
中华人民共和国万岁
世界人民大团结万岁
FUTURISTIC
MILITARY
COUNCIL

LETTER FROM THE EXECUTIVE BOARD

It is with great pleasure that we welcome you to the Futuristic Military Council (Hereafter, the FMC) of this edition of BITS-MUN, Hyderabad. The Futuristic Military council is set about a decade from now – in the not do distant future – where actions by the People's Republic of China bring the world onto the fringes of World War 3. With the usual lines of diplomacy and negotiations having failed, this ad-hoc Emergency Response Committee has been summoned with heads of state and other important stake-holders to try and achieve a lasting peace.

The council consists of both Heads of State and Heads of various institutions and private companies. Each of them have their own agendas and objectives, some sinister, others noble. It is up to these representatives to bring the world back from the brink of disaster and into salvation.

Some of the corporations listed here have more influence and power than some national governments. With billions of dollars or control over vital resources, these Corporations not only control their national government policy, but in some cases decide who leads their country (symbolically, of course!). Heads of State in this committee will have to consider all these parameters and then work towards a result oriented debate.

This committee will be in the form of a Continual Crisis Committee (CCC) and regular updates will be released from time to time. Delegates have to therefore prove themselves to be dynamic and understand their countries' Foreign Policy and power/ limitations, as well as those of their friends and rivals.

NOTE: Being a Continual Crisis Committee (CCC), we shall not be following the UNA-USA Rules of Procedure (RoP) stated in the delegate handbook. A new set of simpler RoP will be released 2 days prior to the event on the Facebook group for this council. Additional briefing will be done on the first day of the council.

Wishing you all the very best! May the Force be with you!

- **Executive Board.**

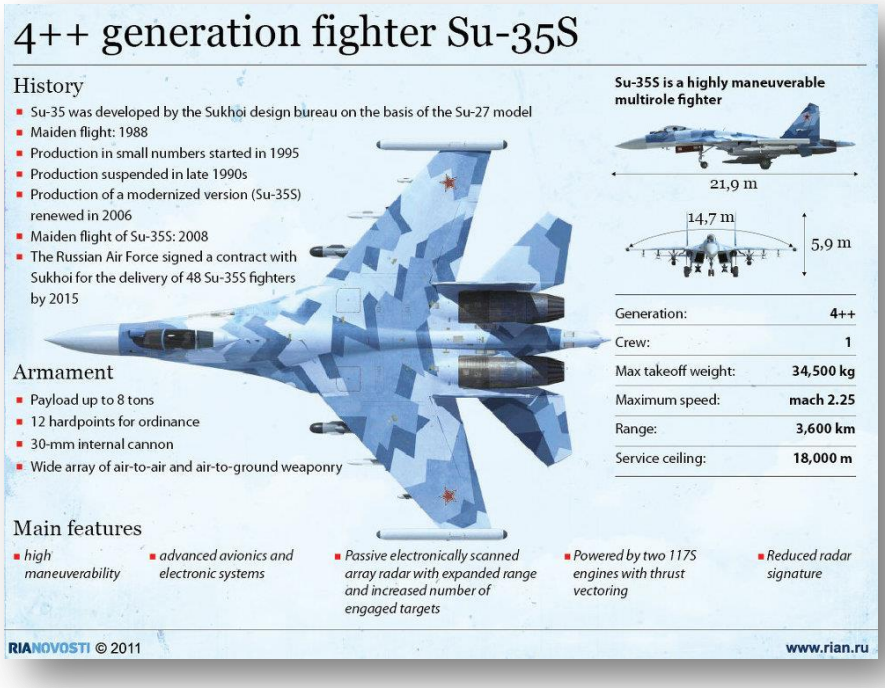
TIMELINE OF EVENTS

YEAR 2014

- **November:** In 2012, the FAA Reauthorization Act passed into law in America. This legislation was the result of a huge push by lawmakers and defence companies to massively expand the use of drones – making it far easier for federal, state, local police and other agencies to fly them in U.S. airspace. Not only that, but commercial entities would also have drone authorisation from 2015 onwards. These unmanned aerial vehicles (UAVs) have been used extensively in Afghanistan and other military operations. In domestic U.S. airspace, they are deployed mainly for border and counter narcotics surveillance, but also in a variety of other public safety missions, such as disaster relief efforts, locating missing climbers or hikers and combating forest fires.

In Picture: Aeryon Scout (a small man-packable flying robotic reconnaissance system)

Many drones feature highly advanced monitoring equipment, infrared, heat sensors and radar. Some have cameras able to scan entire cities and read a milk carton from 60,000 feet away. Others can intercept mobile texts and phone calls. There are even models equipped with tasers and rubber bullets. In some cities, they are being used to monitor protests and to spy on citizens with no warrant or legal process. In 2012, there were already 7,000 operating drones in U.S. airspace. By 2020, this number can more than quadruple to over 30,000. Defense contractors like G4S are already using large numbers of these to assist in their international operations. Various other countries have been expanding their surveillance in recent years – Britain, for example, has seen a nearly 30-fold increase in high-definition CCTV cameras.

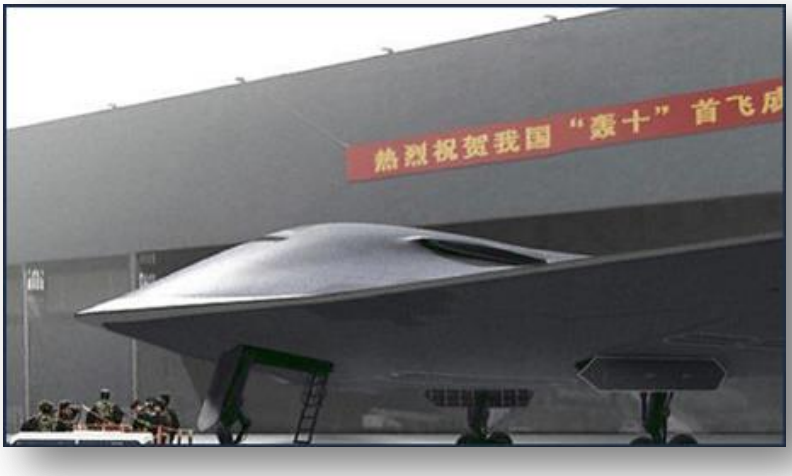


- **December:** Visiting Russian President Vladimir Putin signs – among many deals – a contract for the sale of 100 advanced Su-35 to China. President Putin, one a 4 day state visit to Beijing, signed several other deals including ones that allow for increased Chinese investments in Siberia and energy deals with the Russian energy major – *Gazprom*. The Su-35s are advanced 4++ generations aircrafts and are a significant leap over the existing Su-30s in service with the PLAAF and can allow China to project power over the South China sea more assertively.

US troops boarding a C-17 Globe master transport aircraft in the Baghram Air Force base.

- **December:** NATO has officially announced the completion of withdrawal of all NATO troops from Afghanistan. In a surprise visit to Afghanistan in May, President Obama had announced that all but 10,000 American troops would leave Afghanistan and that the Afghan troops will take over the responsibility of protecting their country. In addition to the 10,000 American troops, some 2500 coalition troops from NATO will stay back as well. They will consist of Special Forces, counterterrorism forces, and military training personnel. They will be deployed to a small number of bases around the country. US/ISAF troops will continue their training of Afghan National Security Forces soldiers. Counterterrorism forces will concentrate mostly on high-value targets.

Year 2015



Secret footage of the H-18 stealth bomber as seen on TV and blogs

- **January:** China test flies a prototype stealth bomber for the first time, according to defence bloggers form mainland China. Nicknamed the "H-18" his new long range bomber can be seen to have stealth features and internal bomb carrying capacity. Currently, the United States is the only nation in the world to have designed and operated a stealth bomber. Three types of long-range stealth bombers — the Lockheed A-12, the Lockheed F-117 Nighthawk and the B-2 — have been developed in the history of US military aviation. Today, the B-2 bomber is the only manned stealth bomber still in service. China is now the only country in the world except the United States and Russia to develop a medium-range or long-range stealth bomber. The Xian Aircraft Industrial Corporation and the Shenyang

Aircraft Corporation began conceptualizing the project more than a decade ago, according to the report.

- **January:** A spokesperson for the White House announced that the US is “closely watching the events in the military aviation sector of China” and that “appropriate" steps are being taken to defend against such threats. Meanwhile, the Deputy Commander of the Japanese Self Defence Force has condemned what he termed as “aggressive” actions by Beijing that “threaten the peace and tranquillity of the Asia-Pacific region” and that Japan will take appropriate steps to defend against them. It is reported that H-18 has a large internal weapon bay 8 meters long that can carry 72 Leishi-6 small precision-guided bombs or 4 CJ-10A cruise missiles to conduct tactic or nuclear attack against US base at the Guam more than 3,000 km away. It can also carry 4 YJ-12 supersonic anti-ship missiles or 4 YJ-100 long-range anti-ship missiles to kill an aircraft carrier.

The **Controversial Senkaku / Diaoyu islands are a barren piece of land.**

- **February:** Chinese Naval ships conduct naval exercises in the controversial Senkaku / Diaoyu islands. The exercise - one of the many that China has staged in recent times - is part of a more assertive Chinese policy towards disputed islands. These islands are located close to major shipping lanes and are known to possess large quantities of hydro-carbon reserves. While it is “routine” for Chinese Coast Guard vessels to enter the disputed area, it is the first time in a long time that naval vessels belonging to China have entered the vicinity. In response to this prolonged dispute, Japan scrambled its coast guard ships and fighter jets and monitored the ships during the course of their exercise, according to the 11th Regional Coast Guard Headquarters in Naha, Okinawa Prefecture.

