Maximising Civil–Military Fusion for Indian Airlift
Requisition and Beyond

Armaan Jena*

As many pieces of the jigsaw puzzle, which is India's aerospace policy, come together, there are still pieces that merit spotlight to ensure the picture is complete. India's requisition policy is one such missing piece which the Indian state needs to rectify quickly. Though in terms of legislation, India has the Aircraft Act, 1934 and Defence of India Act, 1962 that allows for requisitioning aircraft and airports, there is a policy void that the Union government must redress. As of today, the government can requisition aircraft during an emergency/wartime to augment airlift capabilities, but it can completely deflate the civil aviation industry in the process post airlift requirements, if not properly managed and in the absence of a dual-use policy.

During the seminar 'Samanjasya Se Shakti', the Indian Army's first such seminar on military logistics held in 2022, former Secretary, Ministry of Civil Aviation, Rajiv Bansal, delved into the requisition of aircraft where he stated that there needs to be clarity on how to proceed further and initiatives to be taken in enlisting an objective. However, requisition by itself is a means to an end with the ultimate objective being strategic airlift for the armed forces. This article explores a dual-use policy to augment Indian airlift capabilities leveraging the civil aviation ecosystem and lays out inputs for consideration and scrutiny.

Keywords: *Requisition, Civil–Military Fusion, Dual Use, Airlift and Military Logistics*

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* Mr Armaan Jena is a Manager at Mumbai Port Authority, India.

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Legislation Alone is Not Enough

The disinvestment of Air India is a watershed moment in the history of Indian aviation. It is both a powerful and undeniable fact argued by proponents of privatisation that disinvestment will end the massive losses borne by the public exchequer which was to the tune of Rs 17,032 crores from April 2020 to December 2021, as shared by the Civil Aviation Minister in Lok Sabha.[1]It is expected that India will cross the 1,000 aircraft threshold within the next five years, possibly breaching that mark by 2025 itself.[2] The indigenous production of dual-use, that is, both civil and military, planes like the HAL DO-228 and LCA Tejas today and C-295 tomorrow beckons India towards an *aatmanirbhar* future. Aviation is intrinsically a dual-use industry and the nation's defence-industrial complex will benefit from these developments. As many pieces of the jigsaw puzzle, which is India's aerospace policy come together, there are still pieces that merit spotlight to ensure the picture is complete. India's requisition policy is one such missing piece, which the Indian state needs to rectify quickly.

India does have legislation that allows for the legal basis for requisitioning aircraft and airports. Section 6 (1) (d) of the Aircraft Act, 1934 makes it amply clear that any aircraft or aerodrome can be delivered to any authority as specified and at the disposal of the government for public service during times of emergency. Similarly, the Defence of India Act, 1962 provides further teeth to requisitioning by the state. Legislation provides the broad contours of possession of aircraft /availing of services, and also of compensation. The Defence of India Act, 1962 also makes provisions for compensation where any person aggrieved can refer the matter to an arbitrator. However, it is up to the policy to flesh out the details. As things stand, there is little clarity on the methodology used for arriving at compensation, nor has it been explicitly designated who the arbitrator would be, even though it has been provisioned for by law under Article 30 of the Defence of India Act, 1962. Thus, the government needs to develop a robust policy for requisitioning. In the void of such a policy, the Indian state can requisition aircraft and airports during an emergency/wartime, but it can completely deflate the civil aviation industry in the process, if not adequately reimbursed.

This is exactly what happened with Air India when it was still the country's flag carrier. The Indian state activated the erstwhile flag carrier, which has been involved in multiple missions over the years. In fact, India has conducted more than 30 evacuation operations including the largest-ever civilian airlift executed in history. Air India conducted approximately

500 flights during the 1990 evacuation out of Amman, Jordan evacuating 1,10,000 people from the Persian Gulf in 1990.[3] In effect, Air India has doubled as India's emergency reserve fleet for diaspora evacuation operations.[4] This activation of Air India was done in an ad hoc fashion which was financially unsustainable. Even with liberalisation of the airline industry, the onus of responsibility of evacuation operations reposed solely on the erstwhile flag carrier. Air India was immediately pressed into service by a Cabinet Secretariat decision via the Ministry of Civil Aviation. Short of a formal evacuation, several crises have also seen the Ministry of External Affairs adding special flights on certain itineraries, upgrading the capacity of existing AI connections, offering discounted fares, or waiving penalties on rescheduling, cancellation, or refund requests by expatriates.[5] All these factors contributed to AI's financial woes.

