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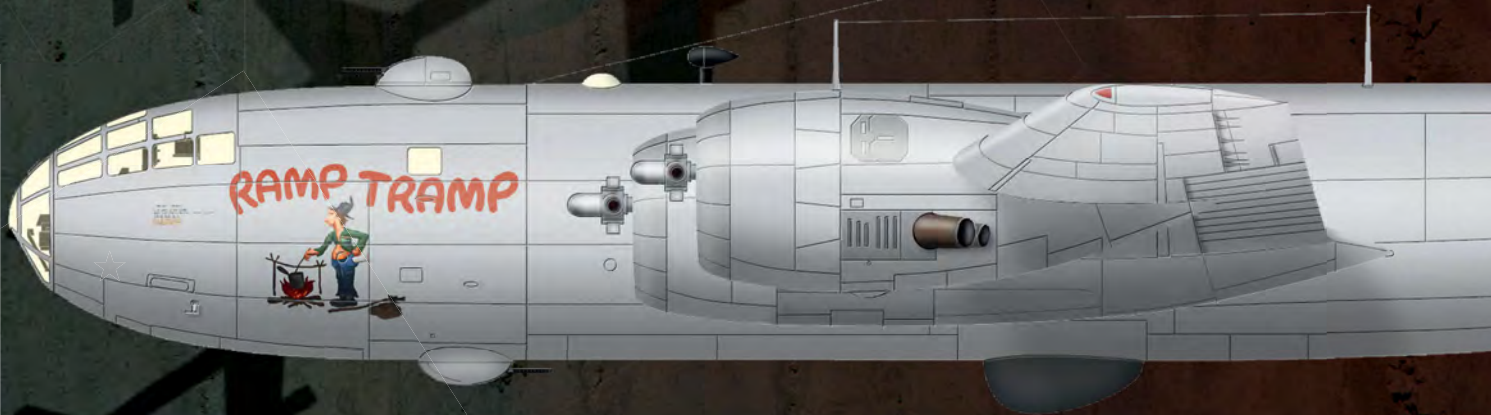
VLADIMIR KOTELNIKOV EXPLAINS HOW THE USSR TOOK THREE FORCE-LANDED B-29s FROM THE USAAF AND FOUNDED THE NATION'S STRATEGIC BOMBER FORCE

ABOVE
Superfortress 42-6256 'Ramp Tramp' after landing at Tsentralnaya-Uglovaya near Vladivostok, July 1944.

RIGHT
The former 'Ding How', B-29 42-6358 at Izmailovo, Moscow, summer 1945.

Test pilot 'Eddie' Allen eased back the control column on the prototype of what was hoped would be a war-winning bomber at Boeing Field, Seattle, Washington State, on September 21, 1942. This was the XB-29 Superfortress and the second example was airborne three days before the end of the year. What had started as the so-called 'Hemisphere Defense Weapon' in early 1940 was a closely guarded secret.

During the spring of 1943, another Eddie, World War One





The tail of B-29 '365' being prepared for transition to the factory floor to help make construction plans.

fighter 'ace' Edward Vernon Rickenbacker, was on a whirlwind tour of China and the Soviet Union as special aviation adviser to President Roosevelt. He was given exceptional access in the USSR, including a visit to an Il-2 'Shturmovik' factory.

After bidding farewell to the Americans, the Soviet liaison officer to Rickenbacker and his team, Captain Smolyarov, filed his contact report which included mention of a 'super-bomber' under development. Intentional or not, the USSR was an ally of the USA so this 'leak' aroused much interest within the Soviet high command. Smolyarov was ordered to prepare a detailed report on everything he had heard about the new type.

On July 19 General Belyaev, head of the military mission in the USA, enquired about the possibility of a B-29 being handed over to the USSR. The answer was emphatically in the negative.

The Soviets were persistent; on

May 28, 1945 a request was made for 120 B-29s under Lend-Lease for the campaign against Japan. Once again the reply was a firm no.

