



# IATA Freight Forwarder – Carrier – Ground Handling Agent Communication Functional Specifications <IATA Cargo> <IDFS> <29/09/2008>

## DOCUMENT CONTROL & DISTRIBUTION

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# 1 Introduction

## 1.1 Objective

As part of the IATA e-freight project, this document is intended to describe some of the information (electronic message) flows implemented between Freight Forwarders, Carriers and Ground Handling Agents at origin and at destination in an IATA e-freight environment. For IATA e-freight's purposes, this information flow must preserve the Shipment Record<sup>1</sup> (e-AWB) and ensure the data quality and integrity.

It is important to note that Freight Forwarder - Carrier - Ground Handling Agent communication is not conducted in isolation. It is an integral part of the IATA e-freight project and as such will be one of the forces creating and benefiting from the synergy of all parties involved.

## 1.2 Definitions

**AIR WAYBILL**: A paper document made out by or on behalf of the shipper, which evidences the contract between the shipper and airline(s) for the carriage of cargo over the routes of the airline(s).<sup>2</sup>

**CONSIGNMENT**: Means one or more pieces of goods accepted by the airline from one shipper at one time and at one address, receipted for in one lot, and moving on one air waybill or one shipment record to one consignee at one destination address.<sup>3</sup>

**FLIGHT MANIFEST**: Details of consignments loaded onto a specified flight.<sup>4</sup>

**FREIGHT FORWARDER**: The party arranging the carriage of goods including connected services and/or associated formalities on behalf of a shipper or consignee.<sup>5</sup>

**GROUND HANDLING AGENT**: The entity authorised to act for or on behalf of the carrier, for accepting, handling, loading/unloading, transiting, or dealing with cargo, passengers and baggage.

**HOUSE WAYBILL**: Document made out by an agent / consolidator which specifies the contract between the shipper and the agent/consolidator for the arrangement of carriage of goods.<sup>6</sup>

**HOUSE MANIFEST**: Document containing the same information as a cargo manifest and additional details on freight amounts, etc.<sup>7</sup>

**RECEIPT FOR THE CARGO (also known as "CARGO RECEIPT")**: A document<sup>8</sup> which is provided to the shipper, upon shipper's request, by the Carrier creating a shipment record as a substitution for the issuance of an air waybill and which permits identification of the shipment.<sup>9</sup>

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1 IATA Electronic Air Waybill Functional Specifications information at: <http://iata.com/stbsupportportal/efreight/materials/>

2 IATA Cargo Services Conference Resolutions Manual, Resolution 660

3 IATA Cargo Services Conference Resolutions Manual, Resolution 660

4 UN/CEFACT United Nations Layout Key for trade Documents 2002, Appendix 1 Definition and descriptions of document names

5 MacAndrews Shipping Dictionary

6 UN/CEFACT United Nations Layout Key for trade Documents 2002, Appendix 1 Definition and descriptions of document names

7 UN/CEFACT United Nations Layout Key for trade Documents 2002, Appendix 1 Definition and descriptions of document names

8 Paper or electronic

**SHIPMENT RECORD:** Any record of the contract of carriage preserved by Carrier, evidenced by means other than an air waybill.<sup>10</sup>

The Shipment Record is initiated by the FWB information and confirmed or modified by the subsequent FSU(RCS). FSU/RCS would only modify the information regarding Total Number of Pieces, weight and Volume Amount of the shipment. Only at that time the Cargo Contract shall be deemed concluded.

### 1.3 Messages<sup>11</sup>

**FFM MESSAGE:** The FFM message provides the details of consignments loaded onto a specified flight.

**FHL MESSAGE:** The main objective of the FHL message (type 1) is to provide a “check-list” of Freight Forwarder house waybills associated with a Master Air Waybill.

A second type of FHL (type 2) has been accommodated to provide details of one House Waybill consignment in order for the carrier to provide Customs with advance information based on the house waybill information provided by the origin freight forwarder.

Under IATA e-freight the IATA Cargo-IMP Consolidation List (FHL type 1) message serves as the house manifest document.

**FWB MESSAGE:** The FWB message is used to transmit a complete set of Air Waybill data in accordance with the IATA Cargo Services Conference Resolutions.

**FSU(RCS) MESSAGE:** The FSU message is used to notify/update interested parties with a (change of) status of a specified consignment as recorded in the system of a handling party.

The standard code “RCS” specifies that “The consignment has been physically received from the shipper and is considered by the Carrier as ready for carriage on this date at this location”.

