



Petroleum ... War Worker

Nearly every weapon of modern warfare is dependent upon petroleum, either for fuel or for lubrication.

From America's oil fields and refineries are coming streams of vital life blood for the Allies' thousands of planes, ships, and tanks.

The Texas Company alone produces far more petroleum than all of Europe, excluding the U. S. S. R. From this vast quantity of oil comes 100-octane gasoline; toluene to make the explosive TNT; butadiene, basis of synthetic rubber, and hundreds of specialized products for war industries. This production is possible because of skills and resources built up during the peace-time manufacture of high quality fuels and lubricants.

THE TEXACO STAR



VOLUME XXX

NUMBER 2

FALL 1943

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The front cover, a water color by Lester Fagans, illustrates how the "expendable" PT boat crews in the Philippines after the Japanese invasion hid from enemy reconnaissance planes in shallow inlets and refueled their craft by hand from gasoline drums. The back cover shows the service flag of The Texas Company's, subsidiaries', and affiliates' former employees in the United States armed forces in early September

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NATIONAL COUNCIL OF INDUSTRIAL EDITORS' ASSOCIATIONS

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★ Boeing Flying Fortresses at cruising speed use 250 gallons of gasoline an hour, and nearly 500 gallons an hour at full throttle.



★ Without spending time on opening ceremonies, a new \$6,800,000 unit at one of The Texas Company's refineries in the Chicago area began to make large quantities of toluene, the basic ingredient of TNT, as soon as the unit was completed recently under an Army Ordnance contract. The raw material used is a "cut" from straightrun motor gasoline manufactured elsewhere in the refinery. Extraction of the toluene is difficult and costly. The waterwhite, harmless-looking finished product is converted into TNT (trinitrotoluene) in other plants.

★ It took more than half a million gallons of high octane gasoline for 177 B-24 bombers to make the successful flight over Rumania's Ploesti oil fields August 1 and destroy a large quantity of potential Axis petroleum production.

★ In Brazil, where motor fuel is also scarce, 10,000 "gasogene" or charcoalburning devices are in use propelling motor vehicles in the Sao Paulo area, and 2,000 are being used in the Rio de Janeiro district.

★ In one day, at one tank depot, workers prepare more military equipment for overseas service than was possessed by the entire United States Army before the war.

★ More than 23 railway tank cars of heavy fuel are needed to supply a single destroyer on a round-trip convoy between the United States' East Coast and North Africa.

FOUR-HOUR FLIGHT THROUGH THIS is the story of one Texaco man's part in the war, hot off the transoceanic news wires and given front page prominence in many HELL newspapers all over the country. He wasn't iden-

RY

BOB CONSIDINE

International News Service Writer

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ILLUSTRATED BY FRANK GODWIN

THIS ONE is going to be hard to believe. It has to do with a headless pilot, a co-pilot who became a tremendous hero, and a boy who was thrown down to the Germans in the hope of saving his life.

It is the co-pilot's story, mainly. His name is John C. Morgan. This raid we speak of was not Morgan's first. Nor, when it started, did it seem possible it could be any tougher than the July 4 raid in which he and his now dead pal, the pilot, had participated.

Independence Day saw those two bring home their Fortress riddled from its plastic nose to its two angry .50-caliber tail stingers. But this raid was worse.

Just as their Fortress swung over enemy territory, still many miles from their target, a Focke-Wulf attacked at furious speed and, with great precision, sent a 20 mm. shell through Morgan's window.

The shell streaked past Morgan's nose, missing him by not more than an inch, and struck the pilot on the side of the head. It exploded on contact with such force that it not only blew off the pilot's head but took off the arm of the top turret gunner behind him.

The ship was flying at 25,500-foot altitude. The cockpit was so splattered that Morgan could not see. He might have swung out of formation and perhaps picked up a fighter escort for the trip home.

He had some bombs to drop. He refused to "abort," as the bombardiers say.

The dead pilot began to slump over the controls,

tified in them as a Texaco employe.

Flight Officer John C. Morgan was born in Vernon, Texas, and raised in Amarillo, where his father, S. A. L. Morgan, is a lawyer and numbers The Texas Company among his clients.

Flight Officer Morgan was employed for more than two years in the Texaco bulk station at Oklahoma City, Oklahoma, as a Warehouseman and as a Tank Truck Operator. He was ready for a Salesman's job when he got the itch to go to war. In July, 1941, he joined the Royal Canadian Air Force, was trained in Canada, and won his "wings," He was sent to England, trained some more, and in March, 1943, was transferred to the United States Army Air Forces with the rank of flight officer.

In the July 4 raid mentioned, he was also copilot, an Associated Press story said, Two of their Fortress's engines were knocked out by enemy fire after they dropped bombs on Nantes. Two gasoline tanks were punctured by the same shots, and they had to pump fuel frantically into the remaining two tanks so there would be enough to carry them back to the coast of England.

Formations of five and 10 enemy fighters at a time concentrated on their plane. The fuselage was torn into shreds by enemy machine guns, the wing flaps were knocked into a braking position, the hydraulic system was wrecked, and one landing wheel tire punctured.

An enemy shell tore a hole through the floor between the waist gunners and clipped the sleeve of the radio gunner. Two more hits knocked out one waist gunner, slightly injured the tail gunner, and wrecked the tail gun. Another 20mm, shell crashed into the ball turret and exploded, seriously injuring the gunner sergeant, who kept on firing in spite of his painful wounds until he collapsed. Co-pilot Morgan pulled some shoulder tendons operating the stiff controls.

When they tried to identify a radio station to get their position, they heard a few bars of America the Beautiful-then the radio went out.

Their Fortress skidded to a landing on the English coast-luckily. It was discovered then that a shell had punctured the life raft, making it useless. The bomber was a total loss.

Four-Hour Flight Through Hell happened only a month later.

