IATA Guidance Material on EU-ICS2
MAIL Electronic Advance Data (EAD) Filing
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Abstract: Evaluates & analyses the impact of new EU regulations related to Mail electronic advance data filing on air carriers and guidelines for compliance.

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Air Carriers,

IT Service Provider/Cargo System/Mail System Provider,

Postal Operators,

Ground Handlers
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1. Purpose

The purpose of these guidelines is to serve as a guide for air carriers & their partners to be ready to file the mail advance data to the EU member states under the new EU-Import Control System (ICS2). These guidelines review the building blocks of EU-ICS2 program including timelines, implementation strategy etc. and analyze the impact on air carriers.

These guidelines also identify the new operating procedures that need to be in place between air carriers and postal operators, pinpoints gaps between mail and cargo existing business processes, and finally emphasizes the need for further standardization work need to be undertaken by IATA & UPU.

2. New Security Regime & Mail

Traditionally, postal mail is treated as a specific product by the air carriers and follows its own business processes & standards separate from Cargo and based on the UPU Convention (figure 1.0). Due to this special handling, postal mail was generally exempted from cargo advance data filing regulations introduced by national governments to mitigate security risks.

Considering security is a top priority and in line with the International Civil Aviation Organization and World Customs Organization’s latest international standards, many government authorities are tightening their security measures by upscaling their existing risk assessment programs and considering an extension of their security requirements to postal mail. The EU has specifically planned to implement such extension in the coming months (cf. below Section 2). The object of this paper is to evaluate from an air carrier perspective the impact of these new Mail Electronic Advance Data (EAD) filing requirements for the concerned stakeholders.

Figure 1.0 Air Cargo & Mail Handling
3. EU-ICS2 Regulation & Mail

As per European Union (EU) Regulation No 952/2013, advanced information ("entry summary declarations") must be lodged at the EU customs office of first entry within a specific time limit before the goods are brought into the customs territory of the Union. The notion of "goods" covers both air cargo and mail (defined as "postal consignments" in the legislation).

The applicable time limits for the air mode are detailed in EU Regulations 2015/2446 and 2015/2447. According to these regulations, a partial entry summary declaration (i.e. an advanced filing with a limited number of data elements) must be provided to the EU Customs office of first entry before loading at the last station prior to entering EU, and a full entry summary declaration must be provided before arrival (under the same air cargo time limits that have been applicable since 2011).

The objective of pre-loading filings is to enable EU Member States to risk assess (for security purposes) the incoming goods (cargo/mail) and communicate when necessary "referrals" (risk assessment outcomes requesting a further action from the filing economic operator and its partners, such as providing additional information, conducting additional security screening or instruction not to load the goods). The objective of pre-arrival filings is to enable EU Member States to take appropriate action (e.g. further inspection), if necessary, upon arrival.

As per the Joint WCO-ICAO Guiding Principles for Pre-Loading Advance Cargo Information (PLACI), the PLACI systems should not unnecessarily impede or delay the flow of cargo movements through the supply chain. Where an appropriate authority has notified the operator that it has significant unresolved concerns arising from its risk assessment process that relate to a possible threat to aviation security, the cargo and mail should not be loaded onto an aircraft destined to a PLACI country until appropriate measures have been taken to mitigate that risk. Except in the case of a Do Not Load message being issued, cargo keeps moving through the supply chain during the PLACI process. Where such concerns are raised about cargo already in transit by air these should be resolved at the earliest available opportunity.

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1 Article 1(24) of the EU Regulation 2015/2446 defines goods in postal consignment as follows:
Goods in postal consignment’ means goods other than items of correspondence, contained in a postal parcel or package and conveyed under the responsibility of or by a postal operator in accordance with the provisions of the Universal Postal Union Convention adopted on 10 July 1984 under the aegis of the United Nations Organisation;
4. EU-ICS2 Implementation Strategy

The EU institutions, after consulting with EU Member States and trade, decided to adopt a phased approach for the implementation of the new security requirements. Considering the complexities involved in implementing these new requirements, the phased approach takes into account the various business processes and operational capabilities of the different modes of transport (figure 2.0).

<table>
<thead>
<tr>
<th>Release 1</th>
<th>Release 2</th>
<th>Release 3</th>
</tr>
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<tbody>
<tr>
<td>Air express Pre-loading</td>
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<td>Postal-Air Pre-loading</td>
<td>Air Express Full</td>
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Figure 2.0 EU-ICS2 Phases

The EU institutions have split the approach into three successive phases. The Mail EAD requirements are spread over the two first phases: Release 1 for the pre-loading requirements applicable to postal operators (“Postal-Air Pre-loading”) and Release 2 for the mail pre-arrival requirements applicable to all air carriers (“Postal by Air Full”).

