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Cutting Edge: Aerospace and Defence





Shashank Tripathi

Partner and Leader,
Aerospace and Defence
PwC India

Editorial

Dear readers,

Greetings for the first quarter of 2020–21! I hope you are safe and healthy in these troubled times. The Aerospace and Defence (A&D) industry has an inherent fighting spirit and I am confident we will come out stronger from this crisis. I have taken over as PwC India's A&D leader earlier this quarter and I look forward to working with you to support your institution and the revival of this sector.

We are pleased to present to you the 42nd edition of Cutting Edge, PwC India's Aerospace and Defence (A&D) newsletter. Through this quarterly publication, we update our clients on news, analysis and the latest developments in the A&D sector in India. In the last two quarters, there were several important events and market developments, both in the defence and aviation sector – the release of the 2020–21 defence and civil aviation budgets, appointment of the country's first Chief of Defence Staff (CDS), release of the draft Defence Procurement Procedure (DPP) 2020, amendments to DPP 2016 related to re-phasing of offsets, release of the National Counter Drone Guidelines, conclusion of the 11th edition of DefExpo in Lucknow and the re-initiation of divestment of Air India. The international A&D landscape is still fluid and we will give further updates in the coming quarter. The sector will have to react rapidly to the COVID-19 crisis and we will come back with specific views on the shape of this response and recovery.

Analysis of defence budget

To push the sector's growth, the defence budget was increased by 5.8% in FY21, which in nominal terms maybe below par. The Government of India (GoI) allocated INR 323,053 crore for the defence budget in FY21, of which INR 113,734 crore (35%) is allocated for capital expenditure and INR 209,319 (65%) crore is allocated for revenue expenditure.¹ At INR 43,282 crore, the capital outlay for the Air Force is the highest among the three forces for FY21. With a continued focus on innovation and self-reliance, INR 10,533 crore has been allocated towards research and development (R&D), an increase of only 0.5% from last year's allocation. The share of pay and allowances and defence pensions has been increasing year on year. Only 40% of the budget is for modernisation, capital works (infrastructure), training, revenue works, transportation, R&D and other miscellaneous expenditure. The defence budget is approximately 1.5% of the GDP which seems to be insufficient, considering the evolving geopolitical and security situation with respect to India's neighbouring countries. We are pleased to see additional capital allocations for the Naval Utility Helicopter (NUH) programme. An increase in capital expenditure by 3% over the revised estimates seems to be below par towards initiatives for modernisation of the Indian Armed Forces.

¹ <https://idsa.in/issuebrief/india-def-budget-2020-21-lkbehera-040220>

Aviation budget

The COVID-19 crisis will reshape the industry in fundamental ways. Even before the crisis broke, the aviation budget was decreased by 15.6% to INR 3,798 crore for FY21 as compared to INR 4,500 crore in FY20. The budget reinforces the impetus on the Regional Connectivity Scheme (RCS) by proposing the revival of 50 airports and making viability gap funding available for connectivity with the north-eastern region. The aviation budget focuses on improving regional air connectivity, with announcements on building 100 airports for regional flights and the launch of the Krishi Udan scheme for farmers to transport agricultural products. We believe these initiatives will strengthen the aviation sector, enhance regional connectivity and help instil confidence in the airlines operating in India.

Policy updates

A substantial move in terms of sectoral policies was the release of the **draft DPP 2020**, in March 2020. The draft has proposed the four new categories of procurement – Leasing, Design and Development (D&D), Strategic Partnership Model (SPM) and Buy (Global – Manufacture in India). The innovative concept of leasing military equipment is likely to reduce the financial burden for budget-constrained defence capital procurements. It would also facilitate a shorter procurement cycle and induction of advanced technologies in minimal lead time. The inclusion of the D&D, SPM and Buy (Global – Manufacture in India) categories of procurement is a welcome step towards boosting the Make in India initiative and indigenisation.

Furthermore, the indigenous content requirements across all the procurement categories have been increased by about 10% as compared to DPP 2016, thereby giving impetus to indigenisation.

The changes in **offset guidelines** have been a mixed bag. A few changes such as 0.5 multiplier for direct purchase of component of eligible products, deletion of offset banking, removal of civil aerospace as well as coastal security products and all services from the list of items eligible for offsets are below par. Nevertheless, many provisions have been included to encourage both the domestic industry as well as foreign defence companies to manufacture in India. Allowing offset discharge by entities other than the prime vendor/Tier-1 sub-vendor, introducing the provision of third-party valuation from recognised/certified valuation firms for offset discharge through transfer of technology (ToT) and allowing offset multipliers of up to 4 are welcome steps. We shall continue to help voice the industry's views on and shaping the draft DPP 2020, optimally.

Other changes in A&D environment and leadership

The Government of India (GoI) appointed General Bipin Rawat as India's first Chief of Defence Staff (CDS) to integrate the operations of the three military services (the Indian Army, the Indian Air Force, and the Indian Navy). The CDS is meant to be a single-point military advisor to the Prime Minister and Minister of Defence on important defence and strategic issues. The CDS will coordinate long-term planning, training, procurement and logistics of the three services, and

we expect significant savings in revenue expenditure as a result. We also expect that the CDS will facilitate the restructuring of the military commands for optimal utilisation of resources through integration of operations of the three services to enhance combat effectiveness, including through establishment of joint/theatre commands.

Moving on to the unmanned aerial vehicle (UAV) sector, the GoI released the National Counter Rogue Drone Guidelines which aim at laying down a range of countermeasures for handling threats to critical installations from rogue drones. As per the guidelines, the Ministry of Civil Aviation (MoCA) has suggested a counter rogue drone deployment plan that is categorised across three levels, depending on the sensitivity of installations and vital assets. In addition to the deployment plan, the MoCA has also finalised a set of legal procedures for handling rogue drones. This initiative will establish a unified drone regulatory architecture for carrying out collective and coordinated efforts for handling the emerging drone threat. We continue to hone our skills in providing effective anti-drone solutions for critical infrastructure aligned with these guidelines.

In addition, the MoCA provided a one-time opportunity for voluntary disclosure and registration of drones in the month of January 2020. This is to help the authorities to identify civil drones and their operators. Drone operators must obtain a permit, a unique identification number (UIN) and meet other operational requirements for operating drones.

The last quarter saw a major development in the aviation sector as the GoI gave approval for the strategic disinvestment of Air India (AI) by way of the transfer of management control and sale of 100% equity share capital of AI. The divestment will include AI's shareholding interest of 100% in Air India Express Limited (AIXL), a low-cost international carrier, and 50% in AISATS, a joint venture (JV) with Singapore-based ground handling company SATS Limited. The GoI has also paved the way for up to 100% foreign direct investment (FDI) in AI by non-resident Indians (NRIs).

DefExpo 2020

The Ministry of Defence (MoD) organised the 11th biennial edition of DefExpo 2020 for the first time in Lucknow, Uttar Pradesh, from 5–9 February 2020. The main theme of this year's DefExpo was 'India: The Emerging Defence Manufacturing Hub', and the focus was on showcasing new technological solutions and providing a platform for defence manufacturing companies from India and abroad to exhibit their products and services. The expo witnessed the participation of 1,028 companies (863 Indian companies and 165 companies from more than 70 countries). More than 3,000 foreign delegates, 10,000 Indian delegates and 1.2 million visitors visited the event and laid a strong foundation for the development of the UP defence corridor. Defence ministers from 40 countries visited the DefExpo. More than 200 partnerships involving the signing of memorandums of understanding (MoUs), transfers of technology (ToTs) and product launches took place at DefExpo 2020, making it the most successful DefExpo held in India.

International updates

The global A&D industry has been deeply impacted by the COVID-19 crisis. We are in touch with our global

leaders and broadly the defence sector will likely face minor pressure as national budgets focus on the health and economic revival. The aerospace industry is being deeply impacted by this crisis and will likely go through a structural change. We will update you on developments with original equipment manufacturers (OEMs) and global supply chain shifts which are likely as a result of the COVID-19 crisis.

Way forward

Despite the COVID-19 crisis, India's defence sector is poised for growth, with a focus on manufacturing, strategic partnerships and leveraging technology for the transformation of the armed forces. The COVID-19 crisis will put different pressures on the aerospace industry but given the large land mass of India and the role the aviation sector plays in it; we expect a recovery in the Medium term.

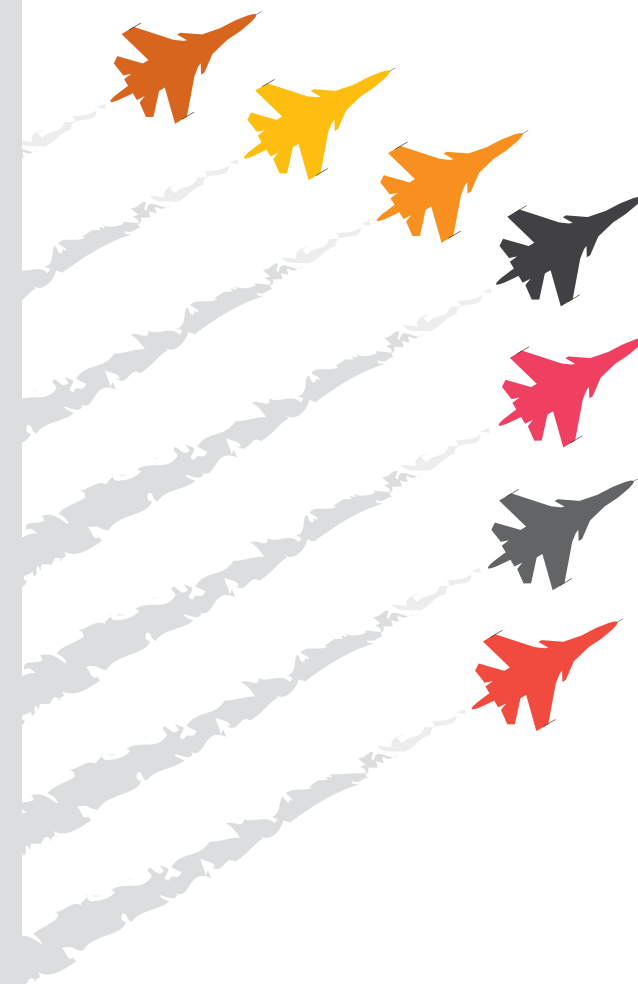
We trust that you will find this edition of Cutting Edge useful. Your feedback, trust and support are immensely encouraging for us to reinforce our efforts towards adding and creating value in the A&D sector. I would like to thank you all for your continued support and trust in PwC.

We are going through a difficult phase due to the COVID-19 outbreak and its impact on our lives. I hope all of you stay safe and healthy during this crisis. Our safety today will ensure that we emerge out of this crisis together, stronger and with greater resilience.

Sincerely,

Shashank Tripathi

Partner and Leader, Aerospace and Defence
PwC India



In this issue



Select news items

Finance Commission prepares defence funding framework

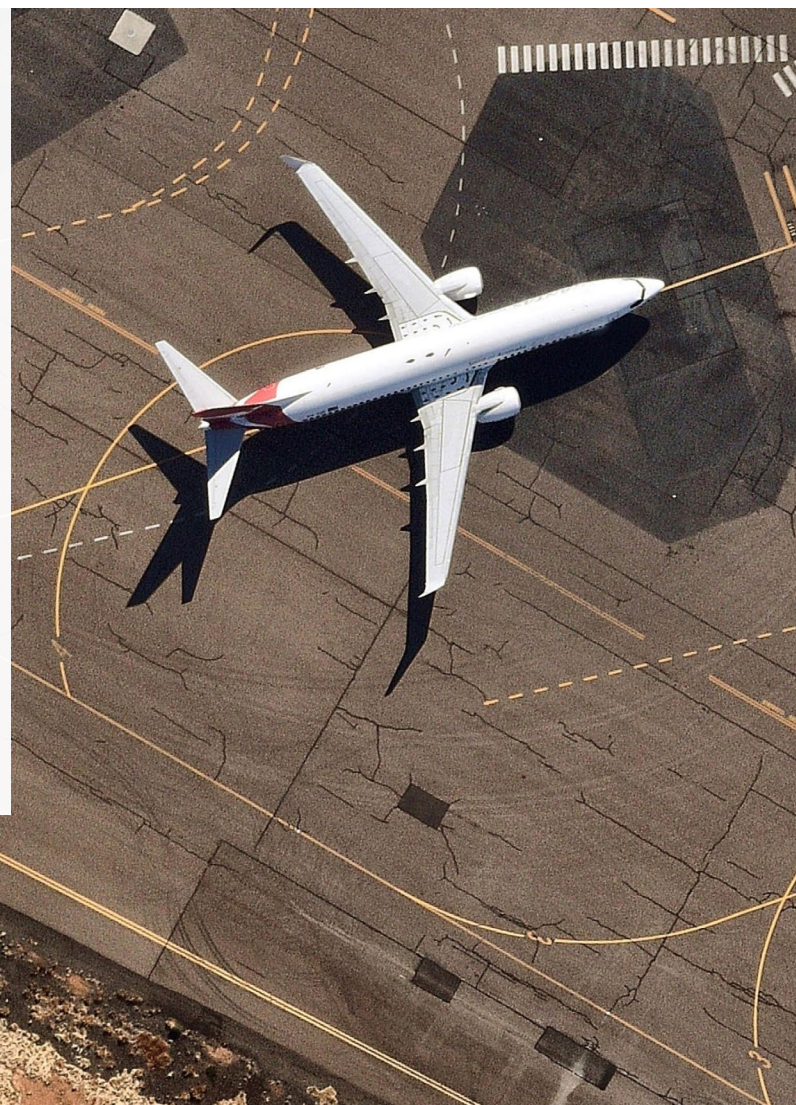
The Fifteenth Finance Commission (FFC) is planning to set up a committee under the chairmanship of N K Singh to examine the fiscal and debt situation of the Centre and the states and present a road map. The panel will be set up on the lines of the erstwhile fiscal responsibility and budget management panel. In its first report, the FFC has also recommended setting up of a non-lapsable defence fund, levy of cess, monetisation of surplus land and other assets, tax-free defence bonds and utilising the proceeds of disinvestment of defence public sector undertakings. The idea of a non-lapsable defence fund has been mooted by a Parliamentary Standing Committee.

Source: <https://www.livemint.com/news/india/fifteenth-finance-commission-prepares-defence-funding-framework-11580927443150.html>

To boost defence exports, government to launch 'Open General Export License' scheme

Indian Government is working to boost Indian defence exports and towards this it plans to launch a new 'Open General Export License' scheme. Mr Sanjay Jaju, Joint Secretary (DDP), Department of Defence Production said, "We are working on launching the Open General Export License where the entire process of taking permission from the government will also be further reduced."

Source: <http://www.newindianexpress.com/nation/2019/jun/17/to-boost-defence-exports-modi-government-to-launch-open-general-export-scheme-in-a-month-1991497.html>



National Counter Rogue Drone guidelines finalised

The government has finalised the National Counter Rogue Drone Guidelines, which aim to lay down an array of counter rogue drone measures and guidelines to be deployed for handling the threats to installations from unmanned aircraft systems. Under the guidelines, the MoCA has suggested a counter rogue drone deployment plan, categorised across three levels, based on the sensitivity of vital assets and installations. In addition to the counter rogue drone deployment plan, the civil aviation ministry has also suggested a set of legal procedures to handle rogue drones.