THE TEXACO STAR

2



The dead pilot's full weight was on the controls. It appeared the Fort would continue to dive straight down. Morgan managed to pull the ship out of its dive by brute strength

causing the Fortress to go off on wild, dangerous tangents. Morgan is naturally strong, but this incredible day he had to be supernaturally strong not only of muscle, but of heart.

With his left arm he pulled the pilot off the controls. With his right he handled the multitude of jobs attendant upon formation flying.

In his earphones he could hear the gasps of his radioman, Sgt. John E. McClure of Atlanta, Georgia, Navigator Lieut. Keith T. Kosky of Milwaukee, Wisconsin, and Tail Gunner Sgt. John E. Foley of Boise, Idaho. Their oxygen line had been shot out. The badly-needed gunners dropped to the floor, kicking for air.

The pilot's lifeless body plunged into the controls again when Morgan dipped the plane to evade a ferocious frontal attack by German fighters, and for a terrible stretch of time it appeared the Fort would continue to dive straight down. But Morgan managed to pull the ship out of its dive by brute strength, for the pilot's full weight was resting on the controls.

He got back into formation. The target still was a long way off.

Kosky crawled back from the navigator's "greenhouse" to attend to the badly wounded top turret gunner. He put a tourniquet on the stump of the gunner's arm as the latter gasped oxygen from a portable tank.

But it was soon obvious there was too little of the arm left. It continued to pour blood. Kosky attempted to jab morphine into the gunner's well padded body. Fortunately, he was unsuccessful, and the gunner remained conscious for the ordeal ahead.

Morgan, busy as he was handling the ship and the dead, listing pilot, saw the gunner would bleed to death before the Fort reached its target and made the long trip home.

Four hours of flying hell remained, Morgan knew. So he ordered the gunner dropped out of the plane. The boy badly needed immediate medical attention. The Fort was over Germany now, but Morgan knew the only chance of saving the gunner's life was to deliver him into the mercy—if any—of the enemy. He prayed the gunner would be found in a hurry.

The gunner did not want to jump, as was natural. At best, it meant long imprisonment. But he soon saw he must.

Kosky sent the hatch beneath them flying off into space. He hooked the gunner's numbed finger through the ripcord and asked him to try it. The gunner pulled a little and the wall of air coming up through the hatch ripped open the pilot-chute, the small 'chute which drags out the bigger one. It filled their little compartment with billows of unmanageable silk strings.

The German fighters kept attacking. The pilot kept falling into the controls. Heavy flak was coming up, too.

Kosky struggled with the gunner's pilot-chute, at last controlled it and then helped the boy drop down into the eternity of thin air. The belly turret gunner, Sgt. Jim Ford of Chicago, Illinois, 35 and grayhaired, saw the 'chute open.

If the morphine had entered the gunner's veins, he would not have had strength enough to pull the ripcord. He would not have had the dim little chance of surviving he did get.

Morgan pointed the ship directly for the target and, with unerring, wondrous teamwork, Bombardier Lieut. Asa K. Irwin of Portland, Oregon, dropped his bombs squarely on their mark, even though his communication with Morgan had been shot out.

The flak was coming up in solid walls now while German fighters carried out frenzied, semi-suicidal attacks. It was a long voyage home, full of fighting and danger.

Kosky came up to Morgan's seat and between them they managed to get the pilot's body out of the compartment. It took 45 minutes to do it, for the plane had to be flown, and flown in formation.

There was extreme danger, too, in the open escape hatch behind and beneath them. Once all three nearly fell through. But the pilot had to be out of his seat, for the ship could never be landed with his body falling into the controls, as it would certainly do when the flaps came down and the speed slackened.

Morgan brought in that ship with no radio to guide him, most of the hydraulic system shot away and with little or no brakes. It's a two-man job at best, but Morgan did it alone.

What he did was little short of a miracle, a matchless story of fortitude, determination, and strength. His hands and arms were full of welts, both his knees were sprained, but he manhandled that huge bomber into subjection.

And he lived a lifetime in four unforgettable hours.

EDITOR'S NOTE: Word was received recently that Flight Officer John C. Morgan was awarded a Bronze Oak Leaf Cluster to Air Medal. Apparently he received the Air Medal previously.



This is Flight Officer John C. Morgan, former Oklahoma City Warehouseman and Tank Truck Operator, when he first began training in the R.C.A.F.

THE STAR BEGINS ITS FOURTH DECADE



Arthur Lefevre

W ITH this issue THE TEX-ACO STAR, having rounded out 30 years of service to stockholders and employes of The Texas Company, embarks on a new decade. Not many of the estimated 3,000 company-published magazines and newspapers in the nation can boast of that age.

The first issue appeared

in November, 1913, edited by Arthur Lefevre, with Arthur Lefevre, Jr., as Assistant Editor. These two held the magazine steadfast to its original purpose of "instilling an intelligent interest and consequent desire for improvement throughout the entire organization."

Editor Lefevre, educator, philosopher, and author of standard works on several subjects, kept the pictorial and literary quality of the magazine on a high plane. So great was the esteem in which he was held that on the day following his death in 1928, the flag on the Capitol at Austin, Texas, was lowered to half mast by the governor's order.

Full charge of the task with which he had assisted his father for nearly 15 years then fell to Arthur Lefevre, Jr. Presently, after circumstances demanded the administration of much of the Company from New York, THE TEXACO STAR began to be issued



from there. Shortly afterward, the portions of THE STAR that were strictly of employe interest were issued separately as *Texaco Topics*. Arthur Lefevre, Jr., continued with both publications as Houston Representative.

The Company Publications Division of the Public Relations Department in New York issues both magazines and another for the Sales Department.



