Dangerous Items

Introduction

Dangerous Items are, in the specific context of aviation security, defined as those articles, devices or substances which may be used to commit an act of unlawful interference against civil aviation, or may endanger the safety of the aircraft and its occupants, or installations and the public. By nature, Dangerous Items must never be taken into the Security Restricted Area (SRA) of an airport, and in particular inside the cabin or hold of an aircraft, and must be prevented inside public areas of airport installations.

When facing the first aviation security incidents, States developed aviation security International Conventions and started to include in the scope of acts those “which, whether or not they are offences, may or do jeopardize the safety of aircraft or of persons or property therein or which jeopardize good order and discipline on board”\(^1\). This very broad approach could cover quite a lot of interpretations, such as unruly or disruptive behaviours, hoax, or any other criminal infraction occurring during civil aviation operations or within installations (including aircraft).

Then more detailed and precise definitions on acts were adopted such as “unlawful seizure or attempted seizure, by force or threat, or by any other form of intimidation”\(^2\) or “acts of violence against a person on board an aircraft in flight if that act is likely to endanger the safety of that aircraft; destruction/damage of aircraft in service (in flight or on the ground) using a device or substance; destruction/damage of air navigation facilities or interferences with their operations; and communication of false information”\(^3\). Force, threat and intimidation have to be used by perpetrators to commit an act of unlawful interference. Moreover, devices and substances designed for destructing or damaging aircraft and installations are considered as dangerous for civil aviation.

Finally, the definitions were complemented by the “offences committed unlawfully and intentionally, using any device, substances or weapon” such as “act of violence against a person at an airport which could cause serious injury or death” and “destruction/major damages of airport facilities or aircraft not in service”\(^4\). Which means that the intention and the target have to be analysed before qualifying an incident as an act of unlawful interference, as well as the location and modus operandi. For example, a drunk driver destroying air navigation aids during an accident might not be charged against aviation security laws as the offence is not committed intentionally. On the contrary, a person using his car to penetrate into the terminal building for delaying departures\(^5\) is considered as an act of unlawful interference as the intention was there and the consequences for civil aviation could have been more important if the offender would have used explosive devices or weapons inside the terminal building.

It is worth to note that an act of violence against a person at an airport is considered as an act of unlawful interference (Montreal Protocol, 1988) as an act of violence against a person on board an aircraft in flight is considered as an act of unlawful interference only if that act is likely to endanger the safety of the aircraft (Montreal Convention, 1971).

The interpretation of these definitions might differ from one State to another depending on the status of ratification of international conventions in each State and national perceptions, or political constraints, for certain types of incidents. One good indicator of the differences in interpretation of what is considered as a “real” act of unlawful interference and what other national laws cover, is the number and types of acts

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\(^1\) Based on Art 1 of the Convention on Offences and Certain Other Acts Committed on Board Aircraft – Tokyo, 14 Sept 1963
\(^2\) Based on Art 1 of the Convention for the Suppression of Unlawful Seizure of Aircraft – The Hague, 16 Dec 1970
\(^3\) Based on Art 1 of the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation – Montréal, 23 Sept 1971
\(^4\) Based on Art 1 of the Protocol for the Suppression of Unlawful Acts of Violence at Airports – Montréal, 24 Feb 1988
\(^5\) Based on real reports of acts of unlawful interference.
officially reported to ICAO.

For guidance purposes, the following categories of acts are internationally recognized as being the ones susceptible of having the biggest magnitude and consequences for States and the Industry:

1) seizures –or hijacking- and attempted seizures of aircraft in flight;
2) sabotage and attempted sabotage of aircraft (in flight or/and on the ground);
3) attacks and attempted attacks of aeronautical installations; and
4) attacks and attempted attacks inside airport facilities, particularly in public area.

The priorities in terms of design, systems, programmes and staff should remain the prevention of these four “core” aviation security categories, with the objectives of performance, cost-efficiency, sustainability and flexibility. In the same token, all provisions contained in Annex 17 to the Chicago Convention focus on the above-mentioned categories acts of unlawful interference.

