

GENERAL CONDITIONS OF TRANSPORT

Valid as of March 1st, 2017

1. Scope of application

The following general conditions of transport (the "GCT") of Arcus-Air GmbH & Co.KG, Berliner Allee 31, 66482 Zweibrücken, Germany ("AA") form an integral part of all contracts of transport (the "Contracts") between AA and the customer (the "Customer"), subject to any mandatory Applicable Standard (as defined hereafter).

2. Applicable Standard

All Contracts and the services provided by AA thereunder are subject to international and national laws and regulations, in particular to the Convention for the Unification of Certain Rules for International Carriage by Air (Montreal, 28 May 1999, the "Montreal Convention"¹) and the Convention for the Unification of Certain Rules relating to International Carriage by Air (Warsaw, 12 October 1929, the "Warsaw Convention"²), as applicable as well as all other applicable national and international rules and regulations, operational standards of the aircraft operator and the restrictions as required by the insurers (the "Applicable Standard").

3. Aircraft used

AA does not operate own aircraft but subcontracts and arranges for the operation of the contracted flights by an affiliate of AA. The same applies for additional services (such as special catering or ground transportation) arranged for upon the Customer request. In the event that the offered or booked aircraft is not available due to reasons beyond AA's reasonable control or for technical reasons, AA reserves the right to arrange for, without prior notice, a different but as far as possible, similar aircraft at the same price for the agreed flights and the Customer hereby irrevocably agrees to such arrangement.

4. Limitation of liability and representations

4.1 General Limitation of liability and representations

To the extent legally permitted by law and the Applicable Standard, AA shall not be held liable by the Customer out of or in connection with its obligations under the Contracts other than for direct damage or losses which have been caused by AA's willful misconduct or by its gross negligence. In particular, the Customer shall not be entitled to assert any responsibility on the part of AA for damages or losses related to any services arranged for by AA under the Contract for the benefit of the Customer with the aircraft operator or other third party supplier, unless such damages or losses have been caused by AA's willful misconduct or gross negligence, provided that AA agrees to assign its claims against the provider of such services to the Customer upon request. Without limiting the generality of the foregoing, AA shall in particular not be liable for any indirect, special or consequential damages including, without limitation, loss of profit and/or punitive damages of any kind or nature under any circumstances or for any reasons including, but not limited to, indirect losses suffered by the Customer or any other person as a result of any delay or failure by AA, the aircraft operator or any other supplier providing the services or operating the aircraft under the Contract. The Customer is aware that AA's liability will be reduced or AA will be exonerated, subject to the Applicable Standard, by the negligence or other wrongful act or omission of the person claiming compensation or any third party to the extent that such negligence or wrongful act or omission caused or contributed to the damage. Any liability by AA is reduced by payments made or reasonably expected from insurers or liable third parties. These limitations of liability also apply to AA's employees, agents and representatives as well as to third parties, whose aircraft AA arranges for, including their respective employees, agents and representatives. All warranties, conditions and representation which are stated expressly in this

¹ Retrievable at <https://www.admin.ch/opc/de/classified-compilation/20031862/index.html>, which has also been implemented by the European Union by Regulation (EC) No 2027/97 (as amended by Regulation (EC) No 889/2002).

² Retrievable at <https://www.admin.ch/opc/de/classified-compilation/19290056/index.html>; including the amendment signed in The Hague on 28 September 1955, the supplement signed in Guadalajara on 18 September 1961, the amendment signed in Guatemala City on 8 March 1971 and the additional protocols No. 1, 2 and protocol No. 4 signed in Montreal, retrievable at <https://www.admin.ch/opc/de/classified-compilation/0.74.html>, respectively.

GCT and the Contract shall apply but all warranties, conditions and representations implied by statutory law or otherwise are, to the fullest extent permitted by law, excluded.

4.2 Indicative limited strict liability for death and personal injury under the Montreal Convention

As an indication only, in the event AA is liable for death and/or personal injury and insofar the Montreal Convention is applicable, AA is possibly strictly liable for damage not exceeding 113'000 special drawing rights (the "SDR's"³) per passenger, but may, however, defend itself against any further damage claimed by providing evidence that its actions were neither negligent nor otherwise culpable.

4.3 Limitation to maximum liability amounts and indicative amounts under the Montreal Convention for delays and baggage damage

Further to the applicable limitation according to Clause 4.1 above, AA's liability for delays and baggage damage is, in any case, limited to the maximum liability amount pursuant to the Applicable Standard. As an indication only and in the event the Montreal Convention is applicable, the maximum liability amount per passenger is 4'694 SDR's for delays and 1'131 SDR's for baggage damage.

