

SECTION 3

APRON SAFETY

3.1 GENERAL

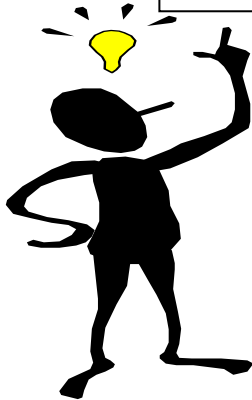
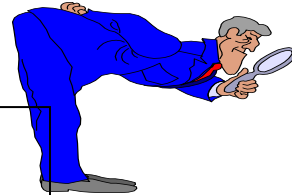
In the aviation industry **safety** is of utmost importance and is the **first commandment**, both in the air and on the ground.

Hasty movements impair one's concentration and control, endangering self and others.
Work calmly.

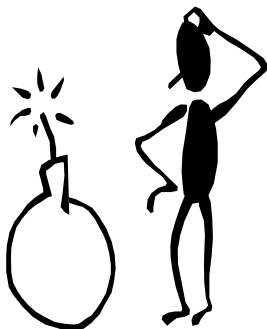
The following regulations must be observed:

1. Airport passes must be displayed at all times by personnel operating on the apron.
2. No person shall deposit or discharge in any manner, garbage/FOD on the airside except in containers provided for that purpose.
3. No person shall smoke or carry a lit cigarette, cigar, match or naked flame on the apron, or any area where such is prohibited.
4. No welding or other hot-work shall be undertaken without prior authorisation.
5. Movement under the aircraft engines and fuselage should be restricted to technical staff and flight crew, only.
6. Stabilisers protruding from vehicles must be clearly painted or labelled with reflector tape or reflectors depicting their potential hazard.
7. Maintenance or washing of vehicles and/or equipment is permitted in designated areas only.
8. Ensure passengers are kept away from the aircraft's wings, engines and fuselage at all times.
9. Never stand behind or in front of aircraft engines while the anti-collision beacon is activated.
10. Never stand behind the engine of other ground support equipment.

Safety Awareness

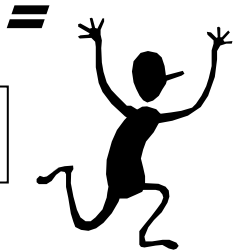


BE SAFETY MINDED



Recognised Danger

Avoidable Danger



Safety depends on you

3.2 HAZARDS OF AIRCRAFT ENGINE

3.2.1 Jet Intake


The air intake of a jet engine is powerful enough to suck in a human body. Even at a distance, the jet engine suction is strong enough to devour loose debris e.g., rags, bolts, paper, stones, catering foils, plastic cups and bags. All these will damage the jet engine.

Pick up all debris from the apron area and deposit it into FOD containers or other waste receptacles provided.

3.2.2 Jet Exhaust

Temperatures of the exhaust can severely burn the skin of a person standing too close. The jet blast or prop wash can exceed 100 mph and is capable of moving or toppling heavy persons or equipment.

REMEMBER

 On arrival of the aircraft, all staff and equipment must remain off the aircraft stand until the aircraft comes to a standstill and the engines are shut down.

On departure of the aircraft, all staff and equipment must be kept clear of area behind the wing, and in front of the engine where there is heavy suction.

3.2.3 Thrust Reversers

The thrust reversers are movable mechanical parts of the jet engine, which reverses the exhaust gas direction during landing to provide a braking effect. In some operations, they are used to reverse aircraft on departure (power back).

When operated, they may extend or retract from the rear of the engine at a rate of approximately 2 metres per second. Anyone standing behind the engine and unaware of the thrust-reverse operation may be severely injured.