(Left) During World War I, as it does today, The Texas Company devoted much advertising space to helping win the war. This is a page from THE TEXACO STAR of October, 1918. The Company had 2,986 of its employes in service at the end of the war

(Right) In June, 1914, the back cover of THE TEXACO STAR told proudly of Its service in furnishing lubricants to the U. S. Navy. In 1943 the Company was awarded the "Navy Contract." for much of Uncle Sam's basic petroleum products, for the eighth successive year





TEXACO HEROES



Maj. Harold H. Arnold, Jr.

Capt. Ralph J. McBride, Jr

MAJ. HAROLD H. ARNOLD, JR., former Division Geologist for the Producing Department at Tulsa, who won a field promotion in the Tunisian campaign, was recently awarded a Silver Star for gallantry in action in that campaign, according to the Army. He is serving with troops of the U. S. Fifth Army.

"... He continuously disregarded his own welfare while subjected to heavy enemy artillery fire and sporadic aerial bombing in order to maintain contact with detached companies and smaller units of his battalion," said the citation.

"His efficient and courageous actions provided the commander of these detachments with essential and vital reconnaissance information, material replacements, and liaison with battalion headquarters. On one occasion, while under particularly heavy and close enemy fire, he personally directed and supervised the construction of a bridge which was of vital importance to the attack. Although personnel in his immediate vicinity were being seriously wounded, he refused to take shelter but continued exposing himself in order to accomplish this mission.

"The initiative, perseverance, and daring and courageous actions of Major Arnold reflect great credit upon himself and his organization and are deserving of highest praise."

CAPT. JACK DONALSON, former employe of the Engineering Department of the Producing Department, Tulsa, has been awarded the Distinguished Flying Cross to add to his Distinguished Service Cross and Silver Star with two Oak Leaf Clusters, according to a letter from Lieut. Gen. George C. Kenney received by Mrs. Donalson. Capt. Donalson is now in England, but his latest decoration was awarded for his part in an interception mission in which he



Maj. John Thompson (left) gets a handshake from Gen. Doolittle for his part in the North African campaign

Mrs. Jack Donalson admires some of the medals her Jap-fighter husband has won

shot down his fifth enemy plane, a Jap Zero, over the Darwin area of Australia.

SCT. GILMER ELLIS, formerly employed on the Vertical Stills at Port Arthur Works, received a citation for the Legion of Merit which read as follows:

"For exceptionally meritorious conduct in the performance of outstanding service. With commendable ingenuity without direction or assistance, on his own time during off-duty hours, Sergeant Ellis devised and constructed a tree mount for use in firing the .30caliber light machine gun. As a result, he has made it possible to greatly increase the fire effect and tactical employment of the light machine gun in wooded areas where undergrowth prohibits the use of the weapon on the standard mount."

CAPT. RALPH J. MCBRIDE, JR., member of Seismic Crew, Geophysical Division, Producing Department, Houston, was awarded the Purple Heart decoration after a battle with enemy fighter planes, according to an Army Air Forces dispatch from London not long ago. He was piloting a B-24 on a combat mission over continental Europe on November 7, 1942.

"Seriously wounded, with one engine and landing gear of the airplane completely disabled by enemy action, Captain McBride successfully landed his airplane, after dark, at a strange airdrome without injury to his crew and with the minimum damage to the airplane," said the citation. "The courage, coolness, and skill displayed upon this occasion reflects highest credit upon this officer and the armed forces of the United States."

GUS A. NORDSTROM, Mo. M.M. 2c, United States Naval Reserve, formerly Station Engineer for the Kaw Pipe Line Company, received a citation for 48 hours of continuous mechanical service to a convoy of tank lighters. Picture on page 23.

MAJ. JOHN THOMPSON, former Office Boy in Boston District, Domestic Sales, was cited with other members of the United States Army Air Forces by Major General James H. Doolittle for bravery and daring in the North African campaign.

MASTER SCT. WILLIAM J. WALKER, former Stock and Delivery Gauger for The Texas Pipe Line Company at West Tulsa, received the Legion of Merit award for "exceptionally meritorious conduct in the performance of outstanding service as assistant to the liaison officer during the 1942 Louisiana maneuvers. He carried on the many duties incident to 'his assignment with marked ability, initiative, and tact, and exemplified a devotion to duty regardless of hours or working conditions in keeping with the finest traditions of the service." Picture on page 22.



MISSING IN ACTION

2ND LIEUT. LAWRENCE J. PHELAN, Stenographer, Technical and Research Division, New York. He entered the service in April, 1941, and received his commission in the infantry last November. In the North African campaign he served with the forces that captured Bizerte. He was reported missing after the ambuscade of his company at White House Hill in Sicily, July 15 and 16, which is vividly described in *Time*, August 2.

LIEUT. CHARLES E. SWEENEY, Stock Clerk, Butte District, Sales Department, was in the Army Air Forces, and was reported missing in action in July.

INTERNED

The following 20 employes of N. V. Nederlandsche Pacific Petroleum Maatschappij joined the Netherlands East Indies fighting forces before the Japanese invasion and are now interned in concentration camps: C. J. Bakker, K. W. L. R. Beynen, R. J. Bouman, G. N. de Laive, L. den Harteg, J. G. Esser,
G. L. Hofsteenge, M. W. Hoogenboezem, M. Jongkamp, J. C. H. Klem, L. B. Konijn, W. F. Krijnen,
A. C. H. Lissone, W. J. W. Martens, R. W. J. Pronk,
G. L. Schultz, J. R. Tweedy, M. J. Veelo, C. J.
Verschuren, P. Wols van der Wel.

EMPLOYES SERVING THE GOVERNMENT

J. H. BRITTINGHAM, Sub-Foreman, Refining Department, Port Arthur Works: Night Superintendent, Neches Butane Products Company.

R. E. COLLINS, Chemical Engineer, Refining Department, Port Arthur Works, Neches Butane Products Company.

J. W. CURETON, Special Guard, Refining Department, Houston Works: Assistant Shift Foreman, Neches Butane Products Company.

