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India beats UK, becomes 5th largest defence spender in 2017: report

The report notes that while India continues to modernise its military capabilities, China remains far ahead at USD 150.5 billion.

London: India's defence budget broke into the world's top five, beating the UK for the first time, a new report by a London-based global think-tank has said, signalling a key shift in the military balance between the two countries.

India overtook the United Kingdom as the fifth-largest defence spender in the world in 2017 at USD 52.5 billion, up from USD 51.1 billion in 2016, according to the 'Military Balance 2018' report by the International Institute for Strategic Studies (IISS).

In contrast, the UK's defence budget fell from USD 52.5 billion in 2016 to USD 50.7 billion in 2017.

"This represents a key shift in the military balance between India and the UK, with India allocating more capabilities to develop its regional resources than the UK in a global context," said IISS Senior Fellow for South Asia, Rahul Roy-Chaudhury.

The report notes that while India continues to modernise its military capabilities, China with the world's second-largest defence budget after the US remains far ahead with three times India's defence budget at USD 150.5 billion.

China's real defence spending increased by nearly 25 per cent in 2016-17, whereas India's rose by just 2.4 per cent.

"Post-Doklam, India's military balance with China continues to be significantly in China's favour. Since 2000, China has built more submarines, destroyers, frigates and corvettes than Japan, South Korea and India combined. China will continue to dominate the region militarily and seek to challenge the US in the region as well, Roy-Chaudhury notes.

According to the analysis, the Chinese Army has over 600,000 more active personnel than India; it has nearly 1,200 tactical aircraft compared to India's 785; and 55 more cruisers, destroyers and frigates than India.

The report takes note of the Indian government's 'Make in India' policy, which aims to strengthen the defence-industrial base through measures such as "reforming the cap on foreign direct investment" (FDI) and that the country is one of the top troop contributors to UN peacekeeping operations.

"The overall capability of the (Indian) Army is limited by inadequate logistics, and shortages of ammunition and spare parts. Defence cooperation with the US continues to grow, with an increasing level of exercising and sales of US equipment.

"Development and procurement programmes across the services are aimed at replacing ageing equipment, but many projects have experienced significant delays and cost overruns, particularly indigenous systems, the report finds.

IISS says the new Indian Joint Armed Forces Doctrine issued last year sees an "emerging triad" of space, cyber and special-operations capabilities complementing conventional land, sea and air capabilities as India continues to modernise its strategic forces, particularly its delivery systems.

Overall, the report found that China and Russia, with the world's fourth-largest defence budget at USD 61.2 billion, are challenging the military supremacy of the US (USD 602.8 billion) and its allies and that the West can no longer rely on the strategic advantage it has enjoyed until now.

Saudi Arabia, with a defence spending of USD 76.7 billion, came in third to complete the world's top five" the US, China, Saudi Arabia, Russia and India.

Never Let The Truth Get In The Way...

By Ajoy Kumar

Before promising a great future or speculating on the past, the BJP Government must ensure it doesn't lose its handle on the present

The Bharatiya Janata Party has been on a mission to weave stories that they believe will help distract from the fact that this Government is struggling. It's the classic look-there move that seems to be the most popular song on the BJP's soundtrack. Every week we are either promised a great future that is too far to see or taught lessons about the past through the skewed lens of the BJP. In all of this looking to the future and speculating about the past, one hopes the Government has an eye on the present before losing a complete handle on it. I will attempt to examine pressing issues of the present as well as some of these tales of distraction.

Rafale deal

The country has questions about the Rafale deal. To provide some background, the Prime Minister announced the Rafale deal in April 2015, when we were informed that the country will buy 36 Rafale fighter jets from Dassault (the French manufacturer of the fighter jets). We know this one fact about the deal but not much else — for example, how much India is required to pay for the jets and whether due procedure has been followed while agreeing to this commitment. The Opposition demanding answers to such questions appears to be a completely reasonable request.

It must be remembered that the Rafale jets were actually picked in 2012 as part of the process of upgrading India's fleet of aircrafts. As part of this 2012 deal, India was to purchase a total of 126 Rafale jets where Dassault would manufacture 18 jets and the remaining would be assembled in India by Hindustan Aeronautics Limited. This deal was a decade in the making but was shelved by the BJP when it came to power on the grounds that the deal was extremely expensive. Instead, the BJP Government has decided to commit to this new deal. In relation to this commitment, the BJP Government has faced multiple inquiries that have been raised by not only the Congress but also the media and the public.

We have not been provided any answers, including in Parliament, and the reasons for this silence by a usually loud Government are not particularly clear. We have been informed that the price is protected by the "secrecy agreement" that is in place and we have also heard that the price is to be "protected" for reasons of "national security". Therefore, once again, the Government has given us confusing and obscure answers to questions that on the face of it seems fairly straightforward. It is not clear why or how giving the lump sum value for each aircraft could jeopardize India's national security however it is clear that this deal has raised some significant questions which the Government must answer. Since the original deal was scrapped due to it being too expensive, we should at least know the cost of the deal negotiated by the current regime so as to be satisfied that the best deal was negotiated for the benefit of the country. For example, in November of 2017, Qatar had purchased 12 Rafale fighter jets in \$108.33 million per aircraft (Rs 694.80 crore). By knowing the total cost of the jets, we can have a fair idea of how the current deal compares with others. However, by adopting its typical non-transparent approach, the BJP has essentially prevented any such healthy debate and therefore discouraged transparency.

