



Hold Baggage (HB) Security Procedures

Legal Background

The international security provisions applicable to hold baggage are contained in the Chapter 4.5 of ICAO Annex 17 – *Aviation Security*. These provisions start with the requirement to screen all originating hold baggage loaded onto an aircraft engaged in commercial air transport operators (Standard 4.5.1) using appropriate screening methods capable of detecting the presence of explosives and explosive devices, and appropriate standards of screening as defined by the appropriate authorities (Standard 4.5.2). All hold baggage shall then be protected from unauthorized interference from the point of screening (or acceptance into the care of the airline) until departure of the aircraft (Standard 4.5.3).

In addition, all hold baggage of passengers (or other persons such as crew members) must be individually identified as accompanied or unaccompanied, and screened to the appropriate standard before being accepted for carriage on the flight by the airline. Airlines must not transport the hold baggage of a person who is not on board the aircraft unless that baggage has been properly identified as unaccompanied and screened to the appropriate standard. (Standards 4.5.4 and 4.5.6).

Finally, all transfer hold baggage shall also be screened before loading onto an aircraft and protected from unauthorized interference, unless Recognition of Equivalence collaborative arrangements are in place (also known as One Stop Security) are established (Standard 4.5.5).

When coming back to the historical evolution of current Standard 4.5.4, it is a heritage of the former Standard 5.1.4 introduced back in 1986, as a response to the sabotage of Air India 182 (23 June 1985). It has been modified and renumbered in 1989, 2002 and 2006, with Amendment 11 to Annex 17 introducing the predecessor of Standard 4.5.6, as well as the 100% screening all originating hold baggage with Standard 4.5.1.

In 2006, Standard 4.5.4 (at that time 4.5.3) requested that commercial air transport operators do not transport the baggage of passengers who are not on board the aircraft unless that baggage is identified as unaccompanied and subjected to additional screening. The requirement for "additional" screening established an operational "synchronic" need for offloading any hold baggage newly identified as unaccompanied for performing additional screening. The very same, but "non-synchronic" security requirements were present in Standard 4.5.5 together with the acceptance for carriage by the airline and the traceability, or operational reconciliation of all hold baggage (accompanied and unaccompanied) in the last sentence of the very same Standard 4.5.5 (now 4.5.6).

In 2011, and Amendment 12 to Annex 17, Standard 4.5.3 has been adjusted with "passengers" changed by "persons" and "additional" by "appropriate" screening. These adjustments were intended to cover a potential vulnerability linked to the placement of an IED by a crew member. Unfortunately, the proposed wording for new 4.5.3 (2011) remained too vague with "*baggage of persons*" and "*appropriate screening*" that are both already present in Standard 4.5.5 (since 2006) with "*hold baggage*" and "*screened to the appropriate standard*". The differences, nuances or change of purpose between the requirements in new 4.5.3 and existing 4.5.5 are difficult to identify for anyone not privileged to access to AVSEC Panel Working Papers, meaning almost all aviation stakeholders.

Since 2020, and Amendment 17 to Annex 17 requesting all staff (including crew members) to be screened when entering into the Security Restricted Areas (Standard 4.2.6 at that time, 2.4.5 in 2022), the specific vulnerability on crew member is sufficiently mitigated. Consequently, the overlap and duplication between Standards 4.5.4 and 4.5.6 were recognized by ICAO AVSEC Panel and the principle of a merging the two Standards into one, clear and consistent standard was accepted.



General Objectives for HB Security Procedures

Irrespective of the ICAO AVSEC Panel's conclusion to potentially merge Annex 17 Standards 4.5.4 and 4.5.6, these two standards are duplicative. Standard 4.5.4 mainly focuses on no-shows (with an emotive connection and overhang to the Air India Flight 182 sabotage), while Standard 4.5.6 is more holistic and covers all the security operational constraints linked to the transport of all items of hold baggage in commercial air transport operations as highlighted below:

4.5.4 Each Contracting State shall ensure that commercial air transport operators do not transport the baggage of persons who are not on board the aircraft unless that baggage is identified as unaccompanied and subjected to appropriate screening.

4.5.6 Each Contracting State shall ensure that commercial air transport operators only transport items of hold baggage which have been individually identified as accompanied or unaccompanied, screened to the appropriate standard and accepted for carriage on that flight by the air carrier. All such baggage should be recorded as meeting these criteria and authorized for carriage on that flight.

