BEFORE THE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

Execution Application No. 24/2019

IN

Appeal No. 60/2013

Society for Protection of Culture, Heritage,
Environment, Traditions and Promotion of
National Awareness ...Applicant(s)

Versus

Union of India & Ors. ...Respondent(s)

INDEX

S.NO.	PARTICULARS	PAGE NO.
1.	Factual and Action Taken Report based on the judgment dated 24.11.2017 passed in Appeal No. 60/2013	
2.	**ANNEXURE R-1:** Copy of the NOTAM	
3.	**ANNEXURE R-2:** Copy of the AIP dated 11.10.2018	

THROUGH

ANJANA GOSAIN
(Counsel for Airports Authority of India)
442, Lawyers Chamber,
Delhi High Court,
New Delhi- 110003
Mob-9971403194

New Delhi
Date: _____

BEFORE THE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

Execution Application No. 24/2019

IN

Appeal No. 60/2013

Society for Protection of Culture, Heritage, Environment, Traditions and Promotion of National Awareness **...Applicant(s)**

Versus

Union of India & Ors. **...Respondent(s)**

FACTUAL AND ACTION TAKEN REPORT BASED ON THE JUDGMENT DATED 24.11.2017 PASSED IN APPEAL NO. 60/2013

Most Respectfully Showeth:

1. That the Appeal was filed by the Applicant seeking directions to curb the level of noise pollution being faced by residents living around the IGI International Airport, Delhi.

2. That the this Hon'ble Tribunal had passed the following directions:

"3. We direct all the official respondents to take all mitigating measures for reducing noise pollution in terms of the report submitted by MoEF and as even proposed by these very respondents themselves, expeditiously.

4. The official respondents shall act in furtherance to the report of IIT in relation to construction of sound barriers, which report of IIT is accepted by the Tribunal. However, if any, variations are suggested and the official respondents consider it proper to carry out such variations on the ground of safety, security and height of the sound barrier walls, the same may be implemented after discussion with the team of IIT. The sound barriers should be constructed at the earliest and in accordance with report.

5. The official respondents shall ensure providing of a green belt around the boundary wall of the airport, while keeping the safety and security both in mind. The plantations shall be of the species which would only grow to the permissible height or would be maintained at the permissible height only.

6. The official respondents may issue an advisory to all the airlines whose aircrafts land at the runway of the IGI and domestic Airport, New Delhi to ensure 'judgment based' use of reverse thrust keeping in view weather, length of run way, wind, and other attendant circumstances to reduce the noise level particularly at the time of landing of aircrafts.

7. All the coaches/buses and other vehicles plying at the airport should be CNG and must comply with the prescribed emission standards. Non-CNG buses/coaches or other vehicles plying at the airport, should be converted to CNG within six months from today."

3. That the Operations and Maintenance of IGI International Airport, Delhi has been handed over by the answering respondent to the consortium/JVC namely, M/s DIAL with effect from 2006 after the said consortium signed the Operations Maintenance and Development Agreement (OMDA) with the answering respondent. The said airport has since been privatized and therefore all the day to day operations are currently handled by the said consortium/JVC.

4. That the answering respondent has no role to play in the day to day activity of IGI International Airport from the date of handing over of Airport to the consortium/JVC aforementioned except with regard to the Air Traffic Control System.

5. It is submitted that only Direction No.6 is applicable to the answering respondent. It is further submitted that since the answering respondent handed over operations to M/s DIAL in 2006, the M/s DIAL is responsible for Directions 3, 4, 5 and 7.

6. That during the hearing of Appeal No.60/2013, the answering respondent in pursuance to the directions of the Hon'ble Court issued a NOTAM (Notice to Airmen) requesting all airlines to use thrust reversal judiciously after landing at IGI Airport.

7. That, in pursuance to Direction No. 6 issued by this Hon'ble Tribunal, it is submitted that the NOTAM issued by the answering respondent has been now incorporated in Delhi Airport's Aeronautical Information Publication (AIP) VIDP issued by the answering respondent on 11.10.2018 which contains all information and operational requirements of Delhi Airport. The information in the NOTAM regarding use of Reverse Thrust by Pilots after landing at Six Airports viz. Delhi, Mumbai, Bengaluru, Chennai, Hyderabad and Kolkata have been incorporated in AIP. In addition to above for Delhi

Airport, Continuous Dexcent Arrival (CDA) procedures, Runway use Plan for Noise Abatement and Restricted Operation of Chapter-2 Aircraft have also been published in AIP.Aeronautical Information Publication is a publication which applies to all and is used by pilots of all airlines, both domestic and international, whenever they fly to Delhi Airport. Copy of the NOTAM issued by the answering respondent is annexed as **ANNEXURE R-1**. Copy of the AIP is annexed as **ANNEXURE R-2**.

