

Strategic Co-operation

China boost Iran's capabilities

In terms of its military forces, Iran is one of the strongest in the Middle East. This is attributable to several factors; within its extensive borders are significant mineral resources, its population is expanding and well-developed cultural traditions have enabled it to easily borrow and assimilate overseas military and industrial technologies to strategic advantage.

by Ilya Kramnik

China supplied Iran with HQ-2 surface to air missile systems, derived from the Soviet C-75 (Source: Wikipedia)



Iran is one of the strongest of the Islamic states. Its military and political potential are estimated to be even higher than that of Pakistan, a newly emerged nuclear power. Iran is far ahead of any other country of the Gulf and the Arab Peninsula in terms of population size and industrial development.

Iran's armed forces have a classic three-service structure in parallel to an alternative armed service; the Islamic Revolution Guards Corps (IRGC). This includes, apart from regular units, two special units - the Quds Force and the Basij militia each representing a well-trained reserve for mobilisation.

Total numbers for the Iranian armed services including the IRGC exceed 500,000, of which 300,000 serve in the army, 50,000 in the air force, 16,000 in the navy, over 100,000 in Basij and about 15,000 in Quds.

Iran has a capable defense industry which is working to dramatically improve the equipment of its armed services in the near term. The country's defense industrial facilities either produce today or have preparations in train to manufacture a full range of different weapons; from small arms to missiles.

The manufacture of armoured platforms is one of the Iranian industry's priorities, reflecting the military's current procurement strategy which, in the near future should result in an inventory of 2,000 Main Battle Tanks (MBT) and as many infantry

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fighting vehicles in addition to armoured personnel carriers.

Iran's aircraft industry is capable of meeting, in the next five years, the existing combat-ready US - made fighter fleet's need for spare parts, and of producing from 30 to 60 fighter jets annually as well as transport jets and helicopters, according to different estimates.

Iran's missile industry is capable of producing a range of different missiles, from unguided rockets to sophisticated systems including short and medium-range ballistic missiles, guided munitions and anti-tank guided missiles.

Iran is also working to develop its shipbuilding and ship-repairing industry. Its shipyards are capable of repairing gas turbines, producing light patrol boats and mini-submarines for special forces.

Iran is also in talks with several countries to acquire the technologies necessary to build warships in the corvette-frigate class.

Right now however, Iran is not yet capa-

ble of fully meeting its army's need for defense products independently. Although its capacity is higher than that of Pakistan, its defense industry remains stubbornly dependent on overseas technology.

The permanent threat of armed conflict with other countries in the Gulf and the United States compels Iran to maintain its armed forces at a relatively high level, which is impossible without imports. One of Iran's key partners for military technical cooperation is China.

Background

Iran had been a faithful ally of the West over a long period after World War II. Under the last Shah, its army, navy and air force were supplied with advanced equipment produced in Britain and the United States, and its officers trained at Western military academies.

The situation changed dramatically after the 1979 Islamic Revolution. Iran could no longer buy weapons from the United States, Britain or their allies. It couldn't turn to the Soviet Union either, because the Ayatollahs' relations with Moscow were almost as icy as with Washington.

Although Iran managed to dodge international sanctions by purchasing small batches of weapons on the black market, but this was not a satisfactory solution, as Iraq, with whom Iran was at war could acquire

Iran's naval aspirations in the Gulf have resulted in Chinese technology being incorporated into its growing fleet. (Source: DoD)



the best samples of Soviet and French defence technology of the time. New supplies were vital for Iran. As a result, Iran came up with the only possible solution, it found the only supplier capable of providing the necessary equipment in sufficient quantities within a short time; China.

China began supplying Iran with weapons and equipment for all types of forces. It provided artillery for the army, including Type 54 122mm towed howitzers derived from the Soviet M-30 howitzer, Type 59 130mm towed guns copied from the Soviet M-46 field gun, mortars and Type 63 107mm rocket launchers similar to the model China used to provide to Mujahadeen in Afghanistan during the Soviet occupation.

The co-operation between Iran and China was not limited to artillery deals. China also supplied the Iranian army with armoured equipment, including Type 59 tanks (a licensed copy of the Soviet T-54,

Chinese imports also played an important role in re-equipping the Iranian air force

and armoured personnel carriers, which enabled Iran to hold out in a long and terrible war which went on for nine years.

During that time, China delivered to Iran several thousand artillery pieces of over 100mm caliber, hundreds of tanks and armored personnel carriers.

Chinese imports also played an important role in re-equipping the Iranian air force. At the beginning of the war with Iraq, Iran had a fairly advanced air force, operating more than 150 light F-5 Tiger fighters and about 200 F-4D and F-4E Phantom II multi-role combat aircraft. The Iranian air force also flew F-14 heavy interceptors, the world's first, fourth-generation aircraft. The country received 77 such air-

craft from the United States before the Islamic Revolution forming the core of its air defense.

