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Rafale deal: Majority overruled concerns over benchmark cost

New Delhi: The \$7.87 billion deal to buy Rafale fighter jets from France was cleared by a majority in the negotiating team. However, ET has reliably gathered that three members recorded concerns over pricing, cost of India-specific enhancements as well as the non-consideration of a discounted offer by the only other competitor. A key concern, which appears to have been extensively debated within the team, was that the pricing of the deal was much more than the benchmarked or initial defence ministry estimate of \$5.2 billion. The team felt this was too low and recommended that a new cost be worked out from the price discovered in the bidding for 126 fighter aircraft during the UPA regime.

This resulted in the benchmark price being revised upwards to \$ 8.2 billion. By this yardstick, the price negotiated for 36 aircraft worked out cheaper. The process and the price was then approved by the defence minister-led defence acquisition council (DAC) and cabinet committee on security (CCS).

BENCHMARKED PRICE

Before contract negotiations of such value, the defence ministry commissions a benchmarking process in which a senior official is tasked with determining — using open source information and any available data from other experts — an estimated price of the deal.

Divergent Views

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| <p>CONCERN: Defence ministry's benchmarked price determined prior to talks with France was €5.2b. Hence, the French demand of €7.87b was unreasonable</p> <p>COUNTER: MoD said €5.2b was 'low and unjustifiable' and hence a revised benchmarking was done</p> | <p>CONCERN: Eurofighter in its revised offer had cut price by 20% for jets but it wasn't considered</p> <p>CONCERN: The cost of India Specific Enhancements was unreasonably high at €1.3b</p> <p>COUNTER: MoD ruled that under 126 MMRCA contract being negotiated by UPA, these enhancements cost €1.4b. As these are developmental costs, doesn't matter if 126 or 36 jets are on order</p> | <p>COUNTER: MoD ruled out Eurofighter by saying its revised bid was not acceptable and against CVC norms</p>  |
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The officer in charge of the benchmarking process was MP Singh, an adviser (cost) in the ministry. "The benchmarking was done with due process and detailed study was not a number that came out of thin air," sources familiar with the matter told ET. In the case of the 36 Rafale jet purchase, the benchmarking cost was originally

determined at \$5.2 billion when negotiations started in 2015-16. This was subsequently overruled and a new formula was approved to determine the benchmarking price. This used the price discovered during the 126 medium multirole combat aircraft contest to work out an 'aligned cost table' and led to a benchmarked price of \$ 8.2 billion, sources told ET. These calculations were done using the offer Dassault had made for the older contract and how much it would have cost to procure the 126 jets, most of which would be made in India. This process basically compared the price of the old deal with the new one being negotiated. The majority view was that the final figure (\$ 8.2 billion) arrived by the negotiating team was a better outcome than the corresponding price of the 126 aircraft bid. It was only when the benchmark price was revised upwards that the Rafale deal could be negotiated to the final stage, given that a significant departure from the benchmarking would have led to a cancellation of the contract as per norms.

DISSENT NORMAL

Further, the methodology to calculate the new benchmark cost of \$ 8.2 billion was also approved by DAC and CCS. The two other officials who raised objections were Rajeev Verma, then joint secretary (Air) and AR Sule, then finance manager (Air). Dissent within a negotiating team for contracts of such value is the norm, however, these differences are usually sorted out amicably with the intervention of higher authorities

In the end, the majority view of the team is taken into consideration. In the 126 Rafale deal negotiated by the UPA regime, there were similar dissent notes with three members recommending that Dassault's financial bid should be disqualified as it did not meet all conditions of the original tender. On Thursday, defence ministry sources said all major government decisions are taken through a "collegiate process". "While ensuring utmost integrity and transparency, the process allows for opinions to be freely expressed, recorded, discussed and if necessary, modified," according to an official source. These sources were reacting to a media report.

