

IN THE HIGH COURT OF KARNATAKA AT BANGALORE
(Original Jurisdiction)

W.P. No. 46523/2012 (PIL)

BETWEEN

Environment Support Group & Others

: Petitioner

AND

Bruhat Bengaluru Mahanagara Palike & Others

: Respondents

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Place: Bangalore

Date: 25/12/2014

Assistant Solicitor General of India
& Counsel for Respondent No. 11
(Krishna S Dixit)

W.P. No. 46523/2012 (PIL)

BETWEEN

Environment Support Group & Others : Petitioner

AND

Bruhat Bengaluru Mahanagara Palike & Others : Respondents

**STATEMENT OF OBJECTIONS FILED ON BEHALF
OF THE RESPONDENTS**

The Respondents submit as under-

1. In the above matter (Public Interest litigation), petitioners had adverted to the serious threat the landfills at mavallipura pose to the aviation safety and security of the critical defence facility at Yelahanka Air Force base of the Indian Air Force. They have also pointed out that the landfills are within 5 kms of the Yelahanka Air base thus seriously compromising the Aircraft movements due to the threat of bird hits caused by the landfills, putting to serious risk the lives of Indian Air Force Personnel and those of civilians on the ground and in the future could aggravate totally unavoidable loss to the national exchequer. It is submitted that even though Writ Petition has brought out many hazardous aspects of the landfills at Mavallipura, this respondent will primarily focus on issue of Bird hazard and its dangers to flight safety of aircraft operations.
2. Bird activity poses a major threat to flight safety as a collision between bird (s) and aircraft can result in major

aircraft damage including ² fatality of the crew and passengers. Resultant collateral damage on the ground from an aircraft crash due to bird hit can also be severe. A brief note on Bird Strike hazard and its catastrophic effect on safety of flight operations is enclosed and marked as **Annexure R1**.

3. It is submitted that Bird Hazard Management is a major activity of the flight safety wing of the Indian Air Force (IAF). Substantial funds are expended for this activity. The figures for annual budget expenditure incurred by the IAF for the period 2009-2014 are enclosed and marked as **Annexure R2**. Approximate cost of damage to aircraft of IAF involved in Bird Strike accidents for the period 1993-2010 are enclosed and marked as **Annexure R3**.
4. Respondent No 11 is a major training airbase of the IAF with intensive flight operations of various types of aircraft and helicopters operating at low altitudes in the local flight area extending to a radius of 10 kms of Yelahanka air base. Yelahanka Air Base also host the biennial Air Show "Aero India". It also is a emergency stand by airfield for the Bangalore International Airport limited (BIAL). A note explaining the flight operations at this airbase is enclosed and marked as **Annexure R4**.
5. Like various operational Air bases of IAF, various measure are undertaken at Yelahanka Air Base to combat Bird Hazard. A note detailing these measures is enclosed and marked as **Annexure R5**. These preventive measures are also undertaken in areas outside the air base upto 20 kms radius from the air base. One such case in point was



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action by the IAF to demolition of fish pond at Razak Palya village. A note on the sequence of events leading to demolition of fish pond at Razak Palya village is enclosed and marked as **Annexure R6**. Bird strike data at Yelahanka Air Base is enclosed and marked as **Annexure R7**.

6. It is submitted that Karnataka State Pollution Control Board had sought an NOC from this Respondent which was duly refused vide the letter dated 14th Aug 2004 citing the safety of Pilots and aircraft. A copy of the letter is enclosed and marked as **Annexure R8**. The landfill and or any solid waste management facility is bound to obtain an NOC from the air base/air port within a radius of 20 kms as per the rules. The Aircraft Act 1934 also caters for avoiding such dangerous projects from affecting flight safety by making it mandatory for such projects within 10kms from an air base/airport to obtain mandatory clearance from the Director General of Civil Aviation.

