

# Army Guide monthly



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## Defence Industry

### New Zealand Receives First 20 Pinzgauer



New Zealand's Army has received first 20 Pinzgauer 718 6x6 light tactical vehicles out of the total of 321 to be delivered.

The contract, which is worth \$66.4 million, was awarded to the Land Rover company of Britain. The contract envisages delivery of vehicles in 13 versions, viz.: 122 command vehicles, 95 general purpose trucks, 68 armed transporters, 15 vehicles with armoured sides and 8 ambulances.

23 command vehicles and 37 transporters out of the above versions will be developed on the basis of a newly-developed armoured variant of the vehicle.

The Pinzgauer Model 718 cross-country vehicles were developed by the Steyr-Daimler-Puch company of Austria more than 30 years ago by request of the Swiss Army. In 1987, they were upgraded. In particular, they were fitted with a 104 hp diesel engine with a maximum torque of 195 Nm.



## Defence Industry

### Trials of the Skif Completed in the Ukraine



The government testing of the upgraded BTR-70 armoured personnel carrier, called Skif (Scythian), have been completed in the Ukraine.

The upgraded armoured personnel carrier is fitted with a Ukrainian-produced UTD-20 engine rather than the original two ZMZ-4905 carburettor-type engines of Russian origin.

Installation of the UTD-20 four-stroke six-cylinder V-type engine makes it possible to enhance the mobility performance and to carry out the modernisation of the

power pack of the BTR-70s in service with the Ukraine by efforts of the Ukrainian enterprises.

The trials have showed clearly that the modernisation did result in a increase of the vehicle's efficiency. The fuel distance has increased by 25% due to a considerable enhancement of fuel efficiency with the fuel capacity remaining the same.

The cross-country performance of the vehicle has also been improved due to the increase of engine's torque. The increase power-to-weight ratio improves the vehicle's agility as well as enabling it to be upgraded later on in the other areas.

The Skif vehicle was developed and tested by the Kharkiv Morozov Machine Building Design Bureau of Ukraine. The upgraded vehicles are to be manufactured at the Ukrainian Ministry of Defence's Armour Repair Plant.



## Defence Industry

### The Russian Army to Receive New BMD-4s



In accordance with the Decision taken by the Russian Federation's Government on 31 December 2004, the military units will be gradually equipped with BMD-4 airborne combat vehicles starting from the year 2005.

The first ten vehicles are planned to be delivered in the first half of the year to the training military units, which will be the first to master the new vehicles.

Later on, the BMD-4s will be delivered to combat military units. The BMD-4 will be used as a basic platform for development of a family of amphibious airborne combat vehicles that can be dropped from an aircraft with a parachute. As to its firepower, protection and mobility, the BMD-4 has no match in the world among the vehicles in the weight range of 12.5 to 18 tonnes.

The BMD-4 is fitted with a turret armed with two guns – 30 mm and 100 mm. The turret is similar in design to that of the BMP-3. When the vehicle is dropped from an aircraft with a parachute, the crew don't have to leave it. This considerably shortens into-the-action time once the vehicle has landed.



### Defence Industry

## Finland to Sell Soviet-made Tanks

The Finnish Ministry of Defence intends to sell several hundreds of Soviet-produced tanks.

According to the Satakunnan Kansa newspaper, the potential sale could include 200 T-54 and T-55 tanks as well as 160 T-72s which were phased out of service in 2004.

At present, Finland searches potential buyers among the former allies of the ex-USSR, which still keep Soviet-made military vehicles in their inventory.

According to ITAR-TASS, the possible purchase of the above tanks is reportedly considered by Vietnam.



### Defence Industry

## Uralvagonzavod to Supply Spares for Syrian Tanks



During a visit of the Syrian President Bashar Asad to Russia in January 2005, the leaders of the two countries discussed the issues of military and technical cooperation between the two countries.

The negotiations were attended by Nikolay Malykh, Director General of the Federal State-owned Unitary Enterprise URALVAGONZAVOD. He came to an agreement with the Syrian delegation about supply of spares for tanks in service with Syria.

At present the Syrian Army is equipped with large quantities of Soviet-produced armoured vehicles, in particular, more than 2,000 T-55 MBTs, 1,000 T-62 MBTs and 1,500 T-72 MBTs. So, the above-mentioned agreement will be quite of use for the plant which is about to complete the supplies of T-90s to India.

