XXX42   Manage safety procedures, security risks, emergencies, and aviation medicine on board an aircraft

Kaupae | Level	4
Whiwhinga | Credit	30
Whāinga | Purpose	The purpose of this skill standard is to enable flight attendants to manage safety, security, and medical emergencies on board an aircraft.
	This skill standard has been developed primarily for assessment within programmes leading to the New Zealand Certificate in Aviation (Flight Attendant) (Level 4) with optional strand in Operator Specific Operational Flight Attending [Ref: 2881].

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako | Learning outcomes	Paearu aromatawai | Assessment criteria
1. Communicate abnormal conditions of aircraft components that may affect safety to the flight crew using aviation industry terminology.	a. Identify aircraft major structural and subsidiary components in terms of normal appearance, function and position when on board an aircraft.
	b. Communicate aircraft component condition using aviation industry terminology.
2. Manage, as a flight attendant, safety procedures on board an aircraft throughout a flight.	a. Complete normal pre-flight, in-flight, and post-flight safety procedures.
	b. Manage safety procedures during abnormal flight conditions.
3. Manage air services emergencies on board an aircraft.	a. Evaluate an emergency in an aircraft.
	b. Prepare passengers and the aircraft cabin for an emergency on board an aircraft.
	c. Provide assistance to passengers in the event of an emergency on board an aircraft.
	d. Evacuate passengers under emergency conditions.
	e. Carry out in-flight firefighting procedures on board an aircraft.
4. Manage security risks on board an aircraft.	a. Assess security risks on board an aircraft.
	b. Apply procedures for responding to security risks on board an aircraft.
5. Manage aviation medicine relating to aircrew and passengers.	a. Identify via observation and assessment, medical problems that commonly affect aircrew and passengers in-flight, according to the symptoms presented.
	b. Manage medical problems that commonly affect aircrew and passengers in-flight.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Enterprise procedures refer to the expected performance required by the enterprise in which credit for this skill standard is being sought. Such performance may be specified in enterprise procedures as indicated in manuals, guidelines, checklists, information bulletins, and Civil Aviation Authority of New Zealand (CAA) documentation, New Zealand Defence Force policy, and the International Air Transport Association (IATA) Medical Manual.

Flight attendant is used as a generic term, and therefore includes other terms used in different aviation enterprises, e.g. purser, cabin attendant, and cabin crew.

Evidence for this skill standard may be obtained in an aircraft and/or a fully operational cabin trainer suitable for all aspects of flight attendant training.

All activities relevant to this standard must reflect ngā kaupapa (articles) of te Tiriti o Waitangi OR the principles of the Treaty of Waitangi.

All activities must, as relevant to candidates and/or this standard, reflect the peoples of the Pacific and other cultures, and their world views.

Programme developers are encouraged to consider weaving the concepts of Manaakitanga through the learning and assessment of this standard. Manaakitanga is an ethic of thoughtfulness, generosity and caring for others. Manaakitanga acknowledges a whānau-centred approach towards improving the quality of life, the fostering of respectful relationships and to enhance the mana of others health and well-being.

Ngā momo whiwhinga | *Grades available*
Achieved

Ihirangi waitohu | Indicative content

Major components of an aircraft

* Major structural components e.g. fuselage, wings, tailplane, fin, landing gear, engines, propellers.
* Subsidiary components e.g. flight control surfaces, flaps, ailerons, leading edge devices, spoilers, thrust reversers.
* Abnormal conditions of major structural components e.g. fuselage, wings, tailplane, fin, landing gear, engines, propellers.
* Abnormal conditions of subsidiary components e.g. flight control surfaces, flaps, ailerons, leading edge devices, spoilers, thrust reversers.

Aircraft safety and emergency equipment

* Equipment used in an aircraft for emergency e.g. fire extinguisher, protective breathing equipment (PBE), etc.
* Use of aircraft safety and emergency equipment in emergency situations.

Safety procedures on board

* Normal pre-flight safety procedures e.g. safety checks, emergency and safety equipment checks.
* Door procedures.
* Passengers requiring possible attention e.g. passengers who may require assistance, intoxicated passengers.
* Passengers who may provide assistance e.g. travelling crew, airline staff, fit and strong, travelling alone, able to understand and communicate.
* Safety demonstration.
* Cabin safety checks prior to take-off e.g. carry-on baggage stowed, tray tables folded away, footrests folded away, seat backs upright, window blinds raised/open, inappropriately seated passengers relocated.
* Management of safety procedures during an abnormal flight condition e.g. aborted or rejected take-off, bird strike, dumping fuel, engine shutdown, go-around or overshoot, landing gear failure, lightning strike, turbulence, volcanic eruptions or other environmental occurrences etc.
* Post-flight safety procedures e.g. door arrival procedures, passenger disembarkation and flight safety documentation completed.