7. It is submitted that bird strike hazard can be even more disastrous for civil flights as the number of casualties can be much higher due to the large number of passengers carried. As Yelahanka is a standby airfield for BIAL any bird threat in the Yelahanka can be a potential disaster for civil flights diverted to Yelahanka by BIAL. A letter from BIAL to the Karnataka State Pollution Control Board makes the dangers of the mavallipura landfill/processing facility amply clear. A copy of the letter by BIAL to KPSCB in this regard is enclosed and marked as **Annexure R9**.

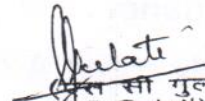


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8. It is submitted that this respondent has had a meeting with the KPSCB which included the BBMP also. Minutes of the meeting of the same have already been submitted to this honourable court under a memo dated 31.10.2012. The said memo and all the documents therein may kindly be read as part and parcel of this statement of objections. Despite the objections of this respondent it is believed that KPSCB is likely to issue its clearance to BBMP in violation of the facts and laws as pointed out supra.
9. All other petition averments which are not specifically traversed above may be treated as having been denied and the petitioner is put to strict proof of the same.

Wherefore, this Hon'ble Court be pleased to direct the respondents to ensure that no landfill operation is permitted at Mavallipura and any waste processing facility therein must follow the requirements of law as laid down under the Solid Waste management rules and the Aircraft Act, in the interest of justice and equity.



Assistant Solicitor General of India
& Counsel for Respondent No. 11
(Krishna S Dixit)


(SC Gulati)
एयर कमांडर
Air Cmde
वायु अफसर कमांडिंग
AOC
वायु सेना स्टेशन गलहंका
AF Stn Yelahanka

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BETWEEN

Environment Support Group & Others : Petitioner

AND

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VERIFYING AFFIDAVIT

I, Air Commodore SC Gulati S/o Shri SC Gulati, aged about 48 years, do hereby solemnly affirm and state on oath as under-


1. That, presently I am working as Air Officer Commanding, Air Force Station, Yelahanka, Bangalore and I know the facts and circumstances of the case. Therefore, I am swearing to this affidavit in support of the accompanying Statement of Objections on behalf of the Respondent No 11 on their authorization.
2. That, the contents of paragraphs 1 to in the accompanying Statement of Objections are true and correct to the best of my knowledge, belief and information.
3. That, the documents at Annexures-R1 to R9 are the true copies of the originals.



Place: Bangalore
Date: 02/12/2014

Identified by Me:

Advocate

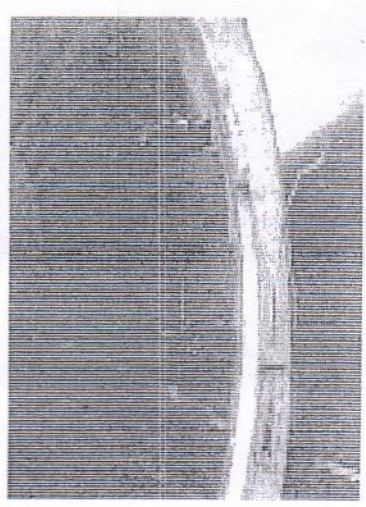
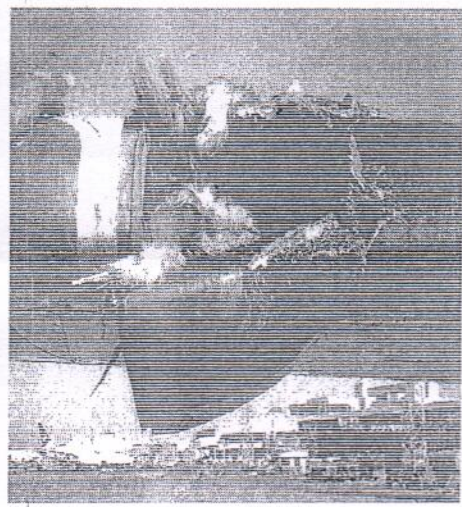

(एस सी गुलाटी)
(SC Gulati)
Depoent
एयर कमांडिंग
Air Officer
वायु अफसर कमांडिंग
AOC
वायु सेना स्टेशन गलाहंका
AF Stn Yelahanka

BIRD STRIKE

A bird strike, sometimes called bird ingestion (for an engine), bird hit, or BASH (for Bird Aircraft Strike Hazard) is "a collision between an airborne animal (usually a bird or bat[1]) and a human-made vehicle, especially aircraft.