ICAO Annex 17 Standard 4.5.6 (2022) is used as main reference for the development of IATA documents.

In 2024, all hold baggage engaged in commercial air transport operations are:

- 1. screened at their point of origin using security systems capable of detecting the presence of explosives and explosive devices with standards of screening defined by the authorities,**
- 2. protected from unauthorized interference from the point of screening (or acceptance into the care of the airline) until departure of the aircraft in security restricted areas,**
- 3. rescreened at transfer unless recognition of equivalence collaborative arrangements are established,**
- 4. identified as accompanied or unaccompanied depending on the presence of their owner on board,**
- 5. accepted (or not) for carriage by airlines, and**
- 6. operationally tracked (on the ground and during the journey) with the ultimate operational objective of physically reconciling them with their respective owners in the end of the journey.**

The document summarizes the current IATA guidance and reference documents on the carriage of hold baggage, in particular baggage and passenger reconciliation procedures, are reflected in different Resolutions and Recommended Practices (RPs) contained in the Passenger Services Conference Resolution Manual (PSCRM), in particular PSCRM RPs 1739, 1745 and 1745a, as well as in other IATA Manuals.

Particular attention to the **concept of UNAR** (refer to below section for details) introduced in the PSCRM Edition 40 in June 2020 as new recommended codes for Baggage Identification or Handling (para 1.3, Attachment A, RP 1745, page 1145), then in PSCRM Edition 41 (June 2021) in RP 1800 with a full Section 5.4 defining UNAR as "*a process of sending baggage ahead of passengers provided that security defined by national regulation and airline criteria are met*" (para 5.4.1 in RP 1800, June 2021). RP 1800 became RP 1745a) with PSCRM Edition 42 in June 2022. UNAR is implemented in more than 18 States (IATA survey in Baggage Working Group, Dec 2024).

As we could see in the different IATA documents and definitions below, "unaccompanied baggage" could be labelled as UNAC, as RUSH or RUSH BAG, and as UNAR in the operational messaging systems. The security sensibility between UNAC and RUSH on one side, and UNAR on the other side is different as the UNAR process allows for a baggage to be sent on onboard a different a flight (as for UNAC and RUSH), but ahead of its owner.

The concept of synchronic physical reconciliation between hold baggage and its owner ensuring both are physically present on the same flight is outdated and futile. UNAR fully recognizes the quality of hold baggage screening prior to loading. Whether or not the owner is physically present on the same aircraft is inconsequential given the quality in the implementation of 100% hold baggage screening systems in place.



The Many Definitions and Concepts related to HB

IATA –PSCRM RP 1739 (Passenger/Baggage Reconciliation Procedures)

Reconciled Baggage: Passenger (or crew) has boarded, and baggage tag has been entered as **accompanied** bag into the reconciliation system as on board.

Not Seen Baggage: Passenger (or crew) has boarded, baggage tag has not been presented for insertion into the reconciliation system when the flight is ready to depart. That baggage should be reidentified as **unaccompanied** and considered as **UNAC** or **RUSH** for boarding onto subsequent flight for further reconciliation with its owner after arrival.

Unreconciled Baggage: Baggage tag has been entered into the reconciliation system initially as **accompanied** baggage (at origin or for transfer), but this baggage and its owner became separated either because the owner has not boarded or was withdrawn from the flight.

- In case of withdrawal from the flight, that baggage needs to be **offloaded** and physically reconciled with its owner who remained on the ground.
- In case of no-show, that baggage should be re-identified as **unaccompanied**, subjected to appropriate security controls or verifications such as confirming the appropriateness of the initial screening, and profile of the no-show, if that baggage is still accepted for carriage by the airline.
- The airlines could decide to **offload** baggage of no-show passengers for customer service purposes (Unaccompanied Minor or Business passengers)

IATA PSCRM RP 1745 (Baggage Information Messages) and RP 1745a (Automated Baggage Handling)

RUSH (1745): Unaccompanied (expedited) baggage as specified in Resolution 740, Attachments 'K' and 'L'.

RUSH BAG (1745a): Unaccompanied baggage that has been added to a flight.

UNAC (1745): Unaccompanied baggage in case of involuntary re-routing.

