CHAPTER V

CONCLUSION
The potentials and performance of airpower in terms of national security and defence was belatedly realised in India as it was the case in all other countries around the world. India being subjected to British rule had to be satisfied with what airpower the British was able to build and make available on Indian strands. The first world war made it clear to the European powers that airpower is not only an indispensable force but the most essential one to make the other two forces effective and result-oriented. In the early thirties of the present century France was next to Nazi Germany in airpower in Europe. The latter half of the thirties witnessed an air re-armament race among the European powers. Britain which held unquestionable power over the seas was convinced after the devastating first world war that she could never enter into the arena of war without sufficient aerial defence. There was a demand in the British generals with this effect to provide aerial defence to guard German air attacks. A special committee under Field Marshal John Christian Smuts recommended the immediate need for an independent air force. Thus the independent Royal Air Force came into being on 6th June 1918 under the command of Major General Hugh Trenchard. After the war the Royal Air Force was used as a policing weapon in the trouble-torn areas of British colonies especially in the North West frontier province of India, Iraq, Aden and East-Africa.

Meanwhile the occupation of Ruhr of Germany by France in 1923 forced the British to concentrate more on airpower despite her policy of self-disarmament. British India, where from Britain could pull so much of man power, was provided with airpower under the name of Indian Air force. Especially in the North West frontier province the newly formed airforce was used in 1933 for reconnaissance duties along with the Sind brigade. In 1937 it was used in Miranshah to keep the Waziris and Afrides under control. The second squadron of Indian Airforce was also created in 1941 for purposes of internal and external security. Indian Air force with her poor Waoliti and Andax aircraft successfully met the challenges from the Japanese oscar aircraft carrying out tactical surveillance and close air support to the army in the Second World War. She was called the "Eyes and Ears of the 14th Army". After this successful performance the king of England was pleased to change the name of the force as the Royal Indian Air Force (RIAF).

It should be noted that India's defence strategy was mostly land-operation oriented. The army remained the main fighting force before and after independence. The chief of the Indian Army staff held pre-eminent position among the other service chiefs. Air force in India was required to play only second fiddle in national security and defence.  

4. The summarry of important matters connected with defence services in India 1934-1935. Govt. of India. P - 13.  
Indo-Pakistan War of 1947-48, the Sino-Indian War of 1962 and the Indo-Pakistan War of 1965 were considered exclusively an affair of the army. Defence budgetting also revealed the fact that airforce did not command much importance in the role of national defence. The Indo-Pakistan War of 1965 changed the view that army was superior than the other forces.

At the time of the partition of India, the Indian Air force was left with seven fighter squadrons and a transport squadron. She was falling short of bomber squadron and air-defence equipment. Hence the necessity to raise a well-balanced air squadrons having offensive and defensive capability was realized. The threat of cold war during the fifties of this century made India accept the need to possess sophisticated air force. Pakistan on the other hand being a contender for the right over Kashmir, was able to get world class supersonic jet aircraft like F-104 Star fighters, Saab jets, and powerful radar equipment along with a host of military hardware because of her membership in SEATO and CENTO. Pakistan's possession of such high-calibre aircraft compelled India to keep herself fit enough to respond to challenges if any from Pakistan.

Following a strong national policy of self-reliance, attention was given more on home production of HF-24 Marut Supersonic Version. Though the policy of self-reliance involved risk of

obsolescence of time and technical problems India was successful in setting Airframe units, engine designs and air-to-air missile units with sound technical assistance of the Soviet Union. After the Chinese aggression in 1962, the Indian air defence was strengthened with the help of Western powers. In her anxiety to counter the expansionist policy of Communist China the USA came out to help India even by straining her relations with Pakistan. Shiksha - a joint air-defence exercise was carried out in India by the USAF, RAF and Australian air force. The newly found friendship with Communist China encouraged Pakistan to make a mis-adventure against India in 1965. But the Arms embargo which was imposed by the USA and UK, and the non-co-operation from the SEATO and CENTO member countries forced Pakistan to face acute shortage of arms and ammunition just in the middle of the 1965 war. To sustain operations she made an all-out effort to acquire fighter aircraft, weapon systems, equipment, explosives and spares from China, Indonesia and from some West-Asian Countries. At the same time India was able to carry out the war as she possessed sound defence infrastructure and Industrial bases. Though the war produced no result, it had helped India to identify certain grey areas of deficiency such as poor air-defence equipment, lack of forward bases and limited inter-service co-operation. The Aeronautics committee formed in 1967 under the chairmanship of