ISIS / ISIL fighters marching on the streets of Baghdad

- **March:** Sunni rebels led by the Islamic State of Iraq and the Levant (ISIS) surge out of Anbar Province to seize Iraq's capital city of Baghdad and other key towns. Tens of thousands flee amid atrocities. Kurdish forces, US and Iran assist government in repelling attacks, US carries out air raids with little effect. Iraqi forces that were detailed to block the advancing militants simply deserted their posts and fled, reports say. ISIS renames itself Islamic State, declares a caliphate. Parts of war-torn Syria are already under the de-facto control of this militant organisation and now, with Iraq's capital having fallen to enemy hands for the second time in this century, Middle East looks volatile once more.

- **March:** Several Middle Eastern nations including Qatar, Turkey and others join the US and Britain in once again in trying to repel the ISIS advance further north of Baghdad. Oil prices have already surged by a record $10 / Barrel in just a week, on the backdrop of the escalating tensions in the Middle East. OPEC nations however, promise to increase output and keep prices steady.

- **March:** After protracted delays, India and France finally signed the contract for the purchase of 126 multi-role Dassault aircrafts as part of the Medium Multi-Role Combat Aircraft (MMRCA) program. The deal, valued at nearly $20billion dollars would however include the outright purchase of 36 – instead of the original 18 – aircrafts from Dassault's production lines in France. The remaining 90 will be manufactured in India by the Hindustan Aeronautics Limited (HAL) under license. The news is met with jubilation in France, which is reeling under severe economic crisis.

Ghawar Oil refinery up in flames. Multiple explosions reported.

- **April:** A large explosion in the Ghawar oil fields in Al-Ahsa Governorate in Saudi Arabia has been reported. Ghawar is entirely owned and operated by Saudi **Aramco**, the state run Saudi oil company. Approximately 55–60% of all Saudi oil produced between 1948 and 2010 came from Ghawar. It was estimated that Ghawar produced about 5 million barrels (790,000 m^3) of oil a day (6.25% of global production) in 2012. This has dealt a significant blow to world oil production. Saudi Arabia was the only OPEC country to have reserve production capacity to increase oil prices. With the loss of this major refinery, a sharp rise in world crude oil prices is expected. At least a hundred engineers and workers are confirmed to have burned alive in the explosion. It is not entirely clear as to who or what is responsible for this incident.

- **April:** The ISIS has claimed responsibility for this action and has vowed to step up its fight against the "puppet regime of the USA in Riyadh" and for "supporting the Great Satan in its efforts to destroy the Caliphate." Previously, the US led coalition that included several Arab states had struck oil refineries in Iraq's Northern provinces that were known to be definitely under ISIS control and providing millions of dollars in revenue to them, in an effort to stymie the growth of the terrorist group. The terrorist group has stated that while a suicide car bomber destroyed one of the entrances to the refinery, a team of other armed gunmen entered the control console of the refinery and created overflow in all the pumps that resulted in oil flowing out of their pipes through previously close seals, due to high pressure and onto hot equipments – igniting them and causing

massive fires. A spokesperson for the Saudi Government has confirmed this version of events.

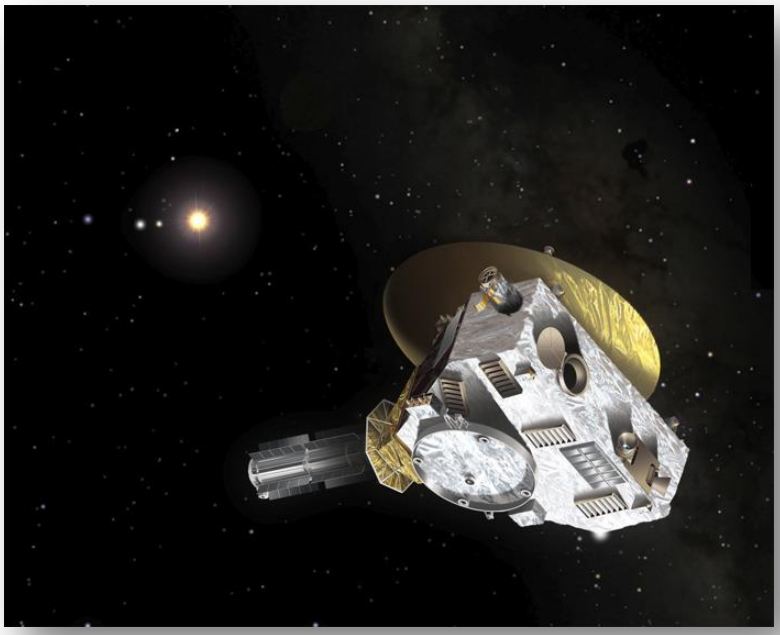
- **April:** A spokesperson for Aramco has confirmed that the refinery has suffered "massive" damages and would take at least **22 months** to return to full operational capacity that existed before the attack. While refusing to comment on the exact quantum of damage to the company, he did mention that the loss was "huge." Fire fighters have been struggling to control the fires even after a full week has passed.

- **April:** Shares of the Saudi Energy Giant Aramco have plunged to record lows on the backdrop of the recent terrorist attack on its largest refinery. Stocks of several other Oil majors however, has gone up on the expectations of high revenues due to lower output. Prices of crude oil have already reached approximately a record $120/ barrel. With no short term mechanism available to make up for the shortfall in production, the prices are expected to rise further. Illegal hoarding of oil and black market sale of the commodity has been reported across regions.

- **May:** India exercises the option to buy 6 more C-17 Globe Master III transport aircrafts from the US for a $3.2 Billion contract under the Foreign Military Sales (FMS) program. These aircrafts can lift more than 77 tonnes and can take off and land in short runways. In a separate agreement, the IAF has also signed a deal to acquire 7 more C-130J Super Hercules transport aircraft, including one to replace the crashed aircraft in Gwalior this year. These additional aircrafts are expected to be based in the Eastern Theatre to deal with the threat of Chinese actions.

- **July:** The Combined Forces Command has been in place since the end of the Korean War. It acts as a command structure for the multinational military forces supporting South Korea. For more than 50 years, military operations along the demilitarised zone between North and South Korea have been under the command of the USA. This structure is dissolved in 2015, with operations being handed over to South Korea. From this point onwards, South Korean and

American forces will operate as two separate entities during wartime. This event comes at a time of great stress between North and South Korea. North Korea has continued to conduct missile tests, to the continued disapproval of South Korea.



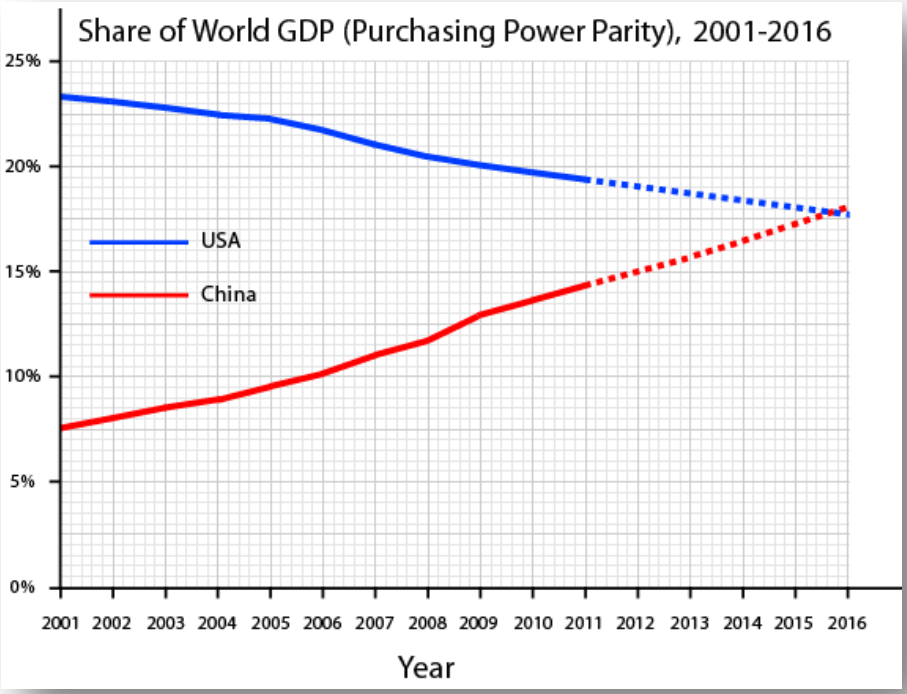
NASA's New Horizon probe – An artistic impression.

- **July:** *New Horizons arrives in Pluto*. This NASA probe was launched in 2006 and has travelled more than 4 billion kilometres through space. In July 2015, it returns the first close range, high resolution pictures of the icy world – along with its five moons – before passing through the Kuiper Belt.

- **September:** On 10th September 2015, Elizabeth II becomes the longest reigning monarch in British history – surpassing the record held by Victoria, her great-great grandmother. Having ascended to the throne on 6th February 1952, Elizabeth II has now reigned for 63 years and 217 days. The six decades of her reign have witnessed enormous changes on the world stage – including the dismantling of the British Empire, the civil rights movement, the growing empowerment of women in society, the development of the Space Age, accelerating globalisation, the fall of communism in Europe, the end of the Cold War, the dawn of the information age, and the rise of China, to name but a few. Now aged 89, she is becoming noticeably frailer and has begun to scale back her official duties. The next milestone (assuming she lives that long) will be in 2022 – her Platinum Jubilee. Her eldest son Charles will succeed her, becoming King Charles III.

- **November:** China inducts the large military transport aircraft Xi'an Y-20. The Y-20 is powered by four D-30 series turbofan engines and the production aircraft will be equipped with WS-20 engines, which is derived from the WS-10 turbofan engine currently powering the J-11B fighters in PLAAF. The WS-20 engine is essentially a WS-10A engine with high by pass ratio around 6.2, it produces around 132Kn of thrust and does not have the military after burning nozzle. Cargo is loaded through a large aft ramp that accommodates rolling stock. The Y-20 is similar to the lyushin Il-76 transport aircraft in general layout. The Y-20 incorporates a high-set wing, T-tail, rear cargo-loading assembly and heavy-duty retractable landing gear.
- **November:** Bosnia and Herzegovina joins the North Atlantic Treaty Organisation (NATO). One of its largest concerns was the ongoing ethnic quarrels that were remnants of the Bosnian War. In fact, the EU had maintained a peacekeeping force in the country for over a decade. For some time, the nation had also received stabilising loans from the EU. Corruption and organised crime were major problems too.

