



Centre for Air Power Studies (CAPS)

Forum for National Security Studies (FNSS)

11TH SUBROTO MUKHERJEE SEMINAR RAPPORTEUR'S REPORT

"THE CHALLENGE OF AIR POWER"

November 11-12, 2014

Day 1: November 11, 2014

INAUGURAL SESSION

Welcome Remarks: Air Marshal Vinod Patney SYSM PVSM AVSM VrC (Retd) (Director General, CAPS) Air Marshal Patney, who had the distinction of being the Air Officer Commanding-in-Chief of two operational Commands of the Indian Air Force and Commander of the Kargil Air Operations, delivered the welcome address for the 11th Subroto Mukerjee Seminar conducted at Subroto Park on November 11-12, 2014. He used this seminar as an opportunity to congratulate the IAF and its leadership for the sterling work during "*Operation Megh Rahat*" to ameliorate the sufferings in the recent floods in Jammu and Kashmir.

In his opening remarks, he reminded all present that it was 96 years ago to this day that the First World War came to an end. World War-I witnessed the operational birth of Air Power when for the first time, aircraft were used for air reconnaissance. The classic elements of Air Power, which came to the fore then, remain valid even today. Air Marshal Patney observed that the change over time had been in terms of a large increase in the spectrum of operations and that Air Power must endeavour to gain in capability and potential which matches this large expanse in operations. He further stressed that an increase in the capability of Air Power would allow an increased use of Air Power, and in that regard the IAF is on the right track. Air Power was described as an asset that will enlarge the options which are available for prosecution of war, and thus all these factors highlight the dynamic nature of Aerospace Power study, which needs to be looked at with increasing importance.



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He emphasised that the endeavour at the Centre for Air Power Studies (CAPS) is to understand the utility of Aerospace Power and its relevance to the entire ambit of National Security, and that there was an urgent need to place Air Power in the national security calculus. One of the major attributes of Air Power is flexibility. In this regard, he noted that flexibility has now transformed to strategic agility, which rightly depicts the pre-eminence of the strategic value of Air Power. While discussing issues pertaining to defence industry, he called for replacing 'Indigenisation with Indigenous capability', as 'Indigenous' implies leadership while 'indigenisation' implies followership. According to the Air Marshal, the Prime Minister's 'Make in India' concept is a wise one, which could facilitate the development of indigenous capability.

Air Marshal S B Deo was invited for the inaugural address, which he delivered on behalf of the Chief of Air Staff.

Inaugural Address: Air Marshal S B Deo AVSM VM VSM (DG Air (Ops) IAF)

Air Marshal S B Deo, focusing on the Challenge of Air Power, highlighted that Aerospace Power has become an integral part of any military endeavour. He recalled the contribution of the first Indian Chief of the Air Force Air Marshal Subroto Mukherjee in restructuring the Air Force and the induction of a variety of advanced aircrafts. His emphasis on planning and development of human resources was key to the evolution of the IAF into a modern aerospace power. Aerospace power provides the capability for calibrated and swift response, he observed, through the cases of employment of Air Power against Moammar Gaddafi, the intervention of French Air Force in Mali in 2013 and in the ongoing US and French air strikes in Syria and Iraq against the Islamic State that has reduced the offensive momentum of the militants. Air Power, it was noted, has the ability to alter the offensive and cause a setback to the best of the adversaries. According to Air Marshal Deo, the key challenge to procurement of modern equipment lay in being able to deliver with minimum expenditure. He stressed on the fact that the IAF had a big task in meeting emerging threats and proxy war across a wide variety of terrain & weather, and that we need to be prepared all the time for an entire spectrum of operations.



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SESSION I: THE CENTRALITY OF AIR POWER

Chairman: Air Chief Marshal SP Tyagi PVSM AVSM VM (Retd) (Former Chief of the Air Staff, IAF)

Air Chief Marshal S.P. Tyagi in his opening remarks emphasised the need to create a better understanding among the leadership about the Centrality of Air Power in modern warfare. He reiterated on the need for greater awareness among the planners about the strategic agility of Air Power. The challenge for the IAF, according to him, lay in utilising a variety of aircrafts in the IAF inventory with differences in equipment, training, and still managing to integrate them to achieve operational results.