In addition, a risk assessment of the minimum quantity, or number, of potentially Dangerous Items or substances necessary to commit an act, or attempted act, against the security of civil aviation operations should be conducted considering the following:

1) The physical properties and the dangerousness of the items (see Generic Categories of Dangerous Items);
2) The minimum quantity, or number, of potentially dangerous items, articles, substances necessary to commit a major act of unlawful interference;
3) The technical performances of the security screening systems currently available, or installed at airports, to see which dangerous items, and which quantities, could be “detected” or “identified” at screening points (see Security Screening and Controls); and
4) The real vulnerability of the system considering passengers on one side (at airport and inside an aircraft in flight), staff on another side and finally hold baggage, cargo, catering, stores, supplies or other goods taking into account current and new security counter measures in place at airport and onboard, such as 100% of hold baggage screening, locking of cockpit doors, potential presence of In-Flight Security Officers (IFSOs or sky marshals), reaction of cabin crew, even passengers, who might not stay passive in case of an incident during the flight, background checks on staff, etc (see Priorities in Dangerous Items Lists).

Finally, States or Groups of States have to build their own List of Prohibited Items considering the following elements:

1) At least, all Dangerous Items for the above-mentioned categories of acts against aviation security should be prohibited by nature;
2) Additional limitations or bans of items could be considered as some potentially Dangerous Items, could be concealed; such items or substances being in quantity or number difficult to “detect” or “identify” using contemporary security systems; and
3) Any other items in reaction to intelligence about a particular threat, for political reasons or

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6 detection and/or identification of weapons, explosives or other dangerous devices, articles or substances being the objective of security “screening” according to ICAO Annex 17 definitions.
because of national laws framework considering more incidents as acts of unlawful interference.

For guidance purposes, the focus is placed on the list of worldwide recognized Dangerous Items and on objective criteria driving additional limitations, or bans, of items and not on an exhaustive list of items which should/could be “prohibited” by one or some States as the prohibition concept is, by nature, evolving, subjective and driven by circumstances.

### Generic Categories of Dangerous Items

For clarification and identification purposes, potentially Dangerous Items can be grouped into five generic categories. A quick risk assessment concludes that the first three categories contain the most Dangerous Items for aviation security, especially as some items could easily be concealed inside cabin or hold baggage as elements or broken down into pieces, inside apparently innocent items after camouflage, or on persons or groups of persons travelling together in relatively small quantities which might generate major consequences. On the contrary, the last two categories contain items which could be an issue for the safety of passengers, crew, staff or public if misused on aircraft or inside terminal buildings, but with magnitudes and consequences which are not equivalent with the first categories.

Categories of the most dangerous items for aviation security:

I. **Firearms, guns and weapons** — any object capable, or appearing capable, of discharging a projectile or causing injury or death. Are included in this category ammunitions and parts or elements of objects of that category.

II. **Explosive and flammable substances** — any explosive or highly combustible substances, in any shape of form liquid, solid or in mixture, which could cause injury or death, or pose a risk to the health of passengers, crew and public or the security/safety of aircraft or property. Are including in that category all parts, elements or chemical material\(^7\) which could be used as essential components of an explosive or flammable device.

III. **Chemical and toxic substances** — any chemical or toxic substances, including nuclear elements, in any shape of form, which could cause injury or death, or pose a risk to the health of passengers and crew or the security/safety of aircraft, property or environment. Are including in that category all parts, elements or chemical material\(^8\) which could be used as essential components of an chemical or toxic device.

Categories of the potentially dangerous items for the safety of civil aviation only:

IV. **Pointed/edged weapons and sharp objects** — any pointed or bladed item capable of being used to cause injury or death.

