

# समाचार पत्रों से चयित अंश Newspapers Clippings

दैनिक सामयिक अभिज्ञता सेवा

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## Full-scale model of Tejas inaugurated

A full-scale model of the light combat aircraft (LCA) Tejas, placed at the city's iconic Minsk Square, was inaugurated by Hindustan Aeronautics Limited (HAL) here on Thursday. T. Suvarna Raju, Chief Managing Director, HAL, unveiled the model that is placed opposite HAL Corporate Office in the busy junction. "The Minsk Square with lush green layout and lighting is maintained by HAL. We are happy to contribute to the city's beautification in our own way. The LCA model now stands as symbolic representation that reflects city's reputation as an aerospace hub of India", said Mr. Raju. Earlier, the Minsk Square housed the model of Ajeet (Gnat) aircraft which was removed due to the metro work in 2009. Now, the single-engined, highly agile, supersonic fighter, which was developed by Aeronautical Development Agency (ADA) in the city and manufactured by HAL, occupies the position beside the sprawling underground station.



A replica of Tejas at Minsk Square in Bengaluru on Thursday.

The Times of India

11 December 2015

## Make in India: \$1 billion Indo-Russian defence deal on cards during Modi's visit

Prime Minister's Narendra Modi's flagship 'Make In India' initiative could receive a significant shot in the arm during his upcoming visit to Moscow later this month, with India and Russia likely to enter into a landmark agreement to jointly manufacture new generation of light military choppers under the initiative. The deal pertains to an inter-governmental contract for producing over 200 Kamov 226 choppers, which was cleared by India's defence acquisition committee earlier this year. "We have been discussing the production of the Ka 226 in India for a long time and we hope that during the visit of the Indian Prime Minister we will sign the agreement. Russian Helicopters and its subsidiaries and component manufacturers are ready to supply kits for its assembly in India as well as to localize production," Deputy Minister Andrey Boginskiy of the Russian Ministry of Industry and Trade was quoted as saying by the Economic Times. Earlier, in December 2014, Deputy Prime Minister of Russia Dmitry Rogozin had noted in December 2014 that India would be producing the Mi-17 and Ka-226T helicopters in India, possibly up to 400 'Kamov' helicopters annually in accordance with the relevant agreement with Russia. This, he said, would be part of the Indian government's ambitious 'Make in India' programme, opened up to the defence sector. "The Kamov 226T helicopter's unique characteristics and particular Indian requirements forced the Indian defence ministry to cancel the tender and decide to produce the Russian copters in India," the Deputy Prime Minister had said. India is in desperate need for light choppers in view of the ageing Cheetah/Chetak helicopters that are deployed to support Army personnel posted at high altitude areas, including the Siachen glacier. Though the initial contract is expected to be for 200 choppers, the number could exceed further due to the massive demand. The initial choppers will be produced from Russian supplied kits but would be progressively indigenised. Modalities including details such as selection of the Indian partner of the deal will be decided later. According to the Russian official quoted earlier, the selection of the Indian partner under the Make In India programme, will depend upon the Indian government. Russia has already told India that it is ready to partner with both Hindustan Aeronautics Limited (HAL) and Anil Ambani owned Reliance Defence for the contract.



## Ministry of defence targets 70% indigenisation by 2027

**Defence Minister Manohar Parrikar, while speaking in Panaji in August, had placed defence exports in 2014-15 at about Rs 630 crore (\$94 million)**

