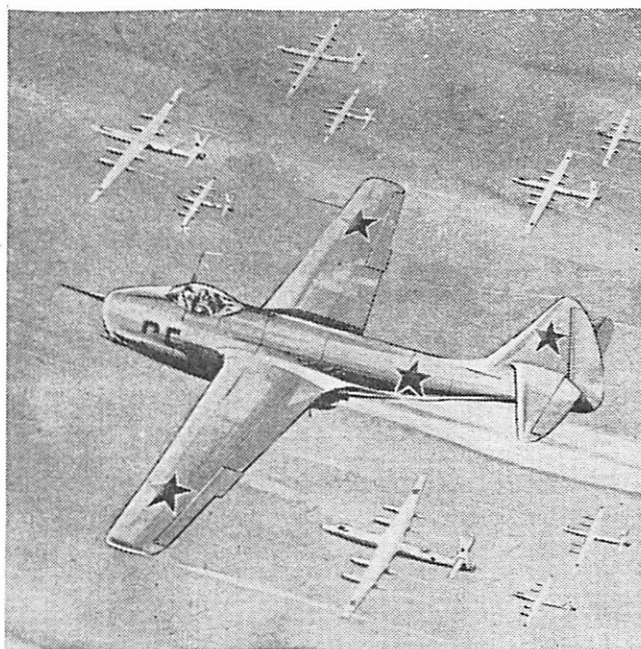


Solving the Riddle of Soviet

SHROUDED IN SECRECY, RED AIR POWER REMAINS AN ENIGMA. ENOUGH FACTS HAVE FILTERED THROUGH THE CURTAIN, HOWEVER, TO REVEAL THAT RUSSIA IS A FRONT-RANK POWER IN THE AIR

By Robert Russell

Exclusive to Canadian Aviation



—Courtesy Argosy Magazine.

Russia's fastest fighter, the MIG-7 (foreground), has been clocked at 659 mph and, it is claimed, can outdistance any standard United States jet by 75 mph. The two Chelomey jet engines of the MIG-7 deliver 4,000 lb. thrust each and are placed at the bottom of the fuselage where a ship-like keel separates the jet flow. Armament consists of a 37 mm. cannon topside and two 12.7 Bersin machine guns below jet intakes. Wingspan is 42 feet.

RUSSIA has curtailed her air power in great secrecy but sufficient information has filtered through the screen to indicate the existence of a dangerous challenge to world air supremacy. Aircraft bearing the red star insignia, far from being the out-dated and poorly constructed types assumed by wishful thinkers, are remarkably advanced. This much has been established from reliable sources.

Since the end of the war, Russia has intensified her research program both in aircraft and accessories. She has made good use of the spoils of war

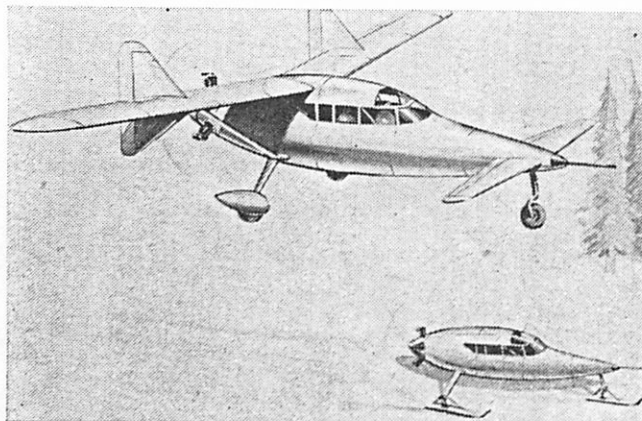
to implement her ample resources with the highly-skilled labor of qualified technicians from occupied Germany. Into the factories have also gone the brains of the German aeronautical world. Significant of the attention being given to aviation is the fact that out of 10 Stalin Prize Awards for 1947, no less than five were presented to aircraft designers for "outstanding inventions and technical improvements." And all of these experts are well-known in the western hemisphere for their research work on supersonic speeds.

What equipment has the Russian

Air Force? Does it compare in efficiency with those of the western allies? Are they equal to us in technical development? Are their aircrews as thoroughly trained? What is the present strength of their Air Force? None of these questions can be answered very accurately but from the following details and figures the reader can gain certain impressions.

