

Ukraine conflict

Equipment profile

28 February 2022



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RUSSIAN NAVY BLACK SEA FLEET (BSF)

This PDF serves as a quick-reference digest of the naval assets in the Russian Federation Navy's Black Sea Fleet and the Ukrainian Navy. The information provided is a fraction of the content available to subscribers, with direct links to Janes Fighting Ships records embedded in each section. There are far more vessels in Russian service all covered by Janes online and in hardcopy, but beyond the initial scope of this digest.



Submarines

https://customer.janes.com/Janes/Display/JFS_C547-JFS_



6 modified Kilo (Project 636.3) armed with Kalibr missiles are part of the BSF.

Cruiser

https://customer.janes.com/Janes/Display/JFS_2578-JFS_



Moskva a Slava (Atlant) class (Project 1164) cruiser is part of the BSF.

Frigates

https://customer.janes.com/Janes/Display/JFS_4626-JFS_



Ladny and *Pytlivy* are Krivak (Project 1135/1135M) class (FFM) class frigates based at BSF

https://customer.janes.com/Janes/Display/JFS_B485-JFS_



All three Admiral Grigorovich (Project 11356M) class (FFGH) frigates of Russian Navy are part of BSF. They are equipped with land attack as well as antiship version of Kalibr missiles.

Corvette/missile boats

https://customer.janes.com/Janes/Display/JFS_C025-JFS_



3 Bykov (Project 22160) class coastal defence ships are part of the BSF.

Corvette/missile boats

https://customer.janes.com/Janes/Display/JFS_B486-JFS_



4 out of 9 in service Buyan-M (Project 21631) class corvettes are part of the BSF. These can be equipped with Kalibr land attack missiles.

https://customer.janes.com/Janes/Display/JFS_2589-JFS_



BSF has 6 Grisha (Albatros) (Project 1124/1124M) class corvettes in its inventory.

https://customer.janes.com/Janes/Display/JFS_2603-JFS_



Both Dergach (Sivuch) (Project 1239) class ships, commissioned in 90's, are part of the BSF.

https://customer.janes.com/Janes/Display/JFS_2605-JFS_



Tarantul II were built at Kolpino, Petrovsky, Leningrad and in the Pacific in 1980–86. Production of Tarantul IIIs then continued until 1995. 5 out of 18 are based at BSF.

Amphibious forces

https://customer.janes.com/Janes/Display/JFS_2633-JFS_



3 out of 4 operational Alligator (Tapir) (Project 1171) class LST are part of the BSF. Lift capability include 300 troops; about 20 tanks and various trucks; 40 AFVs.

Amphibious forces

https://customer.janes.com/Janes/Display/JFS_2632-JFS_



4 Ropucha (Project 775/775M) class ships are active with BSF. Lift capability include 10 MBT plus 190 troops or 24 AFVs plus 170 troops or mines.

https://customer.janes.com/Janes/Display/JFS_2637-JFS_



2 Serna (Project 11770) class LCU capable of carrying 45 tonnes or 100 troops are active with BSF.

https://customer.janes.com/Janes/Display/JFS_2636-JFS_



Capable of carrying 1 MBT, 5 of these LCM are with the Black Sea Fleet.

Mine warfare

https://customer.janes.com/Janes/Display/JFS_B618-JFS_



3 new Alexandrit (Project 12700) class have been added to the BSF since 2019.

https://customer.janes.com/Janes/Display/JFS_2622-JFS_



First reported in 1970. Built at Kolpino and Khabarovsk. BSF has 5 of the class.

UKRANIAN NAVY

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Frigate

https://customer.janes.com/Janes/Display/JFS_3344-JFS_



Hetman Sagaidachny is a Krivak III (Nerey) class (Project 1135.1) frigate built in erstwhile USSR. Presently undergoing repair.

Corvette

https://customer.janes.com/Janes/Display/jfs_4490-jfs_



Vinnitsa is a 'Grisha II' (Type 1124P) ex-Russian Border Guard ship transferred in 1996. Based at Odessa. Operational availability is uncertain.

Fast attack craft – missile

https://customer.janes.com/Janes/Display/JFS_3349-JFS_



Priluki is Matka (Vekhr) class (Project 206MP) ship transferred in 1996. Refitted in 2016.

Patrol craft

https://customer.janes.com/Janes/Display/JFS_C693-JFS_



4 ex US Coast Guard island class cutter were transferred from US as part as Excess Defence Article to Ukraine till 2021.

Inshore Patrol Craft

https://customer.janes.com/Janes/Display/JFS_B816-JFS_



7 Gurza-M (Project 58155) class inshore patrol craft built indigenously and delivered in 2016 to 2021 period.

Minehunter

https://customer.janes.com/Janes/Display/JFS_3352-JFS_



Genichesk is a Yevgenya (Korond) (Project 1258) class (MHC) minehunter transferred from Russia in 1996. Based at Odessa.

Inshore Patrol Craft – border guards

https://customer.janes.com/Janes/Display/jfs_5561-jfs_



16 Kalkan class are likely to be operational with Border Guards.

https://customer.janes.com/Janes/Display/JFS_3377-JFS_



4 Stenka (Tarantul) class (Project 205P) boats are operational with Border Guards.

Patrol Craft

https://customer.janes.com/Janes/Display/jfs_5250-jfs_



Skadovsk is a Zhuk (Grif) class (Project 1400M) patrol craft transferred from Russia in 1997.

Manned and Unmanned

This PDF gathers Janes reference data for indigenously developed equipment involved in the Ukraine conflict in a single document. There is a significant overlap in equipment types in common service with Russian and Ukrainian forces, so this document collates the information by domain – Air, Land, C4ISR and Weapons – in line with the Janes reference portfolio. The information in this document is a fraction of the content available to Janes subscribers, who can access the full specifications and data via links embedded in the document. It is intended to be a quick reference document, indicative of the type of content covered by Janes and is not a comprehensive list of equipment in service with either force.

Aero L-39

https://customer.janes.com/Janes/Display/JAU_A132-JAU_



The Aero L-39 is a two-seat, trainer jet aircraft developed and manufactured by Aero Vodochody A S in the Czech Republic (former Czechoslovakia). The design programme was initiated in the 1964 to succeed the L-29 and design a principal training aircraft powered by a single turbofan engine. The L-39 was developed into subsequent attack and training versions and formed the basis of the separate L-59, L159 ALCA and L-39NG.

Antonov An-12

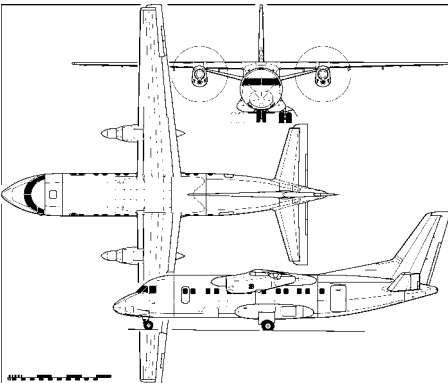
https://customer.janes.com/Janes/Display/JAU_T166-JAU_



The Antonov An-12 is a four engine, turboprop tactical transport aircraft developed from the passenger Antonov An-12 between 1955–59 and produced until 1972. The An-12 is designed and used for cargo transport and paratroop operations over medium-range distances, with a cargo capacity of up to 20,000 kg. The Antonov An-12 was originally developed and produced by Antonov in the former Soviet Union and has been adapted into a large number of military and civil variants.

Antonov An-140

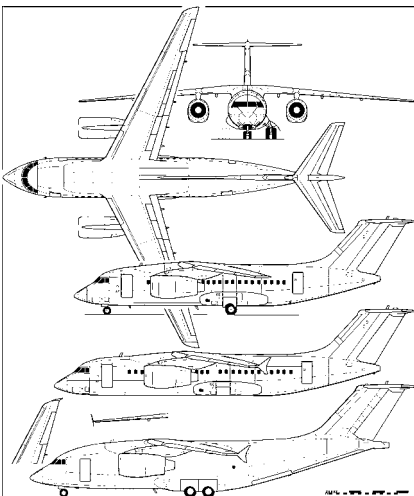
https://customer.janes.com/Janes/Display/JAU_A231-JAU_



The An-140 is a family of regional turboprop transport aircraft which was developed by Antonov in the Ukraine. The development of the platform began in 1993, followed by first flight in 1997 and certification in 2000. Certification was achieved to satisfy international standards. The twin turboprop engine powered aircraft was manufactured in two variants, the An-140 and the subsequent An-140-100. The An-140 series can be used for passenger (up to 52) and cargo transport and for both commercial and military applications. It is designed to be capable of unsupported operation from airfields with unprepared runways at all altitudes and in all weathers, providing airline-standard comfort. A variant of the platform is used for aerial photographic survey. Limited numbers of both aircraft versions were manufactured until production was suspended in 2015. The aircraft was jointly produced in Ukraine, Russia and under licence production in Iran. The aircraft type continues to be in service with the Russian Air Force and Navy.

Antonov An-148, An-158, An-168, and An-178

<https://customer.janes.com/Janes/Display/JAWA5464-JAWA>



The An-148 is a family of twin-jet aircraft developed by Antonov in Ukraine. Development of the baseline An-148 version began in 2001 followed by first flight in 2004 and certification in 2007. The An-148 has further led to the development of the An-158, An-168 and An-178 versions. Versions can be used for commercial and cargo transport, VIP travel, utility and medical purposes. Variants are also proposed for maritime patrol and airborne early warning and control applications. Versions of the aircraft are in service with various commercial operators as well as with the armed forces of Cuba, North Korea and Russia.

Antonov An-22

https://customer.janes.com/Janes/Display/JAU_1167-JAU_



The An-22 is a military transport aircraft manufactured by Antonov in Ukraine. Development was initiated in 1960 with the first flight in 1965. The Design features Antonov characteristic high-wing and four Kuznetsov turboprop engines. A total of 68 aircraft were built until production ended in 1976.

Antonov An-24

https://customer.janes.com/Janes/Display/JAU_1168-JAU_



The An-24 is a twin-turboprop short-range transport, manufactured by Antonov, in Ukraine. The development was started in 1957, to replace earlier piston-engined types on Aeroflot's internal feeder-line routes. The An-24 was intended originally to carry 32 to 40 passengers, later developed into a 44 seater after the prototype flew on 20 October 1959. A Chinese version, the Y-7, was also developed and adapted into subsequent variants.

Antonov An-26

https://customer.janes.com/Janes/Display/JAU_9135-JAU_



The An-26 is a twin-turboprop pressurised short-haul transport, manufactured by Antonov, in Ukraine. The aircraft is based on the earlier An-24RT and has an extended fuselage tail section with large cargo door and ramp. was first exhibited in 1969 and was superseded by the An-32 after 1986.

Antonov An-30

https://customer.janes.com/Janes/Display/JAU_1169-JAU_



The Antonov An-30 is a twin-turboprop surveillance aircraft manufactured by Antonov. The aircraft is developed from the An-24 transport aircraft to be used as an aerial surveillance platform. The An-30 airplane first flew in 1974. Since its introduction, the aircraft has undergone various conversions to meet requirements for variety of aerial operations ranging from aerial photography, as a flying testbed for remote sensing of the Earth's surface, to detect presence of radioactivity in the atmosphere and weather control. The aircraft had been used by Bulgaria, Czech Republic, Russia and Ukraine to carry out surveillance under the Open Skies Treaty.

Antonov An-72 and An-74

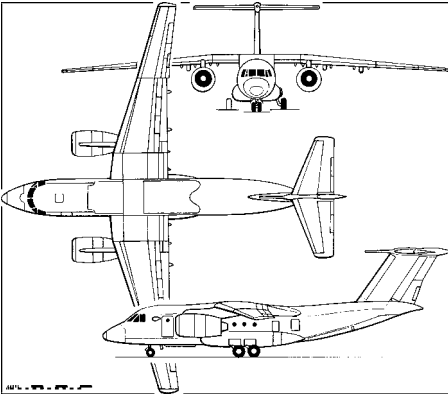
https://customer.janes.com/Janes/Display/JAU_A171-JAU_



An-72 and An-74 are a family of short take-off and landing (STOL) twin-jet freighter aircraft manufactured by Antonov in Ukraine. Development began in 1974 for An-72, as a light military transport version and An-74 (modified An-72) in support of research operations in Arctic and Antarctic. Design features characteristic two high-mounted turbofan engines close to the fuselage which adds to the short take-off capabilities. Various versions were manufactured from 1984 to 2004. As of 2019, versions of An-72 and An-74 are in service with military forces and civil operators.

Antonov An-74-300

https://customer.janes.com/Janes/Display/JAU_A206-JAU_



The An-74-300 is a twin-jet short take-off and landing (STOL) aircraft manufactured by Antonov in Ukraine. It is a modified An-74 fitted with underslung engines. The platform was introduced in 1998 and flew for first time in 2001. Versions were reported to be in service with Ukrainian and Libyan government.

Beriev (Ilyushin) A-50

https://customer.janes.com/Janes/Display/JAU_A206-JAU_



The A-50 is a family of airborne early warning and control system (AEW&CS) aircraft based on an Ilyushin Il-76 airframe, and manufactured by Beriev Aircraft Company. Its development began in 1969 with the development of the Shmel (Bumblebee) AWACS system, based on the Grib (Mushroom) radar. It features the rotating 'saucer' radome on twin pylons above the fuselage. Versions of the platform are currently in service with China, India, and Russia.

Beriev A-100 Premyer

<https://customer.janes.com/Janes/Display/JAWAA989-JAWA>



Beriev A-100 Premyer (English name : Premier) is a Russian airborne early warning and control system aircraft being developed by the Beriev Aircraft Company. This project reportedly originated in 2004 and is the intended successor to Beriev A-50 and A-50U aircraft. In 2017 Russian requirements for A-100 stated to be minimum of 39 aircraft. Having faced multiple delays, the service date is now re-scheduled to 2020.

Beriev A-60

<https://customer.janes.com/Janes/Display/JAWAB304-JAWA>

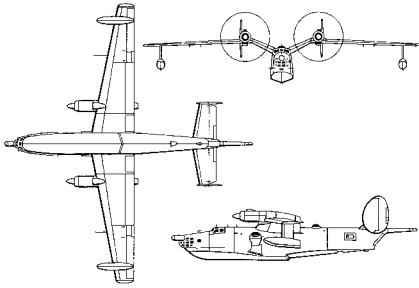


The A-60 is an airborne laser technology demonstrator platform developed by Beriev. It is based on the Il-76 transport aircraft. The A-60 is used for the airborne combat laser programme and houses a laser system in its cargo section. The initial platform A-60(1A) which first flew in 1981 was built as a reconnaissance balloon interceptor. Subsequent platform was known to have taken an anti-satellite role. The A-60 platform is still in the development stage and none are known to be operational.

Beriev Be-12 (M-12) Chaika (Seagull)

NATO reporting name: Mail

https://customer.janes.com/Janes/Display/JAU_1012-JAU_



The Beriev Be-12 (M-12) Chaika (Seagull) is an amphibious aircraft first developed in the Soviet Union in the 1950s. The aircraft is powered by two 3,862 kW (5,180 ehp) Ivchenko AI-20D turboprop engines, and is used in anti-submarine, maritime patrol, and search-and-rescue operations. The aircraft features a cranked gull-wing, MAD boom, and can accommodate a crew of five.

Ilyushin Il-18

https://customer.janes.com/Janes/Display/JAU_1017-JAU_



The Il-18 is a family of four turboprop engine passenger transport aircraft manufactured by Ilyushin in Russian Federation. The all metal structure aircraft first entered production in 1957. About 565 Il-18 aircraft of all variants were manufactured until production ended in 1969.

Ilyushin Il-20

https://customer.janes.com/Janes/Display/JAU_9117-JAU_



The Il-20 family is designed and manufactured by Ilyushin. The Il-20M and Il-20RT are based on the Il-18 transport platform which were built for the Russian Armed Forces. The first prototype was flown on 25 March 1968. The Il-20M is used for surveillance purposes, providing COMINT, SIGINT, and ELINT capabilities. The Il-20RT was used as a space/missile telemetry aircraft until its role was changed to transport and crew trainers.

Ilyushin Il-22

https://customer.janes.com/Janes/Display/JAU_1018-JAU_



The Il-22 is a special missions platform based on the Il-18D transport aircraft. Variants of the aircraft are used by the Russian Armed Forces as signals intelligence (SIGINT), electronic intelligence (ELINT), airborne command post and electronic warfare platforms. The Il-22PP variant is believed to be the latest iteration of the Il-22 and made its public debut in 2017.