**Ajai Shukla**

Speaking in New Delhi on Monday, the defence ministry's secretary in charge of defence production, AK Gupta, announced an ambitious target to "achieve a level of 70 per cent [defence] indigenisation by 2027." Analysts regard this as unrealistic, considering that Gupta himself estimates that "the indigenous content in total defence capital procurement across all the three services has been hovering around 40 per cent in [the] last couple of years." Pointing out that total indigenisation would be unrealistic, Gupta said, "Practically, it may be possible to achieve 60 per cent indigenous content along with capabilities in crucial technologies like aero engines, avionics, precision electronics, sensors and radar technology etc., in next five years, with a target to reach 70 per cent in further five years." This, he said, would "take volume of defence exports to \$1 billion (Rs 6,675 crore) in five years and \$3 billion (Rs 20,025 crore) in next 10 years." Defence Minister Manohar Parrikar, while speaking in Panaji in August, had placed defence exports in 2014-15 at about Rs 630 crore (\$94 million). Meeting the new targets would involve boosting defence exports 10-fold in five years, and 30-fold in a decade. Gupta presented figures to illustrate the progress towards indigenisation. Compared to 2010-11, when just half of all procurement approvals were in the largely indigenous "Buy (Indian)" and "Buy and Make (Indian)" categories, this went up to 86 per cent in 2013-14 and 94 per cent in 2014-15. Gupta did not mention that, notwithstanding the "Indian" in the names of these categories, "Buy (Indian)" category demands only that the equipment be at least 30 per cent indigenous by value. The "Buy and Make (Indian)" category requires the equipment to be at least 50 per cent indigenous by value. Highlighting the peripheral role played by the Indian private sector, Gupta revealed that 90 per cent of India's total defence manufacturing output comes from the ministry's eight defence public sector undertakings (DPSUs) and 41 ordnance factories. These employ close to 1,60,000 workers. Gupta, however, suggested that things were changing. Since the Indian private sector was allowed into defence production in 2001, "182 Indian companies have been issued 307 industrial licenses for manufacture of licensable defence items till October, 2015. So far 50 companies, covering 79 industrial licenses, have informed about commencement of production." The largest share of 88 industrial licences has been granted in the fields of radar/ electronics systems/ radio/avionics. In addition, 51 licences have been granted for building rockets/missiles/torpedo/air defence guns/unmanned aerial vehicles. Another 38 licences relate to aeronautics; while 37 licences have been granted for night vision/sensor based systems/ optical goods. With offsets frequently cited as a key driver of indigenisation, Gupta revealed, "25 defence offset contracts are under implementation with offset obligations of approximately Rs 29,274 Crore (\$4.87 billion). The (se) offset obligations... extend over a period of 14 years i.e., from 2008-2022." Another 45 cases worth \$8-10 billion approximately are under different contracting stages."

### MOD PROCUREMENT APPROVALS (in ₹crore)

Year	Buy (Indian) & buy and make (Indian)		Buy (global)		Total
	Value	%age	Value	%age	
2010-11	77,546	50.55	40,547	26.43	1,53,388
2011-12	30,593	54.16	20,500	36.29	56,480
2012-13	19,074	31.44	27,114	44.70	60,652
2013-14	23,736	85.96	371	1.34	27,611
2014-15	1,11,070	94.26	6,760	5.73	1,17,830

Source: Ministry of Defence

# India, US to deepen Defence ties

S Rajagopalan

In a new push to deepen India-US defence cooperation and bolster the long-term strategic partnership, Defence Minister Manohar Parrikar held talks with his American counterpart Ashton Carter in Washington on Thursday. At a joint news conference after their meeting at the Pentagon, both leaders voiced immense satisfaction over the "historic steps" already taken this year and the new initiatives under way to expand bilateral defence cooperation in terms of defence production and military exercises. Carter assured the US's willingness to identify further opportunities for co-development and co-production of defence systems under the Defence Trade and Technology Initiative (DTTI), even as Parrikar highlighted the Narendra Modi Government's decisions to raise FDI limits to 49 per cent in the defence sector along with a liberal offsets policy and improved ease of doing business. "US-India defence partnership will become the anchor of global security," Carter said, pointing to the importance Washington attaches to the bilateral strategic partnership. Both sought to highlight the framework defence agreement, signed last June, that will chart the course of bilateral defence relations over the next 10 years. Speaking of complementary initiatives, Carter referred to Prime Minister Modi's "Make in India" policy and the US's DTTI, as also India's "Act East" policy and the US policy of Rebalance to Asia-Pacific. Carter announced that in addition to the Malabar military exercises which the US and India hold jointly annually, India will also participate in the Rim of the Pacific exercise next year, besides returning to the Red Flag premier air to air combat exercise after a gap of eight years. Parrikar said that India today conducts more joint military exercises with the United States than with any other country. Inviting the US industry to take advantage of India's new reform initiatives, Parrikar said immense opportunities have now been opened up for American companies to set up their manufacturing enterprises in India in collaboration with Indian companies. In what is his first US visit as Defence Minister, Parrikar arrived in Washington on Wednesday after a visit to the US Pacific Command headquarters in Hawaii. He was also slated to proceed along with Secretary Carter to Norfolk in Virginia to witness live flight exercises aboard the aircraft carrier, USS Eisenhower.

