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GOVERNMENT OF INDIA
OFFICE OF DIRECTOR GENERAL OF CIVIL AVIATION

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AERODROME ADVISORY CIRCULAR

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SUBJECT: GROUND HANDLING AND APRON INSPECTION CHECKLIST.

As Indian Airports are getting busier in view of the exponential growth in Civil Aviation, the number of ground incidents at Indian Airports involving aircraft are also increasing. Since January 2019, at Delhi Airport, seven such ground incidents have been reported involving various aircrafts. In two cases, engines of the aircrafts were hit by Ground Power Unit, in one case by a ladder and in another case by a toilet cart. Similarly, in Mumbai, one aircraft was hit by a ground tractor, another by an empty container trolley and the third by a flying container because of the strong winds and it was not properly tied. In Hyderabad, Chennai, Trichy, Cochin, Tirupati, Rajkot and some other airports, similar incidents have been reported. In order to curb such incidents, DGCA has developed a detailed checklist to benchmark safety standards on the Airside of the Airport.

The checklist details the ground facilities checks, which include ground servicing equipment, passenger boarding bridge, condition of Apron/ Marking/ Lighting, Availability of Foreign Object Debris Bins, etc. Similarly to regulate the movement of vehicle in the airside, the checks include fitness of vehicle as well as the fitness of drivers and their knowledge with regard to the Geography of Aerodrome, Aerodrome Signs, marking, lighting, Radio telephony operating procedures, terms and phrases used in airside operations, adequate training of driving/ operating the relevant vehicle/Equipment and the training of the employees working at airside.

The checklist also includes aircraft turnaround and general safety procedures such as Aircraft Fuelling, Pushback, Towing, Marshalling, Mooring and Handling of Arrival and Departure of the Aircraft.

In order to regulate the airside activities and to reduce the ground incidents for safe operation of aircraft, DGCA will conduct the safety audit of airside activities quarterly as per attached checklist. First safety audit based on checklist will be conducted after two months. It is expected that Airport operators shall ensure the compliance of safety standards laid down in enclosed checklist attached as Annexure-I.

Sd/-
(D.C. Sharma)
Deputy Director General

GROUND HANDLING & APRON INSPECTION CHECKLIST

References :

- ICAO Annex 1
- ICAO Annex 6
- ICAO Annex 8
- ICAO Annex 9
- ICAO Annex 18
- CAR Section 4 Series B Part I
- ICAO Airport Services Manual Part 1
- ICAO Airport Services Manual Part 8
- Air safety Circulars
- IATA AHM
- IGOM
- IOSA
- CAR 145
- MoCA Notification (AV-24011/8/2017-AAI-MOCA) dated 15th Dec 2017

Abbreviation:

CAR:	Civil Aviation Requirements
IGOM:	IATA Ground operation Manual
ICAO:	International Civil Aviation Requirements
IOSA:	IATA Operational safety audit
IATA:	International Air Transport Association
AHM:	Airport Handling manual
MoCA:	Ministry of Civil Aviation
GSP:	General safety Practice
GSE:	Ground Support Equipment
PBB:	Passenger Boarding Bridge
GHA:	Ground Handling Agency
GHM:	Ground Handling Manual

GROUND HANDLING & APRON INSPECTION CHECK LIST

Date of Inspection	
Name of the Airport	
Name of GHA/ Operator	
Responsible I/C	
Name & Desig. of Insp. Officers	

S/N	ITEMS OF INSPECTION	Reference	SAT	UNSAT	N/A	Remark
A.	General Ground Facility and pre arrival checks					
1.	Check Staff allocated for aircraft handling are available on stand before arrival of the aircraft.	GHM/SLA				
2.	Check availability of GSE against listing of the particular type of aircraft handling.	GHM/SLA				
3.	Check condition of paved surface of Apron/ Bay.	CAR4B1				
4.	Does the aircraft stand provide the minimum clearance, Stand marking as per requirements?	CAR4B1				
5.	Check availability of safety lines.	CAR4B1				
6.	Check equipment and vehicles free of loose items.	GSP				
7.	Check whether Apron being regularly swept so as to ensure that aprons is clean and clear of foreign object debris ((FOD), Oil, Grease, Rubber marks, other contamination etc.)	ICAO Doc 9137				
8.	Check FOD bins available on the parking bays and other strategic positions and are FOD bins emptied regularly.	ICAO Doc 9137				
9.	Check whether the airport has an apron management service at the airport. Is Bay allocation given in time to facilitate proper bay preparation by the ground handler of the arriving aircraft	ICAO Doc 9137				
10.	Check mooring facility of aircraft. (if required)	GSP				
11.	Check availability of Apron Flood Lighting of appropriate illuminance such that an aircraft stand receives light from two or more directions to minimize shadows.	CAR4B1				