### 1.4 Additional Information on Messages

**FHL’ MESSAGE:** For the purpose of these specifications, the message that contains House WayBill (HWB) data sent by the Origin Freight Forwarder with potential updates made by the Origin Ground Handler.

**FWB’ MESSAGE:** For the purpose of these specifications, the message that contains Air WayBill (AWB) data sent by the Origin Freight Forwarder with potential updates made by the Origin Ground Handler on data such as weight, number of pieces, volumes.

### 1.5 Background

Carriers may contract<sup>12</sup> the ground handling operations of freight consignments to Ground Handling Agents (GHA) at origin and/or at destination.

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<sup>9</sup> IATA Cargo Services Conference Resolutions Manual, Resolution 660

<sup>10</sup> IATA Cargo Services Conference Resolutions Manual, Resolution 660

<sup>11</sup> IATA Cargo IMP

<sup>12</sup> IATA Airport Handling Manual, AHM 801 Introduction to IATA Standard Ground Handling Agreement (SGHA), AHM 802 Comments to IATA Standard Ground Handling Agreement (SGHA), AHM 803 Service Level Agreement Example and AHM 810 IATA Standard Ground Handling Agreement may have to be reviewed

The Ground Handling Agent, who is a key stakeholder in the airfreight supply chain, needs to process inbound and outbound information regarding the physical flow of the consignments.

Today electronic messages are in some cases not exchanged as stakeholders rely on paper documents to support the performance of their respective tasks, or in other cases electronic messages are shared but the flow of data may generate duplication and many errors as highlighted in the Message Improvement Program (MIP)<sup>13</sup>. Finally, in other cases electronic messages are shared but paper documents are still received and used to validate the electronic data exchanged.

The implementation of the Shipment Record (e-AWB) is facilitated by a clear flow of information (FWB & FSU/RCS between Carriers and Ground Handling Agents ) and clarification on who should be archiving these electronic messages and who should be capable of producing the Cargo Receipt.

## 1.6 Scope of this paper

### 1.6.1 *Which stakeholders are in scope?*

The stakeholders involved in this specification are:

- The Freight Forwarder at Origin,
- The Carrier's Offices at Origin,
- The Ground Handling Agent at Origin,
- The Carrier's Offices at Destination,
- The Ground Handling Agent at Destination.

Excluded from the scope of this paper (but not of IATA e-freight):

- Customs at export and at import as the purpose of this analysis is not to investigate who is doing the Customs declaration,
- The Shipper, Freight Forwarder at Destination, Customs Broker and Consignee.

### 1.6.2 *Which documents are in scope?*

Most of the required information to be exchanged between the Freight Forwarders, Carriers and Ground Handling Agents is included in the following documents/messages:

- Air Waybill (FWB),
- House Manifest (FHL),
- Flight Manifest (FFM).

All other documents will not be included in the scope of this specification as they are not included in the scope of IATA e-freight (e.g. shipper's declaration for dangerous goods) or if included, are not shared in an e-freight environment with the Ground Handling Agents (e.g. invoice, packing list).

## 1.7 General Assumptions

For the purposes of this paper, the following general assumptions apply:

- All the IATA Cargo Shipment Record Functional Specifications<sup>14</sup> are met, especially:

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<sup>13</sup> More information available on MIP at <http://www.iata.org/stbsupportportal/efreight/MessageImprovementProgramme-MIP.htm>

<sup>14</sup> IATA Electronic Air Waybill Functional Specifications information at: <http://iata.com/stbsupportportal/efreight/materials/>

- The FWB message is sent to the Carrier before the cargo is delivered at the point of acceptance (exceptions can exist e.g. in Asia)
- The FSU/RCS message only effects changes on the FWB information regarding:
  - Total number of pieces;
  - Weight;
  - Volume amount.
- The FWB and the FSU/RCS messages constitutes the Shipment Record
- The FWB and the FSU/RCS messages constituting the Shipment Record are kept unaltered,
- The carrier (or his subcontractor) must be able to produce a Cargo Receipt upon shipper's request
- The Carrier (or his subcontractor) will always need to archive the Shipment Record and, when required, print the Cargo Receipt, directly or through a contractor.

## 2 Recommended information flow for IATA e-freight

The information flows depend on whether:

- The Carrier has offices or not at origin and destination;
- The Ground Handling Agent is using the Carrier system or has its own system with an EDI link to the Carrier;
- The Ground Handling Agreement includes the management of EDI transaction on behalf of the Carrier.

The Carrier may grant the Ground Handling Agent at Origin and /or at Destination access to its own system to view, update, respond to, create and transmit data messages on its behalf.