Punjab Kesari

11 December 2015

## भारत-अमरीकी रक्षा संबंधों में तेजी का संकल्प

वाशिंगटन, (भाषा): भारत और अमरीका के रक्षा मंत्रियों ने आज आतंकवाद की वैश्विक समस्या के अलावा क्षेत्रीय एवं अंतर्राष्ट्रीय सुरक्षा पर विस्तृत बातचीत की तथा दोनों देशों के बीच सैन्य संबंधों को गति प्रदान करने का संकल्प किया। रक्षा मन्त्रिपरिषद् ने कहा कि बंद कमरे में चली डेढ़ घंटे की बातचीत के दौरान उन्होंने और उनके अमेरिकी समकक्ष एश्टन कार्टर ने 'हमारे शस्त्र बलों के बीच सहयोग को समीक्षा की जो अब अब पहले से अधिक मजबूत हो चुका है।' भारत और अमरीका के रणनीतिक साझेदारी साझा करने का उल्लेख करते हुए परिषद् ने कहा, "रक्षा और सुरक्षा सहयोग इस साझेदारी का महत्वपूर्ण हिस्सा है।" दोनों नेताओं ने द्विपक्षीय रक्षा संबंधों

के संपूर्ण पटल पर नजर डालने के साथ ही व्यापक मुद्दों पर चर्चा की। रक्षा मंत्री के तौर पर अपनी पहली अमेरिकी यात्रा के दौरान हुई चर्चाओं के बारे में परिषद् ने कहा, "हमने वैश्विक और क्षेत्रीय सुरक्षा मुद्दों पर विचारों का आदान-प्रदान किया। हमने डीटीटीआई (अमरीका-भारत प्रौद्योगिकी एवं व्यापार पहल) के तहत अच्छी प्रगति की है।"

उन्होंने कार्टर के साथ साझा पत्रकार सम्मेलन में कहा, "मुझे लगता है कि हमने जो 15 महीनों में हासिल किया है वो उल्लेखनीय है तथा शायद एक महीना एक साल के बराबर है।" कार्टर ने भी कहा कि दोनों देशों के बीच संबंध तेज गति से आगे बढ़ रहा है।

# Nuke, defence partnership may boost India-Japan ties

**Jayanth Jacob**

A civil nuclear pact and an agreement to jointly produce US-2 amphibious military aircraft could add momentum to ties between India and Japan during Japanese Prime Minister Shinzo Abe's visit during December 11-13. Officials said "last mile efforts are still on" for concluding the deals. New Delhi sees the nuclear pact as a touchstone to measure the strength of its strategic ties with Japan. The deal is crucial to India as it will help the country further its ambitious civil nuclear programme and enable it to improve ongoing civil nuclear cooperation India has with France and the US. Japanese forging major Japan Steel Works (JSW) is a supplier of critical equipment for reactor pressure vessels for most firms worldwide. Indian officials hope Abe will give the necessary political push for this issue. The nuclear issue, however, is sensitive in Japan, the only country ever to have suffered an atomic strike. Japan wants explicit commitments on testing clauses - that is, the deal will be called off in the event of a nuclear test by India. Japan also wants a guarantee on non-proliferation actions and commitments similar to those India gave to the Nuclear Suppliers' Group for getting an exception from its guidelines in September 2008. It also calls for greater "oversight" on nuclear fuel in reactors under the International Atomic Energy Agency's (IAEA) safeguards. The two sides are expected to discuss enhancing their defence ties. Sources said Abe was a keen supporter of Prime Minister Narendra Modi's "Make in India" initiative and this could lead to the two sides cooperating in the defence manufacturing sector. "The US-2 deal could well be the first such effort where the aircraft can be co-produced in India," said a source. The ShinMaywa US-2 amphibious aircraft is designed for search and rescue operations and intelligence gathering. Japan has pitched the aircraft to the Indian military for some time now. A consortium of Japanese firms is set to get the contract for the Mumbai-Ahmadabad high speed railway corridor. The construction of the project, expected to cost more than \$14 billion, will begin in 2017. It is expected to be completed in 2023. Japan also announced it would double its private and public investments in India to \$35 billion under a bilateral investment promotion partnership over a period of five years during Modi's visit to Tokyo last year. Japan, in competition with China for high speed train technology, had sounded out India on giving yen loans for the project. Infrastructure development, clean energy, terrorism and expansion of the United Nations Security Council are also on the agenda of the summit between the two leaders. Other than Russia, Japan is the only country with which India has an annual bilateral summit.

