

# Test Pilots, Glamor Boys of Pre-War Period, Now Aviation's Hard-Working, Unsung Heroes



**FIRST TAKEOFF**—A spick-span new P-38 (Lockheed Lightning) is seen above taking off on its maiden flight. The plane is shown as viewed from the field dispatch tower. More than 150 may be aloft simultaneously.

By LEE HORTON

Central Press Correspondent

BURBANK, Cal.—The test pilot who yesterday was the glamour guy of aviation has traded his daredevilry for the serious responsibility of proving America's airplanes for young men who fly into battle.

Without frills or fanfare, he is doing one of the biggest jobs of the war effort. Today his job is an exact science—though it still embodies plenty of hazards—a science which allows no margin for error.

At Lockheed Aircraft corporation where aircraft in staggering numbers is pouring off the assembly lines daily, the testing of planes is a big-time business. From morning until night seven days a week planes are zooming down the air terminal runways on precise schedule and the skies over the surrounding environs are dotted with new fighters and bombers.

It is a slack day when 150 planes are not put through their paces and the record number of craft to be tested in a single day runs considerably higher.

A corps of nearly 100 seasoned, air-wise campaigners—enough pilots to man an airline—are testing fighter and bombing planes, checking performance under simulated combat conditions.

Not too many years ago these men were adventurers barnstorming the country in any crate that would hold together. The cheers of the crowds rang in their ears as they put their flying coffins through impossible stunts at country fairs. Today they are the sane, experienced veterans, doing an important work without applause.

The Lockheed pilot crew includes men who have spanned the oceans and circled the globe to set flying records; former airplane pilots who charted many of the world's air lanes; and ex-stuntmen who seem a part of the planes they fly.

More than 2,000 flying hours are credited to every Lockheed test pilot; at least half of them have more than 5,000 hours in the air; and the rest have been aloft from 8,000 to 16,000 hours.

Chief pilot is likable Milo Burcham, 41, a pioneer in high altitude flight research and flight engineering, and once the holder of the world acrobatic title.

As a young man Burcham was an inventor of gadgets—a fly trap, an automatic lawn sprinkler, doorbell chimes and a burglar alarm. In 1928 he traded one of his burglar alarms for flying lessons, and in less than two years he was barnstorming America and Mexico, carrying passengers for short rides from improvised fields.

Holds Upside-down Mark  
In 1933 he set a world's record for upside-down flying which still stands, winning nation-wide headlines and bids to appear in air shows all over the country. From inverted flying he graduated to stunting, finally winning international recognition in an air meet in France.

In 1931 he went to work for Lockheed as a ferry pilot, and was sent to England in 1939 as chief pilot of Lockheed's Liverpool division, delivering Hudson bombers to the R. A. F.

Finally, Burcham was assigned to engineering flight testing and it was Burcham who lived with the P-38 through its probationary days. Though he is now chief executive of Lockheed's flight operations, he still is one of the men looked to by the manufacturers and the Army Air Forces to test experimental models.

Among the best known of test pilots is Jimmy Mattern, 39, first man to fly solo around the world. The spirit of conquest flowed in Jimmy's veins when he learned to fly in 1928 and the world's uncharted skylanes were a personal challenge. In 1932, with Bennett Grifflin, he flew non-stop from Harbor Grace, Newfoundland, to Berlin in 18 hours and 41 minutes, fastest Atlantic hop up to that time.

The following year, alone, he flew around the world. His plane cracked up in Siberia and he spent 14 days in the barren wastes without food, finally to be rescued by natives. Undaunted he secured another plane and completed his circling of the globe. Today he is one of the nation's crack test pilots.

One of the real veterans of the game is Walter Varney, 56, who learned to fly back in 1916 and served in the Army Air Forces during World War I. Operating his own airline, he won the first air-mail contract award in the United States in 1926, placing six planes in service between Pasco, Wash., and Salt Lake City, Utah. His pilots had nine forced landings during the first three days of flying and it was considered something of a miracle in those days if a pilot made his round-trip run without mishap.

