air-to-ground bomb. 2000 lb warhead. March, 1945.

 JB-10. Jet bomb radio guided. Weight undisclosed. April, 1945. 22. VB-13. Vertical falling bomb guided

in range and azmuth by radio. Warhead classified. May, 1945.

23. JB-3. Air-to-air jet bomb guided by radio. Weight undisclosed. Nov., 1945.

Airpower Comes First By Senator Robert A. Taft

The arguments today for measures to secure a strong national defense have assumed the proportions and confusion of a tower of Babel. Nearly everyone is in favor of adequate defense to guarantee the safety and protection of the US, but the important differences are in the means through which such a defense can best be achieved. Furthermore, if we adopted every suggestion, we would be spending such a huge sum for national defense that we could no longer make any progress in our effort

Everyone, says Taft, is in favor of adequate defense, but there are great differences as to means by which it can best be achieved.

to improve the conditions of our people, and might even destroy the very freedom which our defense program aims to protect. If we wish to proceed on a practical program to accomplish the maximum protection possible, the first thing to do is clear away some of the smoke and confusion and get down to a few basic principles.

First, let me make it positively clear that I am just as deeply concerned about an adequate national defense as any General or Admiral. I am opposed to compulsory universal military training, because I am convinced it is an extraordinary wasteful method of providing more or less useless reserves, and may, in fact, divert us from more important expenditures, lull us into a false sense of security, and like the Maginot Line, result in national disaster.

At the present time we have two major proposals to safeguard our defenses. One is the President's Air Policy Commission Report; the other is compulsory universal military training. Of the two, the latter presents a greater The Senator from Ohio warns that of all defense measures now being considered, none is as important as building a strong Air Force. Here is the first of a defense series written by national leaders exclusively for AIR FORCE Magazine

increase in expense and seems wholly inadequate to meet the needs for our defense in modern war. Even its most staunch supporters admit that UMT will cost three billion dollars annually within a few years, and figures indicate its over-all cost is more likely to be four billion.

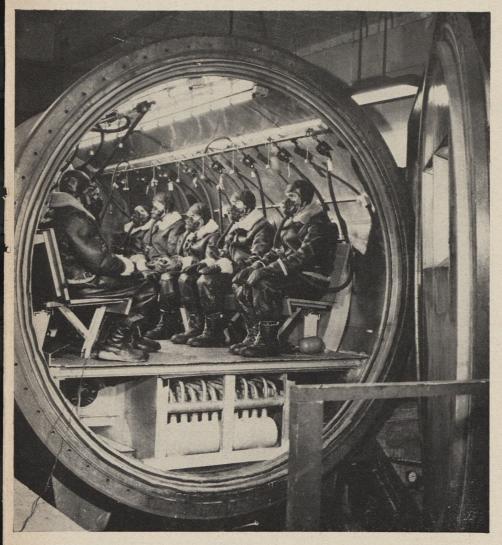
As advocated in its present form, UMT is neither desirable nor advisable as a means of training our men efficiently for modern warfare. It is not the best method for getting reserves, nor does it provide the kind of reserves we are likely to need. UMT would provide some ten or twelve million partially trained men for mass movement which is not likely to occur in any war we can foresee. We certainly do not need any such number of men for de-

fense against sudden air attack. If it should become necessary to send men abroad, it would take two years to provide the new weapons and methods of transport for such an army. During that time additional men could be trained in the methods of the war they are to fight instead of the war of 1944.

I believe we want a proficient reserve on a voluntary basis. The men should be paid for the time they have to spend. With proper pay and technical education, a reserve system can certainly be established on a volunteer basis. In view of the extensive propaganda as to the impossibility of such a program, I am sure the American people will be surprised to learn that the National Guard is having no trouble in securing its enlistment quotas. If the Army will



Here are two of the "most modern" planes Senator Taft urges the US to build in sufficient numbers each year so that practical tests can be assured. Top, the North American B-45 four-jet bomber. Below, North American's jet P-86 fighter.



A superior air force, Taft points out, does not mean superiority in numbers alone but also in training, research, etc. Above the Air Force investigates physiological problems of high altitude flight—a study which demands continuous research,

once get over its fanatical interest in UMT and go about building an efficient and adequate reserve on a voluntary basis, it could soon have as large a reserve as we need. It can be built around the National Guard and the ROTC system in our colleges. It can be supplemented by the encouragement of physical training in the high schools.

We face a serious problem in planning our defense forces—arising out of the threat of a world in which atomic bombs, guided missiles and other aerial weapons may result in a sudden attack on the United States. To be completely safe, we could devote our entire energy to the military business of defense. Such a course, however, would destroy freedom more quickly than war. It would destroy the America we are trying to preserve. The total burden of defense must be held to something within our capacity. It must not be a burden which chokes all other progress.

We therefore have to make a selection of weapons which are most essential. It seems to me that in this modern world, control of the air is of supreme importance. The only possible way in which this country can be safe is to have control of the air just as we had control of the air over Germany and Japan at the end of the last war. I would like to see this country have an Air Force clearly superior to that of any other country. We should develop a new strategic concept of defense based on airpower and weapons to resist airpower.

There are two fundamental considerations we must face in any plan for our national security: Our defense must include an ability to retaliate so swiftly and forcefully that no nation or combination of nations will be tempted to provoke an attack. We must have the necessary forces to detect and smash any enemy forces, and their bases, should they attempt an attack on our cities and towns or industrial centers.

Surely, the most important elements of such a double-edged defense is a superior Air Force, equipped with the most modern types of military aircraft, superbly trained and backed up by research and scientific developments. I have said we should have an Air Force clearly superior to that of any other country. This does not mean superiority in numbers alone. It means superior equipment. Superior training. Superior technicians and specialists. Superior supply and sources of supply. And superior research. We must keep alive an aircraft industry turning out each year a sufficient number of the most modern planes so that a complete practical test of those planes shall be assured.

Among the personnel of the Air Force there ought to be broader knowledge of new scientific information and data, but we also must look outside of the military for scientific development. Research programs must be supported and encouraged. Education must be promoted and scholarships should be provided. New uses for atomic energy must be found and other fields must be explored. In our creative thinking we must be imaginative and bold.

We must encourage civil aviation, foster and facilitate the development of civil airports. We must keep the aircraft industry in good health so that constantly improved types of combat planes not only are on the drawing boards but also on production schedules. By helping to promote the growth of civilian aviation we shall be assured of skilled personnel in the plants and factories spending the major part of their time in competitive civilian production but engaged in building aircraft similar in many respects to the aircraft needed by the Air Force, especially in its transportation and supply. We shall probably have to underwrite some of this cost, but it seems to me that it is an economical insurance and is well within the bounds of what we can afford.

Compulsory military training is contrary to every American tradition. To take a boy from his home, his education, his chosen occupation and force him to serve for a year in peacetime under the direction of the Federal Government is the greatest limitation of individual freedom yet proposed. It violates every principle of liberal thought. It should only be carried through if absolutely necessary to the safety of our people.

An adequate defense through airpower not only is vitally necessary to insure the United States against a sudden surprise attack but it is the only means by which we can be assured of an effective national security in this age of survival. I believe this proposal is compatible with our established traditions of individual freedom and liberty. It will encourage our free concepts to progress, it will enchance our technical advancement. It will accomplish all that the advocates of UMT desire from a standpoint of national security and national defense-and more. It will provide a strong and effective force to maintain world peace.

CROSS COUNTRY

Air Force Day Now Sept. 18

Logically enough, Air Force Day will be observed this year and from now on, on September 18th—the date the USAF attained co-equal status in 1947 with the Army and Navy. As has been the case in the past two years, the Air Force has again designated the Air Force Association as the official sponsor of the day.

At present both USAF and AFA officials are in a huddle making plans for what already promises to be the biggest Air Force day of them all. As soon as these plans crystallize AFA squadrons which were so instrumental in last year's unprecedented success, will be advised by mail and through AIR FORCE magazine of the details,

New Race Course

A new quadrangular course within full view of the grandstands has been announced for the Goodyear Trophy Race for small aircraft at the National Air Races in Cleveland over the Labor Day week-end. The new course was laid out by a special committee consisting of representatives of the National Air Race Management, C.A.A., Goodyear Tire and Rubber Company and the Professional Race Pilots Association.

Legs on the long side of the course are laid out 4,400 feet long, while the two short legs will be 880 feet. Two mobile pylons will be placed outside the safety line 500 feet from the grandstands. This will place one end of the course and two turns directly in front of the spectators.

Interest in the race is higher than it was last year. In order to make the race handling easier, the run will be limited to 32 entries. Any surplus entries will be eliminated on the basis of the slowest qualifying time. Then eight planes will compete in four qualifying heats, the fastest four from each moving into two semi-finals, which will bring the field down to a final eight entries. The second fastest eight will compete for consolation prize money. Total purse will be \$25.000.

Meet Changes

Paul Schweitzer, vice president of the noted glider building firm, has revealed several important changes in procedure which will be adopted at the 15th running of the National Soaring Contest at Elmira, N.Y., June 30-July 11th.

In the 1948 meet, individual scores

Cover: Boeing XB-47 takes off, assisted by all 18 of its Jato units, at Moses Lake Air Force Base. This photo is regarded by some experts as the most spectacular single airplane picture taken since the close of war. It was taken by Vernon Manion, Boeing Airplane Company photographer, during the acceptance tests.

will be calculated on the basis of the contestant's five best days. This will eliminate the need for contestants going out every day in order to stay in the top bracket for prizes, which are given on the basis of total points scored. During last year's meet at Wichita Falls, Texas, contestants had to be in the air every day to stay in the top money class, which gave the pilots little or no opportunity to rest.

The scoring formula will also be simplified. All flights will be scored on distance achieved, instead of the distance/altitude/duration/speed formula previously used. The simplified system will permit announcement of results the same day the flights are completed.

Washington, D. C. belles eye the proposed new Air Force blue uniforms, as M/Sgts. Edward Ancas and Richard Dean display them in public for the first time.

The management of the meet expects the English and French soaring organizations to send contestants, as well as other foreign competitors. The American pilots plan a concentrated assault on the remaining ten world's glider records not held by the U.S. These include six records held by the USSR, three still retained by Germany from before the war, and one held by Spain.