F. P. DODGE, Assistant to the General Manager, Refining Department, Port Arthur: Petroleum Industry War Council. (*Continued on following page*)

STAR PATRIOTS TO DATE

1

5

4

3

Killed in Action or Died in Service

MISSING

- THE TEXAS COMPANY AND SUBSIDIARIES,

Prisoners of War

Interned
THE TEXAS COMPANY, civilians 1
THE TEXAS COMPANY, U. S. armed forces 2
AFFILIATES, armed forces other than U.S. 20
AFFILIATES, civilians
AFFILIATES, civilians previously interned and repatriated 9
Employes Serving the Government as Civilians
THE TEXAS COMPANY AND SUBSIDIARIES 142
Affiliates

Figures include persons listed on this and the preceding page, and in previous issues. Unless otherwise identified, they are from The Texas Company



F. P. Dodge

EMPLOYES SERVING THE GOVERNMENT

(Continued from preceding page)

H. J. HOLCOMB, Stillman Controlman, Refining Department, Port Arthur Works: Operator, Neches Butane Products Company.

ALFRED F. JIROUS, Chemical Engineer, Refining Department, Port Arthur Works:

Neches Butane Products Company.

J. R. LEMMER, Clerk, Refining Department, New York Office, Managerial Division: Petroleum Administration for War.

WALLACE R. LINDENBLATT, Controlman, Refining Department, Port Arthur Works: Operator, Neches Butane Products Company.

HARRY MIERTSCHIN, Sub-Foreman, Refining De-

partment, Port Arthur Works: Neches Butane Products Company.

G. F. RUSSELL, Stillman Helper, Refining Department, Port Arthur Works: Operator, Neches Butane Products Company.

C. A. SLAYTON, Welder, Refining Department, Port Neches Works: Neches Butane Products Company.



J. A. Winger

F. L. WALLACE, Works Manager, Refining Department, Port Arthur Works: Gulf Coast Regional Committee on Protection of Petroleum Facilities, Petroleum Industry War Council.

J. A. WINGER, Assistant Manager (Operations), Sales Department, Indianapolis District: Supply and Distribution Committee.







Ist Lieut. Wallace E. Holbrook (above) and Capt. Ivan F. Dodd (right), Surveyor and Recorder, respectively, in Party No. 27, Geophysical Divn., West Texas Divn., now have technical jobs in the Army

Cpl. J. D. Poindexter (left) and Arthur W. Speckels (above), were Rodman and Surveyor, respectively, in Party No. 27, Geophysical Divn., South Texas Divn.





4,500 FIGHTERS GET WAR BONDS FOR CHRISTMAS

*

*



As an extra token of its deep appreciation for the service its employes in uniform are giving to their country, The Texas Company has purchased for each one of them a United States War Savings Bond, Series E, maturity value \$50, as a Christmas gift.

The Company looks upon this gift not only as a means of letting more than 4,500 employes in the armed forces know it is thinking of them and will be happy to welcome them back. It feels that the sum paid for these bonds, large in itself but small when compared to the war's cost in money and personal sacrifice, may shorten the conflict in some small degree and bring the employes back to their jobs sooner.

A letter from President W. S. S. Rodgers which is being sent to each employe on military leave of absence reads as follows:

"This Christmas, The Texas Company is presenting you a War Savings Bond. The Bond, with a maturity value of \$50, will be held by your paymaster in your name or, if you prefer, it will be sent to anyone in the United States whom you designate.

"We are very proud of the more than 4,500 Texaco men and women who are serving in the armed forces, and earnestly hope for their early return. Meanwhile, you may be sure that we at home will continue to work toward the victorious peace which is our common goal.

"The Company is deeply appreciative of what you are doing in your country's service.

H. T. Klein, Executive Vice President and General Counsel of The Texas Company, hands the first gift War Bond to P. F. C. Barry Smith, who was a Stenographer in Northern Territory, Domestic Sales Dept.

"Please accept my sincere personal good wishes for Christmas and the New Year."

Benefits The Texas Company has extended to employes in the service include, officially, three months' salary after he is inducted into the armed forces, less the amount of the employe's service pay for that period. Also, the employe gets his regular vacation if he has not taken it, or the equivalent in cash. Members of Texaco's Group Life Insurance and Pension Plan, on application for the privilege, receive approximately the same coverage of National Service Life Insurance at no expense to themselves; their accumulated pension funds are kept safely to their credit.

Furthermore, Texaco employes on military leave of absence receive credit on the Accident and Sick Benefit Plan just as if they were actively employed by the Company. When they receive a satisfactory certificate of completion of military service, and if they are then still qualified to perform the duties of the position they left for military service and make application for re-employment within a specified time, they will be restored to Company service if the Company's ability to employ them has not been impaired.

Semi-officially, much has been done by the department or location where each employe worked to make life in the armed forces brighter for him: letters, gifts, and Company publications keep him in touch with his former fellow workers.



The Texas Company's S. S. Indiana, last of a line of distinguished tankers to be built for the duration, poised on the ways just before launching time. Her sister ships, launched during the past four years, have made remarkable war records

LAST OF HER LINE JOINS THE FLEET



THE TEXACO STAR

(Right column) The Indiana's sister ships being launched. Tankers will be built under Maritime Commission contracts as long as the present war lasts

(Left) Mrs. M. Halpern prepares to swing the champagne bottle to christen the *Indiana*. Mr. Halpern (left) is Vice President in charge of the Refining Department





STAR CLOSE-UPS

Here are three of the 90 plots in Lockport Works' 400,000 square feet of Company Victory Gardens

LOCKPORT WORKS' GARDEN FRONT

> Pumper Wesley Miller and Mrs. Miller have their garden at home

Engineer P. J. Clark pauses in his garden to face the camera

(Below) Harold Huwaldt, Tank Truck Loading, is proud of the beans and cucumbers he raised on the Works' own garden land