5. Flight times and required permits

AA is committed to arrange the transportation of passengers and their baggage in an efficient manner and on time. The flight times calculated by AA are based on the performance of the aircraft under regular circumstances. However, AA may at its sole discretion change the flight times or other flight parameters due to the influence of unfavorable weather conditions experienced on the day of the flight, unforeseeable technical failures, ATC restrictions, strikes or other causes, in particular Force Majeure⁴, which AA cannot be held responsible for. Considering flight safety, the departure and arrival times stated in the Contracts cannot be guaranteed and AA does not guarantee nor does it assume any liability for meeting connecting flights. All obligations assumed by AA under the Contracts are conditional upon receipt and continuing validity of all necessary landing permits, off-field landing permits, approvals to fall below the minimum safe altitude, slots and other required permits for the flight. If such permits are necessary, but have not been granted, AA shall not be held liable unless the reason for the refusal of the permissions was self-inflicted.

6. Travel documents and entry requirements

The Customer is responsible for ensuring that he or she and all passengers have all the necessary valid travel documents and visas required at the destination or any stop-over. AA is not responsible for the observance of regulations governing the entry of passengers. If AA is required to pay fees for missing documents or visas, the Customer agrees to hold harmless and indemnify AA in this regard.

7. Ticket Prices

Unless otherwise agreed in writing, the ticket prices are calculated as individual offers. The offers are limited in time. The ticket price does not include the following charges:

- ▮ incidental fees;
- ▮ insurance surcharges for countries that are excluded from regular insurance;
- ▮ cost of delays or alternate landing and associated accommodation costs caused by bad weather or decisions made by air traffic control and/or other authorized authorities;
- ▮ cost of waiting times
- ▮ de-icing fees;
- ▮ special catering;
- ▮ cost for limousine transfers, taxi, etc.

Unless otherwise agreed, the ticket price must be paid prior to departure. AA is entitled to withhold its services until the ticket price has been paid. If wages, salaries, operational costs (in particular fuel prices), government levies, fees and taxes, etc. increase after the order has been confirmed or during the Contract period, the Customer shall compensate AA, upon

³ As defined in article 23 of the Montreal Convention.

⁴ "Force Majeure" shall mean any unusual and unforeseeable event, which is beyond AA's control and the consequences of which could not have been avoided, even with all due care.

presentation of written documentation thereof, provided the increase is more than 3% of the respective matter of expense and the period between conclusion of the Contract and the operation of the flight is more than 2 months.

8. Cancellation charges

For cancellations of flight bookings, the Customer is charged as follows:

- | | |
|---|-----------------------|
| 1. From booking until 15 Full Days ⁵ before Takeoff ⁶ : | 5% of TP ⁷ |
| 2. Thereafter until 6 Full Days before Takeoff: | 20% of TP |
| 3. Thereafter until 3 Full Days before Takeoff: | 50% of TP |
| 4. Thereafter until 24 hours before Takeoff: | 80% of TP |
| 5. Less than 24 hours or No Show ⁸ : | 100% of TP |

The Customer has the right to prove that the damage for AA is less than the above percentages and AA has the right to prove that the damage is higher. If, in the case of flights with multiple destinations, the flight cannot be continued for reasons AA cannot be held accountable, the portion of the flight completed must be paid for. The respective costs are calculated and/or reduced in relation to the scheduled flight time and the actual flight time, plus all necessary positioning and return flights. If, due to bad weather, an alternate airport must be used or if additional accommodation, etc. is required, the additional costs must be paid separately by the Customer.

9. Alteration of flight

AA will do its best to accommodate the Customer requests to alter a flight reservation (including but not limited to a change of route, an extension of flight time, a new or additional destination or a change in the number of passengers, payload, etc.) and therewith the respective Contract, provided it is operationally feasible and any resulting additional costs are borne by the Customer. However, AA is not obliged to accept the amendment of the Contract, whereupon the Customer can cancel the Contract subject to Clause 8.

10. Delay of passengers

AA is obliged to wait for passengers for up to 30 minutes after the scheduled departure time (the "Grace Period"). If the passengers do not show up within the Grace Period, AA has the right to cancel the flight according to Clause 8. The flight is then classified as a "No Show" and must be paid for. AA endeavors to wait for passengers longer if the Customer notifies AA of the estimated delay of the passengers until expiry of the Grace Period. However, AA is not obliged to wait for passengers for longer than the Grace Period and may exercise its right to cancel the flight according to Clause 8 in its sole discretion, e.g. in order to operate flights from other orders or to meet any other obligations or business needs. In the event, AA waits for longer than the Grace Period, AA is entitled to charge the Customer for any additional costs incurred in connection with the delay.

11. Baggage Requirements

11.1 General

Items of luggage that are of non-standard size (bulky items) can only be transported if this has been separately agreed and provided the item can be safely stored and loaded. Per passenger, one suitcase (checked baggage) and one carry-on bag (cabin baggage) with standard dimensions can be carried without prior agreement. Pets can be carried in the cabin if agreed on in advance with AA.

