

FOR APPLICANTS

FOR THE

WAR BIRDS

"MORE
PLANE FACTS"

By E. W. CHESS

Booklet

No. 1

An Article on Little Known Dramas of War Skies. The Author Served Throughout the War with the R. F. C. and Later With the Famous Kosciusko Squadron of Poland When They Were at War With the Bolsheviks. For His Valor Poland Gave Mr. Chess an Estate in Perpetuity as Well as the Highest Polish Decorations.

MORE PLANE FACTS

By E. W. CHESS

IT WAS a night in Flanders. A pilot, seated in an R.F.C. mess, glanced at his watch, lighted his cigarette, and walked out upon the dismal flying field. Once at the hangars a man in the costume of a German peasant walked away from the shadowed, impenetrable darkness. The noise of his movements was swallowed up by the roar of a two-seater plane, which stood in dull relief against the night.

"Ready?" he asked in a half whisper.

"Yes," answered the pilot.

They moved to the plane, seated themselves. Suddenly the plane shot forward, to be lost in the blackness that hovered over the lines. Fifteen minutes later the pilot felt the pressure of a hand upon his back. The signal. He retarded the motor, and listened. The man was moving from the back seat. His hand slipped backward, clutched for a fleeting second.

"Good luck!"

And then, quickly and without consideration, the man in the garb of a peasant threw himself over the side, down and down. And another spy had been dropped by parachute into Germany. It was not new. It had been done many times. Sometimes successfully, sometimes not. Just another use of a plane. If good fortune willed, the plane would come back for its cargo. If fortune was not so good, the cargo would find its way to the Holland border, hence to the British lines. Upon his information might hang the destinies of a great war.

There was another and less perilous way to get the aid of spies. It was a most novel device, that of dropping pigeons at a prearranged spot upon German soil. A plane suddenly hovers two or three hundred feet above the earth. There is a flutter of wings, a singular thing to

look upon. Slowly it drops downward. A man picks it up. Pigeons. They are attached by strings to a metal ring, the weight of which forces the pigeons to drop as they struggle to go upward.

One after another the carrier pigeons are allowed their freedom, messages attached to their legs within small tubes. When all are gone, others are replaced by pilots who bring them from the Allied lines.

And all of these things must not be seen. It is fatal if they are. Night, clouds—everything helps!

All of which brings up camouflage and its use upon planes. It never could be successful; it never will be. A plane whatever its color, is black at a distance. Jet black. Then why did most of the German planes use camouflage? Simply because at close quarters the brown, red and green of the upper wing did not attract too much attention. A plane might sail on closely beneath another without being seen.

Camouflage was never used on the under side of the wings!

Such a thing would confuse a pilot for a moment, but not longer. Similar to that was the mock city of Paris, ten miles south of where the present one lies. Its streets eventually were to be the same as Paris, lights and everything. It was to have confused German night bombers. It may have. It turned out to be a dream.

In records about bombing there is one of the most startling of all proposed raids, the great raid upon Berlin. Distance had always forbidden such a startling act. Impossible! But upon November the fifteenth, the Independents of the Royal Flying Corps were slated to bomb Berlin. The D.H. 9s which were to be used, carried enough gas for approximately three hundred miles. To Berlin and return was a little more than that distance from the closest point of the Allied lines. Not a man slated for that raid expected to return. It would have cost millions of dollars. Then why the raid? A single raid upon Berlin would have demoralized its people. It might even have precipitated the end of the war. But the raid never came about, for it was to have taken place upon the fifteenth. Upon the eleventh, four days before, the armistice was signed.

Along with that comes another thing which almost ran pilots crazy. Contact patrol. Men went forward, took trench after trench just before the end of the war. Staff was wild. What had been taken and what hadn't? They appealed to the planes. Planes alone could find out.

Easy! But no nastier job was ever invented by the gracious staff. Allied troops were supposed to shoot Very pistols of a prearranged color into the air whenever an Allied plane passed. But did they? They did like hell. They'd worked to take their trenches, and to hell with everything else.