The MoD did not respond to detailed queries from ET. Defence minister Nirmala Sitharaman told India Today news channel on Thursday that there may have been different views on the benchmark price but this was normal during contract negotiations. She said that objections raised were clarified and the final decision was taken collectively by the negotiating team and the ministry.

OTHER CONCERNS

The other significant concern was regarding the performance guarantees for the 36 Rafale deal. A contract of this size usually has a bank guarantee clause that can be invoked if the company fails to deliver on time or does not provide systems as per the specification. The members of the team objected that the French side was offering only 'sovereign guarantees' for the contract and not enchashable banking guarantees. This objection was also overruled citing the example of Russian government to government deals that follows the principle of sovereign guarantees. The third major point of concern was on why the government did not consider the offer by Euro fighter — the only competitor to Rafale which was also qualified on technical grounds — before negotiating with France. The maker of Euro fighter, EADS, had offered to reduce its price by 20% in a direct letter to the defence ministry as well in talks conducted through the German government.

This too was overruled by the negotiating team that held that the Euro fighter offer was unsolicited and was rejected by the defence ministry in 2014. The fourth point was regarding the India specific enhancements for the 36 Rafale deal – these included the ability to start the aircraft from a high altitude airfield, a helmet-mounted sight for the pilots and a new forward looking infra red sensor. The concerns raised alluded to the \$ 1.3 billion cost for research and development for these enhancements, holding this as excessive.

This objection was also overruled, as the negotiating team held that in the 126 MMRCA contest, the India specific enhancement cost had been specified as \$ 1.4 billion by the French side. This was a non recurring cost and was justifiable and was not affected by the 'number of aircraft on order'. Through 2016, these concerns were noted by the defence ministry but were overruled after consultations and recommendations from other members of the negotiating team. The contract was finally inked at a cost of \$ 7.87 billion that included the weapons package and support for spares and training.



Fri, 28 Sept 2018

Army to set up new data security centre

By Vijay Mohan

With cyber warfare and network-centric operations gaining increasing prominence in the battlefield spectrum, the Army is revamping its network security.

A new Security Operations Centre is being established under the Army Headquarters that would identify threats to the Army's data networks and take actions to mitigate them.

The centre will monitor all devices and servers connected on the Army Data Network (ADN) to include the servers and generate user logs in real time. These logs would be scrutinised for user behavior, assessing potential threats, sounding alerts on violation, attack or unusual behaviour, analysing incidents and auditing technical parameters.

The Army is looking to engage a civilian professional agency for implementing the project on a turnkey basis. The estimated time for setting up and validating the system is stated to be nine to 12 months after finalisation of the contracts.

Sources said the new security project would be undertaken at the Army's Central Data Centre (CDC) that became functional about three years ago. Co-existing with the CDC is the Army's Near Line Data Centre (NLDC), a type of rapidly assessable information storage and a Disaster Recovery (DR) site for replication of its critical data along with virtualised servers and storage. Along with the CDC, a Digi-Locker was also launched to provide a secure and exclusive data storage space to all formation headquarters and units of the Army over a dedicated data network. Authorised users can store, share and access the data on ADN from anywhere and at any time.

"Since data and communication networks have become a critical and indispensable part of virtually all military and civilian organisations and involve transfer of large amounts of sensitive information, targeting such entities by both states as well as non-state operators for purposes such as espionage, sabotage and manipulation is an integral part of cyberwarfare and other forms of sub-conventional operations. Safeguarding them becomes imperative," an officer said.

Business Standard

Fri, 28 Sept 2018

New weapon for blockchain startups: Nobel Prize-winning brains

With cryptocurrency mania over for now, blockchain startups need to dig a little deeper to attract attention. Their latest secret weapon: Nobel laureates.

Covee Network is the latest venture to announce a partnership with an economist of the highest standing: game-theory and market design expert Alvin Roth, who shared the economics Nobel in 2012. Prysm Group is borrowing the brain -- and name -- of Oliver Hart of Harvard University, a 2016 co-laureate; and Cryptic Labs LLC has partnered with both Eric Maskin -- who shared the prize in 2007 -- and Christopher Pissarides -- a 2010 co-laureate.