However, with the revolution and the onset of the war with Iraq, it became increasingly difficult for Iran to procure spare parts for the US-made jets, particularly the F-14. As a result, the Iranian air force had to backtrack one step and start buying Chinese-made equipment which included mainly Soviet jet designs from the 1950s, produced under license and objectively obsolete.

Iran imported Chinese-made J-6 fighters (replicas of MiG-19) and J-7 (MiG-21) in various options, the Y-7 and Y-12 transport aircraft and air-to-air missiles. The J-6's were taken out of service quite soon, by the mid-1990s, while more than 20 J-7's, modernized by Iranian and Chinese engineers, are still used by the Iranian air force.

For anti-aircraft defense during the Iran-Iraq war, China supplied Iran with HQ-2 surface to air missile systems, derived from the Soviet C-75.

Iran also began importing Chinese

Iran's naval ambitions will see its domestic shipbuilding capabilities extend far beyond some of its current capabilities (Source: DoD)



naval vessels and missile equipment for the navy during that period. The HY-2 Silkworm anti-ship cruise missile systems, derived from the Soviet P-15, were perhaps the most effective at the time, making Iran one of the key players in the Gulf, even with a relatively small navy.

It is also important to mention the important role played by North Korean imports in the development of Iran's navy. Considering the major technical assistance China was providing to North Korea at the time, that country's military supplies to Iran could also be viewed as indirect cooperation between Iran and China.

China and Iran have been and still are implementing joint missile equipment design projects, marketing both finished products such as Scud and BM-25 missiles and production technologies.

Further cooperation

Chinese-Iranian cooperation continued into the 1990s, as the West never relaxed its sanctions.

Problems in supporting legacy US equipment led Iran to seek China-sourced alternatives
(Source: wikipedia)

Iran was actively cooperating with China in solid fuel production. That enabled the country to manufacture a large number of jet projectiles in the 1990s

Having just recovered breath after the war, Iran began thinking of its armed forces' long-term development. The country opted for using the well-developed domestic industry and importing technologies rather than products.

Iran also began cooperation with Russia and other post-Soviet countries in order to get access to many modern military technologies, but China nevertheless remained its key partner. Chinese military engineers helped their Iranian colleagues modernize the Type 59 tank into the 72Z, or Safir-74, with a 105mm barrel gun, reinforced armour and advanced targeting equip-

ment. Chinese specialists have also reportedly taken part in the development of the Zulfiqar main battle tank and production of nearly 100 such machines.

Iran also began production of the Boragh armored personnel carrier under China's license with roughly 150 such vehicles being produced to date.

Iran was actively cooperating with China in solid fuel production. That enabled the country to manufacture a large number of jet projectiles in the 1990s, with calibres of 230mm-610mm for use with multiple launch and other missile systems.

Iran exports such missiles, including to the terrorist group Hezbollah. These missiles are not particularly effective because of poor precision, least of all long range targets. Their circular error probability is over one kilometer, dubbed "plus or minus one district." That is why such missiles are mostly used for terrorist attacks.

For ground support, Iran uses the Soviet 122mm Grad multiple launch systems, or their licensed copy, Hadid, or Haseb which is derived from the Chinese 107mm Type 63.

China's support also enabled Iran to



In addition to military technologies and equipment, Iran also imports dual-purpose devices and technologies from China



Iran's desire to upgrade its P-3F fleet may see Chinese technology on board this US-sourced aircraft (Source: DoD)

replenish its conventional artillery stock. Its army was re-equipped with the Type 88 self-propelled howitzer, and Chinese specialists also helped it design and launch commercial production of Iran's first locally made self-propelled howitzers, the 122mm Raad-1 and 155mm Raad-2. Iran also imported a batch of surface-to-air missile systems FM-80, a Chinese copy of French Crotale.

China assisted Iran in copying the 021 Huangfeng Class missile boats, equipping them with missile weapons. The missile boats, known in Iran as Type MOUDJ are reportedly manufactured by the Chah Bahar shipyard, and combat equipment has been installed at Bander Abbas, under supervision of Chinese engineers.

China also provides assistance to Iran in the development of precision weapons. Local enterprises manufacture Chinese C-801 and C-802 anti-ship cruise missiles with characteristics similar to the US Harpoon anti-ship missile. Iran is interested in modernization of the C-802 by installing a GPS system on it and by extending its range through improved thrust and flight management systems.

Chinese specialists have helped install missile equipment on Iran's Sea King helicopters. At least part of the SH-3 fleet are now capable of carrying C-802's, which greatly improves the air force's littoral combat capabilities, against approaching small and medium-sized enemy warships.