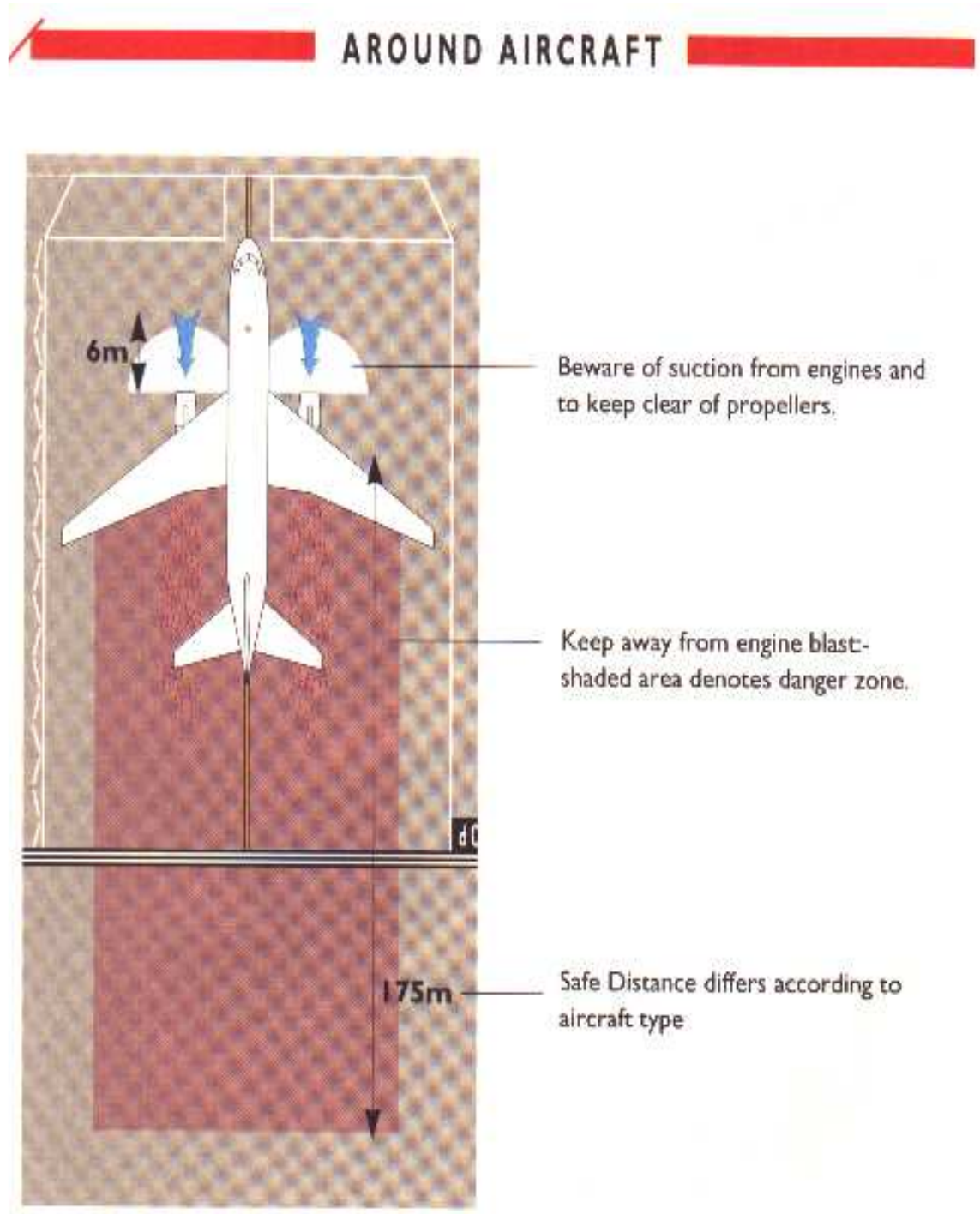


FIG. 3-2

REMEMBER



Never stand behind engines.



On power-back operations stand clear of the engines.



Do not touch engine parts; they can be very hot.



Wheels and brakes can also be very hot.

3.2.4 Propeller-Driven Aircraft and Helicopters

Staff members normally involved with the handling of jet aircraft are extremely susceptible to forgetting the inherent dangers of propeller-driven aircraft and helicopter rotors. Propellers and rotors will always be potential hazards as they operate at head and chest level. Always approach from the front where you can see and be seen by the pilot.