11.2 Maximum weights

The maximum weight of a passenger's luggage is limited to [96kg]. The extra weight of one passenger's luggage cannot be offset against the lower weight of another passenger's luggage. Excess weight must be separately agreed. If the excess weight is only evident when the passenger arrives at the departure location and if due to the excess load the flight can only be operated by leaving a passenger or luggage

behind, the Customer is still obliged to pay the full fare. If the flight cannot be operated due to the weight or if the Customer does not wish to proceed, he/she will be charged as in the case of a No Show according to Clause 8.

11.3 Prohibited items in general

For security reasons, passengers are prohibited from carrying items/materials included on the IATA List – Dangerous Goods Regulations. A copy of this list (LIST OF PROHIBITED ARTICLES) is attached hereto in the most recent version known to AA. AA reserves the right to refuse the carriage of other dangerous objects. Passengers are not permitted to carry prohibited items into security restricted areas and on board an aircraft:

11.4 Provisions for dangerous goods

Passengers are obliged to assure that both checked and carry-on baggage comply with the IATA Dangerous Goods Regulations, as attached hereto in the latest version known to AA, that operator approval is given for items that require such, and that the pilot in command is informed of the location of items that require such.

12. Personal data

The Customer is aware that AA collects and stores personal data related to the travel of the passengers during the booking and reservation of a flight and the Customer hereby authorizes AA on behalf of all passengers to transfer such data to authorities of countries, which request such data for security and immigration purposes or any other third party subject to the Applicable Standard. Thus the Customer is aware and hereby irrevocably agrees that this data could be transferred to countries where data protection is not provided to the same extent as under German law.

13. Deficiencies and no set-off claims

Claims for deficiencies in the operation of the flight must be asserted or notified in writing immediately after the flight. The Customer hereby waives any claims for deficiencies out of or in connection with the Contract asserted later than 2 months after the flight. The Customer agrees that all payments due by the Customer under the Contract shall be made without set-off, unless agreed in writing by AA.

14. General provisions

The Customer shall not assign any of its rights under or in connection with the Contract without the prior written consent of AA, whereas AA may assign, transfer or otherwise deal in all or any of its rights and obligations under the Contract at its sole discretion. Nothing herein and in the Contract shall constitute a partnership between or joint venture by the Customer and AA or constitute either to be the agent of the other. Should any provision of the GCT be or become illegal, invalid or unenforceable in any jurisdiction, then that will not affect the legality, validity or enforceability in that jurisdiction of any other provision of the GCT, nor the legality, validity or enforceability in any other jurisdiction of that or any other provision. In case of any discrepancy between the GCT and any translated versions, these English GCT shall prevail. Any modification to the GCT or deviation thereof is only valid if agreed in writing. These GCT shall be valid as of January 1st, 2017.

15. Governing law and place of jurisdiction

This contract is subject to the law of
FEDERAL REPUBLIC OF GERMANY
to the exclusion of the UN sales law.

The place of jurisdiction for all legal disputes arising from or in connection with this contract is

FRANKFURT AM MAIN.

⁵ One "Full Day" shall mean a full 24 hours.

⁶ "Takeoff" shall mean the scheduled departure time.

⁷ "TP" shall mean the gross ticket price.

⁸ "No Show" shall have the meaning ascribed to such term pursuant to Clause 8.

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Table 8-1. Provisions for dangerous goods carried by passengers or crew

Dangerous Goods	Location		Approval of the operator(s) is required	Restrictions
	Checked baggage	Carry-on baggage		
Batteries				
1) Lithium batteries (including portable electronic devices)	Yes (except for g) and h))	Yes	(see c) and d))	<p>a) each battery must be of a type which meets the requirements of each test in the <i>UN Manual of Tests and Criteria</i>, Part III, subsection 38.3;</p> <p>b) each battery must not exceed the following:</p> <ul style="list-style-type: none"> — for lithium metal batteries, a lithium content of 2 grams; or — for lithium ion batteries, a Watt-hour rating of 100 Wh; <p>c) each battery may exceed 100 Wh but not exceed 160 Wh Watt-hour rating for lithium ion with the approval of the operator;</p> <p>d) each battery may exceed 2 grams but not exceed 8 grams lithium content for lithium metal for portable medical electronic devices with the approval of the operator;</p> <p>e) batteries contained in portable electronic devices should be carried as carry-on baggage; however, if carried as checked baggage:</p> <ul style="list-style-type: none"> — measures must be taken to prevent unintentional activation and to protect the devices from damage; and — the devices must be completely switched off (not in sleep or hibernation mode); <p>f) batteries and heating elements must be isolated in portable electronic devices capable of generating extreme heat, which could cause a fire if activated, by removal of the heating element, battery or other components;</p> <p>g) spare batteries, including power banks:</p> <ul style="list-style-type: none"> — must be carried as carry-on baggage; and — must be individually protected so as to prevent short circuits (by placement in original retail packaging or by otherwise insulating terminals, e.g. by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch); <p>h) baggage equipped with lithium battery(ies) exceeding:</p> <ul style="list-style-type: none"> — for lithium metal batteries, a lithium content of 0.3 grams; or — for lithium ion batteries, a Watt-hour rating of 2.7 Wh <p>must be carried as carry-on baggage unless the battery(ies) is removed from the baggage, in which case the battery(ies) must be carried in accordance with g);</p> <p>i) no more than two spare batteries meeting the requirements of c) or d) may be carried per person.</p>