V. **Blunt instruments** — any blunt object capable of being used to cause injury.

It should be noted that most of the perpetrators, especially if they are properly trained and motivated, could be familiar with close combat and martial techniques\(^9\) and do not need pointed, sharp or blunt objects to injure, or even kill, one or a few persons on board an aircraft. However, it is difficult to take the control of, or destroy, an aircraft without adequate number, or quantity, or the Dangerous Items listed in the first three categories if contemporary security counter-measures are strictly implemented (i.e. locking of cockpit doors).

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\(^7\) Also called “precursors”\(^7\)

\(^8\) Also called “precursors”\(^8\).

\(^9\) Some national laws or legislation are even considering misuse of martial techniques as criminal offences.
Examples of items contained in the above-mentioned categories are contained in Appendix 1.

**Security Screening and Controls**

One of the main challenges in designing sustainable and effective security systems preventing acts against aviation security, is to make sure that objective is not diluted, or resources not diverted by other considerations, such as unruly behaviours, or hypothetical theoretical modus operandi which are only limited by imagination. Worse case scenarios and brainstorming should be conducted by specialists for anticipation and risk assessment purposes, but the potential outcomes for redesigning sustainable security systems should be evaluated in light of all other operational, facilitation and financial constraints existing in civil aviation industry. Consequences of over-dimensioned, or over-reacted, security measures could be worse in terms of impact on the industry than the attacks themselves.

When considering the measures, it should be recalled that the purpose of security screening is to detect and/or identify all dangerous items which may be used to commit an act of unlawful interference, as the purpose of security controls is to prevent the introduction of such dangerous items which may be used to commit an act\(^\text{10}\). It is worth to note that these ICAO Annex 17 definitions are highlighting the nature, but also stressing the purpose, of such measures. Meaning that perpetrators should have the intention of committing an act of unlawful interference using an item, device or substance to consider such action as being an act of unlawful interference.

On the technical side, security screening is mainly performed by detection equipment (metallic, explosives, etc), dogs, staff and also measures such as hand search. For security controls, the means used are mainly procedures and staff. Proper security systems should be developed with a “system of systems” approach combining screening capabilities (mainly equipment and staff performances) with additional security controls measures to counter balance the loopholes of screening capabilities. For quality control purposes, regular assessments of the overall performance of security systems in place should be performed so that continuous enhancements are possible, both on detection capabilities (i.e. improvement of equipment, additional layer of equipments, installation of new generation/type of equipment) and on additional security controls preventive measures (i.e. limitations/bans of some items contained in carry-on or checked-in baggage or cargo, additional procedures on passengers, etc).

These performance assessments are designed to evaluate the probability of detection of the entire security system considering the most Dangerous Items. As current detection equipment are not capable of detecting all categories of Dangerous Items at the same time with an acceptable level of success during normal operations, it is essential to design multi-level security screening points for passengers and staff\(^\text{11}\) focusing on each category of the most Dangerous Items to be detected. One layer of detection focusing on metallic objects or category I Dangerous Items, another layer of detection focusing on substances and explosives or categories II and III of Dangerous Items, and even a third layer of detection using in-depth hand search techniques.

Another point of consideration deals with the performances of detection equipment that have to be analysed in light of the overall objectives and the consequences of preventive security measures, i.e. systemic approach or system of systems concept. For example, the operational consequences of a poor false alarm rate (i.e. 15-20%) have to be put in balance with the requirements on random checks (10-15%) on passengers even if they have not alarmed. This aspect is particularly accurate if the detection rate of the detection equipment assessed is very good. With a very good detection rate, the poor false alarm rate could cover the requirements for random checks (and even be a better and fair random selection as not dependant to human decision) and not impact on the overall performance of the system, as its very good detection rate could dramatically increase the overall performance of the security system. On the contrary, a

\(^{10}\) ICAO Annex 17 definitions

\(^{11}\) see Volume III – Airport Design and Volume IV – Preventive measures of the security manual Doc8973/7.
poor throughput of the security screening process, even with very good detection rate, might generate additional queues, which could easily be targeted by perpetrators for attacks inside the terminal building, including suicide attacks, even before the first screening point.

