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GHOST

GROUND HANDLING OPERATIONS SAFETY TEAM

Ground Safety Ramp Inspection Aide-Memoire

	A. Ramp Operations/Arrival	Requirements/Standards
1.	Was a FOD (Foreign Object Debris) check of the apron and stand area, including the surface condition, completed prior to aircraft arrival, to prevent the likelihood of ingestion or damage? Was it an effective check or simply a walk up and down the centreline?	IGOM Chapters 3 & 4
2.	Were the ground crew waiting on stand, prepared to receive the arriving aircraft? Did you witness a team briefing? If so, what was discussed? (Responsibilities, adverse conditions, non-APU arrival etc.)	
3.	Were all servicing vehicles, equipment and personnel positioned outside of the Equipment Restraint Area (ERA), prior to and during the aircraft arrival? A pre-positioned GPU, within a marked area, is permitted.	
4.	Was the Aircraft Guidance System set for the correct aircraft type and the emergency stop button managed during the arrival?	IGOM Chapter 4
5.	If the aircraft was marshalled using hand signals, were they clear and in accordance with industry standards?	
6.	Did all personnel stay clear of the aircraft, until engines were shut down and anti-collision lights were switched off?	IGOM Chapters 3 & 4
7.	Was a non-APU arrival procedure used? If so, were the following steps adhered to?	GHOST Guidance - Inoperative APU Operations IGOM Chapter 4)
a.	Were ramp personnel aware of the need for a GPU, prior to aircraft arrival?	
b.	All GSE and personnel must be positioned clear of the aircraft path, outside the ERA.	
c.	After the aircraft has come to a complete stop, flight crew inform ground crew, via hand signal, that the parking brakes have been set.	
d.	Ground crew acknowledge brakes have been set, via hand signal, before positioning chocks at the nose landing gear wheels.	
e.	Once the chocks have been positioned, ground crew notify flight crew, via hand signal. This is the first action to take place around the aircraft and shall be completed before any other activity.	
f.	Was the engine(s) on the same side as the GPU receptable shut down, to reduce the associated risks to ground personnel?	
g.	Ground power is then positioned and connected, to enable the flight crew to shut down the engine(s). Ground crew notify flight crew, via hand signal, that ground power has been connected and delivered.	
h.	Only when the engine(s) have spooled down and the anti-collision lights have been switched off, is it safe for ground service providers to approach the aircraft and commence servicing tasks. Did you observe confirmation of clearance provided by the team leader?	
8.	Were chocks placed around the nose gear wheels before any other activity? Did other personnel remain forward of the nose gear/clear of the aircraft until the chocks were placed?	IGOM Chapters 3 & 4