GROUND HANDLING & APRON INSPECTION CHECK LIST

S/N	ITEMS OF INSPECTION	Reference	SAT	UNSAT	N/A	Remark
12.	Check whether all equipment parked at designated staging areas and parking brakes or chocks are set.	IGOM				
13	Check the compatibility of Step ladders used for the type of aircraft and its alignment prior to dis-embarkation / embarkation commencement.	IGOM				
14.	Check whether all apron equipment and vehicles adhere to the speed limit on the ramp.	ASC 4 of 2007				
15.	Check VDGS serviceability and calibration for accuracy.	CAR 4B1				
16.	Check whether VDGS is updated with the correct Aircraft type.	CAR 4B1				
17.	Check PBB is positioned at home position before arrival of the aircraft.	IGOM				
18.	Check whether warning signal sounds before PBBs are moved.	IGOM				
19.	Check whether PBB operators are suitably trained.	IGOM				
20.	Check whether emergency exit from bridge/ node building clear of obstructions?	IGOM				
B.	Checks during turnaround and after departure of aircraft					
1.	Check whether SOPs are developed (by Aerodrome operator) to regulate the movement of vehicles and equipment on the movement area.	IGOM				
2.	Check whether vehicles and equipment operating in the airside fitted with serviceable anti-collision lights.	IGOM				
3.	Check whether the vehicle has valid AVP, RC, Fitness Certificate & Insurance, etc.	GSP				
4.	Check whether all drivers are familiar with: <ul style="list-style-type: none"> a. Topography of Aerodrome. b. Aerodrome Signs, marking and lightings. c. Terms and phrases used in aerodrome control. d. Airport rules and procedures. e. Special functions in case of Rescue and Fire Fighting etc. f. Adequate training for driving the relevant vehicle/ Equipment. 	GSP				
5.	Check whether drivers are familiar with low visibility procedures (LVP).	IGOM				
6.	Whether drivers adhere to the limit of maximum permissible speed and standard	IGOM				

GROUND HANDLING & APRON INSPECTION CHECK LIST

S/N	ITEMS OF INSPECTION	Reference	SAT	UNSAT	N/A	Remark
	operating procedures when on the aprons/ ramps and service roads?					
7.	Check whether vehicles permitted on the airside fitted with Speed Governor/ speed controlled device.	IGOM				
8.	Check whether Catering vehicle guided (Marshalled) into and out of position close to aircraft.	IGOM				
9.	Whether catering vehicle brakes and/or chocks are applied during servicing?	IGOM				
10.	Whether safety rails are in appropriate position on Bridge (from truck to aircraft) ?	IGOM				
11.	Check whether Catering vehicle using reversing and raising alarm?	GSP				
12.	Whether vehicles pass underneath the aircraft fuselage or wings?	IGOM				
13.	Whether drivers follow the designated routes, giving way to routes provided for pedestrians and aircraft?	GSP				
14.	Check whether vehicle driver ensures adequate clearance behind the aircraft when aircraft engines are running.	IGOM				
15.	Check whether Equipment/ vehicles retrieved from Stand after departure?	IGOM				
16.	Check whether PBB disconnected and retrieved/ repositioned before pushback.	IGOM				
17.	Check whether SOPs followed during loading and unloading of the aircraft.					
18.	Whether the stand is clean and fit for use by next planned aircraft?	IGOM				
19.	Whether any oil spillage/patch noticed, if yes, informed to the concerned agency for cleaning?	IGOM				
20.	Whether the GSE positioned without contacting the aircraft?	IGOM				
21.	Whether GSE lowered when not in use?	IGOM				
22.	Interview: (One Sample per apron) Verify if the driver has all necessary authorization (ADP,DL) to operate a vehicle on airside and if he/she is knowledgeable on the standard operating procedures governing vehicular movement on the airport.	IGOM				
23.	Whether vehicles/staff approaches the aircraft when anti-collision lights are ON?	IGOM				
24.	Whether equipment marshaller available	IGOM				