5. EU-ICS2 Implementation Schedule

EU-ICS2 releases are planned to be deployed as per below schedule (figure 3.0) providing enough time to the industry to develop the business processes, system interfaces and conduct pilot testing.

Figure 3.0 EU-ICS2 Schedule

6. EU-ICS2 Trader Interface

The EU Trader Interface is responsible for implementing the interactions with the economic operators in the context of the ICS2 program, by implementing the trader relevant part of the ICS2 common specifications. The trader interface consists of several components. First, there is the distinction between:

- the shared trader interface (STI) and
- the national trader interface (NTI).

Member states can select to opt-in to use the STI as the implementation of the Trader Interface, or they can select their own national implementation as NTI.
Secondly, the trader can select to use:

- a system to system interface or

- a web user interface.

The STI and NTI provide the services required by the ENS filing processes, be it a filing, amendment or invalidation. The STI and NTI are consequently the frontline for the ENS filing, from a trader’s perspective.

Behind such Trader Interface, the EU Commission has developed an “ICS2 Common Repository system”. The ICS2 Common Repository system is the common domain IT component of the ICS2 system that will provide the common referential and storage of the ENS data (including lifecycle validation), that will make the relevant ENS data (individually or merged by consignment) available to the EU Member States customs and that will make the consolidated ENS data available for risk analysis to the relevant EU Member States. It will also collect and share the risk analysis results amongst EU Member States, and provide data analytic tools. The ICS2 Common Repository is therefore primarily relevant for EU Member States, while the STI/NTI will be relevant for the filing traders. The ICS2 Common Repository is also responsible to share the risk results and referrals with the traders.
7. What is required for EU-ICS2 Release 1 compliance?

For operational reasons, postal operators (at origin and destination) already exchange mail item level data electronically with each other. However, when mail is transiting through a country without the involvement of local postal operator, Mail data is not filed to the respective customs which is a potential risk and continue to pose a threat to air cargo supply chain. Considering above, Mail transiting through an EU member state without involvement of local EU postal operator is excluded from EU-ICS2 filing in Release1. It is important to note however that Mail PLACI filing is an additional security layer on top of the existing security initiatives such as MAIL screening.

In the Release 1, Postal operators at origin must file Mail EAD (Item level information through ITMATT message) to the relevant EU Member State. To be compliant with this requirement, UPU has developed a global postal model that allows origin postal operators to file advance Mail data to the relevant EU Member State via the destination post located in that same EU Member State. That EU Member State, after/during risk assessment, can channel the response back to the origin postal operator via the destination postal operator (figure 4.0).

Figure 4.0 EU-ICS2 Release 1 Postal Air pre-loading
8. Analysis of the UPU Global Postal Model

For the complete execution of the UPU global postal model, UPU is in the process of enhancing the current postal standards and processes (e.g. revision of CARDIT, development of processes to address referrals received from Customs, etc.). Readiness of UPU standards is a prerequisite for deployment of the EAD global postal model.

a. Effectiveness of global postal model

The effectiveness of the global postal model under EU-ICS2 Release 1 will be achieved when:

1. All required standards are available
2. Postal systems are enhanced to support these new standards
3. The EU STI/NTI incorporates the functionality to receive, process and respond to the Mail EAD
4. Pilot testing is conducted between Origin Postal Operators, EU-Destination Postal Operators and EU Member States

b. Expected challenges

In addition to the necessary implementation of the UPU standards by all the postal operators, some challenges/issues which could potentially impact the overall security assessment process are:

1. Carriers might have the mail consignment in their custody without knowing if there is any late referral issued by an EU Member State
2. There is no visibility to the EU Member State on the Mail consignment’s whereabouts as well as the transporting carrier until the carrier is filing the pre-arrival information.
3. Risk assessment complete notification is generated automatically from STI/NTI, however there is no definite timeframe for EU Member States to communicate the result of risk assessment
4. Mail transiting through EU to a non-EU final destination without involvement of local EU postal operator is excluded from filing Mail EAD requirements under Release 1 and hence continues to pose a threat to aviation security.

Postal Operators and Carriers are working together on finding solutions to the above-mentioned challenges in order to ensure the mail flow.