REMEMBER

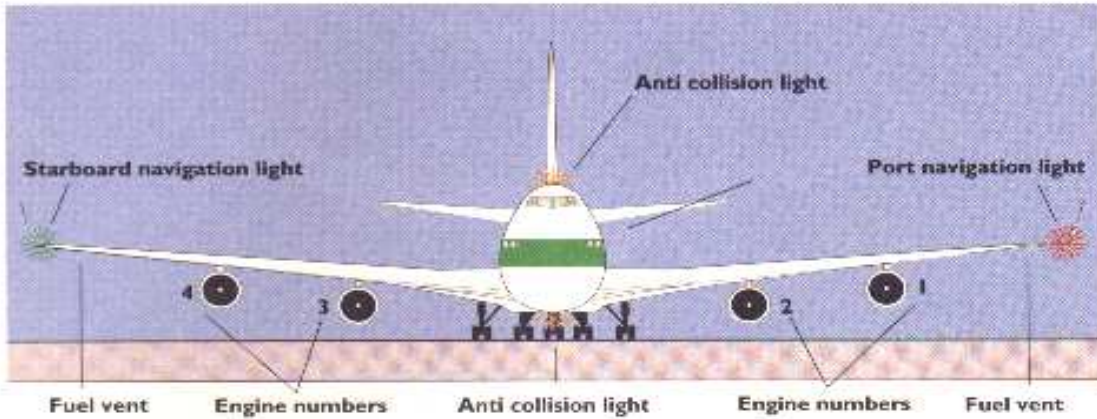


Never walk through or close to aircraft propellers or helicopter rotors, even when they are stationary, because there is no way of telling when they may begin to rotate.

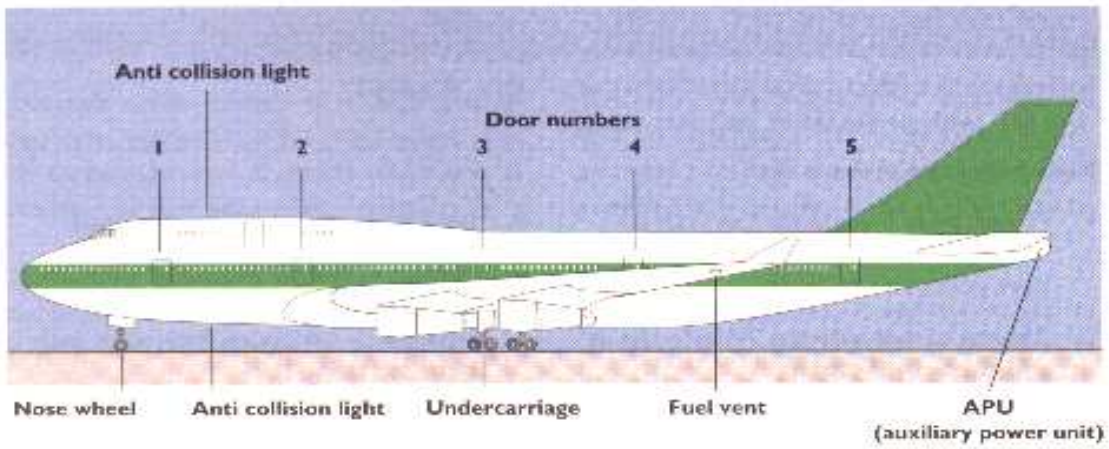
3.2.5 Aerials and other Protrusions

To prevent personal injury from radio aerials, drain masts or ram-air turbines, elevators flaps and ailerons, avoid walking under the fuselage of an aircraft. In addition, the drain masts on certain aircraft heats up in flight and may be extremely hot on arrival.

AIRCRAFT TERMS



front elevation



side elevation

FIG. 3-3

3.3 ACCIDENTS/INCIDENTS

All accidents/incidents must be immediately reported to the Operations Centre.

The following information must be given when the report is being made:

- I. Location of accident/incident
- II. What emergency vehicle is needed (if any)
- III. Equipment involved in the accident/incident
- IV. Any injuries or deaths.

The Operations Centre shall instantly assess the situation and implement immediate corrective action to prevent and minimise disruption to the operations.

Within 24 hours a written report must be submitted by the relevant agency, giving the following in addition to the above:

- I. Time of accident/incident
- II. Names of personnel involved in accident/incident
- III. Owner of equipment involved in accident/incident
- IV. Type(s) of equipment involved in accident/incident.

The operator of any vehicle/equipment involved in an accident, which results in injury or death to a person or damage to property, must immediately stop at the scene of the accident and render assistance as may be necessary.

See Accident/Incident Report Form **(FIG. 3-4)**.

3.3.1. Accidents to Passengers

Apron Attendants **must** observe the operating procedures for the equipment under their charge to ensure that passengers are not exposed to accidents while embarking/disembarking an aircraft.

3.3.2. Accidents to Staff Members

If you are injured it costs the Company time, money and inconvenience. It also causes pain and grief to you and your family and perhaps loss of earnings. Therefore you owe it to yourself, your colleagues and the Company, to maintain a high level of vigilance at all times.

