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भारत के 'रूस्तम' से पाकिस्तान परेशान

इस्लामाबाद, (भाषा) पाकिस्तान ने भारत द्वारा अत्याधुनिक ड्रोन प्रौद्योगिकी विकसित करने पर आज चिंता जतायी और इसे "चिंताजनक" बताया। पाकिस्तान के विदेश कार्यालय के प्रवक्ता मोहम्मद फैसल से साप्ताहिक संवाददाता सम्मेलन में भारत के रूस्तम 2 को लेकर सवाल किया गया था जिसे अमेरिकी प्रोडक्टर ड्रोन की तर्ज पर निगरानी एवं टोह लेने के उद्देश्य से विकसित किया जा रहा है। उन्होंने कहा, "भारत द्वारा ड्रोन प्रौद्योगिकी का विकास करना चिंताजनक है, जब इसे परंपरागत और गैर



के अफगानिस्तान में 'काबुल प्रोसेस' से इतर मुलाकात करने की संभावना है, उन्होंने कहा, "ऐसी किसी भी बैठक की परिकल्पना नहीं की गई है।" भारतीय मीडिया में आयी उस खबर के बारे में पूछे जाने पर कि आने वाले दिनों में भारत के विदेश सचिव पाकिस्तान की यात्रा कर सकते हैं, उन्होंने कहा, "मुझे ऐसी किसी यात्रा की जानकारी नहीं है।" भारत और पाकिस्तान द्वारा वृद्ध, मानसिक रूप से बीमार और महिला कैदियों के आदान प्रदान से जुड़े समझौते की योजना के बारे में पूछे गए एक सवाल पर फैसल ने कहा,

परंपरागत क्षेत्रों में उसके द्वारा निर्माण एवं सैन्य क्षमताओं के विस्तार के संदर्भ में देखा जाता है।" उन्होंने कहा कि ड्रोन प्रौद्योगिकी का इस्तेमाल संयुक्त राष्ट्र चार्टर के सिद्धांतों, अंतरराष्ट्रीय मानवीय कानून एवं किसी जिम्मेदार देश के व्यवहार के अन्य स्थापित नियमों के अनुरूप होना चाहिए। उन्होंने इंडियन मोशन पिक्चर्स प्रोड्यूसर्स एसोसिएशन (आईएमपीपीए) द्वारा पाकिस्तान के अभिनेताओं एवं कलाकारों पर प्रतिबंध बरकरार रखने के निर्णय की भी आलोचना की और इसे "भारत में व्याप्त

अतिवाद और पाकिस्तान विरोधी पूर्वाग्रह का एक और उदाहरण" बताया। फैसल ने कहा कि कलाकारों को प्रतिबंधित करने के बाद कई अन्य फैसले आये जिसमें "पाकिस्तानी श्रद्धालुओं को वीजा जारी नहीं करना, सिख धर्मावलंबियों एवं कटासराज जाने वाले श्रद्धालुओं को सम्मिलित होने की इजाजत नहीं देना तथा खेल मैचों को रद्द करना भारत में बढ़ती असहिष्णुता और व्याप्त पूर्वाग्रह को रेखांकित करते हैं।" इस सवाल पर कि क्या पाकिस्तान और भारत के विदेश सचिवों

"प्रस्ताव पर गृह मंत्रालय गौर कर रहा है।" नियंत्रण रेखा और कामकाजी सीमा पर भारत के "आक्रामक रूख" का न केवल पाकिस्तान बल्कि पूरे क्षेत्र पर प्रभाव पड़ रहा है। "पाकिस्तान भारत के संघर्षविराम उल्लंघनों का मुंहतोड़ जवाब दे रहा है। यह खेदजनक है कि भारत ऐसे कृत्यों का सहारा लेता है जो पूरे क्षेत्र की शांति एवं स्थिरता के लिए हानिकारक हैं।" फैसल ने कहा कि भारत की पाकिस्तान के खिलाफ आधारहीन आरोप लगाने की प्रवृत्ति है।

MAIL TODAY

Nag missiles score the perfect hit

By Ajit K Dubey

Moving closer to induction, the DRDO on Wednesday carried out successful development trials of the indigenously designed and developed Nag anti-tank guided missile in the Pokhran desert where it scored an accurate hit on its target in top attack mode.