Finally, potential negative side effects have to be considered on the training, certification and evaluation of the performance of the screening staff if equipments are too complicated to operate and if the list of items to be detected is too large or too diverse.

**Priorities in Dangerous Items Lists**

It is therefore essential to develop the following breakdown on the Dangerous Items Lists for better overall performance of security systems:

1) **Priority 1**: all potential Dangerous Items, devices or elements of devices which may be placed inside an aircraft using passengers, cabin baggage, hold baggage, cargo, catering, stores or supplies and other goods and which could potentially be used to commit a major act against civil aviation security. Are included:
   - a) all items of category I at any quantity for passengers, cabin baggage; and
   - b) all items of categories II and III in quantities susceptible of compromising the survivability of an aircraft in flight for passengers, cabin baggage, hold baggage and cargo.

2) **Priority 2**: all potential Dangerous Items, devices or elements of devices which might be left in Security Restricted Area, including aircraft and make-up area by staff as such items could used by passengers, including potential perpetrators travelling at a later stage. However, this list is a priority 2 as all staff are normally subjected to background checks, initial and continuous training, and could be educated to avoid any interference of disruption. Are included:
   - a) All items of category I at any quantity;
   - b) all items of categories II and III in quantities susceptible of compromising the survivability of an aircraft in flight for passengers, cabin baggage, hold baggage and cargo; and
   - c) all items of categories II and III in quantities susceptible of damaging aircraft or installations, or be used to kill/injure a large number of persons at terminal buildings.

3) **Limitations and bans**: all items listed in Priority 1 and Priority 2 which are in quantities, or number, not detectable or identifiable by contemporary screening equipment and systems

The limitations or bans are essential additional preventive measures for security controls purposes to limit the carry-on of potentially Dangerous Items in quantities that are not (yet) detectable or identifiable by contemporary screening technologies and systems. These limitations, or bans, currently focus on liquids, gels, creams and aerosols which could hide liquid explosives or substances inside apparently innocent containers and bottles with the intention of committing an act of unlawful interference inside the aircraft or airport facilities.

The same type of limitations or bans could technically apply for chemical and toxic substances being transported via aircraft with the objective of dissemination during the flight, or in different States in a very short period of time. However, the efficacy of counter measures implemented at airports only for such threat is very questionable and States are encouraged to develop plans and coordination at national and international levels to strengthen their intelligence and counter terrorism abilities to deter such acts at the preparation stage.

Moreover, the limitations, or bans, on items which could contained Dangerous Items are only designed to

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12 including technical and performance evaluation of detection equipment
13 Quantities are determined by the appropriate authorities. These figures also serve for detection performance purposes
14 normally the same quantities as for Priority 1
15 Quantities which might be higher.
16 See Volume I – Intelligence and Counter terrorism part
reduce the magnitude and consequences of incidents if a single perpetrator uses such devices. The consequences could be more severe if a group of perpetrators carrying in separately enough Dangerous Items concealed on them, or in their baggage, to be recombined into an improvised device after security screening, unless proper and effective continuous surveillance of passengers and persons inside the sterile area and the aircraft is performed. In such cases, additional security measures could be implemented such as reporting all abnormal activities during screening process, and inside sterile area, so that proper risk assessment could be performed before boarding if several alerts occurred for the same flight\textsuperscript{17}, or random removal of some carry-on items at boarding gates to complicate preparation of unlawful acts (items or baggage removed being given to the crew to be placed in safe locations, or the hold of the aircraft, during the flight, then given back to the passengers upon arrival as it is frequently done for small module aircraft or by some airlines).

In any case, it is worth to acknowledge that States and rules makers, when implementing limitations or bans of items, are “accepting” that some consequences could happen for the safety and health of some passengers as security controls and screening could not 100% protect against all attacks or modus operandi. This “acceptable risk” approach for aviation security is not different to the ones already used in aviation safety, or for any other means of transportation. For aviation security, the “acceptable risk” concept is adopted in the management of major crisis as some passengers, crews or police forces could be injured, even killed, during successful armed interventions or resolutions of major emergencies.