UNAC (1745a): Unaccompanied baggage that does not travel on the same flight as its passenger.

UNAR (1745): Unaccompanied baggage, all requirements for travel met (**Baggage ahead of Passenger 1745a**).

IATA Reference Manual (IRM)

Mishandled baggage: Checked baggage that has been separated from passengers or crew members.

Baggage reconciliation: A security and operational process that links the checked or hold baggage of a person (passenger or crew) with its owner and ensures that either if they travel together on the same aircraft, or in different flights, the baggage is properly identified as accompanied or unaccompanied, screened to the appropriate standard, accepted for carriage by the operator, and recorded or tracked for operational purposes.
[new definition to come]

Unaccompanied baggage: Checked baggage that has been loaded into an aircraft that does not have the owner/passenger also onboard.

ICAO (Doc 8973)

Unaccompanied baggage: Baggage that is transported as cargo and may or may not be carried on the same aircraft with the person to whom it belongs.

Unidentified baggage: Baggage at an airport, with or without a baggage tag, which is not picked up or identified with a passenger.



HB Procedures for Originating Passengers (and crew)

1. Aircraft operators shall ensure that hold baggage of a passenger or a crew member to be transported on an aircraft has been:

- a) identified as accompanied or unaccompanied,
- b) screened according to appropriate standards,
- c) accepted to be carried by the airline,
- d) tracked or recorded during its entire journey,
- e) reconciled with its owner upon arrival (or later if unfortunately, mishandled).

This process is often referred to as person and baggage reconciliation, passenger and baggage reconciliation, passenger and baggage matching, or passenger and baggage association.

2. The acceptance process begins with check-in (which can occur at airport facility or off-airport) by application of various manual or automatic methods (or combination of these) and finishes at the stage of boarding completion allowing ultimately to identify hold baggage as "reconciled", "unreconciled" or "not seen" baggage.

3. To ensure adequate passenger/baggage association, baggage tag number(s) should be entered on the Passenger Name List (PNL), into the Departure Control System (DCS), and on the back of the flight coupon. Additionally, a check-in sequence or security number could be entered on the baggage tag(s). This can be done manually, using a numbered sticker, or through system-generated and printed tags, particularly where demand baggage tag(s) are printed.

4. Another method of passenger/baggage association at check-in involves issuing each passenger a consecutively numbered boarding pass (based on check-in sequence) and entering the boarding pass number on the baggage or the flight coupon. The baggage tag number(s) can also be entered on the back of the flight coupon.

5. In the baggage make-up area bags are sorted for flights based on the flight number and destination description (using IATA airport code). At the end of the process and when check-in closes, the number of baggage sorted is crossed-checked with number of baggage accepted at the check-in. Any discrepancies revealed shall be resolved at this stage. Finally, during loading into ULDs or into the aircraft hold the number of baggage shall be verified for accuracy.

6. At the gate and during the boarding process, passenger boarding cards are checked to ensure they are proceeding to the right destination. During the boarding process, a DCS is used to account for and authorize passengers onto the flight. The DCS is linked with a Baggage Reconciliation System (BRS) to ensure items of checked baggage are loaded and reconciled with the owner on the same flight. The baggage of any identified no-show passengers or passengers offloaded from flight after boarding is completed, should be marked as "unaccompanied".

7. Many of the processes above have been automated over time and include automatic data exchange between systems (DCS - Departure Control System, BRS - Baggage Reconciliation System) and personnel involved (automatic data transfer between check-in, gate, baggage make up area, baggage loaders).

8. Electronic Baggage Tags have been created which can remove the need for printed tags, allowing for improved near-real time tracking of baggage. Next generation developments may offer additional off-airport check-in options, for example using autonomous VTOL (vertical take-off and landing aircraft) which combine transport to the airport plus security measure functions (including potentially screening) for passengers and their baggage (or just baggage).