Shri. C. Subramaniam suggested the immediate need for more MIG-21s and suitable engine for India's supersonic aircraft HF-24 Marut. These drawbacks were set right before the outbreak of the Indo-Pakistan War of 1971. The Indian Air-force in particular and the Indian armed forces in general were well prepared to meet the Pakistani challenges.

A review of the Indian national security and defence from the time of independence in 1947 to 1971 reveals the significant role played by the Indian Airforce during all the four wars in which India was rather compelled to enter into operations by the aggressions and offences caused by both Pakistan and China. The ultimate success of Indian forces in the three wars against Pakistan could be attributed to the role played by the Indian Airforce. India's failure in meeting the challenge from China in the mountain glaciers of Himalayas was because of lack of suitable jet aircraft and trained pilots to put such aircraft into operation in high altitudes. Had India only been prepared for Chinese aggression and had Indian airforce been well-equipped with up-date aircraft and advanced radar systems, Indian forces would have successfully made the enemy retreat without much loss of life and strategic areas in Aksai Chin and North East Frontier Agency.

In the Indo-Pakistan war of 1947-48 India was successful mainly because of the role played by the Indian Airforce. Under several odds such as poorly maintained airstrips in Jammu and Kashmir and high mountain ranges with extreme cold conditions, the Indian Army was able to move its contingents successfully by the quick transport support and other logistic and military supplies provided by the Dakota aircraft of Indian airforce.\textsuperscript{12} In the absence of bomber aircraft the Dakota transport aircraft was successful in manually dropping bombs.\textsuperscript{13} With the air support provided Indian army was able to thwart the attempt of Pakistani troops to enter into Baramula. Pakistani Airforce which had the advantage of better airbases nearby was made ineffective by the timely tactical air operations from the Indian side.\textsuperscript{14}

The Chinese aggression of 1962 was an unexpected, unjust and uncalled for war which the Indian forces were not prepared India had no idea whatsoever about the expansionist designs of China.\textsuperscript{15} The absence of the Prime Minister and the Defence Minister of India from the country, the absence of air and army bases and forward coasts, the poor strength and artillery support to defend the mountain ranges, all put to gather worked towards the disadvantage of the operations of Indian Airforce and Indian Army.\textsuperscript{16} Indian airpower was of course useful to lift some AMX

\textsuperscript{13} Ibid.
\textsuperscript{14} Ibid.
tanks to the western sector and helped the army to hold back the Chinese. But for the intervention of the airforce in air lifting the tanks, India would have lost the frontier town Chushul. 17 Indian Pilots who were not acclimatized to the extreme cold of Himalayas used the helicopters with risk and did a wonderful job in evacuating the sick and wounded soldiers from the hazardous battle zones. They also carried out dropping of supplies to the soldiers at high mountain slopes with limited success. It should also be noted that the officials directing the operations did not call for the combat elements of the Indian Airforce because the capacity of the Chinese power definitely boosted the morale of the Indian army units that were widely scattered in the Eastern sector. 18

As rightly pointed out by Air Chief Marshal M.S. Chaturvedi, "the combat element was prevented from taking any active part by the government for political reasons and wider international repercussions. Had our fighters, fighter-bombers gone into action the course of operations, might perhaps have changed." 18a

However a comprehensive and analytical study of the then combat fleet of the Indian Airforce with its counterpart at China revealed the fact that the Indian Air force was not at all capable to meet the eventualities. The Ilyusin II-28 bomber, code named as Beagle in NATO circle used by China was a three seat strategic bomber fitted with two 5952 lb thrust klimov VK-1 single shaft centrifugal turbojets.\textsuperscript{18b} Compare to this India possessed Mystere IV, Hunters and Canberra bombers. The Mystere was an intermediate aircraft and bought from Dassault company of the USA by France and resold to India. It could fly a maximum speed of 1120 KM per hour and cover an effective range of 1320 KM. The Canberra bombers had the capacity to fly low and was fitted with Rolls-Foyce AVO-109 single shaft turbojet.\textsuperscript{18c}

