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Defence Expo Sees Few Crucial Orders

At India's largest ever defence expo, announcements on possible collaborations between Indian companies and global players are aplenty, but meaningful tie-ups are few, with the industry waiting for government orders to kick off business. More than a dozen announcements on collaborations have been made at the show from a teaming agreement between Sweden's Saab and Ashok Leyland for truck simulators to a memorandum of understanding between MKU and Russian company JSC Shvabe to manufacture electro optical devices. But a lack of new orders has seen few partnerships actually taking off.

After deliberations for over a year, the defence ministry has now almost finalised a new procurement policy. But until it is put into operation and orders are processed, businesses will not take off, industry experts and company executives said. There is also a concern that with a key chapter of annexures that actually detail the process still not framed, the process to start acquisitions may get delayed by a few more months. "It seems that every foreign player is teaming up with every major Indian company, in many cases for the same project," said an Indian industry leader who did not wish to be identified. "But these MoUs will be meaningless till an actual order is given." Over the past year, there has been no major defence tender for procurement that would involve competitive bidding, partly due to the fact that the policy was being framed.

The Economic Times
29 Mar, 2016

IDDM will be a game changer in defence production: Report

QUEPEM (GOA): Indian and foreign players have welcomed the creation of a new category under the Defence Procurement Procedure saying that it will be a game changer for the future, leading to real participation of domestic companies.

The Indigenously Designed Developed and Manufactured (IDDM) category is expected to bring significant investments in R&D and will ensure that the scientific talent in India is engaged in developing cutting-edge technologies in defence, a PwC-ASSOCHAM report said today.

According to the report titled 'Make in India: Achieving self-reliance in defence production', foreign OEMs (Original Equipment Manufacturers) have also welcomed the change but with some suggestions.

They feel this category will have implementation issues as OEMs have moved away from manufacturing systems and components in their factories.

OEMs rely on a global supply chain and have limited influence in mandating suppliers to localise in a given country unless economics and technical capability justify the investment.

"While the industry is upbeat about the IDDM category, some OEMs are apprehensive about achieving the indigenous content of 60 per cent," Dhiraj Mathur, Partner, Leader Aerospace and Defence, PwC India, said.

Defence Minister Manohar Parrikar has however said there should be indigenous content of 40 per cent.

According to the report released at the Defexpo here, the industry also welcomes the proposal to identify select Indian private sector defence manufacturers as strategic partners.

These companies would play central roles in developing complex and strategic systems within the country, or receive technology transferred from foreign suppliers in large defence contracts, it said.

While the government has taken several policy initiatives to lower entry barriers and improve ease of doing business, there is a need to also focus on improving infrastructure to create aerospace and defence hubs, it added.

As per the report, creating clusters is particularly relevant for MSMEs (Micro Small and Medium Enterprises), who supply components and sub-assemblies to the defence PSUs, ordnance factories, DRDO (Defence Research and Development Organisation) and private players.

The palpable change in the government's mindset regarding private players as equal partners rather than competitors to defence PSUs was also highlighted in the report.

It also laid down measures such as aligning tax policies to create synergies. Treatment of private sector as equal partners have the potential to further boost industry sentiment, it noted.

The Indian Express
31 Mar, 2016

Signing of India-US defence agreements: Defence Ministry has a few questions

Both US and Indian officials told The Indian Express that progress on the agreements would be on top of the agenda during US Defence Secretary Ash Carter's visit to India in April.

In the ongoing deliberations over signing of three foundational defence agreements with the United States, the defence ministry and the armed forces have reservations over signing them. Top sources in the ministry and the defence services said that despite a lot of insistence from the US, they are not yet keen to sign on the dotted line.

The three foundational agreements are Communications and Information Security Memorandum of Agreement (CISMOA), Logistics Support Agreement (LSA) and Basic Exchange and Cooperation Agreement (BECA) for geospatial intelligence. The US has signed these agreements with most of its strategic partners.

Both American and Indian officials told The Indian Express that progress on the foundational agreements will be at the top of the agenda during US Defence Secretary, Ash Carter's visit to India in April. US officials confirmed that "both sides are working on them but there are still outstanding issues".

LSA is seen as the most likely among the three agreements to be signed by the two sides. According to US officials, LSA facilitates the provision of logistical support, supplies, and services between the US military and the armed forces of partner countries on a reimbursable basis, and provides a framework that governs the exchange of logistics support, supplies, and services.

Senior Indian officials say that signing the LSA can lead to complications because of the situation in the Middle East. A large number of Indians work in these countries and considering the current situation in the region. If the US were to militarily get involved there and India was bound to provide logistics support to the US military, it would jeopardize the lives of Indians living there.

Indian officials feel that signing of these agreements will lock the country in an irreversible strategic partnership with the US, which is focused on countering the Chinese threat in the region. India, they said, doesn't wish to be seen as a strategic ally of US against China and will thus view its options very carefully.