Year 2016



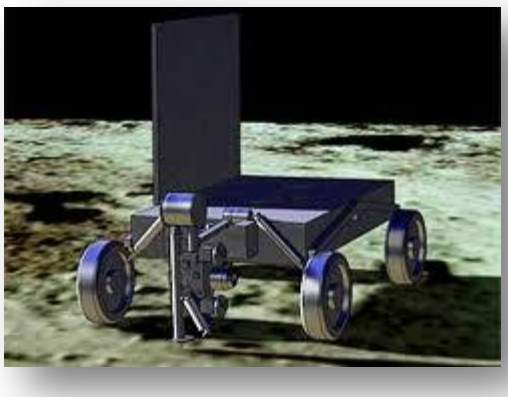
- **February:** Under Purchasing Power Parity (PPP), China's economy expanded from $11.2 trillion in 2011 to $19 trillion in 2016. Meanwhile, the size of the US economy rose from $15.2 trillion to $18.8 trillion. This has reduced America's share of world output to 17.7%, its lowest in modern times. China's share has reached 18% and is continuing to rise.

- **May:** India becomes only the fourth nation – after Russia, the US and China – to independently launch humans into space. The rocket used is a variant of the Geosynchronous Satellite Launch Vehicle Mark 2, operated by the Indian Space Research Organisation (ISRO). This carries a largely autonomous 3-ton capsule, with a two-person crew on board. They remain in orbit around the Earth at 248 miles (400 km) altitude for seven days, before splashing down in the Bay of Bengal. The total cost of the project is about 124 billion rupees ($2.67 billion USD). The event is met with great jubilation in India. India's PM Modi spoke to the Astronauts from the Prime Minister's Office and was quoted as saying "May the force be with you!" to the astronauts.

- **July:** The International Lunar Observatory (ILO) is a collaboration between two companies – Moon Express and the International Lunar Observatory Association. The project is both scientific and commercial. It places a telescope on Malapert Mountain, a 5 km (3.1 mi) crater rim at the Moon's southern pole. Its 2 m (6.6 ft) dish antenna can observe space without interference from Earth's atmosphere and is the first private instrument to conduct astrophysical studies and communications from the lunar surface. The ILO features an internet-based access and control system, made available to researchers, educators and the general public. This is designed to promote a new model of "citizen science", public participation and international collaboration. In addition to capturing images of the Milky Way galaxy and deep space, it also takes photos of the lunar horizon and Earth. A small rover is also deployed. The prospects for resources including metals, minerals and water, in the hope of locating deposits that could be extracted in the future.

- **July:** This year sees Russian space group, **Energiya**, launching the world's first **space hotel** in partnership with US firm Orbital Technologies. Capable of housing up to seven people, it offers spectacular views of the Earth and includes a menu crafted by celebrity chefs. It also functions as a possible emergency refuge for astronauts from the International Space Station. The Space hotel orbits 217 miles above earth. A five day **stay in the hotel** will cost around **$165,430**, plus the **$827,500** rocket trip up there. But unlike most millionaire-frequented hotels, this one will not come chock-full of amenities. Guests can choose between horizontal and vertical beds in the zero-gravity environment, and will dine on food prepared on Earth and sent up- a very high-tech take on room service. They'll have internet access, but not too much else.

- **August:** Rio de Janeiro, Brazil hosts the 2016 summer Olympics. There will be 35 competition venues mainly in Barra da Tijuca, but also in three other zones: Copacabana, Deodoro, and Maracanã. It will be the first time a South American city will host the event.

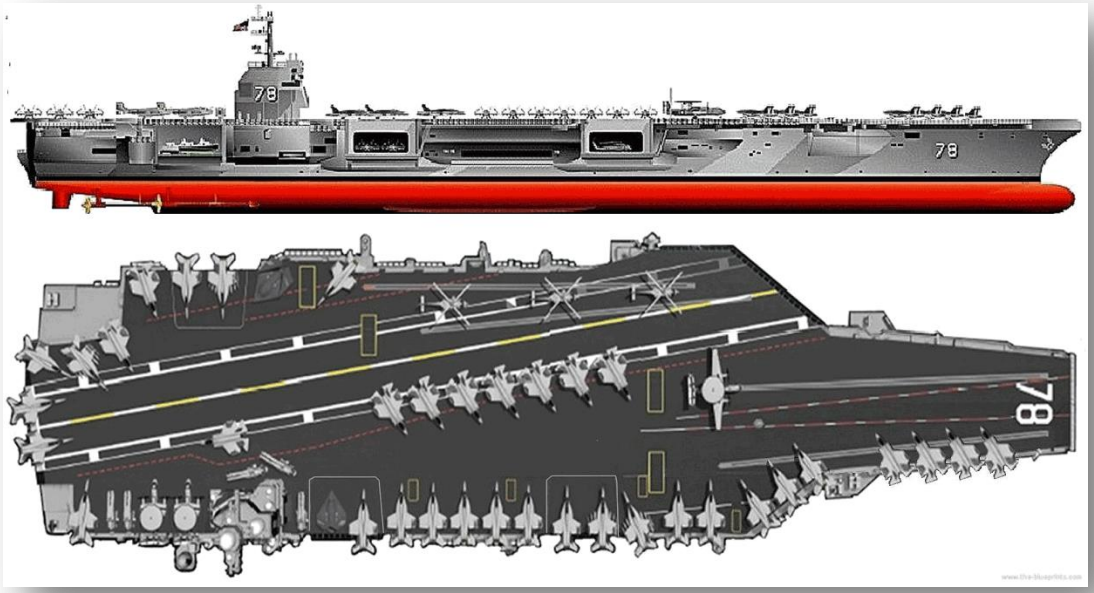


ISRO's Lunar rover in operation on the moon's surface.

- **November:** In addition to sending its first man into space, India conducts its second unmanned lunar exploration this year. Chandrayaan-2 is a probe which includes an orbiter as well a rover built by India. The wheeled rover move around the surface, picking up soil and rock samples for on-site chemical analysis. The

data is relayed back to Earth via the Chandrayaan-2 orbiter. The team is headed by Dr. Mylswamy Annadurai, who was behind the success of the previous mission (Chandrayaan-1). Following the success of India's Mars mission and the first manned mission, India's ISRO's latest achievement inspires many Indians. Applicants to join ISRO as scientist/ engineers go up by 300%. The entire mission costs less than Rs. 600 Crores.

- **November:** The 58th US presidential election is held on Tuesday 8th November 2016. The incumbent president Obama is ineligible to be elected to a third term, due to term limits in the 22nd Amendment to the US Constitution. The race for the Presidency is expected to be fought directly between Democratic candidate and former Secretary of State, Hillary Clinton and the Republican nominee and Senator of Florida Jeb Bush – younger brother of former President George W Bush.

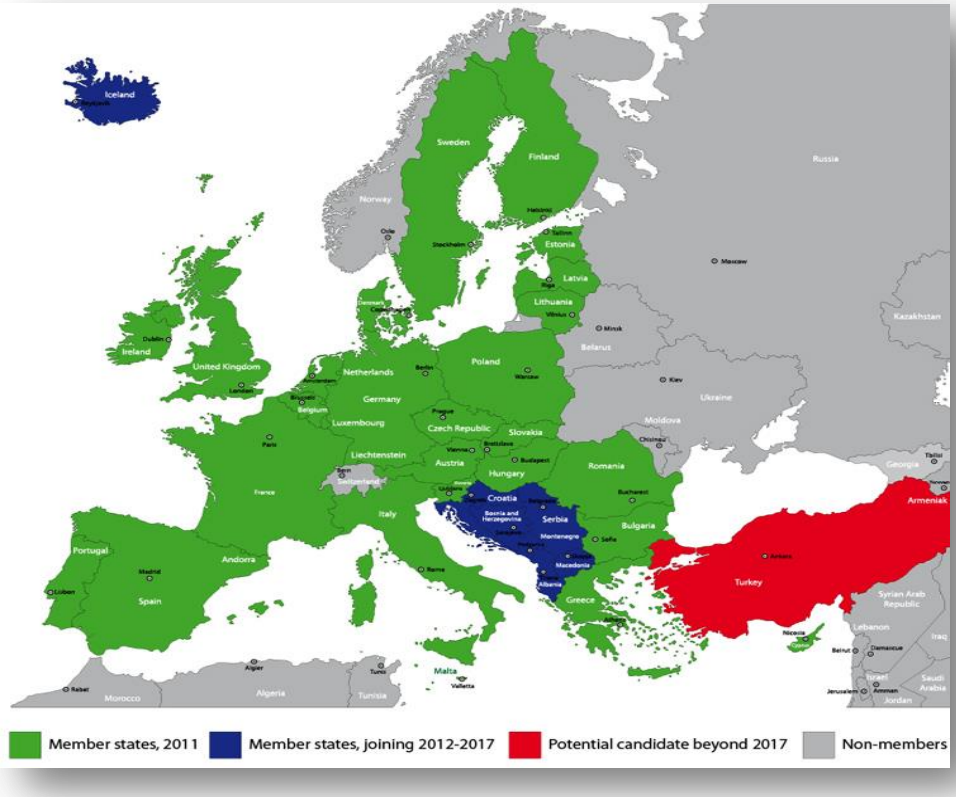


Ford class Aircraft Carrier

- **December:** The first of the Gerard Ford class super carriers is commissioned into service into the US Nay in a grand ceremony. ***Gerald R. Ford* class** (or *Ford* class) is a class of super carriers currently being built to replace some of the United States Navy's existing *Nimitz*-class carriers. The new vessels will have a hull similar to the *Nimitz* carriers, but will introduce technologies developed since the initial design of the previous class (such as the Electromagnetic Aircraft Launch System), as well as other design features intended to improve efficiency and running costs, including reduced crew requirement. The ship costs an impressive $14 Billion dollars and will soon be flying the latest F-35 stealth aircrafts from its decks.