FLOODS IN KASHMIR AND IAF OPERATIONS: Air Vice Marshal Upkarjit Singh AVSM

The seminar commenced with the speaker elaborating on the conduct of “*Operation Megh Rahat*” and the challenges faced by the IAF during J&K Floods in September 2014. The salient features of his presentation were as follows: -

- The floods in J&K were described as the worst calamity in 60 years. The rainfall varying from three to ten times more than normal was experienced in different areas in J&K , including Jammu, Udhampur and Srinagar. The area from Srinagar to Anantnag was submerged under 20-25 ft of water in the valley with no communication. Anantnag-Banihal highway was damaged/ blocked due to flooding and landslides.
- IAF was the first to respond and launched “Op MeghRahat” on September 04, 2014. IAF had also set up a relief camp and provided medical aid, blanket, meals and miscellaneous items to the victims.
- 85 IAF aircraft and helicopters, which included C-17, C-130, An-32, Dornier, MLH, ALH, Chetak and Cheetah helicopters were committed towards the operations.



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- The induction of National Disaster Relief Forces (NDRF) by air commenced on September 05, 2014. Aircrafts bringing in relief material were used for evacuation of people as per PM's directive to ensure that no aircraft returned empty. IAF facilitated media coverage during the relief operations.
- A total of 2883 sorties were flown during "*Operation Megh Rahat*" airlifting 4500 tons of load, inducting 5075 personnel into the valley and airlift of 47,825 personnel out of the Srinagar valley. Air Force helicopters carried out winch operations to retrieve people from inaccessible areas. A total of 1151 and 931 people from inaccessible areas of Srinagar and Jammu respectively were rescued through Winch Operations. This was one of the largest ever evacuation through the Winch by the IAF Helicopters.
- Integration between Air Force, Army, NDRF, State and Central Govt agencies was the mainstay of a timely, effective and successful conduct of relief operations.
- Air Space Management was a major challenge involving 450 air moves per day having multiple aircraft from various agencies i.e. IAF, Army, civil operators, State government aircraft etc. This was overcome by close coordination, effective management of air space and allowing night operations.
- The loading and offloading of 250 tons of relief material every day, manning, lack of civil administration support, communication, restricted winch ops, landing grounds for Medium Lift Helicopters (MLH) and security were other major challenges faced during the operations. In addition, the poor quality of packing resulted in wastage of relief material during airdrop missions.
- Some of the lessons learnt were as follows: -
 - ✓ Importance of rapid response to a crisis situation.
 - ✓ Need to earmark landing areas for MLH class of aircraft for crisis situations.
 - ✓ Better packaging of food for airdrop.
 - ✓ Security of base and passenger transit areas.



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THE CHANGING NATURE OF WAR: Vice Admiral Shekhar Sinha AVSM NM (Retd)**

The key issues discussed by the speaker were as follows: -

- Security challenges will be less predictable, they can change quickly and the response more difficult to keep pace with. The threats may be known but the enemy would be invisible. Control of space would become as critical as land, air and sea.
- The centrality of Air Power has increased. First and Second Iraq Wars are the best examples, in which the US swept the Iraqi Army in a matter of few days after a sustained Air Campaign.
- The speaker attempted to provide a historical perspective of warfare laying emphasis to Clausewitzian concept of warfare. He further emphasised that “the theme of modern world has been shaped by English Civil War, which marked the end of wars of religion and beginning of secular wars.”
- The rapid technological changes due to industrial revolution changed the nature of warfare.
- We have moved from modern war to post-modern war, which does not have a centre of gravity. He stressed that Revolution in Military Affairs (RMA) and globalisation are vital factors in the changing nature of warfare. Al Qaeda’s global acts of terror and the Mumbai Terror attack point to the fact that they were aimed at grabbing attention and visibility rather than achieving military objectives of any consequence.
- The potential military targets would merge with civil areas, which could make identification difficult. War will change from battlefield to battle space. The canvas of potential targets would multiply and hence, the risk of collateral damage would increase. Therefore, Air Power would be central to any such conflict in future.
- The Anglo-Saxon hegemony would be challenged and new powers are likely to emerge, which could lead to a multi-polar world.



