

Ramp Safety Briefing

1 Definitions

Airside The airside area is a restricted area and only holders of valid ID are allowed unaccompanied access.

Apron A defined area on a land aerodrome provided for the stationing of aircraft for the embarkation and disembarkation of passengers, the loading and unloading of cargo, and for parking.

Manoeuvring Area That part of an aerodrome provided for the take-off and landing of aircraft and for the movement of aircraft on the surface, excluding the apron and any part of the aerodrome provided for the maintenance of aircraft.

Movement Area That part of an aerodrome intended for the surface movement of aircraft, including the manoeuvring area, aprons and any part of the aerodrome provided for the maintenance of aircraft.

Taxiway A defined path on a land aerodrome established for the taxiing of aircraft.

- 1.1 Directflight are required to manage aircraft safety and occupational health and safety. Without adequate safety management, legal and moral obligations cannot be met, and business losses may be incurred, including significant financial losses. Examples of such losses include:
- a) Compromised aircraft safety and the potential for a catastrophic aircraft accident;
 - b) Costs of replacing and compensating injured employees or others;
 - c) Contractual penalties or loss of revenue if flights are delayed;
 - d) Damaged assets (including aircraft and equipment);
 - e) Loss of reputation;
 - f) Loss of existing and future contracts.
- 1.2 Many of these losses will not be covered by insurance. Furthermore, directors, managers and nominated post holders can be held personally accountable for failures to control aircraft safety and occupational health and safety.

2 Health and Safety

Every organisation at an aerodrome is subject to health and safety law. The duties under much of this law place responsibilities on employers, the self employed, and employees.

- 2.1 The duty of employers and the self-employed is to ensure, so far as is reasonably practicable, the health and safety of any individual who might be affected by any work activity within their control. The individuals who may be affected include employees, members of the public, contractors, visitors and other aerodrome users.
- 2.2 Amongst other things, employers need to provide places of work which are safe, provide and maintain work equipment and systems of work which will not cause injury, protect their employees and others from hazards to health.
- 2.3 Employers who share a workplace, whether temporarily (such as an aircraft stand) or permanently, must co-operate and co-ordinate their efforts to ensure a healthy and safe workplace.
- 2.4 Every worker has a duty to take reasonable care for their own health and safety and that of other persons who might be affected by what they do.

3 Hazards on the Apron

- 3.1 Whenever you are on the apron always be aware of slip and trip hazards such as chocks, GPU cables, and spilt liquids. Never step over an obstruction, always walk around it.

You may also be exposed to the following hazards:

- Vehicles striking aircraft and/or people
- Moving aircraft (including aircraft on pushback or being towed)
- Live aircraft engines (including helicopters)
- Falls and falling objects
- Operation of airbridges
- Manual handling
- Noise: APUs, Engines running on adjacent stands, Engine powered GPUs.
- Work equipment (including machinery)
- Hazardous substances and Dangerous Goods (including radioactive substances)
- Inadequate lighting, glare or confusing lights
- Adverse weather conditions (including winter operations)
- Slips and trips from electrical cables, fuel hoses, bonding leads and other ramp equipment
- Electrical hazards: GPUs
- Complacency
- Distractions and lack of awareness
- Lack of familiarity – The ramp can be a busy and dangerous environment.

- 3.2 The risks of injury are increased as passengers are vulnerable and generally unaware of the dangers around them. Furthermore, passengers may inadvertently (or even deliberately) damage aircraft. Directflight and ground handlers all have responsibility for ensuring that the movement of passengers is strictly supervised and controlled.