Officials also point to the US decision to sell eight F-16 fighters to Pakistan. "How can the US be a partner of both Pakistan and us at the same time?," a senior official asked.

Senior officials of the Indian Navy and the Indian Air Force are of the view that there is little to be gained by signing these agreements in the present form. They contend that specific agreements can

instead be signed for various platforms and weapons supplied by the US to allow them to benefit from full transfer of technology.

US officials have been insistent on India signing the foundational agreements for a decade now, since the days of the UPA government. They contend that it will allow them to have seamless technology transfer to India and foster greater strategic cooperation between the two sides.

“For example, CISMOA permits secure communications interoperability between partners during bilateral and multinational training exercises and operations and with the two countries doing so many exercises together, we can take full advantage of our resources. By signing BECA, the two sides will agree to the exchange of topographical, nautical, and aeronautical data and products which will be a huge plus,” said a US official.

The American efforts were resisted during the UPA era by AK Anthony, the then defence minister. After the BJP government came to power in May 2014, American officials have been expecting a positive signal from South Block. It has resulted in increased pressure from Pentagon on the Indian officials, including during the visit by defence minister Manohar Parrikar to the US last December.

Officials told The Indian Express that a paragraph on signing of the LCA, along with a reference to joint patrolling by the two navies, was included in the draft joint statement prepared by the Americans for Carter and Parrikar. The Indian side, however, removed that paragraph and it didn't make it to the final statement issued at Washington DC.

At the end of his visit, Parrikar had told the media that India was “in principle” agreeable to these pacts but some more clarity was required from the US side. Earlier this month, he had stated that these agreements were still under consideration of his ministry and no final decision had been taken so far.

The Tribune
31 Mar, 2016

India US' 'key ally' in maritime security

India has become an important partner in advancing maritime security in the Indo-Pacific region and there was an “unprecedented” US-India cooperation to protect freedom of navigation for all nations, a top American diplomat has said.

“As a regional power that is committed to advancing the rules-based international order, India has become a key player and an important partner in advancing maritime security in the Indo-Pacific,” Assistant Secretary of State for South and Central Asia Nisha Desai Biswal said.

“As such, our bilateral cooperation is increasingly and taking on trilateral and multilateral aspects,” Biswal said yesterday at the Centre for a New American Security, a US think-tank.

Biswal's remarks come just ahead of the visit of Prime Minister Narendra Modi's to the US this week. Modi will lead the Indian delegation at the Nuclear Security Summit hosted by President Barack Obama on March 31 and April 1. “The high-level engagements between our two countries (at the leader-level) since May, 2014, stand at six, including the Nuclear Security Summit this week. We can well see more before the end of the administration,” Biswal said. The area of greatest potential, however, is in maritime security. — PTI

Policy Delay Casts Doubt Over Submarine Purchase

Govt is scouting for options to place more orders for Scorpene and Kilo class boats

Questions are being raised over the future of an ambitious Rs. 60,000-crore plan to make new generation conventional submarines in India as there are delays in formulation of a key policy while the government scouts for options to place more orders for Scorpene and Kilo class boats.

The P 75I acquisition a planned purchase of six new submarine equipped with an air independent propulsion (AIP) system for greater endurance has been identified for the new strategic partnership (SP) model that is being formulated by the defence ministry. However, with the model facing stiff resistance and an uncertain future Defence Minister Manohar Parrikar refused to give timelines for implementation, saying once it goes to the council of ministers for consultation, things will be out of his power the defence ministry has looked at other options.

While Parrikar himself has spoken of a follow-on order of the French Scorpene submarines that are under construction at Mazagon Dock Ltd in Mumbai, the ministry has also had discussions with Russian shipbuilders for a possible Make in India programme to build additional Kilo class submarines. In addition, India has accelerated its nuclear submarine plans with two projects for additional nuclear missile boats as well as nuclear-powered attack submarines being processed at a brisk pace. Officials say the ministry is contemplating two additional Scorpene subs fitted with AIP and has had discussions on two new improved Kilo class submarines to be made in India.

While this would take care of the immediate and critical needs of the navy that has flagged off the underwater fleet as the biggest concern area, these acquisitions, if they go through, would impact the P 75I project.

Naval officers concede that the future of the P 75I programme depends on the speed with which the SP model is pushed through by the ministry. "The only way to process the acquisition is through the SP model, this has been made clear by the minister. While the homework is done and we can move extremely fast on the case, it all hinges on the policy being framed," a senior naval officer said. Though the minister is positive on pushing through the SP model at a fast pace and said a final draft by his ministry would be firmed within 2-3 months, by conservative estimates, the process of obtaining finance and legal ministry clearances and an approval by the cabinet would not be complete before the end of this year.

Deccan Herald
31 Mar, 2016

Modi to attend Nuclear Security Summit today

New Delhi: Prime Minister Narendra Modi will on Thursday and Friday convey to the world community India's concerns over "battlefield nuclear weapons" deployed by Pakistan, pointing out that such moves will raise the possibility of atomic bombs falling into hands of the terrorists.