GROUND HANDLING & APRON INSPECTION CHECK LIST

S/N	ITEMS OF INSPECTION	Reference	SAT	UNSAT	N/A	Remark
	for positioning equipment and vehicles close to aircraft?					
25.	Whether traffic alerted before pushback on service roads (by use of traffic marshallers/ wingwalkers)?	IGOM				
26.	Whether vehicle drive through or park in the red hatched area under the movable aerobridge.	IGOM				
27.	Whether vehicle left unattended in the vicinity of aircraft?	GSP				
28.	Whether vehicle drive into aircraft parking areas, except those actively involved in aircraft handling or servicing?	GSP				
29.	Check whether safety cones have reflective tapes for night /LVP operations.	GSP				
30.	Whether bus parking brake applied, during passenger boarding/de-boarding process?	GSP				
31.	After equipment is positioned at an aircraft whether the gear shift is in neutral or park, and the parking brakes/chocks are set before any other control is operated?	IGOM				
32.	Check whether baggage trailers/carts have intact curtains.	IGOM				
33.	Check whether any ULDs(Unit Load Device) left on ground or left unsecured at parking stand.	GSP				
34.	Whether proper mechanism and procedure for securing of equipment is available?					
35.	Check whether aircraft properly chocked with appropriate & good condition chocks once stationary.	IGOM				
36.	Whether GHA has adverse weather SOP available?	IGOM				
37.	Check weather warning receiving and disseminating mechanism among GH agents is available.	GSP				
C.	Training/Competency					
1.	Whether the process for identifying training needs and training schedule is defined and recorded in GHM?	IOSA				
2.	Whether Induction training, refresher training and introduction of new process or procedures are planned and provided?	IOSA				
3.	Check whether the airside work force have been imparted Ramp safety, DGR, SMS & AvSec training.	IOSA				
4.	Check whether the safety training being	IOSA				

GROUND HANDLING & APRON INSPECTION CHECK LIST

S/N	ITEMS OF INSPECTION	Reference	SAT	UNSAT	N/A	Remark
	given by duly competent personnel and evaluation of training is conducted.					
5.	Check whether emergency safety response drill/training planned and conducted and whether Staff briefed for voluntarily hazard reporting?	IOSA				
6.	Whether working hours are defined for each ground handling agents considering human factor principles.	GSP				
7.	Check availability of training records of all Ground Equipment operator.	CAR 145.A30(e)				
D.	Aircraft Towing & Movement					
1.	Check whether the Ground Handling Manual contains enough information, guidance & procedures about Aircraft Towing & Movement for staff to perform their duties.	IGOM IOSA				
2.	Whether the push-back and towing procedures comply with the appropriate standards?	IGOM				
3.	Check whether the operator ensures that pre or post taxi positioning of the aircraft is not executed without tow bar (wherever applicable).	IGOM				
4.	Whether a trained/authorized person assists in attaching the tow bar?	IGOM				
E.	Marshalling					
1.	Check availability of sufficient number of approved marshaller commensurate with the type and number of aircraft being handled.	GSP				
2.	Check whether usage of Signs and markings by marshaller are appropriate?	IGOM				
F.	Cargo/Mail Handling/Loading					
1.	Check whether SOPs for Cargo/Mail Handling are available.	IOSA				
2.	Whether System is available to ensure that cargo loaded in correct location?	IGOM				
3.	Whether cargo loading locations are included on load sheet?	IGOM				
4.	Whether cargo netting/ restrain system/s adequate in all baggage trolley/pallets etc.?	GSP				

GROUND HANDLING & APRON INSPECTION CHECK LIST

S/N	ITEMS OF INSPECTION	Reference	SAT	UNSAT	N/A	Remark
5.	Whether Cargo tie-down points available?	GSP				
6.	Whether system to prevent 'Tail Tipping' available?	IGOM				
G.	Re-fueling facility					
1.	Check type of facility available AFS (Aviation Fueling Station) with refuellers [] Hydrant [] On-wheel []					
2.	Check that the surrounding of the storage facilities are clean, free from accumulated water, garbage etc.	CAR2H				
3.	Check the condition of the Refueller/Dispenser/Hydrant.					
4.	Check that the hydrant facility is provided with necessary earthing points and inspected regularly. Check records.					
5.	Check that the hydrant pits are grade marked, kept clean and free of water.					
6.	Check that all visible pipe lines and valves are grade marked and direction of flow are marked properly.					
7.	Whether hydrant pits checked after every rain/snow and any contaminants are removed?					
8.	Check that the hydrant system is provided with necessary firefighting facilities at the location such as fire hydrant system, foam system, portable fire extinguishers, firefighting equipment.					
9.	Check whether employees are using electronic devices within the refuelling zones around the aircraft.					
H.	Ground Support Equipment maintenance checks(sample) (Check proper system for periodic maintenance/ daily maintenance/ control of usage of the following equipment as per respective Service Manual.)					
1.	Tow Bars: ID/SN(#) _____	CAR145.A40				
(a)	Check Towheads/couplings/locking mechanism etc. for condition.					
(b)	Check Shear pin- condition, security and correct type.					
(c)	Check availability of suitable Tow bar for all type of aircraft being operated. (mandatory for defense airfield)					
2.	Tow Tractors/ Push back tractor ID/SN(#) _____	CAR145.A40				