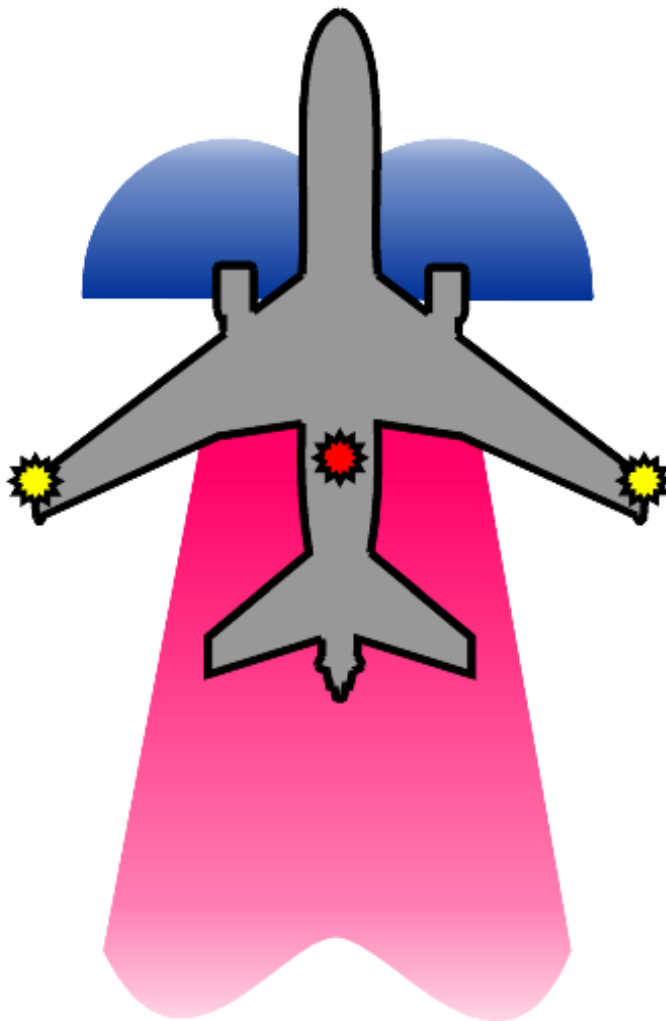
- Passengers are not permitted to roam free;
- Positive control of vehicular traffic is required
- Routes to the aircraft should not pass below aircraft wings or fuel vents or close to propellers or rotors of the aircraft they are boarding/disembarking or those of aircraft on adjacent stands.
- Routes should also be clear of vehicular traffic
- If necessary, passengers should be led to and from the aircraft
- Passengers should be informed of the safe route they should follow
- Personnel should not pass behind running engines.
- Pedestrians should be vigilant at all times on the apron.
- A common indication that aircraft engines are running, or are about to be started, is the illumination of the aircraft's anti-collision beacon(s). These are normally located on the top and underside of the aircraft fuselage. However, the absence of such illumination should not be regarded as proof that the aircraft is safe to approach and the presence of blast and engine noise may not be immediately obvious to a person wearing ear defenders.
- Mobile telephones must not be used on the ramp.

4. Suction - Ingestion

The intake suction of jet engines is a hazard, even at idle power, and the flow characteristics of air into an engine are such that items can be picked up from in front of, from below, and from the sides of the intake. Even small items ingested can damage the engine, but the larger engines are quite capable of ingesting large objects from several metres away with catastrophic effect.

The extent of the danger zone depends on the size of the engine, the mounting height and the power setting. Managers of aircraft handling staff should calculate and promulgate to their staff the safe distances for operating around the types of aircraft they operate. See figure 1.

ENGINE DANGER ZONES



**NEVER APPROACH OR WALK OR DRIVE
BEHIND AN AIRCRAFT UNTIL THE
ENGINES HAVE STOPPED AND THE
ANTI-COLLISION LIGHTS ARE OFF**

Personnel entering the danger zone in front of a running jet engine expose themselves to the risk of being sucked in, almost invariably resulting in serious or fatal injury.

5. Foreign Object Damage

'Foreign object damage' or 'foreign object debris', both abbreviated to FOD, are a potential source of catastrophic damage to aircraft - particularly engines. FOD can also be a tripping or slipping hazard resulting in injury to personnel and passengers.. Please ensure that any items dropped on the ramp are picked up and deposited in a safe place where they cannot be ingested into aircraft engines.

6. Propellers

Everybody must be alert to the dangers of running propellers. Passengers should not be allowed to walk on the apron when propellers are turning. Where it is operationally essential to have the propellers turning, passengers must be effectively controlled.