Especially with the disinvestment of AI, the need of the hour is the development of a robust airlift policy that provides for reasonable if not commensurate compensation to the aviation industry, which concurrently must be sustainably financed by the Indian state in a manner beneficial to the entire ecosystem, including the public exchequer.

Enlisting Policy Objectives

In the seminar 'Samanjasya Se Shakti', Indian Army's first such seminar on military logistics held in September 2022, former Secretary to the Ministry of Civil Aviation, Rajiv Bansal, delved into requisition of aircraft where he shared that both the 1934 and 1962 Acts adequately empower the state to do the needful in public interest. However, he stated that there needs to be clarity on how to proceed further and the initiatives that should be taken in enlisting an objective for requisitioning. He suggested setting up mechanisms at the operating level upwards between appropriate organs of the Ministry of Civil Aviation and the Ministry of Defence at similar levels for better co-ordination by setting up layered committees. He also suggested putting in place protocols and in signing MoUs to achieve the laid-out objectives.[6] It is evident that the government has realised to have a better mechanism/policy in place for requisitioning. The opportunity such a nascent and emerging policy brings to the fore is its utility in contributing to civil–military fusion.

It is not that India does not have successful examples of such civil–military coordination. The Military Rail Cell has played a critical role in facilitating defence movement by Rail.[7] It renders advice on rail movement

and is empanelled with the movement, accounting and organising of all defence stock in consultation. However, there is no aviation equivalent in the Indian context yet. The USA's Civil Reserve Air Fleet and its World War II era antecedent is an apt case study for India to imbibe best practices from.

The USA Example

A robust requisition policy fosters a dual-use mindset along with the use of dual-use infrastructure. USA's requisition programme is a well-established and well-laid out example of long-term strategic planning harnessing a dual-use mindset. A 1933 War Department Board, headed by Deputy Chief of Staff Major General Hugh Drum, was circumspect about the utility of the nation's commercial air fleet for military operations, but did acknowledge civil air transport's potential for moving men and material, and for providing pilots and pilot training.[8] During this period, the contours of how they may be used were in inchoate stages of deliberation, but many in the military believed that civil airlines could be leveraged for national security. Neither were the stakeholders of USA's civil aviation industry reticent of their role in military operations. In fact, the President of Air Transport Association of America (ATA), Edgar Gorrell, was a long-time advocate of air power. He firmly advocated for leveraging civil airlines for national security and the symbiotic relationship between the two.

During World War II in 1941, the British were severely running short of planes and pilots to operate an air supply line over the strategic North African route. They asked the United States for transport aircraft for use in Africa. Although they requested 50, only 20 were available, and those had to be requisitioned from the US commercial airlines. The British then approached Pan American Airways if it would ferry the aircraft to Africa. Pan American agreed, and on 29 May 1941, Atlantic Airways, Ltd. (established by Pan Am for just this purpose) signed an agreement by which the British government agreed to pay all expenses, including the cost of incorporation and dissolution in connection with the contract. Pan American Airways-Africa, Ltd (July 15) was incorporated to operate the airway across the continent and Pan American Air Ferries (July 24) to take over the delivery of aircraft from Atlantic Airways.[9] In Africa, Pan Am surveyed the routes and made necessary arrangements in a span of 30 days. The airline hired 400 Americans and countless local labourers to extend or build runways, erect direction-finding Adcock masts, and construct the necessary operating, maintenance and supply facilities.[10]

As the war raged on, the role of airlines had begun to change, and many airlines were asked to provide air transport services worldwide. Some followed Pan Am across the South Atlantic. Others opened new ferrying routes through Greenland and Iceland to the British Isles, and yet others moved into the Pacific—north and south. The ferrying operations soon dictated the formation of shuttle services to retrieve ferry pilots, and that led directly to a sustained transport service that soon reached virtually every corner of the globe.[11]