Nowadays the enterprise is experiencing a good financial situation. This enables it to re-equip itself. For example, on 28 January 2005 it carried out negotiations with the ALTA company of the Czech Republic which supplies up-to-date metal-cutting equipment to Uralvagonzavod. In 2004, 20 machine tools of Czech origin were installed at this Nizhny Tagil-located enterprise, with the same number of new machine tools of Czech origin being planned for installation this year.

In February 2005, the contract of Nikolay Malykh with the Federal Industry Agency will be over. Most probably, the contract will be prolonged, in spite of the fact that Uralvagonzavod is going to be privatised quite soon.



### Defence Industry

## USA to Send Robot Soldiers to Iraq



USA is planning to send in spring 2005 a first batch of 18 remote-controlled armed robots to participate in military operations in Iraq.

The deployment of new robots in Iraq is planned for March and April.

The SWORD-type robot soldiers are fitted with either M249 or M240 rifle that feature a high firing accuracy. Their ability to aim at targets and their battlefield awareness are provided by fitting them with four video cameras, a night vision device and some telescopic lenses. The robot is controlled by a purpose-trained soldier with the aid of a remote control device provided with a radio communications with the vehicle. The remote control device can be connected by means of optical fibre cable (in so doing, a better resistance to electrical interference is achieved). The control itself is quite simple, being carried out by means of a joy-stick.

The storage batteries enable the robot to operate autonomously for 4 hours. In so doing, the robot can move at a maximum speed of 6.6 km/h, negotiate various obstacles, including obstructions and staircases, as well as transporting up to 90 kg of load. The SWORD features a high degree of survivability – it is able to operate after being hit by small arms fire as well as being able to move under water.

The own weight of the robot does not exceed 45 kg, and therefore it is easy to transport.

The cost of one robot soldier is around \$200,000. This is cheaper than the budget up-keeping costs of one human soldier.

The robot was developed by Foster-Miller, Inc. on the basis of the TALON™ robot which was produced for mine-clearing applications.



### Defence Industry

## C2 FAUST System Proved Successful during Trials in Kosovo and Bosnia

Having been comprehensively trialled by the German Army units deployed in Kosovo (KFOR) and Bosnia and Herzegovina (SFOR), the FAUST command and control system (C2) is starting to enter service with Bundeswehr.

The system is supplied by the European company EADS. The FAUST is a product of cooperation between this company and Bundeswehr. The purpose of this cooperation consisted in introduction of a battlefield



management system as well as command and control system.



More than 150 FAUST systems were trialled in the Balkans, all of them successful. The field trials were carried out from October 2003 till January 2004.

The armed forces of Great Britain, Canada and France received the first specimens of the FAUST command and control systems in Afghanistan early in 2003. The system proved to be rather efficient in three different theatres of military operations.

A decision has already been taken that the FAUST system will become the basis for development of a future battlefield management system under the designation FuInfoSys for the German Army. Development of the new system is to be completed in 2006 at the latest. This C2 digital system will make it possible to monitor, in real time and with high accuracy, the position of all fighting vehicles in the battlefield and to provide this information to commanders and headquarters so that they could take relevant decisions.



**Defence Industry**

**Germany Blocks the Sale of Dingo 2 Armoured Vehicles to Israel**



Early in February the German government blocked the signing of the contract for supply of Dingo 2 armoured vehicles from the USA to Israel. The move was caused by the apprehension that the vehicles can be used by the Israeli Army against the Palestinians.

The Dingo 2 vehicles are assembled in the USA by Textron Systems Marine & Land Operations under licence received from the German company Krauss-Maffei Wegmann GmbH & Co.KG. According to the licence, the American company is not authorised to export the assembled vehicles without agreeing it upon with the German government.

The German authorities stated that they had no principal objections against the supplies to be carried out

by the Americans, and the only problem consisted in choosing the right time for that.

The contract, which is worth \$60,000,000, will enable Israel to replace its old armoured personnel carriers being used on the Palestinian territories, with 100 up-to-date Dingo 2 vehicles. As is emphasized by the Israeli Army, they are less heavy than the in-service M-119 armoured personnel carriers, but provide a better degree of protection of the crew and vehicle-borne troops.



