

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