(Below) Assistant Superintendent T. A. Mangelsdorf is another who has his Victory Garden at home, likes to work in it









★ AT Lockport Works, Lockport, Illinois, about 900 Texaco employes are gardening on Company property or at home. The Company land is a former farm, which the Engineering Department plowed and fertilized and equipped with water lines. So interesting have the gardens been to Lockport em-



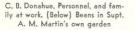
GARDE F

F. F. Matlock of the Stock Department collects food dividends



Nurse Marie Koelsch, Chemist Veta Funderburk, and Nurse Lillian Shade cultivate this garden plot

(Below)ssS Dr. W.Buey MissKoch a look wheney sue theinily at Lipo





(Below) Malcolm Ford, PCS Dept., and his mother work for victory

*





ployes that Summer sports went begging this year, but family tables groaned under vegetables and much produce is now in cans. The panorama above shows four plots at the Turn Basin, part of an old canal system that had filled with silt and had gone to weeds but is now a well-kept, fertile garden spot

ORKS' ONT

LIPS

ade, and they purwork



Dr. Huey pauses for a stretch and to admire his garden work, differ-

When Engineer J. H. Reiss attacks, all the weeds disappear

ent from his daily job (at left)

*

(Below, right) Tomato culture in the Mangelsdorf home garden

Walter J. Cave, Light Hydrocarbon Department, and his family work in their Company garden plot





LIFE BLOOD FOR THE AIR FORCES

By LIEUT. COL. CHARLES W. KERWOOD, Chief. Special Liaison Division. Army Air Forces

 \star



A B-25 medium bomber being refueled in North Africa

A PLANE is only as good as the fuel that powers it. Without gas and oil the biggest bomber or the fastest fighter is only a piece of expensive and useless machinery.

Our planes are at advanced bases all over the world—from New Guinea to North Africa—but it is gas and oil that got them there and keeps them flying. Daily our Air Forces are writing history in the skies the Axis likes to call its own and gas and oil are the fundamental power behind our planes.

During the crucial, closing days of the bitter battle for Tunisia, air power led the offensive that swept the Axis forces to death, destruction and capitulation. On May 5 we flew 1,200 sorties against Axis troops and installations; the following day this was stepped up to 2,100 sorties, and on May 7, the day the last Axis soldier asked for unconditional surrender, a record number of 2,748 sorties were flown. If each one of these sorties covered only one hundred miles, then 250,000 gallons of oil were consumed on those last devastating days. Nearly 700 tons of fuel were burned up in three days of furious aerial attack. Gas and oil so that allied war planes could pound and slash retreating Germans and Italians! Gas and oil to help sink 12 enemy vessels and bomb another 15! Gas and oil to shoot down enemy airplanes and make Axis ground forces plead for peace!

Those were dramatic days for the Air Forces—but every day brings forth more bombing raids and more fighter attacks. It was the umbrella of United Nations aircraft that made possible the landing on Sicily with a relatively small loss of men and equipment. Strategically valuable are the bombing missions by United States Air Forces and the Royal Air Force from bases in England, blasting war plants controlled by the Germans and satellite nations, disrupting production of armament and planes and stopping of supply schedules over a long period of time. Every single Flying Fortress that bombs the Ruhr must have at least 700 gallons of gasoline for its mission of destruction. Every single P-40 that strafed the Japs on Kiska needed at least 150 gallons of gasoline to make the round trip from our nearest air base.

These are routine flights, on opposite sides of the globe, carried out every day that weather permits, and executed by many planes. Behind these daily attacks on the enemy are innumerable more commonplace flights of trainer, liaison, and cargo planes that sustain our Air Forces. The first and fundamental need of all these planes is gas and oil.

Two-thirds of all the entire tonnage consumed in expeditionary forces, including their transportation and protection, is petroleum. To help fuel United Nations bombers striking at Mediterranean targets, Engineers of the Army Service Forces have laid portable pipe lines from North African harbors to interior airfields. These pipe lines are helping solve a tremendous problem of supply. Piping gasoline also resulted in savings in the fuel that would have been needed by tank trucks. Metal gasoline barrels were conserved, while piping obviated the need for hig dumps subject to destruction by enemy fire.

The pipe lines are made up of light-weight steel in sections short enough for one man to handle. A special coupling locks the sections together in a matter of seconds; and 1,000 feet of pipe can be carried on one truck body. Some of the lines now operating in the North African theater are upwards of 50 miles in length. Pumping stations at intervals maintain a flow of 100-octane gasoline as high as 700 tons a day. The only construction bottleneck has been the necessity of burying the pipe to prevent its damage by desert-cruising tanks and trucks.

Men and women working to get the necessary fuel to our Air Forces are right behind our pilots, the navigators, the bombardiers, and the gunners themselves. Every day when they read in the newspapers about American planes wrecking enemy supply ports, bombing Nazi factories or downing Jap Zeros miles above a South Pacific island, they can say to themselves, "I helped do that; without gas and oil it could never have been done."