Bird strikes are a significant threat to flight safety, and have caused a number of accidents with human casualties. Most accidents occur when the bird hits the windscreen or flies into the engines. Partial or complete loss of control may be the secondary result of either small aircraft structural impact or large aircraft jet engine ingestion. Loss of flight instrument function can be caused by impact effects on the Pitot Static System air intakes which can cause dependent instrument readings to become erroneous. A more likely cause of difficulty is impact damage to extended landing gear assemblies in flight, which can lead to sufficient malfunction of brakes or nose gear steering systems to cause directional control problems during a subsequent landing roll. These cause annual damages that have been estimated at \$400 million within the United States of America alone and up to \$1.2 billion to commercial aircraft worldwide. Military Aircraft data is not included.

The majority of bird collisions occur near or on airports (90%, according to the International Civil Aviation Organization ICAO) during takeoff, landing and associated phases (circuit area). High speed impacts, as with any type of aircraft, can cause considerable damage and even catastrophic failure to the Aircraft. The force of Impact can be realized by understanding the fact that the energy of a 5 kg (11 lb) bird moving at a relative velocity of 275 km/h (171 mph) is approximately equals the energy of a 100 kg (220 lb) weight dropped from a height of 15 metres (49 ft).

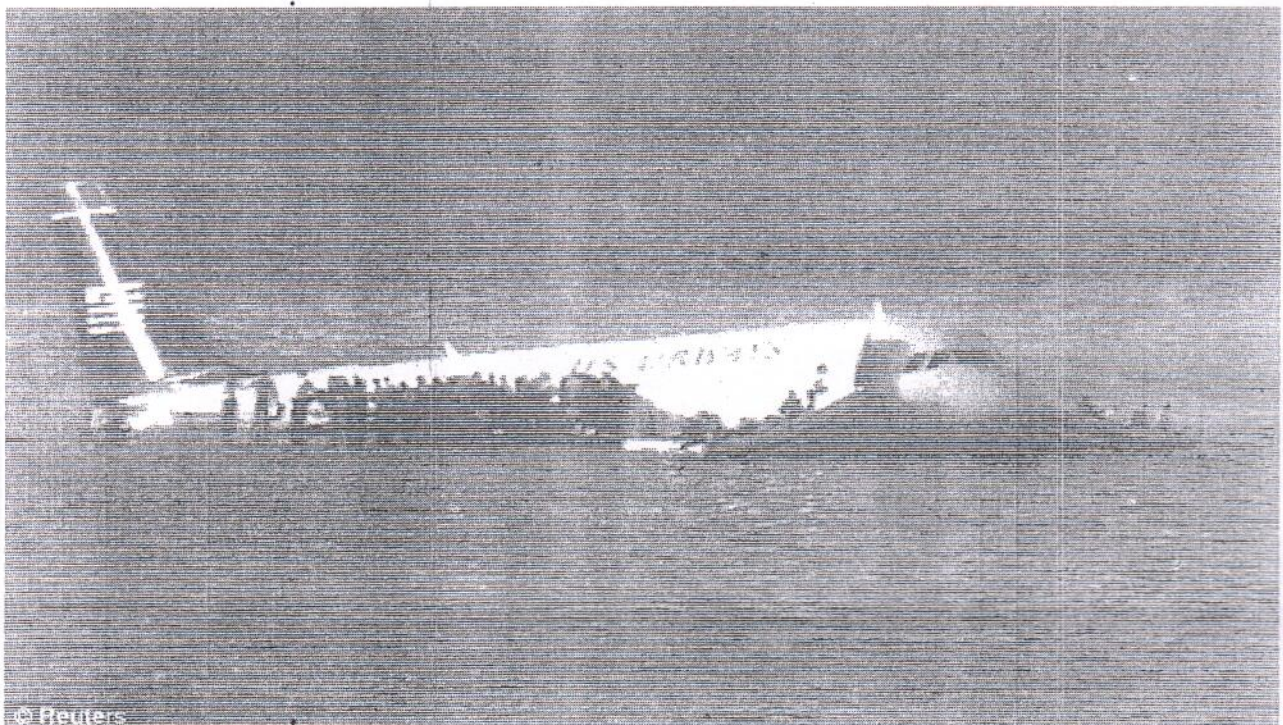


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(Daxina B Dhasmana
Sqn Ldr
O/C Civil Admin
AF Stn, Yelahanka

BIRD HITS (ACCIDENTS)

1. On 15 Jul 2014, Air India flight 144 to India's financial capital from Newark, New Jersey was forced to turn around after it lost one of its two engines to a bird hit. Three of its 12 tires burst in the emergency landing.
2. On 20 Jul 2014, Passengers on board an Indigo flight from Kolkata to Mumbai via Bhubaneswar had a miraculous escape when a large bird struck the aircraft, nearly taking it out mid-air. The impact that dented a couple of engine blades could have triggered a fire and led to a catastrophic accident but fortune favoured the passengers and crew as the plane returned to Kolkata to land safely.