7. Falls and falling objects

7.1 There must be suitable and effective measures to prevent any person falling a distance likely to cause personal injury. Measures must also be taken to prevent people or aircraft being struck by falling objects.

By its very nature all access equipment has to be used in close proximity to the aircraft.

All personnel are to ensure the correct positioning of the access equipment so that there are no gaps large enough for a person to fall through, platform or its chassis striking the aircraft.

If any damage to the aircraft is suspected, this must be reported immediately to a responsible person for example the aircraft commander or other technical representative of the aircraft operator.

Suitable access equipment should always be used to gain access to heights. Work from surfaces such as vehicle cabs and equipment is not acceptable unless these places have been designed or adapted to make them safe for such work.

7.2 Work at heights above two metres should only be undertaken from equipment fitted with guardrails to all sides, so far as reasonably practicable

Toeboards and/or other protective devices (e.g. a personal belt to which tools can be attached) may be necessary if there is a risk of objects falling and damaging the aircraft or injuring people working below.

It should be remembered that even if falling objects do not directly cause injury or aircraft damage, they can become a source of Foreign Object Debris, or may cause people to trip and be injured.

8 Noise

There are many sources of noise on an aerodrome. Excessive noise exposure can result in both short-term and permanent hearing loss. The primary source of noise on aerodrome aprons are aircraft engines, APUs and support equipment such as mobile ground power units. Many of these sources are highly mobile and exhibit variability in their noise emissions. Therefore, the level of ambient/background noise and, potentially, levels of personal noise exposure, can fluctuate very significantly and can greatly exceed the action levels.

9 Inadequate Lighting, Glare and Confusing Lights

During darkness and periods of low visibility apron areas are normally provided with a good standard of lighting. There can however be many different lights and colours on a busy ramp and these can prove confusing at night. Passengers should be escorted at all times.

10 Adverse weather conditions (including Winter operations)

10.1 Adverse Weather Conditions

Besides snow and ice, other adverse weather conditions affect the safety of aircraft operations on aprons, principally strong surface winds and low visibility conditions. Extreme care should be exercised during these periods of adverse weather.

10.2 Strong Winds

When strong wind conditions are experienced, the first problems encountered are of light FOD being carried across the airfield, causing engine ingestion threats to aircraft on stands, taxiways and runways. Plastic bags and sheeting are particular problems.

As wind speeds rise, baggage containers, unsecured equipment, large debris (mostly from the aprons), can be blown across the Movement Area causing a damage hazard to aircraft and a risk of personal injury and damage to vehicles and equipment by 'flying' debris

10.3 Low Visibility Procedures (LVP)

Aerodrome operators will have in place comprehensive arrangements and rules to safeguard low visibility operations on the manoeuvring area and these issues are not discussed in detail here.

10.4 Winter operations

During winter conditions additional precautions and arrangements are required, by all those involved with airside operations. The de-icing method may introduce slip and trip hazards of its own; Special care should be taken to avoid spillages of water on aprons during freezing conditions.

11 Slips and trips

Slips and trips account for almost a quarter of accidents to people at aerodromes. Whilst some of these accidents are difficult to prevent, many could be avoided. Slips and trips may be caused by a variety of obstructions, loose items and defects in walkways, stairs and other areas. Loose items include FOD, which is of course a source of risk to aircraft as well. Improperly stowed cables from fixed or mobile electrical ground power units can also cause people to trip over. Slips can be caused by spillages, for example from hydraulic leaks.

Poor maintenance of surfaces can also contribute to the risk of slips and trips.

12 Electrical Hazards

There are a variety of sources of electrical hazards on the apron, including lighting, fixed or mobile electrical ground powers units, power supplies to other apron equipment (such as airbridges) and the aircraft itself. Of particular note is the use of ground power units (GPUs).

13. PPE.

High visibility clothing must be worn at all times when operating outside in an airside environment. It must be kept clean and fastened at all times. If it becomes dirty or is blowing behind it becomes ineffective. It is recommended that hearing protection is carried at all times and is worn whenever the environment becomes noisy. Other PPE equipment should be worn where appropriate.