Year 2017

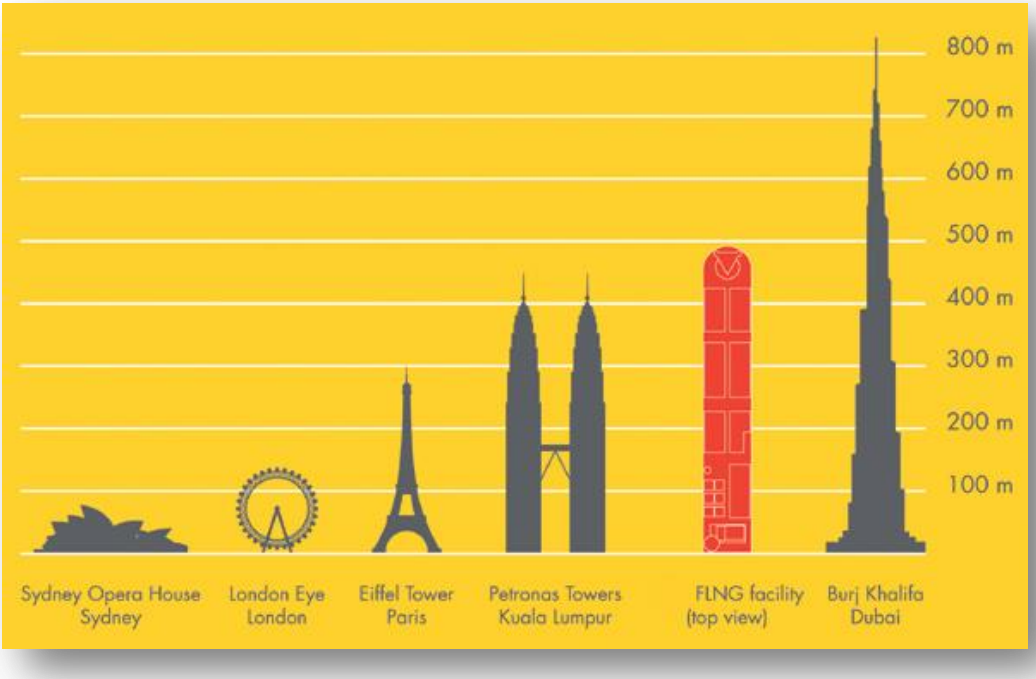
- **January:** Hillary Diane Rodham Clinton, former First Lady and former Secretary of State under the previous Obama administration wins the Presidential election with a significant majority. She is sworn in by the Chief Justice of the US Supreme Court as the 45th President of the United States. President Hillary is also the first ever female to hold this highest office. After voting in the first Black-American as the President, the American people have chosen a woman to be their leader and Commander-in-Chief.



- **February:** The countries of **Iceland, Macedonia, Croatia, Bosnia and Herzegovina, Montenegro, Albania and Serbia** have all joined the ranks of the EU member nations. This follows several years of negotiations in order to bring these countries in line with the rest of the Union, in terms of economics and law. Iceland was among the first to enter the Union. Prior to the 2008 economic crisis, public support for joining was low, with many viewing it as unnecessary. At the time, Iceland was only a member of the European Economic Area. Following the global economic downturn of 2008, the Icelandic economy crashed, with three of the country's largest banks failing and unemployment rates and debt levels spiking. Because of its well-established democracy and market economy, Iceland was made a priority in regards to the next EU expansion. Although some issues persisted – such as whale hunting, fishing and agriculture – it was eventually welcomed into the EU.

- **March:** At the turn of the 21st century, Yemen was already the poorest and least developed nation in the Arab world. Nearly 45% of its citizens were living below the poverty line, unemployment was running at 35% and its literacy rate was just 58%. It had dwindling natural resources and a ballooning population. Its economy was heavily reliant on hydrocarbons, which accounted for almost 75% of government revenues and 90% of foreign exchange earnings. Yemen reached peak oil production in 2003 and witnessed a steady decline thereafter. In 2011, a popular uprising erupted due to worsening economic conditions, rising unemployment and government corruption. This was sparked by simultaneous protests in other Middle Eastern countries. By 2017, a calamity is unfolding. Oil and gas reserves have now dwindled to zero and Sana'a has become the first capital city in the world to completely run out of water. The situation has been made worse by rising fuel prices. Trucks bringing supplies from outside are no longer able to make up the shortfall – resulting in widespread looting, rioting and violence. This soon gives way to starvation, a mass exodus of refugees and a rapid decline in the country's population which continues into the following decade. The

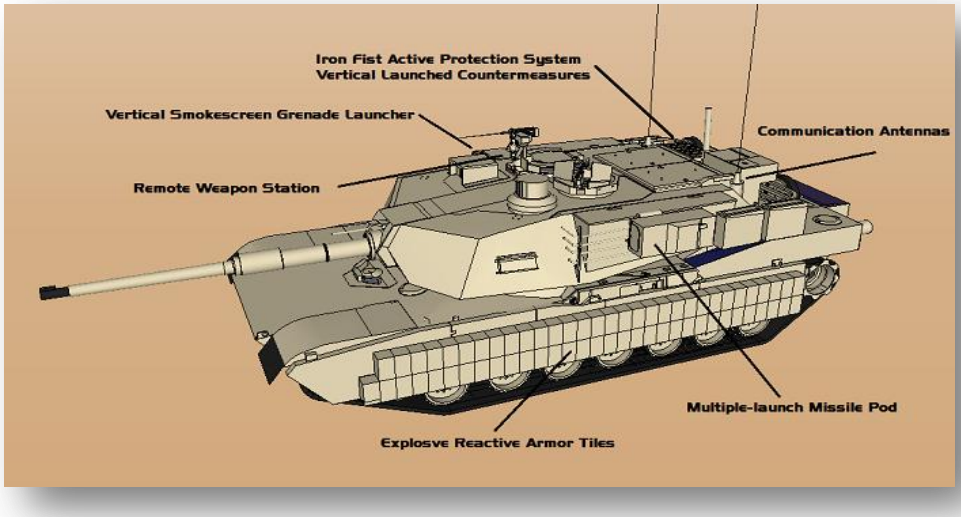
state collapses into anarchy, with a zone of lawlessness expanding into Saudi Arabia and the Horn of Africa.



- **May:** Due to the remoteness of many deep water natural gas resources, large-scale exploitation of these areas has been next to impossible. A new project, however, undertaken by Exxon Mobil, seeks to overcome these barriers. The Floating Liquefied Natural Gas (FLNG) platform, as it is called, begins operations this year off the coast of Northern Vietnam near India's ONGC's 128 block. Essentially the world's largest "ship," the FLNG is anchored over several well heads in the isolated field, in water around 250 meters deep. It pumps up natural gas continuously, storing it within several massive tanks, chilled at -162°C which compresses its volume by 600 times. Every week, a gas tanker arrives to off-load the FLNG's stores. When fully loaded, the ship contains 600,000 tonnes of liquefied natural gas. It produces at least 5.3 million tonnes per annum (mtpa) of liquids: 3.6 mtpa of LNG, 1.3 mtpa of condensate and 0.4 mtpa of LPG. It is 488 metres long – equivalent to four soccer fields laid end to end. ONGC & petro Vietnam join as partners in this mega project. The facility is operated by a crew of 120 and costs around $10 billion to build. This mega-project capitalises on the growing demand and prices of natural gas, particularly in China. Most of the advantage of a floating gas platform has to do with the lack of permanent infrastructure. Not only is it easy to move when a field runs dry (as Prelude will do in 25 years), but it is more capable of dealing with the dangerous cyclones often present in the area.

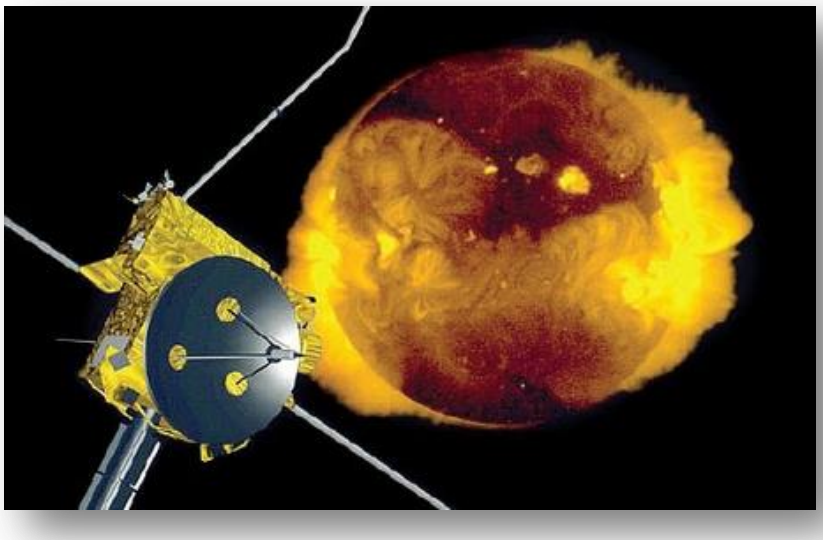
India's CNBC TV-18 depicting the impact of this dam on NHPC's revenues and generation capacity.

- **July:** Yet another energy project making the headlines this year is the Dibang Dam, in northeast India. At 288m high, this becomes the tallest concrete gravity dam in the world. It has a volume of 16.5 million cubic metres and can generate 3,000 MW of electric power. The project is not without controversy, however. There has been strong local opposition, due to the relocation of indigenous tribal communities, environmental damage, and questions being raised about its safety along with that of other nearby dams. Over 100 are being constructed in Arunachal Pradesh during this time – 17 in the Dibang Valley – as hydroelectric power gains momentum. Tensions have also been raised with China, which is building dams of its own in the region, threatening to reduce the flow of water to India's territory.