3. Planes can be crippled by hitting birds, like when U.S. Airways Flight 1549 lost both engines shortly after takeoff from LaGuardia Airport in January 2009 but landed safely in the Hudson River



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(Daxina B Dhasmana)
Sqn Ldr
OIC Civil Admin
AF Stn, Yelahanka

BUDGET EXPENDITURE OF IAF FOR BIRD HAZARD MANAGEMENT

YEAR	EXPENDITURE
2009-2010	13,67,10,381
2010-2011	17,94,93,591
2011-2012	23,01,31,244
2012-2013	27,59,59,862
2013-2014	29,77,46,130
2014-2015	14,90,49,737

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(Daxina B Dhasmana)
Sqn Ldr
OIC Civil Admin
AF Stn, Yelahanka

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APPROXIMATE COST OF DAMAGE OF AIRCRAFT IN IAF INVOLVED IN BIRD STRIKE

F Y	TYPE OF ACCIDENT	DAMAGE	COST OF DAMAGE	YEAR WISE COST
1993-94	BIRD STRIKE	AIRCRAFT LOST	12970114	300645017
	BIRD STRIKE	AIRCRAFT LOST	5186490	
	BIRD STRIKE	AIRCRAFT LOST	282488413	
1994-95	BIRD STRIKE	AIRCRAFT LOST & FATAL	11541547	1099520214
	BIRD STRIKE	AIRCRAFT LOST	12979095	
	BIRD STRIKE	AIRCRAFT LOST	67956618	
	BIRD STRIKE	AIRCRAFT LOST	33681210	
	BIRD STRIKE	AIRCRAFT LOST	33235000	
	BIRD STRIKE	AIRCRAFT LOST	940126744	
1995-96	BIRD STRIKE	AIRCRAFT LOST	71954190	156802377
	BIRD STRIKE	AIRCRAFT LOST	71777957	
1996-97	BIRD STRIKE	AIRCRAFT LOST	13070230	
1999-00	BIRD STRIKE	AIRCRAFT LOST	33763000	33763000
	BIRD STRIKE	AIRCRAFT LOST	44109600	54264665
2000-01	BIRD STRIKE	AIRCRAFT LOST & FATAL	10155065	
	BIRD STRIKE	AIRCRAFT LOST & FATAL	34200000	67540827
2001-02	BIRD STRIKE	AIRCRAFT LOST	33340827	
2002-03	BIRD STRIKE	AIRCRAFT LOST & FATAL	14636149	14636149
	BIRD STRIKE	AIRCRAFT LOST	19164100	19164100
2005-06	BIRD STRIKE	AIRCRAFT LOST & FATAL	27575564	59416570
	BIRD STRIKE	AIRCRAFT LOST	31841006	
2007-08	BIRD STRIKE	AIRCRAFT LOST	707562126	780113926
	BIRD STRIKE	AIRCRAFT LOST	11684000	
	BIRD STRIKE	AIRCRAFT LOST	60867800	
2008-09	BIRD STRIKE	AIRCRAFT LOST	90865297	90865297
2009-10	BIRD STRIKE	AIRCRAFT LOST	9709600	9709600
TOTAL			2,686,441,742	2,686,441,742