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**The Hindu**

**11 December 2015**

## India, Japan likely to wrap up talks for amphibious aircraft

**Nayanima Basu**

India and Japan are likely to conclude the long-pending negotiations entailing purchase of amphibious aircraft for \$1.6 billion required by the Indian Navy for search and rescue operations. The deal will be announced during the annual summit meeting between Prime Minister Narendra Modi and Shinzo Abe here on Saturday. Under the multi-billion dollar deal, Japan will supply a fleet of ShinMaywa US-2 amphibious aircraft to India. A total of 15 such aircraft will be purchased. This is will become the first such big-ticket defence deal between India and Japan, if the talks that started in 2011 are concluded. This will also make India the first such country to buy military hardware from Japan as they lift a self-imposed restriction on defence exports. ShinMaywa, which intends to set up a unit here later, is also scouting for Indian partners and have been in talks with HAL, Tata Aerospace, Mahindra and L&T among others. Modi is extremely keen to wrap up this first-ever big-ticket defence deal with Japan even as both sides aim at elevating the bilateral relationship to 'Special Strategic and Global Partnership', a senior official told BusinessLine. However, main attraction of the visit is going to be the announcement of \$14 billion bullet train project, which will be set up between Mumbai and Ahmedabad. The modalities on the financing part of the bullet train project will be worked out subsequently. Apparently, Japan has already assured India granting concessional loans for the project. The bullet train project forms part of the \$35 billion that Japan plans to invest in India over the next five years. Modi is also expected to take up the issue of rising trade deficit with Japan under the Comprehensive Economic Partnership Agreement (CEPA).

## Gen Hooda's China visit to fine-tune LAC channels

**Hotline between Northern Command and PLA to be discussed**

**Ravi Krishnan Khajuria**

Northern Command chief Lt Gen DS Hooda's visit to China from December 14 to 19 will fine-tune communication channels between the Indian Army and the People's Liberation Army (PLA) for quickly resolving stand-offs in Ladakh. A hotline between the Northern Command Headquarters and the PLA may also be established. "Besides fine-tuning military ties, a hotline between the Northern Command and the PLA in the western sector and more mechanisms to quickly resolve incidents of stand-off at the local level will be discussed between General Hooda and his counterpart from the western sector," said a defence source. The Line of Actual Control (LAC) has not been delineated in Ladakh. Therefore, both sides will evolve more efficient ways and methods at the local level to avoid stand-offs, the source added. A defence official pointed out that military ties between the two countries had been constantly improving. "This year both armies have opened two more border meeting points - Chushul and Daulat Beg Oldie (DBO) - in Ladakh and now this visit will further propel the ties," he said. "Since there is no well-defined LAC, incidents of transgression do occur but there is an understanding between us to maintain peace and this visit will further fine-tune coordination at the local level," the defence official said. Till May 4 this year, both sides had witnessed 59 face-offs and 68 incidents of transgression on the LAC in Ladakh. On August, India and China opened their fifth border meeting point at the Daulat Beg Oldie sector in northern Ladakh for local Army commanders to meet and sort out issues amicably. "Lt Gen Hooda will lead a delegation of military officers to China from December 14 to 19 on the invitation of the Chinese government," said defence spokesperson Col SD Goswami said. Lt Gen Hooda and other officers will visit various military and civil establishments in China, including the PLA Headquarters at Beijing and the Lanzhou military region, he said. The delegation will also exchange views on measures to usher in greater peace and tranquillity along the Line of Actual Control in eastern Ladakh and Xingjiang province of China, he said. China had denied visa in 2010 to then Northern Command chief Lt Gen BS Jaswal on the grounds that he was responsible for a "disputed" state.

### On agenda

- \* Lt Gen Hooda (in pic) to lead a delegation of military officers to China on December 14
- \* The Line of Actual Control (LAC) has not been delineated in Ladakh. Therefore, both sides to evolve more efficient ways at the local level to avoid stand-offs.
- \* The delegation to visit various military and civil establishments in China, including the PLA Headquarters at Beijing and the Lanzhou military region



Lieutenant General DS Hooda,  
Northern Army Chief.