3.3.3. Damage to Aircraft

Damage to aircraft, as minor as it may appear, could be serious since it could affect the safety of aircraft in-flight. Therefore, damage must be reported immediately to the relevant authorities e.g., Operations Centre, airline/handling company supervisor or manager, or Maintenance Department.

3.3.4. Damage to Equipment and Vehicles

It is extremely important both for operational and safety reasons, that all damages to equipment be reported for corrective action.

Do not drive or operate equipment known to be faulty, or if you are not authorised and trained; if you fail to comply, you could be held responsible in the event of an accident.

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MBJ Airports Limited - Accident/Incident Report Form

This form should be completed by the relevant Agency, for each accident as soon as initial reports are received. Immediate report of the accident/incident should be made to the Operations Centre (OC) and this form submitted within three (3) days of the accident/incident.

1. Date: _____ 2. Approximate Time of Accident: _____

3. Airport: _____ 3a. Location: _____

4. Type of equipment involved in accident: (i) _____

(ii) _____

5. Owner of equipment involved in accident: (i) _____

(ii) _____

6. Persons involved in the accident: - staff/airport worker/contractor name(s)

1. Employer: _____

2. Employer: _____

7. Persons involved in the accident: - passenger/visitor name(s)

1. _____ Age: _____ Flight No: _____

Address: _____

2. _____ Age: _____ Flight No: _____

Address: _____

8. Degree and type of injury: Slight () Substantial () Severe ()

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9. Witness(es) to accident:

Name: _____ Address: _____

Name: _____ Address: _____

10. Medical Institution sent: _____

11. By Agency: MBJ () Airline () Other ()

12. Type of Transportation: Ambulance () Car () Other ()

13. Verbal report to Airside Management Control Center (OC):

Date: _____ Time: _____ Reported by: _____

14. Details of Accident/Incident: _____

Name of person completing form:

Signature: _____ Date: _____

FIG. 3-4

Your Safety - The 3 Enemies

1. HABIT



To get used to danger means to overlook it; habit makes one indifferent and careless.

ALWAYS be careful, **AFTERWARDS** is too late.

2. HASTE



Hasty movement impairs your concentration and control, endangering you and others.

Work calmly.

REMEMBER - Death knows no extenuating circumstances.

"The right way is the safety way"

3. THE OTHER PERSON



Always be aware of the other person who may not be observing the rules of safety. No one wants to be the unlucky person who is in the right but lands in the hospital.

FIG. 3-5

3.4 FIRE ON THE APRON

3.4.1 Fire Prevention

Fire prevention is easier than fire-fighting. The following are guidelines designed to minimise fire hazards.

1. Permission to transport or store flammable materials on the airport property, in particularly the apron, requires prior permission from the Chief Operating Officer, or his designate.
2. No person shall operate an acetylene torch, electric arc or similar flame or spark-producing device on any active portion of the airport, unless authorised by the Chief Operating Officer, or his designate.
3. Fire extinguishers on the Apron must be serviceable and clearly tagged showing date of last inspection.
4. Garbage can be a source of fuel and should not be allowed to accumulate; but should be regularly disposed of into designated bins with lids or other approved containers. These should be emptied on a regular basis.
5. Know the location of the fire-fighting equipment, fire alarms and telephones that can be used in an emergency.
7. Know the types of fire-fighting equipment available, their location and how to use them.
8. Report faults and discrepancies in the fire-fighting equipment immediately to supervisor.
9. Know how to call the Fire Services, telephone: 952-2211.
10. Smoking is prohibited on the apron, whether in or out of a vehicle.

3.4.2 Aircraft Fire

1. In the event of an aircraft fire, immediately alert the captain/crew or personnel on board so that an orderly emergency evacuation can be carried out as necessary.
2. If fuel hoses are still attached to aircraft, activate the emergency shut off pull at the closest gate. Notify the Airport Fire Services: 952-2211.
3. If you have been trained in the use of a portable wheeled unit of fire extinguisher, use the closest red (purple K) unit.

3.4.3 Wheel Fire

When responding to a wheel fire, approach with caution from front or rear, **NEVER** from the side. Use the yellow wheel unit fire extinguisher (salt) for extinguishing the fire.

Solid Streams of water or CO₂ should not be used as too rapid cooling of the hot wheel may cause explosive failure of the wheel.