Alternatively, to fulfil their contracted functions, the exchange of messages between the Ground Handling Agent at Origin and/or Destination can be done using the Ground Handling Agent's own application, as described in the flow charts below.

Note 1: In describing the information flows, not all potential status update messages (such as FSU(DEP), FSU(ARR), FSU(NFD)) are included as some may be optional or exchanged in accordance with bi-lateral arrangements.

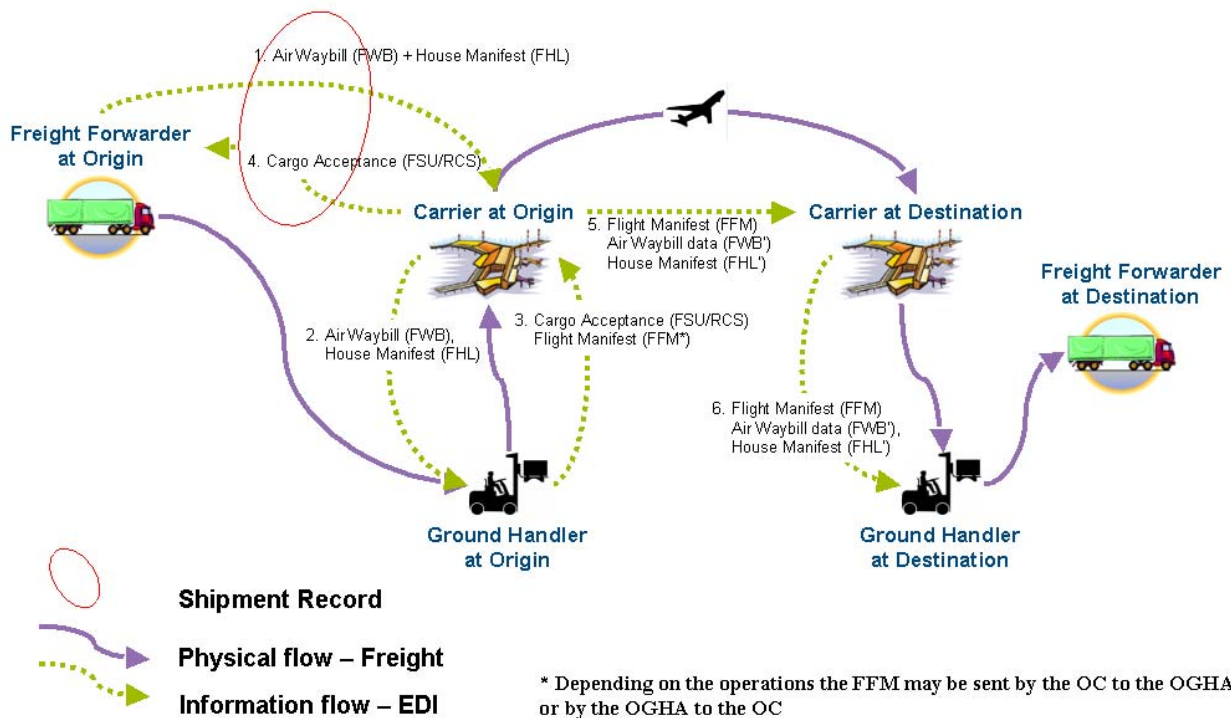
Note 2: If the flow can be freight forwarder-origin ground handling agent-carrier, the relationship is still between the freight forwarder and the carrier which means that in case of issues (e.g. data quality) the freight forwarder would contact the carrier and not the origin ground handler.

### 2.1 Carrier has an office at origin and destination

Note: (carrier may have office in town and use GHA at airport)

The following high-level data flow describes the information flow when the carrier has its own operational airfreight processing office at origin and at destination.

In such a case the Carrier may sub-contract the physical handling functions to a contracted Ground Handling Agent at origin and/or destination.



1. The Freight Forwarder at Origin, before delivering the freight, sends the FWB and FHL messages to the Carrier's Offices at Origin. FHL message may be only the checklist (FHL type 1) and potentially also the details of house waybills (FHL type 2) to facilitate advance cargo information for Customs.
2. The Carrier at Origin relays the FWB and FHL messages to the Ground Handling Agent at Origin before the Freight Forwarder at Origin delivers the freight.
3. The Ground Handling Agent at Origin receives the freight and accepts it as Ready for Carriage (or rejects it) and sends back to the Carrier at Origin the status messages (FSU) with the standard code Ready For Carriage (RCS). The Ground Handling Agent at Origin may also relay to the Carrier at Origin other messages according to the agreement in place between them, and
  - a. If the Carrier at Origin is performing the aircraft load planning the Carrier at Origin sends the FFM to the Ground Handling Agent at Origin;
  - b. If the Ground Handling Agent at Origin is performing the aircraft load planning, the Ground Handling Agent at Origin sends the FFM to the Carrier at Origin.
4. The Carrier at Origin relays to the Freight Forwarder at Origin the status messages (FSU) with the standard code Ready For Carriage (RCS). The Carrier at Origin may also relay other FSU messages to the Freight Forwarder at Origin in accordance with the agreement in place.