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(Daxina B Dhasmana)
Sqn Ldr
OIC Civil Admin
AF Stn, Yelahanka

FLYING AT AFS YELHANKA

1. AFS Yelahanka is an important Airbase of IAF and undertakes Training of Transport and helicopter pilots on AN-32, Dornier and Mi-8 aircraft. It has an average flying of more than **20,000 hours annually** is among the highest in the IAF. The training of the young pilots includes general handling, Instrument Flying, Low level Navigation and various approach and Landing procedures. It is pertinent to bring out that while AFS Yelahanka logs the maximum flying hours in IAF, it has **ab-initio and inexperienced pilots** flying the aircraft generally.

2. Additionally, this base operates as a stand by base for important fighter operations and is of strategic importance for operations for South Peninsula. Besides, these important operational and training roles the base also hosts the **biennial Air Show 'Aero India'**, the next edition being schedules in Feb 2015.

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Sqn Ldr
OIC Civil Admin
AF Stn, Yelahanka

SEQUENCE OF EVENTS

LEADING TO FISH POND DEMOLITION AT RAZAK PALAYA VILLAGE

1. AFS Yelahanka has been subjected to excessive bird activity in the last few years. Various measures have been adopted to counter the birds for safe flying. Expert opinion of Ornithologists has also been incorporated to reduce birds at base. Close study of the local birds had revealed that illegal Cat Fish farming at Razak Palya with **large accumulation of organic feed as the main cause of excessive kite activity in the region**. Google images of the site for the 10 years have been down loaded and examined. It is evident from the images that the Fish ponds have increased in the year 2007-2008. Discussions with OC have revealed that growth in kite population has been **according to the sigmoid curve** and coincides with the increased bird activity around 2010-11. Bird strike data corresponds to this reasoning and bird strikes had increased during this period.
2. Two FIRs have been lodged by this base against the filth collection at Razak Palaya for the Fish as it was attracting birds. The FIR Nos are 0120/10 dated 14 Jul 10 & 0150/11 dated 17 Oct 11.
3. It was learnt during various interactions with civil/police officials that and FIR had also been lodged by some villagers against the illegal fish farming at a similar time. Few related documents could be obtained.
4. It was also informed by the police during the AEMC meeting on 16 Nov 12 that an attempt to demolish the fish tanks at Bagalur (Dist) was made and the order was issued by ACP in 22 Jan 11 and demolition order of Tehsildar on 12 Sep 12. Discussions with Bagalur inspector (Mr Hegde) revealed that the village fish farmers had filled PIL against the ACP's order which was eventually upheld by the court on 28 Aug 12. Therefore, the Tehsildar attempted the demolition on 12 Sep 12. It met vehement opposition at the village and so nothing concrete was done on ground.
5. Subsequently, a caveat was submitted to the Dist Rural Court by Cat Fish farmers as stay on the above demolition order.
6. Visit of AF personnel in view of the FIRs was only possible with civil police escort. Visits to the village revealed the large magnitude of fish farming being carried out in the area. Vehicles with organic feed and spots of open dumps of feed were noticed.
7. Razak Palya (Vill), Bagalur (Dist) is located at 080/4.5 Km from ARP. The Aircraft Rule 1937 Section 91 states 'No person shall slaughter or flay any animal or deposit or drop any rubbish from hotels, meat shops, fish shops and bone processing mills which attract or is likely to attract vultures or other birds and animals within a radius of 10 Km from the aerodrome reference point'.
8. A few new fish ponds were also noticed during the visits. Discussions with Police and Air Force personnel who visited earlier has revealed the possibility of the ponds increasing with time. However, it is also possible that ponds are relocated to circumvent the

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Daxina B Dhasmana

(Daxina B Dhasmana)
Sqn Ldr
OIC Civil Admin
AF Stn, Yelahanka

legal pressure to curb fishing activity. Google map analysis shows that ponds have spread northward.