8. That in light of the above, it is submitted that the answering respondent has complied with the directions issued by the Hon'ble NGT vide judgement dated 24.11.2017.

THROUGH

ANJANA GOSAIN
(Counsel for Airports Authority of India)
442, Lawyers Chamber,
Delhi High Court,
New Delhi- 110003
Mob-9971403194

New Delhi
Date: _____

BEFORE THE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

Execution Application No. 24/2019

IN

Appeal No. 60/2013

Society for Protection of Culture, Heritage, Environment, Traditions and Promotion of National Awareness **...Applicant(s)**

Versus

Union of India & Ors. **...Respondent(s)**

AFFIDAVIT

I, B. VINOD KUMAR PILLAI S/o Late N. B. PILLAI, aged about 57 Yr. working as GENERAL MANAGER (ATM) at Airports Authority of India, Opp. Safdarjung Airport, New Delhi-110003 do hereby solemnly affirm and declare as under:

1. That I have read and understood the accompanying Action Taken Report.
2. That the contents of the accompanying Report 3are true as per the information derived from the official records.

DEPONENT

बी. विनोद कुमार पिल्लै
B. Vinod Kumar Pillai
महाप्रबन्धक (ए.टी.एम.-एफ.पी.डी.)
General Manager (ATM-FPD)

VERIFICATION:

Verified at Delhi this 31 day of JULY, 2019 that the contents of the above Affidavit are true and correct to my knowledge and as per the official records, and no part of it is false and nothing material has been concealed therefrom.

DEPONENT

बी. विनोद कुमार पिल्लै
B. Vinod Kumar Pillai
महाप्रबन्धक (ए.टी.एम.-एफ.पी.डी.)
General Manager (ATM-FPD)

1. SHAMSHABAD

G0351/17 NOTAMN
Q) VOMF/QFAXX/IV/NBO/A/000/999/
A) VOHS B) 1705191215 C) PERM
E) CONSISTENT WITH SAFETY OF AIRCRAFT OPERATIONS AND IN CONSIDERATION OF HIGH INTENSITY RUNWAY OPERATIONS, PILOTS SHOULD MINIMISE THE USE OF REVERSE THRUST AFTER LANDING TO REDUCE DISTURBANCE IN AREAS ADJACENT TO THE AERODROME. INSERT IN EAIP INDIA IN SECTION AD 2.21 OF SHAMSHABAD AIRPORT.

2. BENGALURU

G0352/17 NOTAMN
Q) VOMF/QFAXX/IV/NBO/A/000/999/
A) VOBL B) 1705191218 C) PERM
E) CONSISTENT WITH SAFETY OF AIRCRAFT OPERATIONS AND IN CONSIDERATION OF HIGH INTENSITY RUNWAY OPERATIONS, PILOTS SHOULD MINIMISE THE USE OF REVERSE THRUST AFTER LANDING TO REDUCE DISTURBANCE IN AREAS ADJACENT TO THE AERODROME. INSERT IN EAIP INDIA IN SECTION AD 2.21 OF BENGALURU INTL AIRPORT.

3. KOLKATA

G0353/17 NOTAMN
Q) VECF/QFAXX/IV/NBO/A/000/999/
A) VECC B) 1705191220 C) PERM
E) CONSISTENT WITH SAFETY OF AIRCRAFT OPERATIONS AND IN CONSIDERATION OF HIGH INTENSITY RUNWAY OPERATIONS, PILOTS SHOULD MINIMISE THE USE OF REVERSE THRUST AFTER LANDING TO REDUCE DISTURBANCE IN AREAS ADJACENT TO THE AERODROME. INSERT IN EAIP INDIA IN SECTION AD 2.21 OF KOLKATA AIRPORT.

4. CHENNAI

G0354/17 NOTAMN
Q) VOMF/QFAXX/IV/NBO/A/000/999/
A) VOMM B) 1705191225 C) PERM
E) CONSISTENT WITH SAFETY OF AIRCRAFT OPERATIONS AND IN CONSIDERATION OF HIGH INTENSITY RUNWAY OPERATIONS, PILOTS SHOULD MINIMISE THE USE OF REVERSE THRUST AFTER LANDING TO REDUCE DISTURBANCE IN AREAS ADJACENT TO THE AERODROME. INSERT IN EAIP INDIA IN SECTION AD 2.21 OF CHENNAI AIRPORT.