There have been two lines of thought as to why the Russians have been so reticent about revealing anything to do with the organization and quality of the Red Air Force. One school has argued that secrecy has been used to conceal the poor quality of Russian aircraft. The other school argues that their equipment is so excellent that they have every justification for keeping the information quiet. The latter argument is more likely to be true since a considerable proportion of their research work has been in the hands of the world's greatest scientists—the Germans. Whatever theory is adopted one thing is certain, that the Russians have an enormous aircraft industry and an industrial potential equal to any of its contemporaries.

In the "World Aviation Annual" produced by the Aviation Research



Russia's "air-jeep," the MIG UTKA or "Duck" will travel at high speed without wings on ice, snow or water. It is powered by a 145-hp engine and will fly at 125 mph.

—Courtesy Argosy Magazine.

et Air Power

Institute of Washington and Norwich University, it is stated that the Russian aircraft industry, which is still concentrated in European Russia (it has not been moved behind the Urals as at one time suspected), is "large and modern even compared to American standards." Concerning current Russian aircraft production, the annual claims that the present figure may be only a little less than the 40,000 a year aircraft-output maintained during the war. It claims that at least 1,000 giant bombers are to be completed by the end of this year while at least 200 jet-fighters are coming off the final assembly lines each month.

In a recent Air Day speech Marshal Konstantine Vershinin, Commander-in-Chief of the Soviet Air Forces, denied Anglo-American claims that Britain and the United States had played a decisive role in the defeat

(Continued on page 50)

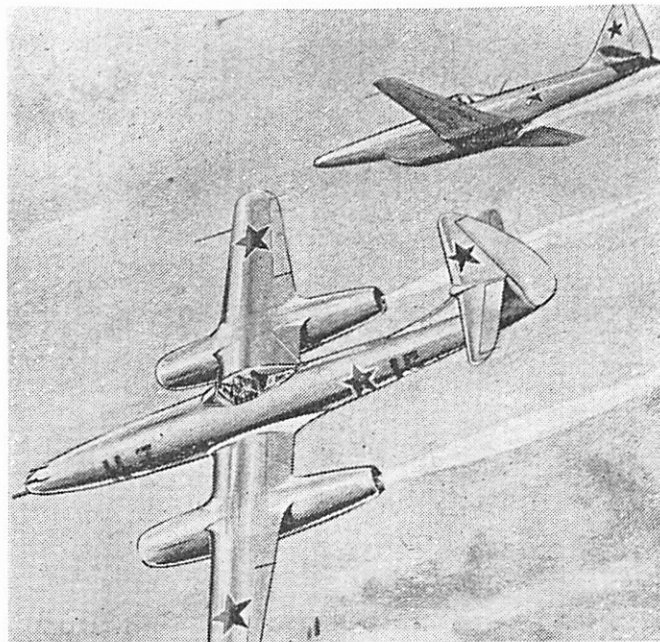
Air Progress in Russia

THAT Russia has the atomic bomb and the ability to get it here is claimed in an article, "Russia's Secret Air Power" in the August issue of Argosy Magazine. This story, documented with hitherto unrevealed illustrations of Russia's newest planes (reproduced here) shows the full significance of the strides the Soviets have been making in preparation for World War III.

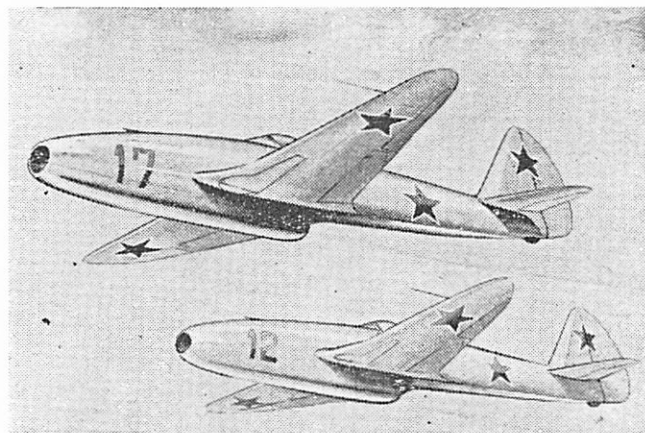
Highlights of the article are the assertions that the speed of sound (763 mph at sea level) was exceeded by a Russian pilot, flying a swept-wing rocket plane, about three months before America's XS-1 pierced the sonic barrier over Muroc air base last fall, that the Reds have in regular operational service between 2,300 and 2,400 new-type jet-propelled combat aircraft, including a four-jet bomber and a two-seater, twin-jet armored "storm" plane and that Russian technicians appear well advanced in transonic combat problems involving high-speed gunnery, bombing and combat tactics which are puzzling U. S. and British experts.