Ilyushin Il-38

https://customer.janes.com/Janes/Display/JAU_1019-JAU_



The Il-38 is a maritime patrol aircraft which was manufactured by Ilyushin in Russia. The aircraft is based on the four turboprop engine powered Il-18 airframe. Development of Il-38 was initiated in 1960 and the first aircraft was delivered in 1967. Versions of the platform continue to be in operation with the Russian and Indian Naval Forces.

Ilyushin Il-76

https://customer.janes.com/Janes/Display/JAU_9120-JAU_



The Il-76 is a four-engine, strategic, multirole transport aircraft developed and manufactured by Ilyushin in Russia. The Il-76 first flew in 1971, with first delivery to the Russian Armed Forces in 1974. The Il-76 was originally developed to provide cargo to remote and hard-to-access areas. Versions of the platform are used in both military and civil applications involving troop, equipment, and cargo transport, firefighting (with specialised versions being adapted to roles such as tanker), airborne early warning & control, and airborne command post.

Ilyushin Il-76

<https://customer.janes.com/Janes/Display/JAWA0767-JAWA>



The Il-76 is a four-engine, strategic transport aircraft manufactured by Ilyushin in Russia. The current production Il-76MD-90A is an improved production version over the original Il-76, with Aviadvigtel PS-90A-76 turbofan engines, redesigned wings, strengthened landing gear and a glass cockpit. The Il-76MD-90A first flew in 2012 and was delivered in 2015. A tanker version, Il-78M-90A, is also produced based on the new production Il-76MD-90A airframe.

Ilyushin Il-78

https://customer.janes.com/Janes/Display/JAU_9121-JAU_



The Il-78 is a tanker/transport aircraft based on the four-engine Il-76MD airframe and is manufactured by Ilyushin in Russia. Development began during the 1970s with entry into service in 1987. The Il-78 is used for aerial refueling and freight missions. The Il-78 is in service with a number of countries worldwide, with new-build versions ordered.

Kamov Ka-226

<https://customer.janes.com/Janes/Display/JAWA0796-JAWA>



The Ka-226 is a twin-engine light utility rotorcraft designed and developed by Russian Helicopters and manufactured by the Kumertau Aviation Production Enterprise. The baseline variant of this family is a development of the older Ka-26/126 and the Ka-226 features an interchangeable mission pod and two Safran Arrius 2G1 turboshaft engines. Variants of the helicopter are used in passenger and cargo transport, as well as medical, agricultural and law enforcement applications. It can be equipped with light weapons. It carries the NATO reporting name 'Hoodlum-C'.

Kamov Ka-27, Ka-28

https://customer.janes.com/Janes/Display/JAU_9122-JAU_



The Ka-27 and Ka-28 is a family of Naval helicopters developed and manufactured by Kamov JSC (now Russian Helicopters) in Russia. Variants of the family provide submarine search and track, anti-submarine warfare (ASW), and search-and-rescue (SAR) capabilities. The development began in 1969 and first entry into service with the Soviet (now Russian) Armed Forces was completed in 1982. The twin turboshaft engine helicopter features a distinctive design with co-axial main rotors and a short tailboom with twin vertical fins.

Kamov Ka-29, Ka-31, and Ka-35

https://customer.janes.com/Janes/Display/JAU_AI10-JAU_



The Ka-29 and Ka-31 is a family of the medium transport/close support and airborne early-warning (AEW) helicopters. The design of the helicopter is derived from the Ka-27 (which see) and features the contra-rotating coaxial main rotors and twin-tail configuration. Variants of the helicopter is designed to be ship-borne and capable of day/night operations. The prototype of Ka-29 had its first flight in 1976 followed by entry into service with Russian Forces in 1985. Versions of Ka-29 and Ka-31 are primarily being operated by the armed forces of China, India, and Russia.

Kamov Ka-52 Alligator

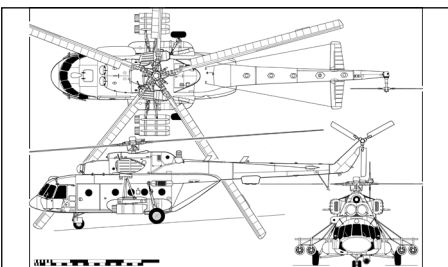
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The Kamov Ka-52 is an attack helicopter developed by Kamov (Russian Helicopters). Variants of the Ka-52 have been developed for both land and ship-borne operations. The aircraft features co-axial, contra-rotating three-blade rotors, twin-seats side-by-side, two Klimov turboshaft engines and retractable tricycle type landing gear. Flattened nose for avionics led to nickname (since adopted for marketing) 'Alligator'. Ka-52 could be used to detect and designate targets for a formation of other helicopters, this being referred to by Kamov as 'combat management'. Ka-52s are in service with Russian and Egyptian armed forces.

Kazan/Mil Mi-17

<https://customer.janes.com/Janes/Display/JAWA0800-JAWA>



The Kazan Mi-17 is a medium twin-engine transport helicopter manufactured by Kazansky Vertoletnyi Zavod OPAO. Kazan's Mi-17 development was intended to compete with latest Western helicopters (such as Sikorsky S-92, NHI NH 90, EHI EH 101, and Eurocopter AS 332) combining advanced avionics and systems with well-proven airframe and dynamic system. The designation Mi-17 is given for export variants of the Mi-8MT helicopter with Russian armed forces. It can also be utilised for various other missions such as search and rescue, fire support and troops transport.

MiG (Mikoyan) MiG-21

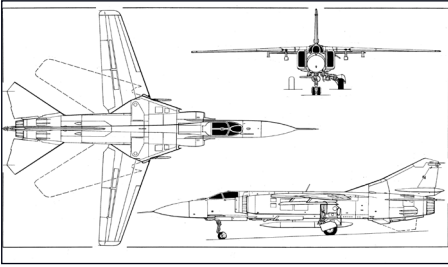
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The MiG-21 is a supersonic fighter and interceptor aircraft developed and manufactured by MiG (Inzhenirnyi Tsentr 'OKB Imeni A I Mikoyana') in 1950s. Over the period, multiple variants of the aircraft had been manufactured, upgraded and modified as per the operational requirements of the customers. Over 50 nations have operated the MiG-21, and many still use the type and it is estimated that in excess of 10,000 MiG-21s were manufactured.

MiG (Mikoyan) MiG-23

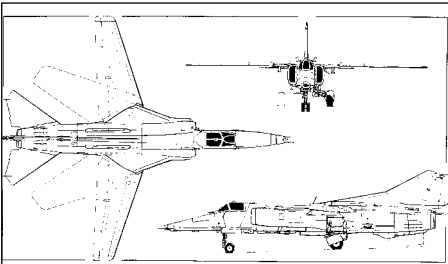
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The MiG-23 is a multirole fighter aircraft developed and manufactured by MiG (Inzhenirnyi Tsentri 'OKB Imeni A I Mikoyana'). The development programme began in 1964 with an intention to replace MiG-21s. The MiG-23, with MiG-27, superseded MiG-21 as primary equipment in Soviet tactical air forces and APVO home defence interceptor force. The shoulder mounted sweep-wing feature augments the operational capability of the aircraft during combat missions.

MiG (Mikoyan) MiG-27

https://customer.janes.com/Janes/Display/JAU_9123-JAU_



The MiG-27 is high-speed low-level ground attack aircraft developed and manufactured by MiG (Inzhenirnyi Tsentri 'OKB Imeni A I Mikoyana'). The aircraft structure is based on the same basic airframe of MiG-23 but with a revised nose. The aircraft was also licenced produce in India by Hindustan Aeronautics Limited. Versions of the MiG-27 are in service with the armed forces of Kazakhstan and Sri Lanka.

MiG (Mikoyan) MiG-31

https://customer.janes.com/Janes/Display/JAU_9124-JAU_



The MiG-31 is a supersonic multirole aircraft developed and manufactured by MiG (Inzhenirnyi Tsentri 'OKB Imeni A I Mikoyana'). The aircraft was developed in late 1960s as a long-range, extended-endurance PVO interceptor to replace the Tu-128 and MiG-25 and to counter the threat of the United States Air Force (USAF) B-52 bombers carrying ALCMs. Equipped with two low-bypass turbofan engines, the aircraft can carry out low-level supersonic flights, which MiG-25 lacked.

MiG-29

https://customer.janes.com/Janes/Display/JAU_9123-JAU_



The MiG-29 is a multirole fighter developed and manufactured by MiG (Inzhenirnyi Tsentri 'OKB Imeni A I Mikoyana'). The aircraft design programme was conceptualised in early 1970s with an intention to replace MiG-21, MiG-23, Su-15, and Su-17. The aircraft has been under modernisation since 1990s while incorporating performance upgrades; engines having economical fuel consumptions, mission systems, improved avionics, air to surface armaments and precision armaments for air superiority.

MiG-29 and MiG-35

https://customer.janes.com/Janes/Display/JAWA0824-JAWA_



The MiG-29 is a multirole fighter developed and manufactured by MiG (Inzhenirnyi Tsentri 'OKB Imeni A I Mikoyana'). The aircraft design programme was conceptualised in early 1970s with an intention to replace MiG-21, MiG-23, Su-15, and Su-17. The aircraft has been under modernisation since 1990s while incorporating performance upgrades; engines having economical fuel consumptions, mission systems, improved avionics, air to surface armaments and precision armaments for air superiority.

MIL (PZL Swidnik) Mi-2

https://customer.janes.com/Janes/Display/JAU_A232-JAU_



The Mi-2 is a light multipurpose helicopter developed by the Mil design bureau in the Russian Federation and manufactured by PZL Swidnik in Poland. The first flight of the three-bladed twin-engine helicopter took place in 1961. The helicopter was designed to operate in both civil and military domains. The platform has been adapted to suit various roles, including passenger and cargo transportation, flight training, agriculture, medical evacuation, military transport, close air support and armed reconnaissance, search and rescue, as well as for naval operations. More than 5,500 helicopters in various versions were produced until production ended at PZL Swidnik in 2005. Versions of the Mi-2 continue in service and have been upgraded with modern avionics and higher-powered engines.

Mil Mi-14

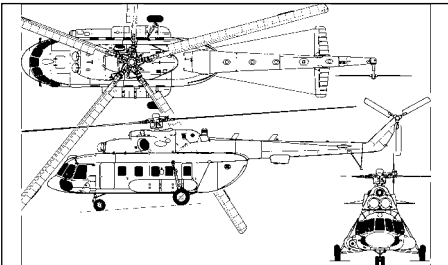
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The Mil Mi-14 is a development of the Mi-8 helicopter generally for maritime operations. Mi-14 retains a number of features in common with the Mi-8 but also adds additional anti-submarine (ASW) capabilities. The Mi-14 has a new power plant, with a flotation bag carried in a sponson, with floats under the tailboom. The first prototype flew in 1969 and a number remain in service with countries worldwide.

Mil Mi-17, Mi-19, Mi-171, and Mi-172

<https://customer.janes.com/Janes/Display/JAWA0840-JAWA>



The Mil Mi-17 (Mi-8M), Mi-19, Mi-171, and Mi-172 are twin engine multipurpose helicopters designed and manufactured by Moskovskiy Vertoletnyy Zavod imeni M L Milya OAO. The maiden flight of the first variant of Mil family took off in 1961. These variants are primarily used as transport, VIP transport and utility aircraft both in civil and military applications. Other mission specific variants are used for roles such as electronic warfare, reconnaissance, medical, assault, and search and rescue.

Mil Mi-24, Mi-25, and Mi-35

https://customer.janes.com/Janes/Display/JAU_9126-JAU_



The Mi-24/25/35 is a family of attack and assault helicopters developed from 1966. Originally known as Mi-24; export version designated Mi-25. Mi-35 are modernised versions of the Mi-24/25. First flight of the prototype occurred in 1969; production began in 1972. The Mi-24 family is powered by two turboshaft engines and all have stepped tandem seating for two pilots. Accommodation for up to eight persons in varying layouts in the main cabin. A wide range of variants have been produced and remain in service with a large number of countries.

Mil Mi-26

<https://customer.janes.com/Janes/Display/JAWA0845-JAWA>



The Mi-26 is a family of heavy lift helicopters developed by Mil (now Russian Helicopters) in the Russian Federation. It was designed in the early 1970s and the first flight of a production-ready Mi-26 was completed in 1980. The helicopter, which makes use of eight main rotor blades can carry up to 20 tonnes of cargo inside the fuselage or using an external sling. The Mi-26 variants are manufactured for both civil and military applications which include transportation of troops and heavy equipment, medical evacuation, and firefighting.

Mil Mi-28

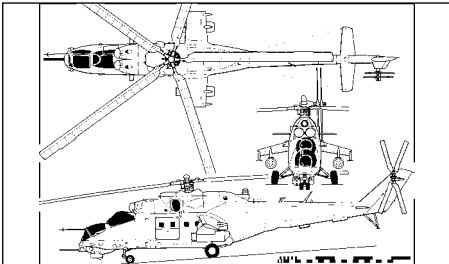
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The Mi-28 is an all-weather attack helicopter developed and manufactured by the Moskovskiy Vertoletnyy Zavod imeni M L Milya OAO, Russian Federation. The design work which began in early 1980 was discontinued due to preference of Kamov Ka-50 helicopter for light combat helicopter role by Russian Army in 1994. The programme was reinitiated with introduction of Mi-28N in 1995. The helicopter features armoured cockpits, windshield able to withstand bullets of 7.62 mm calibre, array of modern avionics essential for modern air warfare and armament for providing air support to ground forces and executing air-to-ground attack missions.

Mil Mi-35 - NATO reporting name: Hind

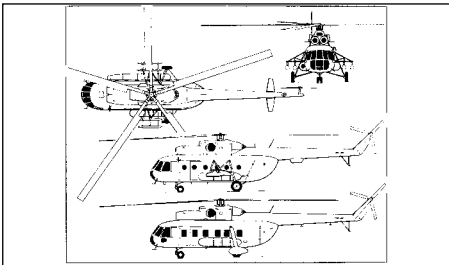
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The Mi-35 is an attack helicopter and developed and manufactured by Moskovskiy Ver-toletnyy Zavod imeni M L Milya OAO, Russian Federation. The Mi-35 designation refers to the export production of the Mi-24 series of attack helicopters. The helicopter is primarily designed for attack and transport roles but it can be modified for ground assault or medical evacuation (MEDEVAC) role also. After the cessation of production in 1991, type was reinstated in production for domestic and foreign customers in 2005.

Mil Mi-8

https://customer.janes.com/Janes/Display/JAU_9125-JAU_



The Mi-8 is a medium-lift utility helicopter developed and manufactured by MIL (Moskovskiy Vertolyotny Zavod (MVZ) Imeni M L Milya (Moscow Helicopter Plant Named for M L Mil JSC)). The development began in 1960 to replace piston-engined Mi-4. It is designed to carry a maximum payload of 4000 kg. The helicopter is being utilised for civil and military applications worldwide. All versions can be converted for air ambulance duties, with accommodation for 12 stretchers and tip-up seat for medical attendant.

Mil Mi-8/17/171 - upgrades

https://customer.janes.com/Janes/Display/JAU_9225-JAU_



The Mi-8 and Mi-17 (NATO reporting name: 'Hip') are medium multirole helicopters powered by twin turboshaft engines. The export version of Mi-8AMT is designated as Mi-171. The Mi-series helicopters are being utilised all around the world by different forces and civil operators. Based on the multi-utility of the helicopter various upgrades have been carried out over the period of time. The helicopters of Mi-series are available in roles of cargo transport, utility, firefighter, gunships, and electronic warfare.

Sukhoi Su-17/Su-22

https://customer.janes.com/Janes/Display/JAU_1057-JAU_



The Su-17/Su-22 is a family of multirole fighter aircraft developed and manufactured by Sukhoi in Russia. The Su-17 programme began as a further development to the Su-7 fighter aircraft; design and development was carried out in the late 1960s and first flight of the Su-17 prototype was in 1969. The Su-22 series designations were given to the various export modifications of the Su-17 variants. The aircraft is used for various roles such as air combat, air to surface and reconnaissance missions. Production of the aircraft family ended in 1990 with its latest modification, the Su-17M4/Su-22M4.

Sukhoi Su-24

https://customer.janes.com/Janes/Display/JAU_9127-JAU_



The Sukhoi Su-24 is a supersonic, all weather attack fighter featuring variable geometry wings, twin afterburning engines and a crew of two. Subsequent variants have been developed for reconnaissance and electronic warfare. It was designed in the 1960s and remains in service with Russia and several countries to which it was exported.