The Chinese fighter squadrons consisted F-2 (MiG-15 UTI), F-4 (MiG-17) and F-6 (MiG-19 SP). The F-2 was famous for its features. It could fly faster, climb and dive faster and turn more tightly. The western pilots

\textsuperscript{18c}. Ibid. p-19; Chaturvedi. M.S. OP Cit. P.150.
especially the Americans were startled when it was intro-
duced by the Russians. The F-4 a single seat fighter was
furnished with 55mm air-to-air rockets and several air-to-
ground missiles. The first Russian supersonic fighter
MiG-19 which was in the service of China as F-6 could fly
a maximum speed of 1480 KM per hour (1.3 Mach) at 20,000
feet height as it was fitted with two 7165 lb thrust kilmov
RD-9B after-burning turbojets.

India on the otherhand having become conscious of the
Chinese air violations prepared to procure British lightening, French Mirage-III and American MC Donnal F-101 Voodoos
to enhance the striking potentials of her airforce with such
world class supersonic aircraft. It was unfortunate that
India was not able to get them before or during the Chinese
aggression. India was left with the only choice of getting
the Russian MiG-21 before the war. This multi-role MiG-21
aircraft with Tumansky single shaft turbojet with after-burn
could fly a speed of 2070 KM per hour (2.1 Mach) carrying
four S-24 and K-13A Missiles. By misfortune it was put
into operation by India only after the 1965 Indo-Pakistan
War.

18d. Ibid. PP 152-158.
18e. Raju G.C. Thomas. 'The Defence of India' Macmillan
The Sino-Indian war revealed the unhealthy trend that prevailed in the operations of the three forces from the time of independence. The Indian army was playing a predominant role in the defence strategy of India keeping the air force and navy at a subordinate position. The fact that the objectives of any war could be achieved only through close cooperation between the three forces was realised after this war.

Though the two global wars brought to light the significant role that airforce could play in support of the army and navy and bombard any target with much speed and accuracy, in India the army continued to assume importance over the other two forces until the early sixties of present century. Realising the importance of air-support the Indian Army came out openly seeking help and assistance from the airforce in 1965 when the US made M-47 Patton tanks were moving into India from Pakistan. It was a crucial situation when Pakistan was trying to cut off the vital Jammu – Srinagar road at Chamb sector. The Indian Airforce responded in the midst of certain hurdles. Pakistani Airforce had much superior air arms when compared to that of available air arms in India. Indian air bases were located far away from battle zone. Most of the Indian air bases were established at the Punjab sector. These constraints compelled
the Indian aircraft to fly long ranges with reduced weapon loads. Pakistan had the advantage of having her air shuttle from the nearby air bases. At one point the Pakistani aircraft constantly harassed the Indian army that was holding successful positions a few miles from Lahore. It was at that juncture the Indian Pilots displayed their bravery and intelligence and cut did the superiority of Pakistani air arms and arrested further Pakistani provocations.

At the termination of the War of 1965 the Indian defence forces began to conduct several joint operation exercises. The 'Mid Summer Madness' was one such exercise conducted by the Indian army and Air force. It involved air-reconnaissance missions followed by a detailed time-frame for pre-arranged technical support with provisions for immediate call and more intelligence missions. Several such exercises were being carried in regular interval with in the airforce as well as with the army to locate and identify targets and to provide tactical support with the use of coded radio-communications. Special trainings were also offered to the personnel of army, navy and airforce in order to infuse the spirit of co-operation and understanding among themselves.

The 1971 Indo-Pakistan war provided the best opportunity to demonstrate the importance of inter-service co-operation.