## Israel hails Arrow-3 anti-missile test 'success'

Israel's defence ministry says it has successfully tested an advanced ballistic missile defence system. An Arrow-3 missile hit a target above the Earth's atmosphere that simulated the trajectory of long-range missiles like the Iranian Shahab-3. Further tests are expected before the system, which is being developed together with the US, can be deployed. It is the latest layer in Israel's system of shields, designed to protect it from external threats. The Lebanese militant group Hezbollah, which fought a war with Israel in 2006, is reported to have more than 100,000 missiles and rockets which can reach anywhere in Israel. Iran, which calls for Israel's eradication, also has missiles which can reach Israel and beyond. The Israeli defence ministry hailed Thursday's test as a "major milestone". A similar test a year ago failed because the system was not able to lock on to the target. Israel's missile shield also includes the already-deployed "Iron Dome" system that targets short-range rockets fired by Palestinian militants in the Gaza Strip, and the mid-range "David's Sling" that is close to being operational and will target missiles supplied to Hezbollah by Iran.

## New US ballistic missile defense system tested successfully

The U.S. Missile Defense Agency said it successfully completed the first intercept test for Lockheed Martin Corp's land-based Aegis missile-defense system, which is due to be deployed in Romania. The primary objective of the test, which used Raytheon Co's Standard Missile-3 Block IB missile, was to assess the effectiveness of the Aegis Ashore capability, the agency said in a statement. The system uses identical set-ups to those used aboard Aegis Ballistic Missile Defense (BMD) vessels, the primary sea-based component of the U.S. missile defense system. Lockheed is the primary contractor for the Aegis system, which integrates radars, computers, software, displays, weapons launchers and weapons to defend against a range of surface, aerial and underwater threats. The Missile Defense Agency and the U.S. Navy cooperatively manage the Aegis ballistic missile defense program. The test was in collaboration with the U.S. Pacific Command, the U.S. European Command and the Joint Functional Component Command for Integrated Missile Defense. Riki Ellison, founder of the non-profit Missile Defense Advocacy Alliance, said the test, conducted from Hawaii to simulate an intermediate-range missile attack from Iran on southern Europe, was a "significant achievement." He said the test replicated an Iranian Ghadr-110 medium-range missile with a two-stage target missile dropped from a U.S. C-17 aircraft. The interceptor was fired from the Aegis Ashore site in Kauai in Hawaii, he said. Ellison said the test "validated" the European Phased Adaptive Approach missile-defense system to be deployed in Romania next year. The system will include a forward radar based in Turkey and command-and-control from Ramstein in Germany. The United States plans to establish another land-based Aegis system in Poland in 2018. On Tuesday, the United States and Japan conducted a second successful test of Raytheon's new Standard Missile-3 Block IIA missile that is being jointly developed by the two countries, according to two sources familiar with the test. The test marked another milestone toward deployment of the missile on U.S. Aegis destroyers and Japan's Kongo ships in coming years. The Block IIA missile will also be deployed in Poland, Ellison said. U.S. missile defense plans have raised concerns in both Russia and China, which fear they could undermine their nuclear deterrent forces.

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## Kim Jong Un claims North Korea has hydrogen bomb

Kim made the comments as he toured the Phyongchon Revolutionary Site, which marks the feats of his father who died in 2011. North Korean leader Kim Jong Un appeared on Thursday to claim the country has developed a hydrogen bomb, a step up from the less powerful atomic bomb, but outside experts were sceptical. Kim made the comments as he toured the Phyongchon Revolutionary Site, which marks the feats of his father who died in 2011 and his grandfather, state founder and eternal president, Kim Il Sung, the official KCNA news agency said. The work of Kim Il Sung "turned the DPRK into a powerful nuclear weapons state ready to detonate a self-reliant A-bomb and H-bomb to reliably defend its sovereignty and the dignity of the nation," KCNA quoted Kim Jong Un as saying. DPRK is the acronym for the isolated North's official name, the Democratic People's Republic of Korea. A hydrogen bomb, also known as a thermonuclear bomb, uses more advanced technology to produce a significantly more powerful blast than an atomic bomb. North Korea conducted underground tests to set off nuclear devices in 2006, 2009 and 2013, for which it has been subject to U.N. Security Council sanctions banning trade and financing activities that aid its weapons programme. An official at South Korea's intelligence agency told Yonhap news agency that there was no evidence that the North had hydrogen bomb capacity, and believed Kim was speaking rhetorically. Impoverished North Korea and rich, democratic South Korea remain technically at war after their 1950-53 conflict ended in a truce, not a treaty. The North has threatened to destroy the South and its major ally, the United States, in a sea of flames. Despite the underground tests, the North has been seen as short of achieving the capability to put a nuclear warhead on a missile. If the hydrogen bomb claim is true, it would indicate advances in the North's pursuit of nuclear weapons. "I think it's unlikely that they have an H-bomb at the moment, but I don't expect them to keep testing basic devices indefinitely, either," said Jeffrey Lewis of the California-based Middlebury Institute of International Studies at Monterey. It was possible the North was referring to the technology of boosting the yield of a nuclear device, possibly using fusion fuel, Lewis said. North Korea claimed in 2010 that it had successfully developed fusion technology. Assessing progress in the North's nuclear programme is difficult because no one outside a close circle of leaders and experts in Pyongyang knows what advances have been made. The North has also boasted to have succeeded in miniaturisation of a nuclear warhead to mount on a ballistic missile, a claim disputed by U.S. and South Korean experts.