IT'S AN OIL WAR

On every war front there is plenty of evidence that it takes petroleum to do the job

ALEUTIANS (Below): With a tractor and a gadget made of discarded oil drums, sunken landing boats and barges are raised and brought ashore

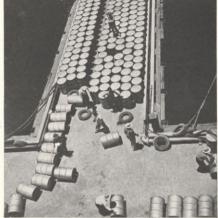
BRITISH COMBINE







NEW GUINEA: Planes poised to raid Jap positions get a "transfusion" from drums of gasoline brought up by tractor



оггісіль и. s. NAVY PHOTO HAWAII: Gasoline on the way in. Shipping it in drums makes for easy handling and keeps precious fuel clean

NORTH AFRICA: The Army is a salvager, too. Here workmen sort gasoline cans



AUSTRALIA: Fuel for military vehicles is delivered to four filling units by midget pipe lines from this portable, gasoline-driven pump

MIDDLE EAST: British 8th Army men get a delivery of 100-octane from the sea

FALL, 1943

IN	*	*	*	*
THE		*	*	*
SER	VIC	E	*	*



Pvt. P. J. Louviere; off to war in a tank



Sgt. Clifford Guidry leads a mortar squad



Cpl. I. P. Guidry, an instrument specialist, Army Air Forces

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Numa J. Guidry is a U.S.C.G. coxswain

S. Sgt. W. J. Cheramie went overseas



Roustabout G. A. Polk, New Iberia, in the Navy Seabees



Sgt. L. P. DuBois, a former Construction Roustabout at Houma



Lieut. Dan F. Smith; Engineers' Aviation Battalion, overseas



Ist Lieut. G. L. Smith, Roustabout; with Army Engineers



Ensign A. W. Laborde, overseas, may now be a lieutenant (j. g.)



P.F.C. R. P. Cunningham, once Cook's Helper; artilleryman



Sgt. N. L. Cheramie, in short: A.A.A. A. W. Bn., APO overseas



Former Clerk R. C. Delcambre, an aerographer's mate 3c



RM 3c F. W. Everitt, former Roustabout, is in the U.S.N.R.



R. A. Breaux, Jr., is a 3rd class petty officer in the Navy



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(Right) War materials and diplomatic and military personnel now are carried continent to continent



AIRLINE AT WAR

By EVAN E. YOUNG Vice President, Pan American Airways System

LET THIS be the story of America's Merchant Marine of the Air and its contribution to the war effort.

Where the silver-bright planes of the Pan American Airways System used to wing between countries and continents in peacetime's air, today many of them speed along on those same lines in dun-colored paint which blends them with sea and sky.

In the seat where a vacation-bound passenger once sat is a grim-faced business man. Where a peacetime assortment of commodities once filled the cargo compartments, wartime materials in many instances now are stores to be speeded abroad.

The Pan American Airways System was built to serve a world at peace, a world then becoming accustomed to the tempo of dinner in New York and next day's lunch in London. It did serve that peacetime world, three score countries on six continents, droning back and forth on schedules monotonously regular. But Pearl Harbor changed most of that. December 7, 1941, the same day that saw Jap bombers come roaring down to blast Pearl Harbor, witnessed a great world-wide airline change from the needs of peace to the necessities of war.

The ugly shadow of global war even caught four of the great Clippers in the Pacific, three of them in the air, one only 90 minutes away from a scheduled landing at Honolulu. At once, as word of the attack crackled in the earphones of radio operators aboard the Clippers, "Plan A"—previously arranged—was put into effect. Flight courses were changed to avoid danger zones and three ships proceeded to safe destinations. Today, they are doing their part in the fight against the Axis.

In addition to regular transoceanic services, many of the operating schedules and routes being flown daily by the Clippers across the Atlantic and the



Pre-war plane vacationing is gone for the duration. Pan American's flights are now virtually military missions

WILLIAM LA VARRE FROM GENDREAU

Pacific today are strictly hush-hush; they're considered as important as military missions.

But it can be revealed that across both oceans some of the most important men and women in the United Nations, kings and ambassadors, generals and admirals, are constantly winging their way on portions of their travels to and from the war fronts.

At the same time, tons and tons of vital express and mail are being transported swiftly along the "highways" of the air well out of reach of subs.

Since Atlantic flying commercially was established by the Clippers in May, 1939, the big Boeings have shuttled back and forth along the "blue ribbon" aerial trade route to Europe 1,550 times, with 50,000 passengers, while 4,302,000 pounds of express and 2,683,000 pounds of mail (which represents about 100,000,000 letters) have been carried as the Atlantic Clippers alone logged 8,000,000 miles of over-ocean flying.

Behind the story of transatlantic scheduled flying are stories of shipwrecked sailors rescued by Clippers from the Caribbean and the Atlantic, of hundreds and thousands of letters for our soldiers and sailors in Africa and England, and now on the continent of Europe itself.

When President Roosevelt in January flew to Africa for his historic conference with Prime Minister Churchill it was in the *Dixie Clipper* of Pan American Airways, commanded by Captain Howard M. Cone.

Vice President Henry A. Wallace, as well, used Pan American Airways and Pan American Grace Airways planes on his recent flying tour of South America, a trip of 12,000 miles in 40 days, during which he visited seven countries.

South and Central American chief executives regularly use the airlines in their travels, many of them coming to the United States to learn more about our own war effort and to arrange for joint defensive measures.

The greatest mass movement of diplomats in the history of commercial aviation was the carrying of 178 delegates, their aides, and press representatives to the Inter-American Conference at Rio de Janeiro in January, 1942, from all parts of the Western Hemisphere in time for the opening session. It was at this conference that plans for the joint defense of the Hemisphere were agreed on.

But those emergency cartages of persons were nothing new to company pilots. When the Japanese began their big push to capture Hong Kong, right after Pearl Harbor, it was the transport service of China National Aviation Corporation (a joint operation of Pan American and the Chinese Government) that flew a constant 400-mile shuttle service at night in between Japanese bombings, rescuing 275 Chinese and Americans from the beleaguered city.

Even more important from the standpoint of military operations was the work performed by CNAC planes, in conjunction with the military air services, in flying food (literally "manna from heaven") in to the hard-pressed British, Chinese, and American troops battling the Japs in Burma. CNAC planes did their full share of the work of evacuating 8,000

men, women, and children refugees from the path of the invading Japs, flying them to safety in India.

So pressing was the need that on more than one occasion the 21-passenger ships took off under the noses of the surrounding Japanese with 60 persons aboard. At one time a CNAC pilot took off on a mercy flight with 74 men, women, and children huddled in the cabin.