**e-AWB:**

- The Carrier and Freight Forwarder at Origin both have a complete and valid Shipment Record based on the FWB and FSU (RCS) which they can archive in their systems according to the pertaining regulatory requirements.
- The Carrier at Origin and Freight Forwarder at Origin can subcontract the Shipment Record management to its IT service provider if they so desire.

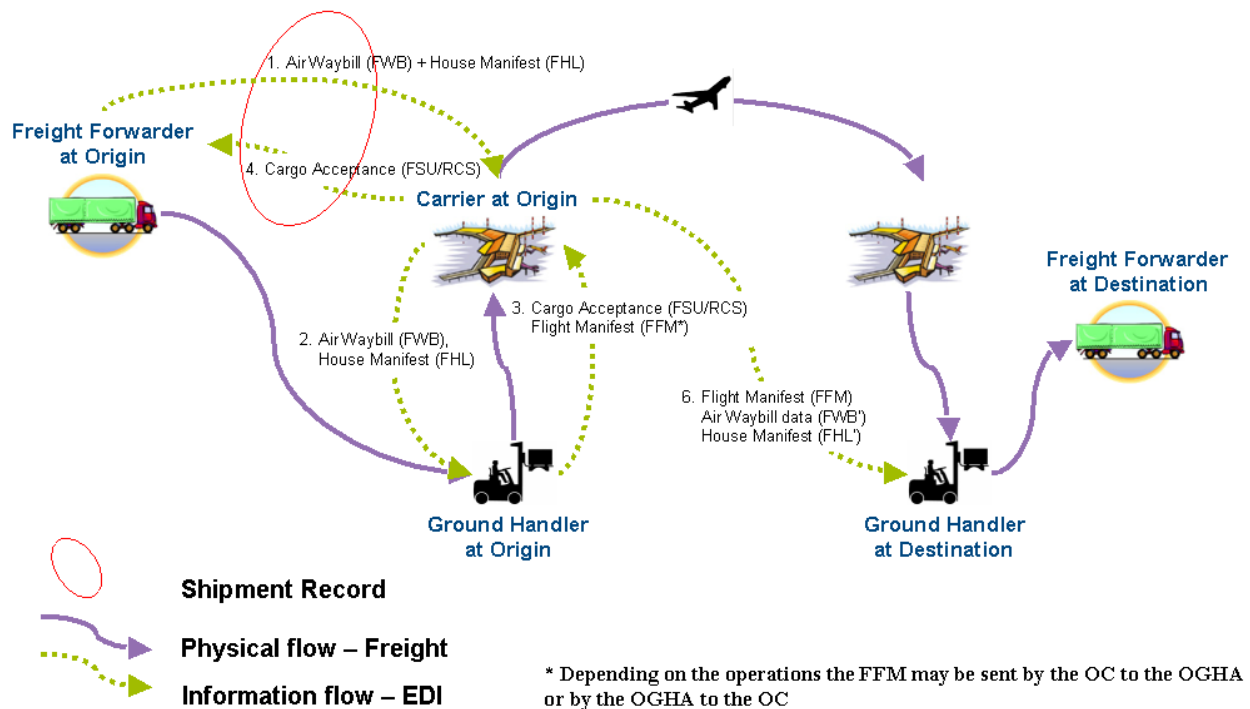
- The Carrier at Origin, if so requested by the Freight Forwarder at Origin can produce a Cargo Receipt (subject to agreement).

5. Where they are not using a shared application, the Carrier at Origin sends to the Carrier at Destination the FFM, FWB' and FHL' (FWB and FHL with the confirmed or modified information as per the FSU/RCS).
6. Carrier at Destination sends to the Ground Handling Agent at Destination the FFM, FWB', FHL' (FWB and FHL with the confirmed or modified information as per the FSU/RCS).
  - a. All agreed FSU messages are passed from the Ground Handling Agent at Destination to the Carrier at Destination who relays these to the Carrier at Origin and the Freight Forwarder at Destination according to the agreements in place

## 2.2 Carrier has an office at origin but not at destination

The following high-level data flow describes the information flow in the case where the Carrier has its own operational freight processing function at origin but uses solely the services of a Ground Handling Agent at destination.