5. MUMBAI

G0355/17 NOTAMN
Q) VABF/QFAXX/IV/NBO/A/000/999/
A) VABB B) 1705191228 C) PERM
E) CONSISTENT WITH SAFETY OF AIRCRAFT OPERATIONS AND IN CONSIDERATION OF HIGH INTENSITY RUNWAY OPERATIONS, PILOTS SHOULD MINIMISE THE USE OF REVERSE THRUST AFTER LANDING TO REDUCE DISTURBANCE IN AREAS ADJACENT TO THE AERODROME. INSERT IN EAIP INDIA IN SECTION AD 2.21 OF MUMBAI AIRPORT.

6. DELHI

G0356/17 NOTAMN
Q) VIDF/QFAXX/IV/NBO/A/000/999/
A) VIDP B) 1705191230 C) PERM
E) CONSISTENT WITH SAFETY OF AIRCRAFT OPERATIONS AND IN CONSIDERATION OF HIGH INTENSITY RUNWAY OPERATIONS, PILOTS SHOULD MINIMISE THE USE OF REVERSE THRUST AFTER LANDING TO REDUCE DISTURBANCE IN AREAS ADJACENT TO THE AERODROME. INSERT IN EAIP INDIA IN SECTION AD 2.21 OF DELHI AIRPORT.

of continuous descent approach (CDA) is implemented. All the turbojet aircraft landing at IGI Airport between 1630 UTC and 0030 UTC may participate in CDA subject to clearance from ATC.

2.CDA will be operated when radar and ILS facilities are available.

3.Operation of CDA should not impact the airport capacity adversely.

4.Aircraft shall normally be cleared via a STAR. Since, the STARs for IGI Airport are open ended, aircraft may expect radar vectors for turn on base leg and final approach. Profile/crossing restrictions are well depicted in the STARs. Aircraft shall be provided information regarding the distance to touchdown from the beginning of CDA and subsequently any revision thereafter.

5.For track shortening or lengthening for sequencing purposes, the aircraft may be radar vectored off the STAR and subsequently, be re-cleared to a point along the STAR or vectored to intercept the final approach track.

6.When radar vectors are issued, ATC shall provide an estimate of distance to touch down.

7.Pilots participating in CDA should request CDA within 10 minutes of top of descent (TOD) and provide the estimates of VOR (SSB), SAPLO, AKBAN and VOR (SAMPLA) as the case may be. ATC may issue clearance for CDA depending upon the traffic conditions.

8.When following STARs, ATC may add further altitude restrictions, in addition to the promulgated restrictions, if necessary for the purpose of traffic separation.

9.Radar controller will ensure that in case of STARs merging, adequate radar separation exists between the successive aircraft at the conflict point.

10.It is preferable if CDA is commenced from top of descent. If it is not feasible due to ATC constraints, it may be commenced from any intermediate level preferably before crossing FL100. Once CDA is commenced there will be continuous descent to 3600 feet AMSL before intercepting the glide path.

11.Once CDA is cleared by ATC, pilot should report the beginning of the descent to ATC.

12.Radar controller shall provide 20 NM distance to touch down (DTD) information when the speed shall be reduced to 210KT IAS maximum

13.Speed shall be reduced to 180 KT IAS maximum when 10NM from touchdown.

14.During CDA operations Glide path interception and commencement of final approach shall take place at 3600 feet.

15.ATC may suspend or cancel the CDA due to traffic conditions even after CDA is cleared. Alternate instructions will be issued when CDA is suspended or cancelled.

16.All aircraft have to follow the noise abatement procedure during the final approach.

17.Guidance material for CDA operations is available at DGCA website (dgca.nic.in) as Air Navigation Services (ANS) Circular NO.01/2010.

					10/09
0301 - 0600	Arrivals and Departures	Departures only	Arrivals and Departures	Arrivals and Departures	Mixed Mode operations RWY 29 and RWY 11/10/09

1.2	**Schedule for dates from 09th to 16th and 24th till end of the month**				
Time Slot (IST)	RWY For **Westerly** flow of traffic		RWY For **Easterly** flow of traffic		Remarks
	RWY29	RWY28/27	RWY11	RWY10/09	
0601– 2300	Arrivals and Departures	Arrivals and Departures	Arrivals and Departures	Arrivals and Departures	Mixed Mode operations
2301 - 0300	Arrivals and Departures	Departures only	Arrivals and Departures	Arrivals and Departures	Mixed Mode operations RWY 29 and RWY 11/10/09
0301 - 0600	Departures only	Arrivals and Departures	Arrivals and Departures	Arrivals and Departures	Mixed Mode operations RWY 28/27 and RWY 11/10/09