Schweitzer also revealed that the French Government was currently financing a glider, designed to soar to over 40,000 feet altitude, using the so-called "standing waves" in order to reach the desired height. The glider will be equipped with a supercharged cabin. The object of the flights will be to study cosmic ray action.

Reserve and Guard

Commissions Available. Direct commissions in the United States Air Force Reserve are still available to non-commissioned officers of the first three grades, both in reserves and on active duty. All Air Force veterans of World War II who held the grade of Staff Sergeant or higher for a period of six months or longer are eligible for commissions subject to certain conditions.

Applicants for commissions must be between the ages of 21 and 28, citizens of the U.S. and high school graduates. A minimum Army General Classification score of 110 is also required. The applicant must have one of the top three grades for six months or longer, between December 7, 1941, and June 30, 1947. Warrant and Flight officers are also eligible for commission under these conditions.

Staff Sergeant Robert E. Renz of Dallas, Texas, was among the first EM commissioned under this program. Renz was one of the six enlisted men who served on the National Air Reserve Advisory Board.

Headquarters ADC points out that direct appointees can, under certain conditions, receive regular Air Force commissions, as about 1500 officers will be procured annually from sources outside the Military Academy. At present, competitive tours are being conducted. Successful reserves will be offered commissions. A similar or substitute program is being contemplated for the future expansion of the Air Force.

Sky Pilots Needed. The US Air Force still needs more ministers, priests and rabbis to pull its chaplain authoriza-



Col. John V. Hart of the Mitchell Air Reserve Training Detachment receives the USAF Flying Safety Award from Maj. Gen. Robert W. Webster, Commanding General of the First Air Force. This unit showed the best safety record for AT-6 outfits in the entire Air Force for the last quarter of 1947. 37% of all Air Force accidents were in these planes.



At a special Pentagon ceremony, General Carl Spaatz presents William Mitchell, Jr., center, a special medal of honor awarded posthumously to his father, Brig. Gen. "Billy" Mitchell, "in recognition of his outstanding pioneer service and foresight in the field of American Military Aviation." Mrs. Thomas Byrd, General Mitchell's widow, looks on.

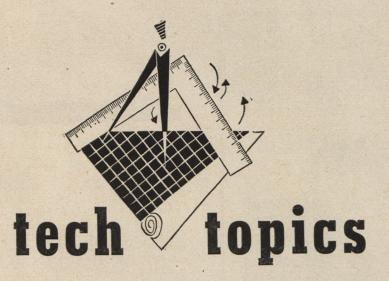


tion up to full strength. At year's end, the USAF had less than 350 chaplains to serve approximately 325,000 men in this country and the occupied areas. Officers appointed to the Chaplain's Reserve may submit applications requesting assignment with the USAF Reserve to the area Air Force commanders. Wartime chaplains under 45 who desire to re-enter the Chaplain Corps for USAF Reserve may secure complete information regarding active duty tours by writing the Chief of Staff, USAF, Washington 25, D.C. Att: The Air Chaplain.

ANG Bulletin. Approximately 80% of the fighter and bomber squadrons of the Air National Guard have been Federally recognized. Organization of New York's 138th Fighter Unit was completed with the recognition of its four component units, all located at Syracuse, N.Y. New York now has 17 of its 39 allotted units recognized by January 15th.

The Adjutant Generals of all states having Air National Guard units have been authorized to appoint aeronautical rating boards to examine applicants for rating of liaison pilot. These boards, according to the chief of the National Guard Bureau, Maj. Gen. Kenneth F. Kramer, were designed to make the task of former AAF pilots who wished to qualify for the National Guard's light aviation program, considerably easier. The State Boards, which will also conduct flight tests, will consist of members of the state Air National Guard. One member may be a qualified liaison pilot who is Federally recognized, on flying status, and assigned to an Army (ground) unit of the National Guard.

Former Navy and Marine pilots must appear before a USAF board prior to checking with the State Board. Nonflying applicants may quality for an 8-months course, 5½ of which is at the USAF Liaison Pilot School at San Marcos, Texas, followed by 2½ months of operational training at the Army Ground Forces Pilot School at Fort Sill, Okla. Ex-Army Ground Forces liaison pilots can be commissioned in the Guard simply by having their rating cards re-validated by the Chief of the National Guard Bureau and by meeting the requirements of Federal recognition. Successful applicants can be commissioned in grades from first lieutenant to lieutenant colonel according to table of organization vacancies.



Convertible glider-cargo plane, jet trainers, light twin-amphibians feature the month's progress

Glider-Cargo Plane

The Air Force will shortly have something radically new in its transport stable; an assault glider that can be converted into a powered cargo airplane in the field. This new plane announced by Chase Aircraft Corp. of Trenton, N. J., is an evolutionary development of the XCG-18A, an all-metal 32-place non-expendable combat glider. The new design will make it possible to install two-unit nacelles, each containing a Pratt & Whitney R-2000 engine, propeller and tank, to be attached to the undersurface of the wing. This change can be effected merely by fastening the power-egg to the wing by four attachment points, and hitching up the control and instrument lines.

This alterable airframe introduces a totally new idea in military air lift-a basic airframe that can be used either as an assault glider, a glider tug or a front-line transport. The non-powered version, the XCG-18A or Avitruk, was unveiled early this year. At that time, the Air Force revealed that these gliders, designed to drop personnel and light equipment at the battlefront, were no longer considered expendable as they had been during the war. They were to be built of standard airframe materials. They were to be picked up and re-used after discharging cargo and men, the same as powered aircraft. The Avitruk was the first post-war troopcargo glider built in line with this new

The XCG-18A was built to be towed by either a standard twin-engined transport of the C-46 -47 class, or by a light bomber like an A-26. It has a wingspan of 86 feet 4 inches and an overall length of 53 feet 5 inches. It has a gross weight of 15,500 lbs, 8000 of which is

The fuselage is built with a rectangular section for maximum stowage. Its general configuration is extremely util-

itarian, the fuselage continuing rearward in its general rectangular section for about two thirds of its length. Then the lower surface of the body cants up sharply to allow for the placement of an angular, retractable ramp. Above the ramp, the fuselage continues in a boomlike extension which supports the tail. The interior of the cabin measures 24 feet 2 inches by 7 feet 5 inches wide by 6 feet 6 inches high. It can carry a six-by-six truck or a 105 mm battery.

This material can be moved in by means of a hydraulically operated ramp. This system permits loading and unloading of personnel and equipment within seconds after the ship stops rolling.

The Avitruk basic airframe is built directly for the purposes of front-line operation. The fuselage is built up of a

welded steel tubing frame of unusually rugged construction, covered with a non-stressed aluminum alloy skin. This skin is .020 inches thick, and is riveted to six inch interval stringers, which are fastened to the tube frame.

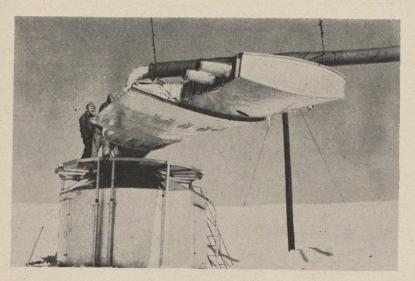
The wing is of conventional all metal structure, stamped ribs, main and rear spar. Simple slotted flaps are used quite effectively. The builders of the Avitruk attribute its high performance mainly to a new family of wing curves, designed by Michael Stroukoff, President of Chase. Stroukoff was originally an architect who got into aviation through the design of airports. When the industry began asking for longer and stronger runways to accommodate bigger and heavier planes, Stroukoff wondered why people didn't put money into better aerodynamics rather than into concrete. He began toying with wing sections, and over a period of years, evolved his cwn type of high-peformance curves, not unlike the NACA 23,000 series. The major difference between the NACA group and the MS family, as the Stroukoff group is called, appears to be in the shape of the first third of the lower surface. In his wing, Stroukoff uses the MS series right to the wingtip and in the elevators as well.

The performance imparted by this wing curve was demonstrated during early test flights of the XCG-18A. Towed to 6000 feet by a C-46, it remained aloft for 52 minutes once it was released. On another occasion, the Avituk caught a thermal and soared 1400 feet up, a climb usually reserved for sailplanes.

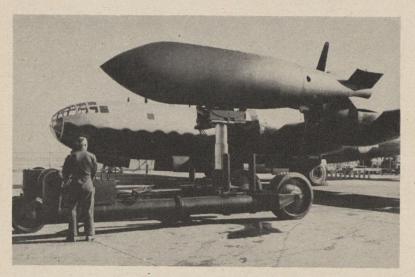
Alterations to make the designed powerable consisted only of beefing up the landing gear and lengthening the fuselage. The main landing gear legs remain fixed, while the steerable twintired nosewheel is left fully retractable to permit shortened landings under emergency conditions. The fully-con-



See New Amphib. The Aqua-1 six-place amphibian, powered by two 125 hp Lycoming engines. In a recent shakedown flight, the new craft indicated a cruising speed of 130 mph at 75% of power. Newest NACA non-porpoising hull-shape is featured.



Giant Lifter. A new type of combination bomb-cradle and lift raises the 42,000 pound bomb for placement into the B-29's bomb bay. This new ordnance tool was designed and built by Boeing-Wichita to facilitate the handling of these largest of air-carried missiles. Formerly an 8-man task, the new elevator-jack permits a single man to handle the job.



Close-up. The whirling rig built by the Thermal Power System Division of General Electric Co. at Schenectady, used for testing jet units for helicopters. The jet units are installed in the end of the arm at the trailing edge and rotated at high speed. This is part of the Air Force program to develop successful jet and ram-jet propelled helicopters.

vertible version will, of course, have power-plane instrumentation as well as the glider panel.

Preliminary performance estimates for the powered Avitruk showed a cruising speed of 189 mph, 220 top. Range with maximum load is graphed at 850 miles. The ship is supposed to be able to take off over a 50 foot obstacle in 852 feet, and land over the same hurdle in 522 feet. Rate of climb is forecast at 1550 feet per minute. While these estimates are arrived at by conventional mathematical means, performance by the glider version of the Avitruk support the accuracy of the claims,

The removable-power idea is destined to get an even stiffer workout in a new and larger Chase now in mock-up stage, Designated as the XC-123, the new job is a scaled-up Avitruk. Its span will be 110 feet, It will be powered by two R-2800 engines rated at 2000 hp.