**Defence Industry**

**Mexico Buys Russian Lorries**



Mexico has bought a batch of Russian-made Ural lorries. The contract concluded between the Mexican Department of the Navy and the Russian Rosoboronexport State-owned Foreign Trade Company, envisages supply of 22 vehicles in 2005.

The contract in question resulted from the fact that Mexico had already received vehicles produced by the Uralskiy Motor-car Plant and was satisfied with the results of its service.

More than 50 6x6 Ural-series lorries are used in Mexico starting from June 2004. Experts from the UralAZ Motor-car Plant provide training for Mexican drivers, informing them about the peculiarities of operation and maintenance of the new vehicles.

At the present time, the sides are considering the possibilities of establishing Ural-series vehicle assembly lines in Mexico, as not only the military, but also some civil establishments and private entrepreneurs seem to be interested in the vehicles.



**Defence Industry**

**The Russian Army to Buy Infantry Fighting Vehicles**



The Ministry of Defence of the Russian Federation intends to place a order with Kurganmashzavod for new infantry fighting vehicles.

It is envisaged that more than ten BMP-2s will be

delivered in 2005. Besides, three BMP-3 will be purchased as an experiment. The vehicles of the kind are already in service with the Russian Army, as well as being purchased by a number of foreign customers who appreciated their capabilities. However, the BMP-3 procurement for the Russian Army has so far been restrained by the high cost of the vehicle (around \$1,000,000).



### Defence Industry

## MBDA and Bharat Dynamics Limited Strengthen Cooperation at Aero India 2005



MBDA and Bharat Dynamics Limited have signed a Memorandum of Understanding (MoU) for the development and production of a further version of Milan anti-tank missile named Milan ER or Indan. The agreement was signed during Aero India 2005 exhibition at Bangalore, India.

The new Milan ER anti-tank weapon system will be available to the French and Indian armies as well as to export customers worldwide. The portable Indan/Enhanced Milan will be used, like its predecessors, by the infantrymen. Bharat Dynamics will use the expertise gained during the license production of Milan 2 missile system, which started in 1981.

Indan/Milan ER features anti-jamming capability and extended range while retaining the wire-based guidance to meet the requirements specified by both India and France, which are the launch customers for the weapon. MBDA and Bharat anticipated that they will set up a joint venture in the latter half of 2005. Ultimately, that joint venture could extend cooperation between the companies to the Aster and Mica families of missiles.

Actually, both companies are actively promoting the ground-based Mica vertical launch missile for the Indian Air Force Low Level Quick Reaction Missile (LLQRM) requirement. VL Mica additional applications include deployment in small-sized ships to protect them from the wide range of air threats as well as its well-known air-to-air missile equipped with Infrared or RF seeker.



### Defence Industry

## Russia to Supply Tunguska-M1 Air Defence Systems to Morocco

A contract for supply of six Tunguska-M1 systems to Morocco has been signed and will come into force in the nearest future.

This will be the first delivery of Russian-made weapons to Morocco. The cost of the contract is believed to be around \$100,000,000.



The Tunguska-M1 air defence system is fitted with both guns and missiles and is intended to protect armoured and mechanised infantry units against low-flying fixed-wing aircraft and helicopters, some types of cruise missiles as well as for defeating light armoured ground targets and personnel of the enemy.

The system can operate under conditions of intensive fire and radio-electronic, optical and optronic jamming. One more advantage of the system consists in the fact that it is fitted with both guns and missiles. The system can engage targets by means of anti-aircraft guided missiles at heights of 15 to 3,500 metres and at distances of 2,500 to 10,000 metres, as well as using its 30 mm gun to engage targets at heights of up to 3,000 m and at distances of 200 to 4,000 metres.



### Defence Industry

## Putin Informed Sharon about the Sale of Missiles to Syria



According to the Israeli publishing house Ha'aretz, Russian President Vladimir Putin has informed Israeli Prime Minister Ariel Sharon that Russia intends to sell some air defence systems to Syria.

'We are worried by this decision and believe that it should not have been taken', said Sharon. 'We are discontented by the fact that weaponry is sold to Syria, especially up-to-date weaponry, which may later be handed over to terrorist organisations'.