Handling and Removal of Dangerous Items

Persons tasked primarily with the detection of potentially Dangerous Items should be aware that there are certain articles or substances which are classified as “dangerous goods” by the ICAO \textit{Technical Instructions for the Safe Transport of Dangerous Goods by Air} (Doc 9284). In fact, most of these articles and substances classified as Dangerous Items will also fall under the classification of dangerous goods. With the exception of a small number of permitted items, passengers on their person or in their cabin baggage or hold baggage must not carry dangerous goods. Further information regarding examples and identification of dangerous goods is given in Appendix on Dangerous Goods.

Some Dangerous Items, though prohibited from carriage in the cabin of an aircraft, may be transported by passengers in their hold baggage so long as the items will not endanger the aircraft, are properly packed, sealed, and are authorized for carriage by the airline operator concerned. These items should be processed in one of the following ways:

- placed in the passenger’s hold baggage before check-in, unless the item would endanger the safety of the aircraft;
- confiscated and subsequently properly disposed of or destroyed;
- confiscated and kept in storage by the airport authorities or relevant aircraft operator for later return to the passenger; or
- removed and, once properly prepared and packaged, transported in the hold of the aircraft for later return to the passenger at the ticketed destination; or
- sealed in an appropriate way so that passenger could not use the item, or its content, to commit an act of unlawful interference or endanger the safety of the aircraft.

However, the following items and substances \textbf{must never be carried in hold baggage}. This list includes \textit{forbidden dangerous goods}. There may be other items about which security staff have concern; these may also be removed and, if necessary, confiscated if found.

\textsuperscript{17} Refer to the risk assessment of passengers part as suspects behaviours of some passengers at screening points could be an indicator of an increased threat if all these passengers are travelling together.

Preventive Security Measures
### Item/Substance

<table>
<thead>
<tr>
<th>Item/Substance</th>
<th>Examples (not inclusive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrosives:</td>
<td>Mercury, vehicle batteries</td>
</tr>
<tr>
<td>Explosives:</td>
<td>Detonators, fuses, grenades, mines and explosives</td>
</tr>
<tr>
<td>Flammable liquids:</td>
<td>Gasoline, methanol</td>
</tr>
<tr>
<td>Flammable solids and reactive substances:</td>
<td>Magnesium, firelighters, fireworks, flares</td>
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<tr>
<td>Gases:</td>
<td>Propane, butane</td>
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<tr>
<td>Miscellaneous:</td>
<td>Vehicle fuel system components which have contained fuel</td>
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<tr>
<td>Oxidizers and organic peroxides:</td>
<td>Bleach, car body repair kits</td>
</tr>
<tr>
<td>Radioactive material:</td>
<td>Medicinal or commercial isotopes</td>
</tr>
<tr>
<td>Toxic or infectious substances:</td>
<td>Rat poison, infected blood</td>
</tr>
</tbody>
</table>

Further information regarding examples and identification of dangerous goods is provided in Appendix on Dangerous Goods.

Local procedures should be established regarding the discovery of dangerous/prohibited articles either on passengers or in their cabin baggage during the screening process. Some guidance is offered here but national law and the local situation may dictate other requirements or actions.

- a) The searcher’s supervisor should be summoned covertly and should in turn take action to summon assistance from the local policing authority support unit.
- b) The discovery of a weapon in a passenger’s cabin baggage may be dealt with by simply closing the baggage and removing it from the passenger’s reach or keeping the baggage within the X-ray equipment tunnel.
- c) The latter course of action should not be taken with a suspect explosive device since it will severely hinder the work of explosive experts who will have to deal with the device and even add to the shrapnel effect of the device should it explode.
- d) If the item is confirmed as a suspect explosive device DO NOT TOUCH IT but carry out standard suspect explosive device procedure.