GROUND HANDLING & APRON INSPECTION CHECK LIST

S/N	ITEMS OF INSPECTION	Reference	SAT	UNSAT	N/A	Remark
(a)	Check condition of the Toe hook.					
(b)	Check serviceability of Brakes.					
(c)	Check serviceability of Lights, Beacon etc.					
(d)	Check availability of fire-extinguisher					
(e)	Check condition of Tyres.					
(f)	Check condition of flame arresters.					
(g)	Check steering bypass pin installed prior to tow bar connection. Correct by-pass pin must be installed before tow bar is connected.					
(h)	Check availability of trained operator					
3	Ground Power Unit: ID/SN(#) _____	CAR 145.A40				
(a)	Check date last serviced (filters/oil change).					
(b)	Check date of last electrical output calibrated/ adjusted.					
(c)	Check serviceability of all gauges.					
(d)	Check serviceability of Brakes.					
(e)	Check serviceability of Lights, Beacon etc.					
(f)	Check condition of Tyres.					
(g)	Check condition of Flame arresters.					
(h)	Check availability of fire-extinguisher					
(i)	Check availability of trained operator					
4.	Air Start Units: ID/SN(#) _____	CAR 145.A40				
(a)	Check date last serviced (filters/oil change).					
(b)	Check date of last electrical output calibrated/ adjusted.					
(c)	Check serviceability of all gauges.					
(d)	Check condition of Ducts and Coupling.					
(e)	Check serviceability of Brakes.					
(f)	Check serviceability of Lights, Beacon etc.					
(g)	Check condition of Tyres.					
(h)	Check condition of flame arresters.					
(i)	Check availability of the fire-extinguisher					
(j)	Check Availability of trained operator.					
5.	Ground Air Conditioning Units: ID/SN(#) _____	CAR 145.A40				
(a)	Check date last serviced (filters/oil change).					
(b)	Check date of last electrical output calibrated/ adjusted.					

GROUND HANDLING & APRON INSPECTION CHECK LIST

S/N	ITEMS OF INSPECTION	Reference	SAT	UNSAT	N/A	Remark	
(c)	Check serviceability of all gauges.						
(d)	Check condition of Hoses and Control panel.						
(e)	Check serviceability of Brakes.						
(f)	Check serviceability of Lights, Beacon etc.						
(g)	Check condition of Tyres.						
(h)	Check condition of Flame arresters.						
(i)	Check availability of the fire-extinguisher						
(j)	Check availability of trained operator						
6.	HP Air Carts & Nitrogen Trolley: ID/SN(#)_____		CAR145.A40				
(a)	Check cylinder last hydrostatic test date.						
(b)	Check proper colour coding of cylinder.						
(c)	Check condition and security of Cylinders/ pipes/flexible hoses.						
(d)	Check serviceability of HP regulators/SOVs.						
(e)	Check condition, calibration validity of gauges.						
(f)	Check condition of wheels.						
7.	Water Cart: ID/SN(#)_____	CAR 145.A40					
(a)	Check condition of Hose and Coupling						
(b)	Check vehicle Brakes						
(c)	Check vehicle Light & Beacon Light						
(d)	Check availability of trained operator						
8.	Toilet Cart: ID/SN(#)_____	CAR 145.A40					
(a)	Check condition of Hose and Coupling						
(b)	Check vehicle Brakes						
(c)	Check vehicle Light & Beacon Light						
(d)	Check availability of trained operator						
9.	Maintenance steps/ladders/stands:	CAR 145.A40					
(a)	Check adequate by number and type. (e.g for Oil level check, Cockpit Window cleaning etc.)						
(b)	Availability of Cherry picker						
19	Cargo Loaders:	CAR 145.A40					
(a)	Check Bulk freight loader						
(b)	Check conveyer belts condition.						
(c)	Check condition of Brakes						
(d)	Check availability of trained operator						
10.	Container/Pallet loaders: ID/SN(#)_____	CAR 145.A40					

GROUND HANDLING & APRON INSPECTION CHECK LIST

S/N	ITEMS OF INSPECTION	Reference	SAT	UNSAT	N/A	Remark
(a)	Check serviceability of vehicle Lights, Beacon etc.					
(b)	Check condition of Rollers					
(c)	Check condition of Flame arresters.					
(d)	Check availability of trained operator					

DATE:-_____

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