Within minutes of the Japanese attack on Pearl Harbor on 7 December 1941, Western Airlines was called on to fly ammunition to a virtually unarmed US forces on the west coast. Within hours the airlines were hauling blueprints, communications equipment, bombsights, serums, plasma, general medical supplies, bomb casings, parts for tanks, tires, propellers and engine mounts. The subsequent policy that emerged from this meeting meant, to the extent possible, normal commercial activities of the lines should be maintained, but that a system of priorities would be put in place to enable the government to maximise the wartime abilities of the in-place air transportation system. Rather than taking over these on-going concerns, the airlines would be called upon to fly war missions under contract and with aircraft supplied by the government. At the same time, the War Department agreed to route the calls for support through the Air Transport Association, which would assign the mission to one of its airlines. All of this flowed from the mobilisation plans Gorrell had made some time ago with the War Department.[12]

Throughout January 1942, the wartime role of most airlines was limited to the movement of priority passengers and cargo, and an occasional special mission that required one or more dedicated aircraft. Although cabins and cargo holds of their planes were increasingly filled with military personnel and material, only two airlines, Pan American and Trans World Airlines, were flying regularly on scheduled routes for the military. Airlines played a vital role in moving parts, assemblies, critical supplies, and personnel between US depots, military bases, defence plants, and other installations, or to ports of embarkation. The domestics' contracts covered the continental US, totalling some 29,000 route miles and 90 terminals.[13]

The years of World War II were a period of rapid development for both the Air Transport Command (ATC) and the civil airlines that had worked with the command. ATC grew from the Air Corps Ferrying Command's two officers, four men, and no assigned aircraft in 1941, to an enormous establishment in 1945 with over 2,00,000 officers and men, over 1,00,000

civilians, 1,66,000 miles of air routes, and over 3,000 transport aircraft in its inventory. Prior to the war, only Pan American had ventured across the oceans, and its scheduled weekly 42 crossings were thought bold. By 1945, ATC planes—contract and military—were taking off for Europe every 19 minutes.[14]

In planning for war emergencies immediately after the World War II, the new ATC leadership rejected the concept of contract operations as a means of mobilising the airlines. Rather, they envisioned the purchase or outright appropriation of the necessary aircraft from the airlines, and the creation of Air Force reserve units affiliated with a specific airline or company, and manned by pilots, co-pilots, navigators, mechanics and administrative personnel of that company. For the airlines, the essence of the contest over militarisation versus contract operations, for both the military and the airlines, was corporate survival. Notwithstanding the experience in World War II, many among the new Air Force leadership feared that under a contractual arrangement the airlines might not respond when needed, possibly leaving vital requirements unfulfilled that might lead to military disaster.[15] Eventually, the combined weight of the airlines, the Air Transport Association, and the civilian agencies of the government—the State and Commerce Departments, the Air Coordinating Committee, the Civil Aeronautics Board, and the National Security Resources Board—finally prevailed. US Airforce was forced to concede a contractual arrangement.

The annual CRAF command post exercises, which began in 1965 were cancelled in 1969 and not started again until 1973. The ATC's successor Military Airlift Command's ten-fold increase in airlift capability during the period altered the basic relationship between military and civilian airlifters, and changed the environment in which CRAF existed. This was an era of fleet modernisation, but that turned out to be a double-edged sword. Modernisation ultimately meant overcapacity for the airlines, and it meant new capabilities for MAC that would dramatically reduce the airlift business the Air Force would hire out. Nonetheless, despite the C-141s and the C-5s, the Civil Reserve Air Fleet was still essential. That proved something of a dilemma. At the same time, MAC was reducing the amount of cargo business it provided to the industry; it was encouraging the airlines to increase their cargo hauling capacity.[16] Increasing strategic airlift requirements in the late 1970s and early 1980s had placed a premium on airlift assets just at the time when economic dislocation, caused by airline de-regulation, and noise reduction regulations were compelling the airlines to dispose of the freighters that CRAF depended on. Strategic requirements and economic realities had

contrived to produce a shortfall in cargo airlift capabilities that CRAF officials seemed unable to rectify.[17]