A year ago, just uttering the word "blockchain" was enough to spark interest. Photography pioneer Eastman Kodak Co. last year had a brief return to fame, and a 272 percent share-price jump, after a cryptocurrency licensing its name was announced. And soft-drink company Long Island Ice Tea Corp. rebranded as Long Blockchain Corp., with similar results, only to end up accused of misleading investors.

But the magic has faded. In August, funding from initial coin offerings, which are used as an alternative to public offerings by companies in the cryptocurrency business, dropped to the lowest in 16 months, according to data from Autonomous Research. Bitcoin, the oldest in the space, fell by more than half this year to \$6,453.

The question is: Do the laureates just supply their names and reputations, or are they fully engaged in the projects?

"When I was first approached about joining, I spent a good deal of time thinking about whether I would just be a decoration, or whether I would actually be able to contribute," Roth said by phone. What persuaded him was how he could bring his unique skills to bear on the project. "They are embracing game theory as a way of incentivizing participation."

Fri, 28 Sept 2018

U.S. to remove missiles from West Asia

The U.S. is pulling some of its anti-aircraft and missile batteries out of West Asia, the Wall Street Journal reported on Wednesday, citing U.S. military officials.

The Pentagon will pull out four Patriot missile systems from Jordan, Kuwait and Bahrain next month, the report said, adding that the realignment step marks a shift of focus away from long-lasting conflicts in West Asia and Afghanistan to tensions with China, Russia and Iran.

Two Patriot missile systems will be redeployed from Kuwait, and one each from Jordan and Bahrain, the report said. Patriots are mobile missile systems capable of shooting down missiles and planes. The report comes amid rising rhetoric against Iran from the United States.



Fri, 28 Sept 2018

China slams US' B-52 over SCS as 'provocative'

China on Thursday labeled a recent mission by nuclear-capable US B-52 bombers over the disputed South China Sea as "provocative," and said the US was solely responsible for a recent downturn in relations between their militaries.

Defense Ministry spokesman Ren Guoqiang also reiterated at a monthly briefing China's objections to a recent U.S. arms sale to Taiwan and the imposition of US sanctions over China's purchase of Russian Defense equipment.

"As for the provocative action taken by the US military aircraft, we are firmly against it and we will take all necessary means to safeguard our rights and interests," Ren said.

Two B-52s flew over the strategic waterway, largely claimed by China, earlier this week in what the Pentagon called a routine mission. Separately, two B-52s also flew this week over the East China Sea, where China has declared an air defence identification zone and claims uninhabited islands controlled by Japan.

China has sought to strengthen its claim to the South China Sea by building seven islands on reefs and equipping them with military facilities such as airstrips, radar domes and missile systems. Five other Governments claim territory in the oil- and gas-rich area through which an estimated \$5 trillion in global trade passes annually.

Asked at the Pentagon on Wednesday about the bomber flights, Defense Secretary Jim Mattis said he wasn't concerned they might raise tensions with Beijing.

"That just goes on. If it was 20 years ago and had they not militarised those features there it would have been just another bomber on its way to Diego Garcia or wherever," Mattis said, according to a Pentagon transcript, referring to a key US base in the Indian Ocean.

"So there's nothing out of the ordinary about it," Mattis said.

China also demanded the US cancel a \$330 million sale of spare parts and related support for Taiwan's US-made F-16 fighter jets and other military aircraft, warning of "severe damage" to bilateral relations and mutual cooperation if Washington fails to comply.

Washington has no official relations with Taiwan's democratically elected government but is obliged by US law to see that it has the means to defend itself.