The Carrier may also sub-contract the physical handling functions to a contracted Ground Handling company.



1. Before delivering the freight, the Freight Forwarder at Origin sends the FWB and FHL messages to the Carrier at Origin. FHL message may be only the check list (FHL type 1) and potentially also the details of house waybills (FHL type 2) to facilitate advance customs information.
2. The Carrier at Origin relays the FWB and FHL messages to the Ground Handling Agent at Origin before the Freight Forwarder at Origin delivers the freight.
3. The Ground Handling Agent at Origin receives the freight and accepts it as Ready for Carriage (or rejects it) and sends it back to the Carrier at Origin the status messages (FSU) with the standard code Ready For Carriage (RCS).

If the Ground Handling Agent at Origin is performing the load planning, the Ground Handling Agent at Origin sends the FFM to the Carrier at Origin. If the Carrier at Origin is performing the load planning the Carrier at Origin sends the FFM to the Ground Handling Agent at Origin.

- The Carrier at Origin relays to the Freight Forwarder at Origin the status messages (FSU) with the standard code Ready For Carriage (RCS).

**e-AWB:**

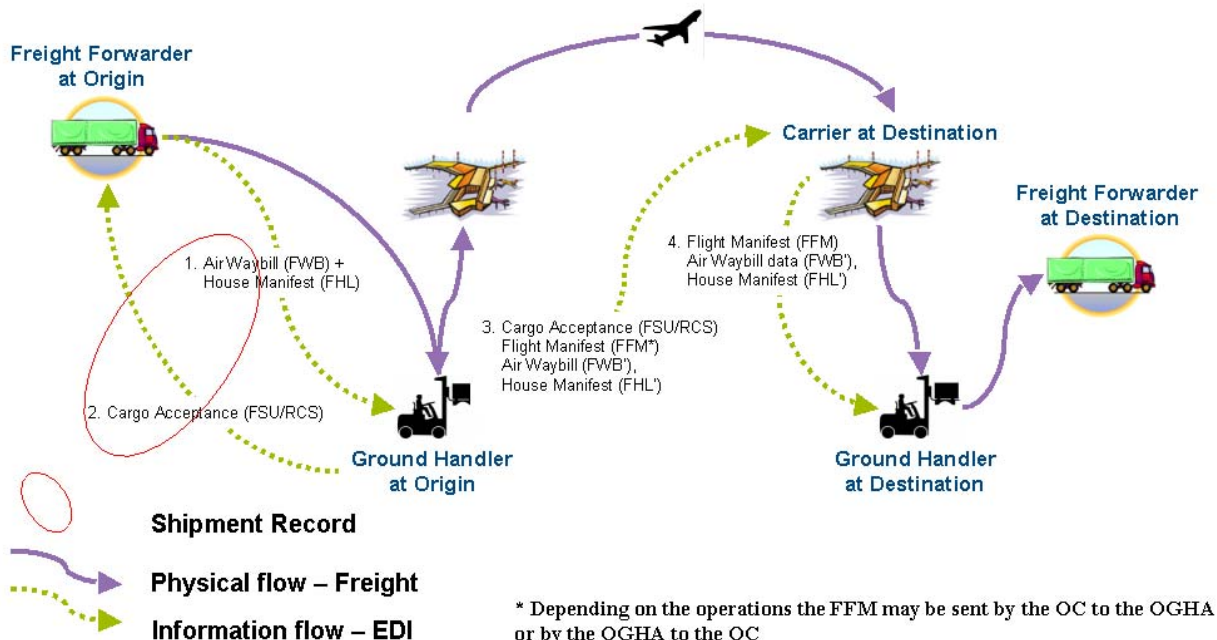
- The Carrier and Freight Forwarder at Origin both have a complete and valid Shipment Record based on the FWB and RCS which they will archive in their systems according to the pertaining regulatory requirements.
- The Carrier and Freight Forwarder at Origin can subcontract the Shipment Record management to its IT service provider if they so desire.
- The Carrier at Origin, if so requested by the Freight Forwarder at Origin can produce a Cargo Receipt.

- The Carrier at Origin sends to the Ground Handling Agent at Destination the FFM, FWB', FHL' (FWB and FHL with the confirmed or modified information as per the FSU/RCS).

### 2.3 Carrier has no office at origin but one at destination

The following high-level data flow describes the flow of information when the carrier relies solely on the services of a Ground Handling Agent at origin, but has its own operational freight processing office at destination.