9. Appropriate procedures for transfer (connecting) and transit passengers are outlined in further sections of this document.
10. To maintain efficiency and avoid unnecessary delays, as well as potential unauthorized ground interferences, baggage that has already undergone appropriate screening and met all required standards should not be offloaded for rescreening. If the initial screening process was thorough, compliant with security regulations, and the baggage was appropriately screened, protected from unauthorized interference once screened, identified, and accepted by the airline, it should be considered secure for the duration of its journey. This ensures that resources are used effectively and minimizes disruptions to passengers.
11. When a passenger (or crew) is identified as a no-show or offloaded from a flight, their baggage should be re-identified as unaccompanied. It should then be the airline's decision whether or not to offload the item(s). If a passenger is offloaded due to unruly behavior, the airline may also choose to offload their baggage.
12. In any case, the airline should have the ultimate say on whether the baggage should or should not remain on board,
13. When a gate no-show passenger is identified or a passenger is offloaded from the flight, the aircraft operator, or its External Service Providers (ESPs) shall locate the baggage corresponding to the tag(s) to determine if it has become unaccompanied, reconciled, or requires offloading, as decided by the airline. In all instances, the ESPs must update the status of the baggage from reconciled to unreconciled, without offloading it unless directed by the airline.

HB Procedures for Connecting | Transfer Passengers

14. Passenger/baggage association occurs when a connecting passenger reports to check-in, the transfer desk, or the gate. This process includes changes of gauge and through flight numbers. To ensure efficient passenger/baggage association, various methods are used:
 - Entering baggage tag number(s) from the claim check on the Passenger Name List (PNL).
 - Entering baggage tag number(s) from the claim check into the Departure Control System (DCS).
 - Entering baggage tag number(s) from the claim check on the flight coupon or on the back.
15. At the connecting point, the aircraft operator, or its External Service Providers (ESPs) should retrieve the tracking records from the origin station and ensure the passenger/baggage association process is successful by entering the same number on:
 - The passenger's name list.
 - The departure control system.
 - A tear-off stub on the boarding pass.
 - The boarding pass.
16. When a gate no-show passenger is identified, the aircraft operator or its ESPs should locate the baggage corresponding to the tag(s) to determine if they have become reconciled, unreconciled, or need to be offloaded for considerations other than security as decided by the airline.
17. When a passenger is withdrawn from the flight, the aircraft operator or its ESPs should locate the bag(s) corresponding to the tag(s) to determine if they have become reconciled, unreconciled, or need to be offloaded as decided by the airline.
18. If the aircraft operator or its ESPs cannot find the baggage corresponding to the tag(s) when a gate no-show passenger is identified or a passenger is withdrawn from the flight, the baggage status must be updated in the reconciliation system to "not seen", and the appropriate process must be initiated to locate the baggage.



HB Procedures for Transit Passengers

19. When transit passengers are not permitted to deplane at transit points, the aircraft operator or its External Service Providers (ESPs) must ensure that the count of passengers remaining on board matches the number in the flight documentation. If the count is lower (meaning unauthorized deplaning), the Passenger Name List (PNL) or Departure Control System (DCS) should be used to verify the missing passenger(s). Once identified, it should be determined if they have checked-in baggage, and if so, the corresponding baggage should be offloaded as the potential threat associated to such passengers (not authorized to deplane) could not be ignored.

20. When passengers are permitted to deplane at a transit stop, several control methods can be used to prevent or detect a passenger with checked baggage to an onward destination from not reboarding:

- Issuing numbered transit/reboarding cards and matching them with boarding passes.
- Noting seat numbers as passengers deplane and reboard if the station has access to the airline's central DCS.
- Using a Teletype Passenger Manifest (TPM) if the station lacks DCS access.
- Employing a tear-off stub on the boarding pass with passenger details to reconcile those who reboard.

21. If a no-show passenger is detected during reboarding, the aircraft operator or its ESPs must locate and remove the baggage by tag number if available.

Comprehensive Methods for Passenger, Crew and Baggage Reconciliation and Tracking

22. Methods for associating passengers (and crew) to baggage in reconciliation systems include the automatic association upon the issuance of Demand Baggage Tags, scanning or manually entering baggage tag numbers, associating passengers with security numbers via barcode or manual input, and encoding data on magnetic stripe ATB flight coupons or boarding passes.

23. Passenger (and crew) reconciliation during the boarding process involves recording persons as boarded from ticket/seat data or scanning baggage receipts, updating the reconciliation system with security tag numbers, and utilizing Magnetic Gate Readers or swiping ATB flight coupons or boarding passes.

24. Baggage reconciliation and tracking during the loading process include scanning or manually inputting data from checked baggage tags, transfer/manual baggage tags, and security tag numbers into the reconciliation system, often in conjunction with the container number or loading location.