Revolutions drove other Varney airmail projects out of Nicaragua and Rumania. Varney was one of



**CHIEF PILOT**—Milo Burcham, left, Lockheed's No. 1 test pilot, holds a conference with Rudy Thoren, the company's chief flight engineer.

the original group that purchased Lockheed in 1932, and a pioneer in establishing airlines in foreign countries. He still is flying today, testing four-engine B-17s.

Other veteran pilots here include:

Businesslike Al Gilhausen, veteran airline pilot with upwards of 16,000 flying hours under his belt, who spent a year in Java teaching the Dutch to fly and another in China instructing the Chinese Air Force. Al was in the vanguard of pilots ferrying bombers to Britain Africa and the South Pacific.

Avery Black, amiable, quiet assistant chief pilot, who learned to fly for the Army Air Forces in 1918 and served for many years as one of top airline pilots.

Joseph C. Towle, one of the company's high altitude experts and the man who ran a large share of the tests on the supercharged P-38. Joe delivered Hudson bombers to Britain during the early days of shooter with the Army Air Forces in Africa.

M. F. Van Diver, who served with the French Air Force at the start of the war, was captured by the Nazis when they invaded Paris, escaped, and today is a Link trainer specialist.

Activities of the firm's flight operations bear little resemblance to the movie version of the job of testing planes. A department embracing nearly 200 people, it functions like clockwork. After an airplane has passed all production ground tests, has been supplied with gasoline and has undergone the final engine run-up, the field dispatch tower is notified that it is ready for a flight test. Flight clearances are made up and a dispatch tower operator calls the pilot house

for a pilot or crew to check the plane under flying conditions.

### Every Plane Spotted

Pilots are selected for flights from an enormous schedule board which covers one wall of the operations office and reveals at a glance where every pilot and every plane is at all times. The board lists the names of approximately 100 pilots, shows which pilots are flying, the serial numbers of their ships, and those pilots available for tests.



From where I sit ... by Joe Marsh

## Light Words are 'Grave' Words

There's a poster on the wall of Sam Abernathy's store that doesn't say much. It just shows a cross, with a Yankee helmet on it—and the caption: "Light words are 'grave' words."

It isn't hard to figure out what that sign means. Loose talk has dug a lot of graves...and done a lot of harm here at home, too. And still you hear it.

You hear, for instance, talk about our soldiers drinking and carousing around Army Camps. Of course, when you get the facts there's not an atom of

truth in it. A U. S. Government survey found our soldiers were the soberest, the best behaved in history—with most of them drinking nothing stronger than a moderate glass of beer.

From where I sit, that kind of "loose talk" can do just as much to undermine morale as any rumor that the Axis could invent. And it's up to every one of us to spike that kind of sabotage before it spreads.

Joe Marsh

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# Shadowland Adventures

By MAX TRELL

The other night, after the children had gone to bed, Knarf and Hand, the shadows went as usual to see their friend Mr. Punch. To their disappointment he was not in the rocking-chair where they always used to find him. He wasn't sitting on the window sill, or dozing in the corner under the geranium plant, or sitting on the edge of the little shelf near all the books he loved so much. In fact, he wasn't in the playroom at all.

Knarf and Hand were worried. Where could Mr. Punch be? They asked Teddy the Stuffed Bear, who was sitting against the wall with his legs spread over the floor.

"Why—he must be around some-

tion, Army and Navy requirements, and engineering changes in the planes being tested.

All Lockheed pilots must pass strict tests at regular intervals. Twice a year they are subjected to examinations by the medical department. They keep up their instrument ratings by spending at least two hours a week in the Link Trainer and the Stinson blind flying ship.

The test pilots are fully aware of the importance of their job. They work long, strenuous hours. Too old to fly in combat, in most cases, they have yielded their place in the sun to the youngsters who roar into battle, guns blazing.

But when the men who are doing the fighting and dying take those planes up, they can be certain they are as worthy and as dependable as the old aviation warhorses know how to make them.



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