9. Subsequently the ponds were demolished prior to Aero India 2013 by Revenue Dept.
10. Post demolition of fish ponds regular checks through air and ground visits have been undertaken to prevent them from being rebuilt.

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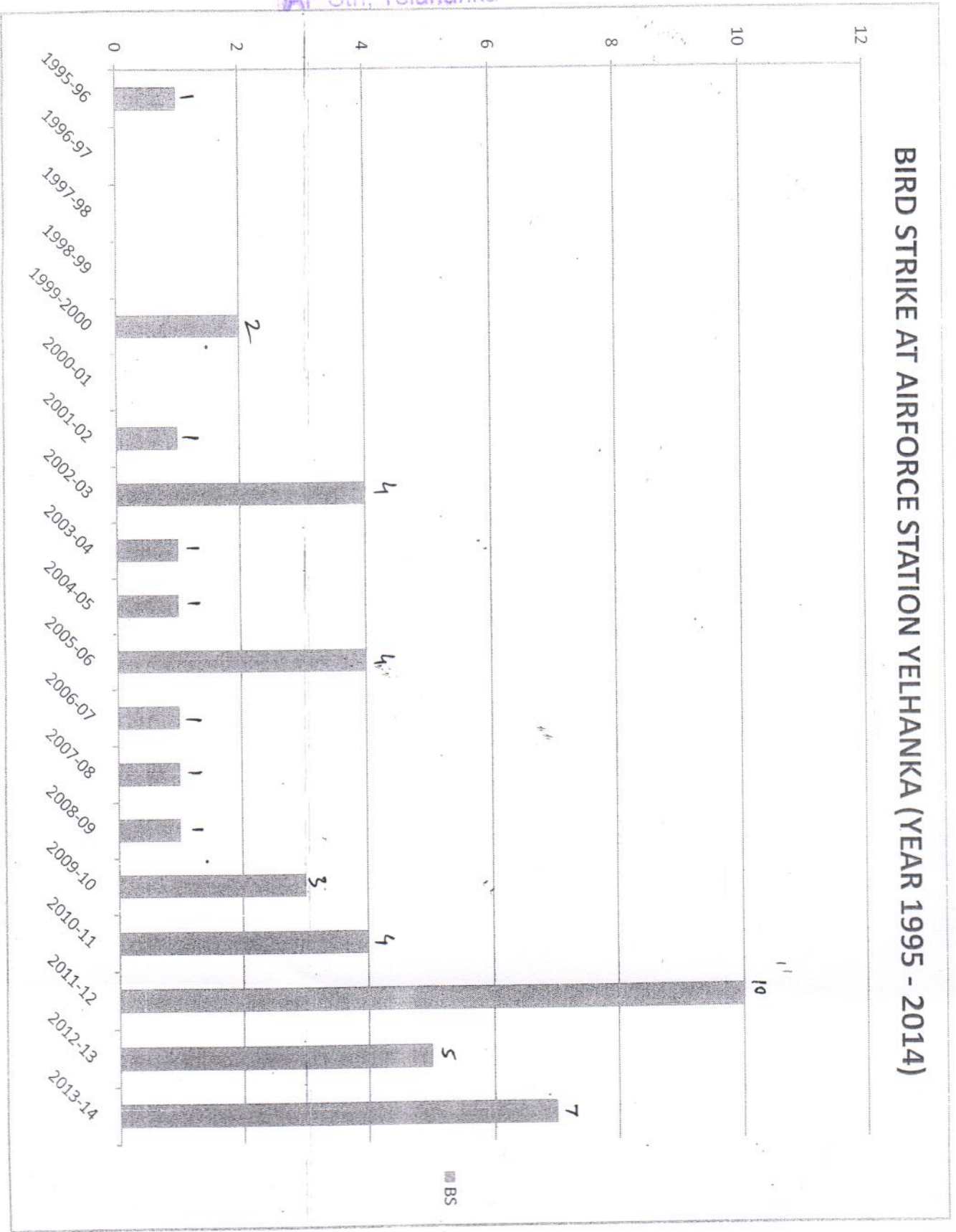
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Sqn. Ldr
OIC Civil Admin
AF Stn, Yelahanka