Source: <https://indianexpress.com/article/business/aviation/anti-drone-tech-rules-finalised-deployment-based-on-sensitivity-of-installations-6082985/>

USD 5 billion defence export target to be achieved in the next 5 years: Rajnath Singh

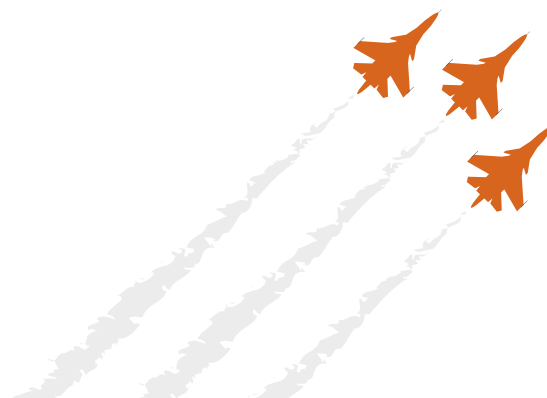
Defence Minister Rajnath Singh expressed confidence that India will achieve the target of USD 5 billion worth of defence exports by 2024. "In 2018-19, defence export was INR 10,745 crore, which was seven times the exports in 2016-17. Seeing the success of this Defence expo, I am sure that by 2024, we will achieve the target of USD 5 billion worth of defence exports," the minister said.

Source: <https://economictimes.indiatimes.com/news/defence/5-billion-defence-export-target-to-be-achieved-in-the-next-5-years-rajnath-singh/articleshow/74006160.cms>

India pitches as reliable defence supplier to Africa

The first ever India-Africa Defence Ministers Conclave held at DefExpo 2020 aimed at exporting India made defence equipment to the African continent. More than 154 delegates from Africa, including defence ministers from 14 African countries, Members of Parliament as well as 19 defence and service chiefs from 38 African countries participated in this conclave attesting to the high priority accorded to India-Africa engagement in defence and security. Besides traditional partners in Eastern and Southern Africa, Western African states have also sought to deepen defence ties with India including training for its officers and joint defence exercises. The military to military ties is being revived as India seeks to emerge as a net security provider in Africa amid common challenges from terrorism and piracy.

Source: <https://economictimes.indiatimes.com/news/defence/india-pitches-as-reliable-defence-supplier-to-africa/articleshow/73990771.cms>



General Bipin Rawat named India's first Chief of Defence Staff

Indian Army chief General Bipin Rawat was named India's first Chief of Defence Staff (CDS). He is the first officer to hold the post of the CDS. The CDS will function as a single-point advisor to the government on matters related to the military and will focus on better synergy between the Indian Army, the Indian Air Force and the Indian Navy.

Source: <https://www.indiatoday.in/india/story/general-bipin-rawat-first-chief-of-defence-staff-1632572-2019-12-30>

Telangana planning to set up Aerospace University

Telangana is planning to establish a world class aerospace university in the state in partnership with the industry and global universities. The state not only has a good ecosystem but also a constant and abundant supply of highly-skilled and industry-ready workforce which makes it a frontrunner in the aerospace industry. Hyderabad has tie-ups with renowned institutions such as Cranfield and many others to offer need-based aerospace and defence certification courses at affordable cost.

Source: <https://telanganatoday.com/telangana-planning-to-set-up-aerospace-university-kt-rama-rao>

Aviation Ministry to launch Krishi Udan scheme for transport of agri products

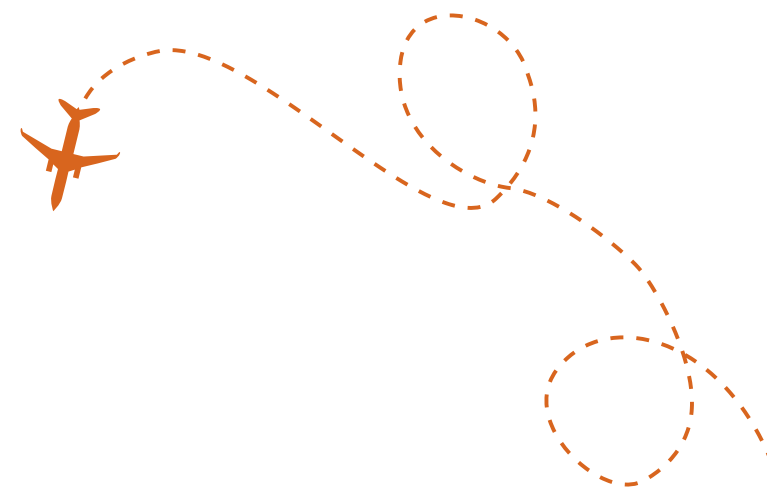
The civil aviation ministry is expected to launch the Krishi Udan scheme on domestic and international routes to support farmers. Launched in 2017, Ude Desh ka Aam Naagrik (UDAN) is a regional connectivity scheme of the government which aims to improve the connectivity of underserved and unserved destinations in India. The move is part of a 16-point programme of the government to boost farmers' income as part of the 'Aspirational India' segment listed out by Finance Minister Nirmala Sitharaman during this year's Union Budget speech.

Source: <https://economictimes.indiatimes.com/news/economy/agriculture/aviation-ministry-to-launch-krishi-udan-scheme-for-transport-of-agri-products-fm/articleshow/73835041.cms>

India to build 100 new airports by 2024 to boost air connectivity

India's Union Minister for Finance and Corporate Affairs Nirmala Sitharaman announced that 100 additional airports will be developed in the country by 2024. The government allocated INR 1.7 trillion (USD 23.7 billion) to support the country's transport infrastructure. The new airports are expected to aid the UDAN Scheme. These airports are aimed at easing the strain on India's current travel hubs.

Source: <https://www.airport-technology.com/news/india-100-airports-2024/>



Government introduces bill to amend Aircraft Act in Lok Sabha

A bill in the Lok Sabha has been introduced to amend the Aircraft Act, whereby the penalty amount for violations will be hiked from INR 10 lakh to up to INR 1 crore. The Aircraft (Amendment) Bill, 2020, also stipulates for exempting aircraft belonging to any armed forces of the Union other than naval, military or air force from the Aircraft Act, following repeated requests from the Border Security Force (BSF) for exemption under rule 160 of the Aircraft Rules, 1937. Once the amendments are passed, the government would also have the power to issue directions to review, if necessary in public interest, any order passed by Directorate General of Civil Aviation (DGCA), Bureau of Civil Aviation Security (BCAS) and Aircraft Accidents Investigation Bureau (AAIB), as per the bill.

Source: <https://www.newindianexpress.com/nation/2020/feb/04/government-introduces-bill-to-amend-aircraft-act-in-lok-sabha-2098909.html>

Government to sell 100% stake in Air India

The government has decided to sell its entire stake in Air India under the proposed disinvestment process. The national carrier, which has a debt burden of more than INR 50,000 crore, has been making loss for long and as part of revival efforts, the government has decided on disinvestment. After formation of the new government, Air India Specific Alternative Mechanism (AISAM) has been reconstituted and the re-initiation of the strategic disinvestment of Air India has been approved. AISAM approved the sale of the Govt's 100% stake in Air India for the reinitiated strategic disinvestment of Air India.

Source: <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/govt-to-sell-100-stake-in-air-india-says-union-minister-hardeep-singh-puri/articleshow/72490472.cms>

India implements compulsory drone registration

Drone owners and operators in India need to register their drones with DGCA. The Ministry of Civil Aviation says the registration is a “one-time opportunity for voluntary disclosure”, which will help the authorities in identification of civil drones and their operators. As part of the registration processes, drone operators have to obtain a unique identification number, as well as a permit, and meet other operational requirements set by the Indian authorities, in order to be able to operate the drones. Those found with unregistered drones will be liable to criminal prosecution.

Source: <https://www.flightglobal.com/aerospace/india-implements-compulsory-drone-registration/136124.article>

Andaman and Nicobar Islands to get India's first water aerodromes

The Airports Authority of India (AAI) intends to develop water aerodromes in Long Island, Swaraj Island and Shaheed Island with a total investment of INR 50 crore. These airports are part of the ten water aerodromes that the Centre intends to develop. The AAI is in the process of seeking environmental clearance from the Ministry of Environment, Forest and Climate Change for three, first-of-its-kind in the country, water aerodromes in Andaman and Nicobar Islands.

Source: <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/aai-to-set-up-indias-first-three-water-aerodromes-in-andaman-nicobar/articleshow/73028720.cms>

Govt may privatise Indira Gandhi Udan Academy soon

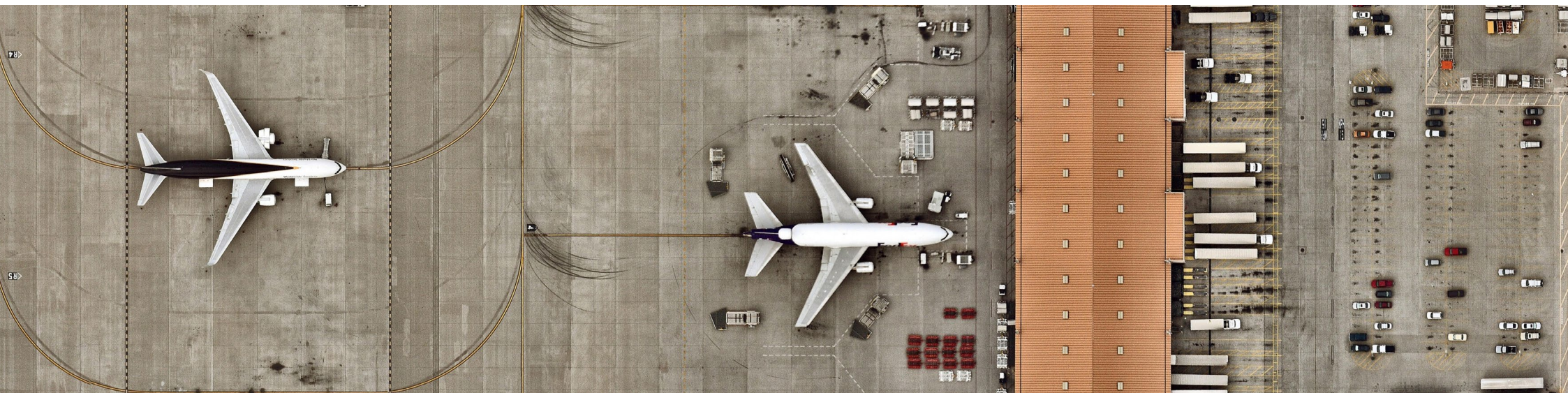
The government has decided to privatise the Indira Gandhi Rashtriya Udan Academy (IGRUA), a pilot training institute. The industry view is that the government should facilitate private companies to start pilot training institutes at airports and airstrips that are lying idle. The institute is currently making losses averaging around INR 6 crore annually, and the government does not see any merit in funding its losses.

Source: <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/govt-may-privatise-indira-gandhi-udan-academy-soon/articleshow/73240338.cms>

30 airports, airstrips up for bidding in Northeast region

The Civil Aviation Ministry sought bids for 6 underserved and 24 unserved airports and airstrips and a water aerodrome in the Northeast region under the latest round of regional air connectivity scheme, UDAN. This development supports the government's plan to operationalise 1,000 routes and more than 100 airports in the next five years.

Source: <https://www.thehindu.com/news/national/30-airports-airstrips-up-for-bidding-in-northeast-region/article30213849.ece>



BEML, Wipro to work together in aerospace, AI and 3D printing

BEML and Wipro Infrastructure Engineering signed a first-of-its-kind MoU to work together in aerospace, industrial automation, 3D printing, artificial intelligence and hydraulic system engineering. The MoU involves working together on projects, products, systems, services and projects in defence, DRDO labs, DPSUs and other relevant government entities in India, as well as export customers. The key focus areas include aerospace components and parts through SEZ, metal additive manufacturing and design optimisation for new critical aggregates, legacy components and spares, and process automation.

Source: <https://economictimes.indiatimes.com/news/defence/beml-wipro-to-work-together-in-aerospace-ai-and-3d-printing/articleshow/71153551.cms>

HAL ties up with Larsen & Toubro, others as government taps private talent for Tejas Mark 1A

In a major boost to the Indian private defence industry, Hindustan Aeronautics Limited (HAL) has outsourced significant works on the light combat aircraft (LCA) Tejas Mark1A to private companies like Larsen and Toubro (L&T), Dynamatic Technologies, VEM Technologies and Alpha Design. The development indicates that the state-run HAL will now be more of a

systems integrator, with private companies playing a major role in the manufacturing of fighter aircraft and other aviation assets, including helicopters. The front fuselage of Mark1A has been outsourced to Dynamatic Technologies, the wings to L&T, the middle section to VEM, and rear section to Alpha Design.

Source: <https://theprint.in/defence/hal-ties-up-with-larsen-toubro-others-as-modi-govt-taps-private-talent-for-tejas-mark-1a/288196/>

HAL Gets Modification Document of Do-228 Civil Aircraft from DGCA

Hindustan Aeronautics Limited (HAL) received the modification document of HAL Do-228 (Upgraded) civil aircraft for 5700 All Up Weight (AUW) from DGCA during the DefExpo 2020. Two Civil Do-228 were produced by HAL, to be launched under UDAN scheme, with state-of-the-art configuration. In order to meet the operator's requirement of a transport aircraft flyable under commercial pilot license (CPL) category, HAL tried to reduce the aircraft weight below 5700 kgs.

Apart from weight criterion, HAL Do-228-201 (Upgraded) civil aircraft will also be equipped with digital cockpit which will ensure precise information, accurate readings and ergonomic data displays with feedback loops and capability for self-check to alert pilots in emergencies.

Source: https://www.equitybulls.com/admin/news2006/news_det.asp?id=262079

Lockheed Martin and BEL to explore industrial opportunities in the F-21 fighter programme

Lockheed Martin signed a memorandum of understanding (MoU) with Bharat Electronics Limited (BEL) to explore industrial opportunities in the F-21 programme at DefExpo 2020. Lockheed Martin is strengthening and growing its partnerships with the Indian industry to support the company's F-21 proposal for the Indian Air Force. The F-21 provides unmatched opportunities for Indian companies of all sizes, including Micro, Small and Medium Enterprises (MSMEs) and suppliers throughout India, to establish new business relationships with Lockheed Martin and other industry leaders in the US and around the globe.

Source: https://www.armyrecognition.com/defexpo_2020_news_show_daily/defexpo_2020_lockheed_martin_and_bel_to_explore_industrial_opportunities_in_the_f-21_fighter_programme.html

Russian Helicopters signs an events roadmap for Ka-226T helicopter assembly in India

Russian Helicopters Holding Company (part of Rostec State Corporation) signed a roadmap at the DefExpo 2020 with Indo-Russian Helicopters Limited (IRHL), a joint venture between Rosoboronexport and HAL, for localisation of Ka-226T helicopter production in India. The roadmap reflects timelines for setting up production in India, contracting with suppliers, transferring design documentation, supplying technological equipment and machine kits, training Indian personnel and other key stages of the project.

Source: https://www.armyrecognition.com/defexpo_2020_news_show_daily/defexpo_2020_russian_helicopters_signs_an_events_roadmap_for_ka-226t_helicopter_assembly_in_india.html

Igla-S air defence missile possibly produced in India

India and Russia are undertaking contract negotiation for supply of Russian-made 9K338 Igla-S man-portable air defence missile system (MANPADS) for the Indian Army. The two countries are also negotiating about the licensed production of 9K338 Igla-S in India.

The Igla-S MANPADS is designed to engage all types of visually observable aircraft and helicopters, as well as pinpoint air targets like cruise missiles and UAVs, both head-on and receding, at any time of day, against background clutter and decoy flares (jamming).

Source: https://www.armyrecognition.com/defexpo_2020_news_show_daily/defexpo_2020_igla-s_air_defense_missile_possibly_produced_in_india.html

Bharat Electronics and Tech Mahindra collaborate to build digital aerospace and defence products

Bharat Electronics Limited (BEL) and Tech Mahindra partnered to design and build digital solutions for aerospace and defence applications. The companies signed a memorandum of understanding (MoU) at DefExpo India 2020, Lucknow, to jointly develop solutions in the field of defence products and systems for the armed forces using latest A&D technologies, such as engineering services, 5G and cyber security. “The MoU will enable both the companies to make joint efforts to explore the opportunities available in the domestic markets on back of the policy initiatives of the Indian Government such as Make in India. It will further support in tapping into global markets for export of defence products produced by the individual

companies or jointly developed and produced by the two companies, leveraging on the Export Promotion Policy of the Ministry of Defence, Government of India,” said Anandi Ramalingam, Director, Marketing, Bharat Electronics.

