

## Russia's New Generation

By William Green

DURING the next two years the air forces of the Soviet Union, the Voenno-Vozdushnie Sili, will be immersed in a major re-equipment programme. The IA-PVO, the interceptor element of Russia's Air Defence Command, which, together with the antiaircraft artillery and ground-to-air missiles defending the major Russian strategic centres and cities, is commanded by Marshal Biryusov, has already begun the re-equipment of its day interceptor forces with the Mach 1.5 MiG-21 Faceplate-illustrated in the February issue-and the Yak-25 Flashlight all-weather fighter is likely to be progressively replaced by Pavel Sukhoi's delta-winged Mach 2.0 Fishpot.

The interceptor-fighter squadrons have undoubtedly received re-equipment precedence over the attack-bomber elements of the VVS-SA but, after flying the II-28 Beagle for some seven years, these are also in process of receiving more advanced aircraft. The Beagle's successor, the Blowlamp, generally attributed to one of the numerous design bureaux headed by Alexander Yakovlev, and the subject of the artist's impression above, is now entering quantity service, while more advanced designs, such as the Backfin, have probably attained the pre-production stage.

The *Blowlamp*, which possesses a marked family resemblance to the *Flashlight*, is a transonic light attack bomber first revealed on 25th June 1956, when Western delegates to Russia's Aviation Day air display had a brief glimpse of this aircraft while visiting the Kubinko fighter station, some forty miles from Moscow. The *Blowlamp* is most closely comparable with France's SO-4050 Vautour in configuration although nearer in size and power to the Douglas Skywarrior. Its shoulder-mounted wings, which span approximately 57 feet, are swept

50 degrees at the leading edges and carry underslung, podded turbojets at roughly quarter-span. Projecting forward in much the same fashion as those of the Skywarrior, and each presumably offering some 10,000–12,000 lb. thrust, these turbojets have been mounted as low as permitted by ground-clearance requirements in order to simplify servicing, although such mountings obviously offer more drag than if the nacelles had been raised to coincide with the upper wing surfaces.

In common with the Flashlight, the Blowlamp has tandem-mounted main undercarriage members, the single forward member retracting into the nose, and the twin-wheel aft member retracting into a housing immediately aft of the fuselage bomb bay. Small outrigger wheels retract into wingtip housings.

The clean lines of the 70-ft. fuselage are marred by what appears to be a small radome, but the fuselage nose is extensively glazed, indicating primary reliance on visual bomb-aiming. The strakes under the rear fuselage may indicate some early directional instability at high speeds. Western observers at Kubinko noted ports in the fuselage nose for what appeared to be a battery of four cannon, presumably for ground strafing, and tail defence is provided by a remotely-controlled 20-mm. or 23-mm. cannon in the extreme rear fuselage.

The *Blowlamp* appears to carry a crew of three, and is likely to weigh some 50,000 lb. in normal loaded condition. Performancewise, it is almost certainly capable of exceeding Mach unity in a dive, but maximum level speed is probably of the order of Mach 0.95 (690 m.p.h. at 10,000 ft., 620 m.p.h. at 36.000 ft.). Operational range is likely to be between 1,500 and 2,000 miles.

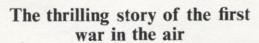
A more recent debutante is the *Backfin*, a provisional silhouette of which appears on page 89. Of unknown design origin, the *Backfin* was first reported last year, and is of appreciably more advanced conception than the *Blowlamp*. Although unlikely to attain service status for some time, the *Backfin* may well be the *Blowlamp*'s potential successor.

This new light bomber is unique among aircraft of its size in having its two turbojets totally enclosed in the fuselage, fed via shoulder-mounted intakes aft of the flight deck and exhausting side by side from the rear fuselage. Although the lengthy ducting necessitated by this type of power-plant installation must result in some thrust losses, it offers the advantages of a clean, uncluttered wing. Preliminary estimates of the performance of the *Backfin* have placed its maximum level speed in the Mach 1.5 (990 m.p.h. at 36,000 ft.) class, suggesting that the turbojets must possess afterburning thrusts of at least 20,000 lb. each.

The overall length of the fuselage appears to be approximately 85 ft., and the midmounted wing, which possesses two angles of leading-edge sweep, the outboard sections being swept approximately 55 degrees, has a span of some 52 ft. and is of exceptionally thin section. A slab-type tailplane is mounted low on the rear fuselage, and there appears to be a housing for a drogue chute at the base of the vertical surfaces. Like the *Blowlamp*, the fuselage nose is extensively glazed, and there is a bombing-radar bulge mounted well forward. The undercarriage appears to be of tandem type, but there is no evidence of the use of outrigger wheels.

Artist's impression by Gert W. Heumann. Silhouettes (next page) by Dennis I. Punnet.





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