Instead, the Government does what it tends to do when on the back foot and pointed fingers at the Congress Party by stating that the Congress did not disclose such details in the past either and accused the Congress of threatening the security of India. Therefore, it appears that raising any questions against the Government apparently amounts to being an anti-national. The Congress party countered these claims by pointing to the deals in the past which were disclosed to Parliament. Therefore, where we stand currently is that these questions remain unaddressed and the public remains in the dark.

This is just another example of how the Government has kept the country in the dark and lends weight to the argument that the ruling regime is shrouded in secrecy and is inspiring mistrust amongst the people of the country.

MAIL TODAY

Fri, 16 Feb, 2018

‘Megaton Twins’ behind Jong-un’s nuclear arsenal

Meet the Megaton Twins – the two scientists Kim Jong-un can thank for his terrifying nuclear arsenal, according to experts. Michael Madden, who works with the 38 North watchdog, said Hong Sungmu and Ri Hong-sop were crucial to the weapons programme’s success. With their help, North Korea went from detonating suspected duds in 2006 to its current nukes, which are up to 18 times more powerful than the Hiroshima bomb. And with the regime’s latest missile — the Hwasong15 — theoretically able to reach Washington DC, their weapons are more threatening than ever.



Scientists Hong Sung-mu (far left) and Ri Hong-sop (third from left), helped Kim Jong-un make the powerful nuclear bombs. (Above) Intercontinental ballistic missiles at a grand military parade of Korean People’s Army in Pyongyang.

Madden said there were a number of people who had contributed to North Korea’s nuclear weapons over the years. But he said Ri Hongsop, the head of North Korea’s Nuclear Weapons Institute, and Hong Sung-mu, were the “key people” now. He said the duo most likely got an academic grounding in the former Soviet Union, perhaps at the Yuzhnoye Design Office in Ukraine, before returning to the North. Back home, they worked at the Yongbyon Nuclear Scientific Research Center – where Hong was made chief engineer and Ri, director – in the 1980s.

Now they are among North Korea’s elite and were guests of honour at a performance in September celebrating the regime’s nuclear scientists. Footage shows the dictator arriving at the show hand in hand with Ri, with Hong at his side, while his wife, Ri Sol-ju, walks behind. The two scientists then assume the first and second seats to his left, and when someone tries to present Kim with flowers, he passes them on to Hong. Ri Hong-sop and Hong Sung-mu are even sanctioned as individuals by the US and EU respectively, with the EU calling Hong “one of the main persons responsible” for the nuke programme.

Madden said: “They’re North Korean technical experts — such people are usually members of the Korean People’s Assembly and the Worker’s Party of Korea Central Committee. And these guys all have job titles like ‘deputy director’ of the Worker’s Party of Korea Munitions Industry Department. “It can sometimes be a position with more real power than someone who’s actually the director.”

Ordnance expert Yu Jin was singled out as another important figure by Madden. He said: “He’s basically related to stuff that goes boom. Even if you have a nuclear weapon, it still has to explode and so he would work on a trigger or something like that.” Madden said Yu Jin also seemed to be “a man very comfortable in his position”. He added: “Based on what he wears, you can tell in his clothing, his comportment, this is a very relaxed person. “Some of these guys look like they’re about to have their morgue pictures taken and that’s not the case with Yu Jin.”

Madden said that while there was a lot more to North Korea’s nuclear programme than the three scientists, the trio were instrumental to its success. He said: “These people have career experience, they have been in the programme for at least three decades if not four. “So they were eventually going to hit on to the right thing – and that’s to do with how Kim Jong-un runs North Korea. His father, Kim Jong-il, was a micro manager... Kim Jong-un stays out of the way. He does not, despite what a lot of media headlines say, punish people the same way.” Daily Mail



Fri, 16 Feb, 2018

Alzheimer's disease reversed in mice

In a breakthrough, scientists have successfully reversed the formation of amyloid plaques in the brains of mice with Alzheimer's disease, and improved the animals' cognitive function. The research, published in the *Journal of Experimental Medicine*, paves the way for drugs that may successfully treat Alzheimer's disease in humans. Scientists from the Cleveland Clinic Lerner Research Institute in the US have found that gradually depleting an enzyme called BACE1 completely reverses formation of amyloid plaques.

One of the earliest events in Alzheimer's disease is an abnormal buildup of betaamyloid peptide, which can form large, amyloid plaques in the brain and disrupt the function of neuronal synapses. Also known as beta-secretase, BACE1 helps produce beta-amyloid peptide by cleaving amyloid precursor protein (APP). Drugs that inhibit BACE1 are therefore being developed as potential Alzheimer's disease treatments but, because BACE1 controls many important processes by cleaving proteins other than APP, these drugs could have serious side effects.

Mice completely lacking BACE1 suffer severe neuro developmental defects. To investigate whether inhibiting BACE1 in adults might be less harmful, researchers generated mice that gradually lose this enzyme as they grow older. These mice developed normally and appeared to remain perfectly healthy over time. The researchers then bred these rodents with mice that start to develop amyloid plaques and Alzheimer's disease when they are 75 days old.

The resulting offspring also formed plaques at this age, even though their BACE1 levels were approximately 50 per cent lower than normal. However, the plaques began to disappear as the mice continued to age and lose BACE1 activity, until, at 10 months old, the mice had no plaques in their brains at all.

“To our knowledge, this is the first observation of such a dramatic reversal of amyloid deposition in any study of Alzheimer's disease mouse models,” said Riqiang Yan, from Cleveland Clinic Lerner Research Institute. Decreasing BACE1 activity also resulted in lower betaamyloid peptide levels and reversed other hallmarks of Alzheimer's disease, such as the activation of microglial cells and the formation of abnormal neuronal processes.