Sukhoi Su-25 and Su-28

https://customer.janes.com/Janes/Display/JAU_9296-JAU_



Sukhoi Su-25 is a twin engine, single seat attack aircraft, initially designed to provide close air support to Russian (Soviet) ground forces. It has subsequently been developed into several variants including two-seat trainer, target tow, anti-tank platform, and naval training variant. It has been exported to 26 countries.

Sukhoi Su-27

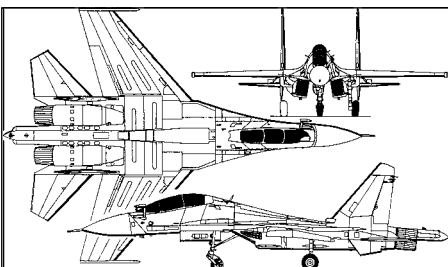
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The Sukhoi S-27 was designed as a long range, highly manoeuvrable, air superiority fighter for service with the Russian (USSR) Air Force. It was intended to counter other fourth generation fighters in development, such as the American F-15 'Eagle' and F-14 'Tomcat'. Proven to be a flexible and adaptable air frame, variants have been developed to perform almost all air warfare roles, including multirole fighter, naval defence and naval strike. It has been exported widely and it was built on licence in China from 1998.

Sukhoi Su-30 (Su-27PU)

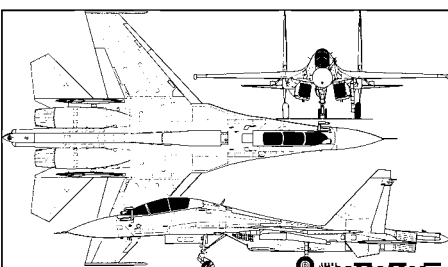
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The Su-30 is a family of multirole fighter aircraft developed and manufactured by Kompaniya Sukhoi PAO (Sukhoi Company JSC). Designed for providing air superiority for mission of 10 hours or more with two in-flight refuellings; systems proved for extended duration sorties, including group missions with four Su-27s. This early Su-30 version is no longer being developed or produced.

Sukhoi Su-30M

<https://customer.janes.com/Janes/Display/JAWA0899-JAWA>



The Su-30M is a twin-engine multirole fighter aircraft being produced by the Sukhoi Company JSC. The aircraft is a further development of the Su-27 fighter aircraft. The aircraft was developed by Russian Sukhoi Design Bureau and built by KnAAPO in Komsomolsk-na-Amur. The Su-30M designation was initially associated with the canard fitment. However, this now appears to identify multirole aircraft with upgraded airframe capable of 38,800 kg (85,539 lb) MTOW, irrespective of aerodynamic configuration.

Sukhoi Su-33 (Su-27K)

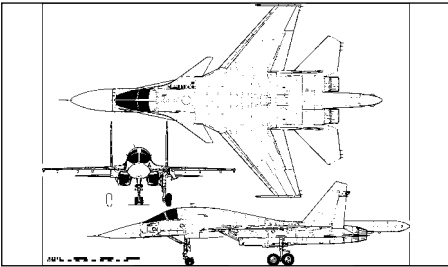
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The Su-33 is a Russian all weather, carrier-based air superiority fighter designed by AVPK Sukhoi and manufactured by the Komsomolsk-on-Amur Aircraft Production Association. It is derived from the Su-27 and was initially known as the Su-27K. A two seat trainer variant was later developed, known as Su-33UB.

Sukhoi Su-34

<https://customer.janes.com/Janes/Display/JAWA0896-JAWA>



The Su-34 is a supersonic two-seat long-range fighter-bomber, developed and manufactured by Kompaniya Sukhoi PAO (Sukhoi Company JSC). It is derived from the Su-27 platform and it is intended as tactical strike/attack replacement for Su-24 and Su-25 aircraft, currently in service. The beginning of the development programme dates back to early 1980s. The aircraft features open architecture on-board avionics. It has an all-weather strike capability and it is equipped with wide range of guided and un-guided ordnance.

Sukhoi Su-35

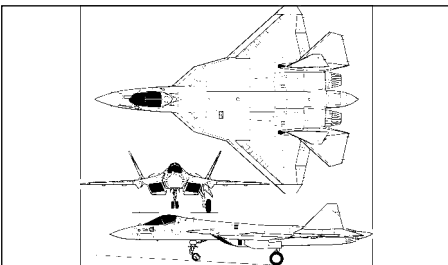
<https://customer.janes.com/Janes/Display/JAWA0904-JAWA>



The Su-35 is a multirole fighter aircraft developed and manufactured by Kompaniya Sukhoi PAO (Sukhoi Company JSC) in Russia. It is an advanced development of the Su-27 aircraft to provide air superiority and counter comparable Western 4th generation combat aircraft. The Su-35S production variant achieved full operational capability in 2018.

Sukhoi Su-57

<https://customer.janes.com/Janes/Display/JAWA5596-JAWA>



The Su-57 is a Russian multirole, single-seat stealth fighter aircraft. It is a fifth-generation aircraft made primarily of titanium alloy and equipped with twin-engines having independently-moving thrust vectoring nozzles. Development began as the PAK-FA in 1998 with first flight occurring in 2010 and low-rate initial production (LRIP) in 2019.

Tupolev Tu-134 - NATO reporting name: Crusty

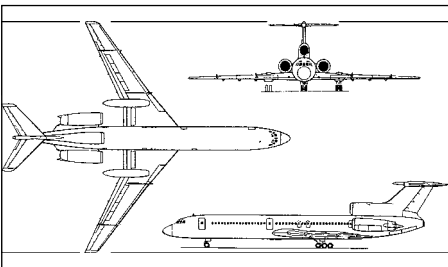
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The Tupolev Tu-134 (NATO reporting name: Crusty) is a twin engine jet airliner developed and manufactured by Tupolev. It was introduced in 1964. These variants are primarily used as passenger aircraft and operational trainer.

Tupolev Tu-154

https://customer.janes.com/Janes/Display/JAU_9344-JAU_



The Tupolev Tu-154 is a three-engine medium range airliner manufactured by Tupolev. Owing to its capability of operating even from unpaved and gravel airfields, it was widely used in the extreme Arctic conditions of Russia's northern/eastern regions. The aircraft was utilised by Russian airlines (Aeroflot) on domestic routes for several decades. Apart from its commercial use, different variants of the aircraft had been utilised by Air Forces of many countries for different roles like; C41STAR, Logistics aircraft - transport and scientific.

Tupolev Tu-160

<https://customer.janes.com/Janes/Display/JAWAB942-JAWA>



Tu-160 is a multi-missioned strategic bomber operating at a supersonic speed, designed and developed by Tupolev. Active fleet of Tu-160 has been undergoing upgrades; restart of Tu-160 production initiated in April 2017.

Tupolev Tu-214 Special Mission Versions

<https://customer.janes.com/Janes/Display/JAWAB252-JAWA>



Tu-214 is a twin-engined medium-range jet airliner designed by Tupolev. The special mission versions are variants with various non-airliner roles which are modified from the originally built passenger/cargo transport aircraft. Tu-214ON is the surveillance version ordered by Russian government and it was first flown in 2011.

Tupolev Tu-22M

https://customer.janes.com/Janes/Display/JAU_9128-JAU_



The Tu-22M is a supersonic strategic and maritime strike bomber developed and manufactured by Tupolev in Russia. The Tu-22M was developed to meet a Russian Air Force requirement for a variable geometry bomber from 1962 onwards and is based on the earlier Tu-22. The Tu-22M is designed to carry stand-off missiles, cruise missiles or free-fall munitions, depending upon the mission requirement and has been progressively upgraded through its service life.

Tupolev Tu-95 and Tu-142

https://customer.janes.com/Janes/Display/JAU_9129-JAU_



The Tu-95 and Tu-142 are a family of strategic and maritime reconnaissance bomber aircraft which was developed by Tupolev in Russian Federation. The Tu-95 had its first flight in 1952 and since then various versions of the aircraft have been built until production ended in 1994. The development originated with the Tu-95 airframe in late 1950s, based on this the Tu-142 maritime version was subsequently developed in the 1960s. Versions are primarily used as anti-submarine warfare aircraft, strategic bomber and can carry multiple air launched cruise missiles (ACLMs). It features four turboprop engines with eight contrarotating propellers. Versions of Tu-95 and Tu-142 are in service with the Russian Armed Forces.

Yakovlev Yak-130

https://customer.janes.com/Janes/Display/JAWA0961-JAWA_



The Yakovlev Yak-130 is a subsonic two-seat advanced jet trainer and light fighter designed and developed by Opytno-Konstruktorskoye Byuro Imeni A S Yakovleva OAO (Experimental Design Bureau JSC named for A S Yakovlev). Development of the aircraft began in 1991 and it's maiden flight was conducted in the year 1996. It was selected by the Russian Air Forces as training and/or light attack variant.

ENICS Berta E08

https://customer.janes.com/Janes/Display/JUAVA762-JUAV_



The ENICS Berta E08 (sometime referred to as Berta E08M) is an aerial target, manufactured by JSC ENICS of Russian Federation. It is designed to simulate remote piloted vehicles (RPVs), aerial-guided bombs and cruise missiles for testing weapon systems and training of the personnel.

ENICS DSAS E25

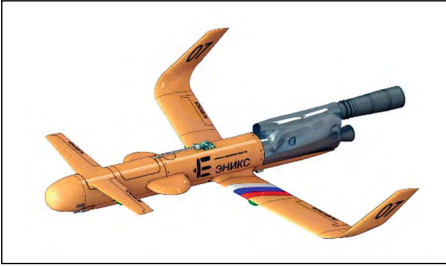
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The dynamic simulation aerial target DSAS E25 is manufactured by ENICS. The DSAS E25 aerial target was developed to imitate F-16 and Tornado fighter aircraft silhouettes, angle, trajectory and speed on a scale 1:14 - 1:15. The E25 aerial target is deployed with the Iгла missile system.

ENICS E17M

<https://customer.janes.com/Janes/Display/JUAVA966-JUAV>



The E17M series are recoverable aerial targets manufactured by ENICS. Three versions are publicised by the company: the E17MP, E17MV, and E17MT. The versions primarily differ in their powerplant and airframe size.

OKB Simonov Dan

<https://customer.janes.com/Janes/Display/JUAV0138-JUAV>



Dan is a family of recoverable subsonic aerial target, developed and manufactured by OKB Simonov. The UAV was displayed for the first time at the 1993 Moscow air show. A developed version, Dan-M, superseded the original Dan in 2004. An ecological monitoring version, Danem, was marketed from 2005 onwards. The aerial target has been in service with Russian ground-based air defense forces from late 1993.

AEROKON Turman-AS GCS

<https://customer.janes.com/Janes/Display/JUAVA878-JUAV>



The AEROKON Turman-AS GCS is believed to be operated in combination with AEROKON INSPECTOR family of UAVs, and with the recent addition in the aerial target domain, the INSPECTOR 2020, the antenna tuner Turman-AS GCS is a manned-aircraft technology adaptation to UAV control and navigation. The Turman-AS GCS was developed in-house by AEROKON, which in the past used to fit its UAVs with a management system manufactured by TeKnol, but gradually transitioned to an indigenously manufactured control system.

ZALA 421-16

<https://customer.janes.com/Janes/Display/JUAVA339-JUAV>



ZALA 421-16 is a reconnaissance and surveillance mini-unmanned aerial vehicle (UAV), manufactured by the ZALA Aero Group. The UAV was announced in early 2009, with the upgraded variant announced in 2012. The AV is suitable for a range of applications including remote monitoring, and all-weather surveillance with an operating temperature range of -30°C to +40°C. The ZALA Aero Group was continuing to publicise its ZALA 412-16 reconnaissance and surveillance mini-UAV together with the type's -16E2, -16E5, and -16EM configurations.

Unmanned Systems Supercam S-300M

<https://customer.janes.com/Janes/Display/JUAVA869-JUAV>



Supercam S-300M (Petrel) is a fixed-wing tactical surveillance mini unmanned aerial vehicle (UAV), designed and manufactured by Unmanned Systems to provide a day/night, all-weather video surveillance capability. Variety of payloads ranging from thermal imaging camera, HD video camera, multispectral camera and laser target highlighting (optional) can be installed.

9F6021E Versatile Training Target System (VTTS)

<https://customer.janes.com/Janes/Display/JUAVB002-JUAV>



The Adyutant 9F6021E Versatile Training Target System (VTTS) is a jet-powered subsonic recoverable aerial target, manufactured by Almaz-Antey in Russia. The Adyutan 9F6021E is designed for training missions involving short- and medium-range air-defence systems. The Adyutant system contains four different target types: missile air target, fixed-wing jet aircraft target, fixed-wing propeller aircraft target, and rotary-wing air target, which operate together to simulate swarms of hostile platforms. The target was first revealed in 2018 and is in development.

Yakovlev Pchela/Shmel

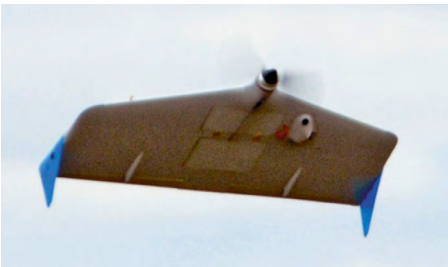
<https://customer.janes.com/Janes/Display/JUAV1303-JUAV>



Pchela is a short-range unmanned aerial vehicle (UAV) manufactured by A. S. Yakovlev Design Bureau. The Soviet Ministry of Radio Electronics sponsored the development of the first Soviet mini UAV, codenamed Pchela (Bee) with the associated system name Story. The Yakovlev OKB's involvement in UAVs began only in 1982 in response to a Soviet Ministry of Aircraft Production requirement for a small battlefield tactical system for surveillance and electronic countermeasure (ECM) roles. The UAV is designed to provide surveillance data in real-time, provide target indication, and fire control for artillery. It supports modular design which permits for a wider field of applications. The current Pchela-1T is a part of a highly mobile Unmanned Aerial System (UAS).

ZALA 421-08

<https://customer.janes.com/Janes/Display/JUAVA243-JUAV>



The ZALA 421-08 AV is a short-range reconnaissance and surveillance mini-unmanned aerial vehicle (UAV) manufactured by Zavod A-Level Aerosystems (ZALA) Aero Group (part of Kalashnikov Group since January 2015). The baseline version, ZALA 421-08, was revealed in 2007. The advanced version ZALA 421-08M mini-UAV was successfully tested at the MAKS-2013 air show at the training camps of the Russian MVD air detachments and at the joint Rosatom tactical and special exercises.

Aerokon Inspector 2020

<https://customer.janes.com/Janes/Display/JUAVA877-JUAV>



The AEROKON INSPECTOR 2020 is a recoverable aerial target developed by AEROKON in Russia for Man-Portable Air Defence Systems (MANPADS) training. The INSPECTOR 2020 completed flight trials in 2012 and entered testing during 2014.

Aero Robotics GS-100

<https://customer.janes.com/Janes/Display/JUAVA915-JUAV>



The GS-100 GCS is an ergonomic control station developed by Aero Robotics and integrated into a multi-purpose vehicle (MPV), from where it can be operated. The GCS controls up to two UAVs simultaneously, and can accommodate up to two crew members. It is developed by OOO Aero Robotics, Russia.

Aeronautics Aerolight, Aerosky, and Aerostar

<https://customer.janes.com/Janes/Display/JUAV9257-JUAV>



The Aerostar TUAV series (Aerolight, Aerosky, and Aerostar) are close range unmanned aerial vehicle (UAV) designed and manufactured by Aeronautics Defence Systems Ltd. The Aerolight and Aerosky are small UAVs, with the Aerostar being a tactical UAV. The Aerostar family was introduced in 2000 and is in service with a number of civil and military operators. The primary mission role of the Aerostar family is reconnaissance, surveillance and over-the-horizon patrols.

Aero Robotics MPU-10

<https://customer.janes.com/Janes/Display/JUAVA914-JUAV>



The Aero Robotics MPU-10 is a portable GCS (ground control station) used to control UAVs and its payloads. It is developed and manufactured by OOO Aero Robotics, Russian Federation.

Kronshtadt Orion-E

<https://customer.janes.com/Janes/Display/JUAVA865-JUAV>



The Orion-E is a medium-altitude long-endurance (MALE) surveillance UAV developed by Kronshtadt Technologies a Kronshtadt Group (a Sistema subsidiary). The UAV is fully developed in Russia and built with domestic components. The AV was being promoted as an intelligence, surveillance, and reconnaissance (ISR) tool.