"Two Nag ATGMs were successfully test-fired in the Pokhran test firing range in Rajasthan. The first test was conducted at 3:30am, while the second one was done at 11:00am. In the tests, the missile successfully hit a derelict tank in a top attack mode at a short range of 1.5 km," sources in DRDO told Mail Today.

Sources said scoring a front attack hit is regularly done by anti-tank guided missiles, but hitting targets in top attack mode at a short range of 1.5-km range is a big feat in the programme and meets the requirement of the army. Sources said in the top attack mode, the missile hits the tank from where the crew enters into the cabin and that is the most vulnerable point in the heavily armoured machine as generally that area is not covered by the Explosive Reactive Armour, which minimises the damage caused by the missile.

The army, sources said, will carry out some of its own tests on the missile around the summer before it moves on towards inducting the missiles in operational service. Indian Army has a requirement of thousands

of Nag missiles, but how many of the home grown missiles would be inducted in service after completion of trials is not clear yet.

After the successful development of the seekers used for enhancing accuracy in the missile systems by DRDO laboratory Research Centre, Imarat, it has been used in the air-to-air missile Astra, QR-SAM and the Nag.



Wed, 28 Feb, 2018

PBI varsity research gives power to explosives' detection

By Bharat Khanna

Patiala: Detection of 12 types of explosive materials, including TNT, RDX and HMX (octogen), used in blasts by criminals will now be easier, courtesy a new technique developed by scholars from Punjabi University, Patiala, in collaboration with Defence Research and Development Organization (DRDO). With the help of technique, the probe agencies would be able to reach a conclusion over the explosive constituents used in the explosion. It may further help in tracking the criminals behind such acts.

The research conducted by university scholars along with DRDO may also prove helpful to know about the concentration level of explosive constituents in the environment, raising alarm about the probability of cancer. The Rs 15-lakh research project was wholly funded by DRDO. It took around three to conduct the research to detect explosive constituents and the same was published recently this month by an international journal 'Separation Science'.

Researchers claimed that the study would prove beneficial in detecting and analyzing the quantification of explosive contents at a very lower concentration of parts per billion (ppb) in both the environmental as well as biological samples.

Gas chromatography-mass spectrometry (GCMS) and micro extraction with packed sorbent (MEPS) techniques were used to conduct the research. The researchers say that the method had been proving helpful for the defence agencies not only in India, but across the world to detect materials used in the explosive and its concentration level.

"After the bomb explodes at a place, our research will help detect the main constituents of explosive materials used in the blast. This detection will prove beneficial for the investigation agencies to track the case and reach the criminals. After explosion, sometimes the material gets transformed, but our detection method will trace out the transformed materials too," said Ashok Kumar Malik, head of the chemistry department, Punjabi University.

"The explosive testing also leaves its constituents in the soil, water and surroundings and we will be able to detect these at very low ppb level. The contents of explosives can be detected in the blood, urine, and air among the workers who are working at ordinance factories," Malik added.

He said very less work had been done in that regard and the MEPS technique was a new method to trace constituents of explosives at the lowest level of 0.1ppb so far. Gaurav Dhingra, assistant professor at Punjabi University Engineering College in Rampura Phul, said, "I have been working in the field for over 12 years. The research is helpful in the environmental and forensic concerns. This will help in tracing the quantity of explosive constituents in the soil, water or air that can also cause cancer."

Will IAF get more eyes in the sky? Defense ministry to decide today

Seeking to boost indigenous defence capabilities, the defence ministry is expected to consider a proposal worth over Rs 20,000 crore on Wednesday to develop six 'eyes in the sky' Airborne Early Warning and Control System (AWACS) planes to monitor activities of rival air forces deep inside their territories.

"A DRDO proposal to develop six AWACS planes on the Airbus A-330 aircraft worth over Rs 20,000 crore is expected to come up for discussion at a high level meeting of the defence ministry under defence minister Nirmala Sitharaman," a government source told Mail Today.

As per the plan, the DRDO would first develop the two aircraft from Airbus and modify them to fix radar over them which would give them the capability to conduct 360 degree snooping with a range of over 400 km in the sky, sources said.