	<i>Dangerous Goods</i>	<i>Location</i>		<i>Approval of the operator(s) is required</i>	<i>Restrictions</i>
		<i>Checked baggage</i>	<i>Carry-on baggage</i>		
2)	Non-spillable batteries	Yes	Yes	No	<p>a) must meet the requirements of Special Provision A67;</p> <p>b) each battery must not exceed a voltage of 12 volts and a Watt-hour rating of 100Wh;</p> <p>c) each battery must be protected from short circuit by the effective insulation of exposed terminals;</p> <p>d) no more than two spare batteries per person may be carried; and</p> <p>e) if contained in equipment, the equipment must be either protected from unintentional activation, or each battery must be disconnected and its exposed terminals insulated.</p>
3)	Battery-powered portable electronic smoking devices (e.g. e-cigarettes, ecigs, ecigars, epipes, personal vaporizers, electronic nicotine delivery systems)	No	Yes	No	<p>a) if powered by lithium batteries, each battery must comply with restrictions of 1) a), b) and g);</p> <p>b) the devices and/or batteries must not be recharged on board the aircraft; and</p> <p>c) measures must be taken to prevent unintentional activation of the heating element while on board the aircraft.</p>
4)	Battery-powered mobility aids (e.g. wheelchairs)	Yes	(see d))	Yes	<p>a) for use by passengers whose mobility is restricted by either a disability, their health or age, or a temporary mobility problem (e.g. broken leg);</p> <p>b) the passenger should make advance arrangements with each operator and provide information on the type of battery installed and on the handling of the mobility aid (including instructions on how to isolate the battery);</p> <p>c) in the case of a non-spillable wet battery:</p> <ul style="list-style-type: none"> i) each battery must comply with Special Provision A67; and ii) a maximum of one spare battery may be carried per passenger; <p>d) in the case of a lithium ion battery:</p> <ul style="list-style-type: none"> i) each battery must be of a type which meets the requirements of each test in the <i>UN Manual of Tests and Criteria</i>, Part III, subsection 38.3; ii) when the mobility aid does not provide adequate protection to the battery: <ul style="list-style-type: none"> — the battery must be removed in accordance with the manufacturer's instructions; — the battery must not exceed 300 Wh; — the battery terminals must be protected from short circuit (by insulating the terminals, e.g. by taping over exposed terminals); — the battery must be protected from damage (e.g. by placing each battery in a protective pouch); and — the battery must be carried in the cabin; iii) a maximum of one spare battery not exceeding 300 Wh or two spare batteries not exceeding 160 Wh each may be carried. Spare batteries must be carried in the cabin.

Dangerous Goods	Location		Approval of the operator(s) is required	Restrictions
	Checked baggage	Carry-on baggage		
Flames and fuel sources				
5) Cigarette lighter Small packet of safety matches	No	(see b))	No	a) no more than one per person; b) must be carried on the person; c) must not contain unabsorbed liquid fuel (other than liquefied gas); and d) if a cigarette lighter is powered by lithium batteries, each battery must comply with restrictions of 1) a), b) and g) and 3) b) and c).
6) Alcoholic beverages containing more than 24 per cent but not more than 70 per cent alcohol by volume	Yes	Yes	No	a) must be in retail packagings; and b) no more than 5 L total net quantity per person. <i>Note.—Alcoholic beverages containing not more than 24 per cent alcohol by volume are not subject to any restrictions.</i>
7) Internal combustion engines or fuel cell engines	Yes	No	No	Measures must be taken to nullify the hazard. Refer to Special Provision A70 for more information.
8) Fuel cells containing fuel	No	Yes	No	a) fuel cell cartridges may only contain flammable liquids, corrosive substances, liquefied flammable gas, water reactive substances or hydrogen in metal hydride;
Spare fuel cell cartridges	Yes	Yes	No	c) refuelling of fuel cells on board an aircraft is not permitted except that the installation of a spare cartridge is allowed; d) the maximum quantity of fuel in any fuel cell or fuel cell cartridge must not exceed: — for liquids 200 mL; — for solids 200 grams; — for liquefied gases, 120 mL for non-metallic fuel cell cartridges or 200 mL for metal fuel cell or fuel cell cartridges; and — for hydrogen in metal hydride, the fuel cell or fuel cell cartridges must have a water capacity of 120 mL or less; e) each fuel cell and each fuel cell cartridge must conform to IEC 62282-6-100 Ed. 1, including Amendment 1, and must be marked with a manufacturer's certification that it conforms to the specification. In addition, each fuel cell cartridge must be marked with the maximum quantity and type of fuel in the cartridge; f) fuel cell cartridges containing hydrogen in metal hydride must comply with the requirements in Special Provision A162; e) no more than two spare fuel cell cartridges may be carried by a passenger;