What then? Planes on contact patrol were forced to come down within ten feet of the ground and look at the color of the uniforms in the trenches before they could be sure of its occupants. Then when the observer of the plane marked the newly acquired trenches he was supposed to drop his map at H.Q. In very active times, when trenches were taken and retaken every few minutes or so—well, that was the reason pilots drank themselves to death.

Very pistols were great things, anyway. In the early years of the war they were used by observers in the directing of artillery fire. Blue, right; red, left; white, long; green, short—or whatever might be the order for the day. After the observer shot a half dozen of them, every German in the air knew where he was. Another reason for pilots never being exactly sober.

But pilots were young, most of them, and it took a lot to make them sad about their work. The English conceded, after looking over the ages of their best men, that the finest age for a flyer was twenty-one. Some of their greatest were less. Ball was just nineteen when he was downed. And look at our own Luke, the same age. Udet, the greatest flying youngster of the Huns, was less than twenty!

Along with Luke comes thoughts of what the Americans contributed to war in the air. Ring around the Rosey, as it was called, was first used by them. It was a move for two-seaters just before they were attacked. Upon sighting the Huns they stretched out into a line and circled. They simply circled after that, and all hell could not stop them. The observers did the only shooting, and the pilots stuck to the circle. Think what fear twenty such planes could inspire in the minds of a few Hun single-seaters on the loose.

Two-seaters weren't so good at self-protection until then. Yet there was a tale told about Irvin, who dropped into the Pacific Ocean in 1928, with his last wireless message tragically floating out into the air: "We are going into a spin again." On the French Front, Irvin was in a Salmson two-seater outfit. He was famous for bringing back dead observers. Rorison of the Thirty-third met him just after he'd got his fifth Hun and second observer.

"Say, why don't you get off these two-seaters? Get on Spads and get some Huns!"

"Well," said Irvin, "I went up yesterday and I got one. I'm going up this afternoon and I'm going to get one. Tomorrow I'm going to get two. That'll be eight. Now that won't be so bad."

So much for the two-seaters, and back to the singles and what the Americans did with them. The "Hat in the Ring" was the first chasse outfit to adopt one of the most novel of all methods for keeping alive over Germany. From the moment it left in formation, until it returned, it never flew a straight course. Up to the left, then arching down and up to the right; from the right, down and up to the left. Each movement took about thirty seconds, and all of them moved together in that surging motion. A strange thing to look upon. Twenty going over the sky, and never still for a moment. The movement completely eliminated ever being taken by surprise. None were still long enough for an unheralded and unseen enemy to measure his sights upon any of them.

There were a lot of tricks. Some of the men put mirrors on the right center-section strut. Looking into them eliminated the need of spending half the time watching their tails. The mirrors were mostly taken from automobiles where they were used for watchings cars approaching from the rear.

There were numbers of pilots who removed the round convex guard from the boss of shot-down German planes, and put them upon their own. The most streamlined of all was the one upon Albatross D-3s. It could be made to fit almost anything. By that simple stunt Allied planes could increase their speed by a couple of miles per hour. That might sound difficult to swallow, but not when you know that when the speed of a plane is doubled, its resistance is squared! If the resistance of a plane at fifty miles an hour is one hundred pounds, at a hundred miles it is ten thousand! Think that one over.

And when you're looking over strange information about war planes, look at the little square which informs you how long a plane can stay upon the surface of the water, if properly landed. The S.E. 5s, which were land planes, lasted twenty minutes. Possibly only the British used this information because their planes were ferried across the Channel. Some dropped. It was a great consolation to the pilot to know then how many minutes of grace he had.

The British were great for details. In one of the ground-school instruction books you'll find the following information.

Landing—When a pilot is forced to land, there seemingly being no visible means of telling wind direction, such as smoke from chimneys, waving of trees, etc., it is wise to know that grazing cows point their tails in the direction whence comes the wind.