This would be followed up by another four aircraft which would add to the two Airborne Early Warning and Control (AEWC) aircraft based on the Embraer aircraft. The DRDO-developed aircraft would be in the league of the three Phalcon AWACS planes that India had acquired from Israel and Russia in a tripartite deal around 10 years ago for USD 1.1 billion (Rs 7,154 crore).

India had plans of acquiring two more such planes but the project has been put on the backburner as both countries have increased the price of the radar and the Ilyushin-76 transport aircraft on which the radar is mounted by almost double. The cost of the two planes has gone above USD 1.5 billion (Rs 9,755 crore) whereas the first three planes had been acquired a few years ago for USD 1.1 billion (Rs 7,154 crore).

The next-generation AWACS, with a 360-degree scan being developed by the DRDO, may also be developed as an air-to-air refueller.

The new system being developed by DRDO would have AESA (active electronically scanned array) radars with 360 degree capability, which can detect incoming aerial threats such as hostile fighters, drones and cruise missiles from 400 km away.

India will be only the second country in the world after Israel to develop such a system.

The AWACS being developed on the Airbus aircraft is far more advanced than the surveillance platform developed on the Embraer aircraft as it will provide 360 degree angle of coverage against the 240 degree angle of an AEWC plane. The DAC had earlier given approval to the DRDO's plan to develop two AWACS.

**Thu, 01 March, 2018**

DAC clears proposals for procurement of small arms

The deal, worth over 9,000-cr., includes purchase of Light Machine Guns and carbines

The Defence Acquisition council (DAC) on Wednesday gave approval for various procurement proposals at an estimated cost of about ₹9,435 crore. This includes 41,000 Light Machine Guns (LMG) and over 3.5 lakh Close Quarter Battle (CQB) carbines for the three services.

DAC approval is the first step in the long drawn Defence Procurement Procedure and will take several years for the final deals to be concluded. In the past all these deals have been repeatedly cancelled.

“The vintage of personal weapons, assault rifles, carbines and LMGs being operated by the troops of the three services, especially by soldiers positioned on the borders and in areas affected by militancy has been a cause of concern for over a decade... With the approval of these two proposals, the Government has cleared procurement of the entire range of personal weapons for the three Services, the Ministry said in a statement.

These small arms would be procured under the Buy and Make (Indian) category and of the total quantities envisaged, 75% will be through Indian industry under “Buy and Make (Indian)” category and balance through Ordnance Factory Board (OFB). The cost of carbines and LMGs is ₹4,607 crore and ₹3,000 crore respectively.

The reservation for the OFB has been kept to optimally utilise their infrastructure and capacity, as well as provide a window for assimilation of critical technologies towards building indigenous capability in small arms manufacturing, the Ministry stated.

The DAC also approved the procurement of essential quantity of High Capacity Radio Relay (HCRR) for the Army and Air Force at a cost of over ₹1092 crore and the Coast Guard will get two Pollution Control Vessels (PCV) at an approximate cost of ₹673 crore.

The HCRRs would provide fail-safe and reliable communication along with increased bandwidth in the Tactical Battle Area. The PCVs in addition to carrying out pollution control would also be capable of undertaking patrolling, search and rescue and limited salvage and fire-fighting operations at sea.

Small arms proposals

In the last two months, the Defence Acquisition Council (DAC) had accorded approval for procurement of a series of small arms. The largest deal is for the procurement of 7.4 lakh assault rifles from both OFB and Private Industry at an estimated cost of ₹12,280 crore.

Other approved small arms proposals include 5,917 sniper rifles for the Army and Indian Air Force for about ₹982 crore, 17,000 Light Machine Guns (LMG) for the three Services at an estimated cost of over ₹1,819 crore, and another proposal for 72,400 assault rifles and 93,895 Carbines at a combined cost of ₹3,547 crore.

Of the various small arms, immediate operational requirement for the soldiers deployed on the borders will be procured through fast track route and for the balance production lines will be set up in India.

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Thu, 01 March, 2018

Army Scouting for Full Body Protection Gears

By Shaury Gurung

New Delhi: The Army is looking for an Individual Protection System, comprising ballistic helmet, bodysuit and shoes, for soldiers who face terrorists in Jammu and Kashmir. It will hold a meeting soon with potential manufacturers who would make presentations. The Army intends to procure about 60,000 of the Individual Protection System, the first of its kind in India.

