

## IAF's Role in Ladakh

### What is the issue?

- With a resolution to the standoff on the LAC still elusive, the Indian Army is preparing for extended deployment of troops.
- The Indian Air Force (IAF) will play a key role in supporting the troops in the tough terrain through the harsh winter months.

### Can the IAF support the logistics of such a large force?

- One part of the logistics for the Army requires land transportation, which would have been planned for before winter sets in and the passes close.
- The IAF will be doing **very urgent missions**, for which it is well prepared with a very good transport fleet like C-130 Super Hercules, Chinook heavy-lift helicopters, etc.

### What are the challenges of flying into Ladakh's advanced landing grounds (ALGs)?

- The challenge is the **altitude** of the two airfields of Leh and Thoise.
- But since IAF has been flying there for decades, the air crew are well aware of the peculiarities of these fields.
- The **landing grounds** at high altitude have their own challenges.
- It results in reduction of load-bearing capacity of the planes/choppers.
- The air crew have to call upon their skills to navigate the hills and land on the **small helipads**.
- Bad weather that accompanies the western disturbances that strike northern India in the winter months is a challenge.
- It **reduces visibility** and results in a **low cloud base**.

### What effect does extreme cold have on weight-carrying aircraft?

- The lower the temperature, the better the payload.
- This is because the higher air density increases the lift-carrying capability of flying machines.
- So the loads that can be carried during winter are higher than during summer. This is a big advantage.
- Helicopters, whose load-carrying ability to extremely high helipads at

altitudes of 17,000 to 20,000 feet, increases substantially in winter.

- It reduces drastically in summer.

### **Do the high altitude and topography pose a challenge?**

- The modern navigation equipment available now overcomes most of the challenges.
- But mission accomplishment is not merely flying from place A to B.
- The aircraft has to land to complete a mission. That is where temperature and altitude plus weather become the final arbiters.
- Navigation is not a problem, but **take-offs and landings are tricky**.
- The night flying has its own challenges because of the shadows cast by hills, and the state and position of the moon relative to the hills and the aircraft.
- A moonless night poses its own challenges, and a full moon has its own.
- In the hills, air crew are specially cleared to carry out operations at night.

### **Do Ladakh airfields restrict operations to only certain aircraft?**

- All air fields in the Ladakh area can be used by the transport aircraft, although weather requirements will vary from one aircraft to the other.
- It depends on the navigational aids on board the aircraft, and the competence of the crew.
- That is why air crews are detailed depending on the mission.
- In a long haul, the IAF will have to transport back and forth mechanised weapons etc for repair, maintenance, etc.

### **What kind of support does the IAF require for such an operation?**

- All the air fields have enough stock of fuel, oil, and lubricants (**FOL**) for which detailed planning are done around the clock.
- There is a well-oiled logistics chain that has been fine-tuned by the IAF in the last six-seven decades of operation.
- The Army Service Corps (ASC) also plays an important part in ground positioning of fuel in forward posts.

### **What is the threat to aircraft when the ground forces are eye to eye?**

- The Leh and Thoise airfields that support fixed wing operations are relatively in the interiors, hence not vulnerable to any ground action.
- They can be attacked by the Air Force and other aerial assets of the foe.
- But there are standard operating protocols (SOPs) in place to deal with such threats.
- However, in ALGs such as Daulat Beg Oldie (DBO), the air crew are well adept at taking tactical action to meet any threat from ground fire or

shoulder-fired missiles.

- In this, the aids on board the helicopters also play an important role.

### **Are there any special challenges for fighter aircraft?**

- Fighters flying in those altitudes have special challenges because of their high speeds, reduced air density, the closeness of the hill tops.
- Hitting the targets which are very small comprising bunkers having small number of troops requires special weapons and air crew capability.
- Fortunately, India has experienced this during Kargil.
- So, the lessons would have been passed on to the present band of pilots.
- In the present day, an individual weapon system is only as good as the overall war fighting architecture that the force designs.

**Source: The Indian Express**