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(Daxina B Dhasman)
Sgt
OIC Civil Admin
AF Stn, Yelahanka

BIRD STRIKE AT AIRFORCE STATION YELHANKA (YEAR 1995 - 2014)



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RZ (76B)

-15-

(R2)

(76G)

Telephone: 28478121/241

Air Force Station
Yelahanka
Bangalore 560 001

Yel/C 2308/2/FS

14 Aug 04

Smt. V Rashmi
Member Secretary, KSPCB
8th Floor, Subhas Chandra Bose Building
(Public Utility Building)
M.G. Road,
Bangalore 560 001

**ISSUE OF NOC FOR CONSTRUCTION OF INTEGRATED MUNICIPAL
SOLID WASTE MANAGEMENT FACILITY AT MAVALLIPURA**

1. Reference is made to your office letter no KSPCB/MSW/DEO 2003-04/1096 dated 05 Aug 2004.
2. The area as proposed by you for processing and composting municipal solid wastes is falling within 10 Kms radius of Yelahanka airfield. Provisions of Aircraft Act 1934 (Section 10 (I-A) combined with Aircraft Amendment Act 1988, has prohibited the slaughter and flaying of animals, depositing rubbish and filth or other polluted and obnoxious matters within a radius of 10 Kms from the Aerodrome Reference Point.
3. This base is a Training Establishment for Transports aircraft and helicopters. The distance of the above said construction site is only 7.5 Kms from this airfield. This will definitely affect the safety of the Pilots and precious government assets like aircrafts.
4. In view of the above, NOC as proposed by you, cannot be issued for constructing the above structure irrespective of the technology being used.

(Signature)
(MK Vats)
Squadron Leader
Flight Commander
(Flight Safety Flight)
for Air Officer Commanding

Copy to:

HQ TC, IAF (CFSIO)

for info

~~HQ TC, IAF (CFSIO)~~
Internal Copy to:

Flt Cdr (ATS Flt)

Flt Cdr (Wks)

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(Signature)

16 Aug 04
(Signature)

(Daxina B. Dhasmana)
Sqn Ldr
OIC Civil Admin
AF Stn, Yelahanka

(Handwritten notes)
14/8/04
AG CO
Squadron

Ref: BIAL/INFRA/E&M/2014/1019

15th Sept, 2014

To, VENKATESH SHEKAR
Senior Environmental officer (WMC)
Karnataka State Pollution Control Board
Parisara Bhavana, 1st to 5th Floor,
49, Church Street,
Bengaluru - 560001

Sub: Seeking opinion on grant of authorization to carry out municipal solid waste processing activity at Mavallipura-Bengaluru.

Ref: Your letter no. PCB/MSW/Mavallipura/2014-15/3002 dated 3-9-14.

Dear Sir,

With reference to above subject and the referred letter, we are surprised to note that KSPCB is contemplating to give permission for the Municipal Solid Waste dumping ground at Mavallipura, which was closed few years back. Thinking of reopening the same is detrimental to safe aircraft operation at both KIAB and Airforce station, Yelahanka. In this regard, we would like to stress the following points for your kind consideration.