The Army wants that the system to be light to ensure easy mobility and reduce fatigue. It also wants the suit to have the ability to protect soldiers against blasts and also monitor vital health parameters of the soldiers wearing them. The protection system should also have devices to help jawans fight modern warfare. Earlier this month, the Army had released a questionnaire to identify probable Indian vendors who can undertake the project under the ‘make’ category of the Defence Procurement Procedure, 2016.

“A feasibility study will be conducted based on the responses of the vendors. They will be called for presenting their proposals,” said sources dealing with the project. A vendor interaction on the matter will be held on March 13 and thereafter a Request for Proposal will be sent out.



The questionnaire said that the Rashtriya Rifles directorate was seeking the system. The RR is a main counter-terrorist force based in J&K. The questionnaire said that the system should protect soldiers wearing it from 7.62x39mm bullets, used in AK-47 rifles, besides other types of ammunition. A primary weapon of terrorists in J&K is the AK-47.

A key component of the system will have to be the ballistic helmet, which should weigh about 1.2 kg. “The helmet will protect the head, face, neck and ears. It will consist of goggles for protection for the eyes,” reads the questionnaire.

“It should be a single system for best possible outcomes during modern warfare, such as sensors, night vision devices and laser range finders.” Separately, the Army is procuring 1.59 lakh ballistic helmets.

The system’s ballistic body suit should be able to protect at least 80% of the body from ballistic impact, says the questionnaire. The ballistic shoes should protect the lower part of the body from bullet splinters and mine shrapnel. Furthermore, the system should be able to monitor health parameters such as heartbeat, blood pressure and body temperature.

The army’s existing body armour comprises a bullet proof jacket which weighs 5.5kg and does not provide complete protection. The armour also comprises a bulletproof patka which only protects the sides of the head.

Lately, the Army has been focussing on providing its soldiers in combat with components such as more lethality, protection, situational awareness, survivability and mobility. This is important in view of the terrorist strikes on military stations and the fatal casualties caused in such attacks and in countering them.



Thu, 01 March, 2018

Lockheed Martin says offer to build F-16s in India stands firm

By Rahul Singh

Lockheed and Swedish firm Saab are the only two companies exploring opportunities to build F-16s and Gripen in India under the single-engine programme.

At a time when the government seems disinterested to pursue plans to locally produce single-engine fighters in collaboration with a global defence contractor, US military contractor Lockheed Martin on Wednesday said its offer to build F-16 jets in India “stands firm”.

“We haven’t heard anything officially from the government and continue to pursue opportunities to build F-16s under the Make in India framework,” said Vivek Lall, Lockheed vice-president (strategy and business development). India is preparing to launch a fresh hunt for fighter aircraft to sharpen the combat edge of the Indian Air Force that is grappling with a shortage of warplanes, Hindustan Times had reported last week. However, there has been no official announcement.

Lall refused to comment on whether the F-35 stealth fighter was being offered to India, saying it was “a government-to-government conversation.” He, however, said “technology improvements” would continue to flow between the single-engine F-16 and F-35 at the fraction of the cost to F-16 operators. He also said that almost half of the F-16 supply chain was common with the F-35.

Lockheed and Swedish firm Saab are the only two companies exploring opportunities to build F-16s and Gripen in India under the single-engine programme.

Making a renewed pitch for the F-16, Lall said the “exclusive production” of the planes in India represented a significant opportunity to further defence diplomacy as 25 global air forces operated over 3,000 F-16 jets. He said the production of F-16s could begin in India within three years of a deal.

“F-16 production opportunities currently total around 400 (Indian requirement included) in central Europe, South America, Mediterranean and Asia,” he said. What if the government announces it will float a new global tender or take the government-to-government route to buy new jets? “We will still be in that competition. We are here for the long term,” Lall added.

The earlier plan was to pursue two separate projects under the Make in India initiative to build single-engine and twin-engine planes in the country. However, both these plans had not taken off.

The count of the IAF’s fighter squadrons has reduced to 32 compared to an optimum strength of 42-plus units required to fight a two-front war.

India had floated a global tender for 126 planes more than a decade ago but it stood cancelled after Prime Minister Narendra Modi declared in April 2015 that India would buy 36 Rafale jets from France under a government-to-government deal.