2. **Benefits:**

i. The basic concept of distribution of aircraft noise to all the areas located below the flight path has been retained.

ii. The noise level will be distributed to all the localities as the arrivals and departures are distributed to both the runways during the mixed mode operations.

iii. During the night time (2301 to 0600 Hrs IST), the residents will have complete freedom from the aircraft noise during the specified time when a particular runway is used only for departures on the rotation basis.

iv. Efficiency of the ATC system expected to improve by at least 15% as the plan provides the flexibility to ATC to utilize the traffic handling capacity of the airport to the optimum level by balancing the traffic as per the requirement during the period of mixed mode operations (0601 to 2300 IST). Similarly, during the night time (2301-0600 IST) the nearest Runway will be used for departures.

when, traffic situation warrants in the interest to safety, regularity and efficiency of the aircraft movements to reduce the congestion and delays.

5.This is applicable for use of two runways at a time. As and when traffic demands necessitate the use of all three runways at a time, separate procedures shall be formulated.

6.Consistent with safety of aircraft operations and in consideration of high intensity runway operations, pilots should minimize the use of, reverse thrust after landing to reduce disturbance in areas adjacent to the aerodrome.

III.OPERATIONS OF CHAPTER-2 AIRCRAFT

Between 1630-0030 UTC daily, operations of chapter-2 aircraft as contained in annex-16 vol-1 are not permitted to operate at IGI Airport Delhi for noise abatement. However, ministry of defense (Govt. of India) chapter-2 aircrafts is allowed to operate on Runway 27/09 only.

VIDP AD 2.22 FLIGHT PROCEDURES

I.SURVEILLANCE RADAR APPROACH

1.Surveillance Radar Approach Procedures at IGI Airport, New Delhi

RWY	THR ELEV	Inbound Track	IF (Dist. From Touch Down)	Altitude over IF	FAF Dis. From touch down)	Altitude over FAF	MAPT Dist. From touch down	OCA (Straight - in)
	Ft	Deg	NM	Ft	NM	Ft	NM	Ft
28	777	284	11	2600	5.7	2600	2	1420
27	750	271	11	2600	5.8	2600	2	1390
10	719	104	11	2600	5.9	2600	2	1360
09	717	091	11	2600	5.9	2600	2	1360
29	751	283	11	2600	5.7	2600	2	1400
11	723	103	11	2600	5.8	2600	2	1370
09	717	091	11	2600	5.9	2600	2	1360
29	751	283	11	2600	5.7	2600	2	1400
11	723	103	11	2600	5.8	2600	2	1370

LOC 25	ICHN	109.700 MHz	H24
GP 07	---	335.000 MHz	H24
GP 25	ICHN	333.200 MHz	H24
DME ILS 07	IMAS	CH40X	H24
DME ILS 25	ICHN	CH34X	H24
DVOR/DME	MMV	112.500 MHz CH72X	H24
VOR/DME	CNI	114.900 MHz CH96X	

Geographical coordinates of the position of the transmitting antenna	Elevation of transmitting antenna of DME/ elevation of GBAS reference point	Service volume radius from the GBAS reference point	Remarks
5	6	7	8
125950.4N 0801115.6E			
125900.3N 0800903.5E			Coverage 92.6KM
125911.1N 0800919.6E			
125945.3N 0801053.8E			
125911.1N 0800919.6E	44 FT		
125945.3N 0801053.8E			COLLOCATED WITH GP25
125915.6N 0800918.1E	27 FT		
130015.5N 0800958.0E	69 FT		

VOMM AD 2.20 LOCAL AERODROME REGULATIONS

NIL

VOMM AD 2.21 NOISE ABATEMENT PROCEDURES

1.Consistent with safety of aircraft operations and in consideration of high intensity runway operations, pilots should minimize the use of reverse thrust after landing to reduce disturbance in areas adjacent to the aerodrome.

2	SECTOR-2 40-49	A6 A7	RWY09L-B4-E	TL2
3	SECTOR-3 50-59	A6 A7	RWY09L-B5-E	TL3
4	SECTOR-4 90-94	A6 A7	RWY09L-B5-E-M	TL4

Legend: T-Termination of flight, L-Runway 27L, 1, 2, 3, 4-Sector numbers

EXAMPLE
RUNWAY IN USE 27L OR 09R [DEPARTURE]
A)Phraseology w.r.t progressive taxi instructions :-
(AIRCRAFT CALL SIGN) SHAMSHABAD GROUND:
Taxi to holding point [number] [Runway (number)] via (specific route to be followed) [Time (time)].
B)Phraseology w.r.t STR :-
(AIRCRAFT CALL SIGN) SHAMSHABAD GROUND:
Taxi to holding point [number] [Runway (number)] via [STR] [Time (time)].