Modi, who will attend the Nuclear Security Summit in Washington over the next two days, will first speak on the issue during a dinner hosted by US President Barack Obama at White House on Thursday for the leaders attending the conclave. He will present New Delhi's assessment of the threat of nuclear terrorism emanating from the neighbourhood of India.

"The summit would deliberate on the crucial issue of threat to nuclear security caused by nuclear terrorism. Leaders would discuss ways and measure through which to strengthen the global nuclear security architecture, especially to ensure that non-state actors do not get access to nuclear material," Prime Minister said in a statement released in New Delhi ahead of the Nuclear Security Summit.

Modi is likely to tacitly convey India's concerns over development and deployment of tactical nuclear weapons by Pakistan, without directly referring to the neighbouring country.

Pakistan has been developing low-yield and short-range tactical nuclear weapons, ostensibly for possible use in military conflict against India.

The tactical nuclear weapons are designed for use against opposing troops on the battlefield. The strategic nuclear weapons on the other hand are designed for targeting cities in enemy countries. Islamabad in April 2011 announced test of "Hatf-9" or "Nasr" nuclear-capable missile, which was developed to be used at "shorter ranges".

Islamabad indicated that the tactical nuclear weapons had been developed and deployed for use as a deterrent against "surgical strikes" or incursion by India into territory of Pakistan. Ahead of the Nuclear Security Summit, the US reiterated its concerns over deployment of battlefield nuclear weapons by Pakistan.

The Hindustan Times
31 Mar, 2016

THE FOURTH NUCLEAR SUMMIT: WHAT'S AT STAKE?

Obama convened the first Nuclear Security Summit in 2010, followed by Seoul in 2012 and The Hague in 2014

NUCLEAR SECURITY SUMMIT
WASHINGTON 2016
Nuclear Security Summit 2016
March 31-April 1, Washington DC

SIGNIFICANCE?
This will be the fourth in a series of summits that have brought together leaders from 50+ countries and four international bodies to make new commitments towards reducing the threat of nuclear terrorism

NUCLEAR TERRORISM
One of the greatest threats to world security. If any terrorist networks get their hands on a nuclear device, the consequences for the world would be catastrophic

BEST WAYS TO PREVENT THREAT
Locking down nuclear materials and strengthening global nuclear security

KEY TAKEAWAY
The summits pushed for minimising civilian use of highly enriched uranium (HEU), key component used in nuclear weapons, by eliminating the material

Accomplishments since 2009

- Removal of over 3.8 metric tonnes of foreign material by the US and its partners (enough for over 150 nuclear weapons)
- Over 29 metric tonnes of US surplus HEU that the US down-blended (enough for over 1,100 nuclear weapons)
- Approximately 138 metric tonnes of Russian weapons-origin HEU that US experts confirmed was permanently eliminated under the HEU Purchase Agreement (enough for over 5,500 nuclear weapons)
- Over 5.8 metric tonnes of Russian non-weapons-origin HEU that was down-blended with US support (enough for over 230 nuclear weapons)

The Pioneer
31 Mar, 2016

Us Eyes Deeper N Cooperation with India

On the eve of the biennial Nuclear Security Summit that gets underway here in Washington on Thursday, the United States has said that it would like to see “even deeper bilateral cooperation” with India on nuclear issues.

Prime Minister Narendra Modi and leaders from more than 50 countries will be attending the two-day summit, a brainchild of President Barack Obama that was launched in 2010 with the aim of preventing nuclear terrorism, safeguarding nuclear material and countering nuclear smuggling.

“We are certainly looking forward to Prime Minister Modi’s visit. And we are looking at this opportunity as a chance to highlight steps that India has taken in its own nuclear security to go beyond, perhaps, some of the activities that it has done before,” Laura Holgate, Special Assistant to the US President, said during a preview of the fourth and final summit under Obama’s stewardship.

“We really would like to see even deeper bilateral cooperation with India proceed going forward out of the summit. So, I hope that will be something that we can work on more closely going forward,” Holgate told reporters at the Foreign Press Centre.

A senior State Department official, replying to a question relating to Pakistan, reiterated US concerns over its “continuing deployment of battlefield nuclear weapons” — an issue that had figured at a recent Congressional hearing.

“When battlefield nuclear weapons are deployed forward, they can represent an enhanced nuclear security threat. It’s more difficult to sustain positive control over systems that are deployed forward,” Under Secretary of State for Arms Control and International Security Rose Gottemoeller said.

Noting that this was a lesson learned in Europe during the years of the Cold War, Gottemoeller said: “It’s not related particularly to any one country. Wherever battlefield nuclear weapons exist, they represent particular nuclear security problems.”

This concern notwithstanding, Gottemoeller spoke of “a very solid cooperation with Pakistan on nuclear security”, saying Islamabad has in recent years developed its own Nuclear Security Centre of Excellence and has “quite a mature capability now”.