9.	Were the main gear wheels then chocked correctly and effectively? Were adverse weather chocking procedures in force?	
10.	Were sufficient and serviceable safety cones deployed around the aircraft silhouette to ensure adequate visual warning and placed no more than 1m outward from the protected point? Were adverse weather coning procedures in force?	
11.	Was an effective aircraft damage check completed before the commencement of servicing activities? If conducted in the hours of darkness, was a torch used? If damage was identified, was it reported?	IGOM Chapter 4
	B. Ramp Operations/Turnaround	
1.	Was Ground Service Equipment (GSE)/vehicles driven and operated in a safe and appropriate manner whilst in the ERA? Verify that:	IGOM Chapter 3/AHM 913
a.	GSE/vehicles were not driven across the path of taxiing aircraft, aircraft under tow/pushback or embarking and disembarking passengers.	
b.	Personnel refrained from using personal electronic devices whilst driving or operating GSE/vehicles.	
c.	Personnel complied with the “no seat, no ride” principle.	
d.	GSE/vehicles did not approach the aircraft before safety cones and chocks had been deployed.	
e.	A brake check was conducted before the entering the stand. (One complete stop prior to entering the ERA or at 5m from the aircraft)	
f.	GSE/vehicles were not driven or parked under the aircraft fuselage and/or wing.	
g.	When being manoeuvred near the aircraft and/or when the vision of the operator might have been restricted, a guide person should have been utilised, using industry standard hand signals. (Appropriate proximity sensing and warning systems and/or visual aids such as cameras and mirrors can also be utilised). Guide persons were standing to one side when assisting in the positioning of GSE/vehicles, to prevent the risk of a crush injury?	
h.	Parking brakes were set when positioned for operation. (Chocked & stabilised as required)	
i.	Protective rubber bumpers were not compressed against the aircraft fuselage. Were rubber bumpers fit for purpose and if applicable, “no touch” policies respected?	
j.	Did the ramp team proactively monitor the proximity of GSE/vehicles to the aircraft, during the onload and offload, to ensure there is no risk of inadvertent contact?	
k.	Were the guard/guide rails and stabilisers of loading equipment stowed during manoeuvring and raised/adjusted as required?	
2.	Assess the condition of the GSE/vehicles. Were there any obvious defects and was the equipment clear of FOD? Was a manufacturer’s plate present? Ask personnel to describe procedures for reporting defects.	
3.	When unattended motorized GSE/vehicles were positioned in or adjacent to the ERA, verify that:	IGOM Chapter 3
a.	Engines were not left running. (In extreme cold weather conditions where local procedures permit engines running unattended, the motorised GSE/vehicle shall be chocked).	
b.	Parking brakes were applied, gear selectors were in park or neutral and, where equipped, wheel chocks were installed.	
4.	If GSE/vehicles were equipped with fire extinguishers, were they present and/or serviceable?	AHM 913
5.	If the opportunity exists, record GSE asset numbers. This information can then be used to later verify that all maintenance has been documented and conducted in accordance with the manufacturer’s specifications.	IGOM Chapter 3

6.	Were all personnel equipped with appropriate Personal Protective Equipment? For example, hearing protection (required when noise levels are high), high visibility clothing, safety footwear and face coverings/gloves for toilet servicing duties. This includes flight and cabin crew. Were valid IDs displayed?	HSE PPE at Work Regulations 1992/IGOM Chapter 3
7.	During disembarkation and embarkation, was safe and effective passenger control established and maintained?	IGOM Chapter 1
8.	Were the correct procedures for cabin door opening observed? Doors are not to be opened or left open without the appropriate boarding device positioned at the door.	IGOM Chapter 4
9.	Verify that the toilet and water servicing units were not positioned close to toilet servicing units at any time, particularly when toilet servicing or toilet waste disposal was taking place.	IGOM Chapter 3
10.	Did staff refrain from stepping between baggage carts, cargo dollies, Fixed Electric Ground Power (FEGP) pantograph etc.	IGOM Chapter 4
11.	Did staff refrain from standing/walking under GSE that could pose a risk of injury?	IGOM Chapter 3
12.	During the turnaround, did any personnel (ground/flight crews and/or engineers) walk through the propeller arc?	
	C. Inbound Load	
1.	Were all bulk and containerised loads fully secured? (Doors and curtains on ULDs closed, floor locks/guides raised and bulk nets all secured/tensioned). Was there any evidence of load shift? If so, could any related defects be identified?	CAT.POL.MAB.100 (a)
2.	Did the inbound mass & balance documentation (Loadsheet/LDM) reflect the actual quantities and distribution of the load?	CAT.POL.MAB.105 (a)
3.	Were all loads compliant with structural and loading (height) limitations as indicated by the appropriate placards and/or documentation?	CAT.POL.MAB.100 (i)
4.	Was the offload completed in accordance with the operator's procedures to ensure the ground stability of the aircraft? (Loading sequence/tail support)	IGOM Chapter 4
5.	On completion of the offload, were <u>all</u> holds checked to ensure that they were empty, including those that are not frequently used?	
	D. Load Planning	
1.	Were the loading team advised of any cargo loading system or restraint defects, that resulted in reduced loading limitations? If so, check that the correct limitation was applied.	CAT.POL.MAB.100 (a)
2.	Check that the Loadsheet, Load Form and/or Loading Instructions were for the correct type and variant of aircraft? Verify the accuracy of basic details such as aircraft registration, flight routing, date, Dry Operating Mass/Index, crew compliment and catering codes etc.	CAT.POL.MAB.105 (a)
3.	Did the issued Loadsheet, Load Form and/or Loading Instructions reflect the operational configuration of the aircraft?	CAT.POL.MAB.100 (a)
4.	Were all masses and related C of G shown on the Loadsheet within the certified/regulated structural limitations and the flight envelope? For example, Max Ramp Mass, Regulated Take-Off Mass, Take-Off Mass, Max Zero Fuel Mass and Max Landing Mass.	
5.	Were all loads planned in accordance with structural and loading limitations? Were additional considerations required for special loads or dangerous goods, including electric mobility aids?	CAT.POL.MAB.100 (i)
6.	Were planning considerations required/given for ground stability? (Loading sequence/tail support)	IGOM Chapter 4
7.	Were standard or actual baggage masses correctly used? Were any increments applied for significant deviations from notional masses?	CAT.POL.MAB.100 (e)
8.	Were flight spares (including flyaway kits) and ballast accounted for if present?	