1. Mavallipura solid waste dump yard is located south west of KIAB at an aerial distance of 18 km. It is also only 6 to 8 km south west of Air Force Station Yelahanka. As per rule 91 of Aircraft rules 1937, such activities are not permitted within a radius of 10 km from the ARP.
2. From a planning perspective, for a city, it is most advisable that such Waste Management Units are housed at locations far away from any aviation Activity. In the case of Mavallipura, we have two major Airfields and one small one. For a city which has made a decisive move of shifting its main Airport from HAL to Devanahalli and has also complimented that decision by moving Aviation related activities close by, it is ideal that activities which have even a remote chance of affecting Aviation be kept out of the vicinity.
3. Airport operator is constrained by way of limited authority and requires support extended by the State authorities in effective wildlife / bird control management. Control management in the earlier days was only chasing of birds which are observed within the flight movement areas. Considering the extent of damage to property and public, passive control management has been adopted globally for keeping the environment within the airport as well outside the environment non conducive to bird attraction. This is accomplished by adopting safer land use patterns considering the contributing parameters. In this direction the establishment and

MSW
EO
A part of MSW
is common
also in
MSW Authority
Committee
Mavallipura

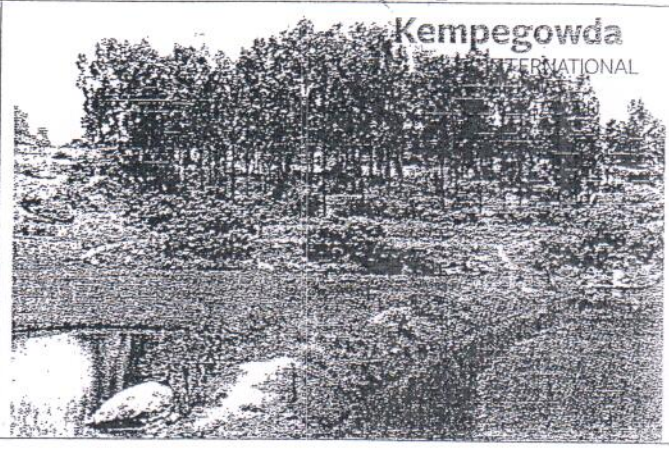
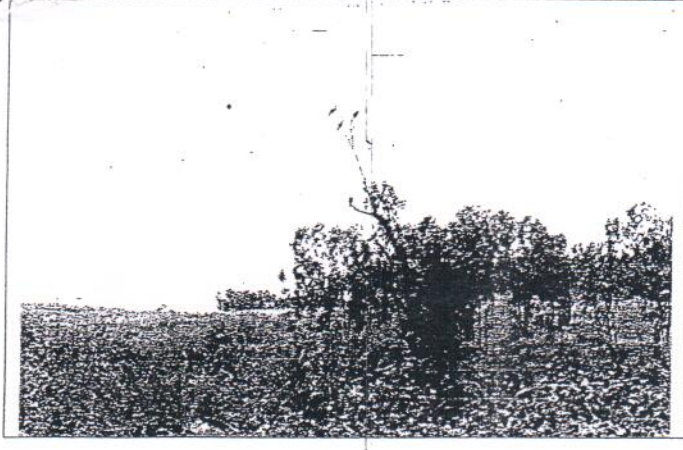
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(Daxina B Dhasman)
Sqn Ldr
OIC Civil Admin
AF Stn Yelahanka



Kempegowda
INTERNATIONAL



9. Further, it may be noted that in 2012, an Nigerian aircraft MD 83 crashed near their largest city Lagos and killed all the 153 people on board. The reason suspected was possible bird hit. We are sure, at Bengaluru, none of us wants such incident to happen.

In view of the above mentioned facts, we request KSPCB for not giving permission to dump Municipal Solid waste at Mavallipura or at any other location, which will endanger safe aircraft operation. We also would request that any such move to be deliberated with Airport Environmental Management Committee which is functioning at the behest of regulatory requirement.

Thanking you,

For Bangalore International Airport Ltd,

Lakshminarayanan S
15/9/14

Lakshminarayanan S
Vice President – Engineering & Maintenance

CC:
The Unit Head, Yelahanka Air Force Station,
India Air Force Base, Yelahanka, Bangalore.

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(Daxina B Dhasmana)
Sqn Ldr
OIC Civil Admin
AF Stn, Yelahanka