RUNWAY IN USE 27L OR 09R [ARRIVAL]
A) Phraseology w.r.t progressive taxi instructions :-
(AIRCRAFT CALL SIGN) SHAMSHABAD TOWER:
Continue taxi via (specific route to be followed) bay [number]
B) Phraseology w.r.t STR :-
(AIRCRAFT CALL SIGN) SHAMSHABAD TOWER:
Taxi to Stand [number] via [STR]

VOHS AD 2.21 NOISE ABATEMENT PROCEDURES

Consistent with safety of aircraft operations and in consideration of high intensity runway operations, pilots should minimise the use of reverse thrust after landing to reduce disturbance in areas adjacent to the aerodrome.

VOHS AD 2.22 FLIGHT PROCEDURES

I.LOW VISIBILITY PROCEDURE:

1.Definitions and Abbreviations:
1.1 Low Visibility Procedures (LVP): Specific procedures applied at an aerodrome for the purpose of ensuring safe operations during Categories II and III approaches and/or low visibility take-offs.
1.2 Low visibility take-off (LVTO). A term used in relation to flight operations referring to a take-off on a runway where the RVR is less than 400 m.
1.3 Manoeuvring Area: That part of an aerodrome to be used for the take-off, landing and

131228.6N 0774312.1E			
131229.6N 0774122.7E			
131229.6N 0774122.7E	3018 FT		Collocated with GP 09
131228.6N 0774312.1E	2944 FT		
131224.6N 0774355.9E	2916 FT		
132402.9N 0775456.0E	2995 FT		

VOBL AD 2.20 LOCAL AERODROME REGULATIONS

1.Yelahanka (VOYK)/Military Airbase exists at close proximity of South of Kempegowda International Airport, where Military Flying activities are conducted.

Orientation	Location	Helicopter Flying Activities
090/270 DEG MAG	4.3 NM South of extended centerline of VOBL RWY	Helicopter Traffic Circuit upto 1.5NM North of VOYK RWY

Remarks:

(1) Pilots landing at VOBL to exercise caution as VOYK having similar RWY orientation and is 4.3 NM south of VOBL RWY

(2) Visual operations by Military helicopters at VOYK, Height not exceeding 700ft AGL and circuit not exceeding 1.5NM North of VOYK RWY

VOBL AD 2.21 NOISE ABATEMENT PROCEDURES

Consistent with safety of aircraft operations and in consideration of high intensity runway operations, pilots should minimize the use of reverse thrust after landing to reduce disturbance in areas adjacent to the aerodrome.

223801.6N 0882635.7E			LLZ inner coverage is restricted to 30 DEG on 150HZ side, no restriction on 90HZ side.
223841.8N 0882652.1E			
224004.0N 0882701.5E			3 DEG
223943.5N 0882643.3E			
223841.8N 0882652.1E	48 FT		Colocated with GP 01R 3 DEG
224004.0N 0882701.5E	62 FT		Colocated with GP 19L
223943.5N 0882643.3E			Collocated with GP 19R
224033.5N 0882653.3E	49 FT		
223501.6N 0882623.8E			
224424.6N 0882727.4E			

VECC AD 2.20 LOCAL AERODROME REGULATIONS

1.For Stand 15, 16 & 17 Taxi in via TWY G& Taxi out via TWY A.

2.For parking stands 52 & 53 manual marshalling required. Departing aircraft to push back on TWY F1facing north and start engines only after reaching abeam stand No.51

3.Portion of TWY 'F1' from the rear of stand 50 to the intersection of TWY 'R' available for operations of ACFT. Up to CAT C. Necessary guidance board, lights and markings provided.

4.Portion of TWY 'R' from the intersection of TWY 'A' till intersection of TWY 'F1" available for aircraft upto CAT C. During towing to hanger exercise caution due presence of vehicles.

VECC AD 2.21 NOISE ABATEMENT PROCEDURES

Consistent with safety of aircraft operations and in consideration of high intensity runway operations, pilots should minimize the use of reverse thrust after landing to reduce disturbance in areas adjacent to the aerodrome.

VECC AD 2.22 FLIGHT PROCEDURES

the use of reverse thrust after landing to reduce disturbance in areas adjacent to the aerodrome.