Roselectronics Korsar UAS

<https://customer.janes.com/Janes/Display/JUAVB031-JUAV>



The Korsar is a medium-sized fixed-wing unmanned aerial vehicle (UAV) designed by the Lutch R&D company of the Roselectronics holding (part of Rostec), Russia. The AV can perform ISR and strike missions in all-weather terrain.

Okhotnik

<https://customer.janes.com/Janes/Display/JUAVB014-JUAV>



The Okhotnik (Hunter), (also known as the Okhotnik Udarno-Razvedivatelnyi Bepilotnyi Kompleks [Unmanned Strike-Reconnaissance System]) or S70, is a large flying-wing type UCAV being developed by Sukhoi. It is a developmental high-altitude, long endurance (HALE) unmanned combat air vehicle (UCAV). The AV is designed to be operated alongside a manned aircraft as a force multiplier. The prototype indicate its internal bay to be compatible with most, if not all next-generation missiles and munitions being developed for the SU-57, including potential hypersonic cruise missiles.

YuVS AVIA Granad VA-1000 GCS

<https://customer.janes.com/Janes/Display/JUAVA939-JUAV>



YuVS Avia from Russia have developed a GCS (ground control station) for use in conjunction with their Granad VA-1000 UAV. The GCS is a video and telemetry signal system with software for the control of the UAV.

ENICS E95M

<https://customer.janes.com/Janes/Display/JUAV0137-JUAV>



The ENICS E95M is a pulse jet-powered, subsonic aerial target designed to test and evaluate anti-aircraft weapons as well as train aerial gunnery crews. It was developed and manufactured for the Russian Armed Forces by ENICS in Russia. The E95M simulates a range of potential targets and mimics the maneuvering characteristics of simulated threats such as aerial bombs, cruise missiles, fixed-wing and rotary-wing aircraft.

Strela (Lavochkin) La-17

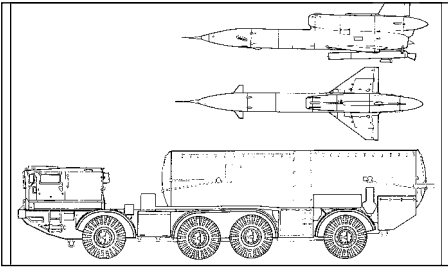
<https://customer.janes.com/Janes/Display/JUAV9201-JUAV>



The Lavochkin La-17 is a subsonic aerial target, manufactured by PO Strela in Russia. It is a jet-powered target of all-metal construction and was developed as the first non-towed target in the Soviet Union. The target was initially developed to be ram-jet powered. Five distinct versions were produced.

Tupolev Tu-143 and Tu-243 Reis

<https://customer.janes.com/Janes/Display/JUAV1302-JUAV>



The Reis (flight) unmanned aerial reconnaissance system was developed by the Tupolev design bureau in the late 1960s to replace the earlier TBR-1 (La-17R) tactical reconnaissance UAV, a modified variant of the Lavochkin aerial target that had been in service since the early 1960s. The Tu-143 is used for photographic, television, or other surveillance in both military and civil capacities. Capabilities include reconnaissance of troop and facilities deployments, engineering works, or natural or ecological disasters; to reveal the areas and extent of forest fires and gas or oil pipeline damage; and to define areas of radiation contamination.

Unmanned Aerial Vehicles - STT Orlan

<https://customer.janes.com/Janes/Display/JUAVA817-JUAV>



The Orlan is a family of fixed wing mini/small UAVs developed by Spetsialny Tekhnologicheskii Tsentri (STT). The Orlan-10 is a family of mini UAVs. However, Orlan-30 and Orlan-50, unveiled in 2016, are small UAVs. Orlan-10 has been in extensive combat service in Eastern Ukraine and Syria since 2014. It was developed for missions ranging from aerial reconnaissance, observation, monitoring, search and rescue, combat training, jamming, detection of radio signals, and target tracking.

SKAT Systems GCS

<https://customer.janes.com/Janes/Display/JUAVA896-JUAV>



The SKAT Systems GCS is designed to be operated with the SKAT family of UAVs, the SKAT Systems GCS is a small portable GCS manufactured by the Russian company SKAT Systems. The GCS can undertake pre-flight and after-flight maintenance and subsequent analysis of the information received from the UAV. The GCS can also work independently or it can be linked to other control systems if needed. It can control up to 10 UAVs simultaneously, and it can transfer control to other GCS within a radius of up to 90 km (56 miles).

Izhmash Tachyon

<https://customer.janes.com/Janes/Display/JUAVB083-JUAV>



The Tachyon is a mini flying-wing design unmanned aerial vehicle (UAV) developed by Izhmash Unmanned Systems in the Russian Federation. The UAV platform can be operated in day or night conditions within combat or special operations. It is primarily used for aerial surveillance and reconnaissance, target designation, artillery fire correction, signals relay, and for aerial target purposes.

Geoscan Group Geoscan 101

<https://customer.janes.com/Janes/Display/JUAVA871-JUAV>



The Geoscan 101 is an electric motor powered UAV developed by Geoscan Group. It has been specifically designed to undertake surveillance tasks in urban environments.

Unmanned Systems Photobot

<https://customer.janes.com/Janes/Display/JUAVA866-JUAV>



Unmanned Systems describes its Photobot AV as having been specifically designed for aerial photography, with applications being listed as including emergency situation monitoring, real-estate management, mapping, commercial photography, high-precision agricultural surveillance, livestock control, land-use planning/monitoring, and forestry surveillance. Again, the AV is billed as being deployable within 10 minutes; as requiring a 100 × 100 m (328 × 328 ft) take-off/landing area; and as being able to operate in windspeeds and temperatures of 0.2 km/h (0.12 mph) and -30°C to +30°C (-22°F to +86°F) respectively in moderate rain or snow. The UAV has automatic self-diagnosis of ground and on-board equipment.

Unmanned Systems Supercam

<https://customer.janes.com/Janes/Display/JUAVA868-JUAV>



Unmanned Systems characterises its Supercam AV (also designated as the S350) as being a modular system that is designed for all-weather panoramic and planimetric aerial photography and videography. Unmanned systems also revealed Supercam 250 that has smaller dimensions for day and night monitoring with proximity alerts. The modular architecture allows for alteration of payloads and equipment.

Unmanned Systems Pioneer

<https://customer.janes.com/Janes/Display/JUAVA867-JUAV>



Pioneer is a fixed-wing surveillance UAV developed by Unmanned Systems in Russian Federation. Unmanned Systems describes its Pioneer aerial vehicle (AV) as being an all-weather surveillance UAV that can obtain, transmit, and record acquired data in real-time as well as characterise a target's size and precise location.

KumAPP Katran

<https://customer.janes.com/Janes/Display/JUAVA977-JUAV>



The Katran is a multi-role VTOL UAV developed by KumAPP (Kumertau Aviation Production Enterprise). The company describes Katran as the type designed for fire-support and reconnaissance missions.

ZALA 421-16E5

<https://customer.janes.com/Janes/Display/JUAVB047-JUAV>



ZALA 421-16E5 is a reconnaissance and surveillance small UAV, manufactured by the ZALA Aero Group. The AV is suitable for a long range, long endurance of applications including remote monitoring, and all-weather surveillance. ZALA also developed ZALA 421-16E5 IC engine version. As of 2020, the ZALA Aero Group was continuing to publicise its ZALA 412-16 reconnaissance and surveillance mini-UAV together with the type's -16E, -16E2, -16E5, and -16EM configurations.

IAI Searcher

<https://customer.janes.com/Janes/Display/JUAV1299-JUAV>



The Searcher is a family of long-endurance, multi-role unmanned aerial vehicles (UAVs) designed and manufactured by Israel Aerospace Industries (IAI). The first production Searcher AV had been rolled-out during November 1991. It is used for surveillance, reconnaissance, target acquisition, artillery adjustment, and damage assessment.

RT LTA Systems Skystar

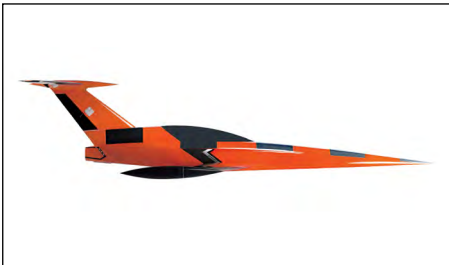
<https://customer.janes.com/Janes/Display/JUAVA685-JUAV>



The RT LTA Systems Skystar is a family of surveillance aerostats as being suitable for a wide variety of applications including unmanned ISR and targeting, border/coastal security, crisis/emergency management, law enforcement, SAR, communications relay, police support, environmental surveillance, media support, and base/facility protection. They are developed and produced by RT LTA Systems Ltd and Aeronautics Ltd.

Blik-M

<https://customer.janes.com/Janes/Display/JUAVA874-JUAV>



The Blik-M is a jet-propelled recoverable aerial target developed by Aerotechnica Ltd. It was developed to be operated as a high-speed target for multiple gun- and air-defence missiles. The AV is fitted with an aerial target imitator that can simulate airborne threats with a radar cross section between 0.1 m² and 100 m².

CDET RAM

<https://customer.janes.com/Janes/Display/JUAVB058-JUAV>



The RAM combat unmanned aerial system also termed loitering weapon system is designed by CDET LLC. It is developed for both attack and reconnaissance missions. It can be equipped with three modular variable weight (2 to 4 kg) warheads. RAM can engage moving targets, has a maximum range of 30 km, can be employed in urban environments, and has a circular error probable of no greater than 1 m.

SPE 'Athlon Avia' A1-S Furia

<https://customer.janes.com/Janes/Display/JUAVA889-JUAV>



The A1-S Furia is a fixed-wing mini-UAV developed by the Scientific and Production Enterprise (SPE). It was developed for day/night reconnaissance and artillery fire correction applications. Development of the A1-S began in 2014 and the system has been used by the Ukrainian Armed Forces. The A1-S is marketed by the Ukrainian firm Ukrimash.

SKDB 'Luch' Sokil-2

<https://customer.janes.com/Janes/Display/JUAVA880-JUAV>



The Sokil-2 is a container-launched mini-UAV. It is designed for reconnaissance missions with camera and video payloads. The Sokil-2 is designed to be mounted on combat vehicles and launched from a bespoke container. The Sokil-2 is also intended to be used a part of the vehicle reconnaissance system in unison with systems onboard the launch vehicle.

SIS A-12 Uragan

<https://customer.janes.com/Janes/Display/JUAVA298-JUAV>



The A-12 Uragan is a VTOL (vertical take-off and landing) UAV designed for reconnaissance operations in challenging areas such as woodland or mountainous terrain.

OJSC 'Meridian' Spectator

<https://customer.janes.com/Janes/Display/JUAVA881-JUAV>



The Spectator is a mini-UAV designed for surveillance and reconnaissance missions. It is also designed to have low visual signature and high aerodynamic properties.

SIS A-4 Albatros

<https://customer.janes.com/Janes/Display/JUAVA017-JUAV>



The A-4 Albatros is a mini-UAV designed for tactical surveillance and reconnaissance missions. The first flight of the baseline A-4 occurred in June 2000. Two further versions have been produced: A catapult-launched A-4K version and A-4B hot and high version.

SIS A-3 Remez

<https://customer.janes.com/Janes/Display/JUAV9242-JUAV>



The A-3 Remez is a multirole mini-UAV designed for reconnaissance, surveillance and patrol missions. It was first developed in 1997 and was debuted at the 2000 Eurosatory exhibition. Remez-3T and Remez-3U variants have also been produced.

SIS A-11 Swift

<https://customer.janes.com/Janes/Display/JUAVA300-JUAV>



The A-11 is a recoverable aerial target being developed by the Scientific and Industrial Systems Ltd in Ukraine. Developed as a gunnery and missile target for use with land-based air defence weapons.

UKRSPEC PD-1

<https://customer.janes.com/Janes/Display/JUAVA860-JUAV>



The PD-1 is a small UAV designed by UKRSPEC in Ukraine. It had two main versions; a fixed-wing conventional UAS and a VTOL (vertical take-off and landing) version. The PD-1 was launched at the 2016 AVIASVIT-XXI trade show. The fixed-wing PD-1 was designed to perform surveillance and aerial photography in all weather conditions. The vertical take-off and landing (VTOL) version was launched in 2018.

UKRSPEC PC-1

<https://customer.janes.com/Janes/Display/JUAVA859-JUAV>



The UKRSPEC PC-1 is a mini-UAV designed for surveillance and reconnaissance missions. The PC-1 is also configured for VTOL (vertical take-off and landing). The PC-1 is believed to have been in production since 2014.

Matrix UAV Comandor

<https://customer.janes.com/Janes/Display/JUAVA890-JUAV>



The Comandor is a multi-rotor vertical take-off and landing (VTOL) unmanned aerial system (UAS) developed by Matrix UAV in the Ukraine. The aerial vehicle (AV) was launched in 2016 and completed its first flight the same year. The AV is developed to be used in civilian as well as military environment. It can be used for cargo delivery, weapons despatch, surveillance and monitoring purposes, and fire suppression. The production configuration of the AV has a powerplant configuration of 12 electric motors and 2 piston engines to generate.

Matrix UAV Katana

<https://customer.janes.com/Janes/Display/JUAVA891-JUAV>



The Katana is a fixed-wing surveillance unmanned aerial vehicle (UAV) developed by Matrix UAV in Ukraine. The UAV, which features a flying wing design with a single pusher-type propeller is developed for surveillance applications in military as well as in civil environment.

Matrix UAV Oko

<https://customer.janes.com/Janes/Display/JUAVA892-JUAV>



The Katana is a fixed-wing surveillance unmanned aerial vehicle (UAV) developed by Matrix UAV in Ukraine. The UAV, which features a flying wing design with a single pusher-type propeller is developed for surveillance applications in military as well as in civil environment.

ITEC Skif

<https://customer.janes.com/Janes/Display/JUAVA888-JUAV>



The Skif is a fixed-wing surveillance unmanned aerial system (UAS) developed by ITEC in Ukraine. The aerial vehicle (AV) has a flying wing design and is primarily developed for agricultural monitoring and mapping purposes.

ITEC Patriot R2

<https://customer.janes.com/Janes/Display/JUAVA887-JUAV>



The Patriot R2 is a fixed-wing mini surveillance unmanned aerial system (UAS) developed by ITEC in Ukraine. The aerial vehicle (AV) has a flying wing design and can be used for civilian and military applications such as intelligence gathering, artillery fire correction, border patrol, wildfire monitoring and infrastructure surveillance. The Patriot R2 is a further development to ITEC's initial Patriot RV010 UAS which was introduced in 2014.

KPI APUS 1505A series

<https://customer.janes.com/Janes/Display/JUAVA893-JUAV>



The APUS 1505A series is a family of fixed-wing surveillance unmanned aerial systems (UAS) developed by Kyiv Polytechnic Institute in Ukraine. The two aerial vehicle (AV) designations marketed are the 1505A01 and 1505A04. The surveillance and reconnaissance AVs can be used in the civil sector primarily differ in their applications.

UA Technology UA-Beta

<https://customer.janes.com/Janes/Display/JUAVA883-JUAV>



The UA-Beta is a micro-UAV designed for reconnaissance and surveillance missions in challenging environmental conditions. It was developed and is manufactured by UA Technology in Ukraine.

UA Technology UA-Gamma

<https://customer.janes.com/Janes/Display/JUAVA884-JUAV>



The UA-Gamma is a fixed-wing UAV designed for surveillance and remote-sensing applications. The Gamma is also designed to work in challenging climactic conditions. The Gamma is manufactured by UA Technology and marketed by Ukrinmash.

UA Technology UA-Poly

<https://customer.janes.com/Janes/Display/JUAVA884-JUAV>



The UA-Gamma is a fixed-wing UAV designed for surveillance and remote-sensing applications. The Gamma is also designed to work in challenging climactic conditions. The Gamma is manufactured by UA Technology and marketed by Ukrinmash.

DeViRo Leleka-100

<https://customer.janes.com/Janes/Display/JUAVA882-JUAV>



The Leleka-100 (Stork-100) is a fixed-wing surveillance UAV that is autonomous, distance controlled, and is suitable for aerial reconnaissance, patrol, and mapping applications, and which offers real-time imagery hand-off.