A fact sheet put out by the White House said the summit community of more than 50 world leaders has built “an impressive track record in meaningful progress towards nuclear security, and on actions that back up our words”.

“The international community has made it harder than ever for terrorists to acquire nuclear weapons, and that has made us all more secure,” it noted. Collectively, summit participants have made over 260 national security commitments in the first three Summits, with nearly three-quarters of them having been implemented thus far.

“These outcomes nuclear material removed or eliminated, treaties ratified and implemented, reactors converted, regulations strengthened, Centres of Excellence launched, technologies upgraded, capabilities enhanced — are tangible, concrete evidence of improved nuclear security,” the document noted.

Deputy National Security Advisor Ben Rhodes, outlining the summit agenda during a conference call with reporters, said that in addition to nuclear security and nuclear energy, the meetings will focus on promoting denuclearization on the Korean Peninsula and lifting up the successful efforts to prevent proliferation of nuclear weapons to Iran.

Speaking of the efforts to secure nuclear materials from terrorist organisations and other bad actors, Rhodes referred to the 2,000-odd metric tons of nuclear weapons usable materials — highly enriched uranium and separated plutonium — that are present in both civilian and military programmes around the world.

Being Pivot in Nuclear Security

By Mayuri Mukherjee |

India has an opportunity to take on a global leadership role against the spread of nuclear weapons. For that, it has to be more transparent about its own nuclear security and safety, especially as nuclear power becomes a bigger part of the country's energy basket

The fourth Nuclear Security Summit comes at an important time in India's own nuclear history and diplomacy. At one level, India, now no longer a nuclear pariah state, is seeking to integrate itself into the global non-proliferation architecture. It is seeking memberships to four of the main global nuclear clubs — the Nuclear Suppliers Group, the Missile Technology Control Regime, the Australia Group and the Wassenaar Arrangement — as well hoping to play a more prominent role in nuclear diplomacy. India's has already streamlined its export control lists so that they are more or less in sync with the lists maintained by the global technology control regimes. However, there are political issues that need to be addressed before India can accede to these clubs.

At another level, India is now looking to leverage nuclear power in a big way to fuel its domestic needs in a sustainable manner. Currently, nuclear is just a small segment in India's energy basket just 4.8 GW of the total installed power generation capacity of 240 GW. The plan is to increase those figures to 60GW of 1200GW by 2035. That still won't be even 10 per cent of the total basket but it will be an important element nonetheless. It is against this backdrop that India's role at the NSS must be seen.

To be held on March 31 and April 1 in Washington, DC this is the fourth and in all probability the final in a series of summits that aimed to secure nuclear weapons, fissile material, and nuclear facilities so that terrorists couldn't use them to wreak havoc. The NSS was US President Barack Obama's initiative, which built on his predecessor's legacy. After 9/11, the Bush Administration brought out two important nuclear security pacts — a 2005 amendment to the Convention on Physical Protection of Nuclear Material which requires states to physically protect nuclear materials on their territory, and the International Convention for the Suppression of Nuclear Terrorism which facilitates judicial actions related to nuclear terrorism.

In 2009, President Obama while speaking in Prague, said that nuclear terrorism was “the most immediate and extreme threat to global security” and announced “a new international effort to secure all vulnerable nuclear material around the world within four years.” In 2010, the first NSS was organised. Forty-seven nations, including India, and three international organisations participated. This was followed by another summit in 2012 in Seoul, and a third one in 2014 in The Hague. Except for the 2014 conference, India was represented by its Prime Minister at all others — an indication of the importance that New Delhi attaches to the NSS.

An interesting aspect of the NSS was that of the ‘house gift diplomacy’ wherein participants themselves bring to the table political commitments or national pledges on specific issues such as nuclear forensics or nuclear smuggling, instead of everybody having to sign on one master document. Since the Seoul summit, groups of participants have also come together with a bundle of pledges, making for some ‘gift basket diplomacy’.

At the first NSS in 2010, for example, India's promised a Global Centre for Nuclear Energy Partnership. This Centre is being set up in Bahadurgarh, Haryana, and is expected to begin operations from April 2017, though it has already been doing off-campus programmes and workshops since 2011. In December 2010, India also placed in a safeguarded facility its enriched uranium-based fuel used in the Apsara reactor. The reactor no longer uses Highly Enriched Uranium. In 2012, India made a voluntary contribution of a million dollars to the Nuclear Security

Fund. However, India has not just joined any of the ‘gift baskets’ though it may reportedly join at least three this year.

Overall, the NSS process has produced mixed results bringing some tangible deliverables to the table but still falling short of its larger goal. Among its achievements, the NSS lists the following: Removal and/or disposition of over 3.2 metric tonnes of vulnerable HEU and plutonium material; completely removing HEU from 12 countries; verified shutdown or successful conversion to low enriched uranium fuel use of 24 HEU research reactors and isotope production facilities in 15 countries including India; completion of physical security upgrades at 32 buildings storing weapons-usable fissile materials; and installation of radiation detection equipment at 328 international border crossings, airports, and seaports.

