

gets simultaneously. But development of the system is thought to have been halted, and the L-44 does not appear to have a real radome.

MIG-AT

RSK IS competing with Yakovlev for the Russian air force's requirement to replace Aero L-39 trainers. Its MiG-AT is a two-seat, twin turbofan, advanced trainer.

The prototype rolled out in May 1995 and flew in March 1997.

France is heavily involved in the programme, with Snecma/Turboméca providing the Larzac engine and Sextant the avionics. The aircraft is fly-by-wire and has a light strike capability. RSK has outlined plans for dedicated combat trainer and single seat light attack versions.

RSK plans to install Soyuz RD-1700 engines in the MiG-AT advanced trainer by early next year, as the Russian engines cost about half the price of their French equivalents.

LFI

RSK HAS begun work on a lightweight fighter, the LFI, to supersede the MiG-29. Single- and twin-engined designs are being considered for an aircraft on the 20t class. In April 2000, Maj Gen Sergey Kolyadin, the chairman of the Russian Air Forces Scientific Engineering Committee, said Russia is to introduce such a fighter by 2010.

SAAB/BAE SYSTEMS

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JAS39 GRIPEN

THE GRIPEN has won its first export customer, having been selected by South Africa late last year. The aircraft achieved initial operating capacity with the Swedish air force in September 1997. Sweden has ordered 190 single-seat JAS39As and 28 JAS39Bs two-seaters, the first of which was delivered last year.

Saab and BAE are working collaboratively on a Gripen export variant, selected by South Africa and offered to Chile and several East European countries. Sweden is also looking at future upgrades to the Gripen including thrust-vectoring, an active-array radar and an IR search and track sensor.

SEPECAT

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JAGUAR

HINDUSTAN Aeronautics continues to deliver licence-built Jaguars to the Indian air force. The RAF, meanwhile, continues progressive upgrades of its Jaguars, which are expected to remain in service until at least 2008.

RAF improvements include upgraded engines, TERPROM terrain reference navigation, new secure radios, TIALD targeting pod, a helmet mounted sight, and ASRAAMs. Oman has a similar upgrade programme under way.

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J-8/F-8 FINBACK

THE J-8/F-8 FINBACK is the focus of a major upgrade programme, with Russian radar house Phazotron and missile supplier Vympel involved in the F-8 IIM project.

A prototype first flew in 1996. Changes include a Russian Zhuk-8II radar, new cockpit with HOTAS controls, INS/GPS navigation, and MFDs and more powerful WP-13AIII turbojets. Weapons include Chinese and Russian AAMs and the Kh-31 anti-ship missile.

The J-8II remains in production for the Chinese air force, replacing the J-8I in front-line units, as the J-8D, which, almost uniquely for China, has an inflight refuelling capability.

The F-8IIM was originally intended primarily for export, although the Chinese air force may also purchase the aircraft.

SUKHOI

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SU-25/SU-39 FROGFOOT

THE LATEST version of the Su-25, the Su-25TM (Su-39) now under development, is an all-weather version of the Su-25T. Several prototype Su-25TMs have been completed. These are believed to be modified Su-25Ts, 12 of which were built.

One Su-25TM is being used for Kopyo-25 radar trials at the Ahktubinsk test centre and later aircraft will carry the radar in a modified nose as the Su-25SM. The cockpit has been updated with MFDs, while FLIR and ECM pods will improve the aircraft's operational capabilities.

This year UUAPU of Ulan-Ude will produce two Sukhoi Su-25TMs while six operational Su-25s will be upgraded to Su-25TM standard by Russian air force.

SU-27 FLANKER

THE SU-27 remains the mainstay of the Russian aircraft industry and has been exported

to China among others. Two batches amounting to 50 Su-27s have been delivered and licence production has started as the SAC J-11. The Russian navy's carrier air capability arm is equipped with Su-27Ks (Su-33/T-10Ks), with movable foreplanes, folding wing and tailplane, strengthened landing gear and an arrestor hook. These aircraft provide the *Kuznetsov* aircraft carrier with air defence, although, without radar modifications, they cannot be used in the maritime-strike role. Su-27SK/SMK export derivatives have an air-to-ground capability. Su-27Us are tandem trainers.

SU-27M (SU-35/SU-37)

SUKHOI'S Su-27M programme was intended as a mid-life update of the basic Flanker. The most recent prototype to be shown publicly, aircraft 711, is fitted with thrust-vectoring nozzles and referred to as the Su-37. The Russian air force has failed so far to order the Su-27M and the pace of development has been leisurely.

At least two pre-production models are located at the Russian air force's Ahktubinsk test centre. The Su-27M is intended to be fitted with an NIIP phased-array radar and colour MFDs.

The Su-35 is Sukhoi's offering in competitions against the F-15E, Rafale and Typhoon.

SU-30/SU-30MK

THE SU-30 PROJECT was initiated to develop a two-seat fighter-controller aircraft capable of handing off targets to Su-27 interceptors via a datalink. The Su-30 was designed for the Soviet air-defence forces, and a handful of aircraft have been delivered.

Eight Su-30s have been delivered to India in the first stage of the country's four-phase Su-30MKI programme which will eventually be based around a western avionics package. The full MKI specification, with thrust-vectoring and a phased-array radar, is more akin to the thrust-vectoring variant of the Su-27M than the basic Su-30. China has ordered a similar aircraft, albeit with developed versions of the Russian avionics, as the Su-30MKK.

SU-27IB (SU-34/SU-32FN/SU-33KUB)

THE SUKHOI Su-27IB, the two-seat, side-by-side, strike variant of the Flanker interceptor, was first exhibited at Minsk in February 1992. At least six aircraft are being flown, with more under construction. The airframe is also



A small number of Russian air force Su-25s are to be upgraded to Su-25TM standard