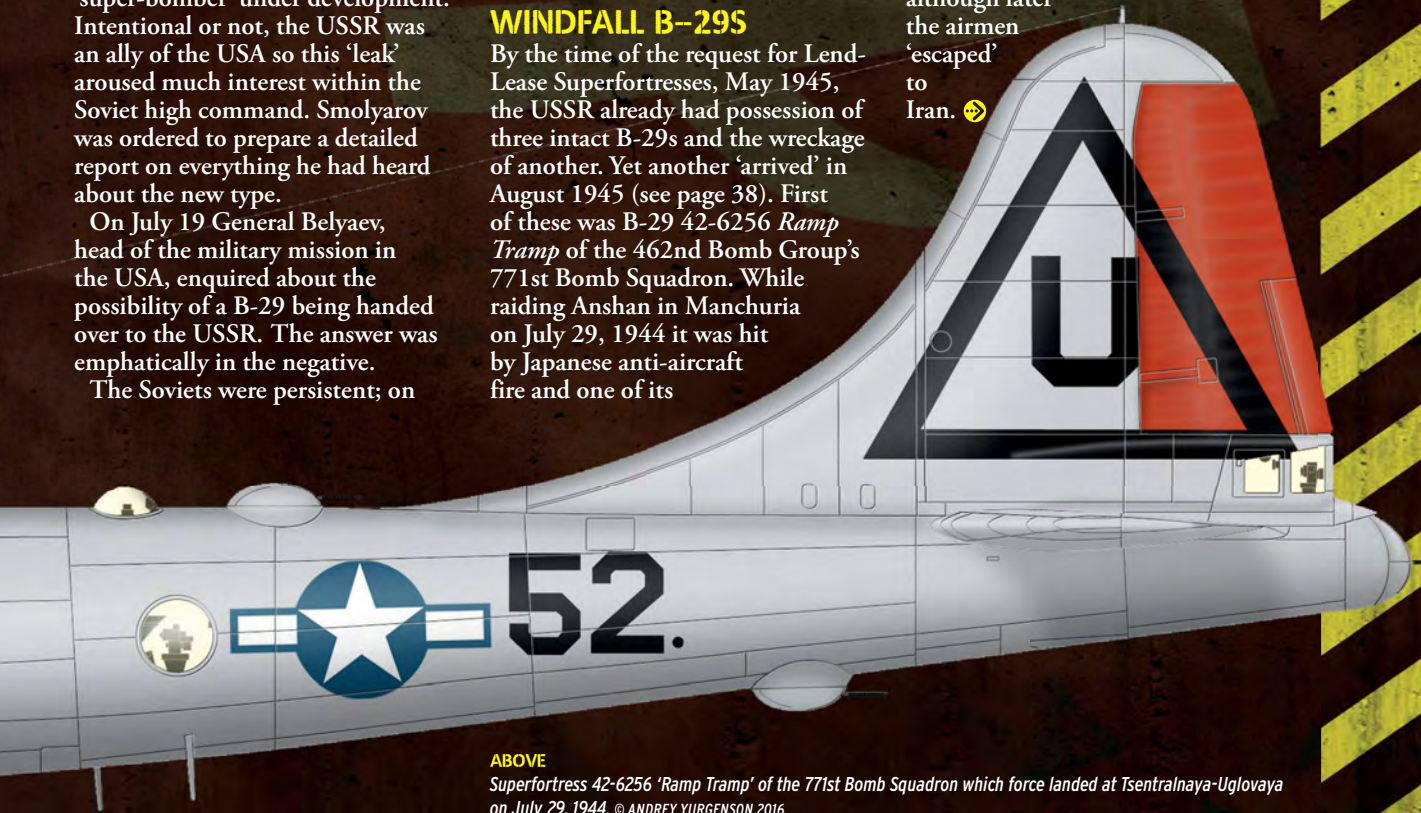
In the early summer of 1945 the USSR was not fighting Japan, although Stalin had pledged to enter the war in the Pacific. Moscow declared war on Japan on August 8, 1945 two days after B-29 *Enola Gay* had dropped an atomic weapon on Hiroshima.