An important deliverable, or gift basket rather, was the Strengthening Nuclear Security Implementation Initiative that was signed at 2014 summit by two-thirds of the participants, who pledged to meet follow the Atomic Energy Agency’s security recommendations and accept regular reviews of their nuclear security arrangements. Notably, India didn’t sign the initiative but that same year, it ratified an Additional Protocol with the International Atomic Energy Agency which had been in the works for five years. This Additional Protocol which will surely be highlighted by Prime Minister Narendra Modi in Washington this year covers 20 facilities that include the Nuclear Fuel Complex in Hyderabad, the Tarapur atomic power plant, the Rajasthan Atomic Power Station, the Kakrapar Atomic Power Station, and both units of the Kudankulam power plant.

At the NSS this year, the focus will understandably be on the big picture: The deliberations haven’t produced a treaty and many of the commitments are vague with much wriggle room. There are also many areas like cyber threats to nuclear security that remain unresolved. Still, there is no doubt that the NSS process gave high-level political momentum to the issue of nuclear security.

Now, the question is: How to take the process forward? Five institutions are expected to take up the task — The IAEA; the Global Initiative to Counter Nuclear Terrorism (a group focused on exercising existing capabilities and sharing best practices); the UN (specifically a committee that enforces UNSC resolutions calling on states to prevent terrorists from gaining access to weapons of mass destruction); the international law enforcement organisation Interpol; and the G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (a funding group).

Additionally, a Nuclear Security Contact Group comprising of the Sherpas the senior officials who developed the summit outcomes and prepped their leaders will also be formed. They’ll ensure that past promises are effectively implemented. India will be in this group, which will also be open to those countries that weren’t part of NSS process.

India has an opportunity to take on a leadership role at this stage. However, for that, it has to be more transparent about its own nuclear security and safety. This is not to suggest that the security situation here is bad (although some international experts are of that opinion) but that the Government should allow for more transparency not just to boost international confidence but also to allay concerns at home, especially now that nuclear power will be a bigger part of India’s energy basket.

The shutdown at the Kakrapar Atomic Power Station in Surat, after the heavy water used to cool the nuclear reactor leaked, earlier this month, highlights the urgency of the situation. Indeed, in 2012, the Central Information Commission had directed the Nuclear Power Corporation of India Limited to release two reports on the safety assessment systems at the Kudankulam nuclear power plant. The nuclear operator responded with a court order staying the CIC’s directive and arguing that making the report public would hurt strategic interests. This was odd given that, after 2011 Fukushima accident, the Atomic Energy Regulatory Board had already uploaded on its website a comprehensive report on the safety of our reactors.

Pak. nuke deployment raises threat: U.S.

As leaders from more than 50 countries are set to discuss measures to prevent nuclear terrorism, the U.S. said the battlefield deployment of nuclear weapons by Pakistan was an enhanced threat though it has taken several other measures to prevent nuclear material from falling into the hands of terrorists.

Senior U.S. officials, briefing journalists on the agenda and expected outcomes of the fourth Nuclear Security Summit, however, said the risks of nuclear terrorism have been substantially reduced over recent years, thanks to measures taken by various governments and agencies, including Pakistan.

Prime Minister Narendra Modi will be leading the Indian delegation to the summit. Pakistan Prime Minister Nawaz Sharif cancelled his trip to the U.S. capital following the terrorist attack in Lahore on Easter Sunday.

Deeper cooperation

Laura Holgate, Special Assistant to the President and Senior Director at the National Security Council, said the U.S. was looking at Mr. Modi's presence as "a chance to highlight steps that India has taken in its own nuclear security to go beyond, perhaps, some of the activities that it has done before."

"We really would like to see an even deeper bilateral cooperation with India proceed going forward out of the summit," she said.

Rose Gottemoeller, Under Secretary of State for Arms Control and International Security, said forward deployment of nuclear weapons enhances the risks.

"Our concerns regarding the continuing deployment of battlefield nuclear weapons by Pakistan relate to a reality of the situation: When battlefield nuclear weapons are deployed forward, they can represent an enhanced nuclear security threat," she said.

"We found this lesson ourselves out in Europe during the years of the Cold War. And so I do think that that is a reality of the situation. It's not related particularly to any one country. Wherever battlefield nuclear weapons exist, they represent particular nuclear security problems," the Under Secretary said.

Pakistan continues to reject repeated U.S. calls to hold back its deployment of tactical nuclear weapons.

Ms Gottemoeller, however, added that the U.S. has "a very solid cooperation with Pakistan on nuclear security." "They have developed their own Nuclear Security Center of Excellence in recent years. It has quite a mature capability now. We continue to work with them on the nuclear security front," she said.