Source: <https://economictimes.indiatimes.com/news/defence/bharat-electronics-and-tech-mahindra-collaborate-to-build-digital-aerospace-defence-products/articleshow/74012974.cms>

BHEL and BEL sign pact to develop products for defence, non-defence applications

BHEL signed an MoU with BEL during DefExpo 2020 to develop and market products, systems and sensors for defence and non-defence applications. The pact aims at leveraging the complementary strengths and capabilities of BHEL and BEL to develop and market products, systems and sensors for defence and non-defence applications. It will also enable BHEL and BEL to make joint efforts to explore markets for products individually developed or jointly developed by both companies.

Source: <https://economictimes.indiatimes.com/news/defence/bhel-bel-sign-pact-to-develop-products-for-defence-non-defence-applications/articleshow/74001179.cms>

HAL signs MoU with Elbit Systems for digital head-up displays for fighter planes

HAL signed an MoU with Elbit Systems at DefExpo 2020 for promoting and marketing the Digital Head Up Displays (HUD) units. The MoU envisages extending cooperation for new HUD technologies and promote Digital HUD to the Indian Defence Services and other potential customers. The digital HUD would incorporate new features, such as wide instantaneous and total field of view with minimal binocular disparity, large eye motion box and digital image source for increased pilot's situational awareness. It is also compatible with night vision imaging systems having improved maintenance features.

Source: <https://economictimes.indiatimes.com/news/defence/hal-signs-mou-with-elbit-systems-for-digital-head-up-displays-for-fighter-planes/articleshow/73981655.cms>

AAI proposes privatisation of 6 airports including Amritsar, Varanasi

The Airports Authority of India (AAI) recommended the Centre to privatise airports at Amritsar, Varanasi, Bhubaneswar, Indore, Raipur and Trichy. The recommendation came as the central government has already privatised airports at Lucknow, Ahmedabad, Jaipur, Mangaluru, Thiruvananthapuram and Guwahati for operation, management and development through

public-private partnership (PPP) model in February this year. In February 2019, in the first round of airport privatisation, the Adani Group bagged contract for all six airports by winning the bids with huge margins.

Source: https://www.business-standard.com/article/pti-stories/aai-recommends-centre-to-privatise-6-airports-including-amritsar-varanasi-119120100326_1.html

DGCA launches phase 1 services of e-Governance project

Aviation regulator DGCA launched the phase-1 services of the e-Governance (eGCA) project. Under this, issuance of commercial pilot licence (CPL) with Flight Radio Telephony Operators License (FRTOL) and Instrument Rating has been automated. The project is expected to help more than 700 aspirant pilots every year.

Source: <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/dgca-launches-phase-1-services-of-e-governance-project-automates-issuance-of-cpl/articleshow/73030582.cms>

AAI and AAICLAS to open perishable cargo centre in Guwahati airport

Airports Authority of India (AAI) and its cargo wing AAICLAS will open its perishable cargo centre at Lokapriya Gopinath Bordoloi International (LGBI) Airport. The cargo centre is being built by Assam

Industrial Development Corporation (AIDC). AAI leased 4,050 sq. m. of land to AIDC for a period of seven years from 31st May, 2017 for establishing the Centre for Perishable Cargo at the LGBI Airport, Guwahati with a capacity to handle 10000 MT of perishable cargo. A fresh allotment will be made as per AAI policy after the expiry of the seven-year period.

Source: <https://www.guwahatiplus.com/daily-news/guwahati-airport-to-open-perishable-cargo-centre>

Air India cancels divestment of its ground handling arm

The proposed divestment of Air India Transport Services Limited (AITSL), the ground handling subsidiary of Air India, has been cancelled. This divestment being called off will not affect the ongoing sell-off of Air India and Air India Express. Earlier companies interested in bidding for AITSL had sought clarity on several issues including the prospects of AITSL's Air India business post the divestment of Air India and whether the new owner will be given a free hand to deal with its current employees. There were also issues over how long the new company, post disinvestment, will continue getting grandfather rights that AITSL currently enjoys. AITSL currently provides ground handling services at 80 airports.

Source: <https://www.thehindubusinessline.com/economy/air-india-transport-services-ltd-divestment-cancelled/article30735095.ece>

ISRO to 'split up and unite' a satellite in space this year

Among things in the pipeline in 2020, ISRO will be splitting up a satellite and re-uniting it in the space. This Space Docking Experiment (SPADEX) will be a key step in realising technologies for human missions and the proposed space station in the future. ISRO chairman K Sivan, said: "The satellite will have two components. The satellite will be separated into two pieces and then they will get docked in a single piece to function as a full-fledged satellite."

Source: <https://timesofindia.indiatimes.com/india/isro-to-split-up-unite-a-satellite-in-space-this-year/articleshow/74201580.cms>

ISRO to begin testing for first human Gaganyaan Mission as rocket design sees completion

ISRO is getting closer to its dream of sending a manned indigenous spacecraft to the outer space. As per ISRO Chief K Sivan, the designing part of the Gaganyaan rocket has already been completed. The design and engineering of the launch vehicle, including the orbital module system for India's first human space flight, has been completed. He added that a series of tests need to be undertaken in order to validate the design and engineering of the systems during this

year. The space agency is set to conduct tests on its first unmanned spaceflight by the end of 2021. It is expected that the first manned flight may take place sometime in August 2022 on occasion of India's 75th Independence Day.

Source: <https://m.dailyhunt.in/news/india/english/republic+tv+english-epaper-repubeng/isro+to+begin+testing+for+first+human+gaganyaan+mission+as+rocket+design+sees+completion-newsid-167697994>

ISRO's RISAT-2BR1 to enhance India's surveillance capabilities

ISRO successfully launched the indigenous RISAT-2BR1 satellite and nine other commercial payloads through its PSLV-C48 mission from the Satish Dhawan Space Centre at Sriharikota in December 2019. The RISAT-2BR1 is a defence-grade satellite that will enhance India's surveillance capabilities and has the objective of also monitoring terrorist activities. It is a radar satellite and the fourth in India's RISAT series. The RISAT-2BR1, a 628-kg radar imaging satellite, was placed into a low-earth orbit at 576 km. The satellite will function in all weather conditions and can penetrate cloud cover as well as darkness. It can also observe through all kinds of terrain.

Source: <https://www.theweek.in/news/sci-tech/2019/12/11/isros-risat-2br1-to-enhance-indias-surveillance-capabilities.html>

SBI takes over as lead financier of Navi Mumbai Airport project

State Bank of India (SBI) has taken over as the lead financier for India's costliest airport project planned to be set up in Navi Mumbai. SBI agreed to disburse a term loan and facilitate the much-delayed financial closure of the INR 16,000 crore Navi Mumbai International Airport, to be built by the GVK Power and Infra-led consortium that runs the commercial capital's current airport, which is India's second busiest and most congested. SBI would be the lead bank for two phases of the project. It will be contributing about INR 4,000 crore-4,500 crore in the total loan funding of more than INR 10,000 crore. A few additional domestic financiers could also participate.

Source: <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/sbi-takes-over-as-lead-financier-of-navi-mumbai-airport-project/articleshow/73720912.cms>

Pratt & Whitney partners with AIESL for maintenance of all types of engines

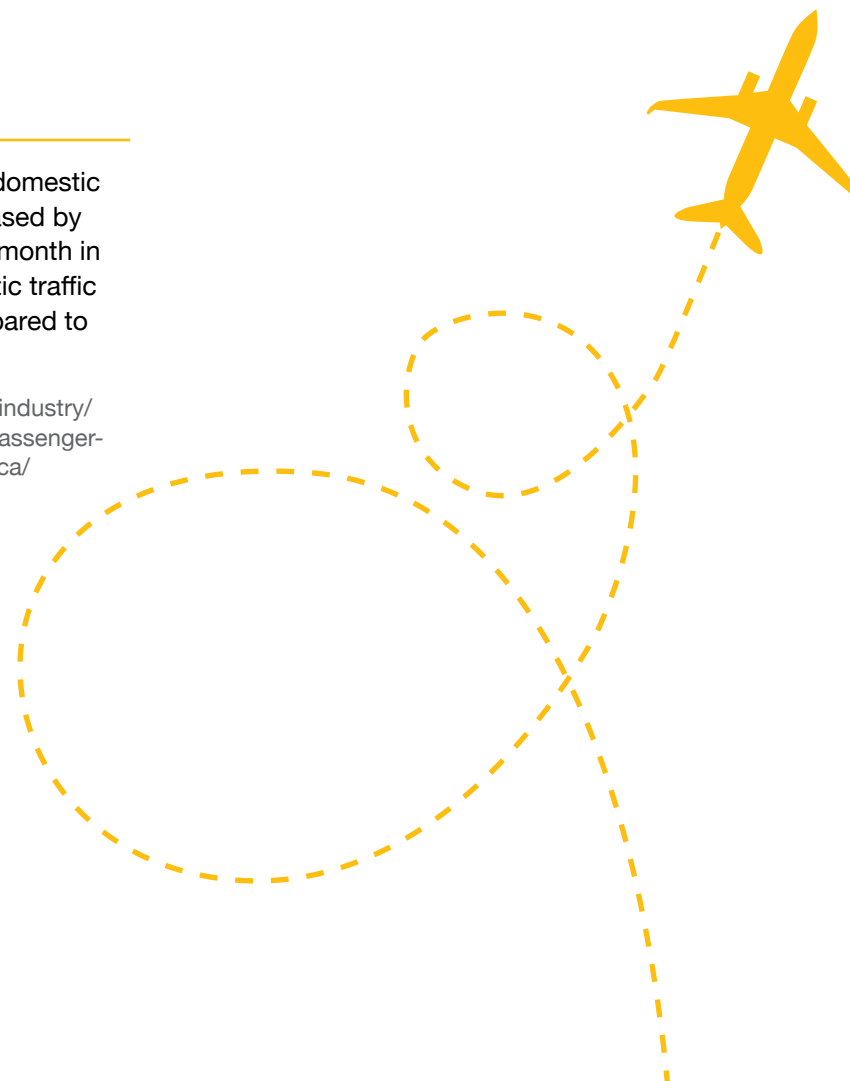
Pratt & Whitney (P&W), the US-based aeroengine manufacturer, partnered with Air India Engineering Services Ltd for maintenance of all types of its engines, including those powering A320 Neos. The company already has a tie-up with Air India Engineering Services Ltd (AIESL) for maintenance of its 4056 engine model, which powers the 747 series aircraft. Faulty engines would come to AIESL for replacement and then they would be taken to P&W factory for repair. As per the terms of partnership, P&W would also train Air India staff with respect to handling engines.

Source: <https://www.theweek.in/wire-updates/national/2020/02/21/del12-avi-airindia-pw.html>

Domestic air passenger traffic increased by 2.2 per cent in January 2020

According to data released by DGCA, the domestic air passenger traffic in January 2020 increased by 2.2% to 1.27 crore compared to the same month in 2019. In comparison, the growth in domestic traffic in December 2019 was 2.56 per cent compared to December 2018.

Source: <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/domestic-air-passenger-traffic-increased-by-2-2-per-cent-in-january-dgca/articleshow/74176305.cms>



Advisory G&PS

National Counter Rogue Drone Guidelines

The Ministry of Civil Aviation (MoCA) released the National Counter Rogue Drone Guidelines in November 2019.² The guidelines seek to highlight the potential threat from the unregulated use of drones and the measures to mitigate such threats. The guidelines aim to highlight various counter rogue drone measures that can be deployed for handling such threats in an effective manner.

Classification of drones

Drones for civil use are categorised as per maximum all-up weight (including payload) as indicated below:

- nano (less than or equal to 250 gm)
- micro (between 250 gm and 2 kg)
- small (between 2 kg and 25 kg)
- medium (between 25 kg and 150 kg)
- large (greater than 150 kg).

Rogue applications of drones: While the illegal use of micro drones may be limited to photography and surveillance, the small to large drones may be misused for carrying explosives with surveillance

capabilities. However, with increasing advancements in technologies and low-cost systems, the potential use of much smaller drones for delivering explosives in the near future cannot be underestimated. Some of the misuses of drones include:

- surveillance and reconnaissance
- airspace interference
- delivering weapons
- attacks on people and property
- conveying signals and propaganda messages
- delivery system for weapons of mass destruction
- electronic attacks.

Drones for rouge applications

Drones used for illicit targeting may include:

- **Autonomous drones:** Drones which are controlled by on-board computers to navigate to a fixed target and do not require real-time control.
- **Drone swarms:** Several drones controlled and coordinated together as one unit.
- **Stealth drones:** Drones that can reduce their radar signature and can be programmed to operate in pattern, making it difficult to detect them.



2 https://www.civilaviation.gov.in/sites/default/files/Counter_rouge_drone_guidelines_NSCS.pdf

Limitations of traditional response mechanism

- The traditional air defence system used to protect airspace from manned aircraft is ineffective against drones as anti-aircraft radars are designed to detect large- and fast-moving objects.
- Traditional air defence systems cannot always pick up small, slow and low-flying drones.
- It is impractical to use costly traditional anti-aircraft systems to shoot down drones.

Countering rogue drones

An effective counter-drone system needs to address the following issues:

- **Detection and tracking:** The counter-drone system should be capable of detecting and continuously tracking drones with the following characteristics:
 - small size/radar cross-section (RCS)
 - minimum infrared signature
 - minimal radio frequency (RF) footprint
 - low altitude
 - low acoustic emissions.

- **Identification:** The system requires quick and accurate identification and classification of target drones in the face of the following challenges:
 - difficulty to differentiate between friendly and rogue drones
 - limited directory of drone signatures
 - less reaction time.
- **Interdiction:** Challenges to timely, cost-effectively neutralising drones are:
 - collateral damage to friendly environment
 - possibility of utilisation of stand-off weapons from drones.

Counter rogue drone deployment plan

The extent of security cover against drones is different as compared to conventional air threats, such as the ones from fighter aircrafts. In order to deploy counter-drone systems for protection of strategic assets in the country, vulnerability analysis of identified vital areas (VAs)/vital points (VPs) by security agencies needs to be conducted by the Ministry of Home Affairs (MHA) and state home departments to finalise the requirement of counter-drone systems.

The following are the various suggested counter-drone system deployment plans:

- **Full-scale model:** Considered for protection of VAs/VPs such as the Rashtrapati Bhavan, the Parliament House, nuclear installations and major airports. It comprises primary and passive detection means (e.g. radar, RF detector, electro-optical [EO]/infrared [IR] sensors), along with soft-kill measures (e.g. RF jammers, global navigation satellite system [GNSS] jammers and global positioning system [GPS] spoofers) and hard-kill measures (e.g. electromagnetic weapons, lasers and drone nets).
- **Mid-segment model:** Considered for installations, such as metro stations, oil refineries and power plants. It comprises primary and passive detection measures along with soft-kill measures only.
- **Basic model:** Considered for state secretariats, important monuments, important official premises, etc. It comprises passive RF detectors along with soft-kill and hard-kill measures.

Institutional setup

Multiple agencies, such as the Ministry of Defence (MoD), the MHA, the MoCA, the Ministry of Law and Justice and the Indian Air Force (IAF) are involved in the protection of installations and facilities against drone threats. Hence, a steering committee should be set up at the national level to build a counter rogue drone framework and decide on the deployment mechanism.