9.	Was an accurate mass for any electric mobility aids established and was it reflected within the associated documentation?	
10.	Were alternative manual documents available in case the EDP system failed? Were appropriately trained personnel available to complete them? If not, what process was to be followed?	Industry Best Practice
	E. Loading and Restraint	
1.	Was the loading team in possession of loading instructions prior to the on-load? Check to ensure that loading documentation was not signed before loading.	CAT.POL.MAB.105 (c)
2.	Was an aircraft hold security search completed and documented?	National Aviation Security Programme (NASP)
3.	Did all restraint equipment including nets, locks and guides appear to be present, correctly located and operative? Did cargo holds/compartments appear serviceable in terms of fire containment and were they clear of FOD/debris?	CAT.POL.MAB.100 (a)
4.	Was a check of the baggage and/or cargo tags conducted before loading to confirm the correct destination of the load?	Industry Best Practice
5.	Were all ULDs presented for carriage in a serviceable condition and secured correctly? Check that all doors and curtains are closed/secured and no damage exceeds the operator's/manufacturers acceptable limits. (Refer to the ODLN).	IATA ULD Technical Manual/CMM/ODLN
6.	Was the on-load completed in accordance with the operator's procedures to ensure the ground stability of the aircraft? (Loading sequence/tail support)	IGOM Chapter 4
7.	If required, was sufficient load spreading material and/or supplementary restraint equipment available, fit for purpose and used appropriately?	CAT.POL.MAB.100 (i)
8.	Had any ballast/flight spares/special loads been correctly secured?	CAT.POL.MAB.100 (a)
9.	Had any sporting weapons been stowed and secured in a place which was inaccessible to passengers during flight? Had any accompanying ammunition been stowed separately?	CAT.GEN.MPA.160
10.	Had all bulk hold restraint nets been correctly fitted, secured and tensioned? Verify loads did not exceed loading height limits.	CAT.POL.MAB.100 (a)
11.	Had bulk cargo been loaded in accordance with any specific certification requirements, such as achieving the required % of fill within barrier nets? (Applicable to certain bulk loaded cargo aircraft)	
12.	Were live animals loaded last/unloaded first and securely restrained in the hold? Were they protected from adverse environmental conditions on the ramp (weather, noise etc.) and other items in the hold?	IGOM Chapters 2, 4 & IATA Live Animal Regs
13.	Had all ULDs been properly secured into the aircraft's cargo loading system? Were all locks, latches and guides raised/set as required, particularly for partial loads? Were any floating pallets loaded and secured as per written instructions?	CAT.POL.MAB.100 (a)
14.	Were passenger numbers/distribution in accordance with the Loadsheet/Load Form?	CAT.POL.MAB.105 (a)
15.	Were hold quantities/distribution in accordance with Loading Instructions? Were void holds/positions confirmed and annotated as empty?	
16.	If cabin baggage was transferred to the hold, did you observe passengers being asked if they contained prohibited items and was the mass and balance documentation amended to reflect?	ICAO TI 7;4.1/IATA DGR 9.5.1