The U.S. officials did not elaborate the nature of the "deeper" bilateral relations that it sought with India and the further measures it expected India to take. "I'll let India speak for itself on those points. We're eager to work with any country who wishes to work with us to improve nuclear security," Ms. Holgate said.

Doval meets Rice

Meanwhile, Indian National Security Advisor Ajit Doval met U.S. National Security Advisor Susan E. Rice on Tuesday.

“Ambassador Rice and NSA Doval exchanged views on the terrorist threat posed by ISIL [Islamic State] in the region and the importance of combating the ideology that fuels such groups,” a White House statement said.

The Hindustan Tiems
31 Mar, 2016

Xi Jinping headed for summit, talks on North Korea on cards

Beijing: President Xi Jinping will join around 50 world leaders in Washington on Thursday for the fourth Nuclear Security Summit and hold a bilateral meeting with his US counterpart Barack Obama amid growing concerns over a belligerent North Korea and nuclear terrorism.

Prime Minister Narendra Modi too will join the summit that will focus on the global nuclear security situation.

Xi will deliver a keynote speech at the plenary meeting, laying out Beijing’s policies and propositions, and according to the foreign ministry, “introducing China’s new measures and achievements in the field of nuclear security and putting forward substantial initiatives to strengthen global nuclear security”.

Much of the real action during the two-day summit is likely to be on the sidelines, where Xi is slated to meet Obama to discuss a wide range of issues, including Pyongyang’s tests of a nuclear bomb and a battery of missiles.

There is no confirmation whether Modi and Xi will meet on the sidelines as well.

The focus will be the ObamaXi meeting, where the outgoing US President is likely to urge the Chinese leader to take a stronger stand against N Korea, its reclusive — and experts say, rogue — ally.

“If North Korea has already become a nuclear power that gives the US a strong excuse to basically do something in South Korea or to strengthen Japan,” Xu Guoqi, a US-China relations expert at University of Hong Kong, told the South China Morning Post.

Vice foreign minister Li Baodong told a recent briefing that Xi would also attend a nuclear security-related “interactive discussion on simulative scenes”.

China has been critical of the US’s handling of the terrorrelated security situation, connecting it with nuclear security as a whole.

The Hindu
31 Mar, 2016

‘Address root causes of nuke terror’

By Atul Aneja

Chinese state media has slammed the U.S. for its approach to counterterrorism ahead of Thursday’s fourth Nuclear Security Summit, amid concerns that extremist groups could now blow up atomic power plants in the aftermath of the recent bombings in Belgium.

A commentary on Wednesday in the state-run Xinhua news agency stressed that Washington was focusing on fighting symptoms rather than the root causes of nuclear terrorism threats.

“As world leaders grapple with intensified nuclear security threats, they should not be distracted by the immediate urgency of safeguarding nuclear facilities and slack off in addressing the fundamental problem of terrorism,” observed the agency.

President Barack Obama is hosting the fourth and last two-day nuclear security summit in Washington. China’s President Xi Jinping and Indian Prime Minister Narendra Modi are also

participating in the event, where Japanese President Shinzo Abe and South Korean President Park Geun-hye are among the invited guests. President Obama will hold talks with President Xi, along with a trilateral meeting with guests from Tokyo and Seoul — a mini-summit on the sidelines that is bound to focus on the escalating nuclear crisis in the Korean Peninsula.

Despite flaying Washington, it is evident that mutual accommodation is also part of the complex Sino-U.S. nuclear story. *People's Daily*, China's official newspaper, on Wednesday listed five areas of institutional cooperation that have contributed in the development of peaceful nuclear technology and curbed proliferation of atomic weapons. First, China and the U.S. have established an annual dialogue mechanism on nuclear security. Second, the two countries have established a China-based nuclear security centre, which began operations earlier this month.

Besides, nuclear waste management is a joint priority, along with curbing illicit trafficking of nuclear material. The daily said that a training centre on radiation detection has been established at the port of Qinhuangdao in North China's Hebei Province to counter nuclear smuggling.

Deccan Herald
31 Mar, 2016

'Missiles key to Iran security'

Iran's supreme leader said on Wednesday that missile power was key to the country's future security, slapping down moderates who say the focus should be on diplomacy, AFP reports from Tehran.

Ayatollah Ali Khamenei, who has the final say in all matters of state in Iran, praised the powerful Revolutionary Guards for their "show of advanced and precise missiles" in recent tests that drew Western criticism.

"In this jungle-like world, if the Islamic republic seeks negotiations, trade and even technology and science, but has no defence power, won't even small countries dare threaten Iran?"

Khamenei said in remarks published on his official website. "Our enemies are constantly enhancing their military and missile capabilities and given this how can we say the age of missiles has passed?"

His comments appeared aimed at ex-president Akbar Hashemi Rafsanjani, a senior leader of the reformist and moderate camp, who last week tweeted: "Tomorrow's world is the world of dialogue not missiles."

The Hindu
31 Mar, 2016

Microsoft outlines intelligence vision for Windows 10

"This significant update will help you interact with your Windows 10 devices as naturally as you interact with the world around you — using your pen, presence and voice."