The course of action upon discovery of a weapon on a person is not easily defined since it depends on a number of situational factors such as the demeanour of the person, the proximity of armed police response forces and the training in restraint techniques of the security staff manning the screening point.

Consideration should be given to the possibility of the person trying to escape using armed force if confronted or even attempting an impromptu attack on nearby passengers if the person thinks the planned attack has been thwarted. It may be more beneficial for the person to be discretely followed and monitored, then isolated, until he or she can be apprehended in an area that would offer the minimal risk to the public and queuing passengers.

The decision will depend upon the level of security of the concourse area into which the person is about to pass and the ability of security staff and police response forces to follow the suspect discretely. The possibility that the suspect might be only one member of a team, or may attempt to pass on the weapon or device to a third party already within the concourse area, should also be considered.

Items confiscated at a screening point by a policing authority officer or other authority must be handled and disposed of in accordance with national legislation. The airport security officer should ensure that an accurate record is maintained of all such items as well as those found abandoned on airport property or on aircraft, and proper information passed to airline duty managers so that additional risk assessment and security measures could be performed at boarding gates.
Advance Information and Passenger Authorized Items List (PAXAIL)

In many cases, passengers are not aware of which items they can or cannot carry in the cabin baggage or their hold luggage, and they are made aware of the limitations far too late in the process. Such situations cause additional delays at the last point of control (security screening), reduce dramatically the throughput performance of security system, create extra work and diversion for the security staff, and even pose some additional problems if passengers are not cooperative.

Most of these counterproductive issues could be anticipated and eliminated if passengers are properly informed in advance, and even assisted, when they are planning their journey by providing them with a Passenger Authorized Items List (PAXAIL). As security screening on passengers is usually performed at the frontier with Security Restricted Area, it is almost impossible to remove the potentially dangerous items, listed as Prohibited by the States, from cabin baggage to place them in their hold baggage.

In addition, it is questionable to store potentially dangerous items, such as liquid explosives or substances which might have been concealed inside containers and bottles, in large number at the entry of the screening points area as some perpetrators might use that opportunity to plan an attack inside the terminal buildings. Simple improvised explosive devices made of several explosives liquids hidden in bottles which they know will be removed before screening, and kept for a while close by passengers queuing, could blow up and injured or killed a large number of passengers, staff and public. It is therefore essential to implement additional security/facilitation measures aiming at reducing the number of potentially dangerous items removed before the screening point, thus the quantity of potentially dangerous items stored and handled by security staff. Some of these measures could be as follows:

1) Distributing a Passenger Authorized Items List (PAXAIL) as widely possible via travel agents, airlines, press and media and internet;

2) When booking tickets, informing passengers about the PAXAIL, the Dangerous Items List and the Prohibited Items Lists in force in the States they might visit, as well as all the consequences at screening points 18;

3) During check-in process, some airport/airline or private staff should inform the passengers while queuing about the Authorized, Dangerous and Prohibited Items Lists applicable at the airport, and in the States they are visiting, so that they could remove some items from cabin baggage into hold baggage or even leave them to someone, if they are accompanied;

4) At the check-in desk, all passenger should be requested to acknowledge being aware of the content of the Prohibited Items List imposed by States concerned, and the consequences at screening points; and

5) In case of e-ticketing or web-ticketing, the computerized booking process should include a clear warning, and acceptance form, so that all passengers know what Items could not be safely transported and what are the potential consequences at screening points.

For Staff, advance information on the risks and the consequences of carrying dangerous items into Security Restricted Area should be provided during the initial training sessions, at each refresher sessions, and on a continuous basis using posters, flyers or internal communication tools. Severe consequences and sanctions should be implemented if staffs are challenging the security system in place as it might be done for intelligence purposes to assist perpetrators when planning an act of unlawful interference.