In such a case the Carrier may also sub-contract the physical handling functions at destination to a contracted Ground Handling Agent.



- Before delivering the freight, the Freight Forwarder at Origin, , sends the FWB and FHL messages to the Ground Handling Agent at Origin. FHL message may be only the checklist (FHL type 1) and potentially also the details of house waybills (FHL type 2) to facilitate advance cargo information for Customs.

- The Ground Handling Agent at Origin receives the freight and accepts it as Ready for Carriage (or rejects it) and sends back to the Freight Forwarder at Origin the status messages (FSU) with the standard code Ready For Carriage (RCS).

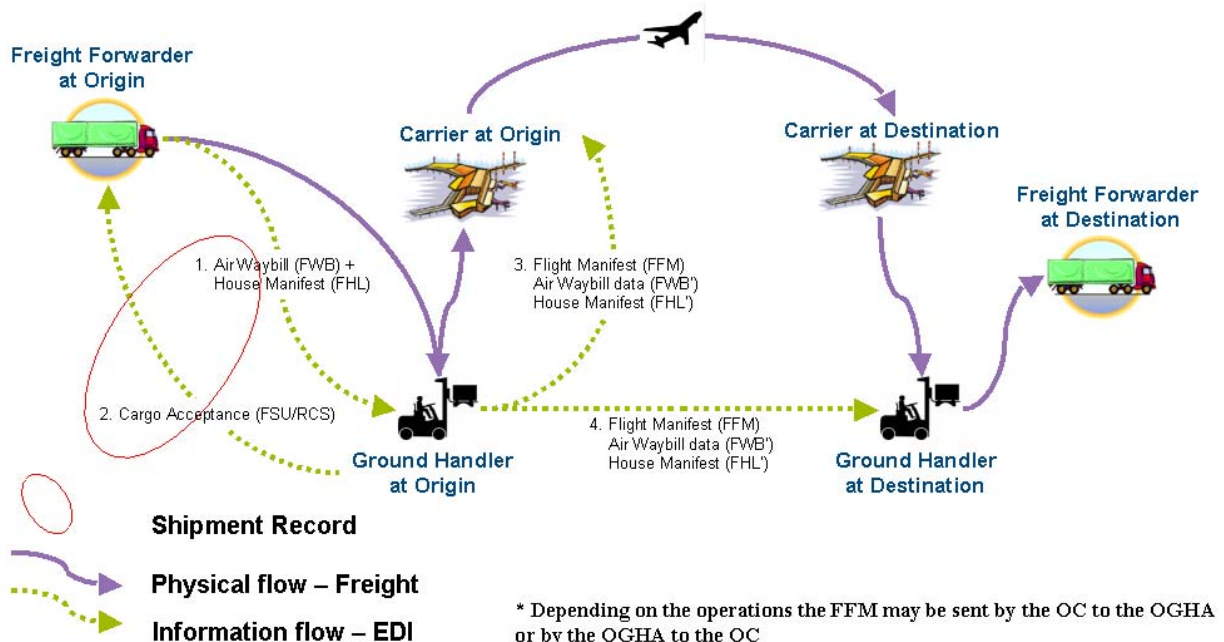
**e-AWB:**

- Both the Ground Handling Agent at Origin on behalf of the Carrier (need to be clearly defined in the GHA agreement) and the Freight Forwarder at Origin have a complete and valid Shipment Record (based on the FWB and FSU(RCS) messages exchanged) which they should archive in their systems according to the pertaining regulatory requirements.
- The Ground Handling Agent at Origin and/or the Freight Forwarder at Origin can subcontract the Shipment Record management to their IT service provider if they so desire.
- The Ground Handling Agent at Origin, if so requested by the Carrier must be able to produce a Cargo Receipt.

- The Ground Handling Agent at Origin sends to the Carrier at Destination the FFM, FWB' and FHL' (FWB and FHL with the confirmed or modified information as per the FSU/RCS).
- The Carrier at Destination sends to the Ground Handling Agent at Destination the FFM, FWB', FHL' (FWB and FHL with the confirmed or modified information as per the FSU/RCS).

## 2.4 Ground Handling Agent at Origin receives information from the Freight Forwarder at Origin and sends information to the Carrier at Origin and Ground Handling Agent at Destination

The following high-level data flow describes the information flow where the Ground Handling Agent at Origin receives information from the Freight Forwarder at Origin and sends information to the Carrier at Origin and Ground Handling Agent at Destination.