- The responsibilities of the steering committee are to:
 - prepare guiding principles for security classification and vulnerability analysis of vital installations from drone threats.
 - nominate concerned authorities/ministries for implementation of suitable counter drone systems
 - regulate commercial civil drone applications as per the security framework in the country
 - coordinate with the Directorate General of Civil Aviation (DGCA)/Airports Authority of India (AAI) to build capability for real-time monitoring of drones
 - track and monitor advancements in drone and counter-drone technology.
- The steering committee comprises representatives from:
 - the IAF
 - the MHA (consists of nominated representatives from the National Security Guard [NSG], the Central Reserve Police Force [CRPF]/state police and the Border Security Force [BSF])
 - the MoCA (consists of representatives from DGCA/AAI)
 - intelligence agencies (consists of representatives from the National Technical Research Organisation [NTRO], the Intelligence Bureau [IB])
 - the Defence Research and Development Organisation (DRDO)/research and development (R&D) organisations.
- **Implementation committee:** An implementation committee will assist the steering committee for regular monitoring of drone threats and deployment of counter-drone systems at VAs/VPs at the national and state levels. The responsibilities of the implementation committee are to:
 - co-ordinate to implement the counter-drone systems
 - monitor procurement and implementation of the counter-drone systems at VAs
 - updation of counter-drone threat/signature directory
 - implementation of best practices
 - training of security agencies
 - management of central catalogue of approved counter-drone systems.
- The implementation committee consists of representatives from:
 - the MoD (IAF, the Indian Army and the Indian Navy)
 - the MHA (CRPF and state police)
 - the MoCA and the DGCA/the AAI and the Bureau of Civil Aviation Security [BCAS])
 - the academia and the drone industry.



Legal procedure to handle rogue drones: As the drone industry is growing in India, it is important that necessary legal provisions are in place so that the designated authorities can secure/protect public/vital assets from rogue drones. The legislation shall ensure that designated members of the armed forces, government departments and security agencies do not face penalties for protecting vital assets legally. The legal authority is to be extended for designated law enforcement agencies against rogue drones as mentioned below:

- Carry out detection, tracking and identification of drones without prior consent.
- Warn the drone operator by passive or active and direct or indirect physical, electronic, radio and electromagnetic means.
- Disrupt drone control, without prior consent.
- Seize or exercise the drone control.
- Seize or confiscate the drone.

Training on handling drone threats

- The roadmap for training of personnel from various security agencies is finalised and included in the MHA standard operating procedure (SOP) on Handling of Threat from Sub-Conventional Aerial Platforms in Country.
- With the induction of counter-drone systems, the concerned original equipment manufacturer

(OEM) shall train the personnel on operational utilisation of sub-systems. In addition, the technical maintenance crew needs to be trained for regular maintenance of counter-drone systems.

- Security agencies should hold regular interactions with various R&D organisations and OEMs to facilitate in developing advance security models.

Our views

- Misuse of drones can emerge as military and social threats. Recent drone attacks on critical infrastructures, including a large oil refinery, and several drone sightings near airports, highlight the quantum of such threats. There is a need to regulate drone use and identify and interdict rogue drones that pose threats to security.
- With the implementation of Civil Aviation Requirements (CAR) 1.0, the civil use of drones is expected to grow multiple times as drones offer different business sectors better and cost-effective mechanisms for different operations. However, with the increase in commercial drone operations, there always remains a likelihood of misutilisation of drones for rogue activities.
- As a procedural measure, the IAF is training civil security personnel on detection, identification and interdiction of drones and the MHA has released SOPs for handling threats from rogue drones.

However, in the absence of proven means for detecting and neutralising drones, the existing mechanism remains highly inadequate.

- It is feared that the magnitude of the drone threat will increase with advancements in drone technology. Hence, there is a requirement to establish a unified drone regulatory architecture for carrying out collective and coordinated efforts to handle the emerging threat.
- Establishing operational guidelines in accordance with the emerging commercial usage of drones, setting up of unmanned aerial vehicle (UAV) traffic management, strict imposition of airworthiness characteristics, training and maintenance are expected to assist constructive use of drones.
- Awareness among personnel, effective imposition of the legal framework and association with R&D organisations and academic institutions, along with implementation of counter-drone systems at identified VAs/VPs, are very important for handling threats.
- We are committed to providing an effective anti-drone solution considering evolving technologies and threats. The solution would be in alignment with the government guidelines.

DefExpo 2020

DefExpo 2020, the 11th edition of the biennial defence exhibition, was organised by the MoD from 5–9 February 2020 in Lucknow, Uttar Pradesh. The main theme of DefExpo 2020 was India: The Emerging Defence Manufacturing Hub and the focus was on digital transformation of defence. DefExpo 2020 focused on new technologies and technological solutions, and provided a platform to defence manufacturing companies from India and abroad to showcase their products and services in the defence sector. The five-day exhibition gave the Indian defence industry an opportunity to promote its export potential. DefExpo 2020 also showcased the comprehensive spectrum of India's aerospace, defence and security interests.

The exhibition proved to be an effective platform for showcasing the unique products that help in achieving the digital transformation of defence. It was also an ideal platform where India's defence public sector units, its growing private industry and micro, small and medium enterprises (MSMEs) could showcase their cutting-edge technological products.

A total of 1,028 companies (863 Indian companies and 165 companies from more than 70 countries) participated in the exhibition. It also saw the enthusiastic participation of industry players. Some of the recent incentives announced by the GoI for the A&D sector are enumerated below:

Industrial licence

- Reduced entry barriers for new entrants, as the new regime has scrapped obtaining industrial licensing for the majority of components/parts/sub-systems for defence manufacturing.
- In order to ensure continued manufacturing of defence and aerospace products, the validity of licences has been increased from 3 to 15 years.

Innovations for Defence Excellence (iDEX): iDEX aims to set up defence innovation hubs across the country to develop an ecosystem that will foster innovation and technology development in the A&D sector by engaging industries, including MSMEs, start-ups, individual innovators, R&D institutes and the academia.

Defence investor cell: Created within the Department of Defence Production, the cell addresses queries related to investment opportunities, procedures and regulatory requirements for investment in defence.

Authorisation for exports: An online, transparent and time-bound single window interface has been created to issue authorisation for export. The average processing time for authorisation has been reduced to 25 days, and 70% of the no objection certificates (NOCs) were issued in 15 days.

Registration of firm: Renewal of registration can be carried out on a self-certification basis. The capacity verification of non-registered firms participating in tender enquiry has now been made valid for three years.

Make in India portal: All policies, procedures and promotional measures related to defence production are now available on a single platform.

Highlights from DefExpo 2020

Bandhan ceremony

More than 200 partnerships involving the signing of memorandums of technology (MoUs), transfers of technology (ToTs) and product launches took place at DefExpo 2020, making it the most successful of its kind to be held in India. The pacts aimed at forging and renewing partnerships for innovative collaboration and transformation of the defence manufacturing sector in the country were inked by representatives of various defence public sector undertakings (DPSUs), private defence companies and foreign companies. 23 MoUs were signed between the Government of Uttar Pradesh and various companies/foreign governments.

MoU between BEL and Lockheed Martin

Lockheed Martin signed an MoU with Bharat Electronics Limited (BEL) to explore industrial opportunities in the F-21 programme. Lockheed Martin is strengthening and growing its partnerships with the Indian industry to support the company's F-21 proposal for the IAF. The F-21 provides unmatched opportunities for Indian companies of all sizes, including MSMEs and suppliers throughout India, to establish new business relationships with Lockheed Martin and other industry leaders in the US and worldwide.

India positions itself as a reliable defence supplier to Africa

The first ever India-Africa Defence Ministers' Conclave held in Lucknow aimed at exporting Indian-made equipment to the African continent in keeping with the long standing defence partnership between India and Africa since the 1950s. More than 154 delegates from Africa, including defence ministers from 14 African countries, Members of Parliament, as well as 19 defence and service chiefs from 38 African countries, participated in this conclave, attesting to the high priority accorded to the India-Africa engagement in defence and security. Besides traditional partners in Eastern and Southern Africa, Western African states have also sought to deepen defence ties with India, including conducting training for their officers and joint defence exercises.

India-Russia Military Industrial Conference

The fifth round of the India-Russia Military Industrial Conference was held during DefExpo 2020. Over 100 Russian and 200 Indian industry leaders participated in the conference and discussed the way forward to achieve the objectives of the intergovernmental agreement (IGA) under the Make in India initiative.

A total of 14 MoUs were signed between the Russian OEMs and the Indian companies during the conference. The first request for proposal (RFP) for the manufacturing of parts in India under the provision of the IGA was also handed over by the Indian Navy to the identified Indian industry.

Overall impact

DefExpo 2020 lived up to its theme, with 200 MoUs and ToT agreements having been signed during the event. A 39-member ministerial delegation from Russia, England and Seychelles also took part in the five-day event.

The most significant strategic business opportunities included public-private partnerships (PPPs) between Indian public sector undertakings (PSUs) and foreign OEMs. The Make in India initiative saw many developments as domestic and foreign OEMs signed pacts to boost sectoral growth in India by setting up manufacturing units in the country.

Chief of Defence Staff (CDS)⁴

The Chief of Defence Staff (CDS) will integrate the operations of the three wings (the Indian Army, the Indian Navy and the IAF) of the Indian Armed Forces. He is meant to be a single-point military advisor on important defence and strategic issues for the Prime Minister and the Defence Minister.

The CDS will coordinate long-term planning, training, procurement and logistics for the three wings. The nominal increase in the budgetary allocation for the defence sector will lead to increased stress on resources. Hence, it is necessary to increase the coordination between the three wings of the army by optimising the use of limited resources. The CDS will also act as the military advisor to the Prime Minister on nuclear issues.

The duties and functions of the Chief of Defence Staff (CDS) include the following:

- To head the Department of Military Affairs (DMA) in the MoD and function as its secretary.
- To act as the principal military advisor to the Defence Minister on all tri-service matters.
- To function as the permanent chairman of the Chiefs of Staff Committee.
- To administer the tri-service organisations/agencies/commands.
- To be a member of the Defence Acquisition Council chaired by the Defence Minister.
- To function as the military advisor to the Nuclear Command Authority.
- To bring about jointness in operation, logistics, transport, training, support services, communications, repairs and maintenance, etc. of the three services.
- To ensure optimal utilisation of infrastructure and rationalise it through jointness among the services.
- To implement the five-year Defence Capital Acquisition Plan and the two-year roll-on annual acquisition plans, as a follow up of the Integrated Capability Development Plan.
- To assign inter-services prioritisation to capital acquisition proposals based on the anticipated budget.
- To bring about reforms in the functioning of the three services with the aim to augment combat capabilities of the armed forces by reducing wasteful expenditure.

Details of work transferred to the DMA

- Statutory complaints of all ranks and individual cases of army officers on disciplinary matters only (other individual cases are to be dealt with by respective administrative sections).
- Court martial and disciplinary cases for all army officers/personnel.
- Human rights violation cases referred by the National Human Rights Commission (NHRC) pertaining to discipline, recruitment, terms and conditions of service and manpower planning in the army to expedite disposal of cases.
- Recruitment policy for army officers/personnel.
- Policy on terms and conditions of service (excluding pay and allowances and pensionary benefits) of all ranks of the army (other than those from medical, dental, nursing, territorial army (TA) and the National Cadet Corps [NCC]).
- Amendment to Defence Services Regulations regarding provisions relating to recruitment, terms and conditions of service, discipline and manpower planning in the army.

4 <https://pib.gov.in/newsite/PrintRelease.aspx?relid=198899>

- Casualties and issuance of condolence messages from the Defence Minister to the next of kin (NOK) of army personnel who die in various operations.
- Issues related to prisoners of war/the Geneva Convention of 1949.
- Policy on manpower planning in Army.
- Maintenance allowance – individual cases.
- Detention in military custody – individual cases.
- Policy on grant of honorary rank/commission to junior commissioned officers (JCOs) and non-commissioned officers (NCOs) (powers in respect of individual cases stands delegated to army headquarters [HQ]).
- Pre-independence awards.
- Individual cases from Infantry-6 (Pers) pertaining to terms and conditions of personnel.
- All establishment and administrative matters pertaining to the Adjutant General's (AG) branch, i.e. Estt. and administrative matters of AG's branch, including issue of government sanction of office equipment, computer, telephone, fax machines, etc., for various establishments under the AG's branch of army HQ.

Individual cases regarding reserve and reinforcement

- Policy on documentation and records of army officers.
- Policy on grant of permanent commission, short services commission (SSC), special list (SL) commission and inter-arms transfer (power stands delegated to Army HQ in individual cases).
- Policy on extension of tenured SSC officers.
- Individual offers for recruitment in the army.
- Notification in the Gazette of India of appointment/promotion to JCO rank in respect of Infantry-6 (pers).
- Policy on appointment of JCO as an aide-de-camp (ADC) to the President.
- Recovery of government dues from army personnel.
- Individual cases of furlough, parole and pre-mature release of army prisoners.
- Policy on leave encashment of army personnel.
- Verification of character and antecedents of army recruits (includes cases belonging to Nepal).
- Opening of recruiting offices/branch recruiting offices (BROs)/centres all over India.
- United Nation's Convention on the Rights of the Child.

- Policy matters relating to fraud/irregularity in enrolment in the army.
- Compassionate appointments (some cases are being dealt with by D(AG) and some by the respective sections of the concerned arms).
- Plural marriages – individual cases.
- Cadre review of Junior Commissioned Officer/ Other Ranks (JCOs/ORs).
- Policy on terms and conditions of army officers and personnel on deputation with the Assam Rifles.
- Administrative section for AG/Infantry-6 (Pers)
- Extension of permanent establishments (PEs) in respect of various establishments, viz. the Provost Marshal.
- Functions of the Vigilance Directorate and Recruiting Directorate.
- Regularisation of government losses in respect of cases pertaining to recruitment terms and conditions of service, discipline and manpower planning
- Establishment cases of AG/Ceremonial and Welfare (C&W) Directorate.

Note: Individual cases pertaining to welfare schemes for serving soldiers as well as retired soldiers emanating from C&W Directorate are dealt with by the D(Res) section.

- Missing personnel of army from 1965 and 1971 wars, i.e. issues relating to prisoners of war (POWs).

Note: Personnel missing in action/operations is the concern of 'G' Wing.

- Military convicts/personnel.
- Admission in army schools.
- Policy on transfers of personnel below officer rank (PBOR) – individual cases of Infantry-6 (Pers) only.
- Appointment of non-Indians.
- Maintenance of army bands.
- Policy relating to army messes.
- Policy regarding recruitment examinations through the Union Public Service Commission (UPSC) for Combined Defence Services (CDS)/National Defence Academy (NDA) and Naval Academy (NA) examination/Indian Military Academy (IMA).

Note: Actual conduct of examination, etc., is carried out by the UPSC and the service HQ. Administrative powers for grant of commission to the cadets is delegated to service HQ.

- National Service Act.
- Indian Reserve Forces Act.
- Army reserve of ranks up to the rank of NCOs.
- Establishment matters of:

- (a) corps of military police (CMP)
- (b) judge advocate general's (JAG) department.

- Policy relating to dresses, badges and ribbons for the army.
- Participation of armed forces personnel in elections.
- Welfare and entertainment of serving soldiers and their families.
- Policy regarding delegation and deputation of armed forces personnel abroad (policy regarding delegation and deputation abroad of civilian personnel in the armed forces – concerned administrative section).
- Matters relating to the delegation of the administrative power.

PwC's point of view

- The appointment of the CDS provides an opportunity to re-evaluate the existing defence architecture in an objective manner without service loyalties or individual considerations clouding judgements, which will help cut back unnecessary spending.
- Duplication of assets in infrastructure and human resources, whether in training or in operational commands, is a huge drag on the defence budget, of which 60% goes towards salaries and pensions, leaving little for capital acquisition.

- The CDS will enable the defence establishment to adjust to the changing character of conflicts, given the complex set of threats and challenges that India faces.
- The CDS will coordinate long-term planning, training, procurement and logistics of the three army wings and is expected to save significant amount of revenue expenditure.
- The CDS is also expected to facilitate the restructuring of military commands for optimal utilisation of resources through the integration of operations of the three services to enhance combat effectiveness, including through establishment of joint/theatre commands.