Dangerous Goods	Location		Approval of the operator(s) is required	Restrictions
	Checked baggage	Carry-on baggage		
				<p>g) fuel cells containing fuel are permitted in carry-on baggage only;</p> <p>h) interaction between fuel cells and integrated batteries in a device must conform to IEC 62282-6-100 Ed. 1, including Amendment 1. Fuel cells whose sole function is to charge a battery in the device are not permitted;</p> <p>i) fuel cells must be of a type that will not charge batteries when the portable electronic device is not in use and must be durably marked by the manufacturer: "APPROVED FOR CARRIAGE IN AIRCRAFT CABIN ONLY" to so indicate; and</p> <p>j) in addition to the languages which may be required by the State of Origin for the markings specified above, English should be used.</p>
Gases in cylinders and cartridges				
9) Cylinders of oxygen or air required for medical use	Yes	Yes	Yes	<p>a) no more than 5 kg gross mass per cylinder;</p> <p>b) cylinders, valves and regulators, where fitted, must be protected from damage which could cause inadvertent release of the contents;</p> <p>c) advance arrangements recommended; and</p> <p>d) the pilot-in-command must be informed of the number of oxygen or air cylinders loaded on board the aircraft and their loading location(s).</p>
10) Cartridges of Division 2.2 worn for the operation of mechanical limbs	Yes	Yes	No	Spare cartridges of a similar size are also allowed, if required, to ensure an adequate supply for the duration of the journey.
11) Cartridge of hydrocarbon gas contained in hair styling equipment	Yes	Yes	No	<p>a) no more than one per person;</p> <p>b) the safety cover must be securely fitted over the heating element; and</p> <p>c) spare cartridges must not be carried.</p>
12) Cartridges of Division 2.2 with no subsidiary hazard fitted into a self-inflating personal safety device such as a life-jacket or vest	Yes	Yes	Yes	<p>a) no more than one personal safety device per person;</p> <p>b) the personal safety device must be packed in such a manner that it cannot be accidentally activated;</p> <p>c) must be for inflation purposes;</p> <p>d) no more than two cartridges are fitted into the device; and</p> <p>e) no more than two spare cartridges.</p>
13) Cartridges of Division 2.2 with no subsidiary hazard for other than a self-inflating personal safety device	Yes	Yes	Yes	<p>a) no more than four cartridges per person; and</p> <p>b) the water capacity of each cartridge must not exceed 50 mL.</p> <p><i>Note.— For carbon dioxide, a gas cartridge with a water capacity of 50 mL is equivalent to a 28 g cartridge.</i></p>

<i>Dangerous Goods</i>	<i>Location</i>		<i>Approval of the operator(s) is required</i>	<i>Restrictions</i>
	<i>Checked baggage</i>	<i>Carry-on baggage</i>		
14) Cartridges and cylinders of Division 2.2 with no subsidiary hazard contained in an avalanche rescue backpack	Yes	Yes	Yes	<ul style="list-style-type: none"> a) no more than one avalanche rescue backpack per person; b) the backpack must be packed in such a manner that it cannot be accidentally activated; c) may contain a pyrotechnic trigger mechanism which must not contain more than 200 mg net of Division 1.4S; and d) the airbags within the backpack must be fitted with pressure relief valves.
Radioactive material				
15) Radioisotopic cardiac pacemakers or other medical devices	n/a (see restrictions)	n/a (see restrictions)	No	Must be implanted into a person or fitted externally as the result of medical treatment.
Mercury				
16) Small medical or clinical thermometer which contains mercury	Yes	No	No	<ul style="list-style-type: none"> a) no more than one per person; and b) must be in its protective case.
Other dangerous goods				
17) Non-radioactive medicinal articles (including aerosols), toiletry articles (including aerosols) and aerosols in Division 2.2 with no subsidiary hazard	Yes	Yes	No	<ul style="list-style-type: none"> a) no more than 0.5 kg or 0.5 L total net quantity per single article; b) no more than 2 kg or 2 L total net quantity of all articles (e.g. four aerosol cans of 0.5 L each) per person; c) release valves on aerosols must be protected by a cap or other suitable means to prevent inadvertent release of the contents; and d) the release of gas must not cause extreme annoyance or discomfort to crew members so as to prevent the correct performance of assigned duties.
18) Dry ice	Yes	Yes	Yes	<ul style="list-style-type: none"> a) no more than 2.5 kg per person; b) used to pack perishables that are not subject to these Instructions; c) the package must permit the release of carbon dioxide gas; and d) when carried as checked baggage, each package must be marked: <ul style="list-style-type: none"> i) "DRY ICE" or "CARBONDIOXIDE, SOLID"; and ii) the net weight of dry ice or an indication that the net weight is 2.5 kg or less.
19) Cartridges in Division 1.4S (UN 0012 or UN 0014 only)	Yes	No	Yes	<ul style="list-style-type: none"> a) no more than 5 kg gross mass per person; b) must be securely packaged; c) must not include ammunition with explosive or incendiary projectiles; and d) allowances for more than one person must not be combined into one or more packages.