Although the CRAF programme began in 1951, no segment of it was ever activated before the Persian Gulf War of 1990–91. The deployment of forces to bases in Saudi Arabia and elsewhere in Southwest Asia soon became known as Operation Desert Shield. The CRAF immediately became an indispensable contributor to operations. From the moment Desert Shield began on 7 August 1990, the Military Airlift Command depended heavily upon the civil airlines to help fulfil its enormous airlift requirements. Without the several thousand missions flown by the civil air carriers, MAC's organic fleet could not have moved nearly 4,00,000 troops and 3,55,000 tons of cargo to the Arabian Peninsula by the time the United Nations deadline expired.[18] From August 1990 through May 1991, the civil air carriers completed more than 5,400 missions.[19] CRAF aircraft moved over 60 per cent of the troops and 25 per cent of the cargo.[20]

It is to be made cognisant that all CRAF participants must be US carriers, which are fully certified by the Federal Aviation Administration (FAA).[21] In return, DoD incentivises participation from the civilian fleet by providing peacetime airlift business through the International Airlift Services. Besides providing peacetime business to US airliners, there were two other advantages of joining CRAF: (i) public audits from DoD and the Federal Aviation Administration helps airlines in identifying and addressing operational issues; and (ii) ensures greater safety standards as airlines have to comply with requisite safety and airworthiness standards as mandated by the armed forces. Yet, USA has sparingly activated CRAF since it was instated in 1951 amounting to three times with the recent being the evacuation of people from Afghanistan during the 2021 political crisis.[22]

Recommendations

The history of USA's Civil Reserve Air Fleet and its World War II antecedent serves as an important case study in developing a requisition policy suited to India's local conditions. Requisition has been leveraged as both a starting point as well as a springboard to serve the larger objective of airlift. In addition, the endeavour has been to expand the contours, and maximise civil–military fusion attainable for Indian airlift. Accordingly, the following inputs have been put forward for consideration and scrutiny:

1. Ministry of Civil Aviation and Ministry of Defence should jointly staff and instate a cell/wing/organisation dedicated solely for military

coordination with civil aviation for the requisition policy and strategic airlift programme. The envisaged organ may be situated within Ministry of Defence just like in the case of the Military Rail Cell. Such an organ of the Union will play a vital role in harnessing the intrinsic dual-use nature of aviation and in institutionalising a dual-use mindset. It will provide administrative support by serving as a nodal office between the government and the airlines and airports with the primary objective of operationalising the dual-use agenda. All of the inputs illustrated below can be empanelled to this envisaged nodal office as part of its charter of duties.

2. The Ministry of Civil Aviation has recently released a fractional ownership policy for business jets and helicopters to spur unscheduled chartered flights. Fractional ownership is akin to a timeshare where the cost of acquisition is lowered as one craft is purchased through pooled capital of multiple owners.[23] The benefit of this policy can be availed by the state itself in certain segments to not just provide a fillip to industry, but also to serve operational requirements. Indigenous small pax planes like the 17 pax capacity HAL DO-228 (including the in-development amphibious variant) is still an attractive candidate for fractional ownership, given the right context. The versatility of such a multi-role aircraft can be availed for patrolling as also for medical evacuation. In fact, there is precedent to such an initiative as is the case with private aircraft from flying clubs being used in 1971 for coastal patrol. There is merit in availing small pax planes and helicopters for patrolling large infrastructure projects, particularly reservoirs. However, there are very few helicopters, small pax planes and seaplanes in India—be it the public or private sector. As of today, the civilian fleet in India is around a measly 250 units forming less than 1 per cent of the total global market share. The usage of civil helicopters in India is mostly confined to logistic air support to offshore exploration and non-scheduled passenger service.[24]