9. What is the operational impact of EU-ICS2 Release 1 on Postal Operators?

The following impacts can be identified for postal operators:

i. Origin postal operators are responsible for filing Mail item level data through ITMATT in advance to the relevant EU Member State (through the EU destination postal operator).

ii. Prior or at the time of tendering Mail consignment to carriers, postal operators are responsible to communicate to carriers that Mail item level data has been duly communicated to the relevant EU Member State.
Note: System integration for data filing indicator (Applicable Regulation (AR) Flag in CARDIT) will be ready by 2023 (Release 2). In the meantime, air carriers and postal operators should bilaterally agree on the manual processes to communicate this information.

iii. New standard operating procedures & system interfaces must be implemented between

a. origin postal operator and destination postal operator

b. destination postal operator and the destination EU Member State’s relevant authorities (Customs)

c. origin postal operator and transporting air carrier for exchanging:

   a. latest version of CARDIT (2.1 or above) message

      Note: AR flag in CARDIT message including AR flag indicating confirmation that data filing has been done will be available by 2023.

   b. late referral while mail consignment is already in air carrier’s custody.

      Note: system integration for late referral communication will be in place by Release 2 and in the meantime, air carriers and postal operators will come up with the manual processes to resolve late referrals.

iv. The new SOPs must ensure that:

a. there is no outstanding referral for the Mail consignment tendered to air carrier.

b. Referrals (including Do Not Load) from EU Member States are addressed accordingly by the party in possession of the Mail and in due time

c. 24x7 contact is in place to handle situations such as Do Not Load.

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2 Mail consignment in compliance with all applicable Electronic Advanced Data regulations*

* the sending designated operator has checked whether an EAD filing was required, and if required, that all EAD-related data required for aviation security risk assessment has been filed in line with the EAD model and PLACI Guideline, and has been provided to the applicable authority in compliance with all applicable EAD regulations and that there is no known security threat or outstanding referral at the time of transmitting the CARDIT
10. What is the air carrier’s involvement in the EU-ICS2?

a. EU-ICS2 Release 1

Postal Operators are mainly responsible for filing the Mail AED in release-1. However, in reality air carriers’ involvement cannot be entirely excluded. As per the “EU Guidance ICS2 PLACI air cargo referral protocols in more operational detail”:

“Standard communication protocols and/or business procedures need to be in place between airlines and designated operators, to be able to inform and prompt an action by the air-carriers of the late arrival of a request for screening (RFS) and Do Not Load (DNL). It is possible that a designated operator receives RFS or DNL after a Mail Consignment has been handed over to the air-carrier.”

This implies that to handle late RFS and DNL situations:

i. IATA and UPU must make sure that necessary business processes are available

ii. Air carrier and Origin Postal Operator must have SOPs in place and wherever possible the respective systems must be integrated, so that the air carrier can:

a. receive and process CARDIT information

b. get confirmation from Origin Postal Operator that advance data has been filed and there is no outstanding referral at the time of transmitting CARDIT (either AR flag in CARDIT is set to indicate that MAIL EAD is completed and there is no outstanding referral or some sort of bilateral agreement between air carrier and postal operator).

c. immediately act or advise interline partner (if applicable) if a late referral is received by the Postal Operator once the receptacle is in the hands of the air carrier.

In a nutshell, the following three outstanding issues for the EU-ICS2 Release 1 must be addressed in the air carriers’ standard operating procedures (SOP):

A1. Since Postal Operators are responsible for filing the item level data through ITMATT message, air carriers need assurance from the Postal Operator prior to accepting mail consignment that:

a. Mail item level data (all receptacles in a consignment) has been filed to the relevant EU Member State prior to tendering the mail with air carriers (such assurance will be provided through CARDIT AR flag when CARDIT has been upgraded by 2023, and in the meantime trough manual process) and

b. there is no outstanding referral.

A2. At present, due to lack of pilot testing, the referral process is yet to be tested. Although it is the responsibility of the Postal Operator to deal with the referral, air carriers must cater for this situation for possible late arrival of referral. While the referral between Member State and Postal Operators is always on item level, it is agreed between IATA and UPU that referral between postal operator and air carriers will always be at receptable (mail bag) level.