21. Ibid. P-78.
Each force excelled itself in all aspects of war. The Indian Airforce in particular established the air superiority with in forty eight hours from the outbreak of the war. The pre-emptive air raids of the Pakistani Airforce on 3/4 December 1971 were of no avail against the advance passive air-defence measures from the Indian side. The Indian aircraft were dispersed in the well camouflaged forward airfields where the run-ways and the hangars were sufficiently painted with camouflage-pattern with all her improvised mobile observer units AR/1 low-looking radar sets and medium and higher range radar sets, Pakistan could not prevent the Indian air-maneuvers from causing heavy damages to her. Having damaged the B-57 Pakistan aircraft that could provide effective low-level air cover, Indian air power was responsible for India scoring a convincing victory. Many have attributed the Indian success to the services of Soviet TU-126 Moss AWACS aircraft which was capable of throwing a blanket of electronic jamming on the enemy radar screens and at the same-time guide its own interceptors and ground attack aircraft to reach the target. But in reality it was not so. The war of 1971 lasted for fourteen days and witnessed one of the biggest applications of concentrated airpower since the second world war. The role of Indian Airforce belied the conventional military thinking that the limited wars of today

could lead to no decisive outcome. In liberating the 75 million people of Bangladesh at the conclusion of the War of 1971, the part played by the Indian Airforce was by far greater than that of the Indian army and the Navy.

The performance of the Indian Airforce would have been better result-oriented, if only the advanced countries like the USA, UK, France and USSR had not put checks and balances on India's self-reliance policy by restricting supplies of aircraft required by India. For instance India's efforts to get American F-104 Star Fighters and French Mirages failed. The HF-74 Marut project to train Indian personnel in aircraft designing by the German Aeronautics engineering team headed by Dr Kurt Tang was only half-way through as the team was withdrawn before the completion of the period of training. The essential need of the Marut project to find suitable engine for the HF-24 Marut aircraft was not met during the stipulated period. The Soviet Union also expressed its reluctance to grant license for the production of MIG-23 in India.

Deputing air personnel to go abroad to acquire knowledge of latest development in aeronautics and techniques of air warfare was not that easy in the sixties. Indian pilots thus lacked training in handling supersonic aircraft. The required

number of sorties for a Pilot per month was also found falling short around 25% when compared to their counterparts in the Western World. Inspite of all these odds and handicaps the Indian pilots excelled themselves in handling the sub-sonic Gnats aircraft and deterred the American war machines which formed part of Pakistani contingent in the 1965 war. The Government of India on her part was carefully committing itself to develop the strength and capabilities of her airpower. Though a developing nation having realised the need for a credible air power India had allocated the essential capital. Under the patronage of the government, the Hindustan Aeronautics limited produced different types of aircraft and helicopters with required imported parts, even though it involved certain risks. The Indian government also fulfilled the strategic demand of commissioning advance headquarters alongside the appropriate army commands to provide close air-support through joint army-air operation centres and technical air centres. During the span of twenty five years from 1947 to 1971 of the present study undertaken, the overall growth and development of the airpower in India is by and large quite appreciable. The Indian Air force performed its role reasonably well in safe guarding the national prestige and in maintaining the cherished national policies. With the available old aircraft left behind

by the British, the newly acquired and assembled aircraft, the limited surveillance and target information gathering systems with associated command and communication facilities, and the limited missile systems available, the Indian Airforce had played a distinctly commendable role during the four wars of Independent-India. At the close of 1971, Indo-Pakistan war, India had a well-balanced Airforce with forty-five squadrons of aircraft with all supporting facilities. It can be stated that the Indian airpower in 1971 had reached a moderate level of international standard. It should also be noted here that the dependability of airpower on either army or navy for strategic or tactical access in comparatively less than the dependability of the latter two on the former. The Indian Air Force had become a dominant factor during the four wars with close cooperation with both army and navy for successful operations.

Without much reservations the tremendous victory in the war of 1971 could be attributed to the careful application of a well orchestrated air-strategy. This success restrained both China and Pakistan from disturbing India in terms of open war. The Indian Airforce had of course earned a distinct mark in India's defence through its performance in the post-independence wars, but the question, whether the Indian airpower has attained international standard in terms of aircraft and missiles, training and electronic surveillance and target information gathering system with associated command, control, communication and intelligence remains to be answered.

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