WINDFALL B-29S

By the time of the request for Lend-Lease Superfortresses, May 1945, the USSR already had possession of three intact B-29s and the wreckage of another. Yet another 'arrived' in August 1945 (see page 38). First of these was B-29 42-6256 *Ramp Tramp* of the 462nd Bomb Group's 771st Bomb Squadron. While raiding Anshan in Manchuria on July 29, 1944 it was hit by Japanese anti-aircraft fire and one of its

big Wright Double Cyclone engines failed.

Captain Howard Jarrell realised that his fuel was running short and he elected to divert to a Soviet base. The bomber was intercepted by fighters of the USSR's Pacific Fleet Air Force (PEAF) and 'escorted' to the airfield at Tsentralnaya-Uglovaya, north of Vladivostok. In accordance with the Soviet-Japanese Neutrality Pact, the aircraft and crew were interned although later the airmen 'escaped' to Iran. ➡



ABOVE Superfortress 42-6256 'Ramp Tramp' of the 771st Bomb Squadron which force landed at Tsentralnaya-Uglovaya on July 29, 1944. © ANDREY YURGENSON 2016



BELOW
 B-29 'Ramp Tramp', tactical number '256' of the 890th Long-Range Bomber Regiment, Balbasovo, Orsha, July 1945. © ANDREY YURGENSON 2016

"MARUNOV ALSO GOT AIRBORNE, BUT HAD MANY DIFFICULTIES AS NEITHER HE NOR HIS ENGINEER, CHERNOV, COULD READ ENGLISH AND HAD TO GET FAMILIAR WITH THE HUGE BOMBER WITH THE HELP OF A THICK RUSSIAN-ENGLISH DICTIONARY"



ABOVE, LEFT TO RIGHT
 Tu-4s on the ramp at Factory 22, Kazan.

The first Tu-4 after an emergency landing near Kolomna, September 18, 1947.

The Ressing 346-P under the starboard wing of B-29 256 at Teply Stan, Moscow, 1948.

BELOW
 The first Tu-4 during factory testing.

Ramp Tramp was destined not to return home; another 'mission' awaited it.

People's Commissar of the Navy, Admiral Nikolay Kuznetsov ordered that the Superfortress be studied and evaluated. Three pilots who were familiar with Lend-Lease American types, mostly the Douglas A-20 Boston, were sent to the Far East.

As of January 1, 1945 two B-29s were assigned to the PFAF headquarters and the other to the 35th Separate Long-Range Bomber Squadron, which had been specially formed at Romanovka for the tests. The 35th received a

North American B-25 Mitchell, which had taken part in the famous 'Doolittle Raid' on April 18, 1942 and had landed in Soviet territory.

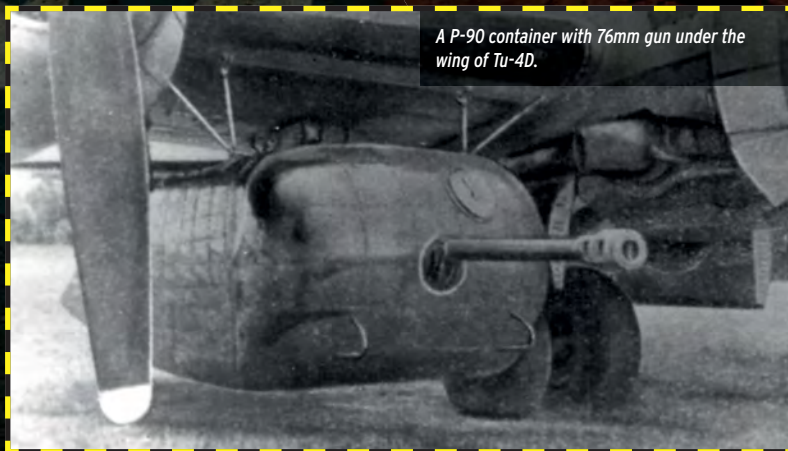
Colonel Semyon Reidel, a former test pilot with considerable experience, was the first to master the B-29, having studied documents found in the aircraft. On January 11 V Marunov also got airborne, but had many difficulties as neither he nor his engineer, Chernov, could read English and had to get familiar with the huge bomber with the help of a thick Russian-English dictionary. Tests in the Far East lasted until June 21.