Microsoft's India-born CEO Satya Nadella on Wednesday outlined the technology giant's vision to combine the power of human language with advanced machine intelligence as he announced new updates to the operating system Windows 10 to create more personal computing for every customer.

"As an industry, we are on the cusp of a new frontier that pairs the power of natural human language with advanced machine intelligence," Mr. Nadella said in his keynote address to thousands of developers at Build 2016, its annual mega-gathering of developers that kicked-off on Wednesday where the company presents its latest tools and technologies.

“At Microsoft, we call this Conversations as a Platform, and it builds on and extends the power of the Microsoft Azure, Office 365 and Windows platforms to empower developers everywhere,” Mr. Nadella said.

Mr. Nadella and executive vice president of Windows and Devices Group Terry Myerson outlined to the developers Microsoft’s strategy about the work it is doing to help them embrace the era of conversational intelligence and create more personal computing for every customer, industry and business.

Mr. Nadella showcased improvements to Cortana and announced previews of new cloud services and toolkits designed to create intelligent bots. Myerson announced the Windows 10 Anniversary Update, aimed to deliver significant new innovations for consumers and developers for the Universal Windows Platform.

The update will be available later in the summer.

“With Windows 10 now running on over 270 million active devices, we’re celebrating with our fans by delivering the Windows 10 Anniversary Update. This significant update will help you interact with your Windows 10 devices as naturally as you interact with the world around you — using your pen, presence and voice,” Mr. Myerson said.

“We are dedicated to making Windows the most productive development environment for all developers, with all-new capabilities for the Universal Windows Platform and all—new tools for bringing apps to Windows 10 from any platform.”

Speaking of Microsoft’s “more personal computing vision”, Mr. Nadella said Windows 10 “is off to an amazing start” with over 270 million active devices, outpacing Windows 7 by 145 per cent. Customers have spent more time in Windows 10 than ever before — over 75 billion hours since its launch eight months ago. The Windows 10 Anniversary Update features innovations for Windows Ink, Cortana, Windows Hello and gaming.

Microsoft introduced the ‘Cortana Intelligence Suite’, formerly known as the Cortana Analytics Suite, powered by research into big data, machine learning, perception, analytics and intelligent bots.

Built on Microsoft Azure, the company said these capabilities can be used by developers and businesses to create intelligent end-to-end solutions, including new apps that learn about the world around them and bots and agents that interact with people in personalised, intelligent ways.

Among the new additions to the Cortana Intelligence Suite, is the ‘Microsoft Cognitive Services’, which is a collection of intelligence Application Program Interface (APIs) that allows systems to see, hear, speak, understand and interpret the users’ needs using natural methods of communication.

The ‘Microsoft Bot Framework’, can be used by developers programming in any language to build intelligent bots that enable customers to chat using natural language on a wide variety of platforms including text/SMS, Office 365, Skype, Slack, the Web and more.

Microsoft executives also spoke about ‘Seeing AI’, a research project under development that shows how new capabilities can help people who are visually impaired or blind better understand who and what is around them. Microsoft released the ‘Skype Bot Platform’, through which developers can build bots that leverage Skype’s multiple forms of communication, including text, voice, video and 3-D interactive characters.

Among the features that will become available this summer when the Windows 10 update becomes broadly available is the new Cortana with features that will enable the user to receive proactive guidance from Cortana throughout the day and speak with the virtual assistant, even while the device is locked, without logging in.

Microsoft also announced it began shipment of the Microsoft HoloLens Development Edition for the first time, “extending the Windows experience to holograms and allowing developers to begin helping build the future of holographic computing.”

Microsoft highlighted commercial customers in several industries that are using HoloLens, including NASA. Microsoft further shared all-new capabilities for the Universal Windows Platform, including full access to Cortana’s proactive intelligence and the Windows 10 Anniversary SDK, which offers all-new APIs and tools to integrate the latest Windows 10 innovations into apps, including Windows Ink and Windows Hello.

The Asian Age
31 Mar, 2016

Universal flu vaccine comes a step closer

Scientists have developed a vaccine that protects against multiple strains of both seasonal and pandemic H1N1 influenza in mouse models, an advance that may lead to a universal flu vaccine.

“One of the problems with current influenza vaccines is that we have to make predictions about which virus strains will be most prevalent every year and build our vaccines around those predictions,” said Ted Ross, from University of Georgia in US.

“What we have developed is a vaccine that protects against multiple different strains of H1N1 virus at once, so we might be able to one day replace the current standard of care with this more broadly cross-protective vaccine,” Mr Ross said.

The H1N1 influenza virus caused a worldwide pandemic in 2009. When it was first detected, it was called swine flu because the virus was similar to those found in pigs, but the virus now circulates as a seasonal form of influenza.