And that's that.

Heaven knows they had plenty to learn besides that in schools. Not a pilot went through ground school but that he could hammer out twelve words a minute, five letters to a word, on a telegraph key. He had to be able to receive the same number of words. The Morse Code was used by all countries. Not only did the wireless use that code, but they used panels, also.

Panels were about twelve feet long and laid upon the ground. There was a handle at one end almost the height of a man. Pulling the handle back caused the panel to flash white. Forward, it flashed black. Dots and dashes were sent up to a plane in this manner. A long white period was a dash, and a short was a dot. Early in the war they tried to put panels on the bottom of planes, to be operated from the observer's seat. But it was unsuccessful. They tried claxon horns, too. They also failed. Still earlier in the war the plane simply circled right or left. But that was dispensed with as soon as possible. Observers soon found out it took all afternoon to send the simple and, at times, somewhat poignant remark:

G—O—T—O—H—E—L—L—.

One of the most asked and least answered questions shot at random toward unsuspecting pilots was this, "Were you ever afraid?" The pilot usually rolled his eyes in a careless, yet troubled way, and said nothing. Better nothing. Far better.

Pilots were afraid. There were times when they were damned near crazy. Seldom, if ever, did a flyer start over the lines without feeling the cold clutch of fear upon his heart. Once he got into the air, it left him. Confidence came, and assurance.

"Taffy" Jones of the R.F.C. used to walk out upon the field, move his eyes over the sky, and say, "Damn it, man, I wish there were clouds." He'd look about a little longer. Down the lines the planes

would be revving over. The smell of burnt gas would be in the air. But not a cloud, not a cloud. "You know," he'd say, "these damned five minutes before getting off—God, they're hell!"

And Taffy Jones, with forty-two in six months, would be shaking like a leaf in autumn.

There were some, of course, who never seemed to feel fear. Men don't like to tell you when they have it. Long periods of calm would pass upon the Front. And then, suddenly, and for no apparent reason, fear would clutch you with steel fingers with the strength of a vise. No use rebelling. Just suffer and bear it. It would go if you waited long enough—or lived long enough.

Most all jobs were bad enough to give a man a goodly share of the funk. Any of them could be done once without much effect. But the monotony of any one of them ultimately got under the skin. Few men in the trenches could boast of going over the top more than three times. They told of the fear they had. Yet it was not unusual for an active pilot to go over four times, even five in a single day.

There was another bad job, and one which seldom got credit—the men who took the pictures. An interesting thing about the taking of pictures was what were called mosaics. Mosaics were pictures taken of an entire sector, and pieced together. One picture would not be enough. Hundreds had to be taken and used sometimes before a sector could be covered. The pictures were taken from three to six thousand feet altitude. Often much lower, at a thousand, even. The height varied.

There was a slide handle upon the right of the camera. By moving the handle up and back a new glass negative fell into position for a picture. The one which was there was pushed out. In taking a mosaic the plane always moved at a predetermined height, and from south to north, and return. As the plane went forward the observer would snap the camera. At the moment it snapped he would count until he got to ten. As he counted he would move the handle up and back, thereby changing the negative to an unused one. At the count of ten the camera would be snapped again. The counting would start. One, two—the handle up and back—eight, nine, ten, etc.

Cameras carried twenty glass negatives. Once they were used, the plane returned to the field for a new supply, and the observer would take up his work where he left off.

When all the pictures were taken for a sector, they were pieced together by experts; trenches ending on one would be found continuing on another. They always were made to overlap. One after another they were pasted upon a large board. The board would often be ten feet square, containing as many as five or six hundred pictures when finished. But maps ten feet square could not easily be sent around the country; hence pictures were again taken of those maps. They could be made any size.

Mosaics were taken of active sectors every few weeks, sometimes every few days. It was one of the most important of all aerial activities.