<i>Dangerous Goods</i>	<i>Location</i>		<i>Approval of the operator(s) is required</i>	<i>Restrictions</i>
	<i>Checked baggage</i>	<i>Carry-on baggage</i>		
20) Permeation devices	Yes	No	No	Instructions on how to package permeation devices for calibrating air quality monitoring equipment are found in Special Provision A41.
21) Non-infectious specimens in flammable solutions	Yes	Yes	No	Instructions on how to package and mark specimens are found in Special Provision A180.
22) Refrigerated liquid nitrogen	Yes	Yes	No	Must be contained in insulated packagings (e.g. dry shippers) that would not allow the build-up of pressure and be fully absorbed in a porous material so that there is no free liquid that could be released from the packaging. Refer to Special Provision A152 for more information.
23) Dangerous goods incorporated in security-type equipment, such as attaché cases, cash boxes, cash bags, etc.	Yes	No	Yes	The security-type equipment must be equipped with an effective means of preventing accidental activation and the dangerous goods incorporated in the equipment must meet the conditions of Special Provision A178.

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Table 8-2. Provisions for instruments carried by OPCW and government agencies

<i>Dangerous goods</i>	<i>Location</i>		<i>Approval of the operator(s) is required</i>	<i>Restrictions</i>
	<i>Checked baggage</i>	<i>Carry-on baggage</i>		
1) Instruments containing radioactive material (i.e. chemical agent monitor (CAM) and/or rapid alarm and identification device monitor (RAID-M))	Yes	Yes	Yes	<ul style="list-style-type: none"> a) the instruments must not exceed the activity limits specified in Table 2-14 of these Instructions; b) must be securely packed; and c) must be carried by staff members of the Organization for the Prohibition of Chemical Weapons (OPCW) on official travel.
2) A mercurial barometer or mercurial thermometer	No	Yes	Yes	<ul style="list-style-type: none"> a) must be carried by a representative of a government weather bureau or similar official agency; b) must be packed in a strong outer packaging, having a sealed inner liner or a bag of strong leakproof and puncture-resistant material impervious to mercury, which will prevent the escape of mercury from the package irrespective of its position; and c) the pilot-in-command must be informed of the barometer or thermometer.

A67 (=238) Batteries can be considered as non-spillable provided that they are capable of withstanding the vibration and pressure differential tests given below, without leakage of battery fluid.

+ Vibration test: The battery is rigidly clamped to the platform of a vibration machine and a simple harmonic motion having an amplitude of 0.8 mm (1.6 mm maximum total excursion) is applied. The frequency is varied at the rate of 1 Hz/min between the limits of 10 Hz to 55 Hz. The entire range of frequencies and return is traversed in 95 ± 5 minutes for each mounting position (direction of vibration) of the battery. The battery must be tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for equal time periods.

+ Pressure differential test: Following the vibration test, the battery is stored for six hours at $24^{\circ}\text{C} \pm 4^{\circ}\text{C}$ while subjected to a pressure differential of at least 88 kPa. The battery must be tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for at least six hours in each position.

+ Note.— Non-spillable type batteries which are an integral part of, and necessary for the operation of, mechanical or electronic equipment must be securely fastened in the battery holder on the equipment and protected in such a manner so as to prevent damage and short circuits.

/ Non-spillable batteries are not subject to these Instructions when carried as cargo if, at a temperature of 55°C , the electrolyte will not flow from a ruptured or cracked case. The battery must not contain any free or unabsorbed liquid. Any electrical battery or battery powered device, equipment or vehicle having the potential of dangerous evolution of heat must be prepared for transport so as to prevent:

- a) a short circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
- b) unintentional activation.

The words “not restricted” and the special provision number A67 must be provided on the air waybill when an air waybill is issued.

A70 Internal combustion or fuel cell engines or machinery being shipped either separately or incorporated into a vehicle, machine or other apparatus, without batteries or other dangerous goods, are not subject to these Instructions when carried as cargo provided that:
Chapter 3 3-3-7

a) for flammable liquid powered engines:

1) the engine is powered by a fuel that does not meet the classification criteria for any class or division; or

2) the fuel tank of the vehicle, machine or other apparatus has never contained any fuel or the fuel tank has been flushed and purged of vapours and adequate measures taken to nullify the hazard; and

3) the entire fuel system of the engine has no free liquid and all fuel lines are sealed or capped or securely connected to the engine and vehicle, machinery or apparatus.

b) for flammable gas powered internal combustion or fuel cell engines:

- 1) the entire fuel system must have been flushed, purged and filled with a non-flammable gas or fluid to nullify the hazard;
- 2) the final pressure of the non-flammable gas used to fill the system does not exceed 200 kPa at 20°C;
- 3) the shipper has made prior arrangements with the operator; and
- 4) the shipper has provided the operator with written or electronic documentation stating that the flushing, purging and filling procedure has been followed and that the final contents of the engine(s) have been tested and verified to be non-flammable.