Under Iran's ballistic missile development programme, the country has designed several types of ballistic missiles with different ranges, leaning on North Korean and Chinese technologies. In addition to technical support, China also exports finished products to Iran, such as CSS-8 ballistic missiles.

With China's support, Iran has made substantial progress in modernizing its missile inventory. One of the most successful projects was to extend the range of the Nazeat-10 ground-to-air missile, used by the IRGC

since 1996 from 163 km to 300 km. The modernized version is known as FATEH-110A.

Iran also leaned on Chinese technologies, used in the DF-11 and DF-15 solid fuel missiles in its project to modernize its Scud type missiles. The improved Scud B and Scud C are capable of covering ranges of 400 km and 800 km, respectively, carrying 500 and 320-kg warheads.

In addition to military technologies and equipment, Iran also imports dual-purpose devices and technologies from China to boost the country's industrial and scientific potential. Tehran has acquired special equipment, such as X-ray machines used to assess rocket build quality, high-precision tools to manufacture components for gyro-stabilized platforms, mobile systems to

analyse missile telemetry data and other devices and components.

The two countries have recently started setting up joint ventures. For example, the Iranian-Chinese company DOURSANJ is an official dealer for several Chinese companies. Iran and China cooperate in development and production of depth sounders, depth gauges, computer simulators for flight training systems, as well as in cartography, surveying, and photo charting.

The Iranian government has used the DOURSANJ joint venture as a mediator to obtain Chinese technologies as well as to sign a series of contracts with China's Wuhan Technical University of Surveying and Mapping. The Chinese university trains Iranian specialists in various fields

Chinese specialists have also reportedly taken part in the development of the Zulfiqar MBT (Source: militaryphotos.net)



and at various levels, to return to Iran in order to work.

This kind of cooperation between China and Iran is restricted by the Chinese companies' limited capabilities in providing modern topographical surveying technologies. Iran is studying possibilities of cooperating with European countries in this area as well.

Prospects

China has supplied Iran with \$3.2-\$4.4 billion worth of military equipment in the first half of this decade. The two countries' cooperation is likely to continue into the future. Iran needs a reliable supplier while China never gets upset over international reprimands over non-observation of sanctions and limitations on the arms trade with spe-

Iran has significant manpower, China has and is providing significant military materiel to complement this (Source: DoD)

China will supply Iran with more short and long range anti-aircraft missile systems

cific countries, not when this trade is highly profitable. Their cooperation is likely to develop in several major areas.

China will primarily continue supplying Iran with modern military aircraft and technologies. With a small fleet of fourth-generation fighters, and a large fleet of older aircraft which is rapidly becoming obsolete, Iran urgently needs more modern flight equipment, which means China will probably be supplying it with finished aircraft and also help it launch its own production. These

plans will most likely include the recently designed J-10 and FC-1 fighters. However, Iran is unlikely to acquire the J-11 model from China, as the J-11 is a copy of Russia's Su-27, and China will be reluctant to thwart a country which designed the Flanker family.

Chinese specialists are expected to help Iran launch commercial production of the Azaraksh and Saegheh fighters, designed by local engineers on the basis of the US F-5, and modernize the existing fleet.

Chinese engineers are reportedly working at Tehran's Mehrabad air base, servicing US-made aircraft. Iranian aircraft engineers hope to rebuild, with the help of Chinese colleagues, the Il-76 based airborne command post which flew to Iran from Iraq in 1991.

As for air defense, China will supply Iran with more short and long range anti-aircraft missile systems, primarily the FT-2000, the Chinese copy of the Russian S-300 surface-to-air missiles.

China also provides substantial assistance to Iran by equipping its army with IFVs and APCs though deliveries of finished products and through establishing local production. Iran will also import Chinese PLZ-45 155mm self-propelled gun-howitzers.

The two countries will certainly develop naval co-operation. Iran will continue importing Chinese naval vessel and missiles and manufacture similar models under license. It is also possible that the country will import Chinese submarines and surface ships.

Iran has an ambition to dominate the Gulf and has focused on designing new naval weapons, including guided missiles, torpedoes and artillery mounts. Given the current line-up of forces in the Gulf, Iran's plans are unlikely to materialise unless it builds or imports a high number of heavily armed ships.

China will probably also participate in modernizing Iranian P-3F Orion maritime surveillance aircraft.

Iran's space ambitions are also worth mentioning, as the country has announced a plan to develop its own booster rocket capable of orbiting a satellite. China, which has a large space program, will be able to provide important assistance here as well. However, if Iran builds a booster rocket to orbit a satellite, the world will have to recognize that Tehran now has an intercontinental ballistic missile. ■