Israel is strongly opposed to the sale in question. Sharon has repeatedly warned Putin that sale of missiles to Syria can jeopardise Israel's security, as they may finally turn out in the hands of fighters of the Lebanese Hizbullah terror organisation supported in Syria.



In his letter to Sharon, Putin emphasises that the matters concerns missile systems based on mobile platforms rather than portable missile systems being used by terrorists, therefore the systems in question can pose no threat to Israel. Besides, according to Putin, Syria can deploy the missiles so that the balance of forces in the region will be retained.

No information is unveiled so far as to what kind of missiles will be sold. Previously it was believed that Syria would receive Russian SA-18 (Igla) missile systems. Some Israeli experts thought that Russia would sell to Syria upgraded Iglas installed on mobile platforms.



## Defence Industry

### France Loses Its Positions in the Arms Market



France is losing its positions in the world's arms market, being forced out by American, Russian and Israeli companies, says the Internet publication Expatica.com.

According to Jean-PAul Pani, an employee of the Department for Procurement/Sale of Arms of the French Ministry of Defence, although the French still keep their third place in the world (after the USA and great Britain) as to scope of their weaponry sales, the French segment of the world's defence market is shrinking. This conclusion has been made by the Ministry's experts who studied the changes in the market in 2002-2003.

The American export scope is now as large as it has never been before. Israel is quite aggressive in penetrating into the arms market, he said and also added that Russia also is quite busy looking for potential clients far beyond its traditional market in Eastern Europe.

According to the data given by the employee, between the years 1994 and 2003 France retained around 12 per cent of the market. The country's annual profit of arms sales amounted to around €5 billion. However, in 2002 the profit reduced down to €4.4 billion, while in 2003 – down to €4.2 billion.

Pani added that the USA, Great Britain, France, Russia and Germany, if taken all together, carry out 90 per cent of the world's arms sales. In so doing, the first three countries retain the three thirds of the whole market. The remaining 10 percent are shared by Israel, China, Italy, Sweden and South Africa.

The largest clients of French companies include Saudi Arabia, United Arab Emirates, Greece, Great Britain,

Pakistan and India. China also belongs to this list, however, according to the existing embargo, only non-lethal weapons can be supplied to China.

It is arguably because of France's difficulties in the international arms market that Paris is quite busy lobbying in the European Parliament the lifting of Chinese embargo, which the European Union plans to lift in the summer of 2005. However, the United States state an apprehension that this will enable the People's Republic of China to purchase the newest weapons and to use them against the neighbouring Taiwan (the Americans support Taiwan, while the Chinese believe that this island must be a part of the People's Republic of China). Washington's opposition to the lifting of the embargo is actively supported by Japan, which is sure that the European Union's decision of the kind can destabilise the situation throughout Eastern Asia.

France has already put forward a number of arguments which are supposed to persuade the sceptics that the lifting of the embargo is not so tragic as apprehended by the Americans. In particular, the French believe that China will not buy large numbers of weapons in Europe as, on the one hand, it has already bought a lot of modern weapons in Russia, and, on the other hand, the largest European defence-related companies will most probably impose some limitations themselves, because they have too much business interests in the United States and they will not risk their USA-related contracts by concluding defence-related contracts with China.

Besides, according to French Defence Minister Michel Alliot-Marie, the lifting of the embargo on arms supplies to China will entail the slowing-down of defence-related scientific research work in China. The Defence Minister has said that "the lifting of the embargo is a better protection that the retaining of it", as the ban forces the Chinese scientists to develop the kinds of weapons which China is not allowed to purchase.



## Defence Industry

### Russia is No 5 among the World's Leading Exporters of Defence-Related Products



Russian defence-related products are sold to just under 60 countries. This was claimed by Sergey Chemezov, Director General of Rosoboronexport, in his interview to the Independent Military Review (nvo.ng.ru).

The export consists mostly of Russian-made aviation equipment. The Russian helicopters as well as the Su and

MiG series fighter aircraft are quite competitive in the terms of quality-to-cost ratio. Russian automatic small arms are also in great demand. The latest models of the Kalashnikov sub-machine guns - AK-101 and AK-102 – meet the NATO standards, and they are bought by some countries which are members of NATO.

The Russian-made air defence systems are of considerable interest abroad. Russia is carrying out negotiations with a lot of Arab countries on the matter of establishing a united air defence system by using the Russian-made air defence systems, such as S-300, Buk, and Tor.