Using a technique called Computationally Optimised Broadly Reactive Antigen (Cobra), researchers created nine prototype synthetic compound vaccines constructed using genetic sequences from multiple influenza virus strains.

The Cobra vaccines were designed to recognise H1N1 viruses isolated within the last 100 years, but many of the experimental vaccines produced immunity against influenza strains not included in the design.

This means that scientists may be able to produce a vaccine that not only protects against recognised seasonal and pandemic influenza strains, but also strains that are yet to be discovered.

Since this vaccine is generated from the genetic sequences of multiple flu viruses, it may protect against many strains over several years, Ross said.

That would also allow for year-round manufacturing of the vaccine, since scientists would not have to halt production every year to identify the most prevalent strains.

The research is part of a broader effort to create a universal influenza vaccine, which would protect against all strains of the virus.

“We still have some work to do before we get a truly universal flu vaccine,” Ross said.

“But the COBRA vaccine we’ve developed for H1N1 virus subtypes is a major step in the right direction,” he said.

Earth-space eye in sky spots quasar jet

Washington: Scientists have created a virtual Earth-space telescope system with the highest resolution of any astronomical observation ever made, that helped unveil an unusually hot quasar jet in the Milky Way.

Researchers combined the Russian RadioAstron satellite with the ground-based telescopes to produce a virtual radio telescope more than 160,934 kilometres across.

"The amazing resolution we get from RadioAstron working with the ground-based telescopes gives us a powerful new tool to explore not only the extreme physics near the distant supermassive black holes, but also the diffuse material in our home galaxy," said Michael Johnson, from Harvard-Smithsonian Center for Astrophysics in US.

They pointed this system at a quasar called 3C 273, more than 2 billion light-years from Earth. Quasars are supermassive black holes at the cores of galaxies.

Quasars like 3C 273 propel huge jets of material outward at speeds nearly that of light. These powerful jets emit radio waves.

Just how bright such emission could be, however, was thought to be limited by physical processes. That limit, scientists say, was about 100 billion degrees.

The researchers were surprised when their Earth-space system showed a temperature hotter than 10 trillion degrees.

"Only this space-Earth system could reveal this temperature, and now we have to figure out how that environment can reach such temperatures," said Yuri Kovalev, the RadioAstron project scientist.

This result is a significant challenge to current understanding of quasar jets.

The observations also showed, for the first time, substructure caused by scattering of the radio waves by the tenuous interstellar material in our own Milky Way Galaxy.

"This is like looking through the hot, turbulent air above a candle flame," said Johnson.

The RadioAstron satellite was combined with the Green Bank Telescope in West Virginia, The Very Large Array in New Mexico, the Effelsberg Telescope in Germany, and the Arecibo Observatory in Puerto Rico.

दिल्ली हाट में बनेगा कलाम का संग्रहालय

नई दिल्ली, (ब्यूरो): दिल्ली सरकार ने मिसाइल मैन डॉ. एपीजे अब्दुल कलाम की व्यक्तिगत चीजों को तमिलनाडु के रामेश्वरम स्थित उनके घर से अगले महीने दिल्ली लाया जाएगा। तकरीबन दो महीने तक इसे दिल्ली विधानसभा में सुरक्षित रखा जाएगा। उसके बाद आइएनए स्थित दिल्ली हाट में डॉ. कलाम के नाम पर बनने वाले संग्रहालय जिसे ज्ञान केंद्र नाम दिया जाएगा, उनमें रखा जाएगा।

CLOSER TO MARS



WHY STUDY MARS?

Mars' formation and evolution are similar to Earth's

Mars had conditions suitable for life in its past, and future exploration could uncover evidence of life

NASA reached a milestone in its journey to send humans to Mars when it completed a review of ground control systems that will help launch a powerful spacecraft

'SPACEPORT OF THE FUTURE'

NASA's Space Launch System, or SLS, is an advanced launch vehicle that can propel humans beyond Earth's orbit into deep space

It is the world's most powerful rocket and will launch astronauts in its Orion spacecraft on missions, first to an asteroid and eventually to Mars

It has the highest-ever payload mass, volume capability and energy to speed missions through space

STATUS OF MISSION

December 2015: The Ground Systems Development and Operations Program (GSDO), which will ensure systems and facilities are ready for launch, completes a design review

January 2016: A team of experts assess mission's readiness and confirmed the programme is on track

February-March 2016: Engineers are transforming the Kennedy space station's infrastructure to support SLS and Orion

THE NEXT GIANT LEAP

NASA IS DEVELOPING the capabilities needed to send humans to an asteroid by 2025, and Mars in the 2030s aboard Orion, the first spacecraft built for astronauts destined for deep space

NASA'S PATH FOR HUMAN exploration of Mars begins in low-Earth orbit aboard International Space Station, where astronauts are testing technologies and the effect of long stays in space on the human body

IN THE SECOND STAGE, NASA will send a robotic mission to redirect an asteroid to orbit the moon. Astronauts will explore this asteroid in the 2020s and return to Earth with samples.