The arms sale coincides with a US decision to issue a visa ban and assets freeze on China's Equipment Development Department and its director, Li Shangfu, over the purchase from Russia of Su-35 combat aircraft in 2017 and S-400 surface-to-air missile system-related equipment this year. China's purchase of the weapons from Rosoboronexport, Russia's main

arms exporter, violated a 2017 law intended to punish the government of Russian President Vladimir Putin for interfering in US elections and other activities.

In response, China demanded the sanctions be revoked, summoned the American ambassador and defense attache to deliver a protest, and recalled its navy commander from a U.S. trip. China also turned down a request for an October port call in Hong Kong by the US Navy amphibious assault ship USS Wasp. China last denied such a visit in 2016 amid a spike in tensions between the countries over the South China Sea. The increase in friction could affect other exchanges, including a planned visit to the US by Chinese Defense Minister Wei Fenghe, a possibility Ren did not rule out.

THE ASIAN AGE

Fri, 28 Sept 2018

New solar-powered heart monitor can be taped to skin

Tokyo: Japanese scientists say they have developed a human-friendly, ultra-flexible organic sensor powered by sunlight, which acts as a self-powered heart monitor. Researchers from the University of Tokyo and RIKEN in Japan integrated a sensory device, called an organic electrochemical transistor -- that can be used to measure a variety of biological functions -- into a flexible organic solar cell. They were then able to measure the heartbeats of rats and humans under bright light conditions, according to the research published in the journal Nature. "This is a nice step forward in the quest to make self-powered medical monitoring devices that can be placed on human tissue," said Kenjiro Fukuda of the RIKEN Center for Emergent Matter Science. Self-powered devices that can be fitted directly on human skin or tissue have great potential for medical applications.

They could be used as physiological sensors for the real-time monitoring of heart or brain function in the human body, researchers said. However, practical realisation has been impractical due to the bulkiness of batteries and insufficient power supply, or due to noise interference from the electrical supply, impeding conformability and long-term operation, they said. The key requirement for such devices is a stable and adequate energy supply. The study used a nano-grating surface on the light absorbers of the solar cell, allowing for high photo-conversion efficiency (PCE) and light angle independency.

The researchers were able to achieve a PCE of 10.5 per cent and a high power-per-weight ratio of 11.46 watts per gramme, approaching the "magic number" of 15 per cent that will make organic photovoltaics competitive with their silicon-based counterparts.

MAIL TODAY

Fri, 28 Sept 2018

NASA reveals how it plans to get astronauts back to the moon

NASA has outlined a new campaign to put humans back on the moon, and eventually send astronauts to Mars. The space agency recently submitted a plan to Congress to ramp up its plans for human space exploration, with five new strategic goals to guide upcoming missions.

These goals rely on recent advances in commercial space operations and the upcoming Orion spacecraft and Space Launch System rocket. As of now, NASA says it wants to have astronauts on the surface of the moon no later than the 2020s, and have humans in lunar orbit by 2023. 'This will be the first chance for the majority of people alive today to witness a Moon landing – a moment when, in awe and wonder, the world holds its breath,' NASA says. 'However, America will not stop there.' Missions to Mars following the moon initiatives are

currently targeting the 2030s. The New Exploration Campaign has five strategic goals, the first of which will be shifting human spaceflight activities in low-Earth orbit to commercial operations. The agency also plans to establish operations on the lunar surface and in orbit to facilitate missions to deeper space.

They also plan to identify resources on the lunar surface using robotic missions.

And in the years to come, they're hoping to put US astronauts back on the moon, and demonstrate the capabilities to get to Mars and beyond.

The new campaign follows Space Policy Directive-1, signed last year by President Trump, and comes just weeks after NASA Administrator Jim Bridenstine said he wants to put 'lots of humans in space.' Many of these plans rely on plans for modules called Gateway.

The Gateway craft will initially support brief science missions of about 30-60 days, and will be key to exploring the moon in greater detail than ever before. And, in the years to follow, a second module could be used to carry astronauts to Mars.