The large craft is designed as a sec-

ond wave transport, capable of setting down on semi-prepared airstrips. For that reason, conventional semi-monocoque structure is used in the fuselage. While the same angle-ramp arrangement is used in the XC-123, the larger surfaces involved allow better streamlining of the fuselage. This craft will have a cargo capacity of 15,600 lbs. Top speed is estimated at 250 mph, cruising, 190. In this design, all three main landing legs are to be retractable.

Jet Trainer

A radical new step in the training of fighter pilots has come to light in the recent unveiling of the TF-80C, a two-place trainer version of the famed Lockheed Shooting Star. According to Lockheed, future fighter pilots will probably move directly from basic trainers to these tactical-class aircraft, thus eliminating one whole step of the procedure: operational training in conventional fighter aircraft.

The new craft is essentially the same as the P-80B with certain detail differences. The fuselage is 38 inches longer and a two-place cockpit with its accompanying seven-foot bubble canopy has been installed. The refrigeration system has been enlarged to accommodate the increased cooling load. Mechanical interconnection is provided for dual controls, but an electric cut-out system is furnished to allow the instructor to inactivate such critical items as the student's flaps, dive brakes, ailerons and elevator tabs.

The TF-80C is ordinarily equipped with two 50 caliber guns. Four more can be added to bring the firepower up to par with a conventional P-80. The ship can also be rigged to carry rocket launchers or with gear to tow sleeve targets for jet fighter gunnery practice. The prototype TF-80C is a production B model, modified. However, the rest of the trainers ordered by the Air Force will be built on a special production line.

Latching Switch

A novel latching switch for electrical and mechanical pressure discharges or excessive pressures has been introduced by the Consolidated Vultee Corporation. It was invented by L. J. Bordelon, Convair's chief flight engineer, for use in the Convair-Liner's fire extinguishing system.

The switch is so rigged that once any of the automatic CO2 fire extinguishing systems is tripped, a light is displayed on the pilot's instrument panel. By this means, the pilot can tell whether or not his extinguishers are charged and operable before taking off. This system eliminates the need for removing and weighing the CO2 cylinders, the only safe way previously known for determining their internal state.

New Amphib

A shakedown flight on the Aqua-1 twin-engined six-place amphibian was



continued

completed recently when Meredith Ward, designer and builder of the craft, flew it from Essington, Pa., to Miami, Fla., and return in easy stages. The Aqua-1 was built to satisfy a market requirement for a low-cost twin-engined amphibian that would combine ease of operation with rugged structure, slow landing speed, twin-engined safety and amphibious utility.

The Aqua-1 is a twin-engined full-cantilever high-wing monoplane, powered by two 125 hp Lycoming engines. It has a wingspan of 36 feet 5 inches, is 29 feet 6 inches long. It has a hull width of 50.5 inches.

The wing is of simplified metal construction, having only seven ribs per panel. Wings are conventional dural I-beam. The hull is likewise, a simple metal frame. The upper and aft portions are metal, while the bottom and nose are plastic bonded plywood. Provisions are made for a retractable tricycle landing gear. The rear two wheels fold into the underside of the stub seawings, while the nose-wheel retracts into the forward section of the hull.

The Aqua is reported to have shown a cruising speed of 125-130 mph at sea level at 75% power and a fully-loaded landing speed of 50 mph. Water takeoff, fully loaded, was clocked at 18 seconds. The ship's gross weight is 3600 lbs. Useful load is 1400 lbs. Special features include 38 square feet of plexiglas windshield for high visibility, 192 cubic feet of unobstructed cabin space, a minimum-spray non-porposing NACA hull and rough-water sea wings.

Landing gear, brakes and flaps are electro-hydraulically operated. Electric booster standby pumps and cross feed lines are furnished for maximum fuel system reliability. Designer - builder Wardle anticipates a market price of between \$15,000 and \$18,000 for his plane.

Civil GCA

The first GCA radar landing system equipment designed exclusively for civil airport use will be installed at eight major airports in the US during the next 24 months. A contract for the development and production of this equipment has been awarded to Gilfillan Bros. Inc. of Los Angeles, Calif., by the CAA. The first installation will be made at Los Angeles Municipal Airport, while succeeding units are scheduled for Cleveland, Atlanta, St. Louis

and Boston. New type units will also be installed at New York, Washington and Chicago, replacing the wartime equipment now operating there.

The new equipment will contain all the improvements found practical in the last six years of GCA development. An electonic picture of traffic conditions within 30 miles of the station will be displayed on two 12-inch scopes. Other improvements will include MTI or moving target indicator, which will eliminate ground clutter and show only moving planes. The instrument will have

increased search coverage, showing planes up to 10,000 feet in altitude and 35 miles range.

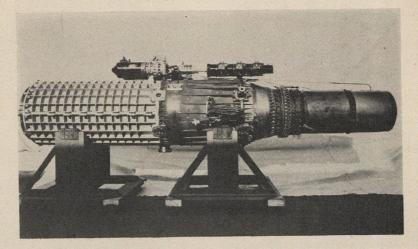
Of special interest is the Azel threedimensional scope, which presents complete information of aircraft's altitude, range and azimuth. These improvements in GCA have been developed by Gilfillan since the war under Air Force and Navy contracts.

Mamba Turboprop

The more spectacular phases of British gas turbine development may be the



Pack-plane. Artist's conception of the new Fairchild XC-120, which will allow pod-like lower nacelle to be detached from the cockpit and center section. These pods have the capacity of 2900 cubic feet and can be constructed to serve a variety of uses; cargo, ambulance or complete operational units. Performance will be similar to the C-119.



A contract to expedite the development of the XJ-37 has been awarded to Wright Aeronautical by Air Force. This unit which produces 5000 pounds of static thrust, is supposed to have a very low specific fuel consumption. Its design originated with Lockheed, but the prototype was built by Menasco. Tests will take place at Woodridge, New Jersey.



Weld Inspection

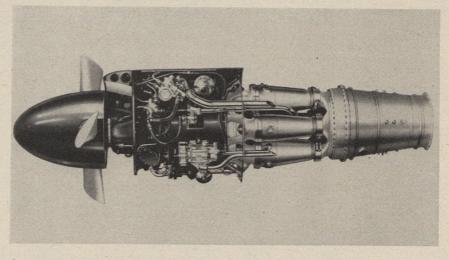
Welds in ferrous and light metals can be inspected for lack of bond, and inclusions or voids by means of a newly developed testing technique employing high-frequency sound waves generated by a Supersonic Reflectoscope. The new development, known as angle beam transmission, makes possible the entrance of a sound beam into the welded part at an angle. A searching unit, whose primary unit element is a quartz crystal, can be placed on the smooth parent metal adjacent to the weld, or even some distance from it. The energy travels by successive reflections between the surfaces of the materials until an interface is reached. The weld itself does not constitute a reflecting interface, so that any voids or inclusions in the weld will reflect part of the sound beam back to the searching unit, where it is amplified to provide a vertical deflection on the horizontal trace of an oscilloscope screen. A time-marking system allows accurate calibration to

giant straight jets in the 5000 lb static thrust class, but engineers interested in commercial applications are inspecting with interest one of the smallest of these units ever attempted. This is the Armstrong-Siddeley Mamba, a gas turbine propeller engine, whose existence was first revealed in the late summer of 1946, and whose dimensions and power output made it unique in its particular class.

The Mamba is essentially a ten-stage axial-type gas turbine, equipped with a two-stage double-disc turbine and six combustion chambers. The manufacturers appear to have done spectacularly well with the task of developing a lightweight gearing system which reduces the 14,000 rpm shaft output to 1400 rpm, usable by the conventional propeller. This reduction was effected without increasing the exceedingly small frontal diameter of 27½ inches on the bare engine and just under 30 inches fully cowled.

The Mamba weighs only 760 lbs, and produces 1100 hp which makes it the most powerful engine for its size in the world. It has been tested not only on the block, but in the air as well. An Avro Lancaster was modified to carry the Mamba in the nose in addition to the four conventional engines. In this rig, it revealed a general performance comparable to conventional types in such matters as acceleration, etc. The unit recently completed is 150-hour service tests for the Air Ministry, having run 75 hours at maximum cruising speed, 45 hours at speeds within cruising range, 10 hours at maximum takeoff speed (15000 rpm) 10 hours at maximum climb, (14500 rpm) and 10 hours at idling speeds. In addition, the engine did about 15 minutes at maximum output, 15450 rpm or 3% over take-off maximum.

The Mamba consumes 102 gallons of



See Mamba Turboprop. Cutaway of the British Armstrong-Siddeley Mamba, a 1100 hp propeller gas turbine. Its diameter is 27 inches, it weighs but 750 lbs.

fuel per hour at maximum take-off and 89.5 gallons per hour at maximum cruising speed.

Several aircraft are being designed or redesigned to carry the new engine. One of these is the 18-place Miles Marathon light airliner. It is now powered by four 330 hp deHaviland Gypsv engines, and will be modified to carry two Mambas. The Armstrong-Whitworth Apollo and the Vickers Viceroy, both 24-32 place medium-range transports, are both to be Mamba powered. In addition the Mamba is going into immediate use in some of the new Avro Athena type RAF trainers. While most of these new ships will be powered by Rolls-Royce Merlin 35 conventional engines, enough will be equipped with Mambas to yield practical comparative data on performance and operating cost.

determine the distance of the flaw from the searching unit. Thus it is possible to distinguish between a defect in the plate and one actually in the welded area.

The Supersonic Reflectoscope can locate smaller defects at a depth greater than x-rays or any other non-destructive testing equipment, according to the manufacturer of the device, Sperry Products, Inc., of Hoboken, N.J.

SFI Adopted

Dr. Leonard Greene, noted aerodynamicist and inventor of the Safe Flight stall warning indicator has announced that his 11-ounce instrument that sounds a horn and lights a red light when a stall is imminent has been made standard equipment on the 1948 Stinson and the Convairliner.



CHICAGO GROUP-With the formation of 24 new AFA squadrons underway in the Chicago area, the newly-organized Chicago Group of the Illinois Wing can boast the largest single coordinated squadron activity in the history of the Air Force Association.