ITEM R

Before the end of June 1945, Reidel had ferried the first aircraft to Moscow, landing at Izmailovo, where the 65th Naval Aviation Regiment was based. In July Marunov successfully arrived, with the third B-29 following in due course.

Ramp Tramp did not stay long in Moscow; it was ferried to Orsha in Belarus and assigned to the 890th Regiment of the 18th Air Army at the insistence of its commander Marshal Alexander Golovanov. The 890th flew a mixture of Petlyakov Pe-8 four-engined bombers, Boeing B-17 Fortresses and Consolidated B-24 Liberators. The USAAF types had





A P-90 container with 76mm gun under the wing of Tu-4D.



been salvaged from forced landings in Eastern Europe.

With the 890th, *Ramp Tramp* was flown by N Ishchenko's crew. It was given red stars but its pilots liked the image of the unshaven vagrant and chose to leave the nose-art intact.

Other than a few dozen obsolete Pe-8s, the Soviet Union had almost no modern heavy bombers at its disposal. Several projects were in the design stage, but a long way off flying.

On May 25, 1945 designer Vladimir Mikhailovich Myasishchev approached the People's Commissariat of Air Industry with a suggestion to copy the B-29. The

idea was reported to Stalin and the State Defence Committee, which the Soviet leader chaired, decided upon reverse-engineering the B-29 on June 6. However, it was not Myasishchev but Andrei Nikolayevich Tupolev who was entrusted with the project referred to as 'B-4' (or 'Item R') in documents.

In July the trio of B-29s was ferried to airfields around Moscow: 365 (previously USAAF 42-6365) to Khodynka where it was dismantled in order to make drawings; 256 (42-6256 *Ramp Tramp*) to the Flight Test Institute at Zhukovsky for further study and to ready it to test the Soviet-made Shvetsov ASh-73TK engines; 358 (42-6358) was kept as a reserve at Izmailovo.

SAME, BUT DIFFERENT

Creating the new bomber involved a huge number of people. In accordance with Stalin's orders, none of the parts were to change from the originals. Sheets, sections, piping and many other items that differed from Soviet specifications (and had Imperial dimensions; the USSR using metric measurements) had to be produced from scratch.

Analysis showed that the B-29 did not correspond to national strength standards and aspects of

its structure needed to be improved upon. Many items of equipment were new to the Soviet industry and presented considerable problems. Under the resolution of the People's Commissariat of Air Industry, all orders relating to the B-4 were deemed to be of paramount importance, and were to be fulfilled on a first-priority basis.

As the process continued the B-4 diverged more and more from the B-29. This was particularly evident in the 2,400hp (1,790kW) ASh-73TK engines. Although derived from the same source as the American-made R-3350s, they were not copies of the latter. The TK-19 turbine compressors were exact reverse-engineered 'clones' of the original model and the same was the case for the auxiliary power unit, which went into production under the designation M-10.

At all of the gun positions, 20mm cannons were substituted for 0.50in machine guns although the original defensive armament control system was retained. The bomb racks were also Soviet-made. Instruments were either metric versions of the American ones or their equivalents.

For the first series of the new bombers, there was an intention to purchase wheels, propellers, starters, electric power generators, radars and electromechanical drives in the USA and 1.5 million rubles were allocated for this. Military high commanders were unwilling to connect such an important programme with imported goods and the scheme was not taken up. The first B-4s built had American-made SCR-274N radio equipment, which had been shipped under Lend-Lease, but beyond that *everything* was manufactured by Soviet factories.



SUPERFORTRESSES

'DELIVERED' TO THE USSR



B-29 42-6358, 'Ding How' of the 794th Bomb Squadron which was attacked by Japanese fighters and landed at Tsentralnaya-Uglovaya on November 21, 1944.
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July 29, 1944 B-29 42-6256
Ramp Tramp of the 462nd BG, 771st BS - damaged by anti-aircraft fire over Manchuria on July 29, 1944 and landed at Tsentralnaya-Uglovaya, north of Vladivostok. Captain Howard Jarrell and crew interned.