According to editors of the publication this information and the five secret illustrations of Red Air Force planes were gathered behind the "Iron Curtain" by Balkan observers during the Czechoslovakian crisis. They further state that Jane's "Aircraft of the World" is using this material in their next edition.

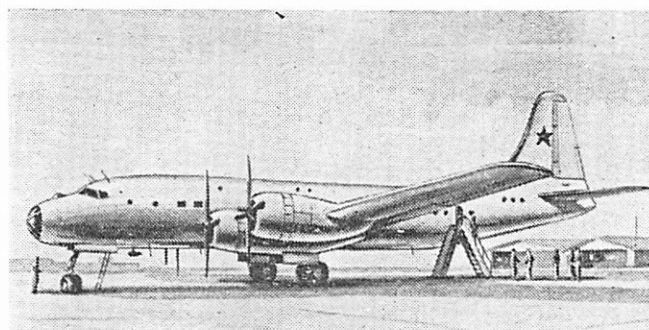
The big twin-jet LA-8 Russian fighter shown here has a top speed of 610 mph. It has a 48-ft. wing span. The other plane is an undesignated fighter.



Russia's oldest jet fighter, the YAK-15, which was flown against the Luftwaffe over Berlin late in the war. It has a 4,000-lb-thrust engine and top speed of 579 mph.



The TU-70, described as a pirated version of the B-29 Superfortress. It is claimed the Russians are mass-producing these.



—Photos Courtesy Argosy.

Other significant revelations in the article are that the Tu-70, airliner copy of the B-29, is already in large-scale mass production, that good progress is being made with advanced versions of the German A-9 rocket, that a jet engine now in development is capable of producing 6,000 lb. thrust and that underground plants, hidden airdromes and hangars dot the Lake Baikal region.

The significance of all this, accord-

ing to the article, is that the speed and quantity of "absolute weapon" research and the building of formidable long-range bombers indicate motives which are hardly "defensive." Within one year, the article asserts, the Russians will have a bomber force with the necessary reach and depth to deliver and sustain an atomic attack—"just the time required for them to perfect a compact bomb which can be airborne."



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Soviet Air Power Riddle

(Continued from page 17)

of the German Luftwaffe, saying that the bulk of the allied air forces had been concentrated elsewhere than in Europe, defending the British Dominions. In our eyes this reasoning appears to be rather futile, but, after all, the allied air forces were not operating in close contact with the Russians so we can only presume that we did the larger part of the aerial bombing of Germany.

We have heard so little about the activities of the Soviet Air Force during the war that their air force might quite well have been non-existent. They have a similar picture of the allies.

Where then did all the lend-lease aircraft go once they reached Russia, and why was so little heard about them? The point is debatable, but one thing remains certain: the Russian Air Force was formidable during the war, is far more formidable now and soon will be very much more formidable.

In his Soviet Air Day address the Russian commander mentioned that Russia was rapidly adding jet fighters and bombers to their expanding Air Arm. He claimed that Russian fliers were the first to perfect group aerobatics with jet machines. So little is known about her Air Forces that we can hardly deny this statement without putting up other evidence.

It is interesting to note that Russia has always had one of the largest networks of airways systems in the world and there is therefore no concrete reason to suppose that she has not the opportunities to create and maintain an aircraft industry on an equal footing to those of Britain and the United States.

Some sources have said that Russian transport planes, bombers and fighters are of a poor quality compared to ours, but there is every reason to believe that the vast experience they have gained in civil aviation has been incorporated in the operating efficiency of their war machines. There used to be a feeling that quantity rather than quality was the keynote to their production program, but this can hardly be the case today. Perhaps their technical standard of radio and ground aids is below par. However there is no reason to suppose that they are now behind us in any aspect of aeronautical development.