It was China National Aviation Corporation that pioneered the present aerial lifelines over which fly almost all the supplies reaching China from the outside world. Captain Moon Chin, who has done survey work on additional routes into China, flew Wendell Willkie during the latter's flying visit to China.

On another occasion, flying out of China, Captain Chin had among his passengers the present Major General James H. Doolittle. Chin was not aware of it at the time, but Doolittle was on the way to his home base following the now famous raid on Tokyo.

Up in the cold wastes of Alaska another division is making history in the cause of victory by flying war goods to remote towns, villages, and military sites along the rim of the Arctic Circle.

In the snow-blanketed interior of Alaska, where sourdough pilots first flew gold shipments and prospectors to and from remote creeks, sturdy ski-equipped Lockheed Electras are busy shuttling wartime cargoes and passengers to bases carved overnight out of the wilderness.

During the years that Pan American has been flying in Alaska it has gained many valuable lessons in this "flying icebox" laboratory—in operating an airline under extremes of weather conditions lessons that have already proved of value in the operation of the transatlantic service to Europe and that should prove of even greater value after the war when the global airlines span the frozen Arctic.

One of the greatest races against time in the history of aviation was the building of a complete transcontinental airline longer than the distance from New York to California in 61 days.

> Pan American Airways System pioneered the peacetime idea of dinner in New York, lunch in London

The airline was the sky route across the heart of Africa, over which flow men, materials, and warplanes from the United States to the fighting fronts in the Middle and Near East. The route was built and operated by crews of overalled Pan American construction and operations men for the Army.

It was rush-built in two months time the Summer before America entered the war, on the request of President Roosevelt, and stretched from the west coast of Africa along a score of airfields hacked out of the jungles and deserts of that continent all the way to Egypt, with an extension into Iran and India.

Here again the Clippers played a part in rushing construction men and the most urgently needed of the 10,000 supply items required in record time from America's east coast to the Dark Continent.

The British had been operating an airline across Africa, but only on intermittent schedules, and were unequipped to handle the increased traffic that war demands placed on the line. As a consequence, war goods and planes badly needed by the Allies to stave off Rommel's threat to the Nile were piling up at the docks thousands of miles away.

PAA got to work, dispatched engineers and con-

FALL, 1943



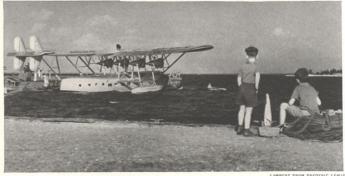
LIONEL GREEN FROM FREDERIC LEWIS

Tons of vital express and mail are now swiftly, safely transported along highways of the air

Reincarnations of America's clipper ships that linked continents inspired both young and old thousands of aerial navigators now guiding bombers swiftly and surely to their targets over some Jap- or German-held land owe their knowledge to this school.

Nine of the navigators who rode the Billy Mitchell bombers on that famous raid over Japan led by General Doolittle (including the navigator aboard Doolittle's plane) were trained at the Miami school, and six of the nine have since been decorated with the Distinguished Flying Cross for their part in the raid. More than 165 graduates of the Miami school have been decorated for bravery or outstanding performance in the war.

Women are playing an increasingly important role in the far-flung operations of the airways system. Of the 88,000 employes of the airline, several thousand are women. In increasing numbers, as male



struction foremen to Africa to survey the route. By plane, canoe, and camel-back these men travelled over the proposed route, found out what local building materials and labor were available, just how and how much would have to be moved in from the United States, and made agreements with native chieftains on the spot for their help.

The victory at El Alamein that turned the tide in favor of the Allies and started Rommel reeling back all the way to Tunisia was due in good measure to the arrival of fresh supplies and fighting men from the United States in time.

In connection with the trans-Africa route, a ferrying service for planes, stretching from the United States to South America, then hopping the Atlantic to Africa and continuing on to the East, was set up. Many of the planes that flew over this route in 1941 and 1942 were flown by Pan American pilots.

To train navigators for the U.S. Army Air Forces, a special navigation school, with Pan American flight crews as instructors, was established at Miami, and clerks in offices and reservations counters, as mechanics who know the difference between a gasket and an engine cowling, as radio operators, Link trainer instructors, chemists, as instrument workers caring for gyropilots, directional gyros, and gyrohorizons found in the flight quarters of all Pan American planes. One of the greatest potential threats to the security

employes join the armed services or are transferred

to more vital jobs, women are replacing them, as

of the Western Hemisphere long had been the network of airlines being operated openly or under cover by the Axis in South America. Ostensibly purely commercial operations, they had other functions, as abundant evidence uncovered in recent years has proved; there were considerations of economic penetration (and perhaps even military) behind the planning and operation of these Axis routes.

If these airlines had been forced to exist on their nominal earnings they might soon have gone out of existence. The fact that they continued to operate,

even to expand, indicated that the Axis governments whose flag they flew were heavily subsidizing them.

Finally (particularly after the outbreak of the war in Europe) the governments of the various South American countries over which these lines operated realized the threat to their security involved and, advised and aided by the United States State Department, proceeded to terminate their operations.

Pan American and Pan American-Grace (Panagra) the former's West Coast affiliate, because of their experience of a dozen years in operating along both coasts of South America, were asked to coöperate in the Americanization of these vital transportation services. Some of the companies, such as Scadta in Colombia, became fully nationalized; in other cases, as in Ecuador, Panagra replaced the Axis services with United States certified operations; in Bolivia, the Lloyd Aereo Boliviano by a unique arrangement was nationalized, its organization being under management supervision of Panagra.

Now the Nazi swastika and the Italian tri-color no longer fly above South America (some of them within easy bombing range of the Canal Zone). Instead, sleek Douglases, Lockheeds, and Sikorskys carry on the wartime job of transporting supplies and men.

