

## Upgraded BrahMos with 500-km range ready: CEO of BrahMos Aerospace

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The upgraded version of the homegrown BrahMos missile with an enhanced range of up to 500 km is ready, the CEO of BrahMos Aerospace, Sudhir Kumar Mishra, has said. Mishra, in an interview broadcast on Doordarshan News Sunday, said it is possible to increase the range of this missile because India is now a part of the elite Missile Technology Control Regime (MTCR).

"India has successfully test-fired a vertical deep dive version of BrahMos, the world's fastest supersonic cruise missile, that can now change the dynamics of conventional warfare... The upgraded version of the missile with enhanced range of up to 500 km is also ready," he said.

He said India is now the only country in the world to integrate long-range missiles onto fighter jets after the BrahMos missile was test-fired from a Sukhoi 30 aircraft of the Indian Air Force.

Brahmos missile, which cruises at almost three times the speed of sound at Mach 2.8, is the heaviest weapon to be deployed on the Su-30 fighters.

"We can take on any ship at sea up to 300 to 400 km (far) and after some time, may be longer; we can take on land targets up to hundreds of km and with the test that we have conducted some time back (from Sukhoi 30), ranges up to thousands of km," he said, according to a release by the state-run broadcaster.

Mishra said for the Army, the Navy and the Air Force, Brahmos has become a weapon of choice and the steep 90-degree version has become an ultimate aircraft carrier killer.

He said the technologies that BrahMos Aerospace has developed did not exist either in India or Russia earlier.

BrahMos Aerospace is a joint venture company owned by the governments of India and Russia and its missiles are produced in India.

Former Deputy Chief of the Army, Lt General Subrata Saha, who also spoke on the programme, said the steep dive version of the missile is a game changer for mountain warfare (of the kind that was witnessed during the Kargil war).

<https://economictimes.indiatimes.com/news/defence/upgraded-brahmos-with-500-km-range-ready-ceo-of-brahmos-aerospace/articleshow/70117273.cms>



## Union Budget 2019: Defence salary bill leaves less for new weaponry

*Government sources argue this year's capital allocation of Rs 108,248 crore cannot be increased further, since it already accounts for one-third of the central government capital expenditure*

*By Ajai Shukla*

New Delhi: The modest 6.35 per cent rise in defence allocations – from Rs 405,193 crore in last year's revised estimates, to Rs 431,011 crore in Friday's Budget – presents an even more worrying picture when the budget is disaggregated.

A *Business Standard* analysis of the defence budget in a three-year window indicates that most of this scanty rise is accounted for by the revenue heads of manpower and running expenses. Meanwhile, the important capital budget component, which funds equipment modernisation, has grown significantly slower.

From the baseline of the 2016-17 budget to the present, three annual increments have raised spending on the three services by a total of 23 per cent. During this period, allocations for manpower (including salaries and pensions) have grown by 26 per cent, while running costs have grown by 25 per cent. In comparison, the capital budget has grown by only 15 per cent, averaging barely four per cent each year.

This factors in allocations made to the army, navy, air force and coast guard; but not to the defence ministry, the Ordnance Factories (OFs) and the Defence R&D Organisation (DRDO). It also assumes the defence budget will be spent in full this year, rather than returning a part of it unspent, as has happened in preceding years.

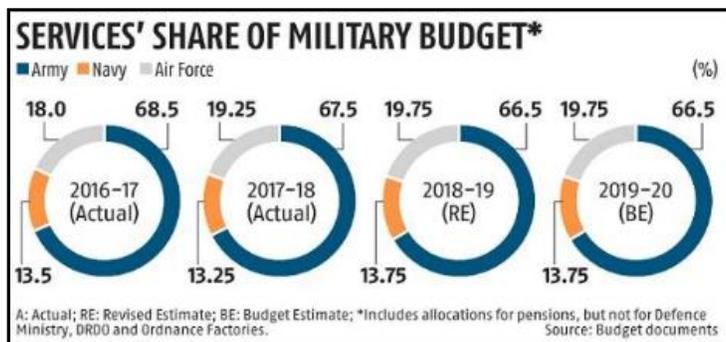
Government sources argue this year's capital allocation of Rs 108,248 crore cannot be increased further, since it already accounts for one-third of the central government capital expenditure of Rs 3,38,569 crore.

Defence industry executives also underline a compensatory factor: the benefits of customs exemption that Finance Minister Nirmala Sitharaman announced on the import of defence goods that are not made in the country. This will make defence imports cheaper by 10.3 per cent, which is the basic customs duty, and effectively increase the capital allocation by 5.15 per cent, assuming half of all capital procurements are imported.

Effectively reduced by 10.3 per cent will be the prices of Rafale fighters, P-8I maritime patrol aircraft, naval helicopters, Apache and Chinook helicopters from the US and S-400 missile systems, Krivak class frigates and a nuclear submarine in the pipeline from Moscow.

There is uncertainty over who will control the DRDO's research budget, which amounts to Rs 10,484 crore this year. In her budget speech, Sitharaman announced that the government proposed to

Figures in (%)	Rise in '17-18 (A)	Rise in '18-19 (RE)	Rise in '19-20 (BE)	Three-year rise
Manpower	11.0	8.0	5.0	26.0
Running costs	5.0	5.0	13.0	25.0
Modernisation	4.0	0.70	10.0	15.0
<b>Total budget</b>	<b>8.50</b>	<b>6.0</b>	<b>7.50</b>	<b>23.0</b>



establish a National Research Foundation (NRF) to “fund, coordinate and promote research in the country.”

“NRF will assimilate the research grants being given by various Ministries independent of each other”, she said. It is unclear whether the DRDO budget will be subsumed under this.

Besides the DRDO’s research budget, the government allocated Rs 95 crore towards “Make” category projects, which involve Indian companies developing complex defence platforms. Last year, the defence budget had allocated Rs 142 crore under this head, but the revised estimates brought it down to Rs 2 crore, indicating that the money had remained unspent.

The budget has dissatisfied all three services, who believe their role entitles them to a larger share of the defence budget. The army, by far the largest service, which is involved in counter insurgency duties year-round, notes that its share has come down over the last three years from 68.5 per cent to 66.5 per cent of the military budget.

The navy, which backstops the country’s Indo-Pacific strategy and requires more warships, wants more than the 13.75 per cent that its allocation is stagnating at. The air force, whose budget has grown by almost two percentage points, wants a larger capital budget to fund a slew of fighter purchases in the pipeline.

[https://www.business-standard.com/budget/article/union-budget-2019-defence-salary-bill-leaves-less-for-new-weaponry-119070700026\\_1.html](https://www.business-standard.com/budget/article/union-budget-2019-defence-salary-bill-leaves-less-for-new-weaponry-119070700026_1.html)