- Before delivering the freight, the Freight Forwarder at Origin, sends the FWB and FHL messages to the Ground Handling Agent at Origin. FHL message may be only the

checklist (FHL type 1) and potentially also the details of house waybills (FHL type 2) to facilitate advance cargo information for Customs.

2. The Ground Handling Agent at Origin receives the freight and accepts it as Ready for Carriage (or rejects it) and sends back to the Freight Forwarder at Origin the status messages (FSU) with the standard code Ready For Carriage (RCS).

**e-AWB:**

- Both the Ground Handling Agent at Origin on behalf of the Carrier and the Freight Forwarder at Origin have a complete and valid Shipment Record (based on the FWB and FSU(RCS) messages exchanged) which they can archive in their systems according to the pertaining regulatory requirements.

Note: The GHA agreement between the Carrier and GHA may need to be updated to meet the Shipment Record (e-AWB) requirements.

- The Ground Handling Agent at Origin and the Freight Forwarder at Origin can subcontract the Shipment Record management to their IT service provider if they so desire.
- The Ground Handling Agent at Origin, if so requested by the Freight Forwarder at Origin must be able to produce a Cargo Receipt.

3. The Ground Handling Agent at Origin sends to the Carrier at Origin the FFM, FWB' and FHL' (FWB and FHL with the confirmed or modified information as per the FSU/RCS).
4. The Ground Handling Agent at Origin sends to the Ground Handling Agent at Destination the FFM, FWB', FHL' (FWB and FHL with the confirmed or modified information as per the FSU/RCS).

### **3 Other information flows that can support IATA e-freight**

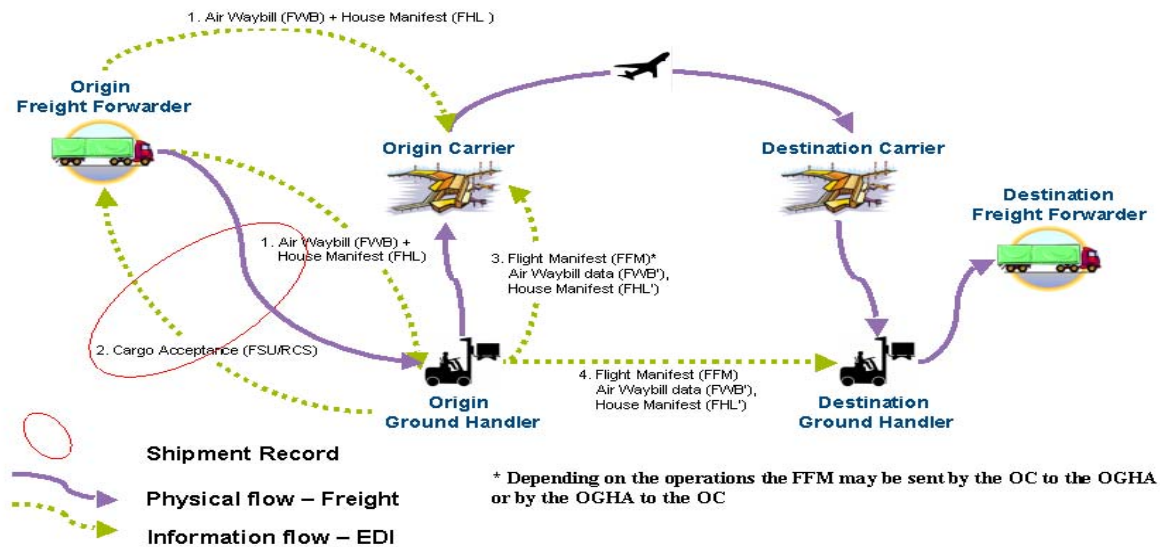
Each Carrier should be free to implement whatever information flow they choose as long as it preserves the Shipment Record as required and ensure the data quality and consistency to support IATA e-freight.

### **4 Information flows posing risks for IATA e-freight**

Some flows of data between the Freight Forwarder, the Carrier and the Ground Handling Agent may not support IATA e-freight or introduce high risks of data discrepancies.

In some cases, the FWB and the FSU(RCS) messages are not managed in one single system. This would prevent the management of the e-AWB (archiving the Shipment Record and production of the Cargo Receipt).