- **September:** The newest generation of the M1 – the M1A3 – is fielded this year. The first prototypes were completed in 2014. Now, in 2017, they are entering the battlefield, primarily in the remaining American conflicts in the Middle East (which have dragged on in some areas for longer than expected). The original M1 battle tank – a third generation vehicle – was introduced to the U.S. Army in 1980. Since then, variants of the tank, primarily the M1A1 and M1A2, have seen extensive use in battle. They first entered combat in Operation: Desert Storm, during the Persian Gulf War, and have been used in every American military conflict since. They have also become the principal tank of the Saudi Arabian, Egyptian, Kuwaiti and Australian armies, as well as the Army of Iraq following arms deals made with the United States. Various design improvements have been made. These include the latest in armour and ballistic shielding, of course, especially the underbelly armour, as well as hi-tech computer networking. The tank has been reduced in weight by almost one-fifth, providing more capability for crossing bridges. Its ammunition has also been upgraded, with new ultra-accurate computer guided missiles.

- **September:** The first of the Scorpene class submarines roll out of the state-owned Mazagon Docks in Mumbai. The submarine – named INS Kalvari is the first of the 6 Scorpene class submarines that India purchased from France under a $3 billion dollar deal in 2005. After years of delay, the submarine finally rolls out much to the relief of the Indian Navy –whose underwater fleet has fast depleted. The remaining 5 submarines are expected to roll out of the docks at the rate of one per year.



- **November:** India's ISRO launches **Aditya-1,** a space probe to study the Sun. It was conceptualised by the *Advisory Committee for Space Research* in January 2008. It is launched to study the "solar corona" the part of the Sun has temperatures of over one million degrees, with raging solar winds that reach a

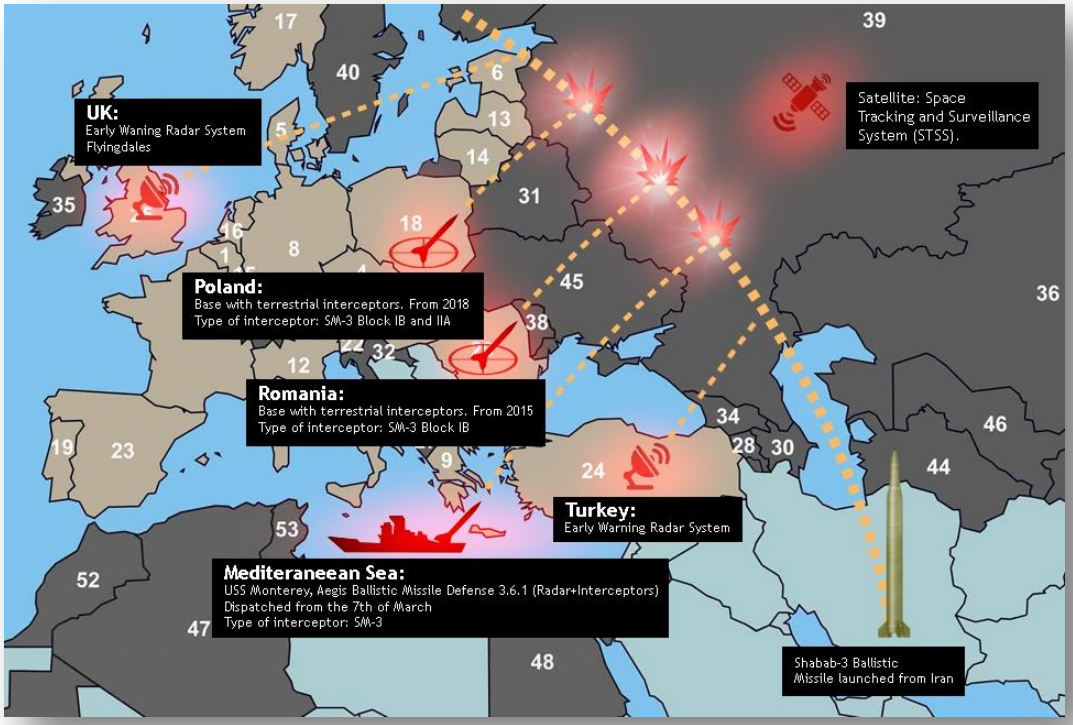
velocity of up to 1000 km a second. The satellite will carry as its payload an advanced solar coronagraph. The mission costed just Rs. 100 Crores to launch.

One of the two Type-052D Destroyers in service.

- **December:** The Chinese Navy orders 4 additional Type 052D class Destroyers to augment its 2 existing ships. The The **Type 052D destroyer** (NATO code name **Luyang III** class, or ***Kunming*** class after the lead ship) is a class of guided missile destroyers being deployed by the Chinese People's Liberation Army Navy. This class features a stealthy hull and significantly improved air defence systems, an area that had been a major weakness on previous ships designed by China. These ships represent a major improvement over older generation vessels and reflects the PLAN's need for more modern destroyer designs. Two ships of this class are already active, with 4 more under construction. With the latest addition, PLA-N will have upto 10 of these most advanced Destroyers in service within a decade. The Type 052D has a brand new vertical launching system (VLS) for surface-to-air missiles, cruise missiles, anti-submarine missiles, and anti-ship missiles, and is capable of quad-packing missiles and cold launch.

- **December:** Following the success of its first lunar lander in 2013, China attempts a more ambitious sample return mission. Launched in 2017, this obtains about 2 kg (4 lb) of moon rock, bringing it back to Earth for study. The robot deployed on the surface has a mission life of three months. It can choose its own routes, avoid obstacles and perform experiments with a mechanical arm. It comes equipped with a suite of sensors including cameras, X-ray and infrared spectrometers and a ground-penetrating radar. It has solar panels and a supplementary power source for night work in the form of a plutonium-238 nuclear battery – the same type of radioisotope thermoelectric generator system (RTG) installed on NASA's Mars Science Laboratory.

Year 2018

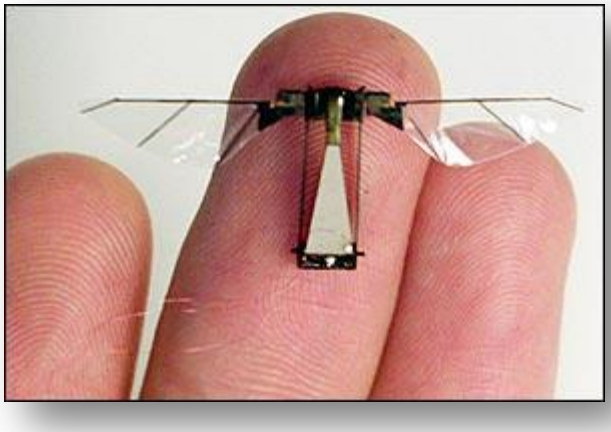


- **January:** Europe is now protected by a continent-wide missile defence system, developed and deployed by the US military. This has been established in phases between 2011 and 2018. Phase 1 saw the deployment of a land-based early warning radar – which Turkey agreed to host – as well as ships in the Mediterranean equipped with proven SM-3 interceptors. Phase 2 saw the creation of a land-based SM-3 interceptor site in Romania – in order to expand the defended area against short- and medium-range missile threats. Phase 3, the most significant phase, added a more advanced SM-3 interceptor (Block IIA) and a second land-based SM-3 site, which Poland agreed to host. This would counter short-, medium- and intermediate-range missile threats. The system is located at Redzikowo military base, close to the Baltic Sea and Lithuania, roughly 50 miles from the Russian exclave of Kaliningrad. Initially, this defence shield resulted in a cooling of relations between the US and Russia. The latter expressed concerns over the presence of missiles so close to its border, which it viewed as a security threat. This was despite assurances from the US that the shield was for potential threats from Iran and the Middle East – and was neither designed nor capable of threatening the numbers and sophisticated ability of Russia's strategic forces.

- **April:** Russia hosts FIFA world cup. This is the first time Russia has hosted the World Cup. Some $10 billion are spent on the tournament, which is spread over 14

venues including Moscow and St. Petersburg. As of 2010, there were no stadia in the country with 80,000+ capacities, but Luzhniki Stadium in Moscow is expanded to 90,000 seats in time for the games.

- **April:** Despite being a major space power, Russia for decades lacked its own proper independent space launch facility for manned flights. Instead it was reliant on the Baikonur Cosmodrome in neighbouring Kazakhstan – leased from the government of that nation until 2050, at a cost of $115 million per year. In 2011, construction began on the Vostochny Cosmodrome, a new spaceport located in the Amur Oblast region in Russia's Far East. This was intended to reduce Russia's dependency on Kazakhstan, enabling most missions to be launched from its own soil. The area devoted to this new infrastructure would be nearly 100 sq km (39 sq mi) with four separate launch pads, an airport, train station, academic campus, training and space tourism facilities, business centres and a town of 30,000 capacity for housing workers and their families. Unmanned launches commenced in 2015, with the first manned flights later this year.



- **July:** US' DARPA or Defence Advanced Research Projects Agency develops micro-robotic spy "insects" for the US military for military and surveillance applications. These "micro aerial vehicles", no larger than a common house fly, have been in development for over a decade. One of the major hurdles was creating sufficient battery power in such a small object, as well as keeping them light enough to remain airborne. The robots are used in spying missions, where they quite literally serve as a "fly on the wall" – recording and transmitting audio-visual information. An individual robot is equipped with miniature cameras, microphones, modem and GPS. Although strengthening national security, a number of privacy issues are being raised.

- **September:** Russia and China sign a deal for the purchase of 12 of the advanced S-400 missile air defence systems, with an option to add 4 more at a later stage. The **S-400 *Triumf*** (NATO reporting name: **SA-21 Growler**), previously known as **S-300PMU-3**, is a new generation anti-aircraft weapon system developed by Russia's Almaz Central Design Bureau as an upgrade of the S-300 family. It is currently in limited service with the Russian Armed Forces. The missiles can engage aerial targets upto 400 kilometers away and is bad news for Taiwan, whose entire airspace can be covered by the S-400, denying access to RoC fighters.