Sale of Gol's 100% stake of Air India

The Government of India (GoI) has given in-principle approval for the strategic disinvestment of Air India (AI) by validating the transfer of management control and sale of 100% equity share capital of AI held by the GoI, which will include AI's shareholding interest of 100% in Air India Express Limited (AIXL), a low-cost international carrier, and 50% in AISATS, a joint venture (JV) with Singapore-based ground handling company SATS Limited. The shareholding of AI in AIXL and AISATS is as follows:

Name	Shareholding of AI (%)	Business type
AIXL	100%	It has an air operator's permit and provides air transportation services between India and certain destinations in the Middle East, Southeast Asia and within India.
AISATS	50%*	It provides ground-handling and cargo-handling services at airports situated in Delhi, Hyderabad, Bengaluru, Trivandrum and Mangalore.

* Rest 50% is held by SATS Ltd

The new buyer of AI will get a total of 146 aircraft, 56% of which are owned by AI, while the remaining are on lease. It will also benefit from approximately 50% of the international market share held by AI as well as its 4,400 landing slots at airports in India and 3,300 slots in 42 countries, which will be made available for six months after the sale is complete. As many as 9,617 permanent employees, including pilots and cabin crew with deep technical and operational expertise, will be available for appointment, along with the airline's famous Maharaja and flying swan logos.⁵

The sale does not include Alliance Air, land and buildings, or any of the art that the carrier has acquired. Alliance Air, as well as the ground-handling and engineering subsidiaries, will be sold separately. The GoI is trying to sell the carrier for the second time after having failed to do so in 2018. At that time, the GoI had offered a 76% stake for sale. The GoI reduced AI's debt to INR 23,286 crore from INR 62,000 crore and the new owners of the 100% stake can offer 3% as stock options to employees.

As per the Department of Investment and Public Asset Management (DIPAM), there will be no extra privilege provided to any foreign airline bidding for Air India and the bids must be under the existing foreign direct investment (FDI) rules and the substantial ownership and effective control (SOEC) norms. Within the norms, overseas ownership can't exceed 49%. The chairman and two-thirds of the board must be Indian, along with an Indian base of operations.



The Aircraft (Amendment) Bill, 2020

The Aircraft (Amendment) Bill, 2020, was introduced in the Lok Sabha by Hardeep Singh Puri, Minister of State for Civil Aviation, on 4 February 2020. The bill seeks to amend the Aircraft Act, 1934, that regulates the manufacture, possession, use, operation, sale, import and export of civil aircrafts and the licensing of aerodromes.⁶

Key provisions of the bill:

- **Authorities:** The bill converts the three existing bodies of DGCA, the BCAS, and the Aircraft Accidents Investigation Bureau (AAIB) under the MoCA into statutory bodies under the act. Each of these bodies will be headed by a director general (DG) appointed by the GoI.
- The DGCA will carry out safety oversight and regulatory functions with respect to matters under the bill. The BCAS will carry out regulatory oversight functions related to civil aviation security. The AAIB will carry out investigations related to aircraft accidents and incidents. The Central Government may issue directions to these authorities on matters related to their functions, if considered necessary in public interest.

- **Power of the Centre to make rules:** Under the Act, the Central Government may form rules on several matters, such as:
 - registration of aircraft
 - regulating air transport services
 - prohibition of flight over any specified area.

The bill adds the regulation of air navigation services to this list. It also allows the Centre to empower the DG of BCAS or any authorised officer to issue directions and make rules on certain matters, which include:

- conditions under which an aircraft may be flown
- inspection of aircrafts
- measures to safeguard civil aviation against acts of unlawful interference.

Adjudicating officers: The bill allows for the appointment of designated officers, not below the rank of a deputy secretary, to decide penalties. Persons aggrieved by an order of a designated officer may appeal to an appellate officer. Appeals must be filed by the aggrieved person/party within 30 days from the day the order is received.

Offences and penalties: As per the act, the penalty for various offences is imprisonment of up to two years, or a fine of up to INR 10 lakh, or both. These offences include:

- carrying arms, explosives, or other dangerous goods aboard an aircraft
- violating any rules notified under the act
- constructing buildings or structures within the specified radius around an aerodrome reference point.
- The bill raises the maximum limit on fines for all these offences from INR 10 lakh to INR 1 crore.

As per the bill, the Central Government may cancel the licences, certificates or approvals granted to a person under the act if the person violates any provision of the act. Such licences include those given for:

- the establishment of an air transport service
- the establishment of aerodromes
- the operation, repair and maintenance of aircraft.

The bill allows for the compounding of certain offences under the act or rules under the act, such as:

- flying to cause danger to any person or property
- the contravention of any directions issued by the DG of any of the three aforementioned bodies.

6 <https://www.prsindia.org/billtrack/aircraft-amendment-bill-2020>

Offences may be compounded by the DGs as prescribed by the Centre. Compounding of offences is not allowed in case of repeat offences.

- Courts will not take notice of any offence under this act, unless a complaint is made or there is previous sanction from the DGCA, the BCAS or the AAIB. Only courts equivalent or superior to that of a metropolitan magistrate or a magistrate of the first class may try offences under the act.
- Exemption for the armed forces: Aircraft belonging to the Indian Armed Forces are exempted from the provisions of the act. The bill expands this exemption to include aircraft belonging to any other armed forces of the Indian Union. However, aircraft belonging to an armed force other than the naval, the military and the air force and which are currently regulated under the act will continue to be regulated under it until otherwise specified by the Centre.



Regulatory

Draft Defence Procurement Procedure (DPP) 2020

The MoD has released the draft Defence Procurement Procedure (DPP) 2020 upon seeking comments from the industry and the public.⁷ The key objective of the policy is to ensure that our armed forces get the best equipment they need, procured through a cost-effective and transparent procedure. It also seeks to boost the Make in India initiative in the sector and enhance self-reliance in defence equipment, with an aim to make India a global defence manufacturing hub.

DPP 2020 is proposed to be in force until 31 March 2025. When notified, it will be applicable to all requests for proposals (RFPs) that will be issued after the DPP 2020's effective date, despite acceptance of necessity (AoN) accorded under older DPPs.

Key policy changes proposed

- Introduction of new procurement categories: Capital acquisition schemes are broadly classified as Buy, Buy and Make, Leasing, Design and Development (D&D) and Strategic Partnership Model (SPM). Under the Buy scheme,

procurements are categorised as Buy (Indian - IDDM), Buy (Indian), Buy (Global – Manufacture in India) and Buy (Global). Under the Buy and Make scheme, the procurements are categorised as Buy and Make (Indian) and Buy and Make. Hence, the draft has proposed the four new categories of procurement.

- **Leasing:** Leasing has been introduced as a new category to substitute huge initial capital outlays with periodical rental payments. It would be permitted in two sub-categories, i.e. Lease (Indian) and Lease (Global).
- **D&D:** The draft has consolidated existing Make, Technology Development Fund (TDF) and iDEX schemes under this umbrella. In addition, two new categories, namely Make-III and Open Competition, have been introduced.
- **SPM:** The SPM has been identified as a new procurement category in the draft. The norms and procedures of the same have not been notified yet.
- **Buy (Global – Manufacture in India):** This category states that an outright purchase of equipment from foreign vendors with a

minimum of 50% indigenous content (IC) is to be achieved through manufacturing of either the entire equipment or spares/assemblies/sub-assemblies/maintenance, repair and overhaul (MRO) for the entire life cycle support of the equipment, through an Indian subsidiary of the foreign vendor.

- **New priority of procurement categories:** The categories, except Leasing, D&D and SPM, have been prioritised (in decreasing order) based on their relative importance towards indigenisation. D&D and SPM would be pursued in isolation, in sequence or in tandem, with any of the six categories:
 - Buy (Indian – IDDM)
 - Buy (Indian)
 - Buy and Make (Indian)
 - Buy and Make
 - Buy (Global – Manufacture in India)
 - Buy (Global)
- **Increased IC across categories:** The MoD has proposed to increase IC in various procurement categories to support the Make in India initiative.

⁷ https://mod.gov.in/dod/sites/default/files/draftdppnew200320c_0.pdf

Procurement category	Proposed IC
Buy (Indian – IDDM)	Indigenous design and \geq 50%
Buy (Indian)	In case of indigenous design \geq 50% otherwise \geq 60%
Buy and Make (Indian)	\geq 50% of the Make portion
Buy and Make	\geq 50%
Buy (Global – Manufacture in India)	\geq 50%
Buy (Global)	Foreign vendor – nil; Indian vendor \geq 30%

The draft stipulates a process to compute, declare and validate IC content in each contract (Appendix A to Chapter I).

- **Offset guidelines:**

- **Offset banking taken off:** It is surprising that the offset banking provision has been deleted in the new offset guidelines.
- **Avenues of offset discharge:** The avenue to discharge offset through investment in kind in Indian enterprises in terms of provision of equipment through the non-equity route has been omitted.

- **Offset discharge by other entities:** Offset discharge can now be permitted by entities other than the prime vendor/Tier-1 sub-vendor, on a case-to-case basis, for all avenues except direct purchase.
- **Uncertainty over the period of performance of offset:** DPP 2016 mentioned that the 'period of warranty' was included within the 'period of main contract, to compute period of offset discharge'. However, this clause is missing in DPP 2020. Thus, it is unclear whether the period of discharge would include the 'period of warranty' or not.
- DPP 2016 stipulated that the vendor should submit six-monthly reports to the Defence Offset Management Wing (DOMW). There is no mention of six-monthly reports in DPP 2020.
- **ToT valuation:** For offset discharge through ToT to Indian enterprises, a third-party valuation from the recognised/certified valuation firms will be submitted for claiming the offset credits.
- Multipliers regarding offset guidelines are as follows:
 - Direct purchase or exports has a multiplier of 1.0 for eligible products and multiplier of 0.5 for components of eligible products.
 - Investments in Indian enterprises has a multiplier of 1.5.
 - Investments in Indian enterprises in defence industrial corridors has a multiplier of 2.0.
 - ToT to Indian enterprises has a multiplier of 2.0.
 - ToT to government institutions and establishments has a multiplier of 3.0.
 - technology acquisition by the DRDO in areas of critical technology has a multiplier of 4.0.
- **Eligible products:** The list of products eligible for discharge of offset obligations has been pruned. Notably, all products for inland/coastal security, all civil aerospace products and all services have been omitted.
- **Incentivised use of indigenous raw material:** The service headquarters (SHQ) will gather information about the possibilities of use of indigenous raw material in equipment to be procured except under the Buy (Global) category. Based on the findings at the request for information (RFI) stage, the incentives will be sought at the time of seeking AoN, as per prescribed methodology.

- **Push to use of indigenous software:** In order to leverage the country's software development capability, the MoD has proposed to push inclusion of indigenous software as part of the equipment to be procured through mandatory technical requirement or enhanced performance parameters (EPP).
- **D&D or Make and Innovation category:** Although Chapter I of the draft DPP 2020 has renamed the Make category to D&D, Chapter III continues with the older terminology. The new draft has made the following key changes in the Make and Innovation categories:
 - **Make**
 - **Make-I (government funded):** The government's funding support has been reduced from 90% to 70%.
 - **Make-II (industry funded):** The MoD has proposed that where innovative solutions have been offered even by a single individual or a firm, the cases would be progressed as a resultant single vendor.
 - **Make-III (indigenously manufactured [IM]):** These would encompass subsystems/ sub-assembly/assemblies/components/ materials/ammunition, etc., which, although not designed/developed indigenously, are being manufactured in India as import substitutions.





- Innovation

- **IDEX:** Projects of start-ups, MSMEs, etc., with low capital investments and high innovation would be supported through grants and pursued under the iDEX category.
- **Open competition:** To support out-of-the-box thinking and encourage wider participation of innovators/entrepreneurs, an open competition approach has been introduced to promote innovation.
- **TDF:** DRDO's TDF scheme, now part of the DPP, aims at building cutting-edge technology capability through providing the domestic industry, especially MSMEs and start-ups, funding through grants for development of defence and dual-use technologies.

- The defence industry can also forward suo moto proposals under Make-II, Make-III, as well as Open Competition categories.

- Service qualitative requirements (SQRs):

- The draft proposes to form an SQR Formulation Committee that will comprise members from all the stakeholders to streamline the process.
- **Essential parameters A:** These have been further defined and categorised as:
 - operational parameters
 - technical parameters
 - maintainability and ergonomic parameters.
- Timelines for preparation of SQRs and approval of AoN have been specified as six months each (or cumulatively one year) to minimise procurement delays.

- SQRs are now permitted to be amended after AoN is accorded and before issuance of the request for proposal (RFP).

- **Long-term product support:** The draft DPP proposes the concept of long-term product support in the form of the following aspects, which has been made mandatory for the capital procurements for at least 3–5 years beyond the warranty period.
- **New chapters:**
 - **Post-contract management:** The chapter stipulates the procedures to be adhered to when managing the post-contract activities.
 - **Information and communication technology (ICT):** The chapter comprises policy and procedures for procurement and management of integrated projects. Though the MoD has communicated that this chapter is an addition to the DPP, the same has not been released yet.

PwC's point of view

- The innovative concept of leasing military equipment will reduce the financial burden for budget-constrained defence capital procurements. It will also facilitate shorter procurement cycles and induction of advanced technologies in minimal lead time.
- On an average there is a 10% increase in IC requirement across all the procurement categories. Evidently, there a strong push towards indigenisation.
- Introduction of Make-III is another welcome step and would give impetus to indigenisation of spares/inventory.
- The draft stipulates a process to compute, declare and validate IC content in each contract. We believe that the collection and production of such information in dynamically changing defence global supply chains would be quite cumbersome and complex, especially when this information is subject to audit and penalties.
- Taking off offset banking from offset guidelines will certainly be a disappointment for foreign defence OEMs. Without a provision for offset banking, there would be no incentives for the OEMs to discharge more offsets than what is stipulated in the contract.
- Omission of discharge offset through investment in kind in Indian enterprises in terms of provision of equipment through the non-equity route has come as a surprise.
- New offset discharge avenues proposed in the Draft Modification to Defence Offset Guidelines released in 2018, including investment in specified projects and SEBI-regulated funds for defence, aerospace and internal security are missing in draft DPP 2020.
- The industry's long-awaited demand for allowing offset discharge by entities other than the prime vendor/Tier-1 sub-vendor has been partially fulfilled. Such discharge may now be permitted on a case-to-case basis for all avenues except direct purchase.
- Introducing the provision of a third-party valuation from recognised/certified valuation firms for offset discharge through ToT resolves a significant concern of the industry.
- The revised multipliers of up to 4 is a welcome move. However, the 0.5 multiplier to reduce the offset credits by half (0.5x) for offset discharge through components of eligible products may be a disincentive. Rather than disincentivising offset discharge through components, the MoD could have created incentives for discharge through complete products/systems.
- A number of items have been removed from the list of products eligible for discharge of offset obligation. All services have been also removed from the list. This may be disappointing for OEMs as it will reduce the means for offset discharge.
- Incentivisation for use of indigenous raw material is a welcome move to make the manufacturing base stronger at the raw material level, which has been the Achilles' heel for the Indian defence sector.
- The proposed concept of long-term product support, which has been made mandatory for capital procurements for at least 3–5 years beyond the warranty period, is expected to ensure maintainability, performance and reliability throughout the operational life of the equipment.
- SQRs are now permitted to be amended after AoN is accorded and before issuance of the RFP. This is a welcome step as it would help in reframing the SQRs with evolving technologies and market capability towards acquiring the best equipment.



- Overall, the draft DPP appears to be a mixed bag of changes. It has many provisions for both the domestic industry and foreign defence companies to be cheerful about. But there are a few changes that would disappoint some.
- Commercial bids will now be inclusive of all taxes and duties. On the one hand, it will give the buyer a like-for-like comparison of bids on landed cost basis but on the other hand, this may eliminate the level playing field between Indian and foreign vendors due to differences in taxation for them.