August 20, 1944 B-29A 42-93829
Cait Paomat of the 40th BG, 395th BS - seriously damaged while bombing Yawata, Japan. Captain Roger McGlinn ordered the crew to bale out, all were interned. The B-29 crashed into a mountain near Khabarovsk, close to the Chinese border.

November 11, 1944 B-29 42-6365
General HH Arnold Special of the 468th BG, 794th BS - suffered a lightning strike during a raid on Omura, Japan. Captain Weston H Price and crew lost their bearings and found the airfield at Tsentralnaya-Uglovaya by chance and made an emergency landing. Crew interned.

November 21, 1944 B-29 42-6358
Ding How of the 468th BG, 794th BS - lost an engine after being attacked by Japanese fighters on a raid to Omura. Captain William J Mickish diverted to Vladivostok and was escorted in by Soviet fighters; crew interned.

August 29, 1945 B-29 44-70136
Hog Wild of the 500th BG, 882nd BS - engaged in an air drop of supplies to a prisoner of war camp in North Korea. The bomber was intercepted when flying near Kanko airfield by Yakovlev Yak-9s of the based 14th Fighter Regiment of the Soviet Pacific Fleet Air Force. The B-29 was mistakenly intercepted and fired upon, the port outboard engine caught fire and six of the crew baled out. Captain Joseph Queen force-landed the B-29 at Kanko. All of the crew and salvaged remains of *Hog Wild* were returned to the USA on September 16, 1945.

B-29 42-6358 at Izmailovo, Moscow, summer 1945.



Two point Tu-4 tanker fuels MiG-15s.



The prototype of the Tu-4K cruise missile carrier with piloted KS-1 missile prototypes during tests.

ROLL-OUT AND INTO SERVICE

There was no prototype B-4 as such; Factory 22 in Kazan, on the banks of the Volga, launched into series production under the designation Tu-4. The first bomber was rolled out in the spring of 1947 and first flew on May 19, piloted by Nikolai Rybko's crew. Two weeks later, it was sent to Zhukovsky. During the summer and autumn, 15 Tu-4s were built and in the course of testing, two examples were destroyed due to in-flight fires.

Navigator K Ikonnikov, who took part in the testing of both B-29 and Tu-4, colourfully described the likeness between the original and the copy: "When I was climbing into my seat in the B-29, I knocked my head against the fan. The same occurred in the Tu-4; the only difference was that the data plate on the fan was from

another factory!"

In August 1947 a trio of Tu-4s took part in an air parade in Tushino, north of Moscow. The lead aircraft was piloted by Commander of the Air Force Long-Range Aviation Marshal Golovanov. In the West, many specialists still believe that these were repaired B-29s that had been put back in the air. That is a fable; the three were new airframes.

In early 1948, the new bombers were assigned to the 203rd Guards Heavy Bomber Regiment, at Balbasovo, southwest of Orsha, for operational service tests. On June 25, three aircraft of the 203rd flew past at Tushino and on November 7 a formation of seven appeared over Moscow and the type's presence at national events kept growing.

Initially, Tu-4s were assigned mostly to western military districts (in the

A Tu-4LL test-bed with an AM-4 turbojet mounted under the fuselage.



"THE TU-4S WERE CAPABLE OF ATTACKING TARGETS IN EUROPE, NORTH AFRICA, THE MIDDLE EAST AND JAPAN, MAKING THEM THE USSR'S FIRST TRULY INTERCONTINENTAL BOMBER AND A VERY POTENT THREAT."



Maintenance on an operational Tu-4.

Ukraine, Belorussia, Karelia, and the Baltic region) but from 1950, they were also stationed in the Amur River region near Vladivostok. Crews mastered bombardment with large-calibre weapons, strikes on ships and the laying of sea mines. The Tu-4s were capable of attacking targets in Europe, North Africa, the Middle East and Japan, making them the USSR's first truly intercontinental bomber – and a very potent threat. After the formation of NATO in April 1949, the Tu-4 was given the reporting name *Bull*.