If CO₂ is the only extinguisher available, it should be aimed so the solid stream of CO₂ is deflected off the ground or tyre onto the fire zone, thereby minimising the risk of rapid cooling.

3.4.4 Smoke and Fire Warnings in Aircraft Holds

When an aircraft arrives with a suspected fire or smoke warning in the hold, a full passenger evacuation should be carried out before any hold-door is opened.

Hold-doors must not be opened, except by a fire-fighting crew with the necessary equipment.

Failure to obey this instruction would result in an inrush of air into the hold, which could cause the fire to erupt with explosive forces causing disastrous results if passengers and crew are still on-board the aircraft.

3.4.5 Fire in Unattended Aircraft

When a fire is discovered in an unattended aircraft, immediate action should be taken to extinguish it, either with fire extinguishers available in the aircraft or those situated on the apron. Inform the Fire Department immediately - telephone 952-2211.

Where it is not possible to extinguish the fire with the available equipment, reduce the rate of fire spread by closing the doors and hatches etc. Inform the Fire Department as quickly as possible.

3.5 PERSONAL SAFETY

1. Never attempt to lift more than your personal physical capabilities.
2. Lifting should be done with legs and arms while the back is kept as straight as possible.
3. Desist from wearing jewelry such as chains and bracelets as these are prone to catching on handles, locks and straps of baggage/cargo or on conveyor belts, which can result in severe injury.
4. To avoid injuries to the feet and toes, cargo must be set down easily and not dropped.
5. Appropriate protective gear must be worn during operations. e.g., gloves, ear plugs/defenders, safety boots etc.
6. Ensure that baggage carts are loaded evenly so as to prevent tumbling that can result in accident/injury.
7. When hitching carts and tractor/tow tugs, attendants must ensure that hitches are securely latched.
8. Always unload baggage/cargo from the top so as to avoid untimely spillage that can cause injuries.
9. Ensure that the tow-bars of baggage carts, which also usually function as brakes, are properly set to prevent:
 - accidental rolling away
 - personal injury from the tow-bar falling.

10. Walking on moving baggage conveyor belts is prohibited.

11. **REMEMBER** that oily or wet surfaces increase the risk of accidents. Oily or wet boots can slip-off brake pedals, which can result in accidents.

3.6 PROTECTIVE GEAR

Appropriate protective gear should be worn at all times while engaged in duty.

1. Working Shoes

- a. Wear safety shoes when on duty to protect feet from injury.
- b. Beware of nails, or iron plates attached to shoes that may cause sparks.

2. Hearing Protection

The noise level of aircraft engines, Ground Power Unit, Auxiliary Power Unit, Air Start Unit, and Tugs can cause permanent damage to your hearing. Therefore, always ensure ear defenders, earplugs or earmuffs are worn while on duty.

3. Hand Protection

Always wear industrial leather gloves to protect hands from damage when handling cargo/baggage or equipment.

4. Head Protection

Safety Hats
Others

5. Protective Clothing

Rain Gear
Vest
Lifting/Back support Belt

6. Eye Protection

Safety Glasses
Face Shields
Mono goggles

7. Nose Protection

Dust masks
Respirators

8. Flashlight

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PROTECTIVE CLOTHING



FIG. 3-6

3.7 APRON ATTENDANTS' RESPONSIBILITY

3.7.1 General

1. Marshal the aircraft using the approved marshalling procedure.
2. Wands must be used when marshalling an aircraft. Glow wands should be used at nights.
3. When the aircraft stops, the chocks are to be placed behind and in front of the nose wheels and the "**chocks on**" signal is to be given to the Captain for brake release and engine shut down. Only then should passengers be allowed to deplane.
4. Await the Captain's signal to remove chocks, which should then be stowed. The Captain is to be advised if chocks are being removed before his signal.
5. Chocks removed, proceed at your discretion after the proper signals from the flight crew. Ensure all areas around the aircraft are clear before signalling the crew to release brakes.

3.7.2 Positioning of Cones

When an aircraft is parked at its assigned position, obstruction cones should be positioned to avoid damage to aircraft and persons.

- Obstruction cones should be placed along the periphery of the wing overhang and horizontal stabilizer.
- When aircraft are to overnight, obstruction cones are to be laid out around the aircraft. These cones should be banded with reflective tape or lit.