Air services emergencies

* Emergencies in an aircraft and crew roles during an emergency e.g. critical success factors and risks in managing the emergency, accountabilities and job roles for key cabin crew managing the emergency, how the cabin crew could respond to the emergency.

- Preparation of passengers e.g. passenger handling, emergency and survival procedures, communications between crew and passengers.
- Creation of a secure and controlled environment.
- Identification and method of assisting passengers requiring specific assistance e.g. children, elderly, specific needs passengers, passengers with medical conditions, pregnant women, obese passengers.
- Method of managing self and others under emergency conditions e.g. passenger responses, personal threat, environmental crisis.
- Passenger evacuation techniques.
- Emergency and/or survival equipment used in an evacuation.
- Post-evacuation passenger management e.g. keep passengers in a group, move passengers away from aircraft, conduct a head count against the manifest.
- Post-crash responsibilities e.g. first aid, protection from the environment, preparation of emergency and/or survival equipment, water supplies, food supplies, create an assembly point, ascertain number of passengers on board, injured, uninjured, missing, maintain a log.
- Aircraft emergency and/or survival equipment e.g. first aid kit, flare, life jacket, life raft, lithium chloride crystals, loud-hailer, protective equipment, radio locator beacon, sea-dye marker, signalling device, survival kit, torch, whistle.
- Survival skills, including coping with inherent hazards.

In-flight firefighting

- Basic principles of fire suppression and techniques for suppressing fire.
- Knowledge of firefighting equipment used on board an aircraft e.g. Halon 1211 bromochlorodifluoromethane (BCF) extinguishers, water, protective breathing equipment, crash axe, fire blankets, heat resistant gloves; may include – Halon 1301 bromotrifluoromethane fixed extinguishers.
- Firefighting equipment required for the type and class of fire and equipment is described in terms of its purpose, operation, and limitations on different fire classes.
- Hazards and safety requirements when using equipment.
- Fire assessment with due consideration of the risk to people and property, and the possible consequences of using an extinguisher within the confined space of an aircraft.
- Safety actions taken e.g. relocation of people in immediate danger, alerting others, notification of flight crew.
- Cabin conditions monitored, and action taken to reduce discomfort to passengers.
- Complications of fire on board an aircraft.
- Methods for dealing with complications of fire.
- Identification of source of fire.

Security risks on board

- Security risks on board an aircraft e.g. passenger behaviour, unaccompanied items, accompanied items, intoxicated persons.
- Procedures for responding to security risks on board an aircraft.
- Documentation and presentation of a security incident.

Aviation medicine

- Behaviours of gases in the human body during changes in atmospheric pressure e.g. Boyle's law, Charles's law, Dalton's law, Henry's law.
- Normal respiration and oxygen circulation in the human body.

- Changes in atmospheric pressure, as they relate to the human body.
- The effects of changes in pressure on gas containing compartments of the body e.g. gut, lungs, middle ear, sinuses, teeth.
- Common illnesses onboard e.g. hypoxia, hyperventilation, decompression sickness, dehydration.
- Medical problems e.g. hypoxia, hyperventilation, decompression sickness, dehydration.
- The use of oxygen and the precautions to be taken.

Rauemi | Resources

- Rainford, D. and Gradwell, D., Ernsting's Aviation and Space Medicine 5E (5th ed.), (Florida, USA: CRC Press, 2016).
- IATA, Medical Manual (12th ed.), (Montreal, Canada: International Air Transport Association, 2020)

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa | Standard Setting Body	Ringa Hora Services Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai | DASS classification	Service Sector > Aviation > Flight Attendants
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga | CMR	0028

Hātepe | Process	**Putanga |** Version	**Rā whakaputa |** Review Date	**Rā whakamutunga mō te aromatawai |** Last date for assessment
Rēhitatanga | Registration	1		N/A
Kōrero whakakapinga | Replacement information	This skill standard replaced unit standards 9244, 9245, 21844, 21845, 21846, 25454, and 25457.		
Rā arotake | Planned review date	31 December 2029		

Please contact Ringa Hora Services Workforce Development Council qualifications@ringahora.nz if you wish to suggest changes to the content of this skill standard.