As well as Factory 22, from February 1949 Tu-4s were built by Factory 18 in Kuibyshev (now Samara) and, from early 1950 by Factory 23 in Moscow. This manufacturing capacity meant that Soviet Long-Range Aviation was almost entirely equipped with *Bulls* by 1953. The last Tu-4s in air force

service belonged to the Long-Range Aviation Combat Application School in Dyagilevo, near Ryazan.

Production of Tu-4s was discontinued in 1953. Sources differ, but between 1,195 and 1,296 were built.

Built alongside the 'ordinary' Tu-4s were Tu-4As, intended to carry RDS-3 atomic bombs, giving the USSR its first nuclear strike capability. Initially, the aircraft were combined into the Atomic Group of the 45th Guards Air Division and later re-grouped into the 403rd Regiment.

On October 16, 1951 a Tu-4A dropped an RDS-3 at the Semipalatinsk test site in Kazakhstan and its commander, K Urzhumtsev, was awarded the title of Hero of the Soviet Union. Another Tu-4A released an atomic bomb during Operation 'Snowball' at Totskoye, Orenburg, in September 1954.

There was just one attempt to use Tu-4s in combat. In November 1956, during the Hungarian uprising, several were scrambled to attack Budapest. They had hardly reached the border when the order to return was received.

MAIDS OF ALL WORK

In late 1954, Long Range Aviation regiments began to convert to jet

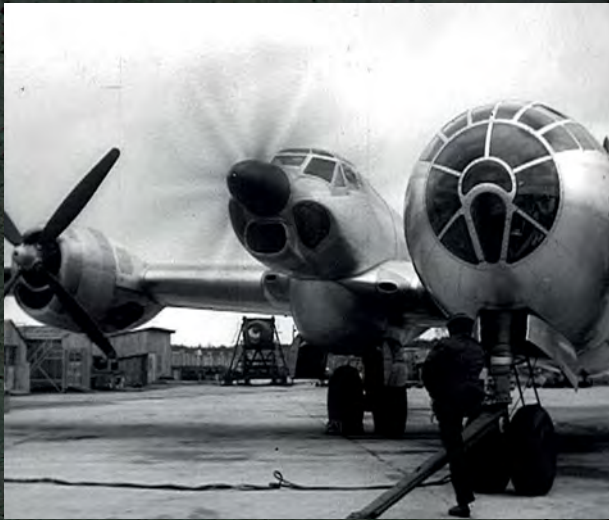
aircraft but there was still plenty of life in the Tu-4. The special duties Tu-4D conversion was capable of accommodating 28 fully equipped paratroopers. Alternatively, two streamlined P-90 or P-98 containers, each holding an ASU-57 self-propelled gun could be carried underwing with the crews for the combat vehicles in the rear fuselage. In total, 300 aircraft were modified into Tu-4Ds. During the Hungarian uprising Tu-4Ds ferried ASU-57s and their crews for use in the streets of Budapest.

In 1956, the heavily modified Tu-4T was built. It had a reinforced airframe and could carry a wide range of parachute-droppable packages and had a mechanised system for their loading. It could also take external P-90 and P-98 containers or 42 paratroopers internally. The Tu-4T remained a prototype.

Other versions included the Tu-4R photo-reconnaissance platform, about ten were converted for electronic warfare, command and staff transports and the Tu-4UShS navigation trainer. Additionally, the air force received a few aerial tankers with hoses extended from the wing tips to simultaneously refuel two aircraft.

Factories 22 and 23 were





ABOVE
The incredible Tu-4 test-bed with the forward fuselage of the turboprop Tu-91 attack aircraft in place of the starboard inner engine.

BELOW
Civil-registered Tu-4 of the Polar Aviation Department at an Arctic landing strip. ALL PHOTOS FROM AUTHOR'S ARCHIVE

involved in converting *Bulls* to carry a pair of KS-1 Komet 2 winged cruise missiles, as the Tu-4K (or Tu-4KS) version. In May 1951, the prototype Tu-4K was used to release manned equivalents of the KS-1 and from May 1952 operational versions.