Multiple engines may be shipped in a unit load device provided that the shipper has made prior arrangements with the operator(s) for each shipment.

When this special provision is used, the words “not restricted” and the special provision number A70 must be provided on the air waybill when an air waybill is issued.

A162 (339) Fuel cell cartridges containing hydrogen in a metal hydride transported under this entry must have a water capacity less than or equal to 120 mL.

The pressure in the fuel cell cartridge must not exceed 5 MPa at 55°C. The design type must withstand, without leaking or bursting, a pressure of two (2) times the design pressure of the cartridge at 55°C or 200 kPa more than the design pressure of the cartridge at 55°C, whichever is greater. The pressure at which this test is conducted is referred to in the drop test and the hydrogen cycling test as the “minimum shell burst pressure”.

Fuel cell cartridges must be filled in accordance with procedures provided by the manufacturer. The manufacturer must provide the following information with each fuel cell cartridge:

- a) inspection procedures to be carried out before initial filling and before refilling of the fuel cell cartridge;
- b) safety precautions and potential hazards to be aware of;
- c) method for determining when the rated capacity has been achieved;
- d) minimum and maximum pressure range;
- e) minimum and maximum temperature range; and
- f) any other requirements to be met for initial filling and refilling including the type of equipment to be used for initial filling and refilling.

The fuel cell cartridges must be designed and constructed to prevent fuel leakage under normal conditions of transport. Each cartridge design type, including cartridges integral to a fuel cell, must be subjected to and must pass the following tests:

Drop test

A 1.8 metre drop test onto an unyielding surface in four different orientations:

- a) vertically, on the end containing the shut-off valve assembly;
- b) vertically, on the end opposite to the shut-off valve assembly;
- c) horizontally, onto a steel apex with a diameter of 38 mm, with the steel apex in the upward position; and
- d) at a 45° angle on the end containing the shut-off valve assembly.

There must be no leakage, determined by using a soap bubble solution or other equivalent means on all possible leak locations, when the cartridge is charged to its rated charging pressure. The fuel cell cartridge must then be hydrostatically pressurized to destruction. The recorded burst pressure must exceed 85 per cent of the minimum shell burst pressure.

Fire test

A fuel cell cartridge filled to rated capacity with hydrogen must be subjected to a fire engulfment test. The cartridge design, which may include a vent feature integral to it, is deemed to have passed the fire test if:

- a) the internal pressure vents to zero gauge pressure without rupture of the cartridge; or
- b) the cartridge withstands the fire for a minimum of 20 minutes without rupture.

Hydrogen cycling test

This test is intended to ensure that a fuel cell cartridge design stress limits are not exceeded during use.

The fuel cell cartridge must be cycled from not more than 5 per cent rated hydrogen capacity to not less than 95 per cent rated hydrogen capacity and back to not more than 5 per cent rated hydrogen capacity.

The rated charging pressure must be used for charging and temperatures must be held within the operating temperature range. The cycling must be continued for at least 100 cycles.

Following the cycling test, the fuel cell cartridge must be charged, and the water volume displaced by the cartridge must be measured. The cartridge design is deemed to have passed the hydrogen cycling test if the water volume displaced by the cycled cartridge does not exceed the water volume displaced by an uncycled cartridge charged to 95 per cent rated capacity and pressurized to 75 per cent of its minimum shell burst pressure.

Production leak test

Each fuel cell cartridge must be tested for leaks at $15^{\circ}\text{C} \pm 5^{\circ}\text{C}$, while pressurized to its rated charging pressure. There must be no leakage, determined by using a soap bubble solution or other equivalent means on all possible leak locations.

Each fuel cell cartridge must be permanently marked with the following information:

- a) the rated charging pressure in megapascals (MPa);
- b) the manufacturer's serial number of the fuel cell cartridges or unique identification number; and

c) the date of expiry based on the maximum service life (year in four digits; month in two digits).