Thinking about mosaics recalls an interesting fact. It had to do with the practice of bombing in schools. In almost every flying school there was what was known as a Bombing Shack. The shack was small, about ten by ten feet. In the center of its roof was a large lens. Centered beneath the lens was a table with a clock painted upon it.

All practice bombing upon a school field was done without bombs. What acted as a bomb was only a wireless key. The objective was the bombing shack.

The plane went over. The observer or pilot looked through the sights. When he thought it time to release his phantom bombs, he pressed the key. Within the bombing shack, strange things happened. The lens within the roof cast a picture of the moving plane upon the table and the clock. The receivers at the ears of the watcher buzzed. He marked the position of the plane at that moment. From that he could calculate the exact place the bomb, had there been one, would have fallen.

Grades were given upon bombing just as grades are given in any school. Some men showed a natural bent toward the thing.

There was another thing of note. It had to do with machine-gun practice and lenses. It wasn't necessary to shoot a gun in order to regulate the sights. There was a little trick, which looked for all the world like a periscope with a mock cartridge at one end. By placing the mock cartridge into the chamber of the gun, and looking through the other end, it'd tell you just where the bullet would go. Just a little mark on the lens, that was all. They were very accurate.

Along with guns comes practice. At schools there were many methods used. In Canada the Royal Flying Corps cadets used to dive at floating

targets the exact size of a plane. It was easy for the cadet to tell how far he missed his target by the splashes in the water. When floating targets proved to lack reality, an armored motor boat acted as the target. The illusion of a fleeing plane was complete. It was great sport.

Targets were also towed by other planes. A two-yard square of canvas was attached like a flag at the tail of a hundred feet of wire. A plane pulled it through the sky to be shot at random. The mortality record of that manner of practice was almost as high as it was on the Western Front. But cadets seemed to need that element of chance to sharpen their wits. Some of the finest pilots ever to get into the air received their instruction at the Royal Flying Corps schools, Everman, Hix and Benbrook, located just outside of Fort Worth, Texas. Of every ten cadets who went there for his three weeks training, only nine came out alive. The well remembered Lieutenant Vernon Castle met his death there.

But the casualties upon those fields were little more than upon any other British field. The British had a conviction that it was best to make their flying fields difficult to get through. If cadets lived through, luck and God were enough upon their side to carry them for a few weeks upon the Front.

Even then, after the British sent cadets through their hardest of all flying schools, England convinced herself that the killing off of a few more might strengthen their moral sense. Most every British cadet was sent through the super flying corps called Gosport. There were several Gosport schools in England. There were none in Canada and none in America. At Gosport, pilots flew themselves sick. They were allowed every liberty in the air and upon the ground that a pilot could think of. And some took the liberty of shortening their life upon this earth. But what difference!

It seemed strange, but when every one else failed on the Front, there was a single cry, "Let the planes do it!" The planes could do anything. Intermittently, until the termination of the war, hundreds of thousands of propaganda leaflets were distributed by the Allies among the German soldiers and non-combatants. And who distributed them? Why, the planes. Who else? The leaflets were rolled up by a cord, a handle on one end. When the observer got to his destination he simply held the handle and threw the roll. The cord unwound, and the result was a fluttering of leaflets over the sky. They dropped slowly, scattering over the countryside for miles around.

Yes, let the planes do it! But there was one case when the planes both did and didn't do their job. For some incomprehensible reason, the Italian and the Austrian pilots were friendly disposed toward each other. Their warfare in the air showed surprisingly small results up to the Piave fiasco. There were more men shot down on the French Front in a week than in twenty upon the Italian. What was the trouble? The staff members shook their gray heads. Rumor had it that Italian and Austrian pilots were so well disposed toward each other, that they waved—waved, that was the word they used—to each other as they passed in the air.

"Incredible!" said the English air board. They hurriedly shipped to the Italian Front two of their "posh" outfits, the Forty-fifth Camels, and the Fifty-fourth S. E. 5s. Whatever happened upon that tragic Front after their appearance was never definitely learned. What is more to the point, those two British squadrons came back with smiling faces and exceedingly few casualties. But the scores they ran up were terrific. The British were never very fond of hand waving as a military salutation to one's enemy.