Thu, 01 March, 2018

‘Defence Effective Strategic Area of India-Vietnam Ties’

Vietnamese president welcomes India’s efforts in and strong commitments to its Act East policy as well as to enhancing the connectivity and development cooperation with ASEAN

Vietnam cherishes defence partnership with India, President Tran Dai Quang told ET’s Dipanjan Roy Chaudhary in an interview during a visit that will be marked by landmark memorandums of understanding in civil nuclear cooperation and port development. He said Vietnam encourages investments from India and wants India to rank among top ten investors in the country, up from 28th in 2017. Quang’s visit comes just over a month after Vietnamese Prime Minister’s visit to Delhi as India seeks to expand foothold in China’s periphery. Edited excerpts:

How do you view the growth in India-Vietnam defence partnership?

Defence and security have been effective strategic areas of cooperation. India has actively supported Vietnam in training, capacity building, defence technology transfer and defence credit.

How is Vietnam planning to ramp up economic ties with India?

India continues to be among Vietnam’s top ten trading partners as the bilateral trade turnover has increased 16% per annum on average in the past decade. A large number of major Indian firms have established and expanded their footprint in Vietnam. India has given priority to Vietnam in development cooperation and education and training, and paid attention to promoting bilateral cooperation in science and technology, information and communication, energy, oil and gas, agriculture and tourism.

What are the new areas where Vietnam is seeking Indian investments?

India ranked 28th among the 126 countries and territories that invested in Vietnam in 2017, with 168 projects and total registered capital of \$756 million. Many major Indian corporations, including Tata Group,

ONGC and Essar have a sound business in Vietnam. Vietnam encourages more investments from India so that India becomes one of the top investors in Vietnam and the target of \$ 15 billion in bilateral trade by 2020 can be realised. Renewable energy, manufacturing, information technology, infrastructure, to name a few, are India's strengths, for which Vietnam has need. Both sides need to strengthen both bilateral and regional connectivity including air links, roads and maritime links, and digital connectivity.

What is your opinion on India's Act East Policy?

Apart from the bilateral frameworks, both countries have also forged close collaboration and effective mutual support at multilateral fora, especially the United Nations. Vietnam welcomes India's efforts in and strong commitments to its Act East policy as well as to enhancing the connectivity and development cooperation with ASEAN. As the coordinator of ASEAN-India relations for 2015-2018, Vietnam has worked closely with India to drive the India-ASEAN cooperation forward.

India and Vietnam have just completed ten years of Strategic Partnership and one year of Comprehensive Strategic Partnership. What is your evaluation of India-Vietnam relations?

Vietnam and India have enjoyed a long-standing traditional friendship, with various historical and cultural similarities, which was established by President Ho Chi Minh and Prime Minister Jawaharlal Nehru and nurtured by successive generations of leaders and people of both countries. The two countries established the Strategic Partnership in July 2007 and upgraded it to Comprehensive Strategic Partnership in September 2016. The bilateral political relations have gone from strength to strength thanks to regular mutual visits at the high and lower levels through party-to-party, state-to-state, government-to-government, parliament-to-parliament as well as people-to-people exchanges. Bilateral cooperation mechanisms, including the Action Plan 2017-2020, have been effectively implemented, thus facilitating enhancement of bilateral cooperation in various areas.



Thu, 01 March, 2018

Basic Rafale 2016 costs less than 2007, weapons extra: Officials

Sources said that the figure of Rs 525 crore or approximately Euro 79 million per Rafale aircraft which Opposition parties have been citing is based on the manufacturer's 2007 bid at the then exchange rate (1 Euro = Rs 66.60).

By Sushant Singh

The NDA government negotiated procurement of 36 Rafale fighter jets from France, under a government-to-government deal in 2016, for a price lower than the one negotiated by the previous UPA government under a commercial bid by Dassault Aviation, top government sources have told The Indian Express. Sources said that the figure of Rs 525 crore or approximately Euro 79 million per Rafale aircraft which Opposition parties have been citing — they have claimed that the NDA government paid more than what Dassault Aviation had quoted earlier — is based on the manufacturer's 2007 bid at the then exchange rate (1 Euro = Rs 66.60).