However, from the year 2005 onwards the lion's share of Russian export will probably be composed of navy-related equipment and weaponry. At the present time, the total order portfolio (which is worth \$12 billion and consists of the contracts which either have been signed or have already come into force) is for more than 50 per cent formed by navy-related agreements.

Of course, the Russian defence-related export activities have problems of their own. Unfortunately, Rosoboronexport seems to have a limit of \$5 to 6 billion as far as Russia's export capability is concerned. This takes place due to the fact that the manufacturers have no possibilities to switch to the manufacture of more modern products. Although the Russian design bureaux and scientific research establishments do have state-of-the-art developments and promising inventions, the most of the defence-related enterprises have no finding available for establishing series production facilities to manufacture newly-developed weapons. This problem, however, can be solved by obtaining investment from the business circles or, more desirably, from the government.

Every year Rosoboronexport concludes contracts for a total amount of around \$4-5 billion. The current order portfolio usually covers orders for around \$11-12 billion. One of the newcomers among the clients of the Russian defence industry is Morocco. Previously, this country never purchased Russian-produced weapons.

India and China will remain Russia's main partners at least up to the year 2008. They will consume 70 to 80 per cent of Russian arms sales abroad. The industry of these two countries is quite developed, and they are capable of developing indigenous weapons based on their own developments and inventions. At present, negotiations are under way with these countries as to granting of licences for manufacture of various types of weapons. In the future, this kind of sales will increase its share in the total scope of exports sales.

An increase in the scope of export sales is planned to be achieved by means of increasing the scope of supplies of spares for the weapons already exported. Nowadays the share of spares supplies constitutes only around 17 per cent of the total scope of Russia's arms export 17%. This value is much less than that of Russia's competitors.

At present the number of the enterprises authorised to export spares has been increased up to 14.

Rosoboronexport and the Federal Industry Agency are carrying out the cataloguing of all spares being produced by the defence-related enterprises. These efforts must result in providing a possibility of selling/buying spares by means of Internet, as is done nowadays in many countries. Besides, the scopes of spares supplies are dramatically limited by the existing complicated procedure of obtaining an export licence.

It for many years already that Russia has been involved in the competition to meet the requirements of Turkey for a helicopter. The first competition was won by Russia, both technically and financially. But the competition results was cancelled, and a new competition was initiated. This was won by Russia, too. And, once again, Turkey cancelled the competition results. It is difficult to say now what will come next in this project. The Russian helicopter is a match for its American competitor as far as its capabilities are concerned, moreover, it will cost considerably less for Turkey. Besides, the conditions of the competition envisage not only supply of ready helicopters, but also their licence production. Russia agreed to provide an unlimited licence, while the United States wanted to impose a limitation that no helicopters produced under licence in Turkey could be sold to any third country.

Some of East European countries having joined NATO, their defence ministries were experiencing a kind of euphoria thinking that from that moment onwards they will abandon Soviet-produced weapons and will acquire either West European or American fighting machines and weapons. However, the calculations showed clearly that each country will have to pay about \$10 to 15 billion in order to switch to NATO standards. Therefore it turned out to be financially more expedient to carry out modernisation of the in-service Soviet-made weapons, especially aircraft. Rosoboronexport started to get involved in the business, having developed a Russian version of modernisation programme for the aircraft fleets of the countries in question. Besides, a similar programme was developed in cooperation with French, British and other foreign companies. Rosoboronexport participates in the competitions for modernisation of weapons of the Polish, Bulgarian and Hungarian Armies. It also offers modernisation programmes of land fighting vehicles, such as T-72 main battle tanks. In particular, a version of T-72 modernisation programme was developed in cooperation with a Serbian company. The programme is offered to European and Arab countries. Also developed are modernisation programmes for Soviet-made artillery weapons to enable them to meet NATO standards. For example, the well-proven 152 mm Msta self-propelled howitzer has been fitted with a NATO standard 155 mm cannon. We do believe that this upgraded howitzer will be in demand in many countries, including NATO member-countries.

In 2004, Rosoboronexport paid various taxes in the total amount of well over \$75 million (\$55 million to the federal budget, \$20 million to Moscow's budget and \$300,000 to other cities' budgets).