AICS Raybird 3

<https://customer.janes.com/Janes/Display/JUAVA894-JUAV>



The Raybird-3 is a fixed-wing mini UAV manufactured by Aircraft Industrial Company 'Sky-eton', in Ukraine. The AV can support long range endurance missions and has an ability to survey vast areas. The ACS-3 is the military version of Raybird-3 that was developed and produced for the Ukrainian Air Forces under the Government Defense Procurement contract.

C4ISR

Electronic warfare



RQ-4D Phoenix Block 40

<https://customer.janes.com/Janes/Display/JUAV1320-JUAV>



RQ-4D Phoenix is the modified version of US Air Force's (USAF) RQ-4 Block-40 Global Hawk. It is a high-altitude, long-endurance unmanned aerial reconnaissance system which is developed for wide area intelligence, surveillance and reconnaissance missions over both land and sea operations.

RC-135V

https://customer.janes.com/Janes/Display/JAU_1746-JAU_



The RC-135V Rivet Joint is an advance version fitted with a sensor suite for tracking and identifying geo-locate signals within the electromagnetic spectrum. The platform integrates 55000 ELINT package which includes a manually operated CS-2010 subsystem which is primarily a direction finder and an ES 400 Automatic ELS system (AELS). The 85000 package provides the aircraft's COMINT capability and was built around the ES182 Multiple Communications Emitter Location System (MUCELS). The AELS can detect signals as far as 480 Km and covers 100 mHz to 18 GHz frequency range. The system is connected to the network centric collaborative targeting system and satellite based remote extended aircraft position system, which enables collaborative connected missions involving various different platforms.

Airborne Reconnaissance and Targeting Multi-Mission Intelligence System (ARTEMIS)

<https://customer.janes.com/Janes/Display/JC4IA0573-JC4IA>



On November 2021 ARTEMIS aircraft was recently pulled out of the Project Convergence experiments in Yuma Proving Grounds, Arizona, to help US European Command monitor Russian troop movements near the Ukraine border. ARTEMIS is a multi-domain, multi-mission US Army demonstrator programme that is based on high speed Bombardier Challenger 650 business jet platform. Two Challenger 650s, N488CR c/n 6140 (LASAI AVIATION LLC, VA) and N9191 c/n 5312 (TENAX AEROSPACE LLC, MS) were modified to equip the platform with mission systems to provide deep-sensing intelligence collection capabilities, generation of electronic order of battle, and patterns of troop movements for target development. HADES mission suite will combine electronic and communication intelligence receivers as well as ground-scanning radar to detect and pinpoint enemy emissions and targets, from stand-off distance.

Tu-214

<https://customer.janes.com/Janes/Display/JAWAB252-JAWA>



Russia mainly relies on multisensor variants based on its IL-20M and Tu-214R for its signal intelligence missions. Tu-214R is a multisensor platform uses the MRC-411 Fraktsiya multi-mission payload system onboard Tu-214R to intercept the signals of enemy Radars, communications systems and even cell phones to generate a real-time electronic map of the battlefield. It also includes imagery intelligence capabilities through TPC Linkos Electro-Optical (EO) imaging system.

Leer-2/Leer-3

<https://customer.janes.com/Janes/Display/JC4IL1080-JC4IL>



Leer-2 is an electronic warfare reconnaissance and jamming system, intended primarily for monitoring and jamming GSM networks within a 15–20 km radius. It is mounted on a GAZ Tigr 4×4 vehicle and is designed to operate close to the front lines. It is also used to monitor enemy radio communications and block them if necessary. The Leer-3 RB-341V is an EW reconnaissance and jamming complex, which consists of a Kamaz-5350 truck-mounted command module and up to two/three Orlan-10 UAVs fitted with specialised sensory and jamming equipment. The mission suite in orlan-10 acts as a base station of GSM-900/1800, 4G and 4G cellular networks and has the capability to send text and audio messages. There were reports of intimidating messages sent to Ukrainian soldiers. LEER-3 system with Orlan-10 Unmanned Air System was used to snoop in the GSM network and broadcast psychological messages.

Borisoglebsk-2

<https://customer.janes.com/Janes/Display/JC4IL0693-JC4IL>



The Borisoglebsk-2 is designed for detect, identify and the suppress HF/VHF/UHF frequencies of ground and airborne radio communication, satellite communication, and radio navigation systems and subscriber cellular and trunk communication lines operating in tactical C2 elements. It can track and jam both fixed-frequency and frequency-hopping signals.

R-330ZH Zhitel

<https://customer.janes.com/Janes/Display/JC4IL1058-JC4IL>



Mounted on Ural-43203 or KAMAZ-43114 6×6 truck chassis, R-330ZH is designed to interfere with the INMARSAT, IRIDIUM satellite communication system, NAVSTAR (GPS) radio navigation system, and cellular communication system (GSM-1800). It has the capability to detect, direction-find, and analyse radio emitters' signals in the 100–2,000 MHz frequency range.

Krasukha-4

<https://customer.janes.com/Janes/Display/JC4IL0650-JC4IL>



The Krasukha-4 is a broadband multifunctional jamming system designed to neutralise low earth orbit (LEO) spy satellites such as the US Lacrosse/Onyx series, satellites, ground-based radars, airborne surveillance radars, and radar-guided ordnance at ranges between 150–300 km. The complex functioning is based on creating powerful jamming at the fundamental radar frequencies and other radio-emitting sources.

C4ISR

C2



Wearable weapons terminal (NTSP) 83t289-1.11

<https://customer.janes.com/Janes/Display/JC4IL1188-JC4IL>



A wearable weapons terminal for anti-tank artillery commanders. Employed by the Russian Army.

MP-K on the 9C931-1 C2 vehicle

<https://customer.janes.com/Janes/Display/JC4IL1189-JC4IL>



A mobile truck-mounted anti-aircraft C3 centre.

Aero Robotics GS-100

<https://customer.janes.com/Janes/Display/JUAVA915-JUAV>



The GS-100 GCS is an ergonomic control station developed by Aero Robotics and integrated into a multi-purpose vehicle (MPV), from where it can be operated. The GCS controls up to two UAVs simultaneously, and can accommodate up to two crew members. It is developed by OOO Aero Robotics, Russia.

1V172-2 Artillery Command and Surveillance System

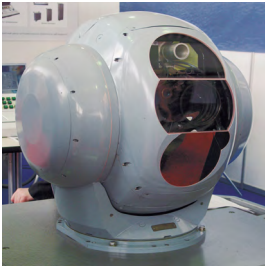
<https://customer.janes.com/Janes/Display/JC4IL0247-JC4IL>



The 1V172-2 is a platform-agnostic artillery fire control system that can be used in artillery units equipped with SP and towed artillery, ATGW, or mortars. In use by Russian Army.

MTK-201ME

<https://customer.janes.com/Janes/Display/JC4IM0082-JC4IM>



The MTK-201ME is an EO/IR fire-control director designed for surveillance of air and surface. It is suitable for all types of defence in self-defence zones, ship's navigational safety, and weapons control. In service with the Russian Navy.

83t888-1.7 mortar fire-control system

<https://customer.janes.com/Janes/Display/JC4IL0245-JC4IL>



The 83t888-1.7 mortar fire-control system supports mortar batteries equipped with PM-120, BM-37, 2B9, 2B11, 2B14, 2B16, 2B23, 2B24, 2B25, and 2S12 mortars and is designed to introduce a high degree of automation to the fire-control chain as well as enhance communications; it incorporates subsystems from the forward observer level up through mortar crew commander and ultimately to the senior officer and commander of the mortar battery.

Automated MANPAD C2 system

<https://customer.janes.com/Janes/Display/JC4IL0244-JC4IL>



The automated MANPAD C2 system provides command and control (C2) for up to nine firing units of shoulder-launched AD weapons. In service with the Russian Army.

P-230T

<https://customer.janes.com/Janes/Display/JC4IL1177-JC4IL>



The P-230T is a modified Tiger-M armoured vehicle. It facilities telecommunications through secure telephony, video conferencing, and electronic communications that can liaise with higher command elements. Its integrated satellite communications component can field a data transfer rate of up to 10 Mbit/s, and its HF radio has an operating range of 50 km (with a maximum of 300 subscribers travelling up to 60 km/h). The modified Tiger-M has an increased noise immunity and includes extra power supplies and life support systems.

ASUZ TZ Command System

<https://customer.janes.com/Janes/Display/JC4IL0966-JC4IL>



The automated command and control system for the TZ is designed for automated and non-automated control of combined-arms and support military units at the tactical level. In service with Russian Army and Navy.

9C931 tracked C3 vehicle series

<https://customer.janes.com/Janes/Display/JC4IL1190-JC4IL>



A series of tracked C2 vehicles designed for anti-aircraft operations.

DA42 and DA62 special mission variants

<https://customer.janes.com/Janes/Display/JEMAA398-JC4IA>



The baseline Diamond Aircraft DA42 and DA62 low-wing, twin-engine airframes has been modified and served as a baseline for various special-mission applications.

Tupolev Tu-214

<https://customer.janes.com/Janes/Display/JEMAA320-JC4IA>



The twin engine PS-90A powered Tu-214 platform has been modified by Russia to serve its strategic command post and communication relay duties. Note this platform is also covered under EW.

II-86VKP

<https://customer.janes.com/Janes/Display/JAEM0239-JC4IA>



Given the NATO reporting name Maxdome, the II-86VKP (Vozdushnyy Komahndnyi Punkt - Airborne Command Post) is Russian Federation's equivalent of the American E-4B National Airborne Operations Centre.

Ka-31 AEW

<https://customer.janes.com/Janes/Display/JAEM0206-JC4IA>



Ka-31 is equipped with an L-band Joint Stock Company Nizhny Novgorod Research Institute of Radio Engineering (NNIIRT) E-801 (E-801E in export configuration) Oko (Eye) surveillance radar and flown by a crew of two (pilot and a navigator/systems operator). It makes use of a 200 kg, ventrally mounted, passive phased-array antenna that folds through 90° to lie flat along the helicopter's centreline for take-off, landing and cruise flight. When the antenna is deployed, the Ka-31's landing gear is retracted to allow it to rotate through the full 360° arc in azimuth while in an emergency, the entire assembly can be manually or explosively jettisoned. To accommodate installation of the described antenna, the Ka-31 has a minimum undercarriage track of 2.41 m and is fitted with 620 × 180 mm main and 480 × 200 mm nose wheels in order to cope with the type's increased (when compared with the Ka-29) take-off weight.

Multisensor Surveillance Systems – MiG-25R variants

<https://customer.janes.com/Janes/Display/JAEM0038-JC4IA>



Derived from the MiG-25 high-altitude supersonic intercept, the Otkrytoe Aktsionernoe Obshchestvo Rossiyskaya Samoletostroitel'naya Korporatsiya 'MiG' (RSK 'MiG' - Russian Aircraft Building Corporation 'MiG' Federal Public Joint Stock Company) MiG-25R aircraft is a single-seat reconnaissance and strike aircraft that has been configured to carry various sensors.

Ranzhir

<https://customer.janes.com/Janes/Display/JLAD0262-JC4IL>



A mobile battery C2 platform for a number of air defence weapons. In service with the Russian forces and has been sold to many other countries as part of AD systems.

PU-12M7

<https://customer.janes.com/Janes/Display/JC4IL0241-JC4IL>



The PU-12M7 is an automated command post for the C2 of short range AD weapons. The PU-12M7 can control a tactical area out to a radius of 100 km, handling up to 120 aerial tracks. The operator can track up to nine targets simultaneously. The command post can accept target data from external surveillance radars, other fire-control systems, and radar-equipped air-defence weapons. Communications with assets up to 15 km away can be achieved by wire, with radio being used for ranges out to 40 km. Sectors can be assigned to the weapon system being controlled, blind arcs or other fire restrictions defined, and targets distributed between the available weapons.

C4ISR

Military communications



R-163-50K transceiver

https://customer.janes.com/Janes/Display/JMC_5385-JC4IL



The R-163-50K HF transceiver provides simplex and two-frequency simplex telephone and telegraph radio communication between fixed or mobile wheeled or tracked units, including armoured vehicles. It can be remotely controlled at up to 10 m, and the associated antenna matching device can be used remotely at up to 5 m. In use by both Russia and Ukraine.

R-134 HF transceiver

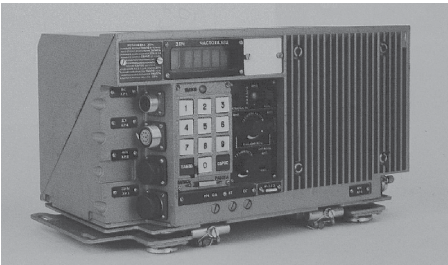
https://customer.janes.com/Janes/Display/JMC_5381-JC4IL



R-134 is a HF transceiver for communication between fixed or mobile-wheeled or tracked units.

R-173M VHF tank transceiver

https://customer.janes.com/Janes/Display/JMC_0136-JC4IL



R-173M is a VHF tank radio providing transmission and reception of digital information in pulse mode. In service with both Russian and Ukrainian Armies.

R-171M UHF radio set

https://customer.janes.com/Janes/Display/JMC_0135-JC4IL



The R-171M is a tactical UHF radio meant for installation on board armored vehicles. In service with the Russian Army.

Berkut-M HF transceiver

https://customer.janes.com/Janes/Display/JMC_0135-JC4IL



Berkut-M is a Russian high frequency tactical radio equipment operating in 1.5-29.999 MHz frequency range.

R-168 5UNE-2 Radio

<https://customer.janes.com/Janes/Display/JC4IL0990-JC4IL>



The R-168-5UNE-2 is a Russian VHF frequency-hopping (FH) multichannel manpack radio designed for tactical applications in regiment, battalion, and company networks.

R-625 (Fir) Radio Station

<https://customer.janes.com/Janes/Display/JC4IM0321-JC4IM>



R-625 (Fir) is a radio station operating on VHF frequency band and can be installed on surface ships, submarines, and coastal communication centres. It is used by Russian border guards.

Svet-KU

<https://customer.janes.com/Janes/Display/JC4IL1094-JC4IL>



Svet-KU is based on a KamAZ 6 × 6 chassis that is intended to automatically monitor and track radio communications from various sources. In use by Russian Army including airborne forces.

R-187-P1E Azart Radio

<https://customer.janes.com/Janes/Display/JC4IL1001-JC4IL>



The R-187-P1E Azart is a multimode tactical team radio with programmable security architecture and provides voice and data communication in VHF/UHF frequency range. In service with Russian Army.

R-163-50U Radio set and R-163-UP Receiver

https://customer.janes.com/Janes/Display/JMC_4415-JC4IL



The R-163-50U is a VHF tactical radio designed to provide secure communication over two independent simultaneously operating channels. In service with Russia.

R-168-100UE-2 radio

<https://customer.janes.com/Janes/Display/JC4IL0986-JC4IL>



The R-168-100UE-2 is a VHF radio for tactical command, control, and communication applications in regiment, battalion, and company networks. In service with Russia.

R-168-0.1UE handheld radio

https://customer.janes.com/Janes/Display/JMC_5024-JC4IL



The R-168-0.1UE VHF handheld radio is designed to provide clear and secure communication at a squad/platoon tactical command level.

R-168-5UN(1)E VHF Radio

https://customer.janes.com/Janes/Display/JMC_5092-JC4IL



The R-168-5UN(1)E VHF radio is designed to provide clear and secure radio communications at the company-battalion tactical command level.

R-168-25UE-2 VHF Radio Series

<https://customer.janes.com/Janes/Display/JC4IL0987-JC4IL>



The R-168-25UE-2 is a VHF radio series for tactical command, control, and communication applications in Regiment, Battalion and Company networks. In service with the Russian Army.

Apparatura Vnutrennoy Svyazi, Komutatsii i Upravleniya – Eksportnaya AVSKU-E

<https://customer.janes.com/Janes/Display/JC4IL0985-JC4IL>



Inside vehicles, the hardware and software system enables communication among crew members, either broadcast to all stations or selectively to individual stations, along with the ability for users to hear their own voice traffic. It also supports switching of voice and data received externally from radios or satellite connections.

R-168-5KNE Radio

https://customer.janes.com/Janes/Display/JMC_5089-JC4IL



R-168-0.5U(D)E monoblock VHF handheld radio is designed for clear and secure communications in tactical command level networks. In service with the Russian Army.

R-168MRDE multi-channel radio

<https://customer.janes.com/Janes/Display/JC4IL0875-JC4IL>



The R-168MRDE is a portable multi-channel UHF radio system designed to provide radio communication in high speed radio networks and batch communications for tactical command link. In service with the Russian Army.