17.	Was a check conducted to verify that electrical circuits of electric mobility aids were inhibited to prevent inadvertent operation? Were devices loaded and secured to prevent damage to the aircraft and the device?	ICAO TI Table 8-1/IATA DGR 2.3.2.2, 2.3.2.3 & 2.3.2.4
	F. Refuelling	
1.	Had a Fuelling Safety Zone (FSZ) of 3m been established and maintained? Verify that:	IGOM Chapter 3
a.	Personnel were not smoking.	
b.	Personnel were not using any handheld portable electronic devices including phones, portable music players, or headsets.	
c.	Passengers were kept from entering the FSZ.	
d.	Vehicle engines were not left running unnecessarily.	
e.	The use of motorised GSE was avoided and other equipment was not parked within the FSZ.	
f.	Ensure fuel hoses were protected and all equipment was kept a minimum of 1m (3ft) away from any fuel hose that was connected between the fuel truck and aircraft.	
2.	Prior to refuelling, did the refueller display the appropriate warning flag and attach the bonding cable? During operation, was the 'deadman's' handle used and did the refueller stay situationally aware? Were they effectively monitoring the aircraft fuel vents?	JIG 1
3.	When refuelling with passengers disembarking and/or boarding, verify that communications between the fuel overseer and refueller had been established and remained available? Who was fuel overseer?	CAT.OP.MPA.195 (b)/AMC1 (c)
4.	In case of an emergency:	AMC1 CAT.OP.MPA.195 (a)
a.	Was a clear forward exit path maintained for the fuel tanker? (Not a mandatory requirement for hydrant type fuelling)	
b.	Were areas in the slide deployment zones kept clear of GSE and personnel?	
c.	Was clear access to the emergency fuel shut off maintained at all times?	JIG 1
	G. De/Anti-icing	
1.	Assess the condition of the vehicle. Were there any obvious defects and was the vehicle clear of FOD? Ask personnel to describe procedures for reporting defects.	IGOM Chapter 3
2.	Verify that robust two-way communications had been established between the Flight and Ground Crews, prior to the de-icing/anti-icing treatment.	SAE AS6285
3.	Was a final visual check completed to verify that the aircraft had been correctly de-iced/anti-iced and that surfaces were free of contamination? Was the anti-icing code passed to the Flight Crew? Was a tactile check required and conducted?	
4.	Was the ramp and path from the terminal to the aircraft steps free from any ice, and if required treated?	IGOM Chapter 3
5.	Could the provider demonstrate that their procedures and training were based on SAE global de-icing standards?	SAE AS6285/AS6286
	H. Dangerous Goods	
1.	Were all dangerous goods in the correct location as specified on the NOTOC, secured and segregated as required? Did the NOTOC reflect the LIRF?	ICAO TI 7;2.4.2 & 7;2.2.1/IATA DGR 9.3.5.2 & 9.3.2.1

2.	Was Company Material (COMAT) such as aircraft spares, rotables and consumables that are classified as dangerous goods been labelled and declared as such?	ICAO TI 1;2.2.2/IATA DGR 2.5.2
3.	Did any ULD containing dangerous goods which require a class hazard label display on its exterior a ULD tag with red hatchings on both sides? The primary and subsidiary hazard classes or divisions of such dangerous goods must be clearly marked on this tag. (The IMP code is not sufficient)	ICAO TI 7;2.8/IATA DGR 9.3.8
4.	Were Cargo Aircraft Only goods accessible when required?	ICAO TI 7;2.4.1/IATA DGR 9.3.4
5.	Was the NOTOC been completed correctly, with one copy held on the flight deck and another stored on the ground?	ICAO TI 7;4.1/IATA DGR 9.5.1
	I. Final Documentation Checks	
1.	Observe the reconciliation between loadsheet and load form/load instructions.	CAT.POL.MAB.105 (c)
2.	Confirm that any Last Minute Changes had been:	CAT.POL.MAB.105 (d)
a.	Annotated and calculated correctly.	
b.	Presented to the flight deck. (Verbally, written, ACARS etc.)	
c.	Were within the allowable limits for traffic load/fuel.	
3.	Was all AAA paperwork been signed and all baggage accounted for before the pushback commenced?	National Aviation Security Programme (NASP)
	J. Ramp Operations/Departure	
1.	Were all the safety cones removed only after servicing equipment was withdrawn?	IGOM Chapter 4
2.	Did the main gear chocks remain in place until the pushback tug was connected and both its and the aircraft brakes were confirmed as set? Did personnel refrain from stepping over the aircraft towbar, once connected?	
3.	Was an effective final pre-departure walkround check conducted? Verify that:	
a.	All servicing vehicles and equipment had been removed?	
b.	The stand area was clear of obstructions and FOD that may cause aircraft damage or pose a risk.	
c.	All aircraft servicing panels and/or hatches were closed and secured. Cabin and cargo door handles were flush with the fuselage. Did this include engine cowl latches?	
d.	There was no visible damage on the aircraft, particularly around cabin and cargo doors.	
e.	There were no obvious defects or leaks.	
f.	Landing gear safety pins were removed.	
g.	If conducted in the hours of darkness, was a torch used? If any damage or abnormalities were identified, were they reported?	
4.	Did the Flight Crew switch on the anti-collision warning beacons during the final pre-departure preparations? How did the Ground Crew react?	Industry Best Practice (Refer to Ops Manuals)