The Chicago Group, composed of squadron representatives in the Windy City, has formed its new squadrons in systematic fashion to cover specific geographical areas in the city and its outskirts. Air Force veterans living in Chicago are asked to contact the Squadron Commanders heading up the AFA activity in their areas. Also, "contact personnel" of the Group are available to furnish all necessary information and to coordinate the entire effort.

Sparkplugging the drive is Joseph A. Moller, who serves as Commander of the Chicago Group. He has furnished the following list of squadron contacts, with this explanation:

"All present or eligible AFA members who are not actively affiliated with a Chicago AFA squadron will please check the area description given under each squadron number in the following list. If your address is within a squadron area, please call or write the Squadron Commander at the address and phone number listed for information regarding his next meeting. If you live at an address which is not in any given squadron area as listed below, phone, or preferably, write one of the Chicago Group Contact Personnel for information. All of the squadrons in the fol-lowing list are not fully activated though 75% of them have had at least one or more meetings. In case of any difficulty, do not fail to contact the Chicago Group Contact Personnel.'

CHICAGO GROUP CONTACT PERSONNEL

Joseph A. Moller 35 E. Wacker Drive Chicago, Illinois State 2100

Jay J. G. Schatz 410 S. Wells Chicago, Illinois Webster 7965

C. F. Place 800 W. Division St. Chicago, Illinois Michigan 4300

CHICAGO SQUADRON CONTACT PERSONNEL

SQUADRON NO. 11 Loop Airline Personnel A. H. MCKAY, COMMANDER

925 W. Montrose Chicago, Illinois Bittersweet 7700

Business Trans World Airline 37 S. Wabash Dearborn 7600

SQUADRON NO. 13 The Pure Oil Company Personnel

A. B. LEACH, COMMANDER

Home 5000 Marine Drive Chicago, Illinois Sunnyside 10418

Business The Pure Oil Co. 35 E. Wacker Dr. Chicago, Illinois State 2100

SQUADRON NO. 21

Area bounded by 67th Street on North, 79th Street on South, State Street on West, Lake on East

JOHN A. WATERS, COMMANDER

7115 S. Cornell Chicago, Illinois Fairfax 2126

Business Dwork & Epton
77 W. Wasnington
Randolph 9515

SQUADRON NO. 22

Area bounded by Canal on North, Ridge Road and 175th on South, Cicero on West, Indiana on East

JOHN IVO, COMMANDER

Home 6 W. 112th Street Chicago, Illinois No home phone

Business Whiting Corp. 157th & Lathrop Harvey, Illinois Interocean 9400

SQUADRON NO. 23

Area bounded by 47th Street on North, 67th, Street on South, Halsted Street on West, Lake on East CHARLES ALEXANDER, COMMANDER

Business telephone 1655 E. 55th Street Andover 3828 Chicago 15, Illinois Midway 2353

SQUADRON NO. 24
Area bounded by 47th Street on North,
Halsted on East to 67th Street, State Street on East to 79th Street on South, Western Avenue on West LLOYD G. NORRIS, COMMANDER

Home Hotel Halwood 740 W. Englewood Chicago, Illinois Englewood 6786

SQUADRON NO. 30 Area bounded by 95th Street on North, Canal on South, Cicero on West, Ashland on East RICHARD L. KANNALY, JR., COMMANDER

Home 11017 S. Campbell Chicago 43, Illinois Hilltop 2458

Rusiness Juergens & Anderson 55 E. Washington State 7240

SQUADRON NO. 40 Evanston, Illinois NORMAN ROSS, COMMANDER

Home 617 Davis Street Evanston, Illinois University 9400

SQUADRON NO. 41 Area bounded by Montrose on North, Fullerton on South, Harlem on West, the Lake on East BURT ARLOTT, COMMANDER

Home 4036 N. Paulina Chicago, Illinois Buckingham 9056 Business 3956 W. Diversey Avenue 7800

SQUADRON NO. 42
Area bounded by Diversey on North,
North Avenue on South, Ashland Avenue on West, Lake on East

HAROLD J. MCKINLEY, COMMANDER

Home 444 W. St. James Chicago, Illniois Diversey 1100

Business Eastman Kodak Co. State 8130 133 N. Wabash

SQUADRON NO. 43
Area bounded by North Avenue on North, the River on South, North Branch Canal on West, the Lake on East HOWARD A. MOSES, COMMANDER

Home Business Drake Hotel c/o Mesirow 135 S. LaSalle Financial 0547 Chicago, Illinois

SQUADRON NO. 46
Area bounded by Howard Street on
North, Wilson Avenue on South, Ashland
Avenue on West, the Lake on East L. R. WILLIAMS, COMMANDER

Home 6001 N. Winthrop 35 E. Wacker Drive Chicago 40, Illinois Chicago, Illinois Ardmore 7526 State 2100, Ex 412

SQUADRON NO. 50
Area bounded by Prairie Avenue on North, County Line on South, Skokie on West, Lake on East (Highland Park, Illinois) DONALD MCKELLAR, COMMANDER

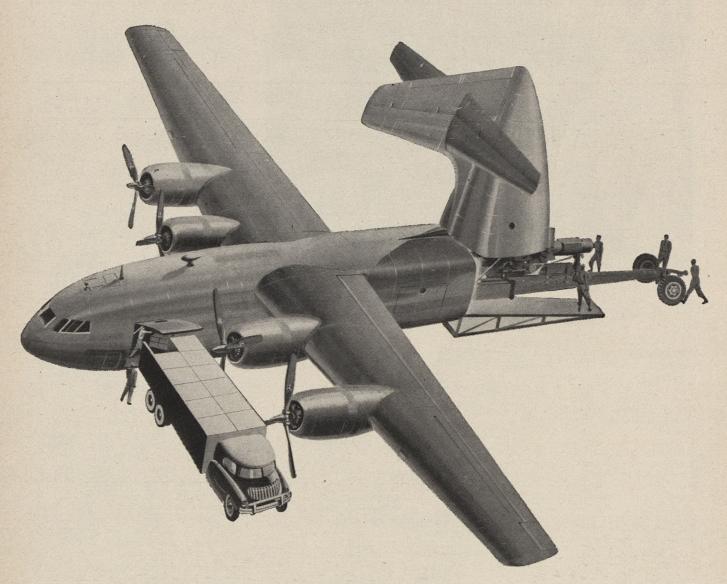
Home 1298 N. Waukegan Lake Forest, Ill. Lake Forest 1992

SQUADRON NO. 51 Waukegan, Illinois—Area bounded by 22nd Street, on South, Wadsworth Road on North, Wukegan Road on West, Lake on East EDWARD B. BATES, COMMANDER

Business 1318 Chestnut St. Connecticut Mutual Waukegan, Illinois 208 S. LaSalle Street Ontario 6063—eves. Randolph 6430 (Continued on page 36)

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In Memoriam, Commander of the Billy Mitchell Squadron of AFA, Herbert Perkey commemorates the 12th anniversary of the death of the martyred prophet of air power by laying a wreath on General William Mitchell's grave at Milwaukee, Wis.

SQUADRON NO. 60

Municipal Airport Airline Personnel KENNETH E. SWANSON, COMMANDER

Home 4584 W. Chicago Chicago 51, Illinois Mansfield 0116

Business United Airlines 5959 S. Cicero Portsmouth 3300

SQUADRON NO. 61

Area bounded by Cermak Road on North, Joliet Road on South, Wolf Road on West, Harlem on East RALPH HOSMAN, SQADRON LEADER

4022 Lawn Avenue Western Springs West. Spngs. 318

Business 7947 Ogden Avenue Lyons, Illinois Lyons 6965

or

A. R. MEYER, SQUADRON COMMANDER

Home 2943 N. Lincoln Business Hotpoint 5600 W. Taylor Chicago, Illinois Mansfield 2000 N. Riverdale, Ill. Riverside 5611J

SQUADRON NO. 62
Area bounded by North Avenue on North, Cermak to Harlem and Roosevelt

on South-East of Harlem, First Avenue on West Austin on East (Oak Park and River Forest, Illinois) W. J. KIRBY, COMMANDER

Home 1039 S. Oak Park Oak Park, Illinois Rusiness 5600 W. Taylor Chicago, Illinois Mansfield 2000

SQUADRON NO. 63

Area bounded by Roosevelt on North, Canal on South, Harlem on West, Pulaski on East (Cicero and Berwyn) STANLEY STACHNIK, COMMANDER

Home 3309 S. 61st Court Rockewell 0880 Cicero, Illinois Townhall 2289J

Business Phone

SQUADRON NO. 64 Area bounded by Canal on North, 65th Street on South, Archer Avenue on West, Pulaski on East DONALD L. WARREN, COMMANDER

6116 S. Major Chicago, Illinois Portsmouth 8678

133 N. Wabash Chicago, Illinois State 8130 SOUADRON NO. 65

Municipal Airport National Guard Personnel

COL. WILSON V. NEWHALL, COMMANDER

Business 5400 W. 63rd Street Portsmouth 9262

SQUADRON NO. 66

Orchard Place National Guard Personnel LT. COL. LEON DELIGHTER, COMMANDER

Home 16 N. Parkside Chicago 44, Illinois Austin 2807

Business Hdq. 66th Fighter Wing Orchard Place Airport Park Ridge, Illinois Avenue 2000

SQUADRON NO. 70

Orchard Place Air Reserve Personnel HARRY YOUNG, COMMANDER

7555 South Shore Chicago 49, Illinois Regent 0782

Business Orchard Airport Park Ridge, Illinois Avenue 2000

SQUADRON NO. 80 Area bounded by Chicago Avenue on North, Ridge Road on South, Illinois-Indiana line on West, Colfax Road on East (Indiana) PAUL MARSHALL, JR., COMMANDER

5518 Claude Ave. Hammond, Indiana Sheffield 3566

Business Phone Franklin 0500

SQUADRON NO. 101 C-54 Personnel W. P. BUNNELL, COMMANDER

Home Box 126 Fox River Grove

Business 2210 Wabansia Chicago, Illinois Humboldt 3000

CALIFORNIA

The San Francisco Squadron, during its April 7th meeting, completed plans for a theater party on May 15th. Other plans for the summer season include a squadron dance on June 19th, the summer picnic on July 28th, a moonlight cruise on August 21 and Air Force Observance Day on September 18th.

