

US, Russia, China, UK & Indian Militaries are restructuring and downsizing troops to be effective under changing threats and Warfare

The U.S. Army is preparing to downsize by 40,000 more active duty personnel from 490,000 to 450,000. U.S. Army officer announced that the Army is looking to slim down its personnel numbers and adopt more robots over the coming years. The Navy, Marine Corps and Air Force will experience much smaller force reductions without a loss of capability. However, The Trump administration has proposed increasing Army active end strength from its current level of 476,000 to about 540,000 within the next few years.

The UK Army is cutting the number of regulars from 102,000 in 2010 to 82,000 by 2017, but seeking to increase the number of reservists. The plans also involve cutting the Royal Navy from 35,500 regulars in 2010 to 30,000 in 2020 and the RAF from 40,130 regulars in 2010 to 35,000 in 2020.

President Putin has already declared years back that the transformation of Russia's armed forces from a bloated giant to a lean fighting force has been accomplished, and no further reductions are needed.

China will downsize its 2.3 million-strong army, the world's largest, to under one million in the biggest troop reduction in its history as part of a restructuring process, an official Chinese daily said.

The Indian government recently announced significant reforms to the Indian Army to enhance its combat capability and also

optimize expenditure. The reforms involve the redeployment of 57,000 personnel, optimization of communication arms and the closure of military farms.

One of the prime reason for downsizing is improving the tooth to tail ratio. Others are the changing character of warfare in which the non Conventional warfare, cyber warfare are becoming more prominent. For US, troops will be reduced, but Special Operations Forces, the personnel most likely to be deployed in today's security environment, will be increased from 66,000 to 67,900. This is due to continuing and ever increasing threat of ISIS and radical Islamist ideology that is spreading the world. Demand for SOF will only increase as the United States faces an increasing number of conflicts in the gray zone.

The People's Liberation Army (PLA) will increase the numbers of other services, including navy and missile forces, the PLA Daily, the official newspaper of the Chinese military, reported. Another reason is the rising capabilities and confidence in robots and other technologies.

US for reduction of its troops

A reduction of 40,000 personnel does not, moreover, equate to the loss of 40,000 combat troops. US Army is trying to increase the tooth-to-tail ratio (ratio of soldiers directly involved in fighting missions (tooth) to those involved in supporting activities (tail)).

A typical ratio is about 1/3 tooth to 2/3 tail, which means that you're spending a lot of resources on logistics, supplies, and other efforts to support the actual combat operations. According to Gen. Cole, the Army sees that as an opportunity to become more efficient. "Maybe it's one-half to one-half," he said. "The point is you get to keep more tooth, more folks that actually conduct operations on the ground and less supporting structure."

In the near term the supporting activities shall be filled by using support robots, Robots will likely include autonomous vehicles that can transport supplies, autonomous aircraft that can transport supplies and other autonomous robots that can transport supplies.

China To Downsize Army To Under A Million In Biggest Troop Cut

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"This is the first time that active PLA army personnel would be reduced to below one million," it said. It added that the number of troops in the PLA Navy, PLA Strategic Support Force and the PLA Rocket Force will be increased, while the PLA Air Force's active service personnel will remain the same

Chinese President Xi Jinping has called for a smaller army with better combat capability and optimized structure as the military reform deepens. Xi announced in September last year that the armed forces would be cut down by 300,000 troops from the original 2.3 million. The president, who is also general secretary of the Communist Party of China Central Committee, said the military's structure must be readjusted and optimized, new type of forces be developed, the ratios between different types of forces be rationalized, and the number and the scale of the military be downsized. The Chinese army must grow into modern armed forces with Chinese characteristics, which can win informationized wars and implement their missions, the president said.

Citing rapid changes to the global military environment, Xi spoke about the informationized modern warfare, noting that joint operations have grown to be the basic form of combat. "Accordingly, there have been new changes in terms of the military's size, structure, and formation, which features smaller in size, more capable in strength, modulization and multi-functionality, with scientific factors playing bigger roles," Xi said. "Quantity should be reduced, quality improved to build a capable and efficient modernized standing army," Xi said, adding that China must develop a joint operation force system with the elite force at its core.

India government announces significant reforms to increase its "teeth to tail ratio".

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The government said it has decided to implement 65 of the reforms recommended by the Lt-Gen. (retd) D.B. Shekatkar committee that submitted its report last year. The committee was mandated to recommend measures to enhance the combat capability of the army and rebalance defence expenditure to increase the "teeth to tail ratio". The teeth-to-tail ratio refers to the amount of supply and support personnel (tail) for each combat soldier (tooth).