   Besides the ramp-up of HAL Prachand for defence forces, there is a need for influx of next generation civilian helicopters. The first civil helicopter took to the skies in 1953 until the formation of the Helicopter Corporation of India (now Pawan Hans Limited or PHL) in 1986. PHL is a 51:49 joint venture (JV) between the Government of India (GoI) and the state-owned Oil and Natural Gas Corporation (ONGC) providing helicopter and aero mobility services. It holds the largest fleet of helicopters in the country. PHL has been in bad shape due to the uncompetitive nature of the enterprise, which is a result of state largesse in the form of heavy

subsidies. This has created an artificial barrier of entry for private players, and has compromised on price, quality and technical capability. PHL reports consecutive losses and worryingly, has an ageing fleet that is not up to snuff with respect to safety standards. Some of these helicopters are over 33 years old. The owned helicopters have an average age of over 20 years and three-fourths of them are presently not being manufactured by the original equipment manufacturer.[25] Due to the old fleet, cost of repair and maintenance has become high. Disinvestment has been on GoI agenda since 2016 to no avail with multiple attempts to liberalise the sector. In its fourth attempt, GoI was able to secure a successful bidder in the form of Star9 Mobility Private Limited but were later disqualified by Department of Investment and Public Asset Management (DIPAM).[26] While the state-run nature of the enterprise is generally flagged as the reason for the uncompetitive nature of the helicopter sector in India, the ownership pattern of PHL with 49 per cent owned by ONGC is often not underlined enough. With such a strong share of an Oil Marketing Company in the country's biggest helicopter company, it is understandable why the use of helicopters has not been explored beyond current use-case scenario predominantly limited to offshore operations. Only a very small percentage is devoted to roles such as tourism, casualty air evacuation, airborne law enforcement, etc., *vis-à-vis* developed nations, where the major helicopter deployment is in such areas. The only other significant uses of civilian helicopters are for non-scheduled passengers and VIP movement. The seaplane sector on the other hand was practically non-existent a few years ago. The pioneering seaplane route to and fro Statue of Unity is a Maldivian 15 pax capacity Twin Otter 300 seaplane. The major issue is twofold: (i) the route is unviable and has been operating at 50 per cent capacity; and (ii) due to lack of a small-pax MRO in the country, the Twin Otter has flown back to the Maldives twice for repairs.[27] This reiterates that the aviation sector is not merely the plane but the entire ecosystem which is necessary for it to be effective. Fractional ownership by the state for security functions can enable feasibility of currently unviable routes. Thus, fractional ownership of new small pax indigenous aircraft deployed in Public and Private Sector Enterprises for dual-use functionality can yield in an optimal utilisation of funds while concurrently contributing to security.

3. Prior to COVID-19, 70–90 pax capacity aircraft like Bombardier Q400 and ATR 42-320 and 72-600 were considered small aeroplanes. However, policy-makers must work towards developing more refined definitions of

small aeroplanes with the proliferation of even smaller planes like Cessna Caravan, VT-HJS, and DO-228 with 10–20 seater planes in the Indian Market. Minister of Civil Aviation went on record to state that there would be a waiver of Landing Charges, Parking Deposits for Heliport Operations;[28] and that the same should be extended to the 10–20 seater category of fixed-wing aircraft. The smaller the aeroplane, the lesser the land requirement for take-off and ground-handling functions, and thus lesser capital cost involved. This allows for greater dispersals of small aerodromes within a target area, such as a chain of islands and across the North and North-Eastern hilly frontier regions, where air connectivity is appallingly low due to difficulty in site selection for mainstream types of airports found in metropolitan areas. Proliferation of such small dual-use aerodromes catering to such 10–20 seater planes can unlock judicious patrolling. Per force, utilisation of such niche aerodromes for civilian use entails the need to generate demand-side use case scenarios. This is where tourism's strategic dual-use dimension comes to the fore. Development and incentivisation of bespoke, low-volume, but premium tourism packages such as adventure tourism and golf tourism can provide the desired civilian use-case scenario. If not Vijaynagar airstrip, various other Advanced Landing Grounds (ALGs) like Ziro could be explored. Additional slots may be provided to civil enclaves. Dedicated budgetary outlay for the design and development of specialised landing grounds required by the military such as portable heli-pads and specialised air-strips that can serve as landing grounds for aircraft of varying sizes. The Centre is keen on availing seaplanes for island-hopping and has also set up helicopter corridors in the Himalayan regions. By doing so, economic development and employment can be generated on the one hand and a growing stock of aircraft fractionally owned by the state and operated by the military is unlocked in highly inaccessible terrains. There is a need to double down on this and find alignment with the 'Parvatmala' and 'Vibrant Villages' programme of the government, which were announced in the 2022 budget. Thus, even an industry as innocuous as tourism has its role in security when examined from a dual-use perspective.