AT-E air information exchange terminal

<https://customer.janes.com/Janes/Display/JC4IA0207-JC4IA>



The AT-E is an information exchange terminal supporting tactical communication, navigation, identification, and information management on board aircraft. In service with the Russian Air Force.

Strelets individual soldier C2 system

<https://customer.janes.com/Janes/Display/JC4IL0716-JC4IL>



The Strelets (Shooter) command, control, communications (C3), and navigation system is part of the Ratnik (Warrior) soldier system.

NKVS-27 communication system

<https://customer.janes.com/Janes/Display/JC4IA0203-JC4IA>



The NKVS-27 is a ground-based aerial communication system designed to facilitate networks, communication, and data-exchange channels with tactical aircraft. In service with the Russian Air Force.

R-168-0.5MKME portable radio

<https://customer.janes.com/Janes/Display/JC4IL0988-JC4IL>



The R-168-0.5MKME is a portable multi-channel VHF radio system designed to provide non-secure and secure tactical radio communication.

R-168-5KVE radio

<https://customer.janes.com/Janes/Display/JC4IL0874-JC4IL>



The R-168-5KVE is a vehicular HF radio designed to provide non-secure and secure (by the voice data masking device or using external CAC (for versions 2 and 3)) tactical radio communication between mobile and stationary platforms.

RATNIK Radios

https://customer.janes.com/Janes/Display/JMC_5026-JC4IL



R-168-0.1U(M)E, R-168-0.1U(M)1E (RATNIK) are VHF handheld tactical radios designed for communication between platoon, squad, and soldier level.

Arbalet (Crossbow) System

https://customer.janes.com/Janes/Display/JMC_4546-JC4IL



The Arbalet (Crossbow) system is made up of a series of portable and transportable HF and VHF radio sets.

P-260T 'Redut-2US' communication complex

<https://customer.janes.com/Janes/Display/JC4IL1335-JC4IL>



The P-260T 'Redut-2US' with the R-431AM antenna module is a long-range army-level communications system that includes five radio stations equipped with a life support system.

R-168-100KBE/KAE radio set

<https://customer.janes.com/Janes/Display/JC4IL1323-JC4IL>



The R-168-100 is a vehicle-portable HF radio set providing automated open communication protected by means of data masking. The radio can send and receive encrypted signals using external encryption solutions between mobile and stationary units at the tactical command level. In service with the Russian Army on the T-90SK platform.

C4ISR

EOIR



Sura-series Helmet-Mounted Target Designation System

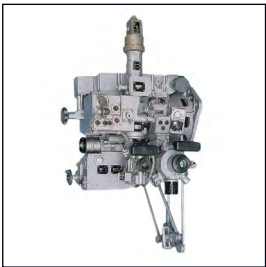
https://customer.janes.com/Janes/Display/JAV_2766-JC4IA



The Sura Helmet-Mounted Target Designation System (HMTDS) generates target designation signals for weapons in proportion to the angles of turn of an operator's (pilot's) head, as well as collimating the image of an aiming mark and initiating one-time commands to his field-of-view (FoV). Manufactured in Ukraine.

1P22

<https://customer.janes.com/Janes/Display/JC4IL0023-JC4IL>



The 1P22 sighting system combines a semi-automated panoramic sight for indirect fire and a telescope sight for direct fire. In service with Ukraine and Russia.

PM-LKT

<https://customer.janes.com/Janes/Display/447162-JC4IA>



The PM-LKT is a multi-sensor turret developed to provide surveillance, detection and identification of armored vehicles as well as to provide targeting laser target designation. In service with Ukraine.

PNK-4SR Agat-R sighting and observation system

<https://customer.janes.com/Janes/Display/JAAU9396-JC4IL>



The PNK-4SR Agat-R is a modernized version of the PNK-4S Agat commander's sight used by the tank commander to detect, identify, observe, and engage targets. In service with both Ukraine and Russia.

1A43U 'Ros' tank sighting system

<https://customer.janes.com/Janes/Display/JAAU9397-JC4IL>



The 1A43U 'Ros' tank sighting system is an improved model of the Soviet-era 1A43, which was installed on the T-80A. It combines a day sight with a laser rangefinder and ballistics computer. The system provides target engagement for tank guns and missile systems. In service with Ukraine.

PNK-6 panoramic sighting system

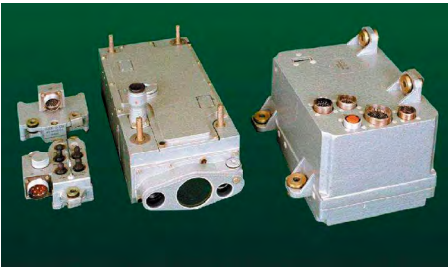
<https://customer.janes.com/Janes/Display/JC4IL0444-JC4IL>



The PNK-6 is a panoramic sighting system for MBTs that allows the tank commander to detect, identify, observe, and engage targets with platform weapon systems. In service with Ukraine

KDT-2U laser rangefinder

<https://customer.janes.com/Janes/Display/JAAUA138-JC4IL>



The KDT-2DU is a laser rangefinder designed for target range measurement and range data delivery to the display unit and ballistic computer. In service with Ukraine

PT2 Thermal Monocular

<https://customer.janes.com/Janes/Display/JC4IL0213-JC4IL>



The PT2 thermal monocular is an uncooled micro-bolometer operating in the long-wave infrared (LWIR) spectrum, with three variations available. In service with the GRU.

GEO-NV-III-ONV night-vision goggle

<https://customer.janes.com/Janes/Display/JEOS8076-JC4IA>



The GEO-NV-III-ONV night-vision goggles (NVGs) are a night-time sighting system believed to be in wide use with Russian military helicopter aircrew.

OLS-UE/-UEM

https://customer.janes.com/Janes/Display/JAV_B112-JC4IA



The Optiko-Lokatsionnaya-Stantsiya (Optical Locator Station: OLS)-UE/-UEM, developed for the latest variants of the MiG-29 (MiG-35), provides capability for search, detection, tracking, and ranging of airborne and ground targets. In service with Russia.

OLS-K

https://customer.janes.com/Janes/Display/JAV_B113-JC4IA



The Optiko-Lokatsionnaya-Stantsiya (Optical Locator Station – OLS) opto-electronic sighting system provides for search, detection, tracking, and ranging of airborne and ground targets. In service with Russia.

I-25I

<https://customer.janes.com/Janes/Display/JEOS8073-JC4IA>



The I-25I Shkval sighting system is designed to detect, track, and identify fixed and moving ground targets and slow airborne targets. Out of production but assessed to still be in use with Russian Air Force.

GEO-NV-III-TV day/night tracking system

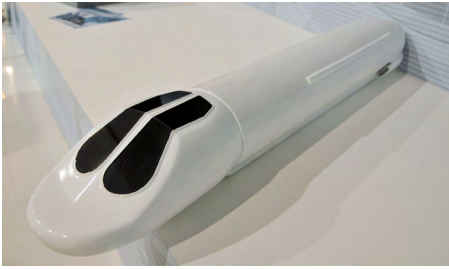
https://customer.janes.com/Janes/Display/JAV_0795-JC4IA



The GEO-NV-III-TV image-intensified, solid-state, charge-coupled device (CCD) camera is a versatile day/night tracking system.

Sapsan/Sapsan E targeting pod

<https://customer.janes.com/Janes/Display/JEOSA027-JC4IA>



The Sapsan (Russian for peregrine) is a targeting pod originally designed to be fitted to the MiG-29 and Su-27/30 series of fighters. In service with Russia.

Prichal laser rangefinder/designator

<https://customer.janes.com/Janes/Display/JEOS1107-JC4IA>



The Prichal is a laser rangefinder/designator. It is a subsystem of the I-25I Shkval targeting system (see separate entry). In service with both Russia and Ukraine.

1PN113 Night sight

<https://customer.janes.com/Janes/Display/JC4IL0065-JC4IL>



The 1PN113 (Russian: 1ПН113) is an image-intensified night sight designed to be mounted on various small arms and rifles. In service with the Russian Army.

1PN111 Night sight

<https://customer.janes.com/Janes/Display/JC4IL0064-JC4IL>



The 1PN111 is an image-intensified weapon sight. The device is design for detecting, recognising, and monitoring targets in night conditions. In service with the Russian Army.

1PN92-2 long-range night reconnaissance device

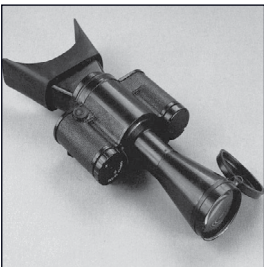
<https://customer.janes.com/Janes/Display/JC4IL0033-JC4IL>



The 1PN92-2 is a long-range reconnaissance device that is designed to be used as a night time observation device for area and perimeter defence. In service with the Russian Army.

1PN50/Baigysh-6U

<https://customer.janes.com/Janes/Display/JEOS0737-JC4IL>



The 1PN50 night vision monocular is a handheld night vision viewing system. In service with the Russian Army.

Klyon (Klen) laser illumination and ranging station

<https://customer.janes.com/Janes/Display/JEOS1106-JC4IA>



The Klyon laser rangefinding and designator provides measurement of range and can be used in different fighter aircraft. In service with both Russia and Ukraine.

OLS-13SM-1 optical locator station

<https://customer.janes.com/Janes/Display/JEOSA260-JC4IA>



The OLS-13SM-1 (Optiko-Lokatsionnaya-Stantsiya or Optical Locator Station) is a further development of the OLS-13S/SM EO locator systems (see separate entry), intended for the latest generation of 'Fulcrum' - the MiG-35.

TO1-KO4DT

<https://customer.janes.com/Janes/Display/JC4IL0550-JC4IL>



The TO1-KO4DT hybrid command targeting and surveillance system is designed to equip the T-90S MBTs in Russian service.

PN-14K night-vision device

<https://customer.janes.com/Janes/Display/JC4IL0051-JC4IL>



The PN-14K is one of a series of night-vision devices produced at the Novosibirsk Instrument-Making Plant in Russia.

1PN97M Mowgli-2M thermal sight

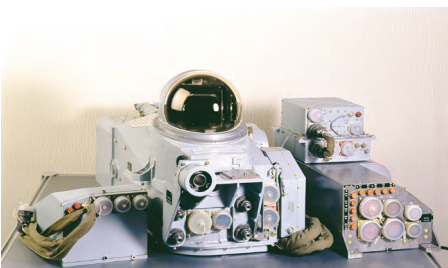
<https://customer.janes.com/Janes/Display/JC4IL0404-JC4IL>



The 1PN97M Mowgli-2M (Mowgli-2M) is a thermal imaging sight for the shoulder-launched 9K38 Igla (SA-18 'Grouse') and 9K338 Igla-S (SA-24 'Grinch') MANPADS, as well as the Dzhigit twin-launcher and Strelets double-quad AFV-mounted system, which use the same missile. In service with the Russian Army.

OEPS-29/27 optical-electronic pointing sights

<https://customer.janes.com/Janes/Display/JEOS1080-JC4IA>



OEPS-29 and OPES-27 are infrared search-and-track (IRST) systems developed for early models of the MiG-29 'Fulcrum' and the SU-27 'Flanker' fighters, respectively. In service with both Russia and Ukraine.

IRBIS-K thermal imaging system

<https://customer.janes.com/Janes/Display/JC4IL0549-JC4IL>



The IRBIS-K is a vehicle-mounted target acquisition system. It is designed for day and night sighting of the main battle tank.

1P76 Rakurs (P01x20) collimator sight

<https://customer.janes.com/Janes/Display/JC4IL0025-JC4IL>



The 1P76 (in Russian: 1П76) or P01x20 'Rakurs' (in Russian: П01x20 'Ракурс') is a collimator sight designed for quick aiming and firing with small arms. The 1P76 is the military name and the civil version is named Rakurs.

ZLN-1K laser aiming device

<https://customer.janes.com/Janes/Display/JC4IL0019-JC4IL>



The night vision laser aiming device ZLN-1K can be fitted with the PN-14K night-vision goggles. It is designed for aiming a gun and for operation as an illuminator at night time.

Palma Automatic Optronic Control System (AOCS)

<https://customer.janes.com/Janes/Display/JC4IL0145-JC4IL>



The Palma Automatic Optronic Control System (AOCS) is an electro-optical/infrared (EO/IR) fire-control system applied to land and naval guns of 30, 57, 76, and 100 mm calibre.

PLISA thermal imaging sight

<https://customer.janes.com/Janes/Display/JAAU9379-JC4IL>



The PLISA is a thermal imaging sight designed for use on a variety of MBTs. In service with Russia.

OEPS-301 (31E-MK) optical-electronic pointing sight

<https://customer.janes.com/Janes/Display/JC4IA0000-JC4IA>



The OEPS-301 (31E-MK) is an optical-electronic pointing sight (OEPS) system, which is equipped with an infrared (IR) detector and laser rangefinder in order to perform the infrared search and track (IRST) functions of search, detection, and tracking of targets.

C4ISR

Radar



SNR-125 tracking and missile control radar series

<https://customer.janes.com/Janes/Display/JREW0207-JC4IL>



SNR-125 forms part of the Almaz S-125 Pechora (NATO reporting name SA-3 'Goa') surface-to-air missile (SAM) system and is designed to guide missiles against low-flying targets operating in heavy clutter conditions. In use by both Russia and Ukraine.

5N63 tracking radars

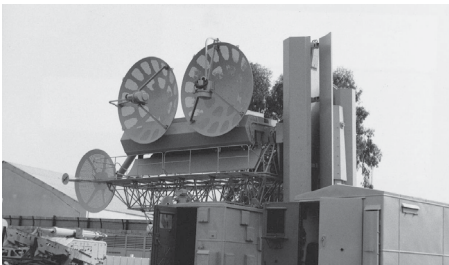
<https://customer.janes.com/Janes/Display/JREW0194-JC4IL>



The 5N63 and 30N6 are X-band (NATO I-/J-band) (8–12 GHz) and Ku-band (NATO J-band) (12–18 GHz) 3D tracking and missile guidance passive electronically scanned array (PESA) radars for the Almaz S-300P (NATO Reporting Name SA-10a 'Grumble'), S-300PM (NATO Reporting Name SA-10b 'Grumble') and S-300PMU1 (NATO Reporting Name SA-10c 'Grumble') Surface-to-Air Missile (SAM) systems. NATO reporting names are 'Flap Lid' for 5N63 and 'Tomb Stone' for 30N6 radars. 5N63 in use by both Russia and Ukraine.

RSN-75 'Fan Song' missile control radars

<https://customer.janes.com/Janes/Display/JREW0203-JC4IL>



The RSN-75 (NATO reporting name 'Fan Song') is a family of S-/C-band (NATO F-/G-band) (2–4 GHz and 4–8 GHz) target detection and missile guidance radars that have been developed for use with the S-75 (NATO reporting name SA-2 'Guideline') surface-to-air missile (SAM) system. In service with both Russia and Ukraine.

MR-114 Lev, MR-145 Drakon and MR-184 gun fire-control systems

<https://customer.janes.com/Janes/Display/JREW0417-JC4IM>



The MR-114 Lev, MR-145 Drakon, and MR-184 are X-band (NATO I-band) (8–10 GHz) and Ka-band (NATO K-band) (27–40 GHz) 3D fire-control radars meant for installation on board surface ships. NATO reporting names 'Kite Screech' (MR-114), 'Kite Screech A' (MR-145), and 'Kite Screech B' (MR-184). In service with both the Russian and Ukrainian navies.

1S91 fire-control radar

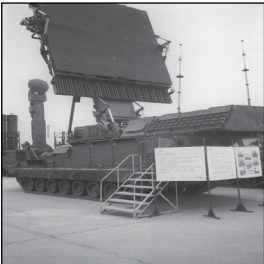
<https://customer.janes.com/Janes/Display/JREW0216-JC4IL>



The 1S91 is a C-/X-band (NATO G-/H-/I-band) (4–10 GHz) fire-control radar for the 2K12 Kub/ Kvadrat (NATO reporting name SA-6 ‘Gainful’) Surface-to-Air Missile (SAM) system. NATO reporting name is ‘Straight Flush’. In service with both Russian and Ukrainian forces.

9S15MV target acquisition radar

<https://customer.janes.com/Janes/Display/JREW0197-JC4IL>



The 9S15MV Obzor-3 is an S-band (NATO F-band) (3–4 GHz) 3D target acquisition radar for the Antey S-300V surface-to-air missile (SAM) system. NATO reporting name Bill Board.