Test launches near Feodosiya, on the western Black Sea coast, were carried out against the old cruiser *Krasny Kavkaz*. Of 12 missiles launched, eight hit the target.

About 50 Tu-4Ks were converted and from August 1956 they entered service with the 124th Regiment in the Crimea. The naval strike Tu-4Ks were interim equipment, in June 1957, they began to be replaced with Tu-16K *Badger* jets.

A single Tu-4 was converted for radiation reconnaissance, monitoring American nuclear tests in the Pacific. A communications relay version was also built with a long, trailing antenna. This was used to ensure ships and submarines in remote regions could stay in touch with ground-based command stations.

In 1950, the Tu-4 was put forward for Project 'Burlak'. The idea was to tow a MiG-15bis *Fagot*, with the latter's engine shut down, to increase the fighters' endurance dramatically

and provide cover for bombers in a long-range raid. The MiG could disengage from the mother ship, start the engine and fly away and return to re-attach to the tow line.

Initially, the intention was to pull three fighters at a time, but it was decided that one would be enough. Testing began in February 1951 and five Tu-4s were converted to Burlak status at Kuibyshev. Burlak combinations saw brief service with the 171st Guards Regiment at Zyabrovka, Belorussia.

A number of *Bulls* were converted into Tu-4LL powerplant and equipment test-beds. With a jet engine slung underneath the fuselage, the Tu-4LL had extended fixed undercarriage. The most exotic flying test-bed had one of its ASh-73 engines replaced with the complete nose section of Tu-91 attack aircraft, including its turboprop powerplant. Test-bed Tu-4s remained operational to 1960.

In late 1950s, Factory 156 in Moscow equipped a *Bull* to carry cine cameras for the short-lived 'Cinerama' curved screen projection technique. A battery of cameras was fitted to a beam under the fuselage.

Several Tu-4s were handed over in 1957 to the Polar Aviation Flight for long-range ice reconnaissance in the Arctic. The aft cabin was modified to take scientific equipment. Polar *Bulls* could stay airborne for 20 to 25 hours and occasionally were used to carry fuel to North Pole observation stations.

FOUNDING TRIO

What happened to the USAAF B-29s that were kept by the USSR? The dismantled B-29 365, used to create plans for the Tu-4, was brought to Kazan in 1946 for incorporating in the prototype Tu-70 airliner. The outer wings, engine nacelles, flaps, main landing gear legs and tail unit were mated to

a completely new fuselage.

In October 1947 the Tu-70 successfully completed factory tests but it never went into production. It was operated until 1954 for various tests as well as carrying passengers and cargo on special missions.

Ramp Tramp, B-29 256, saw extensive service. In April 1948, it was ferried to Kazan where it was modified into a mothership for the rocket-powered 'Item 346', created by German designer G Rassing and based on the DFS 346 project. A pylon for the swept-wing, prone-pilot Item 346 was mounted under the starboard wing, between the engine nacelles.

Testing of the simplified 346-P version began at Teply Stan, Moscow, in 1948. The B-29 was piloted by A Efimov, with German pilot W Ziese at the controls of the 346-P. Trials of the unpowered 346-1 began in September 1949.

The definitive 346-3 was ready in the summer of 1951 and Ziese made the first flight – dropped from B-29 256 – on August 15. The second sortie nearly ended in disaster when, at a speed of around 559mph (900km/h) the 346-3 became uncontrollable. The escape system worked perfectly and Ziese baled out, landing safely by parachute. The 346 programme was cancelled soon afterwards and the former *Ramp Tramp* was scrapped at Zhukovskiy.

Always held in reserve, B-29 358 never flew again. It remained grounded at Izmailovo and was scrapped.

A Tu-4 is displayed at the Central Air Force Museum in Monino, Moscow, as a reminder of a time when the Soviet aircraft industry could tear a complex bomber down to the smallest of components. From such a jigsaw puzzle in a very short time the industrial might of the USSR could create a strategic bomber programme. ●

