



BIA HAZARD LIBRARY

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Introduction

A hazard is defined as a condition or an object with the potential to cause injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function.

Identification of Hazards is the key element of an effective Safety Management System (SMS). The Safety hazard resulting in to a risk may become evident after an obvious breach of safety, such as an accident or incident. They can also be proactively identified through formal safety management programs before an actual safety event occurs.

Keeping this in view, this document has been developed as a hazards library for all Airside activities in order to identify appropriate mitigating measures to reduce the risks involved. The Hazards were identified with inputs from various professionals operating in the airside. Some are time bound ie during a particular phase of construction, modification activity. Such non-recurring hazards have not been included unless it impedes operations adversely.

This list does not include natural hazards, terror strikes, handling emergency situations and sustaining operations during such situations, deliberate violations of laid down norms. Some of the hazards for which the mitigating measures are defined in ICAO SARPS & DGCA CAR, such as RCF procedures, switch over time of airfield lighting system, separation standards etc have been excluded.

Risk owners for the identified hazards are aware of the mitigating measures to bring down the risks to an acceptable level. It is their responsibility to closely monitor the identified hazards & were required to implement additional measures to reduce the risk levels.

Some of the Risks associated with the hazards identified are classified to be within the ALoS defined by BIAL management in line with state SSP. Risk owners are not identified for such hazards.

The hazards are indexed with prefix as F - Aerodrome Facilities

O - Aerodrome Operations

W - Aerodrome Works

X - Others. Followed by a serial number (ie, F-1, W-5 etc).

This document will be updated on a monthly basis based on the hazards identified and addressed.

Note: Only sample hazards in each category is incorporated in this document.

Hazard ID.	Hazard	Consequence of Hazard	Risk Index	Risk owner	Time Line/periodic checks	Remarks & relevant information
	Aerodrome facility					
F -1	Taxiway Shoulders Unpaved taxiway shoulders as per DGCA requirements	Possibility of FOD ingestion into Aircraft Engines.	2C	VP E & M , DO, AVP Horticulture	Weekly	Safety Case Document 4 - 2009 SOP on Maintenance of Taxiway Shoulders at BIA. NCR filed and progress monitored with reference to B747-8 operations. Incident Dt.: 05 Sep 2015-1 Detailed Risk Assessment
F-2	Inadequate apron lighting on taxi lane during pushback operations.	Pilot confusion & entering the wrong stand.	1D	GM Airfield maintenance	Fortnightly	Conspicuity of the marking in the area improved by enhancing the borders and glass bead paints. <u>The feedback from the pilots are positive hence the risk index is reduced from 3D to 1D.</u> Detailed Risk Assessment
F-3	Non availability of taxi link designation sign on entry into taxi link 'D'	a) No taxi link designation sign on 'D' taxi link for guidance to the Aircraft while exiting RET 'E' after landing on runway 09. b) Aircraft at a high speed on 'E' link giving less time	1D	GM Airfield maintenance	Weekly	Markings provided and Pilot feedback positive. No incident was reported after providing markings. Hazard no longer exists since Oct 2013.

		for pilot's reaction. c) ATC not having sufficient time to correct in case the pilot takes a wrong turn towards the parallel taxi track 'A'				
O	Aerodrome Operations					
O-1	Taxiing Aircraft makes a 180 degrees turn on apron under own power	a) Aircraft mistakenly turns onto L2 instead of crossing L2. b) Collision between aircraft Jet blast injury to personnel or damage to GSE	1C	ATC, DGM Airside operations.	Audio visual on 3 lane operations have been issued.	Incident Dt.: 11 Oct 2011 Incident Dt.: 12 Aug 2012 Incident Dt.: 31 Oct 2013 Incident Dt.: 24 Jun 2016 Detailed Risk Assessment
O-2	<u>Pushback</u> Tow tractor Connects before Aerobridge has been disconnected	a) Aircraft jerks back suddenly as the tow bar connects to the Aircraft. b) Aircraft door height changes due to nose wheel raised (for tow bar less tractors).	2E	Concerned GHA & Airlines	Training & briefing provided to Pushback operators.	Twice this was observed during Turn around audit. Detailed Risk Assessment Since 2012 no such incidents has been reported hence classified as hazard no longer exists in Dec 2013.
W	Aerodrome Works					

W -1	Apron expansion Work for an extended period on the Airside adjacent to the operational Apron	a) Vehicles and Equipment movement into the Airside Presence of men and material adjacent to the operational Apron. b) Bird activity due to excavation c) FOD generation airside. d) Aircraft to vehicle / Aircraft to personnel collision.	2D	Project coordinator	Work completed	Apron Expansion - Risk Assessment The Apron expansion programme is completed, hence the hazard no longest exists
W-2	Carrying out excavation work on airside	Damage to underground cables during excavation work.	3E	DGM Airside Maintenance		Incident Dt.: 10 Jan 2012 Incident Dt.: 06 Jun 2013-02 Incident Dt.: 03 Jan 2014 Incident Dt.: 09 Sep 2014 Incident Dt.: 08 Jul 2015 Incident Dt.: 27 Mar 2017
X	Others					
X-1	Fatigue / Over Time and long work shifts of persons working at airside.	a) Can cause accidents b) Mishandling of equipment.	3C	All agencies working in airside		Incident Dt.: 12 Feb 2014 Incident Dt.: 20 Aug 2014 Incident Dt.: 14 Nov 2014 Incident Dt.: 18 Dec 2014 Incident Dt.: 16 Feb 2015 Incident Dt.: 10 Mar 2015 Incident Dt.: 01 May 2015 Incident Dt.: 13 May 2015 Incident Dt.: 30 Aug 2015 Incident Dt.: 24 Sep 2015 Incident Dt.: 10 Dec 2015 Incident Dt.: 27 Jan 2016 Incident Dt.: 19 Apr 2016 Incident Dt.: 17 Nov 2016 Incident Dt.: 06 Feb 2017

X-2	Drivers interchanging vehicles with Left Hand drive and Right Hand drive frequently in the same shift	a) Accidents b) Damage to equipment	2D	GHAs		Incident Dt.: 30 Sep 2015 Detailed Risk Assessment
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