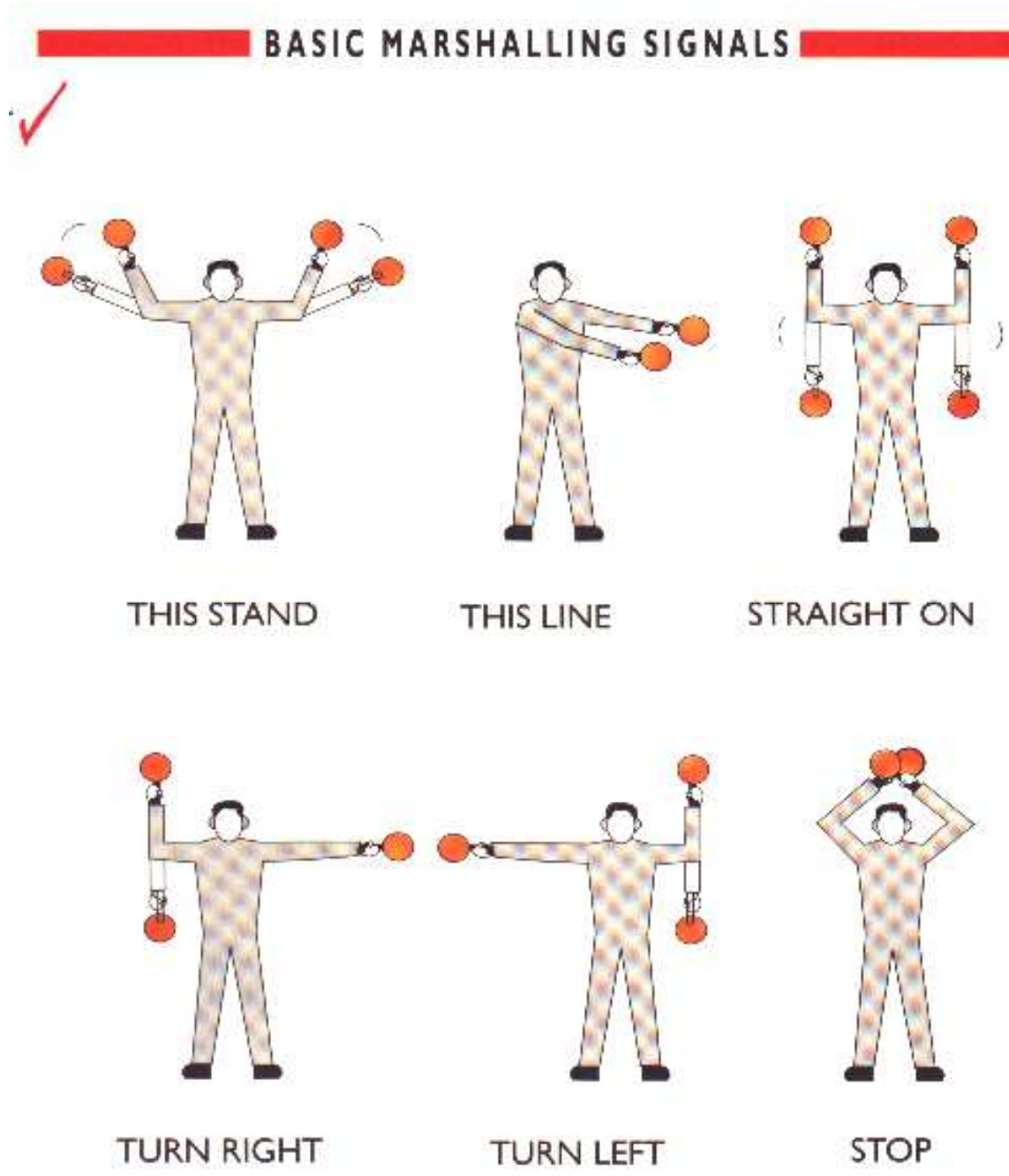
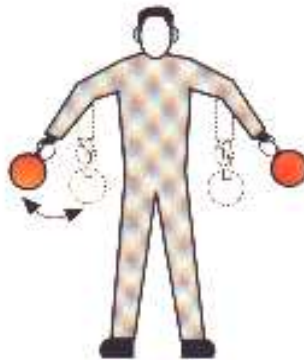


FIG. 3-7

BASIC MARSHALLING SIGNALS



PASS ON



SLOW DOWN



CUT ENGINES



CHOCKS IN



FINISHED
MARSHALLING



KEEP ENGINES
RUNNING

FIG. 3-8