The East Bay Squadron convened at Berkeley Veterans Memorial Building to listen to a noted guest, William C. Twitchell, research engineer of the U. of Calif. Radiation Laboratory, who discussed "Atomic Energy and Atomic Weapons." The same meeting culminated the squadron's Fund Raising Campaign, which was implimented by a benefit drawing. The first prize was a man's wrist watch. At this meeting a committee on local airmarking was formed. Several sites in the East Bay area have been selected.

Organization of the Richmond Squadron has been completed; a pro-tem set of officers have been elected for three months, at which time regular elections will be held. The new officers are: John E. Poast, commander; T. S. Simpson, vice-commander; Ettie J. B. Mc-Cash, secretary, and Edward A. Sergeant, treasurer. At the time of its or-

(Continued on page 38)



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Paul Long (left), radio announcer for station KDKA, Pittsburgh, interviews Chandler Ketchum, Commander of the Greater Pittsburgh Squadron of the Air Force Association. Long is also an air force veteran and a member of the Greater Pittsburgh Squadron.

ganization meeting, the squadron examined the possibility of establishing a local airport. All former Air Force personnel interested in joining the Richmond (Cal.) Squadron can do so by contacting J. E. Poast at 926 31st Street, Richmond, Calif.

CONNECTICUT

The New aven Squadron of AFA elected a new slate of officers to serve for the ensuing year. John J. MacAuley, Jr., was elected commander, Samuel M. Gordon, vice-commander, William H. Johnson, secretary, and Gilbert Osborne, treasurer. MacAuley served as vice-commander last year. Johnson was reelected as secretary.

GEORGIA

Following the official receipt of its charter, the Augusta, Ga., Squadron of AFA announced the election of the following slate of officers; W. E. Shipman, commander, A. O. Combs, vicecommander, W. M. Jones, Jr., secretary, and Barney L. Jordan, treasurer.

MARYLAND

The Baltimore squadron has again taken up the gage against the sinister forces at work trying to convert the Pimlico Airport into a harness racing track. The Squadron has started a campaign in Baltimore to prevent the conversion of this link in our airportdefense system into a part-time track

for sulky racing. The airmen are being joined by other patriotic civic groups who see the dangers involved in "putting horse racing above national security."

MASSACHUSETTS

The Worcester Squadron No. 1 will play host to AFA members from the New England area during the first regional convention in the Northeast, scheduled for Memorial Day, May 31.

Convention headquarters will be the Sheraton Hotel, Worcester. Registration will take place from 9 A.M. to noon. Major General Robert M. Webster, commanding General of the First Air Force will be the principal speaker at the convention luncheon. This will be followed by a regional policy meeting, while a Fashion Show and tea will be run at the same time of the visiting ladies. From 3:30 to 5 p.m. Air Force reunions, individually operated for all numbered air forces, will occur. A banquet, followed by a dance will conclude the day's festivities.

Reservations for the convention can be made by mailing the coupon appearing on page 47.

NEW YORK

The Bronx Squadron of AFA held its first regular election, following its initial year of operation. James V. Falabella was elected to serve as commander. The other officers are: Stephen M. Donnelly, vice-commander, Miss Josephine M. Walz, secretary, and Michael Lome, treasurer. The Squadron Council will consist of Erwin M. Gilbert, Saul B. Schier, Walter Peiper, Jr., Hyman Corn, Bernard Rosenfield, Charles Flato and Waino Patari.

Commander Bill Roach of the Show Business Squadron announced that while the squadron was less than two months old, it had already more than doubled its membership. The increase in personnel prompted an expansion of the Council; Warren Cheney, Tom Dillon and Edward LeVanda being the new members. Vice Commander Ezra Stone came up with a name for the monthly Show Biz news sheet. The first issue of the newsletter was a five page affair entitled "In The Wings."

NORTH CAROLINA

The first annual convention of the North Carolina wing was held at Dur-ham, N.C., on April 17th. Walter P. Budd was elected wing commander, replacing Ben R. Rudisill.

PENNSYLVANIA

Delegates representing all AFA squadrons in the Keystone State met at Harrisburg for their first annual convention, to elect new officers and outline the wing's program for the following year. Joseph B. Whittaker was reelected wing commander. The delegates heard Pennsylvania's Governor Duff call upon all Air Force veterans to continue their efforts to obtain adequate air defense for the nation.

The principal speaker at the convention dinner was Carl Norcross, chief editor of the Finletter Report, who outlined the method of investigation used by members of the President's Air Policy Commission.

The Beckley, West Virginia, Squadron of AFA celebrated its first anniversary with a "birthday" party on April 8th. More than 200 members and guest attended. One of the oldest chartered squadrons in AFA, the Beckley group is now the recognized spokesman for aviation in its community, and appears to be registering a definite influence on the state's aeronautical program.

WISCONSIN
Wisconsin Wing Commander L. A. (Duke) Larson announced the formation of two new squadrons in the state, the Billy Mitchell Squadron in Milwaukee and the Appleton (Wis.) squadron. Larson recently turned over a charter to the Milwaukee group, named in honor of the martyred prophet of air power at a simple, impressive ceremony.

The Mitchell Squadron's newly elected officers are Herbert Pirkey, commander, Matthew A. Fredrich, vicecommander, Donald Kirk, treasurer, and Florence Fintak, secretary. Members of the board are Norman Feller, Joseph Leveillee, John E. Curtiss, Arthur Erdman, Louis Chapman and Harold Al-

A NAVY AIRMAN SPEAKS OUT

(Continued from page 13)

basis that the ship's officers are so busily engaged in their shipboard duties of navigation, administration, et cetera, that they simply haven't time to be competent aviators as well. Unfortunately, that is the truth; they haven't time for both.

Even those naval airmen who would prefer sincerely to remain engaged in active air operations cannot avoid transfer of their attention to shipboard affairs and to the seamen's professional problems at such an early stage in their careers that aviation development is bound to suffer. No matter how much a naval aviator may wish to continue active participation in the field of aviation, he must become a professionally competent seaman and qualify as commanding officer of a capital ship if he is to stand any chance of reaching top rank in the Navy. To become a capable seaman an officer must, obviously, devote his time, energies and mind to the problems of ships and of the sea instead of to those of aircraft and of the air. In consequence, we find that not only those senior naval aviators who have had but little total flight experience, but also those who have had a very considerable amount of it inevitably become so engrossed in nautical affairs that they become unaware of developing trends in aeronautical affairs and even unaware of the true performance of the air operations nominally under their own command. They have become so absorbed in the problems of their ship's navigation and administration and maneuvering and so fully occupied in dealing with their shipboard Heads of Departments and other shipboard officers, all of whom are engaged in the thousand-and-one details and decisions that must go into the successful operation of ships, that they have practically excluded from their minds and often wholly lost sight of the punch line of the whole performance-the operation of the ship's airplanes after they have left their float-ing landing field and taken to their own element, the air.

Without that singleness of purpose which would be inherent in a Department of Government devoted to the problems of military aviation, it is not probable that the Navy, with its integral naval aeronautical organization, can continue in a place near the forefront of war's most rapidly developing field of progress—airpower.

The need for cooperation between "naval" aviation and the surface Navy is often cited by naval officers as justification for retention of the present system of integral control of over-ocean airpower by the Navy; the excellent past cooperation of naval aviation with the surface Navy vs. the "poor" cooperation of the Army Air Forces is often remarked. The need for inte-

(Continued on page 43)





Low Level Raiders Again Flying High

It is the second of the second

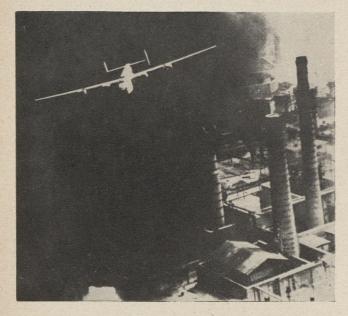
The 98th BG, which mangled Ploesti, now flies peaceful skies above Spokane

In April of 1945, the 98th Bomb Group flew its 416th and last mission in support of the Po Valley offensive in northern Italy. As a farewell gesture to the Germans, the 98th's last wartime Commander, Col. Salvatore E. Manzo, ordered every plane the unit possessed into the effort. "War-wearies" were gently hoisted off their crutches and pulled into line, and even a lone training plane was put into the formation. To let the krauts know that it was a total effort the boys even took along a kitchen sink and dropped it.

Such was the spirit of the 98th—the manglers of Ploesti, and the maulers of all of northern Italy and southern Germany. It could look back from that final mission over a trail of triumph that extended from El Alemain to Tripoli—from Greece to Sicily and from Naples to Nurenberg. And always there was Ploesti. On thirteen separate occasions the 98th had flown to and from Ploesti's oil refineries.

In all of Italy it would have been tough to find a group that turned in a finer record than the 98th—a record that ended with the dropping of a kitchen sink.

Now, however, the glory has returned. Last June the 98th was reactivated under the 15th Air Force and stationed at Spokane. At first it was a paper air force, but in September of last year, orders were given to bring it up to full strength. Today the 98th is once again operational. Recently, to prove this point, it participated in a mass flight with other elements of the 15th. At the head of the group was the same man who had led it in its last flight against the enemy—Colonel. Salvatore, specially detailed for the job. Someone topside knew the Air Force is sentimental.



One of the most widely publicized pictures of the air war, a B-24 of the 98th Bomb Group emerging from the smoke above Ploesti's oil refineries. This was first of thirteen raids.



Back from a bombing mission, B-29 crews of the 98th Bomb Group are interrogated by Intelligence Officer Lt. John Williams at the Spokane Air Force Base. Ex-CO's pictures are in the background.



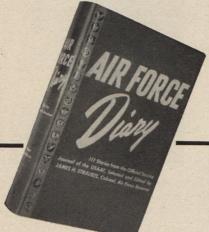
Aircraft Commander Lt. Sam. H. Smith checks his B-29 crew as part of the re-activated 98th Bomb Group takes off on a navigational training mission, putting the Force for Freedom back in the air.



In Africa, the plumbing facilities were a bit crude, and somewhat short on privacy. Here a member of the 98th lends a helping hand to a British airman on a Saturday mission.