## 4.1 High risks of data discrepancies

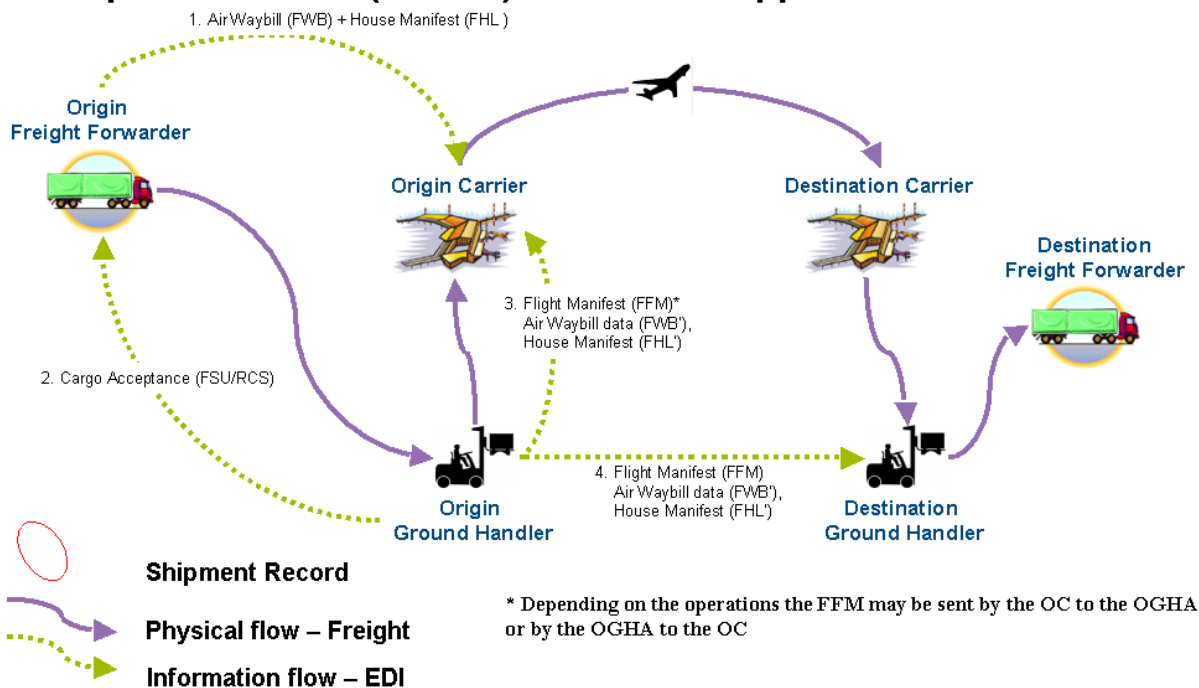


1. The Freight Forwarder at Origin sends the FWB and FHL messages to both the Carrier and the Ground Handling Agent at Origin. FHL message may be only the checklist (FHL type 1) and potentially also the details of house waybills (FHL type 2) to facilitate advance customs information.

### RISK:

- Due to the fact that the Freight Forwarder at Origin is sending messages to the Carrier and to the Ground Handling Agent at Origin there is a high risk of discrepancies between the Freight Forwarder at Origin, Carrier at Origin and Ground Handling Agent at Origin that put IATA e-freight at risk.

## 4.2 Shipment Record (e-AWB) cannot be supported



1. The Freight Forwarder at Origin sends the FWB and FHL messages to the Carrier at Origin. FHL message may be only the check list (FHL type 1) and potentially also the details of house waybills (FHL type 2) to facilitate advance customs information.
2. The Ground Handling Agent at Origin receives the freight but has not received the FWB and the FHL from the Carrier at Origin. The Ground Handling Agent at Origin accepts the cargo as Ready for Carriage (or rejecting it) and sends back to the Freight Forwarder at Origin the status messages (FSU) with the standard code Ready For Carriage (RCS).

**RISK:**

- The e-AWB cannot be managed. A Shipment Record is not created. The Carrier nor the Ground Handling Agent at Origin have in one database the FWB message as sent by the Freight Forwarder at Origin and the FSU(RCS), which constitute the basis of the Cargo Receipt as per the e-AWB specifications.

3. The Ground Handling Agent at Origin sends to the Carrier at Origin the FFM, FWB' and FHL' (FWB and FHL updated according to physical freight received which is different from the one sent by the Freight Forwarder at Origin).
4. The Ground Handling Agent at Origin sends to the Ground Handling Agent at Destination the FFM, FWB' and FHL' (FWB and FHL updated according to physical freight received).



## **Annex 1**

### **MESSAGE SPECIFICATIONS**

The specifications of these IATA standard electronic messages are described in the Cargo Interchange Manual Procedures (CIMP) that can be accessed and purchased at the following URL: <http://www.iata.org/ps/publications/cimp.htm>