

aircraft. It has 315kW Vedeneyev M-9F nine-cylinder radial piston engine.

The airframe uses composite materials. The Su-49 cockpit is equipped with liquid-crystal HDD, a HUD and Zvezda SKS-94M-49 ejection seats to simulate the cockpits of the Sukhoi Su-27/30. It is also intended to provide navigation, night/all-weather, high-g and weapons instruction. Sukhoi has proposed that a sister company, NAPO in Novosibirsk, build the Su-49.

T-60S

Sukhoi has been working for over two decades on an intermediate-range bomber design. The T-60S, the latest iteration of this design, is an 80-100t-class aircraft.

S-54/S-55

Sukhoi continues to pursue the S-54 advanced jet trainer design, as well as the S-55 lightweight fighter version. They resemble a scaled-down, single-engined Su-27 with foreplanes.

TUPOLEV (SEE TABLE P67)

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Tu-22M Backfire

Alongside the Bear, the Tu-22M will continue to form the backbone of Russia's long-range strike capability to 2010. The latest variant of the Tu-22, the M3, entered service with the air force and navy in the early 1980s.

As with the Bear, the Tu-22M is earmarked to carry the Kh-SD and Kh-101 cruise missiles. Tupolev is also working on the M5, an upgrade including new avionics, radar, EW and navigation systems – all intended to extend service life to 2020 – although funding is not continuous.

A further modification, the Tu-22MR, is for reconnaissance and carries a semi-recessed SLAR pod located in the bomb bay and has a large dielectric fairing at the root of the vertical fin along with dielectric fairings on the fuselage.

Tu-95/142 Bear

The Bear remains in service with the Russian armed forces as both a long-range strike aircraft and a maritime-patrol and reconnaissance platform, 45 years after the first prototype flew.

The Tu-95MS/MS6/MS16 aircraft remain a key component of the Russian air force's long-range aviation units. The aircraft are equipped with the Kh-55(AS-15 Kent) air-launched cruise missile.

The four-turboprop Bear is intended to be equipped with two Raduga conventional cruise-missile types now in the final stages of development – the Kh-101 and Kh-SD.

The Tu-142 ASW aircraft first flew in 1968 and continues to be deployed with naval aviation units. The Tu-142MR is a dedicated submarine communications variant.

Tu-160 Blackjack

Once in question, the future of the Tu-160 Blackjack as part of the Russian air force's long-range strike force now seems assured. A token force of five aircraft has been joined by eight returned by Ukraine and at least one, if not three more, delivered from the factory at Kazan. The air force, perhaps optimistically, plans a 25-aircraft fleet.

The Tu-160 flew for the first time in 1981, as a long-range supersonic strike aircraft. Production has totalled 40-50 aircraft, including pre-production and prototype aircraft.

Tu-330

The Tupolev Tu-330 is competing in the Russian air force's medium airliner competition against the Antonov An-70 and Ilyushin Il-214. The Kazan aircraft factory, KAPO, would build the Tu-330 if it is successful.

The Tu-330 has 70-75% commonality with the Tu-214 airliner already in production at KAPO, with the two sharing a cockpit, wing and systems. The major difference is that the Tu-330 has a wider, 350m³ fuselage and a rear ramp. The aircraft is optimised to carry 25,000kg over 6,000km.

Initial production aircraft will be powered by the Aviadvigatel PS-90A, but a switch to the Kuznetsov NK-93 propfan is planned.

XIAN AIRCRAFT (SEE TABLE P67)

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JH-7/FBC-1 Flying Leopard

The JH-7 is a tandem two-seat maritime strike aircraft for Chinese navy aviation. FBC-1 is the export designation for the bomber.

Although the design dates from the mid-1970s, work continues on developing the type's avionics and systems and improving its twin WP9 engines, licence-built R-R Spey variants. Replacement of the engines with Russia's AL-31F was discussed for some time, but the idea was dropped in 2000.

It is claimed that the indigenous radar has terrain following capability and that LANTIRN-type navigation and targeting pods, and a helmet-mounted sight, have been developed.

The JH-7 made its maiden flight in 1989, but has remained in obscurity since, possibly because the air force has rejected the type in favour of the Su-27/Su-30, leaving it as a naval strike bomber, replacing Il-28/H-5s.

Weapons capability remains sketchy as pictures usually reveal the aircraft without pylons, let alone missiles or bombs. It can, however, carry underwing C-801 anti-ship cruise missiles and PL-7 infrared guided air-to-air missiles on wingtip stations.

A upgraded JH-7A is believed to be undergoing flight tests at China's central trials establishment. New weapons include the indigenous C-801K anti-ship missile and the Russian Zvezda

Kh-31 – probably the anti-radiation Kh-31P – and a new Chinese medium-range AAM.

Y-7/Y-7H

Chinese copies of the An-24 were initiated in the mid-1960s, although production Y-7s did not start emerging until the early 1990s. The Y-7 is a copy of the An-26 and the current version is the Y-7H.

MA-MPA Fearless Albatross

The MA-MPA is Xian's maritime patrol aircraft, aimed at filling China's concept need for a surveillance aircraft for exclusive economic zone patrol, to counter piracy and to back up its territorial claims in East Asia and the South China Sea. Unveiled at the Zhuhai air show in November 2001, the so-called "Fearless Albatross" is based on Xian's new MA-60 regional turboprop, which in turn is a development of the Y-7.

The MA-MPA has raked wingtips and fuselage-mounted tanks to increase range. It has a pronounced nose to house a search radar, reminiscent of the Shaanxi Y-8 airborne early warning platform now in service with the Chinese navy. The MA-MPA will be armed with anti-ship and air-to-air missiles.

YAKOVLEV (SEE TABLE P68)

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Yak-130

Yakovlev was selected to meet the Russian air force's trainer requirement with the twin-turboprop Yak-130 light-attack/advanced jet trainer in early 2002, despite AerMacchi's decision to go it alone with a Westernised version, the AEM 346.

Yakovlev has struggled with the aerodynamics of the Yak-130, having first modified the winglet design before replacing them with large inboard wing fences at the junction of the leading-edge root extension and mainplane. Early in 2001, Sokol, which builds the trainer, and design bureau Yakovlev signed a deal for the former to build four more prototypes. Two would be used for static test and all four would be delivered by mid-2004.

Yakovlev has targeted November 2003 for the maiden flight of the production-standard Yak-130. The production Yak-130 has a narrower fuselage, reduced wing area and empty weight, a weapons system compatible with PGMs and a glass cockpit based around three 150 x 200mm colour LCDs. Yakovlev aims to complete trials in 2004, with service entry planned for 2005. The Russian air force has ordered four aircraft for 2003 build. Three will be powered by two ZMKB 5,500lb-thrust Progress AI-222s, the first of which was bench-tested in December 2002.

Export customers will be offered the AI-222 or the Slovakian Povazske Strojarne DV-2, which powered the prototype. ■