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New York Times: "The impact of this book is terrific."
Cleveland News: "Unquestionably the best of the books
about the recent global air war."

Philadelphia Inquirer: "AAF veterans will love this book."

Dook.

Tulsa World: "Every line of it carries the stamp of authenticity."

Indianapolis Star: "Each page breathes with real, live unvarnished realism."

Chicago Sun: "Here at last is the Air Force as seen by the Air Force."

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PLANE BONERS

Analyzed by Veteran Pilots

After a night landing, a C-47 followed a jeep into parking position. The pilot saw a fuel truck approaching slowly from the left and he assumed the truck would stop. However, the truck driver did not see the plane and the vehicle collided with the left wingtip. The plane was being taxied without landing lights and the headlights of the truck were not burning.

Comment: Here was a perfect setting for an accident that might have had disastrous results. The pilot proceeded on the basis of his "assumption," and the truck driver drove blindly into the plane's path. All personnel, both ground and air, must be indoctrinated with the importance of safe operating procedures and imbued with a sense of safety consciousness if accidents like this are to be avoided.

A P-51 pilot saw another Mustang ahead as he taxied toward a parking area. When the pilot lost sight of the lead plane he made a right turn. As he completed the turn, he saw the other P-51 directly ahead and applied brakes abruptly. His plane nosed up and received major damage.

Comment: Although the pilot's heavy foot on the brakes was the direct cause of this accident, his original mistake was in not keeping the lead plane in view at all times when taxiing in close quarters. He should have remembered that the easiest object to strike is one you can't see.

Following a GCA approach in poor weather, a B-29 was landed half-way down a 7000-ft runway. The pilot was unable to stop the plane and it ran off the runway onto a muddy overrun area. He applied power to the right engines in an attempt to turn around and taxi back onto the runway, but the nosewheel struck a concrete ledge. The nosewheel collapsed and the plane suffered major damage.

Comment: The pilot's decision to complete such a long landing was tempered by the existence of extremely poor weather. However, there was no reason to attempt the taxiing operation after the plane rolled into deep mud. In this and similar circumstances, the best procedure is to cut the engines and call for a tug. A few minutes' delay often precludes an expensive accident.

An AT-11 pilot was performing the pre-takeoff check and running up the engines with an 11-mph wind from the right rear. When the tachometer reached 1500 rpm, the tail rose. The pilot looked up from his instruments, realized what was happening, and reduced power, but it was too late to prevent the propellers from striking the runway and receiving minor damage.

Comment: This accident was the result of a complaint that has plagued pilots since airplanes were first equipped with enclosed cockpits. Some pilots become so engrossed in the instruments that they forget what is happening outside their own little orbit. To stay out of embarrassing situations, all pilots must remember that manipulations of controls affect the airplane as a whole as well as the instruments. Don't get caught with your head down.

PREPARED BY THE FLYING SAFETY DIVISION, FIELD OFFICE OF THE AIR INSPECTOR, LANGLEY FIELD, VA.

A NAVY AIRMAN SPEAKS OUT

(Continued from page 39)

grated air/surface operations in antisubmarine warfare and in amphibious action is stressed; the prediction is made that a national Air Force or a specialized autonomous Naval Air Corps would not cooperate with the surface Navy in accomplishment of these important phases of fighting.

The "cooperation" of the naval aero-

nautical organization with the surface Navy has never been true cooperation; it has been obedience, pure and simple. Without specialized corps status, with no autonomy whatsoever, the naval aeronautical organization has never had opportunity to cooperate; it simply has obeyed the Navy high command. The command relationship has been resolved by the Navy, insofar as possible, into the ancient and traditional seafaring relationship of master-to-seaman. There is nothing wrong with the master-to-seaman command relationship, per se; it is, in fact, the best and easiest relationship to establish for control of military forces, if the forces under consideration are capable of resolution into such a simplified command status. Unfortunately, the complexity of modern war and the organization necessary to fight it seldom can be resolved efficiently into the same command relationship which served Nelson and Farragut so well; about the only place in modern war where such a simplified relationship can still function entirely and efficiently is within a ship. Even in ships, such simplification is possible only in those that do not carry aircraft which leave the ship and engage, at great distance from their floating base, in operations which cannot possibly be controlled by the master of the vessel.

The fear of non-cooperation by a national Air Force is not borne out by the record of the RAF in anti-submarine warfare. After it had finished its first priority mission, the Battle of Britain, the RAF established an excellent record in anti-submarine warfare, including air/surface cooperation in anti-submarine warfare. Moreover the air/ surface cooperation between ground armies and autonomous air forces in the largest amphibious operation of the war was very good. The Normandy invasion could never have succeeded without it. (And it should be remarked that this [mass continental] type of amphibious operation would appear to set the pattern for future amphibious fighting, if any, rather than the mid-oceanic island captures of the Pacific War.)

The assurance of successful cooperation of an integrated air/sea naval aeronautical organization in amphibious, anti-submarine, and other operations surely is not borne out by the experience of the Japanese. The lack of cooperative, efficient joint air/surface effort in the Imperial Japanese Navy (and the Imperial Army) was notorious.

(Continued on page 44)

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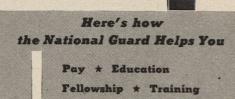


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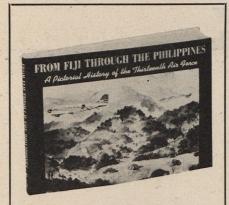


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A NAVY AIRMAN SPEAKS OUT (Continued from page 43)

With respect to separate corps status, the Navy holds an untenable position wherein its disallows the feasibility of a separate, autonomous Naval Air Corps and ardently supports the separate, autonomous status of the US Marine Corps. The cooperation, morale, efficiency and general record of the USMC is held to be excellent and the Corps a thing which we must fight to preserve (and rightly so, for many reasons); yet the prospect of similar success, efficiency, and cooperation on the part of an automonous Naval Air Corps is held to be nil. Now what is needed is not a Naval Air Corps but a US Air Force; however, the parallel between the USMC and a Naval Air Corps should be clear; both would be devoted to specialized branches of the broad range of warfare which the Navy considers to be its field of endeavor. And the fallacy of supporting the one and denying the need for the other should be equally clear. This again, falls into place as a rationalization of the status quo.

There is nothing in the history of air warfare to date to indicate that successful cooperation in action cannot be achieved between Army, Navy, and a separate Air Force. Moreover, there is nothing to indicate that successful cooperation of air and surface forces will occur of necessity simply because Army and Navy each controls its own separate air force. (cf. the Japanese.) The quality of the airpower and the kind of people in the Air Force are criteria. The way to assure the quality of US airpower it to have a truly national Air Force, drawing upon all facets of our aeronautical potentialities without interservice strife and rivalry. The way to get the right people into the US Air Force is to form it, at the outset, from the personnel of all branches of US military aviation, officers and enlisted.

The Navy has before it today the choice of two aeronautical routes. The one, which is the continuation of the present system of administering and operating the naval aeronautical organization as an integral part of the Navy, leads to a fully cooperative (i.e., obedient) air arm of diminishing strength and deteriorating fibre, falling gradually behind the forefront of American aviation. The other route, which is the establishment of a truly representative, allinclusive US Air Force, leads to the strongest possible integrated national airpower, able at any time, and in all probability very willing to cooperate with the Navy in the good interest of the country, though not necessarily in the partisan interests of the Navy (or of the Army). The Navy's choice of route should be an easy one to make.

The continuation of the present system of naval administration, in which aviation is a part-time, part-career effort is opposed by many active naval aviators, especially by those who now hold or have recently held command of squadrons and groups in the fleet. The

extent of this opposition is of course difficult to determine; juniors are naturally reluctant to go on record in opposition to established policies of their seniors and of the Navy Department. It is sincerely believed, however, that the extent of such opposition is very great and is widespread among naval aviators in the middle and junior ranks, especially among those who have had actual command or executive responsibility in the operating squadrons of the Navy. Since any such opposition on the part of naval airmen has been the result of sober reflection on the problem, not the result of force-fed ideas (in fact, almost the reverse), serious consideration should be given to this

The aviators who oppose the present system of administration of the naval aeronautical organization favor, in general, the creation of an all-inclusive US Air Force. They realize that they are the airmen who will have the responsibility for the fighting of the next war, if war should come, or the responsibility for maintaining a strong enough national airpower to prevent war, if we should succeed in preventing war over any considerable period of years. Yet these men see naval aviation policy being set, erroneously, by persons who will have little if any part in the wartime execution of that policy nor for long a part in its peacetime execution. They feel that they are being placed in a position that they are being placed in a position —to put it very bluntly—"behind the eight-ball." And they don't see any remedy for the situation.

Many surface naval officers are probably sincerely convinced that the Navy should retain its naval aeronautical organization under the present system of administration and command. However, there is no reason to believe that these specialists in sea power (who are against a unified Air Force) are better qualified to judge the question than are the Army Air Force officers-specialists in airpower-(who favor a unified Air Force). In fact, of the two, the specialist in airpower should have the greater breadth of vision and be the better judge. Fortunately, however, if we see our way clear to do so we can disregard both the sea power specialist and the airpower specialist and inquire of the "integrated" sea/airpower officer -the naval aviator-his belief in the matter. If he feels free to express his belief, and if he expresses it honestly, he will endorse not only the principle of a unified US Air Force but also the principle of real unification of the armed services of the country.

Unless they are personal friends, juniors are normally very hesitant in expressing their beliefs to seniors when such beliefs run counter to announced naval policy. Among contemporaries, freedom of discussion is more the rule, but even at this level any discussion of the touchy subject of the unified Air Force is often guarded, except among close friends. Seniors favoring announced

Navy policy will not hesitate to impress it upon juniors; seniors who do not favor announced Navy policy normally will not transmit their views to their juniors. In spite of these realities of policy discussion in the Navy, it is impossible to be in close contact with the Navy's active flyers and not realize the depth of their belief in unification of the country's airpower.