5.	If an Air Start Unit was required, was it positioned in a location away from the rotating engine, or the aircraft, to prevent the risk of injury to personnel or damage to the aircraft? Was a prior briefing held between the flight crew and the headset operative?	IGOM Chapter 4
6.	Did the tug and/or towbar appear to be correct for the aircraft type? Was an airport map and pushback information present in the tug?	
7.	Observe the pushback, verify that:	CAT.OP.MPA.205 IGOM Chapter 4
a.	There was adequate communication to ensure that the pushback did not commence until authorisation had been received from ATC and communicated by the flight deck, to the pushback crew.	
b.	A visual check of the area the aircraft is to be pushed into was made to confirm clearances and to check for any FOD.	
c.	Speed did not exceed walking speed for the headset operative and steering turn limits were adhered to. (Verify the effectiveness of any wing-walkers)	
d.	During the pushback, the headset operative maintained a safe distance from the tug and the aircraft.	
e.	The aircraft nose wheel was chocked whilst the tow bar was disconnected from the aircraft. (Local procedures may apply)	
f.	The towbar was disconnected from the tug, before the aircraft, to release any residual pressure.	
8.	If wing-walkers were utilised, verify that:	IGOM Chapter 4
a.	Two marshalling wands, either day-wands or illuminated wands for low visibility operations were used.	
b.	They were positioned before and during movement of the aircraft at approximately 1 m (3 ft) outboard of the wingtip, in line with the rearmost main gear wheel and maintained visual contact with the person responsible for pushback/towing.	
c.	They ensured the aircraft movement path was clear of any obstruction, i.e. other aircraft, vehicles.	
d.	They provided the “Safe to Proceed” clearance signals at all times to the person responsible for pushback by using a distinct “pendulum” motion of the arm.	
e.	They continually monitored the aircraft path until the pushback stopped at the departure point.	
f.	If at any time during aircraft movement, the wing walkers were unsure or identified an imminent danger, they signalled the person responsible for pushback with the “STOP” signal.	
9.	Did the agent provide visual confirmation to the flight deck that all equipment has been removed and it is safe for the aircraft to taxi? Was the agent and any equipment, clear of the aircraft’s intended path when the confirmation was given?	
10.	After departure, check all equipment was removed from the stand and was parked/stowed appropriately? Was any FOD removed and the airbridge parked correctly?	IGOM Chapters 3 & 4
	K. Ground Operations Documentation	
1.	Were the appropriate operations manuals available on station and accessible to personnel that need to review the information/instruction. Ask a member of staff to show you.	ORO.GEN.110 (e)/ORO.MLR.100 (d)
2.	Were the documents above, controlled and amended to the latest revision status?	ORO.MLR.100 (e)
3.	Were ground operational informational/safety notices held, displayed and controlled on station?	ORO.GEN.200 (a)(3)
a.	Had any been superseded or expired?	

b.	To help evaluate effectiveness, could any operative recall the content or theme of the last or most current notice?	
c.	Ask personnel to describe methods of dissemination to frontline operatives, training managers etc.	
	L. Personnel Training	
1.	Observe the activities specific personnel are undertaking. If the opportunity exists, record their names and which tasks they were conducting. This information can then be used to later verify that all personnel are appropriately qualified.	ORO.GEN.110 (e)