The Indian Army has 1.3 million personnel. "It is a big reform and has been carried out in consultation with the army," Jaitley added. The move is unlikely to result in any job losses and the process is expected to be completed by 31

December 2019.

Apart from the redeployment of personnel, the measures also include optimization of supply, transport and ordnance infrastructure and the closure of 39 military farms and several military postal departments in so-called peace locations.

Changing nature of warfare driving military restructuring and downsizing

Some believe the future of modern warfare will be fought by automated weapons systems. Osama and other terrorists were tracked by these military robots; they have proved themselves in Iraq and Afghanistan. Several militaries are currently working on a range of not only unmanned, but autonomous military vehicles. Israel became the first to actually deploy such machines to active duty. IDF spokespeople told that since mid-July, fully-automated, self-driving vehicles have been patrolling the border of the Gaza Strip. In addition to patrol vehicles, Israeli defense contractors are also developing autonomous assault units. The robots currently in the field are unarmed, but future plans include equipping them with weapons as they are deployed to additional border regions.

Russia has claimed to have carried out for first time in the world, an attack on a fortified area of militants by battle robots. In the province of Latakia, army units of the Syrian army, with the support of Russian specialists and Russian combat robots, took the strategic tower of "Syriatel", 754m in height. In the attack on the tower, six robotic complexes "Platform-M" and four complex "Argo" were used. A friendly robot was recently deployed to Syria featuring self-propelled artillery installations (SAU) "acacia" that can destroy enemy

positions.

Military robotics is a top priority for Russia's military future, given the length of the Russian border and the need for military operations in places unsuitable for humans, like the Arctic. Recently, the chief of the General staff of the Russian armed forces, General Gerasimov, stated that Russia seeks to completely automate the battle, and perhaps soon we will witness robotic groups independently conducting warfare.

Major Kenneth Rose of the US Army's Training and Doctrine Command outlined some of the advantages of robotic technology in warfare: Machines don't get tired. They don't close their eyes. They don't hide under trees when it rains and they don't talk to their friends ... A human's attention to detail on guard duty drops dramatically in the first 30 minutes ... Machines know no fear.

As the capacities of military robots expand from semi-autonomous machines to potentially fully autonomous, future robots are even expected to replace soldiers in combat roles. "Intelligent robotic weapons – they're a reality, and they will be much more of a reality by 2030," former UK intelligence officer John Bassett said. "At some point around 2025 or thereabouts the US Army will actually have more combat robots than it will have human soldiers," he added, mentioning upcoming robot trucks that would drive themselves and be more effective on the road than an ordinary manned vehicle.

"The Russian Defense Ministry approved the concept of combat use of robotic systems and complexes of various types and

purposes for the next 10 years, until 2025," – said O.Martyanov, who directs the interdepartmental working group on the development and application of robots. According to the document, the expert said, the proportion of robotic agents in the overall structure of arms and military equipment (AME) should be about 30%.

According to Russia's deputy prime minister Dmitry Rogozin, the robots will save lives: "We have to conduct battles without any contact, so that our boys do not die, and for that it is necessary to use war robots," he said. The idea was backed by Russia's Defense Minister Sergei Shoygu, who urged engineers to make robots combat ready by 2015-17, instead of initially scheduled 2020.

In response rapid development of killer drones by Russia and China, Pentagon officials have planned to develop and deploy automated killer machines in US military within ten years. The Pentagon top officials believe that it will allow the US not to be behind Russia and China militarily. A report from the Defence Science Board in the US concluded that there are both benefits and dire negatives in using cyborgs to fight their battles, but the country needs to act quickly if it does not want to be left behind any further. The report said "there are both substantial operational benefits and potential perils associated with its use." Robots on the battlefield will be more efficient, result in less casualties and could ultimately be cheaper.

The militaries are also restructuring while becoming more efficient, Gen. Robert Cone, head of the Army's Training and Doctrine Command, offered some surprising details about the slim-down plans. As Defense News put it, he "quietly dropped a

bomb,” saying the Army is studying the possibility of reducing the size of a brigade from 4,000 soldiers to 3,000 in the coming years.

The weapon and platform modernization is also leading to less requirement of manpower as these High-tech weapons systems often require fewer personnel than traditional ones. Obsolete ships and planes will be replaced by new ones, which may require fewer people to operate them.

References and Resources also include:

http://news.xinhuanet.com/english/2016-12/03/c_135878424.htm

<http://spectrum.ieee.org/automan/robotics/military-robots/army-considers-replacing-thousands-of-soldiers-with-robots>

<https://www.rt.com/usa/363559-us-military-robots-soldiers/>

<http://www.israeltoday.co.il/NewsItem/tabid/178/nid/29924/Default.aspx>