- **October:** Indian Navy commissions the Indigenous Aircraft Carrier Vikrant into service. INS Vikrant is the first *Vikrant*-class aircraft carrier built by Cochin Shipyard Limited for the Indian Navy and the first aircraft carrier built in India. Work on the ship's design began in 1999, and the keel was laid in February 2009. The carrier was floated out of its dry dock on 29 December 2011. Vikrant means "courageous" or "bold". It is 262 metres (860 ft) long and 60 metres (200 ft) wide, and displaces about 40,000 metric tons. It features a Short Take-Off But Arrested Recovery (*STOBAR*) configuration with a ski-jump. The deck is designed to enable aircraft such as the MiG-29K to operate from the carrier. It is expected to carry an air group of up to thirty aircraft, which will include up to 30 fixed-wing aircraft, primarily the Mikoyan MiG-29K and the naval variant of the HAL Tejas Mark 2, besides carrying 10 Kamov Ka-31 or Westland Sea King helicopters. The Ka-31 will fulfill the airborne early warning (AEW) role and the Sea King will provide anti-submarine warfare (ASW) capability. With this, Indian Navy once again maintains a 2 carrier force along with INS Vikramaditya, following the decommissioning of the older INS Viraat last year.

- **November:** The Indian Navy also places orders for an additional 20 Tejas Mk2 Naval variant. The latest order will take the total number of Tejas in service to 60.

- **November:** The Republic of China or Taiwan has moved from a Conscription based force to an all-volunteer, professional military force. Having abandoned hopes for a symmetrical arms race with Beijing, in recent years Taiwan's military instead took its first tentative steps toward creating a leaner but stronger deterrent through force modernization and the introduction of innovative and asymmetrical capabilities. If done properly, ongoing force restructuring efforts could accommodate both a reduction in the number of active forces and the ability to counter an attack from China. Under reform efforts, since 2013 young men who were born after 1994 must still undergo four months — down from 12 months in recent years — of military training as their regular service. After completing their basic training, the servicemen are added to the reserve mobilization system, which according to *The Military Balance 2013* counts approximately 1.6 million reservists. In addition to their basic training, reservists are mustered every two years for military drills to maintain their basic combat skills.

Year 2019

- **March:** Entering service this year is the Chengdu J-20 (literally, "Annihilator Twenty"), a fifth generation stealth fighter jet developed for the People's Liberation Army Air Force. Until now, the United States was the only country to operate a stealth fighter; in its case, the Lockheed Martin F-22 Raptor, which is slightly smaller than the J-20. Though it has slightly less agility and speed than the F-22, the J-20 has a longer range and nevertheless acts as a formidable addition to the Chinese air force. It is built using several Russian components and is believed to be designed using certain Russian plans. Armaments include both long and short range air-to-air missiles together with internal weapons bays. The avionics and navigation technology is highly advanced, and regarded with secrecy by the Chinese government. This has raised suspicions of cyber-espionage, as the Chinese program bears a number of striking resemblances to the American F-35 Lightning II. Investigations point to leaks from government contract firms. The affair leads to a period of tense international relations between the two superpowers. The J-20 meanwhile acts as another milestone in China's march towards an ever larger and more high-tech military force.

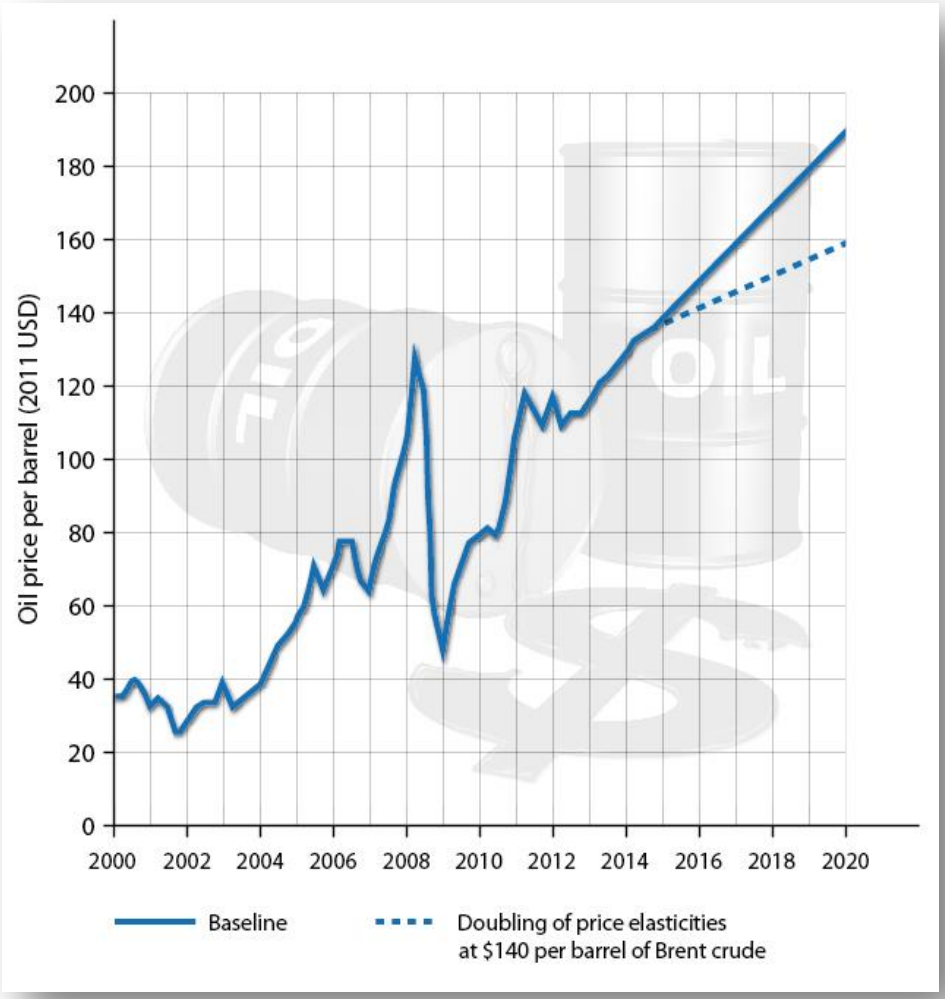
- **May:** India's incumbent Prime Minister Narender Modi wins another term in the just concluded National General elections. The ruling party, which had more than 280 seats was able to increase the tally to 301. The victory was possible on the backdrop of a weak and fragmented opposition as well as a relatively corruption free 5 year rule.

- **May:** In addition to the M1A3 Abrams (first deployed in 2017), a new Ground Combat Vehicle (GCV) has been developed. This huge armoured fighting vehicle weighs 84 tons – more than twice as much as its predecessor. It is so heavily armoured, in fact, that it can withstand hits from roadside improvised explosive devices (IEDs) – a need that was felt the hard way after attacks on US troops in Afghanistan & Iraq. Designed to carry a nine-man squad and three-man driving crew into battle, it provides covering fire with a 30mm cannon, the Mk44 Bushmaster II. The vehicle is equipped with a hi-tech C4ISR (command, control, communications, computers, intelligence, surveillance and reconnaissance) system. It has an E-X-Drive hybrid electric system, for high power and torque, with an engine that is 20% more fuel efficient than the previous generation. Its top speed is 47 mph (75 km/h) and maximum range is 188 mi (300 km). With its monstrous weight, superb armour, high manoeuvrability and numerous hi-tech systems, the GCV is a formidable addition to the U.S. army. Its open architecture and infrastructure means it can also be adapted to other existing and future C4ISR systems. It's expected to remain in service until the 2050s.

- **August:** All British troops leave Germany. Britain has maintained a continuous military presence in Germany since World War II. After the Cold War, however, there was less need to keep personnel stationed there. The last remaining army bases are finally closed this year. Around 15,000 troops had left in 2016; the remaining 4,500 are brought back in 2019, closing an important chapter in the history of both countries. This move saves Britain around £240 million a year in operational running costs.

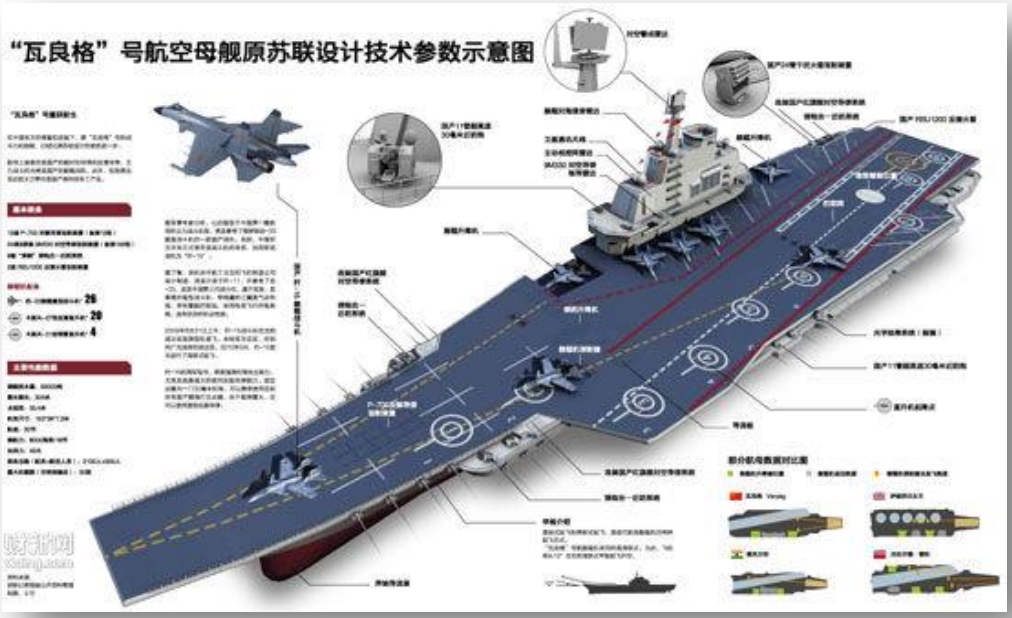
- **November:** Europe's Galileo satellite navigation system is now fully operational. Galileo is a global navigation satellite system (GNSS) built by the European Union (EU) and European Space Agency (ESA). The €5 billion project is named after the Italian astronomer Galileo Galilei. One of the aims of Galileo is to provide a high-precision positioning system upon which European nations can rely, independently from the Russian GLONASS, American GPS, and Chinese Compass systems, which can be disabled in times of war or political conflict. When in operation, it uses two ground operation centres near Munich, Germany and in Fucino, Italy. In 2010, Prague in the Czech Republic was voted by EU ministers as the headquarters for the project. In 2011, the first two of four operational satellites were launched to validate the system. The next two followed in 2012, making it possible to test Galileo "end-to-end". Once this In-Orbit Validation (IOV) phase was completed, more satellites were launched, reaching Initial Operational Capability (IOC) in the middle of the decade. Full completion of the 30 satellites in the Galileo system (27 operational + 3 active spares) is achieved in 2019. Europe now has its own independent satellite navigation capability. The use of basic (low-

precision) Galileo services is free and open to everyone. High-precision capabilities are available for paying commercial users and for military use.