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- The line between war and peace has become blurred with the emergence of non-state actors. The civilian and military targets will merge. Therefore, all the intelligence agencies of the government and the military would need to work together in order to successfully counter these challenges.
- India in a nuclear environment has to be swift, precise and decisive in its actions. This calls for 24X7 surveillance, fusion of information, collation and monitoring of data obtained from all domains at one place. All tools of warfare, viz. cyber, space, electronic, special-forces and flexibility and agility of Air Power should be utilised.
- Perception management and precision targeting would play key role in future wars.

GEOPOLITICAL LANDSCAPE 2025: Ambassador Sheel Kant Sharma (Former General Secretary, SAARC)

The speaker provided an overview of a probable geopolitical landscape by 2025.

- The speaker laid stress on how the geopolitical landscape essentially involves great power relations and how great powers play great games. He also highlighted that in the past the powerful shaped geopolitics and politics triumphed economics. Military force will be the key to the solution no matter what the crisis is.
- The West would dominate Bretton Woods Institutions while the United Nations (UN) would likely to remain unreformed and helpless.
- China would surpass the United States as a global economic power, while the US military and political power would diminish.
- China's investment in France, Germany & Venezuela, and Russia's trade with the European Union (EU) has transformed the way they view China and Russia, which is different from the way the US views China. There is also an improvement in China-Japan relations.



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- There are variations in perceptions and concerns of Saudi Arabia over Wahabi Islam and Iran vis-a-vis USA.
- China has been consistently working against India's interests for the last half a century and followed a two-faced policy. There is deliberate unrest maintained at the Indian border by China and its involvement is suspected in cyber-attacks on India. China had clandestinely supported Pakistan in its nuclear bomb and missile program. It continues to support Pakistan despite the latter's support to terrorism. It is surrounding India through developing economic ties with India's neighbours.
- The US is pushing for technological fixes like global prompt strike, domination of airspace and cyber, which is worrying Russia and China.
- While everyone including the US is aware of Pakistan's indulgence/ tacit support of terrorism, yet Pakistan continues to get aid from US.
- China, Russia and the US have been equivocating on terror.
- Nuclear weapons prevent war. There have been about 40 incidents that have put Russia and the West face to face in the past eight months due to the crisis in Ukraine. However, nuclear deterrence would continue to be a vital factor in geopolitics despite a few aberrations. Cyber warfare would be a threat to be dealt with.
- Those who win the technology race, in areas covering cyber, genetics, space, smart weapons and advanced avionics, are likely to dominate the world. India is not far from progress; it must opt for the right kind of grand strategy and concentrate on the Science revolution.

Q&A AND CONCLUSION

The session provided an insight into the critical role played by Air Power in "*Operation Megh Rahat*". The brief description of the IAF's transport and helicopter operations, challenges faced and lessons learnt from the operations were conveyed. The optimum utilisation of meagre aviation resources including civil



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aircraft during a crisis by ensuring that aircraft do not fly empty both while flying in/ flying out of the affected areas and need for suitable and portable communication equipment in order to coordinate with various agencies during crisis were the other lessons which could be drawn from the operations. Vice Admiral Shekhar Sinha brought out the changing nature of warfare in modern times, intermingling of civilian and military targets and the need for precision-munitions. The challenge for the planners is to know what kind of warfare and threats they are likely to face so that they could prepare accordingly. Ambassador Sharma briefly drew the geopolitical landscape in 2025 which India could face elaborating not just on Pakistan and China but drawing a global landscape of geopolitical shifts.

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