This, sources said, was the cost of a “bare” Rafale, without weapons, avionics, radars, missiles and other specific customisations for the IAF.

“The IAF told us that because we were buying only 36 Rafale and not 126, they needed them to be more potent. Meteor missiles, 75 per cent serviceability and some special requirements were insisted upon by the IAF. It even asked for two separate maintenance support flights for redundancy. These imposed additional costs which were not even thought of in 2011. They are two separate packages,” government sources said.

Meanwhile, a senior IAF officer told The Indian Express that a Rafale meets 100 per cent of IAF expectations of a modern fighter aircraft and another 36 Rafale jets would have been ideal for the IAF fleet, in terms of operational capability and reduced logistics support footprint.

But official sources said the NDA government had no intention, as of now, to buy more Rafale fighters anytime soon, and had not initiated any discussion with France on the subject. The decision on buying more fighter aircraft, sources said, had not been taken yet.

The IAF is authorised 42 squadrons of fighter aircraft but is down to 31 squadrons. If no new acquisitions are made, the number will be down to 27 by 2032 and 19 by 2042.

After extensive trials lasting years, the IAF in 2011 found that only the Eurofighter, offered by a consortium of UK, Germany, Italy and Spain, and the Rafale qualified its stringent norms. The deal was to be for 126 aircraft, out of which 18 were to be procured in fly-away condition while the rest were to be assembled in India by public sector HAL. The 2007 bid from Dassault Aviation remained in a sealed cover when it was opened in 2011, along with that of the Eurofighter. The Rafale was found to have made the lower bid and was chosen for price negotiation by the Ministry of Defence.

As per the in-built escalation formula, the 2007 bid for each of the 18 Rafale would have amounted in 2015 to Euro 100.85 million (Rs 765.4 crore at 2015 exchange rate of 1 Euro = Rs 75.90), sources said. Similarly, the 2007 bid price for every Eurofighter would in 2015 have worked out to be Euro 102.85 million, higher than that of the Rafale. In comparison, the price of each of the “bare” 36 Rafale bought in 2016 was Euro 91.7 million (Rs 696 crore at the 2015 exchange rate), lower than both the earlier Rafale and Eurofighter bids.

The additional costs were for the weaponry (Euro 710 million), spare parts (Euro 1,800 million), weather and terrain compatibility fits (Euro 1,700 million), and performance-based logistics support (Euro 353 million), sources said.

Under the 2007 bid, sources said, a fixed escalation of 3.9 per cent per year was envisaged for the entire delivery period of five to six years, while the negotiation in 2015-16 lowered it to an index-based escalation factor of 3.5 per cent. Sources claimed that this resulted in an assured saving of at least Euro 200 million to the exchequer. “We didn’t negotiate with Eurofighter as it would be against the CVC guidelines to deal with the second-lowest bidder. The full price discovery of Rafale had already been done and audit of every sub-component concluded. Going with Rafale was the easiest and the fastest option,” the government source said.—(With ENS, New Delhi)



Thu, 01 March, 2018

No request made to US for F-35 fighter jet, says IAF chief B S Dhanoa

Sources also said that as the IAF is already down to 31 squadrons of fighter aircraft against an authorisation of 42, it is imperative to make the shortfall on an emergent basis. It would thus be best to go for a government-to-government deal to get the next set of fighters.

The Indian Air Force (IAF) has denied that it has shown explicit interest in procuring the American F-35 Lightning II aircraft for its depleting fighter fleet. The reports about IAF approaching Lockheed Martin for a classified briefing on the F-35 came amid news that the government has decided to scrap the proposal to make a single-engine foreign fighter in India.

“We have not officially asked for a briefing on the F-35 nor has any request been made to the Americans,” IAF Chief Air Chief Marshal BS Dhanoa told The Indian Express.

Sources said that buying the next set of fighter jets is a decision to be taken on many considerations, including strategic ones. Financial considerations, when budgetary provisions are limited for any big-ticket procurement by the defence ministry, will also play an important part in any decision-making.

Sources also said that as the IAF is already down to 31 squadrons of fighter aircraft against an authorisation of 42, it is imperative to make the shortfall on an emergent basis. It would thus be best to go for a government-to-government deal to get the next set of fighters.