Aviation budget

Key statistics of aviation budgets for FY 2019–20 and 2020–21

	2019–20 (in INR crore) (Budget estimate)	2019–20 (in INR crore) (Revised estimate)	2020–21 (in INR crore) (Budget estimate)
Civil aviation budget	4,500	3,700	3,798
Growth of the total budget (%)	-53%*	-17%	3%**

Source: PwC analysis

*Growth rate in comparison to actuals for 2018–19

**Growth rate in comparison to actuals for 2019–20

Highlights of the civil aviation budget and its implications

- The planned expenditure for civil aviation is 3% lower than the revised budget for FY19–20 as there has been no allocation for the revival of Air India and the Government is pushing to sell 100% of its stake in the debt-ridden airline.
- The allocation for Air India Asset Holding, a special purpose vehicle (SPV), has been reduced to INR 2,205 crore from INR 2,600 crore in 2019–20. The provision is kept for servicing of loans transferred to the SPV owing to the financial restructuring of Air India.
- The revenue allocation to the AAI under the budget for FY20–21 has been nullified because AAI is now self-sustainable.
- The budget reinforces focus on the Government's regional connectivity scheme by proposing the revival of 50 airports and making viability gap funding available for connectivity in the north-east.
- Allocation of INR 810 crore in this year's budget is significantly higher than the INR 272 crore allocated in FY19–20 for the purchase of two B777 aircraft for special extra section flight operations.

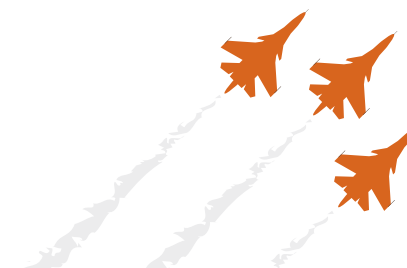
Key announcements and their implications

- The aviation budget aims to improve regional air connectivity by building 100 airports for regional flights and launching airlines for farmers under the regional connectivity scheme.

- The Krishi Udan scheme to be launched by the MoCA. Under the scheme:
 - both international and national routes to be covered
 - north-east and tribal districts to realise the improved value of agricultural products.

PwC's point of view

Compared to the last year, the aviation budget for FY20–21 has seen a slight increase of 3% over the last year, and accounts for 0.13% of the total Union Budget. Ude Desh ka Aam Nagrik (UDAN), the Gol's regional connectivity scheme, has been allocated INR 465 crore (3% more than in FY19–20) to support the Government's plan to revive 50 airports in the country. We are happy to note that the government is aiming to make the segment more investment-friendly so that enough capital can be injected. PwC feels that the promotion of FDI and the relaxing of the norms in such an alarming environment (collapse of Air India and grounding of Jet Airways) could be curative measures to help the aviation sector return to good fiscal health.



Defence budget

Key statistics of defence budgets for FY 2019–20 and 2020–21

	2019–20 (in INR crore) (Budget estimate)	2019–20 (in INR crore) (Revised estimate)	2020–21 (in INR crore) (Budget estimate)
Defence budget	305,296	316,296	323,053
Growth of the defence budget (%)	5%*		2.1%**
Revenue expenditure (in INR crore)	201,902	205,902	209,319
Growth of revenue expenditure (%)	3.2%*		1.7%**
Share of revenue expenditure in defence budget (%)	66.1%	65.1%	64.8%
Capital expenditure (in INR crore)	103,394	110,394	113,734
Growth of capital expenditure (%)	8.6%*		3.0%**
Share of capital expenditure in defence budget (%)	33.9%	34.9%	35.2%

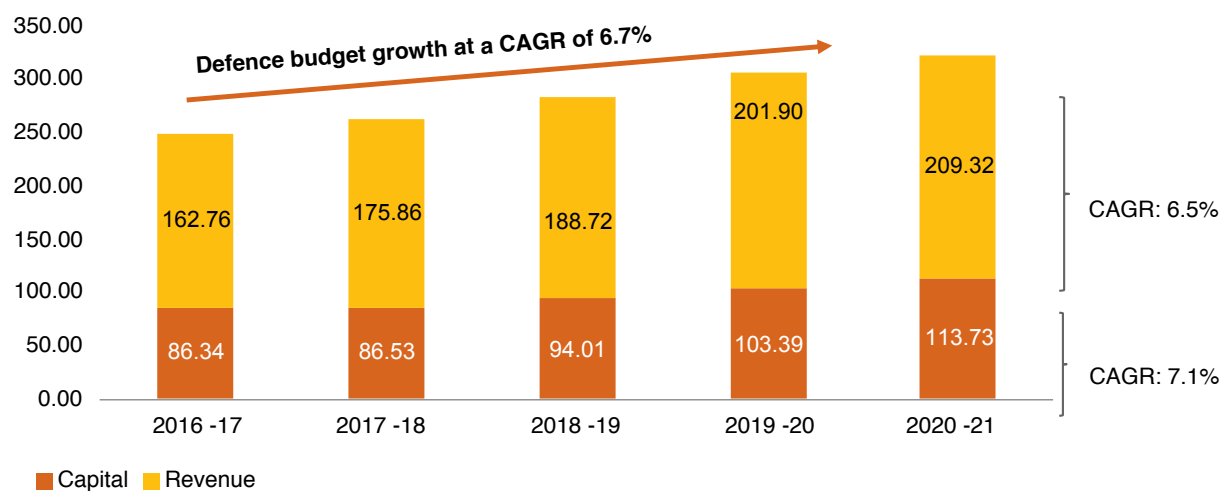
Source: PwC analysis

*Growth rate in comparison to actuals for 2018–19

**Growth rate in comparison to revised estimates for 2019–20



Indian defence budget over the last five years (figures in INR thousand crore)



Source: PwC analysis

Highlights of the defence budget for FY20-21

- Finance Minister Nirmala Sitharaman made a heartening statement during her speech that national security is one of the prime focus areas for the Government. However, a less than adequate budget allocation has been announced for the defence sector, which is in line with our outlook because a stimulus package was expected to stabilise the economy.
- Revised estimates indicate that the capital budget for FY19-20 has been completely exhausted and will exceed the budgetary estimate by a margin of 6.7%, which should have been considered for next year's allocation.



- The total defence budget allocation has increased by 5.8% as compared to the FY19–20 budget estimate. However, the increase over the revised estimate of FY19–20 is marginal at 2.1%.
- The growth in the capital budget estimate is 10% and that of revenue budget estimate is 3.7%, whereas the growth of capital and revenue budget allocations over the revised estimate are 1.7% and 3.0% respectively.
- The capital outlay for the IAF for FY20–21 is the highest among the three forces at INR 43,282 crore, which is 38.1% of the total capital budget. Of the total capex allocation, nearly two-thirds or INR 26,910 crore would go into buying and upgrading aircraft and aeroengines. The capital outlay for the Indian Army is at INR 32,392 crore, of which INR 25,799 crore has been allocated for the procurement of vehicles, aircraft and equipment. The capital outlay for the Indian Navy is INR 26,688 crore, out of which INR 12,746 crore will be spent to enhance its naval fleet (warships and submarines).
- Capital allocation towards R&D has marginally been increased by 0.5% to INR 10,533 crore. However, the revised estimate of INR 8,724 crore indicates that R&D expenditure was 17% underutilised as compared to the budgetary allocation of INR 10,484 crore for FY19–20, which is not a good sign for the vision of self-reliance in the sector.
- The defence allocation in FY20–21 stands at 10.6% of the total Union Budget of INR 30.4 lakh crore, as compared to 11% in FY19-20. Though the allocation for the defence sector was likely to be reduced in the expectation of a stimulus package to stabilise the economy, the overall share of the defence budget in the Union Budget has been continuously falling over the years.
- The budget for the Navy's Naval Maritime Reconnaissance Helicopters (NMRH) programme remained unutilised in FY19–20 and has been reallocated for the next year. An additional INR 2,240 crore has been allocated for the Naval Utility Helicopters (NUH) programme.
- The capital allocation for the IAF has been increased to purchase fighter aircraft from HAL and Dassault Aviation.
- There is a substantial increase of 13.6% in the pensions budget over the revised estimate and 19.4% over the budgeted estimate with allocation of INR 133,825 crore.
- Over the last five years, the defence budget has grown at a compound annual growth rate (CAGR) of 6.7%. The revenue budget grew at a CAGR of 6.5% and capital budget grew at a CAGR of 7.1%.



PwC's point of view

The defence budget for FY20–21 has seen a marginal increase of 5.8% over the last year and accounts for 10.6% of the Union Budget. The defence budget is approximately 1.5% of the gross domestic product (GDP), which seems to be insufficient considering the evolving security situation in India and its neighbouring countries. Considering that the revised estimate exceeded the budget estimate by 6.7%, this year's budget allocation seems to be inadequate as it is just 2.1% more than the revised estimate. We are pleased to see additional capital allocations for the NUH programme. An increase in capital expenditure by 3% over the revised estimate seems to be less and inadequate for the modernisation of the Indian Armed Forces. Our views on some of the key implications of the defence budget for FY21 are as follows:

- Increased capital allocation for the IAF for the purchase of aircraft from HAL and Dassault Aviation will strengthen the IAF.
- Increase in R&D expenditure allocation will boost indigenous defence manufacturing.
- Promotion of the Make in India initiative would assist in the developing and nurturing of intrinsic defence production capability.
- Minor increase in modernisation budget will have an impact on the forces and leave them with very little scope for modernisation and procurement of new weapon systems.

Modernisation budget for the Indian Armed Forces (in INR crore)

	2019–20 (Budget estimate)	2019–20 (Revised estimate)	2020–21 (Budget estimate)	% increase in 2020–21 (Budget estimate) over 2019–20 (Budget estimate)
Army	22,951	23,517	25,999	13.3
Navy	22,106	25,155	25,620	15.9
Air Force	36,365	41,722	39,031	7.3
Total	81,422	90,394	90,649	11.3

Source: PwC analysis

Shortages of modernisation fund (in INR crore)

	Committed liabilities	Modernisation budget	Shortages	Shortages (%)
2016–17	73,553	62,619	10,934	15
2017–18	91,382	68,965	22,417	25
2018–19	1,10,044	73,883	36,161	33
2019–20	1,13,667	80,959	32,708	29

Source: PwC analysis

Amendments to DPP 2016

The recent amendments proposed to DPP 2016 (on 1 November 2019) are as follows:

- rephasing of the offset obligations
- amendments to the Make-II sub-category of the Make procedure, Chapter-III A
- amendments to the Make-I sub-category of the Make procedure, Chapter-III
- procedure of quantity vetting
- approval of General Staff (GS) evaluation and retraction of RFP by the Chairman Chiefs of Staff Committee (CISC) in HQ integrated defence staff (IDS) steered cases
- benchmarking by costing committee
- incorporating safeguards/protective clauses in the letter of credit (LC) guidelines for protecting the interest of the Indian buyers.

Re-phasing of the offset obligations

Para reference	Existing	Amendment
Para 8.10, Appendix 'D', Chapter II (Page 74)	8.10 A vendor may, giving Reasons, request re-phasing of the offset obligations within the period of the offset contract. JS(DOMW) may allow the request, if justified, with the approval of Secretary (Defence Production). Rephasing will not be permitted beyond the period stipulated in Para 5.2 of the guidelines	8.10 A vendor may, giving reasons, request re-phasing of the offset obligations within the period of the offset contract. The first rephasing request of the vendor will be processed without any disincentives if the spread of re-phasing is restricted up to the following year. However, if the re-phasing of offset value is proposed over the subsequent years, then 5% additional obligation will be imposed on re-phased value of every year. The re-phasing request for second and subsequent attempts will be processed by imposing 5% on proposed yearly re-phased offset value irrespective of the spread of re-phasing. This yearly additional 5% offset obligation for processing re-phasing request will be over and above the outright financial penalty on short fall specified at Para 8.13 of Defence Offset Guidelines. JS(DOMW) may allow the request, with the approval of Secretary (Defence Production). Re-phasing will not be permitted beyond the period stipulated in Para 5.2 of the guidelines.

Amendments to 'MAKE-II' sub-category of 'MAKE' procedure, Chapter-IIIA

S.No.	Para reference	Existing	Amendment
1.	Para No. 6	Projects under Make-II.....or their upgrades or their sub-systems/ subassembly/ assemblies/ components, primarily for import substitution/innovative solutions,... or a firm involved.	Projects under Make-II.....sub-assembly/ assemblies/ components/ materials, primarily.....a firm involved.
2	Para No. 7	Projects under the Make-II sub-category, with estimated cost of prototype development phase not exceeding INR 3 crore, will be earmarked for MSMEs. However, if no MSME expresses interest for a Make-II program of less than INR 3 crore, the same may be opened up for all.	Projects under the Make-II sub-category, with estimated cost of prototype development phase not exceeding INR 3 crore and cost of subsequent procurement not exceeding INR 50 Cr/year based on delivery schedule at the time of seeking AoN, will be earmarked for MSMEs. If no MSME expresses interest for a Make-II program earmarked for them, the same may be opened up for All.
2.	New Para No. 19 to 23	New para introduced after Para 18	<p>Procedure for Low Value Projects:</p> <p>Para 19: Proposals meeting the following criteria will be considered as 'Low Value Projects' under Make-II procedure: a. Technical specifications of the equipment/item and Last Purchase Price (LPP) are known.</p> <p>b. The estimated cost of prototype development phase not exceeding INR 3 crore and cost of subsequent procurement not exceeding INR 50 cr/year based on delivery schedule at the time of seeking AoN.</p> <p>Para 20: After accord of AIP, SHQ will prepare detailed Questionnaire within 2 weeks and upload the same on the website MoD, seeking necessary inputs required for preparing feasibility study report within a period of four weeks.</p> <p>Para 21: Feasibility report shall be completed within two weeks from last date of submission of detailed response of questionnaire.</p>

			<p>Para 22: Feasibility report finalized by Project Facilitation Team (PFT) will be construed as concurrence by all stakeholders. PFT will prepare the SoC based on Feasibility report and field the proposal to relevant AoN according authority without circulating the SoC as otherwise required as per Para 16 to 19, Chapter II of DPP-2016.</p> <p>Para 23: The projects other than Low value projects, particularly involving import substitution, where SQRs & Lpp are known, will be progressed for obtaining 'Accord of AoN' by circulating the Soc as per para 16-19, of Chapter-II of DPP-2016 without undergoing Questionnaire/ Feasibility stage process as prescribed at 12 & 14 of this Chapter.</p>
3.	Para No. 20 (Now Para No. 25)	"The AoN shall be sought based on the cost of subsequent procurement under 'Buy (Indian-IDDMM)'."	"While according AoN, it will be ensured that design and development of the system is indigenous. The AoN shall be sought based on the cost of subsequent procurement under 'Buy (Indian-IDDMM)'."
4.	Para No. 39 (Now Para No. 44)	The Pre-Contract Integrity Pact (PCIP), listed as detailed in paragraph 2 (Chapter II of DPP), shall apply mutatis mutandis, to 'Buy (Indian -IDDMM), phase of 'Make 'project.	The Pre-contract Integrity Pact (PCIP),..... 'Make 'project. Depending upon the sensitivity/ secrecy of the information related to the project, participating Vendors may be asked to sign a Non-Disclosure Agreement (NDA) at the time of sharing the QRs/ other sensitive information for certain projects as deemed necessary by SIIQs.
5.	Para No. 47 (Now Para No. 52)	"Typical expected timelines for undertaking 'Make-II' Projects are contained in Annexure-II."	"Typical expected timelines for undertaking 'Make-II' Projects are contained in Annexure-II. Based on the complexity of the equipment, AoN according authority may approve extended timelines at the time of according AoN"