- **November:** Global crude oil stocks, having plateaued in 2005, is now undergoing serious decline, causing turmoil on the financial markets. Food and energy prices have risen sharply, contributing to another recession. The much-touted revolution in shale has failed to deliver the promise many had hoped for. With high decline rates and poor energy return on energy invested (EROEI), it has instead been revealed as just another bubble. Oil prices of a single barrel are now heading to the $200 dollar mark – almost double of what it was only a decade ago. While many countries turn to renewable resources such as wind and Solar, major consumers of power such as China, India and the United States continue to rely on fossil fuels a lot.

Year 2020

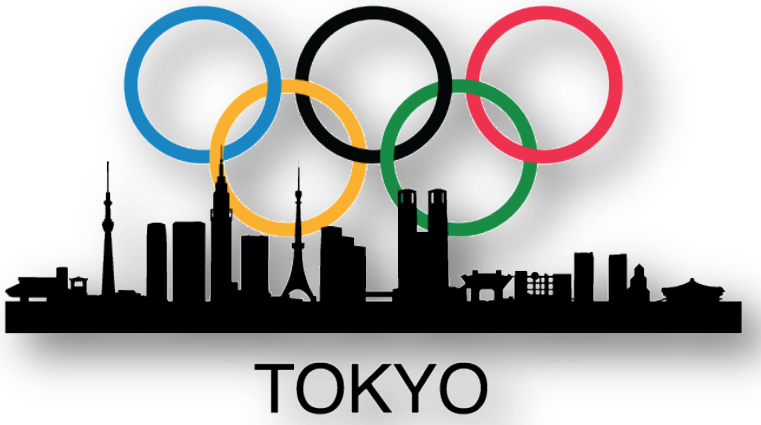


- **January:** The PLA-N commissions its second aircraft carrier in a grand ceremony. The Liaoning class aircraft carrier weighs nearly 67,000 tonnes and carries upto 42 aircrafts and helicopters. The construction of the mighty ship started way back in as early as 2014 in the Dailan Shipyard. This aircraft carrier features several improvements over the original Liaoning class and weighs up to 3,000 tonnes more and carries more aircrafts and sensors.

- **March:** The world slips into an energy crisis. Throughout this period, the world is thrown into turmoil, as oil and gas prices begin to spiral out of control – crippling many economies and triggering widespread social unrest. Many countries in the West experience a decline in living standards, with oil rationing and conservation measures introduced by governments. There are sharp reductions in travel, tourism and aviation, leading to increased localisation of goods and services. Cheap access to light and sweet conventional crude oil had fuelled much of the world's growth and prosperity during the 20th century. However, production reached a plateau in the first decade of the 21st century, resulting in a shift to "unconventional" sources like tar sands, shale, offshore wells and liquefied coal and gas. These were harder to extract – with lower energy return on energy invested – and therefore more expensive. Many of the reserves had also been overstated, with very high decline rates. These unconventional sources would provide only a temporary solution to the problem of global peak oil. This situation was compounded by rapid industrialisation of China, India and other emerging economies placing huge demand on available supplies.

- **May:** As part of its "pivot to Asia", the USA has shifted much of its naval force to the Asia-Pacific in an effort to counter China's geopolitical influence during this decade, Countries in East Asia have begun to polarise under the tension of the two global powers, despite efforts to maintain stability in the region. Japan and the Philippines have moved closer to the re-emerging American power in the hope of stopping China's territorial claims of the Senkaku (Diaoyu), Spratly and other islands – while Cambodia, South Korea and other nations try to remain neutral for the sake of economic interests as the region divides. The US and China are not the only major players shifting their sights on this part of Asia: Russia has begun to move east as well. In the coming years, geopolitical tensions in the region will shake the global economy, stretching US-China relations to near-breaking point, as the latter begins to displace the former as the leading superpower. China has recently developed its first stealth fighter and has a growing fleet of aircraft carriers.

- **June:** China's dependence on foreign oil in 2020 reaches 76 percent, while imports of crude oil from Saudi Arabia, Angola, Iran, Sudan…bypass the Strait of Malacca on their way to China…This is because the U.S. or India can easily block the Strait of Malacca at its narrowest point, [this] is the throat of China's energy supply. Chinese naval vessels therefore routinely visit the Indian ocean in the form of task forces and conduct patrols. Sri Lanks provides "temporary" berthing rights to the visiting Chinese vessels for refuelling and resupply – much to the ire of Indian strategic planners.

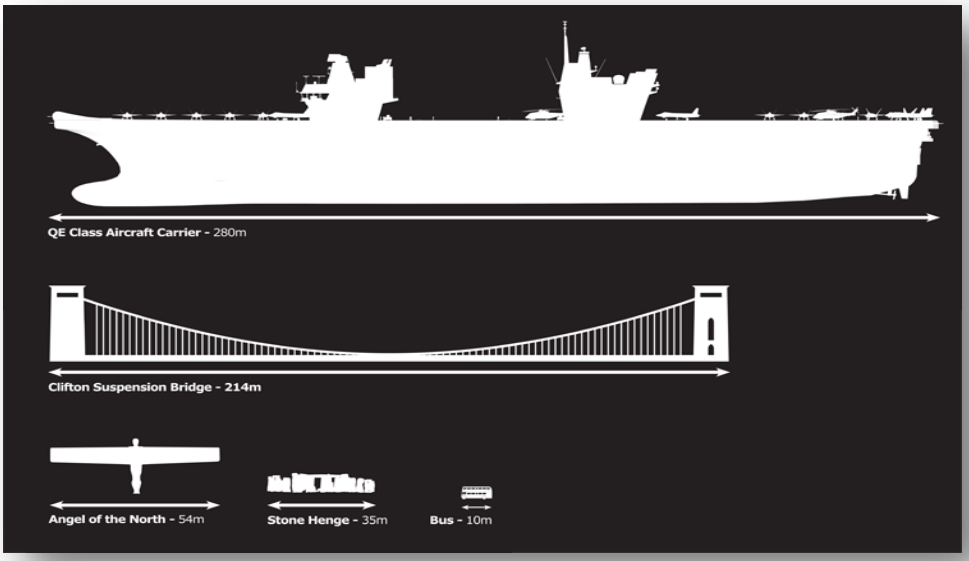


- **July:** The 2020 Olympic Games are held from 24 July – 9 August 2020 in Tokyo, Japan. The other candidate cities had been Madrid and Istanbul. Prior to Tokyo's selection by the Japanese Olympic Committee, Hiroshima expressed an interest in hosting, but later withdrew their plans to bid. Tokyo had previously hosted the games in 1964 and its National Olympic Stadium is once again used for the main venue – this time with a $1 billion upgrade and redesign by renowned architect Zaha Hadid. Tokyo becomes the first Asian city to host the Olympic Games twice. Its slogan for the event is "Discover Tomorrow" and robots are featured during the games in reflection of this.

- **September:** 5G connectivity services are launched. This continues the trend seen since 1981 in which a new mobile generation has appeared roughly every decade. The 5G family of standards is a major leap from previous generations in terms of power and functionality. Transfer rates of 1 Gb/ second are now possible.

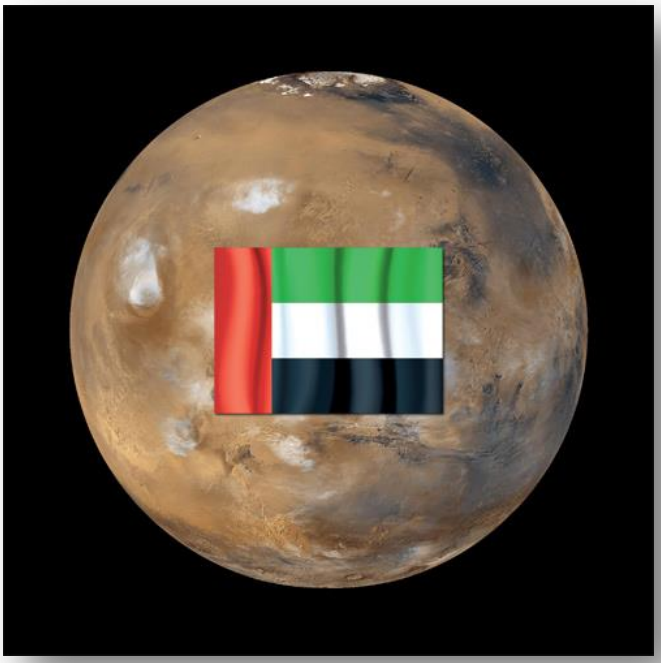
- **December:** In addition to 5G, phones are now available with the option of **texting by thought** power alone. This is achieved by a combination of eye-tracking technology and a sensor-mounted headset worn by the user. The headset

contains a brain-machine interface which detects electrical brain waves and converts them into digital signals, then displays the resulting letters on-screen. Some high-end models can be used with glasses or visors featuring displays built into their lenses. This enables completely hands-free texting, creating a form of virtual telepathy. The process is rather slow at this stage, requiring a high degree of mental concentration. It is more of a novelty for now. However, advances in the coming years will enable smooth and fast interactions, revolutionising the world of communication.