P19 Early warning radar

<https://customer.janes.com/Janes/Display/JREW0071-JC4IL>



The P-19 (alternative Russian designation 1RL134) is a P-band (NATO C-band) (500 MHz to 1 GHz) mobile 2D early warning radar that is associated with the S-75, S-125, Tikhomirov Instrument Research Institute 2K12 Kub (NATO reporting name SA-6 ‘Gainful’), and the Almaz/Antei 9K33 Osa (NATO reporting name SA-8 ‘Geko’) surface-to-air missile (SAM) systems. NATO reporting name ‘Flat Face B’. In service with both Russia and Ukraine.

P18 Early warning radar

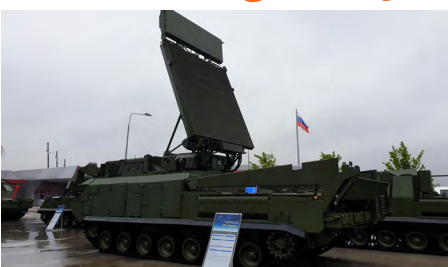
<https://customer.janes.com/Janes/Display/JREW0069-JC4IL>



The P-18 (alternative designation 1RL131) is a Very High Frequency band (VHF – approximate 150–170 MHz sub-band) (NATO A-band) 2D early warning radar. NATO reporting name: ‘Spoon Rest D’. In service with Ukraine.

9S18M1 Target Acquisition Radar

<https://customer.janes.com/Janes/Display/JREW0215-JC4IL>



The 9S18M1 is an X-band (NATO I-/J-band) (8–12 GHz) 3D target acquisition radar associated with the Buk-M1 (NATO reporting name SA-11 ‘Gadfly’) surface-to-air missile (SAM) system. NATO reporting name ‘Snow Drift’. In service with both Russian and Ukrainian air defence troops.

3Ts-25E (Garpun B)

<https://customer.janes.com/Janes/Display/JC4IM0030-JC4IM>



The 3Ts-25E ('Garpun B') is an X-band (NATO I-band) (8.8–9.66 GHz) active/passive target designation 2D radar meant for installation onboard surface ships for use against surface targets. NATO designation 'Plank Shave'. In service with both Russian and Ukrainian Navies.

MR-352 (Positiv-E) fire-control radar

<https://customer.janes.com/Janes/Display/JREW0419-JC4IM>



The MR-352 (Positiv-E or Pozitiv-E – suffix 'E' for export) is an S-band (NATO E-/F-band) (2–4 GHz) two-dimensional target-acquisition and fire-control radar meant for installation on board surface ships. NATO reporting name 'Cross Dome'. Used by the Russian Navy

Eye Bowl fire-control radar

<https://customer.janes.com/Janes/Display/JREW0411-JC4IM>



The 'Sprut' or 'Drakon' (NATO designation 'Eye Bowl') is an S-band (NATO F-band) (3–4 GHz) 3D tracking radar meant for installation on board medium and large surface ships. The radar is associated with the SS-N-14 ('Silex') long-range anti-submarine torpedo delivery system. In service with the Russian Navy.

Uzola mobile 3d active phased array air surveillance radar

<https://customer.janes.com/Janes/Display/JC4IL0873-JC4IL>



The Uzola is an L-band (NATO D-band) (1–2 GHz) mobile 3D active phased array air surveillance radar, meant for ground-based air surveillance and target designation applications. In service with Russian Air Defence Forces

1L121E mobile 3D radar

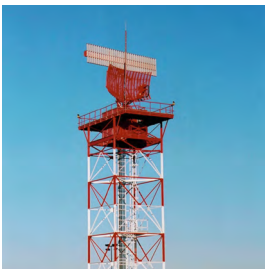
<https://customer.janes.com/Janes/Display/JC4IL0507-JC4IL>



The 1L121E (suffix 'E' for export) is an ultra-high-frequency (UHF) band (NATO B-/C-band) 300 MHz–1 GHz mobile 3D radar meant for detection of air targets such as aircraft, drones, or precision-guided munitions.

RSM 970 S monopulse secondary surveillance radar/Mode S

<https://customer.janes.com/Janes/Display/JC4IL0547-JC4IL>



The RSM 970 S is an L-band (NATO D-band) (1–2 GHz) mode S monopulse secondary surveillance radar (MSSR) meant for air traffic control that can be operated stand-alone or co-mounted with a primary surveillance radar.

1L220-U/1L220U-KC radar reconnaissance and fire-control radar

<https://customer.janes.com/Janes/Display/JC4IL1984-JC4IL>



The 1L220U, 1L220UK, and 1L220U-KC are S-band (NATO E-/F-band) (2–4 GHz) mobile battlefield 3D phased-array fire-control radars designed to establish the co-ordinates of hostile artillery, mortars, multiple launch rocket systems, and tactical missile batteries, provide targeting data for counter-fire operations and monitor friendly fall of shot.

VOSTOK 3S S-Band 3D Radar

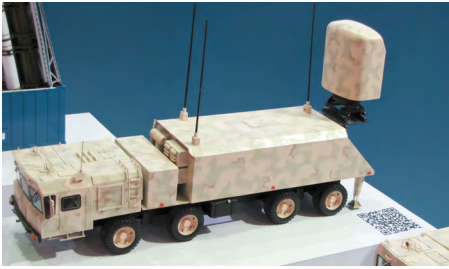
<https://customer.janes.com/Janes/Display/JC4IL0452-JC4IL>



The Vostok 3S is an S-band (NATO E-/F-band) (2–4 GHz) 3D volume air-surveillance radar meant for ground-based air-defence systems and integrated C2 applications.

Air Defence Radar – Monolit-B

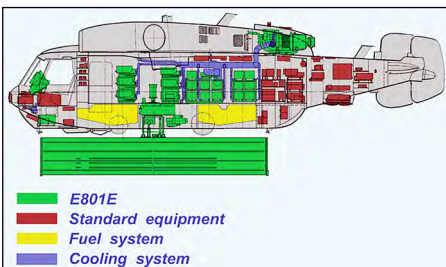
<https://customer.janes.com/Janes/Display/JC4IL0447-JC4IL>



The Monolit-B is a coastal surveillance radar for surface and air reconnaissance to provide target designation to land-based, anti-ship missile systems such as the K-300P 3M55 Bastion-P mobile coastal defence missile system, the Bal-E 3K60 Kh-35E Uran, and the Club-M missile systems.

E-801 airborne early warning (AEW) radar

<https://customer.janes.com/Janes/Display/JREW2316-JC4IA>



The E-801 Oke is an ultra-high frequency (UHF) band (NATO C-band) (0.3–1 GHz) 3D airborne early warning (AEW) and surface surveillance radar meant for installation on board the Kamov Ka-31 helicopter (NATO reporting name Helix-B). In service with Russia.

Ka-35

<https://customer.janes.com/Janes/Display/JC4IA0384-JC4IA>



The Ka-35 also known as Ka-31SV/Ka-252CV was developed for ground-based radar reconnaissance. It is designed to detect ground based targets (both moving and static objects). The development of the Ka-31SV helicopter is being carried out by Kamov JSC of the Gorkovchanin R & D project, in the interests of the Russian Ground Forces as a further development of the Ka-31 naval shipborne helicopter.

Nebo-SVU surveillance radar

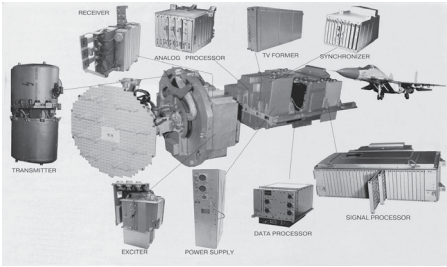
<https://customer.janes.com/Janes/Display/JREW0078-JC4IL>



The 1L119 Nebo-SVU is a very high frequency (VHF) band (NATO A-/B-band) (30–300 MHz) long-range 3D volume mobile air surveillance radar meant for long-range detection of airborne targets.

Zhuk series fire-control radars

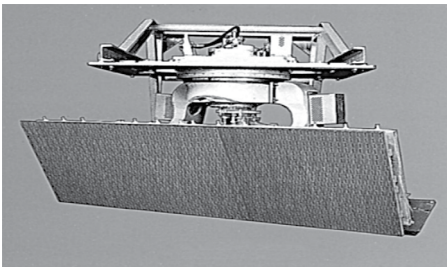
<https://customer.janes.com/Janes/Display/JREW0554-JC4IA>



The Zhuk (Beetle) is a family of X-band (NATO I-/J-band) (8–12.5 GHz) airborne multimode radars installed onboard the J-8B, J-10, MiG-29M/M2, MiG-29K, MiG-29KUB, MiG-29SMT, MiG-29SMP, MiG-29UPG, MiG-35, Su-27KUB, and Su-30MK3 aircraft.

Novella/Sea Dragon Series Maritime Patrol Radars

<https://customer.janes.com/Janes/Display/JREW1646-JC4IA>



The Novella/Sea Dragon series is an X-band (NATO I-/J-band) (8–12 GHz) family of maritime surveillance radars meant for installation on board medium and large maritime rotary- and fixed-wing aircraft as well as aerostats.

55Zh6UE Nebo-UE 3D surveillance radar

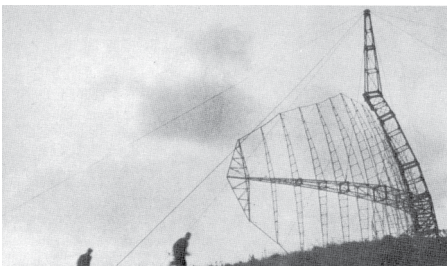
<https://customer.janes.com/Janes/Display/JREW0079-JC4IL>



The Nebo-U/Nebo-UE is part of the Nebo family of very high frequency (VHF) band (30–300 MHz) 2D and 3D mobile surveillance radars, which also includes the 55Zh6-1 Nebo 3D radar and 1L13-3 Nebo-SV 2D radar, both deployed in the 1990s. The 55Zh6UE Nebo-UE radar is also known as 'Tall Rack' in NATO terminology.

Oborona-14 early-warning radar

<https://customer.janes.com/Janes/Display/JREW1764-JC4IL>



The 5N84A Oborona-14 is a very high frequency band (30–300 MHz) early-warning radar meant for installation in a transportable, trailer-mounted configuration. The NATO reporting name 'Tall King'.

Vostok-D/E mobile surveillance radar

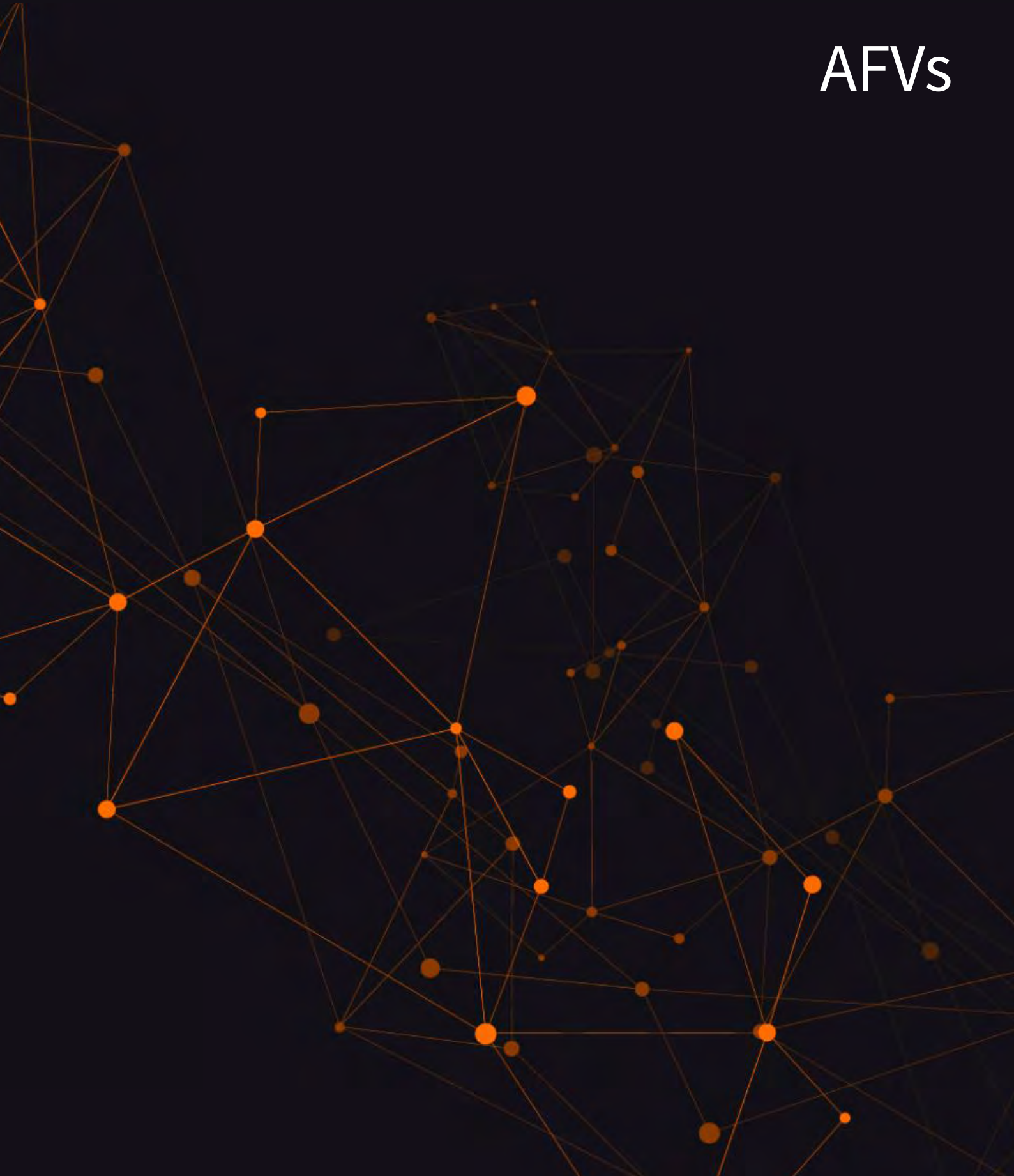
<https://customer.janes.com/Janes/Display/JC4IL0388-JC4IL>



The Vostok-D/E is a VHF-band (NATO A-band) (175 MHz centre frequency) 2D ground mobile air defence early warning radar. The system is designed to replace the Soviet-era P-18 'Spoon Rest D' radar in Belarusian service.

LAND

AFVs



Kozak 2

<https://customer.janes.com/Janes/Display/JAFV0179-JAFV>



The Kozak 2 is an APC designed by the private Ukrainian company Practika. Development was prompted by the 2014 invasion of Crimea by the Russian Army. The event and subsequent ceasefires that prevented the use of heavy weapons and artillery by both sides revealed that Ukrainian forces were ill-equipped for low-intensity warfare. The Kozak 2 was therefore developed by building on experience gained in the production of the original Kozak vehicle to provide Ukrainian personnel with an armoured and ambush-resistant vehicle.

Dozor-B

https://customer.janes.com/Janes/Display/JAA_A067-JAFV



The Dozor-B is an armoured multipurpose vehicle (AMPV) developed by the Kharkov Morozov Design Bureau (KMDB) for domestic and export customers. It is a basic vehicle that provides limited protection to its crew. Nonetheless the design was taken up under licence by the Polish company Mista.

Bars

<https://customer.janes.com/Janes/Display/JAFV0200-JAFV>



The Bars is a family of wheeled protected mobility vehicles developed in Ukraine. Like many such vehicles to be developed by Ukraine's state defence industry in response to the conflict in the east of the country that started in 2014. It is designed to provide conventional and special operations forces with protected mobility on a modern battlefield.

Shrek

<https://customer.janes.com/Janes/Display/JAFV0233-JAFV>



The Shrek (also spelt as the Shreck) family is composed of the Shrek 4 × 4, Shrek 4 × 4 RCV, and Fiona 6 × 6 armoured combat vehicles (ACVs), which owing to their modular hulls can fulfil a number of combat roles. All Shrek variants can fulfil the role of troop carrier, and ambulance as well as provide support with a manned turret. The entire Shrek family is offered by the Ukrainian company AutoKrAZ. The Fiona and the Shrek anti-mine variant is offered by the Canadian company Streit Group.

Raptor

<https://customer.janes.com/Janes/Display/JAFV0236-JAFV>



The Kraz-6322 Raptor 6×6 is an armoured truck combat vehicle designed by AutoKrAZ and Streit Group. The truck is an all-terrain armoured troop carrier for up to 24 passengers. Since the vehicle is built to customer specifications, there could be a number of variations of the vehicle in terms of crew cabin design, protection, armament, and engine.