And right here, just one crack at the R.F.C. More than once in the Trocadero Bar a pilot was seen to get up from his seat, and heard to say, "The grand, old Imperial Royal Flying Corps of England—made up of Canadian, South Africans, Australians and Americans!" And seemingly no one took offense. Possibly because there were too few English in that bar where all of the flying men met when in England on leave.

When one thinks of the Front, one thinks of hundreds of thousands of planes continually and forever going over the Allied lines. A sad, a very sad error is that. Never, never upon the Allied side of the French Front were there more than two thousand five hundred planes ready for action. During the dark days of March and April '17, the number dropped down to almost a thousand! At the same time the Germans boasted two thousand two hundred. This seems astonishing when one remembers that America said she would have ten thousand pilots upon the Front. Just an idle threat, that was, an idle dream. There were hundreds of pilots back of the lines, but it was a long hop from green fields to the blue skies over No-Man's-Land.

But with only those few upon the Front, there were men who more than did their job. Major Trollope got six credits in one day. It

was said that upon one active day, Barker, the Canadian, equalled him. However, the air board, ever accurate, accredited him with just five. There was a day when Bishop dropped down upon his field with his hands in the air, a Hun for each finger, and a two-seater for the thumb. That was a day's work, too. Fonck, also, got five in a single day. The great von Richthofen never equaled any of those records, but upon four different occasions he was given credit for four a day. Had those four days come one after another, he should have had sixteen in four days! What a record that would have been. Udet and Bohn, both great German pilots, were accredited with five each in a single day. Claxton, the Englishman, also did the trick; and Coppens, the Belgian Balloon-Buster, put five of them down one fine spring Monday.

Of the Americans, Frank Luke was the only one to whom the annals of American flyers have been generous enough to accredit five successes in a day. There was always some question about David Putnam's five. Pilots have often spoken of it with surety. Putnam said so himself. But only three were ever seen. Possibly he did too good a job of the other two.

But with all of their fives, one of the greatest fights that was ever seen over the Western Front occurred late one April afternoon, west of Lens. McCudden was the pilot, an Englishman. He had over fifty to his credit of that day. He might have had no more had he not, by some strange freak of fortune, run into twenty Fokkers. The fight lasted for fully twenty minutes, and in those twenty minutes four Huns went down. They were strewn from Lens to the southeast for twenty miles. No fight had a larger audience, for the battle occurred directly over the lines. McCudden landed with plenty of holes in his plane that afternoon, and he landed with a Victoria Cross awaiting him. The king pinned it upon him several months later within the palace grounds, in London.

All of which gives a thought about the number of holes a man could come back with. Twenty was not unusual. Forty was enough to receive mention here and there. A pilot couldn't boast until he had returned from a pleasant trip over the lines with fifty holes through his plane. And that, believe it, was worth boasting about. Anti-aircraft guns never were worth more than a moment's worry. It was machine guns that did the work. Norman Hall tells of a case of a direct hit by a German battery. The plane was there one minute. The next it was gone. And that too was something to be boasted about, not by the pilot, but by the man on the ground.

But whatever it was, whether five in a single day, or the setting of a plane with fifty holes upon a somber field, remember, and remember well, that the greatest of the flying deeds may still go unsung. The greatest of war flying may never have been seen. The greatest of pilots may never have had a chance. They may have waited back of the lines. They may have still been waiting the day the armistice was signed.



Questions for your entrance examination to the *War Birds* are based on information in this and pamphlets Nos. 2, 3, 4.





No one will wear the *War Birds* wings or carry the *War Birds* card who does not know of, and respect, the things that make up the life of a sky warrior. There is an examination to be passed before you qualify—and it is not an easy examination. But, when you have passed it, you will know the glory of really "belonging." Your wings will not be a mockery—they will stand for something tangible and you will have won the right to wear them.

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