- **December:** Britain's latest aircraft carrier reaches operational capability. The *Queen Elizabeth* class is a new type of aircraft carrier built for the Royal Navy. It replaces a trio of aging *Invincible* class ships that were in service from 1980-2014. Two aircraft carriers are developed in this new class: HMS *Queen Elizabeth* and HMS *Prince of Wales*. These vessels – described as "supercarriers" by the media – feature a displacement of 70,600 tonnes, over three times that of the older *Invincible* class; an overall length of 280 metres (920 ft), a width at deck level of 70 metres (230 ft) and height of 56 metres (184 ft). They are the largest warships ever built in the United Kingdom. The hangar deck is large enough to accommodate up to 40 fixed and rotary wing aircraft. To transfer aircraft from the hangar to the flight deck, the ships have two large lifts, each of which are capable of lifting two F-35-sized aircraft from the hangar to the flight deck in under a minute. Each ship has a crew of 686 (rising to 1,600 when including the aircraft), integrated full electric propulsion with a range of 10,000 nautical miles (12,000 mi; 19,000 km) and speed of 25 knots (46 km/h; 29 mph). The main radar is a BAE Systems S1850M with fully automatic detection, for tracking up to 1,000 air targets at a range of around 400 kilometres (250 mi). A secondary radar known as Artisan can track objects the size of a snooker ball from 20 kilometres (12 mi) away. Following sea trials in the late 2010s, the ships reach their full operational capability in 2020. They will remain in service for up to 50 years.

Year 2021



- **February:** This year sees the first mission to Mars by an Arabian country – in this case, the United Arab Emirates (UAE), which sends an unmanned probe. The Arab League nations have established a pan-Arab space agency by now, headed by the UAE. This functions in a similar way to the European Space Agency. The UAE had already invested more than 20 billion dirham (US$5.4 billion) in the space sector by 2014. This further expansion was aimed at diversifying its economy away from reliance on hydrocarbons and fostering new talent in technology and aerospace fields. It was also motivated by concerns over national security and the growing importance of satellite data, mobile communications, Earth mapping and observation. Thanks to its hi-tech facilities, Dubai is now a regional hub for satellite design and construction.* The Mars mission coincides with the 50th anniversary of the UAE's formation. It is helped by the fact that space projects are becoming increasingly cheap, easy and reliable, through a new generation of rockets and fuels.

- **March:** The terrorist organisation ISIS continues to cause major flare ups in the Middle East. The Terrorist organization continues to engage in acts of bombing, kidnapping and strikes against vital economic and military targets. Iraq and Syria continue to suffer from these conflicts. Although Western forces continue to attack and target ISIS organisation and commanders, while one head is slain, seven more rise to take their place.

- **May:** China has now completed the second of two mega bridges across the Pearl River Delta – one of the most densely urbanised regions in the world and a major hub of the nation's economic growth. The Hong Kong–Zhuhai–Macau Bridge is a 50 km (31 mi) series of bridges and tunnels, first proposed in the early 1980s, with construction beginning in 2009 and finishing in 2015. Costing over US$10 billion, it slashes journey times between Hong Kong and Zhuhai or Macau from 4.5 hours (by road) to just 40 minutes. The eastern end of the route lies in close proximity to Hong Kong International Airport. Further to the north – and constructed from 2015 to 2021 – is the Shenzhen-Zhongshan Bridge. This project consists of the main bridge sections, plus a 6.7 km (4.2 mi) tunnel on the eastern side, linking to Shenzhen Bao'an International Airport. There are four lanes running in each direction, with a maximum speed of 100 km/h (62 mph). Travel times between Shenzhen and Zhongshan are cut from two hours to 30 minutes.

- **June:** India signs a deal with France's Dassualt Aviation for the purchase of 63+30 Rafale C & M multirole fighters for use on India's second indigenous Aircraft Carrier – the INS Vishal, as well as to add to the already contracted 126 aircrafts for the airforce. INS Vishal is undergoing user trials and is expected to be commissioned into the Navy in about a year from now. The latest sale is expected to bring in commonality of spares and training amongst both the Air force & Navy aviation. The latest contract will make India the largest operator of the Rafales in the world with 219 aircrafts in service with both the IAF and IN, against 126 with the French (87+39).

- **August:** India nearly completes the 8 year, $10 Billion dollar program to raise a new Mountain Strike Corps to deal with China. The 17 Corps, is headquartered in Kolkata under the Eastern Army Command consists of nearly 100,000 infantry, 400 tanks, including the latest T-90 variants, Smerch & Pinaka Multi-Barrel Rocket Launchers (MBRLs), and artillery. The 17 Corps' objective is to strike deep into Chinese territory in case of a Chinese attack on India.

- **September:** China's first space station is now complete. China's efforts to develop low Earth orbit (LEO) space station capabilities began with a *space laboratory phase*, consisting of three "Tiangong" space modules launched in 2011, 2013 and 2015, respectively. These were small and experimental modules intended to demonstrate the rendezvous and docking capabilities needed for a much larger space station complex. They were designed for short stays with crews of three. The larger, modular space station begins to take shape in 2020, using the previous separate components which are arranged as a Core Cabin Module (CCM), Laboratory Cabin Module I (LCM-1) and Module II (LCM-2), a "Shenzhou" crewed vessel and a cargo craft for transporting supplies and lab facilities. The space station is being used to conduct experiments on weather phenomenon and help understand them better.

A depiction of Gold reserve. Not an actual picture of Pakistani reserves.

- **October:** Years of militant activity and bomb blasts, coupled with an unstable government has resulted in Pakistan's economy shrinking and inflation at nearly 74% Power cuts ranging from 16-20 hours daily are entirely normal. With Pakistan having unable to manage its balance of payment crisis, it has finally succumbed to the IMF's "suggestion" to mortgage its gold reserves valued at nearly $8 billion dollars. Atleast two-thirds of that was "gifted" by Saudi Arabia to Pakistan in 2013-14 to help it tide over the economic crisis. Since then, Pakistan had refused to sell them, despite repeated calls by the IMF. With not even enough money to pay the salaries of their President & PM after the next 2 months, Pakistan has now mortgaged it gold reserves with the IMF.

- **November:** Taiwan signs a deal with nearly $7.2 Billion deal with Swedish aerospace company Saab to procure 90 Saab JAAS39 Gripens. The deal followed years of difficulty in procuring additional US made aircrafts due to persistant opposition by mainland China. Sweden however, had braved opposition from Beijing and has gone ahead and signed the deal. Upto 30 aircrafts will be purchased in “fly away” condition within 2-3 years, whereas the rest will be locally assembled simultaneously.

Year 2022

- **January:** The third of the *Zumwalt* class stealth destroyers, USS Lyndon B Johnson has been inducted into the US Navy after several time and cost overruns. Costing nearly $4 Billion a piece, these impressive guided missile destroyers have dual band AESA radars, Peripheral Vertical Launch systems for missiles (PVLS), high speed propulsion and top-class sonar. The sips can also intercept ballistic missiles being fired from enemy territory, in their terminal phase. Congress has approved plans to construct 3 more “improved” Zumwalt class ships with a revolutionary Rail gun that can fire 12 kg explosive projectiles at speeds of about 8600 km/h or Mach 7.

- **February:** India inks a deal with Russia to purchase the 2 Akulas hunter-submarines it leased from Russia for 10 years. India will pay an undisclosed amount to Russia to purchase the ships it leased for about a year. India also signs a deal to purchase an additional third Akula 3 class submarine for about $2.2 Billion. The submarine is being assembled in Russian shipyards and was earlier deferred from induction into the Russian navy due to budget constraints. India is now expected to operate a third Akula submarine in less than 2 years.

- **August:** China inducts a second type of stealth fighter, called the **Shenyang J-31** developed by the Shenyang Aircraft Corporation. The J-31 was earlier reported for the first time in 2014 making taxi trails and flight testing. The new 5th Generation aircraft is smaller and lighter than the bigger J-20 inducted earlier. It is therefore agile and can be launched from the decks of any aircraft carrier. If succeeded, China will only be the second country after the US to operate stealth fighters from the deck of an aircraft carrier. The J-31 has "overwhelming" similarities with the American F-35 and has been accused to be a product of cyber-espionage.

- **October:** India's HAL makes the first test flight of the advanced Medium Combat Aircraft or AMCA. The aircraft successfully completed trials and was reported to have performed "satisfactorily." The AMCA project is already 4 years behind schedule and its test flight could not have been better timed considering China's J-31 induction recently.

- **October:** Following repeated confrontations between Japan and China as well as the reinterpreted terms of engagement for Japan's military exports – Taiwan and Japan have signed a deal to purchase 3 Japanese Oyashio class diesel-electric submarines. The submarines, which are mandatorily retired after 18 years of service in the Japanese Self Defence Force and are in "reserve" will undergo minor refit and refurbishment for 8-10 months and will begin joining the Taiwanese fleet. The 3 submarines – Oyashio, Michishio and Uzushio are far quieter and better equipped than anything in service with the Chinese Navy and can be a major boost to Taiwan's undersea capability against Beijing.

- **November:** In a poll conducted by SIPRI, Russia's *Gazprom* is listed as the most influential Russian company in Europe due to Europe's continued dependence on Russia for Gas and other energy resources. The poll says that 47% of all Europeans feel that Russia used Gazprom and its military assets to enforce a policy of "Coercive Diplomacy" against several European states.

<u>NOTE:</u> UPDATES FROM YEAR 2023 – 2024 WILL BE RELEASED 24 HOURS FROM NOW ALONG WITH DOCUMENTS ON RULES OF PROCEDURE AND CHARACTER MATRIX.

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