Very frequently, naval aviators of the rank of commander and above, if they oppose a unified Air Force, will admit (among friends) that they do not oppose it upon logical grounds but upon personal grounds; they will admit the validity of the principle of unification but feel that it might if put into effect be disadvantageous to them, personally. They would rather "remain among friends" (in the Navy); they would rather "keep naval aviation in the family"; they "like the Navy" and "don't like the Army"; they fear that they would be in the minority in a new organization and promotion would not be forthcoming: in the case of "nonflying" naval aviators they realize that they would be in a flying organization and might have to "participate in frequent and regular aerial flights"; in short, they like the status quo and fear a change. As rank increases, the status quo generally looks better and better, and subjective rationalization of the status quo becomes easier and easier as opposed to sound reasoning in the premises.

The junior naval airmen don't like the status quo, and this is one of the reasons for their present poor morale. Their dislike of the situation in which they find themselves is not based entirely on impersonal reasoning, either; to some extent it is due to the "greener pastures" influence. They are for a unified Air Force not only because they believe that it would provide the best means of administering the country's airpower, but they are also for it because they believe that their own chances of promotion would be better in an organization devoted to aviation than in a seafaring, part-time aviation organization. They are airmen at heart and by choice, not seamen. Moreover, they have heard a lot about the "Annapolis clique" and the "old school tie." These latter are perhaps side issues, but it cannot be denied that they affect the thinking of our up-and-coming young naval aviators. Such issues work together with the fundamental issue of unification of airpower to force these young men to conclude that their present status is anomalous and their future prospects not good. The result is inevitable-poor morale and a very considerable amount of disloyalty within the

There is very little loyalty between the surface Navy and its air arm, in general terms. This does not imply that disloyalty necessarily exists as between junior and senior in any specific case, or any one command, or any given situation. It does mean that the active naval aviator is more loyal to the principles and concept of airpower than he

is to the concept of the importance of surface sea power in future history; he considers Mahan a sound analyst of the past but a poor guide to the future. The surface-ship naval officer is, on the other hand, loyal to his profession. The lack of loyalty within the Navy is not specific, as between persons, but it is nonetheless real, because it is between principles and professions. It cannot help but harm the Navy, and it cannot be avoided in a part-sea, part-air organization. It is the old and disturbing conflict between the "seaman's mind" and the "airman's mind."

Resolution of the foregoing problems of poor morale and disloyalty within the Navy could be achieved by the formation of a truly national instrument for exercise of the country's airpower in all categories-a US Air Force responsible for all phases of military aviation, whether assisting the Navy and its sea power or assisting the Army and its ground forces, or acting in its own right as the nation's airpower, in its own element-unhampered by either geographical or administrative termini of land and sea

GENERAL VANDENBERG STEPS IN

(Continued from page 14)

dubbed him "Lothario" his graduation year), the General has kept in top physical condition since his four years of hockey at the Academy, shoots golf in the low 80s, and plays better than average tennis. He married the girl (the former Miss Gladys Rose) he met at a West Point "hop" and their two children are both tied up with the military; daughter Gloria, 20, is married to an Army captain, and their son, Hoyt, Jr., 18, is a plebe at West Point Military Academy.

In his rise from major to major general in four years of war to the youngest three-star general and finally the youngest four-star general in the armed services, it is natural that the press should note that the General is the nephew of Michigan's influential senior senator. Arthur H. Vanderberg. Sometimes overlooked is the fact that while General Vandenberg was rising to the top in the military his senator uncle was an cutspoken isolationist, clearly on the other side of the fence, and that only in the recent postwar period has Senator Vandenberg attained the status of an internationalist. In fact, so the story goes, the Senator once opined that his nephew would never get anywhere in the military, with a Republican senator for an uncle.

General Vandenberg's start in the military was not auspicious. After dividing his early years equally between Milwaukee, Wis., his birthplace, and Lowell, Mass., where he received his early schooling, he entered the US Military Academy at West Point. Here

(Continued on page 46)

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GENERAL VANDENBERG STEPS IN (Continued from page 45)

he worked hard to get into the air end of the military. He was graduated on June 12, 1923, far from the top of his class, and on the same day received his commission as second lieutenant in the Air Service. By the following fall he was taking primary at Brooks Field, Texas, and a year later, after advanced instruction at Kelly Field, Texas, received his first Air Corps assignment with the Third Attack Group. He spent three years with the Group, then became a flying instructor at March Field, Calif. An assignment followed with the Sixth Pursuit Squadron, stationed in Hawaii, and in November, 1929, he took over that Squadron as his first command. Two years later he was back in the States as a flying instructor again, this time at Randolph Field, Texas.

By this time it was the early 1930s and the Air Force had taken on the nasty job of flying the US Mail. First Lieutenant Hoyt S. Vandenberg, now a crack pilot, did his turn at the job, On one trip he became lost in a snowstorm somewhere in the Pennsylvania hills near Pittsburgh. Circling, with gas running low, desperately searching a spot to land, he suddenly spied a light down below, obviously a flashlight or lantern, and obviously a signal. He came down to find the light guiding him neatly to a clearing in the hills, guiding him with a professional touch. He made a successful landing and climbed out of his plane. A man with a flashlight led him through the darkness to a cabin on the side of a mountain. There, in the light of the cabin, Lieutenant Vandenberg recognized this man who had saved his life. It was a fellow he had washed out of flying school only a few months before.

For six years, from 1933 to 1939, General Vandenberg learned and taught the principles of airpower—the same basic principles that were later applied during the war. Like many another Air Force leader, he began his training at the Air Corps Tactical School at Maxwell Field, Ala., first as a student, later as an instructor. During this same period he completed courses at the Command and General Staff School at Fort Leavenworth, Kan., and at the Army War College in Washington, D. C.

If you visited Air Force Headquarters in the two years before December 7. 1941, you would have found an earnest group of staff officers in the Plans Division of the Office of Chief of Air Corps. War seemed far away, but they worked 12 hours a day, 6 days a week. The chief of the Division was a brigadier general named Carl A. Spaatz. One of the staff officers was a captain named Hoyt S. Vandenberg. By March, 1940, less than a year after he had entered the Division, it was Major Vandenberg, and by November, 1941, the month before war broke out, he was a lieutenant colonel. By January of 1942, when he became Operations and Training Officer of the Air Staff, he was a chicken colonel. For his work in these two Air

Staff jobs he received the Distinguished Service Medal with a citation referring to his "exceptional ability, energy, judgment and brilliant professional knowledge in contributing to the formulation of strategic plans for the employment of the Army Air Forces in world-wide operations on a vast scale."

For his first wartime overseas assignment he went to England in June of 1942 to assist in the planning and organization of the Air Forces for operations in North Africa. It was here that he was appointed Chief of Staff of the 12th Air Force, which he helped organize with its commander, General Jimmy Doolittle. This job was accomplished in the face of almost insuperable difficulties due to lack of time, experienced personnel and equipment. After participating in the invasion of North Africa two months later, General Vandenberg (by this time he had received his first star) functioned as Chief of Staff of the 12th in Africa. When this organization was merged with RAF units early the next year he went along to the Northwest African Strategic Air Force as General Doolittle's Chief of Staff. During these strategic operations in Tunisia, General Vandenberg was responsible for "planning and carrying into effect aerial operations which were instrumental in nullifying efforts of the enemy to bring in vital supplies and reinforcements, according to the Legion of Merit citation he received for this work.

While with the Strategic Air Force in North Africa, General Vandenberg flew in all types of bombers on combat missions that included attacks against shipping at minimum, intermediate and high altitude and on attacks against lines of communication, airports and landing grounds. He flew as gunner, co-pilot and observer. Both he and Jimmy Doolittle took a delight in piling up combat time. Once, on a flight to Gibraltar, General Vandenberg manned a waist gun and helped drive off a German attacker while Doolittle took the place of a wounded copilot. And while he displayed plenty of gallantry in action-which won him the Silver Star-General Vandenberg also obtained firsthand knowledge of operating conditions which permitted him to recommend improved methods of operations. These recommendations, according to a Distinguished Flying Cross citation, "added immeasurably to the improvement in tactics and technique and radio and air discipline of the Strategic Air Forces." By the time he returned to the US in August of 1943 to become a Deputy Chief of Air Staff at Headquarters, General Vandenberg was a seasoned field commander, tested in battle.

Then came the Air Mission to Russia with Ambassador Harriman, his first diplomatic assignment. In achieving greater coordination of the Allied air effort he arranged for American bombers to use Russian bases, thus permitting shuttle bombing and forcing the Ger-

mans to spread their fighter defenses. This successful mission was completed in January of 1944. In the few months that followed, he was promoted to major general and assigned to the European Theater of Operations. First he was designated Deputy Air Commander in Chief of the Allied Expeditionary Forces and Commander of its American Air Component. In this capacity he handled planning and operations for the air activities accompanying the invasion of Normandy. For his part in planning the Normandy invasion he was awarded the Oak Leaf Cluster to the Distinguished Service Medal.

But an even bigger job awaited him. In August of 1944 he was named commander of the 9th Air Force-the great tactical air force of the European Theater. Under his command the 9th achieved the ultimate in air-ground cooperation, spearheading the sweep across France of General George S. Patton's famous Third Army. Said General Patton of the 9th Air Force and the Third Army, "It was love at first sight," and he acknowledged that his beloved Third could not have achieved its successes without the 9th Air Force. In the Battle of the Bulge tactical airpower, and General Hoyt S. Vandenberg, got another real test. The General would hardly give it that significance, for during the crisis he was one of the few top commanders who stuck to his conviction that the Germans were licked, that the Bulge offensive merely meant they had stuck their necks out too far. "Now we can really do an air job on them," he said. To his delight, Germany's hoarded aircraft came up to meet him for the first time in months, and took a terrific beating. Then he went to work on the enemy's communications' lines leading to the Bulge, strangling the enemy's supplies. And as the tide was turned his 9th Air Force completed the tactical job with its direct support of the ground forces that pushed the Germans back to eventual surrender. General Vandenberg had hit the jackpot in combat success. On March 17, 1945, having been a major general for only a year, he was promoted to lieutenant general.

Back in the states, the General's first assignment was Assistant Chief of Air Staff at Headquarters. Then in January of 1946 he went over to the War Department General Staff as Director of Intelligence. This was followed in June of that year by his appointment as Director of Central Intelligence for all the armed forces-the highest Intelligence job in the nation. After serving in this post for almost a year, General Vandenberg returned to the Air Force and on June 15, 1947, became its Deputy Commander and Chief of Air Staff. In October of last year he was designated Vice Chief of Staff and promoted to the rank of general. Now as the youngest man to wear the four stars, but old in experience and mature in judgment, he steps in as Chief of Staff of the US Air Force.