A41 Permeation devices that contain dangerous goods and that are used for calibrating air quality monitoring devices are not subject to these Instructions when carried as cargo provided the following requirements are met:

a) Each device must be constructed of a material compatible with the dangerous goods it contains;

b) The total contents of dangerous goods in each device is limited to 2 millilitres and the device must not be liquid full at 55°C;

c) Each permeation device must be placed in a sealed, high impact-resistant, tubular inner packaging of plastic or equivalent material. Sufficient absorbent material must be contained in the inner packaging to completely absorb the contents of the device. The closure of the inner packaging must be securely held in place with wire, tape or other positive means;

d) Each inner packaging must be contained in a secondary packaging constructed of metal, or plastic having a minimum thickness of 1.5 mm. The secondary packaging must be hermetically sealed;

e) The secondary packaging must be securely packed in strong outer packaging. The completed package must be capable of withstanding, without breakage or leakage of any inner packaging and without significant reduction in effectiveness:

i) the following free drops onto a rigid, non-resilient, flat and horizontal surface from a height of 1.8 m:

- one drop flat on the bottom;
- one drop flat on the top;
- one drop flat on the long side;
- one drop flat on the short side;
- one drop on a corner at the junction of three intersecting edges; and

ii) a force applied to the top surface for a duration of 24 hours, equivalent to the total weight of identical packages if stacked to a height of 3 m (including the test sample).

Note.— Each of the above tests may be performed on different but identical packages.

f) The gross mass of the completed package must not exceed 30 kg.

A180 Non-infectious specimens, such as specimens of mammals, birds, amphibians, reptiles, fish, insects and other invertebrates containing small quantities of UN 1170, UN 1198, UN 1987 or UN 1219 are not subject to these Instructions provided the following packing and marking requirements are met:

a) specimens are:

1) wrapped in paper towel and/or cheesecloth moistened with alcohol or an alcohol solution and then placed in a plastic bag that is heat-sealed. Any free liquid in the bag must not exceed 30 mL; or

2) placed in vials or other rigid containers with no more than 30 mL of alcohol or an alcohol solution;

b) the prepared specimens are then placed in a plastic bag that is then heat-sealed;

c) the bagged specimens are then placed inside a another plastic bag with absorbent material then heat-sealed;

d) the finished bag is then placed in a strong outer packaging with suitable cushioning material;

e) the total quantity of flammable liquid per outer packaging must not exceed 1 L; and

f) the completed package is marked "scientific research specimens, not restricted Special Provision A180 applies".

The words "not restricted" and the special provision number A180 must be provided on the air waybill when an air waybill is issued.

A152 Insulated packagings conforming to the requirements of Packing Instruction 202 containing refrigerated liquid nitrogen fully absorbed in a porous material are not subject to these Instructions provided the design of the insulated packaging would not allow the build-up of pressure within the container and would not permit the release of any refrigerated liquid nitrogen irrespective of the orientation of the insulated packaging and any outer packaging or overpack used is closed in a way that will not allow the build-up of pressure within that packaging or overpack. When used to contain substances not subject to these Instructions, the words "not restricted" and the special provision number A152 must be provided on the air waybill when an air waybill is issued.

A178 Security type equipment such as attaché cases, cash boxes, cash bags, etc., incorporating dangerous goods, for example lithium batteries, gas cartridges and/or pyrotechnic material, are not subject to these Instructions if the equipment complies with the following:

a) The equipment must be equipped with an effective means of preventing accidental activation;

b) If the equipment contains an explosive or pyrotechnic substance or an explosive article, this article or substance must be excluded from Class 1 by the appropriate national authority of the State of Manufacture in compliance with Part 2;1.5.2.1;

c) If the equipment contains lithium cells or batteries, these cells or batteries must comply with the following restrictions:

1) for a lithium metal cell, the lithium content is not more than 1 g;

2) for a lithium metal or lithium alloy battery, the aggregate lithium content is not more than 2 g;

3) for lithium ion cells, the Watt-hour rating (see Attachment 2) is not more than 20Wh;

4) for lithium ion batteries, the Watt-hour rating is not more than 100 Wh;

5) each cell or battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, section 38.3;

d) If the equipment contains gases to expel dye or ink, only gas cartridges and receptacles, small, containing gas with a capacity not exceeding 50 mL, containing no constituents subject to these Instructions other than a Division 2.2 gas, are allowed. The release of gas must not cause extreme annoyance or discomfort to crew members so as to prevent the correct performance of assigned duties.

In case of accidental activation, all hazardous effects must be confined within the equipment and must not produce extreme noise.

e) Security type equipment that is defective or that has been damaged is forbidden for transport.

The words "not restricted" and the special provision number A178 must be provided on the air waybill when an air waybill is issued.

Mail: poststelle@ldi.nrw.de Online dispute resolution pursuant to Article 14 (1) 1 ODR Regulation for online contracts with consumers: The European Commission provides a platform for online dispute resolution (OS), which you can access at <http://ec.europa.eu/consumers/odr/> Arcus Air is obliged to participate in consumer arbitration when concluding contracts with consumers pursuant to Section 57a of the German Aviation Act (LuftverkehrsG). You can find the arbitration board here: Air Traffic at the Federal Office of Justice. Adenauerallee 99 - 103 53113 Bonn www.bundesjustizamt.de/luftverkehr Status: March 2020