On the tactical side, there is evidence that Soviet experience is some-

what lacking in the operation of long-range aircraft as they have never yet had the need to fly over long distances. In consequence, they have had little experience in the need for engine supercharging; however they are well advanced in the knowledge of axial-flow compressor units which they obtained from the Germans. On the other hand, it may be significant that they have placed orders for British turbo-jets, which could indicate a lack of knowledge of centrifugal compressors. As a matter of fact, Russia imported \$15,000,000 worth of aircraft engines and accessories from Britain and the United States during the last year, which rather speaks for itself when one is criticizing their lack of information with respect to such engines.

But the question of long-range flying within the Soviet Union is an important one. Although they are presumed to be backward in this respect there is really no reason to suppose that they have not already acquired a tremendous amount of experience in the last few years. Their internal airlines are used to covering great distances, and while their bombers have never operated over such ranges, the fact that they are building copies of the American B29 shows that they at least have the necessary knowledge available.

The Soviet is in fact building up a vast organization of long-range striking forces, and it would appear that they are developing most technical devices to complete the efficiency of a bomber formation. It would be a short-sighted policy if they were building these machines without keeping up-to-date on all devices which are necessary to their efficient operation.

The authoritative "World Aviation Annual" quotes the strength of the Soviet Air Force as just under half a million men and 14,000 first-line aircraft. This is only the beginning; as already stated, 200 jets are coming off the line each month and a number of aircraft firms are engaged in the production of enormous transport aircraft which strangely enough resemble the B29 and other types of American aircraft. These factories are obviously working for military purposes under the guise of civil aviation; they could be converted at very short notice to military production.

In the field of supersonics Russia has claimed that her aircraft already

have reached the speed of sound. This may well be the case; she certainly has turbo-jet fighters in squadron service and several twin and four-engined jet bombers in advanced stages of flight tests.

It would be difficult to overestimate the size, strength and efficiency of the Soviet Air Forces. They are growing rapidly but keeping all knowledge to themselves, while gleaning from the rest of the world all the skill and knowledge possible.

We should take note of small items which are mentioned from time to time and piece them all together and only then will we see what is happening within the Soviet Air Force.

For instance a recent proclamation was sent out to every town and village in Russia announcing the formation of civil defense organizations for the three services. Particular attention was given to the Air Force, and the stress was laid on youth organization.

Here is an excerpt from an authentic report by an observer at the recent lavish aviation display over Moscow:

"For 90 minutes the Russians showed equipment with which they will defend Soviet skies . . . the planes included all types from one-seat trainer gliders to massive jet bombers . . . hundreds of parachutists were drop-

ped from 45 transports . . . women pilots stunted Yak fighters . . . youths flew gliders as large as America's greatest . . . helicopters and jets flew past . . . and all under the beaming eyes of Marshal Stalin himself."

Then again, we know that the Russians have some very fine civil aircraft such as the IL-12 and the TU-70. The latter machine was designed by A. N. Tupolev, one of their greatest designers in Russia. It has a cabin capacity for 70 people and bears a very close resemblance in its tail, rear fuselage and wing shape to the American Superfortress. Also its engine installation and undercarriage arrangement are identical. It is interesting to note that General Spaatz of the USAAF is quoted as saying that the Russians were building a bomber based on a Boeing 29 which force-landed in Manchuria during the war. No doubt this is the origin of the design.

In the lighter type of transport aircraft the Russians, of course, are using their own version of the ubiquitous Dakota, but this is now being replaced by the very efficient IL-12, which has a better payload, a higher cruising speed and a larger passenger compartment. Designed by another of Russia's famous designers, Iliushin, it is indeed a quality machine similar to the Vickers Viking; and, according to the scanty information available, has a cruising speed of about 200 mph, a range of 1,240 miles and a capacity for 27 passengers. Two 1,600 hp radial engines, driving four-bladed constant-speed airscrews, provide the source of power.

Strength is Formidable

All these aircraft, even the elementary trainers and the wartime YAK 8, 12 and 14s, are ample evidence of the potential strength of the Soviet Air Forces. Nothing but further first-hand information can reveal in more detail the hidden secrets, but one thing is certain, the Russians are not wasting time in their research, development and building up of their aircraft industry.

Whatever their aims should be, their strength is formidable. The 500 and 600 mph jet fighters we hear so much about in the West are not the copyright apparently of these countries. It is merely that Russia is remaining silent about her work.

We do not hear a great deal about the first flights, and the pioneering work of any aspect of Russia aviation.

It is a significant fact, nevertheless, that Russian aeronautical research and aircraft production have not been relaxed for a moment.

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