18 Removal of items, delays, deny of travel, judicial pursuits if applicable, etc
Prohibited Items List for flights assessed at elevated threat or higher risk

In addition to the Dangerous Items List, and even the Prohibited Items Lists developed by States for normal operations, continuous risk assessments made by individual States may indicate that certain periods or destinations are at elevated threat, or even some aircraft operations are at higher risk, regarding acts of unlawful interference. In these circumstances individual States may wish to consider temporary additional measures, including qualifying more items on their Prohibited Items Lists, or imposing additional restrictions, limitations or bans if appropriate.

Some examples of possible temporary additional measures are as follows:

1) One cabin baggage with external dimension of no more than 56 x 45 x 25 cm plus one small personal item. Premium Passengers (first and business class) may be allowed additional cabin baggage allocation. That measure could ease the screening process and increase the throughput performances, as fewer items would be treated.

2) Removal of jackets, coats, laptops and liquids (in their plastic bag) at screening points. This measure would theoretically improve screening performances as items are screened separately. However, it has consequences on the overall throughput of screening points as more items are screened per passenger, thus more time is required for processing and probably more queuing unless additional screening points are open.

3) Any liquid, cream, gel, aerosols in containers that contain not more than XXX\(^{19}\) ml with a maximum of Y\(^{20}\) containers per passenger with some exception for health and welfare of certain passengers. That measure would limit the consequences of any suspected attacks using liquid explosives as the maximum quantity of substances on board will be XXX \(\times\) Y ml per passenger. However, it should be noted that a group of suicide perpetrators could collectively regroup enough liquid explosives inside the cabin to commit an act.

4) Removal of any electric/electronic items from the cabin baggage. In case of specific intelligence on improvised devices using electric/electronic items potentially used at one airport or State, that measure would be recommended only if adequate explosive detection devices are not available at airport and until such equipment are deployed and security staff properly trained and certified.

Any additional measures specific to elevated threat or high-risk situations must be harmonized amongst States affected to ensure seamless operations and passenger movement. This additional information should be promulgated to all airports and aircraft operators engaged in operating passenger-carrying aircraft within the State. Additionally States deciding on supplement security measures should inform all other concerned States and aircraft operators so that passengers can be properly alerted to not attempt to carry such items on their person or within their cabin/hold baggage on those aircraft flights considered at higher risk and to which the additional prohibited items will apply. Finally, ICAO, IATA and ACI and other regional organisations should also be informed so that proper harmonization and coordination could be ensured.

\(^{19}\) Precise quantity to be defined by States

\(^{20}\) Number to be fixed by States
Appendix 1 – Examples of Authorized, Dangerous and Prohibited Items

The following examples are not exhaustive and provided for guidance and illustration purposes to assist States in designing their own Passenger Authorized Items List (PAXAIL).

Category 0. Passenger Authorized Items List (PAXAIL)

Personal items essential for travel such as tickets, passports, purse, keys, etc.
Laptops, cell phones, Personal Digital Assistants (PDAs), Music players (mp3)
Books, magazines, newspapers, rollerball and gel pens
Kid magazines, pens and pencils, scissors (with rounded ends), toys if a small child is travelling
Sanitary towels and tampons
Disposable contact lenses in sealed packaging sufficient for flight
Sandwiches, crisps, fruit, vegetables, other solid foods
Etc …

Additional limitation or ban for security controls purposes:
Liquids, creams, gels and aerosols in containers not exceeding 100 ml and placed in a scaleable plastic bag of 1 litre maximum for visual inspection by security staff

Exception for health and welfare of certain passengers:
Small amounts of baby formula and breast milk if a baby or small child is travelling
Liquid prescription medicine with a name that matches the passenger’s ticket
Liquid or gel low blood sugar treatment
Essential non-prescription medications including saline solution and eye care products
Life support and life sustaining liquids such as bone marrow, blood products, and transplant organs for medical reasons

The following examples for Dangerous Items are not exhaustive and provided for guidance and illustration purposes.