Varta

<https://customer.janes.com/Janes/Display/JAFV0211-JAFV>



The Varta is a 4x4 APC manufactured by Ukrainian Armor, a private engineering company based in Kiev. It is in active service with Ukrainian border forces, Ukrainian marines, and the Ukrainian army, and it has entered combat in the Donbass region.

Novator

<https://customer.janes.com/Janes/Display/JAFV0215-JAFV>



The Novator is a developmental vehicle from the company Ukrainian Armor, designed for use with special forces. The design process has prioritised NATO compatibility and the vehicle is in service with the Ukrainian National Guard as well as the army.

Triton-01

<https://customer.janes.com/Janes/Display/JAFV0212-JAFV>



The Triton-01 is an amphibious APC designed and manufactured by Private Stock Company Plant Kuznya on Rybalsky. It is in service with the Ukrainian Border Guard, a paramilitary force that protects and polices Ukrainian borders.

Saxon

https://customer.janes.com/Janes/Display/JAA_0350-JAFV?highlights=



The Saxon is an APC and tactical light utility vehicle designed for the British Army in 1975. It served with the British Army until 2006 and is also in service with many countries around the world. The design is relatively simple compared with modern APCs and this means that the vehicle is only now effective in areas where combat is low in intensity and involves mostly small-arms fire.

Spartan

<https://customer.janes.com/Janes/Display/JAFV0183-JAFV#User-specific%20developments>



The Saxon is an APC and tactical light utility vehicle designed for the British Army in 1975. It served with the British Army until 2006 and is also in service with many countries around the world. The design is relatively simple compared with modern APCs and this means that the vehicle is only now effective in areas where combat is low in intensity and involves mostly small-arms fire.

Cougar

<https://customer.janes.com/Janes/Display/JAFV0206-JAFV>



The Cougar is a protected mobility vehicle designed and manufactured by the STREIT Group based on the Toyota Land Cruiser 79. It is intended to provide users with a protected mobility platform at a much lower price point than other providers. An upgraded version of the Cougar, known as the Python, has also been exhibited by the company, and the vehicle is manufactured under licence by KrAZ.

M1114

https://customer.janes.com/Janes/Display/JAA_0161-JAFV



The M1114 is the designation given to an up-armoured High Mobility Multipurpose Wheeled Vehicle (HMMWV). It was designed and manufactured by American Body Armour and Equipment Inc., which later became BAE Systems Mobility and Protection Systems. The vehicles entered service with many users and became one of the most numerous vehicles in the US Army's inventory.

Tigr; Tigr-M

<https://customer.janes.com/Janes/Display/JAFV0025-JAFV>



The Tigr is an armoured patrol and reconnaissance vehicle designed to provide Russian Ground Troops and internal security forces with a vehicle that can perform standard patrol duties and protect an infantry section from enemy ambushes. It originally used imported components but more recent versions are more or less entirely Russian. The vehicle performs multiple roles, one of which includes use as part of Russia ground-based EW systems.

Light Multirole Vehicle (LMV)

<https://customer.janes.com/Janes/Display/JAFV0280-JAFV>



The Light Multirole Vehicle (LMV) is a 4x4 protected mobility platform designed to provide users with a general utility vehicle that can be used as a patrol vehicle or command-and-control platform among other things. It has been introduced into service with multiple users and developed into several different variants.

Taifun-K Kamaz-53949; Kamaz-4386

<https://customer.janes.com/Janes/Display/JAFV0208-JAFV>



The Taifun-K is an MRAP vehicle designed for use by Russian airborne troops Vozdushno-Desantnie Voyska (VDV) and Special Forces. It is based on the Kamaz-53949 as a 4 x 4. It is reportedly intended for troop and cargo transport although the ability to fit a 30 mm cannon in a ROWS to the roof indicates that the Taifun may have a limited capability in the infantry support role. The Kamaz-4386 variant is specifically designed for the VDV, whereas the Kamaz-53949 is primarily aimed at the Russian Ground Forces.

Taifun-K; Kamaz-63968; KAMAZ-63969

<https://customer.janes.com/Janes/Display/JAFV0219-JAFV>



The Kamaz-63969 and 63968 vehicles fall under the codename Taifun-K. They are a family of 6x6 AFVs designed by KAMAZ to fulfil the lighter-vehicle needs of the Russian Ground Troops. Like all of the new equipment under development in Russia the vehicles were designed as part of Project Garage, which came into being when the former president, Dmitry Medvedev, signed the State Armaments programme in 2010. They are part of an effort within Russia's Ground Forces to move towards a streamlined fleet of vehicles that offer better protection, a reduced profile, and are easier to manufacture. The Taifun-K series also includes a 4x4 vehicle designated as Kamaz-4386 and all vehicles share common components to reduce the logistics requirements of operating the platform family.

Taifun-U

<https://customer.janes.com/Janes/Display/JAFV0057-JAFV>



The Taifun-U is a family of MRAP vehicles developed by Ural Automotive to provide a wheeled MRAP capability for the Russian Armed Forces and export customers. The vehicles are at various stages of deployment and development.

Ural-VV

<https://customer.janes.com/Janes/Display/JAFV0242-JAFV>



The Ural-VV is an armoured wheeled vehicle developed and manufactured by Ural Automotive using the Ural-4320 chassis to provide the Rosgvardiya (Russia's internal military organisation) with protected mobility for use in counter-insurgency operations and during civil order operations.

GAZ-3937 Vodnik

https://customer.janes.com/Janes/Display/JAA_0328-JAFV



The GAZ-3937 series of 4 x 4 light armoured vehicles (LAVs), also referred to as Vodnik, was developed by the Arzamas Machinery Plant as the basic member of a complete family of LAVs, which could be used for a wide range of paramilitary and military roles.

BPM-97 Vystrel

<https://customer.janes.com/Janes/Display/JAFV0101-JAFV>



The BPM-97 Vystrel is a wheeled AFV based on a Kamaz chassis, designed for use with the Russian border guards. The vehicle was developed in the late 1990s and is now known to be in service with the counter-terror units that accompany Russia's strategic missile forces as well as elements of the Russian Special Forces.

BRDM-2

https://customer.janes.com/Janes/Display/JAA_0137-JAFV



The BRDM-2 is a Soviet-era wheeled reconnaissance vehicle designed and manufactured by V K Rubtsov of the Dedkov OKB in Russia to provide the Soviet forces with a replacement for the BRDM-1. Although the BRDM-2 entered service in 1962, it has been used in the Syrian civil war that started in 2011 and the Donbas war that started in 2014. In both cases the vehicles were modified extensively by the users, which reflects that the design is functional, but not suitable for modern conflicts.

BTR-60

https://customer.janes.com/Janes/Display/JAA_0325-JAFV



The BTR-60 family of APCs entered service with the Soviet Union to provide motorised formations with wheeled mobility designed to cover large distances quickly during a war with NATO forces. The vehicle design would eventually lead to the BTR-70 and in turn the BTR-80. It remains in service but is undoubtedly facing many obsolescence issues in the face of modern threats and maintenance demands, which are likely to be high considering that the first vehicles entered service in 1960. The success of the design is reflected in the numbers produced, which are estimated to have reached 25,000 vehicles in the Soviet Union, and at least 1,500 additional vehicles in Romania under the designation of TAB-71.

BTR-70

https://customer.janes.com/Janes/Display/JAA_0324-JAFV



The BTR-70 family of APCs entered service with the Soviet Union to provide motorised formations with wheeled mobility designed to cover large distances quickly during a war with NATO forces. The vehicle design would eventually lead to the BTR-80 and it followed the BTR-60. It remains in service but is undoubtedly facing many obsolescence issues as a result of modern threats and maintenance demands, which are likely to be high considering that the first vehicles entered service in 1972.

BTR-80; BTR-82A

https://customer.janes.com/Janes/Display/JAA_0322-JAFV



The BTR-80 and BTR-82 are ubiquitous AFVs originally designed to provide Soviet and Russian forces with APCs to equip motorised rifle and mixed tank brigades. The vehicles have become the primary vehicle for much of the Russian Ground Troops as well as the base for many different support variants and most recently have been used to carry the most modern elements of Russian defence doctrine such as EW systems.

BTR-3

https://customer.janes.com/Janes/Display/JAA_1238-JAFV



The BTR-3 is a series of 8x8 AFVs developed by the Kharkov Morozov Design Bureau (KMDB) in Ukraine. It is broadly analogous to the Russian BTR-70/80 series and is used by countries around the world. The design of the vehicle has been constantly revised since it was introduced in the early 2000s and it is now offered in multiple variants.

BTR-4

https://customer.janes.com/Janes/Display/JAA_A051-JAFV



The BTR-4 is a family of 8×8 wheeled IFVs and supporting platforms designed and manufactured in Ukraine. The vehicles are intended to build on the legacy of Soviet platforms such as the BTR-80 and provide users with a common fleet of vehicles that can be used in modern conflicts. Variants of the family are known to be in service with several users and have been used operationally in Ukraine against Russian-backed separatist forces.

MT-LB

https://customer.janes.com/Janes/Display/JAA_0227-JAFV



The MT-LB (Mnogotsevoy Tyagach Legky Bronirovanny: multipurpose towing vehicle light armoured) vehicle was designed at the Kharkov Tractor Plant in Ukraine under the direction of Anatoliy Belousov in the early 1960s. It is the primary tracked utility platform in use with the Russian Ground Forces, as well as many of the former USSR and Warsaw pact countries. It is a Soviet-era platform and its operators have found continued uses for it into the modern day, which is indicative of the platform's versatility. The basic hull can be utilised for many different roles, including that of an IFV, an EW platform or as a battlefield surveillance radar carrier. Most recently, the MT-LB has been used to host a series of Russia's most advanced air defence and EW assets, which indicates that the MT-LB will continue in service for the foreseeable future.

BMP-1

https://customer.janes.com/Janes/Display/JAA_0223-JAFV



BMP-1 is the first mass-produced, tracked infantry fighting vehicle. It was designed and manufactured in the former Soviet Union to provide its mechanised formations with protected mobility on the battlefield in a nuclear setting if required. It is thought that 55,000 BMP-1s and variants have been produced, which makes it numerically one of the most significant armoured vehicles ever produced. Because of the quantity produced and its widespread use, the family will certainly remain in service into the 2040s and there are upgrade programmes under way with multiple users.

BMP-2

https://customer.janes.com/Janes/Display/JAA_0222-JAFV



The Russian BMP-2 is a second-generation (Gen 2) IFV developed from the BMP-1. The BMP-2 has a comparatively lower profile, a wider two-man turret with a 30 mm stabilised gun, and can carry six fully equipped dismounts apart from the crew. The BMP-2 is known as the in India and the BVP-2 in the Czech Republic. Russian production for the BMP-2 has ceased, but continues to be in operation in Russia and various other countries.

BMP-3

https://customer.janes.com/Janes/Display/JAA_0220-JAFV



The BMP-3 (Boevaya Mashina Pekhota) entered service with Russia in 1990 as part of an abortive attempt to modernise the equipment in service with the Russian Ground Troops. It was partially designed to rectify some of the issues associated with the BMP-2, namely a lack of protection. It is designed to operate with mechanised formations, and allow infantry to operate alongside main battle tanks (MBTs). The vehicle is manufactured by Kurganmashzavod and used around the world. It is a relatively capable platform as a result of its considerable firepower, but it lacks some of the future-proofing measures that are present in the current wave of modernised vehicles that are due to enter service with Russia.

BMD-1; BTR-D; 2S9; BREhM-D

https://customer.janes.com/Janes/Display/JAA_0226-JAFV



The BMD-1, and the BTR-D based on it, are the original air-droppable AFVs designed for the Russian airborne troops known as Vozdushno-desantnye voyska (VDV). The concept is designed to provide air-deployed troops with a supporting armour element that can provide close-range fire support, which in theory should allow VDV units to maintain a bridgehead long enough for the primary force to connect with them. The original vehicles entered service in the 1970s and upgraded in 2013, thus remain in service.

BMD-2

https://customer.janes.com/Janes/Display/JAA_0225-JAFV



The BMD-2 is an AFV designed for use with airborne forces. It is an upgrade of the BMD-1 that was used by Soviet forces in Afghanistan during the 1980s. The upgrade was necessitated by the low rate of fire of the latter vehicle as well as a host of other user issues. The BMD-2 is now in service with some of the former Soviet republics and in Russia it has received upgrades and a new lease of life in the wake of Russian efforts to modernise its ground forces.

BMD-3

https://customer.janes.com/Janes/Display/JAA_0224-JAFV



The BMD-3 was designed to address the flaws in the BMD-1 and BMD-2 designs. First deliveries were made in 1990 to the Russian airborne troops known as Vozdushno-desantnye voyska (VDV). The collapse of the Soviet Union limited production and development of the platforms planned for the BMD-3 hull so that very few are thought to have entered service. It was replaced in production from 1998 by the BMD-4, which in turn was replaced by the BMD-4M from 2008.

BMD-4M; BTR-MDM

<https://customer.janes.com/Janes/Display/JAFV0083-JAFV>



The BMD-4 (Boyevaya Mashina Desanta-4 – Combat Vehicle of the Airborne) series of vehicles is designed to provide Russian Airborne troops (Vozdushno-desantnye voyska Rossii: VDV) with an AFV that can be deployed by parachute. It is the most recent generation of this concept to be deployed by Russian forces and builds on the design features of the BMD-1, 2, and 3, which precede it. The original BMD-4 was replaced in production in 2008 by the improved BMD-4M, which should be considered the primary variant under the BMD-4 aegis. The BMD-4M is entering service with the VDV as part of the State Armaments Programme, which is intended to renovate Russia's Armed Forces and ensure that 70% of all equipment in service is modernised by 2020. The BMD-4M provides this modernised capability with greater firepower and improved mission systems over the earlier BMD vehicles.

BMPT-1; BMPT-2; BMPT-72

https://customer.janes.com/Janes/Display/JAA_1231-JAFV



The BMPT is a vehicle designed to provide MBTs with close-range support against infantry formations. In current defence climates the use of combined arms tactics in an urban environment is difficult and at times ill advised. The firepower provided by the BMPT is designed to enable MBTs to enter combat zones that would normally present a great risk, by defeating infantry formations and LAVs carrying anti-tank missiles.

T-64; BM-Bulat

https://customer.janes.com/Janes/Display/JAA_0056-JAFV



The T-64 MBT was, at the time it entered service, the third generation of tanks to be produced by factories and design bureaus in Ukraine. It was the first Soviet tank to assume the mantle of an MBT, finally expelling the notion of light, medium, and heavy tanks. It employed various advanced systems such as an automatic loader for the main gun and eventually a gun-launched missile. It became the primary MBT of Soviet forces until it was replaced by the T-80 and T-72. Today there are an unknown number of T-64s remaining in service. They have shown a limited ability to be upgraded and have been used by both sides in the conflict between Ukraine and Russian separatists that started in the Donbas region in 2014.

T-72

https://customer.janes.com/Janes/Display/JAA_0055-JAFV



The T-72 is an MBT developed and produced in Russia under the Soviet Union. It was initially designed as a more economical alternative to the advanced T-64 and takes advantage of some of the advanced design principles developed for that platform. Originally the T-72 was intended to be an economical tank that could be built in peacetime and replaced with more capable platforms during a war and operated as part of a high/low capability force. The T-72 is reportedly easier to use than the T-80 and although originally less capable, has received multiple upgrades to make it one of Russia's primary MBTs. It has been widely exported around the world and used in many conflicts.

T-80; T-84 Oplot

https://customer.janes.com/Janes/Display/JAA_0055-JAFV



The T-80 has a long history compared with other Russian battle tanks. The family primarily consists of MBTs and each variant has been subject to periodic reviews and upgrades. At one point they were amongst the most feared of Soviet equipment in Eastern Europe; this partly a result of the gas turbine engine and 125 mm gun. Both were unknown quantities and assumed to give the T-80 family a decisive advantage over its peers such as the M60, Leopard 1, and Chieftain. As an MBT, it remains in service to the present day and its capabilities – cruising range and mobility excluded – offer few advantages over a T-72 and are likely to be below those of a T-90.

T-90

https://customer.janes.com/Janes/Display/JAA_0054-JAFV



The T-90 family is built around a core of MBTs that have been widely exported and developed independently by various countries. The original T-90 is an upgrade of the T-72BM and was designed to show that Russian tank production was heading in a new direction, away from the issues that surround the T-80. In theory, the T-90 is the most capable MBT in the fleets of many armies around the world, and its development continues as new systems become available.



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