4. Yet, it must be reiterated that the role of small pax aircraft as mentioned earlier is of utility only in the limited context of patrolling and medical evacuation. There is an even greater need to bolster strategic airlift capacity of the armed forces, which requires large aircraft. Expansion of the fractional ownership programme to include cargo aircraft (including retrofitted planes) may be explored by the state, both in policy and

patronage. Economic reality drives the marketplace and India's civil aviation industry is predominated by 200 pax capacity planes with the lower-lobe capacity of the airlines' jets satisfying the need for what air freight there is. Thus, to circumvent the status quo the envisaged nodal office may be tasked with the establishment and management of 'modification centres'. These modification centres would have a two-fold function: (i) retrofit such pax planes into cargo planes in a four-month span;[29] and (ii) two-stage retrofitting of such pax planes with a two-stage modification. Stage I modification requiring necessary wiring, fittings, and brackets to allow the quick and low weight installation of the required standard equipment accomplished during routine maintenance. Stage II modifications consisting of the installation of the operating equipment such as military grade communication, navigation, etc., at the time of military call-up. Such a modification centre would be apt at MIHAN SEZ (Multi-Model International Passenger and Cargo Hub Airport at Nagpur Special Economic Zone).[30]

5. The nodal office as envisaged can collate relevant aviation-based innovation across start-up curators ranging from IDEX (Innovations for Defence Excellence) in the defence sector, and AGNII (Accelerating Growth of New India's Innovations) and MSINS (Maharashtra State Innovation Society) in the civilian sector. The relevant start-ups in tow with their products and services can be promoted across the Indian civil aviation ecosystem.
6. A robust requisition policy induces Directorate General of Civil Aviation (DGCA) to upgrade their safety standards in consultation and conjunction with the envisaged body for those airliners who wish to be onboarded in India's version of CRAF. Public audits as a consequence of enlisting in the requisition programme will help airlines in identifying and addressing operational issues benefitting the entire aviation industry.
7. The Reserve and Auxiliary Air Forces Act, 1952 makes it obligatory for certain personnel associated with civil aviation such as pilots, navigators, air traffic controller, ground engineer or anyone employed in connection with any aerodrome or in connection with the control and movement of aircraft to register themselves for the Air Defence Reserve. Requisition of airplanes and airports, if and when the need arises, would require additional personnel to operate the influx of aviation assets. The Reserve and Auxiliary Forces Act, 1952 empowers the Air Force to raise and maintain a reserve force that can be availed by the Air Force in times of emergency/war. Of course, pilots are required, but there is also a need for

deputation of ground and technical officers for air traffic and aerodrome management. Section 11 (1) (h) of the 1952 Act provides latitude to the Indian state to augment engineering and logistician talent from civil aviation. A programme may be chalked out for the reservist officers from the aforementioned technical domains with the objective of preparing technical reports and regional plans on structural and financial viability of establishing new greenfield aerodrome, exploring expansion of existing airports, and also in upgrading sanctioned and existing Advanced Landing Grounds into Civil Enclaves, alongside acquainting these reservist officers with a bearing on day-to-day military tasks expected of them during service. This should be explored at the training period itself and if viable should be institutionalised as it would lead to optimum utilisation of talent and more efficient expenditure outflow.

8. The nodal office as envisaged may be enlisted as the designated platform to hand-hold Indian Air Force Agniveer Vayu personnel interested in careers in Civil Aviation sector post their four-year service period.

Thus, a robust aircraft requisition policy so envisaged looks beyond knee-jerk action and urgency of requisition that legislation currently allows for. The objective is to utilise a well-laid programme, which twins and dovetails sustainable financing of requisition with the goal of overall strategic and long-run development of the aviation industry.

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