Category I. Firearms, guns and weapons

All firearms (pistols, revolvers, rifles, shotguns, etc.) including air pistols, rifles and pellet guns
Animal humane killers
Ball bearing guns
Catapults
Component parts of firearms (excluding telescopic sighting devices and sights)
Cross bows
Harpoon and spear guns
Industrial bolt and nail guns
Replica and imitation firearms, including Lighters shaped like a firearm
Signal flare pistols
Starter pistols
Stun or shocking devices, e.g. cattle prods, ballistic conducted energy weapons (taser)
Toy guns of all types

Category II. Explosives and flammable substances

Aerosol spray paint or equivalent
Alcoholic beverages exceeding 70% by volume (140% proof)
Ammunition\textsuperscript{21}
Blasting caps
Detonators and fuses
Explosives and explosive devices
Fireworks, flares in any form and other pyrotechnics (including party poppers and toy caps)
Flammable liquid fuel, e.g. petrol/gasoline, diesel, lighter fluid, alcohol, ethanol
Gas and gas containers, e.g. butane, propane, acetylene, oxygen — in large volume
Grenades of all types
Mines and other explosive military stores
Non-safety matches\textsuperscript{22}
Replica or imitation explosive material or devices
Smoke generating canisters or cartridges
Turpentine and paint thinner

\textbf{Category III. Chemical and toxic substances}

Acids and alkalis, e.g. spillable ‘wet’ batteries\textsuperscript{23}
Corrosive or bleaching substances, e.g. mercury, chlorine
Disabling or incapacitating sprays, e.g. mace, pepper spray, tear gas
Fire extinguishers
Infectious or biological hazardous material, e.g. infected blood, bacteria and viruses
Material capable of spontaneous ignition or combustion
Poisons
Radioactive material, e.g. medicinal or commercial isotopes

The following examples are not exhaustive and provided for guidance and illustration purposes for items which are not considered as the most dangerous ones for aviation security, but still included in some Prohibited Items Lists if States decide so.

\textbf{Category IV. Pointed/edged weapons and sharp objects}

Axes and hatchets
Arrows and darts
Crampons
Harpoons and spears
Ice axes and ice picks
Ice skates
Lockable or flick knives with blades of any length
Knives, both real and ceremonial knives, made of metal or any other material strong enough to be used as a potential weapon
Meat cleavers
Machetes
Open razors and blades (not safety or disposable razors with blades enclosed in cartridge)
Sabres, swords and swordsticks
Scalpels
Scissors

\textsuperscript{21} See Appendix on Dangerous goods — for regulations concerning the transport of sporting cartridges.
\textsuperscript{22} Safety matches or a lighter are only allowed on the person of a passenger or member of an aircraft crew. ‘Strike anywhere’ matches are forbidden for carriage by passengers or crew under any circumstances.
\textsuperscript{23} See Appendix on Dangerous goods — for regulations concerning the batteries for wheelchairs or other battery-powered mobility aids.
Ski and walking/hiking poles
Throwing stars
Tradesman’s tools that have the potential to be used as a pointed or edged weapon, e.g. drills and drill bits, box cutters, utility knives, all saws, screwdrivers, crowbars, hammers, pliers, wrenches/spanners, blow torches.
Umbrellas or cane with sharp ending.

Category V. Blunt instruments

Baseball and softball bats
Billiard, snooker and pool cues
Clubs or batons — rigid or flexible — e.g. Billy clubs, blackjacks, night sticks and batons
Cricket bats
Fishing rods
Golf clubs
Hockey sticks
Kayak and canoe paddles
Lacrosse sticks
Martial arts equipment e.g. knuckledusters, clubs, coshes, rice flails, num chucks, kubatons, kubasaunts
Skateboards

Example of Prohibited Items Lists

The following examples are provided for guidance and illustration purposes to assist States in designing harmonized Prohibited Items Lists.

Canada

http://www.tc.gc.ca/majorissues/transportationsecurity/baggage.htm


European Union


United States of America

http://www.tsa.gov/travelers/airtravel/prohibited/permitted-prohibited-items.shtm#8