6.	Annexure-I to Ch-III A	<p>Existing Annexure-I on “Indicative Criteria for Evaluation of Eol for shortlisting of Development Agencies”</p> <p>For star-t-ups</p> <p>Note: Guidelines’ for penalties’ in business dealings with entities as promulgated by Government from time to time, will be applicable on procurement process & bidders.</p>	<p>Indicative Criteria for Evaluation of Eol for shortlisting of Development Agencies</p> <p>All the entities satisfying all of the following criteria shall be considered as an eligible ‘Indian Vendor’ for evaluation of Eol by PFT: -</p> <ul style="list-style-type: none"> • Public limited company, private limited company, partnership firms, limited liability partnership, one Person company, sole proprietorship registered as per applicable Indian laws. In addition, such entity shall also possess or be in the process of acquiring a license/development of products if the product under project requires license as per DIPP’s licencing policy. • The entity has to be owned and controlled by resident Indian citizens; entity with excess of 49% of foreign investment will not be eligible to take part in Make category of acquisition. • For projects having cost of development phase < INR 3 crore and cost of procurement phase < INR 50 cr/year based on delivery schedule at the time of seeking AoN, there will be no commercial and financial criteria. • For all cases having cost of prototype development phase > INR 3 crore and/or procurement cost > INR 50 cr/year based on delivery schedule at the time of seeking AoN, the entity should have: - <ul style="list-style-type: none"> - Average annual turnover of the applicant company for the last three financial years ending 31st March of the previous financial year, should not be less than 5% of the estimated cost of the project. - Net worth of the entities ending 31st March of the previous financial year should be “Positive”. • Other Technical criteria will be spelt out by concerned SHQ based on the project requirement. <p>The ‘Start-up’ recognized by Department for Promotion of Industry and Internal Trade (DPIIT) from time to time shall be eligible to participate under ‘Make-II’ procedure.</p>
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Amendments to 'MAKE-I' sub-category of 'MAKE' procedure, Chapter-III

S.No.	Para reference	Existing	Amendment
1	Para No. 12.1.1	Projects under the Make-I sub-category, with estimated cost of prototype development phase not exceeding INR 10 crores, will be earmarked for MSMEs. However, if atleast two MSMEs do not express interest for a Make-I program of less than INR 10 crore the same shall be opened for all, under the condition that interested MSME(s), if any at that stage and meeting the eligibility criteria, will get preference over Non- MSMEs in selection of DAs.	Projects under the Make-I sub-category, with estimated cost of prototype development phase not exceeding INR 10 crore and cost of subsequent procurement not exceeding INR 50 cr/year based on delivery schedule at the time of seeking AoN, will be earmarked for MSMEs. However, if at-least two MSMEs do not express interest for a Make-I program earmarked for them, the same shall be opened up for all, under the condition that interested MSME(s), if any at that stage and meeting the eligibility criteria, will get preference over Non MSMEs in selection of DAs.
2			To replace 'Make' with 'Make-1' at Heading
3			To replace 'Make' with 'Make-1' at para 1, 3(b), 4(a), 4(b), 7, 8 (f) (i), 8 (f) (iii), 10(c) of Appendix-A of Chap-III of DPP-2016
4			To replace 'Make' with 'Make-I' at para 2(a), 2(b) & 9 of Annexure-II to Appendix-A of Chap-III, DPP-2016



Procedure of Quantity Vetting

S.No.	Para reference	Existing	Amendment
1	Para 16, Chapter II (Page 13)	<p>..... Six copies of the SoC would be prepared, justifying the procurement proposal. One copy each would be forwarded to DDP, DRDO, MoD (Fin), Acquisition Manager, Technical Manager. The SoC would include the total quantities required, the breakup based on five years plans and the quantity, that is required to be procured in next two years. The quantities duly vetted along with other comments on the proposal. Would, be sent back to the SHQ, within the indicated time frame. DRDO and DDP will also forward their comments to SHQ, who would then compile all the comments and give their final views. The SoC along with all the comments would then be forwarded to HQ IDS, which would examine aspects of interoperability and commonality, of equipment for the three Services.....</p>	<p>..... Six copies of the SoC would be prepared, justifying the procurement proposal. One copy each would be forwarded to DDP, DRDO, MoD (Fin), Acquisition Manager, Technical Manager. The SoC would include the total quantities required, the breakup based on five years plans and the quantity, that is required to be procured in next two years. In MoD cases, the quantity vetting would be carried out by MoD (finance) i.e. FM (LS)/FM (MS)/FM(Air) on basis of SoC for AqN & Categorisation forwarded by SHO whereas in Delegated Power cases, quantity vetting would be carried out by PIFA/IFA (Capital); and the quantities duly vetted along with other comments on the proposal, would be sent back to SHQ within the indicated time frame. DRDO and DDP will also forward their comments to SHQ, who would then compile all the comments and give their final views. The SoC along with all the comments would then be forwarded to HQ IDS, which would examine aspects of interoperability and commonality, of equipment for the three Services.....</p>

Approval of GS Evaluation & retraction of RFP by CISC in HQ IDS steered cases

S.No.	Para reference	Existing	Amendment
1	Para 72(d) of Chapter II (Page 24)	<p>(d) After issue of Commercial RFP/ placing of indent,14 post receipt of commercial bids from participating</p> <p>Vendors38, User trials of the prototype would then be conducted by SHQ followed by Staff Evaluation to be approved by VCOAS/VCNS/DCAS/DG ICG. The Staff Evaluation would also recommend validation trials, if felt necessary.</p>	<p>((d) After issue of Commercial RFP/ placing of indent,14 post receipt of commercial bids from participating Vendors38, User trials of the prototype would then be conducted by SHQ followed by Staff Evaluation to be approved by VCOAS/VCNS/DCAS/CISC/DG ICG. The Staff Evaluation would also recommend validation trials, if felt necessary.</p>
2	Para 86A of Chapter II (Page 28)	<p>86A. Authorities, for Retraction of RFP.8 Cases that are retracted or foreclosed due to change in operational philosophy, change in prioritisation for procurement and budgetary, constraints will be approved by AoN according authority. Retractions and foreclosures for reasons other than above including those at GS Evaluation stage (Refer Para 70 above) maybe approved by DG(Acq) & VCOAS/VCNS/DCAS/DGICG for MoD & Delegated powers cases respectively.....</p>	<p>86A. Authorities, for Retraction of RFP.8 Cases that are retracted or foreclosed due to change in operational philosophy, change in prioritisation for procurement and budgetary, constraints will be approved by AoN according authority. Retractions and foreclosures for reasons other than above including those at GS Evaluation stage (Refer Para 70 above) maybe approved by DG(Acq) & VCOAS/VCNS/DCAS/CISC/DGICG for MoD & Delegated powers cases respectively.....</p>

Benchmarking by Costing Committee

S.No.	Para reference	Existing	Amendment
1	Para 14(a) of Chapter V (Page 395)	14(a) Benchmarking by Costing Committee.23 Within a week of acceptance of TEC Report by the DG(Acquisition) benchmarking would be carried out by a Costing Committee headed by the Advisor (Cost) and reps of concerned SHQ Directorates. This process will be automatically undertaken once SHQ informs Advisor (Cost) about acceptance of the TEC Report. Along with this information, SHQ will also provide Advisor (Cost) with details of reps of SHO Directorates nominated as members of the concerned Costing Committee. The recommendations of the Costing Committee may be accepted as such/ deliberated upon by the CNC promulgation. Till then. The Costing Committee benchmark models and costing data will be kept in a sealed cover.	14(a) Benchmarking by Costing Committee.23 Within a week of acceptance of TEC Report by the DG(Acquisition) benchmarking would be carried out by a Costing Committee headed by the Advisor (Cost) and reps of concerned SHQ Directorates. This process will be automatically undertaken once SHQ informs Advisor (Cost) about acceptance of the TEC Report. Along with this information, SHQ will also provide Advisor (Cost) with details of reps of SHO Directorates nominated as members of the concerned Costing Committee. The recommendations of the Costing Committee may be accepted as such/ deliberated upon by the CNC on its promulgation. Till then, the Costing Committee benchmark models and costing data will be kept in a sealed cover.

Incorporating Safeguards/Protective Clauses in LC Guidelines for protecting the interest of the Indian Buyers

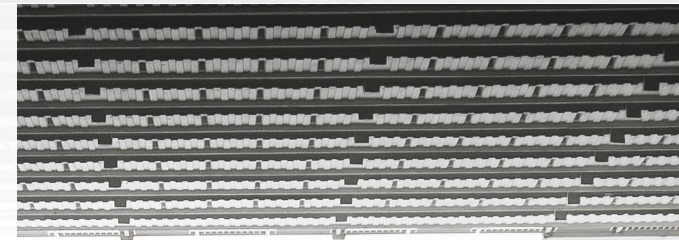
S.No.	Para reference	Existing	Amendment
1	Clause 5(d) of Para 1.4.9 of Appendix L to Schedule 1 of Chapter II (Page 170)	(d) The payment against LC shall be made to the SELLER against presentation of the documents specified.	(d) The payment against LC shall be made to the SELLER against presentation of the documents specified and verification of authorised signatures of the representatives of Seller and Buyer.
2	Clause 5(d) of Para 1.1 of Appendix F to Schedule I to Chapter IV (Page 327)	(d) The payment against LC shall be made to the SELLER against presentation of the documents specified.	(d) The payment against LC shall be made to the SELLER against presentation of the documents specified and verification of authorised signatures of the representatives of Seller and Buyer.
3	Article 5A.5 of Chapter VI (Page 413)		The following may be added at Ser (I): (I) Specimen Signature of the authorized representative of the Seller.
4	Clause 5(d) of Article 5C.I of Chapter VI (Page 417)	(d) The payment against LC shall be made to the SELLER against presentation of the documents specified.	(d) The payment against LC shall be made to the SELLER against presentation of the documents specified and verification of authorised signatures of the representatives of Seller and Buyer.
5	Annexure X (Format of Letter of Credit) to Chapter VI (Page 466)	Documents Required (46A): Certificate or origin issued by a chamber of commerce.	Documents Required (46A): Certificate or origin issued by a chamber of commerce. Specimen Signatures of the Seller's and the Buyer's Quality Assurance Representative.....

PwC's point of view

We believe the amendments to rephrasing of offset obligations will ensure timely submission of transparent and achievable offset proposals. However, any rephrasing done due to uncontrollable reasons, such as performance issues with Indian offset partner (IOP), would increase the cost burden on OEMs. Addition of materials to the Make-II procedure will support material supply capabilities within the domestic A&D value chain. The amendments to Make-II and Make-I provide more transparency and clarity to the policy and are expected to boost indigenous design and development capabilities. Amendments to the procedure for quantity vetting to improve transparency in the overall procedure will also prove to

be helpful. The CISC committee is empowered more through amendments in the benchmarking by the costing committee and approval of GS evaluation, and retraction of RFP by CISC procedures. We believe the above amendments will support:

- more transparent and actionable offset proposals
- raw materials supply capability of Indian manufacturers
- exploration of new opportunities by MSMEs and start-ups
- creation of a transparent system for both buyers and OEMs
- reduction of procurement timelines.



Direct Tax

Direct tax updates

Key highlights of Union budget 2020 presented by the Finance Minister on 1 February 2020

Exempting non-resident (NR) taxpayers/foreign companies from filing tax returns in certain conditions

- Currently, NR taxpayers/foreign companies are not required to furnish their tax returns in India, if the following conditions are satisfied:
 - their total income consists only of dividend or interest; and
 - taxes under the provisions of Chapter XVII-B of the Income tax Act, 1961 (IT Act) relating to TDS have been deducted from such income.
- It is proposed that the above relief will be extended to the NR taxpayers/foreign companies whose total income consists of royalty or FTS as well, if taxes under the provisions of Chapter XVII-B of the IT Act relating to TDS have been deducted at the rates prescribed under section 115A(1) of the IT Act from such incomes.

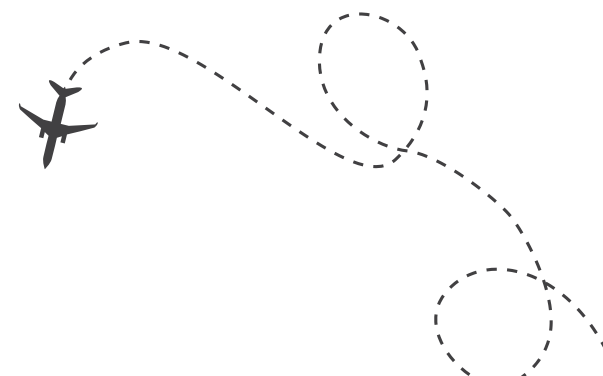
- Based on the language of the amended provisions, relief may not be available to the NR taxpayers/foreign companies whose taxes will be deducted at the beneficial rates provided under the respective tax treaties. Further, the requirement to file the Accountants Report under transfer pricing provisions has not been relaxed.

Aligning the purpose of entering into DTAA's with MLI

- To prevent the granting of DTAA benefits in inappropriate circumstances and to align these with MLI, an amendment to the IT Act is proposed which provides that the Central Government will enter into DTAA(s) for the avoidance of double taxation without creating opportunities for non-taxation or reduced taxation through tax evasion or avoidance (including through treaty-shopping arrangements aimed at obtaining reliefs provided in the said agreement for the indirect benefit to residents of any other country or territory).

Abolition of DDT in the hands of the company, and taxing of dividend in the hands of shareholders

- Currently, an additional tax (also referred to as DDT) of 15% (plus surcharge and cess) is required to be paid on any amount declared, distributed or paid as dividend by domestic companies.
- It is now proposed that such dividend be taxed in the hands of shareholders or unitholders at the applicable rates, and, correspondingly, the domestic company or mutual fund is not required to pay such additional tax on distribution of income. Therefore, the following has been proposed:
- NR shareholders may seek to claim relief in respect of lower TDS, if any, under the respective DTAA's as well as for credit in their home country.



Change in the due date for filing the tax return – section 139 of the IT Act

- Currently, under section 139(1) of the IT Act, the due date for furnishing the tax return in the case of a company or person other than a company or working partner of a firm whose accounts are required to be audited is 30 September of the relevant AY. In case a taxpayer is required to furnish the transfer pricing report, the due date to file the tax return is 30 November of the relevant AY.
- It is proposed to extend the due date for furnishing the tax return from 30 September to 31 October. However, where transfer pricing provisions apply, no change is proposed in filing the tax return.

Furnishing of audit report under the IT Act

- To promote the government's initiative of providing pre-filled tax return forms for ensuring ease of compliance, it is proposed that, in the case of persons having income under the head of profits and gains from business and profession, the tax audit report under section 44AB of the IT Act shall be furnished by the taxpayers one month prior to the due date of filing the tax return.

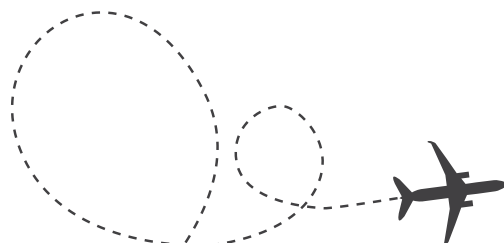
APA for profit attribution to PEs

- While the APA FAQs issued by the CBDT clarified that it is possible for a taxpayer to file an APA in relation to profit attribution to PE, there appeared to be an ambiguity that section 92CC in its current form does not cover such cases.
- It is proposed to cover profit attribution to PEs also under the APA. It is further proposed that the manner of determination of profit attributable to PEs in an APA may include methods to be prescribed in this regard.

Newly introduced Vivad se Vishwas scheme (Dispute resolution scheme)

- The Government has recently introduced a direct tax amnesty scheme – The Direct Tax Vivad Se Vishwas Bill, 2020 (the scheme) – in the Parliament with the aim of reducing disputes/litigation in the IT Act. Enumerated below are some key highlights of the scheme:
- The scheme is applicable to all income tax cases pending at any appellate level, i.e. CIT(A), ITAT, High Court and the Supreme Court.