GENERAL SPAATZ STEPS OUT

(Continued from page 15)

the nation was suffering from an uncontrolled rash of flagpole sitters, marathon dancers, and other similar clowns who had no purpose in their antics other than to prove that they could do anything longer than anybody. Under such conditions it was natural to a degree, for the public to regard the flight of the Question Mark as something of a meaningless stunt. But to Carl Spaatz, the long range planner, and the strategist, and to his co-pilot Ira Eaker, it was no such thing. The significance of their flight can now be measured to some extent by the fact that at this very moment, when every mile we can tack on to the operational radius of our bombers is of such immense importance, the Air Force has undertaken as one of its highest priority projects the refinement of the mid-air refueling theory first proved feasible by Spaatz and Eaker. The citation that went with the Distinguished Flying Cross he won for the flight reads in part, "By his endurance, resourcefulness, and leadership he demonstrated future possibilities in aviation which were heretofore not appreciated . .

Speaking of Eaker, the former chief of Air Staff still smiles when he recalls one of the incidents that happened during the flight. Eaker used to fly the plane while Spaatz would handle the refueling hose. The latter would lean half-way out the plane (with Lt. -now Maj. Gen.-Elwood Quesada anchored firmly to his feet) and would grab the hose lowered from the refueling plane, fit it into position and signal for the flow of gas to begin. Basically it was a good enough system, but on this particular occasion a gust of air tossed the refueling plane upward, jerked the hose out of the tank and drenched the Major. Realizing that there was only the choice of a highoctane blistering or of running out of fuel, Spaatz, without hesitation, removed all his clothes, signaled for renewal of contact, grabbed the hose, put it in position and completed the operation. Other than some embarrassment he suffered no ill effects.

General Spaatz' first role in World War II was that of a spectator. During the Battle of Britain in 1940 he was sent to England as a special military observer. Day after day and night after night he watched from "Hell's Corner" in Dover as the Spitfires and the Messerschmitts fought overhead. Upon returning to Washington in September, 1940, he characteristically predicted: "There is much talk of Hitler's secret weapons, but the British weapon that will defeat the Germans isn't secretit's guts!"

When he got into the thing himself it was as Commanding General of the 8th Air Force. By now he had pretty well formulated his precision bombing (Continued on page 48)

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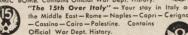
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GENERAL SPAATZ STEPS OUT

(Continued from page 47) theory in his own mind, but it was still an untested theory-a theory largely discredited and distrusted by the British. Contrary opinions notwithstanding, Spaatz maintained that bombers with adequate fighter escort could proceed to targets in daylight, bomb with greater accuracy than at night, and return to base in spite of concentrated antiaircraft fire and fierce enemy fighter opposition. The bombers he envisioned were fast, high-flying, well-armed, longrange planes with precision bombsights, reliable navigational instruments, automatic gunsights, and well-trained combat crews.

Observers on both sides of the Atlantic were skeptical, but nevertheless there was no breach in planning; American planes, equipped for daylight bombing, specialized in daylight attacks; British bombers, equipped for night bombing, carried the war to Western Europe after sundown. The year 1944 demonstrated the proof of the efficacy of his policies. By the end of that year, the enemy could rally no longer. Allied air power had achieved complete victory in the air, had paved the way for a successful invasion of the Continent, and had disrupted the enemy's resources.

Major General Edward P. Curtis, formerly Spaatz chief of staff, and now an AFA director, used to say that Spaatz practiced war by "instinct." General Eisenhower wasn't so sure. Ike once commented that Spaatz was "the best air commander I know, but I've spent months trying to figure out how he does it and I still can't." Much to their sorrow, the Nazi's couldn't either.

When the war in Europe and Japan was over Spaatz accepted one final strategic mission-that of seeing the Air Force through a tough reorganizational period, and of doing what he could to assist in the unification program. For a soldier long accustomed to marching straight toward an objective it was perhaps one of the toughest assignments of his career. In Washington you rarely march straight toward anything without getting sidetracked in the political recesses along the way. But distasteful as it may have been Spaatz did the job. As he retires, the Air Force has already attained legislative equality with the Army and the Navy, and it seems well on its way to regaining some sort of sensible organizational shape.

Yes, it may be that when Carl Andrew Spaatz walks out of his office this July he won't pause to look back. But it's a good bet that the nation he has served will, for there are few careers that have meant more to the welfare and security of our people than Tooey Spaatz'. Chances are the people will meditate and reminisce and study Tooey's career for some time to come. Chances are the door will never be closed on General Spaatz' career.

MEET THE MEN WHO GUIDE THE MISSILES

(Continued from page 23) velopment is conducted by the First Experimental Guided Missiles Group under Col. John Kilgore at Eglin Field. Colonel Kilgore is responsible for developing tactics and techniques of guided missile operations, development of training requirements and training standards, unit testing of guided missile organizations and equipment, and the development of personnel and organizational requirements for the employment of guided missiles. After a guided missile has proved itself to Colonel Kilgore and his staff, it is ready to be employed operationally.

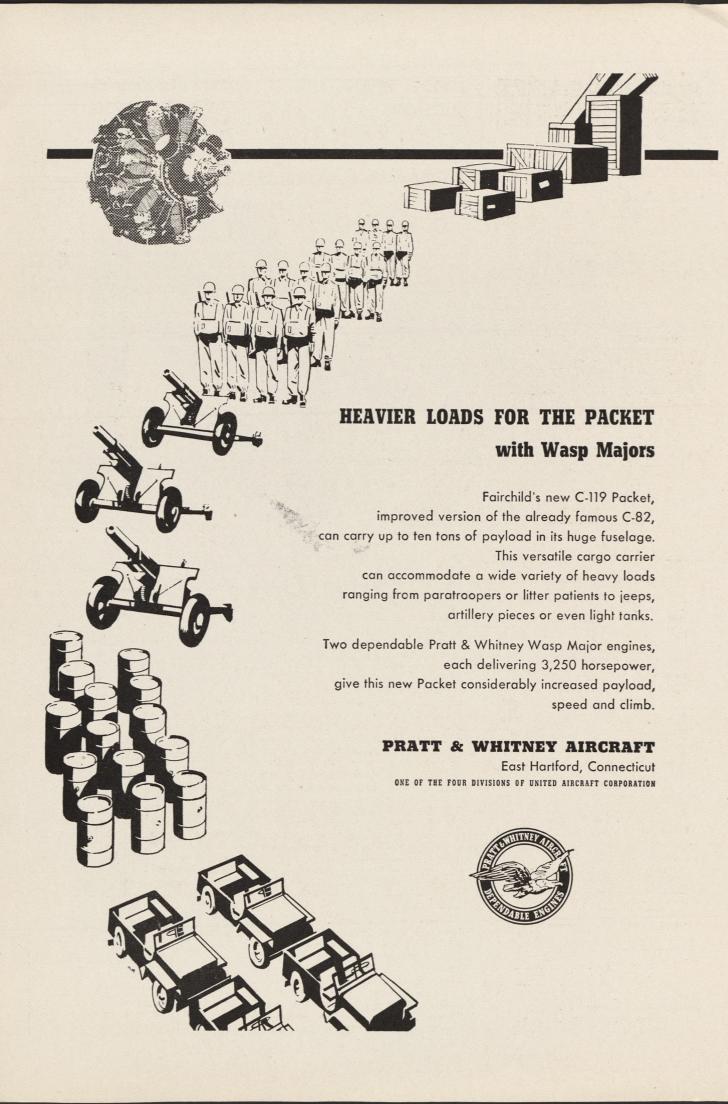
Regarding the successes and failures of these men and their predecessors, this much can now be said: The guided missiles that were developed and tested prior to VJ-Day (see pages 24 and 25) were for the most part hurried and unrefined attempts to give some sort of directional english to explosive weapons already in existence. We had begun a guided missile program as far back as 1917 and had in fact developed a torpedo-shaped contraption that could hit a target at a distance of 90 miles. But for various reasons, financial and otherwise, the program was abandoned in 1924, and it was not until 1940, when it became painfully evident that Germany was by then far ahead of us, that we began frantically to try to regain the lead we had lost. We never did. At the end of World War II we had nothing to equal the German V-2.

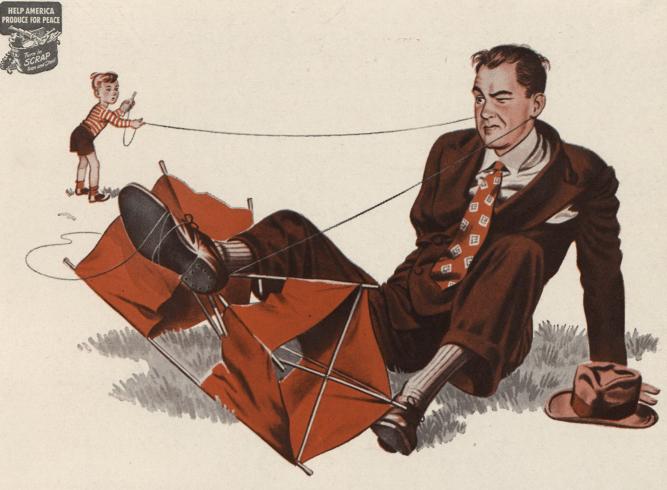
After VJ the guided missile experts began all over again, only this time they proceeded with more leisure and with more inquisitiveness into the basic fundamentals of guided flight than they had allowed themselves during the war. For the most part they discarded their wartime makeshifts.

Today, after nearly three years of careful research, they have developed and brought to the test firing stage a whole new string of what they believe to be truly guided missiles. No photos or drawings have been released, but chances are the new weapons will only faintly resemble the ones reviewed on pages 24 and 25. How far they will travel, how fast they will go, and what they will hit are things that are yet to be determined. This much is sure. They will be far better than anything yet produced. They will probably regain for the US its long lost position of worldwide pre-eminence in this field. But it is quite unlikely that they will be able to pick off a rowboat in the Adriatic.

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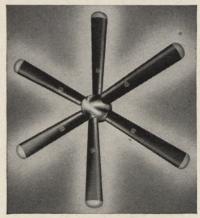
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