## ISRO to launch six Singaporean satellites on December 16

India will be launching six Singaporean satellites weighing a total of around 625 kg on December 16 evening through its Polar Satellite Launch Vehicle (PSLV) rocket, a senior official said. "It is a commercial launch. The rocket is expected to blast off from the Sriharikota rocket port at 6 pm on December 16. The Indian rocket will be carrying six satellites all from Singapore," a senior official of Indian Space Research Organisation (ISRO), preferring anonymity, told IANS on Thursday. According to him, the major luggage for the PSLV rocket will be the earth observation satellite called TeLEOS, weighing around 400 kg. ISRO will be flying the 'core alone' variant of the PSLV rocket. The rocket will not have the strap on boosters, its standard feature. The December 16 mission will be the last rocket launch mission for ISRO in 2015. Till date in 2015 calendar year, ISRO has launched 14 satellites (3 Indian and 11 foreign) from its rocket port in Sriharikota. Thirteen satellites were launched with PSLV rocket and one communication satellite - GSAT-6-with geosynchronous satellite launch vehicle (GSLV). When the December 16 launch turns successful, then the total number satellite launches from India will be 20. Last month India also launched its communication satellite GSAT-15 using the Ariane rocket of the European space agency which takes the total number of satellite launches in 2015 to 21 (17 foreign, 4 Indian).

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The Asian Age

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## Scientists create the world's first in vitro puppies

By Sarah Kaplan and Fred Barbash

This summer, seven half-pound mutts from six parents tumbled out of the womb of a single mother. This isn't a math problem - it's biology. And it's been solved for the first time by in vitro fertilization for dogs. The technique of fertilizing an egg in a test tube and then implanting the embryo in a woman's womb has been used to help human couples have children since the late 1970s, but scientists have struggled to do the same for canines. The birds and the bees, it would seem, works a little differently in dogs. But team of researchers at Cornell University's College of Veterinary Medicine, working in conjunction with the Smithsonian Institution, managed to tweak the IVF procedure enough to produce the seven healthy IVF puppies - the first in the world, they say. The dogs, born July 10, are a mix of beagle, Labrador and cocker spaniel, according to the Associated Press. "We each took a puppy and rubbed it with a little towel and when it started to squiggle and cry, we knew we had success," Alexander Travis, who runs the lab at Cornell, told the AP. "Their eyes were closed. They were just adorable, cute, with smooshed-in faces. We checked them to make sure they looked normal and were all breathing." The puppies' birth was a reward for years of research into making IVF work for dogs. The problem, the scientists say, is that the canine reproductive cycle differs from that of humans and other mammals. When the female dogs' eggs were extracted at the same stage of their menstrual cycle as is done for humans, the eggs weren't yet ready to be fertilized. According to a Cornell veterinary college press release, the team "found that if they left the egg in the oviduct one extra day, the eggs reached the stage where fertilization was most likely to occur." Altering the cell culture where the egg was fertilized also helped, they wrote. The researchers tout the achievement as having significant implications for wildlife conservation. "We can freeze and bank sperm to conserve the genetics of endangered species" said co-author Alex Travis, a Cornell professor of reproductive biology. The method can also be employed to preserve rare breeds both of show and working dogs. But it's also likely to have consequences for human health. Dogs and humans share some 350 inherited diseases, including cancer and diabetes. Using IVF will allow researchers to more closely examine how the traits that lead to those illnesses are passed down through dog - and ultimately, human - DNA.