- Cases covered under the scheme include disputed tax matters related to income tax, transfer pricing, TDS and TCS and/or disputed interest, disputed penalties and disputed fee.
- As per the scheme, the declarant may settle the tax arrears by paying only disputed taxes with complete waiver of interest and penalty amount. In cases where the interest and penalty itself are disputed, the declarant may settle such cases by paying a certain percentage of such interest and penalty.
- The scheme also provides immunity from prosecution in relation to matters for which declaration has been filed under it.
- The designated authority shall, within 15 days of the declaration, determine the amount payable and grant a certificate to this effect to the declarant.
- The declarant needs to pay the amount determined by the designated authority within 15 days, post which the authority shall pass a final order and the matter shall stand concluded and no further litigation will be pursued by the income tax authorities.
- The scheme cannot be availed for certain specified tax proceedings such as a matter where prosecution has been instituted, for income/asset located outside India, and cases open pursuant to exchange of information with foreign jurisdiction.



Indirect Tax

Indirect tax updates

Customs updates

Notification No. 03/2020 - Customs dated 2 February 2020

- The Government has extended the ambit of the earlier Exemption Notification No. 19/2019 - Customs dated 6 July 2019, which provided a benefit to imports made by the MoD or the defence forces for specified products, to imports made by defence public sector units and other public sector units as well.

GST

Notification No. 69/2019 - Central Tax, Notification No. 70/2019 - Central Tax and Notification No. 02/2020 - Central Tax

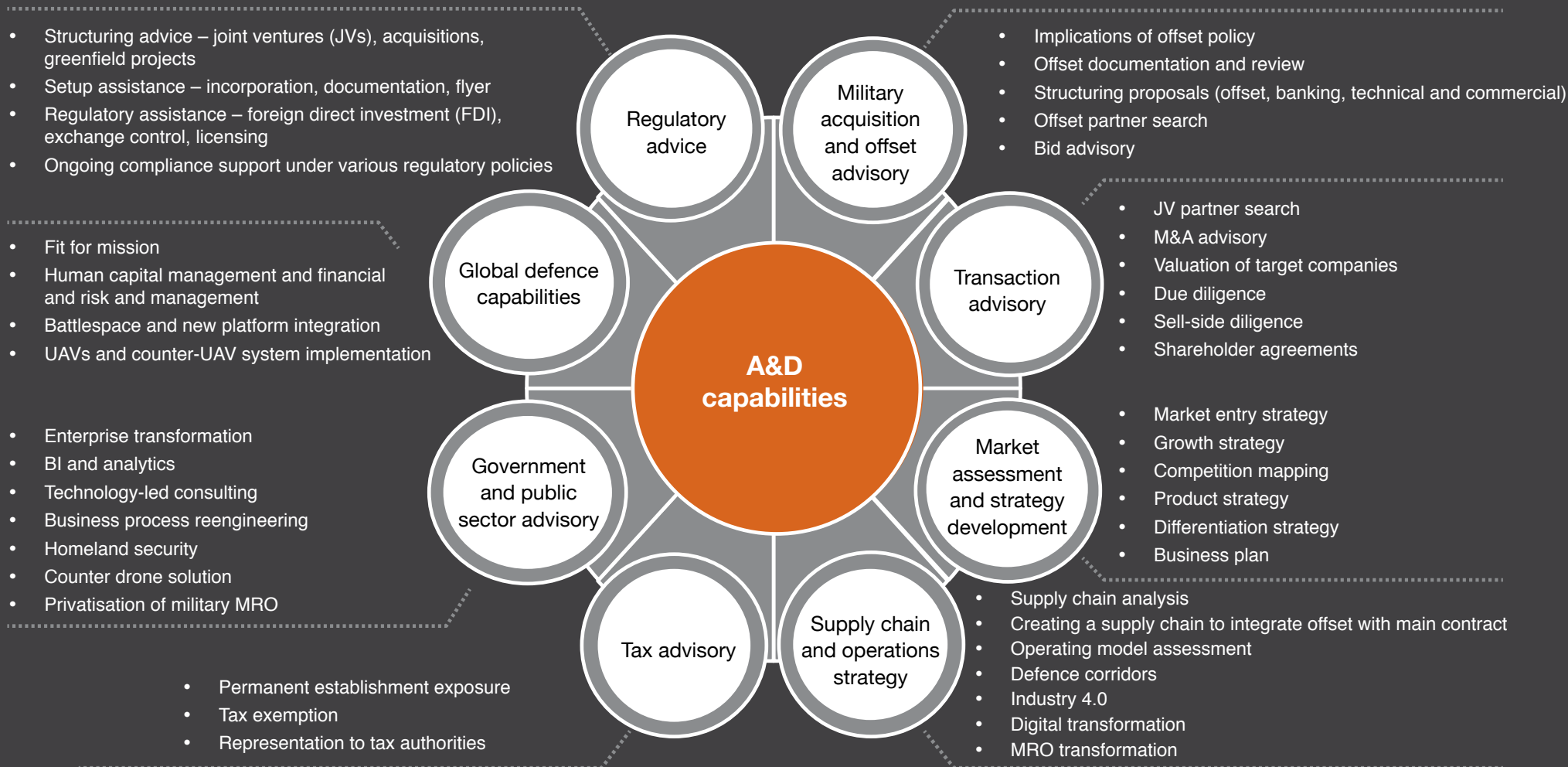
- The Government vide above notifications have mandated e-invoicing under the GST provisions which are effective from 1 April 2020. GST-registered persons having a turnover of more

than INR 100 crore are required to mandatorily send details (in the provided schema format) to the Invoice Registration Portal (IRP) of the Indian Government for all B2B and B2G invoices. The IRP would in turn provide an Invoice Reference Number and QR code which is required to be printed on the tax invoices (without which these would not be treated as valid GST invoices).

Others

- The Government has announced that the new GST return formats, which include the updated format for monthly/quarterly returns (GST RET-1) along with relevant annexures, would become effective from 1 April 2020.



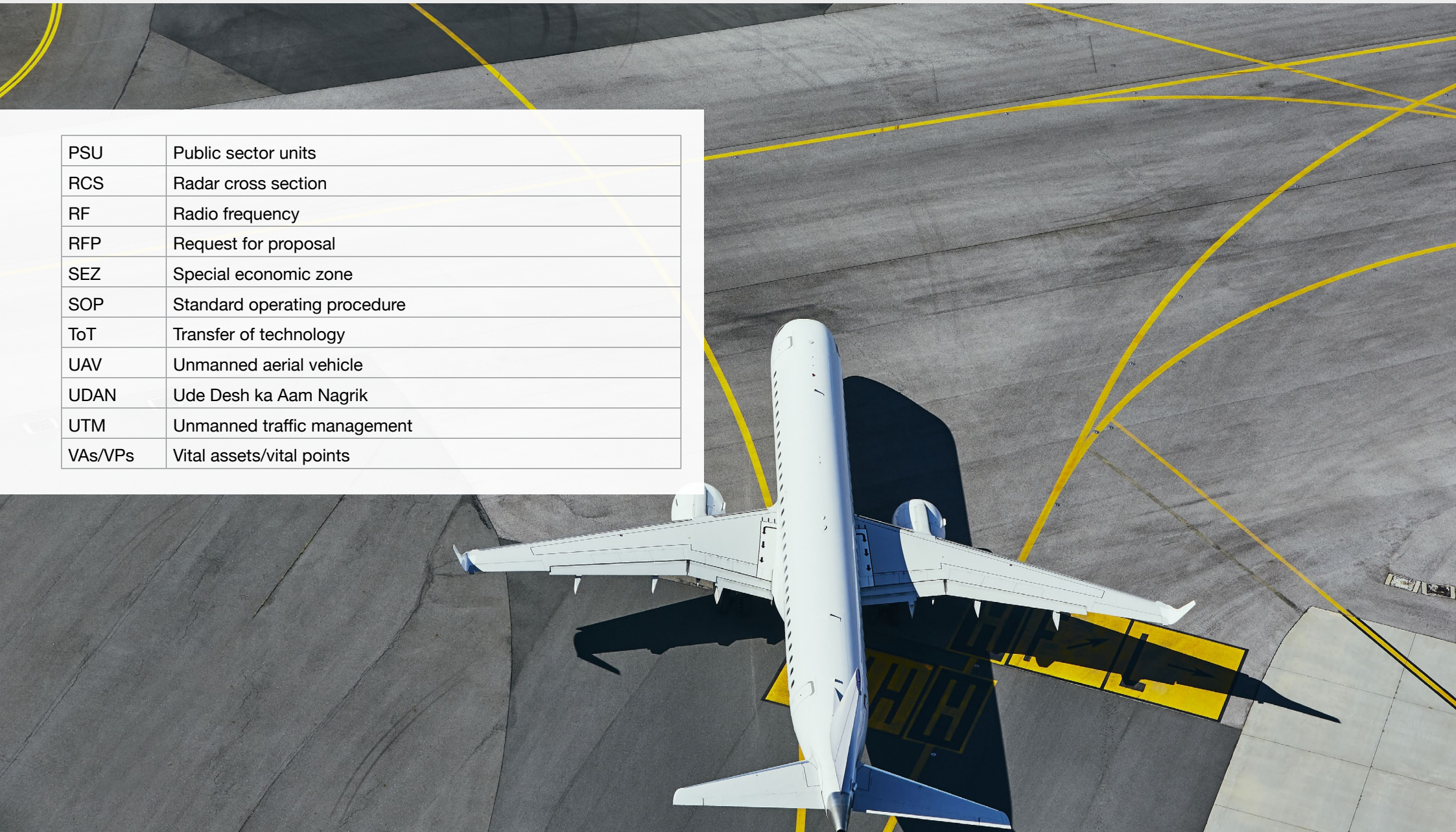


Glossary

A&D	Aerospace and defence
AAI	Airports Authority of India
AI	Artificial intelligence
AISAM	Air India Specific Alternative Mechanism
AoN	Acceptance of necessity
AUW	All-up weight
BCAS	Bureau of Civil Aviation Security
BDL	Bharat Dynamics Ltd
CDS	Chief of Defence Staff
CoE	Centre of excellence
CPL	Commercial pilot licence
DDP	Department of Defence Production
DGCA	Directorate General of Civil Aviation
DPP	Defence Procurement Procedure
DPSU	Defence Public Sector Unit
DRDO	Defence Research and Development Organisation
DRDL	Dassault Reliance Aerospace Limited

eGCA	eGovernance in Civil Aviation
FFC	Fifteenth Finance Commission
HAL	Hindustan Aeronautics Limited
HALE	High altitude long endurance
IAF	Indian Air Force
IB	Intelligence Bureau
ISRO	Indian Space Research Organisation
JV	Joint venture
LCA	Light combat aircraft
MHA	Ministry of Home Affairs
MoCA	Ministry of Civil Aviation
MoD	Ministry of Defence
MoU	Memorandum of understanding
MSME	Micro, small and medium enterprises
NSG	National Security Guard
NTRO	National Technical Research Organisation
OEM	Original equipment manufacturer

PSU	Public sector units
RCS	Radar cross section
RF	Radio frequency
RFP	Request for proposal
SEZ	Special economic zone
SOP	Standard operating procedure
ToT	Transfer of technology
UAV	Unmanned aerial vehicle
UDAN	Ude Desh ka Aam Nagrik
UTM	Unmanned traffic management
VAs/VPs	Vital assets/vital points



Contact us

Shashank Tripathi

Partner and Leader, Aerospace and Defence
PwC India
+91 22 6669 1002
shashank.tripathi@pwc.com

Vishal Kanwar

Director, Aerospace and Defence
PwC India
+ 91 9167745719
vishal.kanwar@pwc.com

Akash Gupt

Partner and Leader, Regulatory Services
PwC India
+91 9811331613
akash.gupt@pwc.com

Rajat Chowdhary

Partner, Government & Public Sector
PwC India
+91 9811262633
Rajat.Chowdhary@pwc.com

Ajay Rastogi

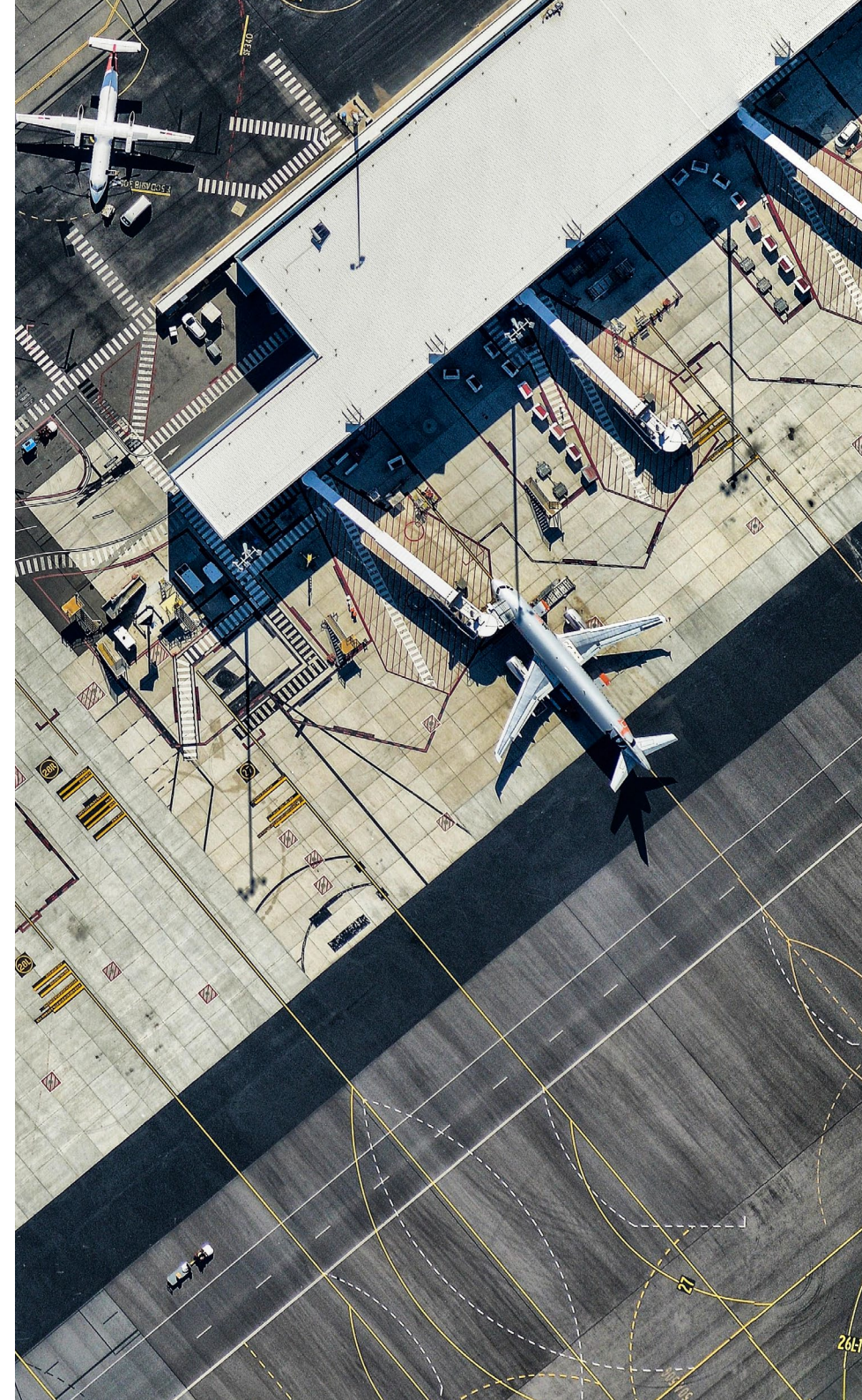
Partner, Corporate and International Tax
PwC India
+91 98102 58102
ajay.rastogi@in.pwc.com

Nipun Aggarwal

Associate Director, Aerospace and Defence
PwC India
+91 98184 71772
nipun.a.aggarwal@pwc.com

Sandipan Maiti

Manager, Aerospace and Defence
PwC India
+ 91 9007501596
sandipan.maiti@pwc.com



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