According to sources, the proposal to buy and make a single-engine fighter was taken two years ago on multiple considerations. These included the cost of a single-engine fighter which is significantly lower than that of a double-engine fighter like Rafale.

Moreover, the cost of operating a single-engine fighter is lesser than that of a double-engine fighter. An early decision on selection would have allowed the IAF to build up its fighter strength, along with the induction of HAL-built indigenous Tejas fighter aircraft.

The government was also looking to kickstart a defence manufacturing ecosystem in the country by building the single-engine fighter fully in India.

The decision to scrap the proposal for a single-engine fighter was taken because the government felt it would result in a single-vendor situation. Although Boeing's F-16 fighter aircraft was in contention along with the Swedish Gripen fighter, the American aeroplane was a non-starter as it does not have a "probe-and-droge" air-to-air refueling system. Moreover, the F-16 is also in service with IAF's adversary in a war, the Pakistan Air Force.

A single-vendor situation, under the Strategic Partnership model with a private Indian company, is unacceptable in the current political environment, sources added. Meanwhile, official sources said that the whole Strategic Partnership model of defence manufacturing is under the government's serious reconsideration.



Thu, 01 March, 2018

Moscow warns against revision of Iran nuclear deal

Russian Foreign Minister Sergei Lavrov on Tuesday warned of dangers which may emanate from a revision of the Iran nuclear deal. "We, like France, consider it necessary to fully implement the Joint Comprehensive Plan of Action (JCPOA) and it would be extremely dangerous to break the deal," Lavrov said at a press conference following talks with his French counterpart, JeanYves Le Drian.

"If there is a desire to discuss some issues concerning Iran in the same format that coordinated the JCPOA, or some other format, it should be done with the obligatory participation of Iran and on the principle of consensus, not ultimatums," he added, Xinhua reported. Iran and six international mediators -- Russia, the United States, Britain, China, France and Germany -- in 2015 reached the historic agreement on the settlement of the longstanding problem of Iran's nuclear energy.

Under the JCPOA, Iran agreed to halt its nuclear weapons programme in exchange for economic aid and the lifting of international sanctions. However, US President Donald Trump has repeatedly accused Iran of violating the deal and threatened to abandon the pact unless it was revised. Despite the Iran nuclear deal, the US has kept on slapping separate sanctions on Iran, accusing the country of having a ballistic missiles programme and human rights abuses. At Tuesday's press conference, Le Drian expressed Paris' concern about Iran's missile programme. "As for ballistic missiles, I'm talking about Iran, this situation worries us very much. I will go to Tehran next Monday," he said.

"I will clearly tell the Tehran authorities: This is a treaty and it must be implemented. Secondly, there is a risk and it is necessary to do everything to avoid this risk," Le Drian said. After signing the JCPOA, Iran has conducted several ballistic missile tests, repeatedly stressing that its missile programme was purely defensive and that Tehran was not going to discuss with anyone issues related to its defence.



Thu, 01 March, 2018

Messages from space: Moon to get 4G mobile network

New Delhi: The moon will get its first 4G mobile network next year, enabling high-definition video to be streamed from the lunar landscape to the earth, part of a project to back the first privately funded moon mission.

Vodafone Germany, Nokia and Audi are working together to support the mission. The companies are working with Berlin-based PTScientists, whose privately funded mission to the Moon is due to launch in 2019 from Cape Canaveral on a SpaceX Falcon 9 rocket.

The 4G network will enable two Audi lunar quattro rovers to communicate and transfer scientific data and HD video while they approach and study NASA's Apollo 17 lunar roving vehicle that was used by the last astronauts to walk on the moon, Eugene Cernan and Harrison Schmitt, in December 1972.

The rovers cannot send the scientific data, HD video and photos they collect directly to earth because it takes too much power. Instead, they will use the 4G network to stream the data to a base station, which will beam it back to earth.

Vodafone's expertise will be used to set up the 4G network, while Nokia Bell Labs will create a space-grade ultra compact network that will be the lightest ever developed – weighing less than one kilo.

Testing by Vodafone indicates the base station should be able to broadcast 4G using the 1800 MHz frequency band and send back the first live HD video feed of the moon's surface, which will be broadcast to a global audience via a deep space link.