If it were not for the airlines, many sections of certain South American countries would be today as isolated as they were when llamas were the only means of transporting goods.

Airplanes are doing dozens of jobs at the moment in South America in connection with the defense of the hemisphere and the successful carrying on of the war. Rubber workers moving up the Amazon by thousands to reopen the once flourishing rubber forests there are being supplied with equipment and medical care flown in by PAA flying boats from the United States.

From Brazil alone, planes daily fly northward to

American war factories, their cabins loaded with ferro-nickel, mica, beryl ore, bauxite, industrial diamonds, manganese, and quartz crystals, in addition to rubber.

Last August a shipment of 300,000 doses of sulfadiazine was Clippered from the United States via Panair do Brasil (Brazilian affiliate) to stem an epidemic of meningitis in Chile. Early the following month, another similar shipment carried 600 pounds of medical supplies for the Red Cross in Haiti.

When a smallpox epidemic broke out in the province of Salta, Argentina, last November, an offer was made immediately to transport serum to the afflicted area to insure the immunity of the remainder of the population of the province.

The National Department of Hygiene gratefully accepted the offer, and a Panagra plane flew sufficient serum to the province to enable doctors to halt the spread of the disease.

In spite of the greater burden placed on planes and crews by the demands of war, and the scarcity of additional equipment, Pan American has been able to step up time in the air for its planes and institute quicker turn-around maintenance procedures at terminals.

So efficiently does the airline system operate that continuing a practice of two years, since the establishment of the awards, two divisions and two affiliated companies operating in Central and South America received the safety awards for 1942 of the Inter-American Safety Council for flying nearly 190,000,000 passenger-miles and more than 15,000,-000 plane-miles during the year without a passenger fatality.

So vital to the war effort is the part being played by Pan American Airways that officials consider every employe to be "in uniform" as surely as if he or she wore the blue or khaki of the armed forces.



* FALL, 1943

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IN	*	*	*	*
THE		*	*	*
SER	VIC	E	*	*



P.F.C. Tom C. Kelly, former Junior Clerk



Sgt. Don H. Yoss of the Oklahoma Division



Except for Lieut. Good, men on this page are from The Texas Pipe Line Co.



Cpl. Billy J. Phillips of the U. S. Marines



THEY TRADED PIPELINING FOR WARFARE

Roy Hocker; Signal Corps, now overseas



Sgt. Brawford Haver was in overseas action; his bride of 7 months is a Wac



Loyd England, Tulsa Office; a seaman 2c



M. Sgt. William J. Walker, Air Forces, won the Legion of Merit (See page 7)



T. Sgt. J. H. Kelly; many months overseas



Jack J. Henderson, Oklahoma Division, was among five who led his cadet class



Lieut. G. J. Somerville; now overseas







Lieut. B. W. Nedbalek came from Tulsa



Lon Conner is now a Navy storekeeper 2c



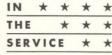
Daniel W. Powdrill won sergeant's rank

THE TEXACO STAR

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(Right) J. W. McReynoldswas Agent at Fresno, California





LOS ANGELES SALES PEOPLE NOW FIGHTING



(Left) S. Sgt. F.A.Fitzpatrick; now in the Army Ordnance Dept.



Rep. D. P. McFarland became a lieutenant



M. M. Maxwell, once a Clerk, now overseas



Capt. T. J. Cockrell used to promote sales



Pvt. R. M. West was Salesman, Los Angeles

KAW PIPELINERS: 4 ON LAND, 4 ON SEA



Cpl. Arthur J. Ehrsam saw action recently



R. D. Lemen, a Seabee shipfitter 3c



T. Sgt. Clayton Scott; with Army Engineers



Gus A. Nordstrom is Mo.M.M. 2c, USNR.



2nd Lieut. G. C. F. Knackstedt; artillery



Bert L. Golden, a Naval Reserve man



Pvt. H. E. Suttle; in Army oil engineering



H. B. Green, a shipfitter Ic, Seabees

FALL, 1943







H. L. Roush, Clerk, was sent overseas

Capt. M. M. Roberts (left) was an Auditor



Pvt. J. A. McGovern; in the Signal Corps

Cpl. R. W. Coffin (right) was a Clerk









The Navy's Wallace G. Thompson, A. S.

Cpl. James B. Cusick was Bulk Plant Clerk



This is Lieut. (j. g.) M. R. Cothern, Navy

MINUTE MEN OF THE TREASURY DEPARTMENT, NEW YORK



A. J. Johnson, Office Boy to tank destroyer





Dave Shea used to be a Junior Clerk Sgt. J. C. Hartwig was a Stenographer

Almost before America realized that transocean routes had come to be measured in mere hours, the airline that pioneered peacetime continent-to-continent travel and freight service was playing a spectacular part in a world at war. In tribute to the Pan American Airways System, with which it has maintained close contact since the airline's earliest days, The Texas Company is proud to present Pan American's war story in this issue of THE TEXACO STAR.

Flagging in a Pan American plane at an airport in Cuba PHOTO BY HU WATSON FROM GENDREAU

"To Secure the Blessings of Liberty"

The Texas Company (including wholly owned subsidiaries operating in the United					
States)					
Foreign Subsidiaries (operating outside the United States)	48				
Affiliated Companies—Domestic					
Texas-New Mexico Pipe Line Company	58				
The Texas Empire Pipe Line Company	21				
Kaw Pipe Line Company	50				
Affiliated Companies—Foreign					
The Bahrein Petroleum Company Limited, and California Texas Oil Company,					
Limited I	10				
California Arabian Standard Oil Company	13				
N. V. Nederlandsche Pacific Petroleum Maatschappij	5				
Colombian Petroleum Company and South American Gulf Oil Company	18				
U. S. ARMED FORCES ONLY, EARLY SEPTEMBER. ABOUT 700 IN OTHER ALLIED NATIONS' FORCES					