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*International Civil Aviation Organization***Sixth Meeting of the Asia/Pacific Wildlife Hazard
Management Working Group (AP-WHM/WG/6)***Bangkok, Thailand, 14 to 17 May 2024***Agenda Item 3: Global, Regional and National Guidance/Best Practices on Wildlife
Hazard Management****MEASURES UNDERTAKEN TO MINIMIZE JACKAL MENACE AT
NSCBI AIRPORT, KOLKATA**

(Presented by India)

SUMMARY

This paper will discuss the mitigation measures which are being followed to reduce the jackal menace at one of the oldest civil airports in India NSCBI Airport, Kolkata.

1. INTRODUCTION

1.1 Netaji Subhash Chandra Bose International Airport (NSCBI), Kolkata is one of the major and oldest civil airports of India established before World War II. NSCBI Airport, located on the outskirts of the city near undeveloped areas and wetlands, becomes a convenient natural habitat for jackals.

1.2 As urbanization expands, these animals often find their habitats encroached upon, forcing them to seek refuge inside airport due to following reasons:

- Limited human intervention,
- Adequate Natural Habitats,
- Sufficient Food supply,
- Lack of Natural Predators and
- Ample Hiding Spots and Shelter

1.3 The migration of jackals inside the operational area of airport creates following safety hazards and operational hindrances for safe flight operation:

- Runway/Taxiway Incursions
- Foreign Object Debris (FOD)
- Wildlife Strikes
- Disturbance to Operations

1.4 At NSCBI Airport in Kolkata, two parallel runways (designated as 19L-01R and 19R-01L) are configured in a north-south orientation where all the major infrastructure including the terminal building, Apron, taxiways, and parking stands are located on the western side of runways. Conversely, the eastern side of the runway is comparatively less developed and act as habitat for jackals. This leads to jackal sighting and crossing the active runway from eastern side to western side in search of food.



Flight disruption (Go Around) due reporting of jackal sighting/crossing of active runway							
Year	2018	2019	2020	2021	2022	2023	2024(Apr)
No. of reporting	27	16	5	17	4	12	1

1.5 Golden jackals are covered under protected species as per Schedule II of Wildlife Protection Act, 1972 has made it illegal to hunt, trade, or possess jackals without proper authorization. Hence, use of arms to kill the animal is prohibited as per the law.

2. DISCUSSION

Measures taken to reduce the jackal menace inside the operational area.

2.1 Habitat Modification: Implement habitat modification techniques to deter jackals within airport premises:

- by removing dense vegetation, tall grass,
- by removing/concealing the identified burrows/dens,
- by demolishing the Abandoned structures which act as hideouts for jackals.
- by providing iron grills on the drains which were connected to the city side drainage system from where jackals may come inside the operational area from city side.

2.2 Garbage vat relocation & Waste Management:

- The major garbage collection point inside the operational area is relocated from the western side to southern side of runway to avoid runway crossing of jackals.
- Covered bins are introduced which stop jackals from spreading left over foods (act as FOD) over Taxiway/Apron.
- Regular cleaning of garbage bins is ensured to avoid any overflow and encourage airport staff and vendors to properly dispose of food waste.

2.3 Using non-lethal wildlife deterrents:

- Bursting crackers around the strip of runway to scare away the jackal from active runway.
- Using sound device (high frequency sound) fitted inside the Operational jeep to chase away the spotted jackal away from active runway.
- Reflective materials mounted on frangible wooden stick on the strip of runway to create an environment that is less attractive to jackals.
- Focusing Green laser torches to scare the spotted jackals away from the active runway during night time.

2.4 Collaboration with Wildlife Experts: The problem of Jackals has been mitigated largely by engaging the Narikurwa tribe from the state of Tamil Nadu in India through an NGO. The Narikuravas have been known for their unique skills in catching jackals. They trapped around 50 no. of Jackals (35 jackals in 2019 & 16 in 2021). All trapped jackals are handed over to the Forest Department.

2.5 Placement of mechanical cages with baits: Around 20 no. of mechanical cages are placed strategically inside the operational area with baits like raw chicken and fish. Using this method more than 35 jackals have been trapped as of now.

Year	Jackal trapped	Remarks
2018	11	Trapped using bait method
2019	35	<i>Trapped with the help of tribal group</i>
2020	5	Trapped using bait method
2021	16	<i>Trapped with the help of tribal group</i>
2022	9	Trapped using bait method
2023	9	Trapped using bait method
2024 (Feb)	2	Trapped using bait method



2.6 Meetings with Government Departments:

- The issue of jackal menace is constantly being discussed/raised in the Airfield Environment Management Committee (AEMC) meeting chaired by Principal Secretary, Kolkata where the district authorities are instructed to regularly check & remove the jackal hideouts in the vicinity of the Airport (outside boundary wall) and inform forest officials whenever any jackal is sighted.
- In the recent airside survey, conducted by the city Forest Department in the month of March 2024, informed nil presence of Jackal inside the operational area. The same was also witnessed by wildlife monitoring team of NSCBI Airport, Kolkata.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) take note on the effective practices implemented by NSCBI Airport, Kolkata, aimed at reducing the frequency of jackal sightings inside the operational area; and
- b) discuss any relevant matters as appropriate.

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