A3. Generally, air carrier destination station (in the first EU Customs office of entry) is not involved in PLACI filing nor referral resolving. However, depending on the timing of late referral, air carrier destination station may need to be involved.
b. EU-ICS2 Release 2

In the EU-ICS2 Release 2, air carriers are required to electronically inform the EU Customs office of first entry about the manifested Mail bags for each flight (through a message with Master air waybill containing necessary postal air waybill information lodged in accordance with the time-limits applicable for the mode of transport concerned) prior to arrival, within defined time frames. For exchanging Mail consignment data, the Air carrier and the Origin Postal Operator must establish system interfaces and the Air carrier must establish the communication with the relevant EU Member State(s) (e.g. through the STI/NTI).

Figure 5.0 depicts the process.

For handling Mail consignments, air carriers are using dedicated mail handling systems which are different from the core cargo handling system. Traditionally mail and cargo handling systems don’t talk to each other as there is no common interface. Figure 6.0 depicts the Mail and Cargo handling system.
To be compliant with the new regime, where air carriers must electronically transmit mail consignment level data, air carriers need to either:

- **Option-1**: Build an interface between Mail and Cargo handling systems and file Mail EAD data same as Cargo data, or
- **Option-2**: Build a new interface between Air carrier (Mail & Cargo system) and the EU-ICS2 STI and file Mail EAD using different format than Cargo data.

To take advantage of existing infrastructure, business processes between the air carriers and EU member states and to align the Mail and Cargo business processes, the air cargo industry has decided for option 1. In order to use the option-1, Postal air waybill concept is used, and details are included in section 11.

11. **What has been achieved so far to prepare the industry for EU-ICS2 Release 2?**

Both UPU and IATA are working together to ensure that industry (air carriers and postal operators) is ready well in time. The synchronization of mail and cargo processes and systems require to have a common denominator and the Postal Air Waybill appears to be the perfect candidate. The Postal Air Waybill is identified both by UPU and IATA as the common denominator to integrate the mail data with core cargo systems.

The use of Postal Air Waybill, which could be assigned either by carrier or by Post, requires new processes such as the distribution of a Postal Air Waybill stock to postal operators by air carriers (if post assign the postal
air waybill), assigning the Postal Air Waybill number to mail consignment containing receptacles etc. as well as system upgrades for both Postal Operators and Air carriers.

Using the Postal Air waybill approach, IATA and UPU have developed the following:

i. **Business Processes (Figure 7.0) for assignment of Postal Air Waybill either by Postal Operators or Air carriers**

While the original source of mail data will be the CARDIT message from the Postal Operator, Air carriers will be using the Flight Manifest (XFFM), Air Waybill (XFWB) and House Checklist (XFHL) messages to transmit Mail EAD data to customs. XFHL will be containing the list of Mail receptacles.

These new business processes are built on top of the existing processes (CARDIT/RESDIT) so that existing accounting related processes remain unchanged.

These new business processes provide flexibility as:

a. either Postal Operator or Air carrier can assign the Postal Air Waybill number.

b. Postal operator, Air carrier or any 3rd party can deploy conversion solution

Between now and March 2023, the airline industry must still define additional business processes such as:

- Business rules & general principles for using the Postal Air Waybill
- Mail loaded as part consignment based on the available capacity,
- transit mail,
- transfer mail,
- CN38/CN37 discussion here (flying trucks)
- etc.

ii. **Mail & Cargo Messaging Synchronization Guidelines published in the Cargo-XML Manual and Toolkit**

These guidelines cover the general principles as well as detailed instructions for converting a CARDIT into XFWB and XFHL. IATA and UPU are working on the business processes for including the Postal Air Waybill in RESDIT message while air carriers transmit RESDIT back to postal operators.

There are two options for converting CARDIT into XFWB and XFHL:

- **Option-I: Direct Conversion (CARDIT -> XFWB and XFHL)**
- **Option-II: Indirect Conversion (CARDIT -> Operational System -> Generate XFWB and XFHL)**

One of the challenges in EU-ICS2 is the unavailability of mail consignment tender information to customs i.e. indication that Mail consignment is in carrier possession now. By using Option-I, Air carriers would be able to notify the relevant EU Member State (Customs Office of 1st entry) that Mail receptacles are in their custody. Using the option-II, air carrier will first process the CARDIT message in their operational system, necessary amendments will be done (if applicable) such as splitting the shipment across multiple flights and then XFWB and XFHL will be generated accordingly. Option-II will be used to notify the relevant EU Member State about the exact Mail receptacles manifested on a flight.

iii. **Availability of standards**

a. CARDIT Applicable Regulation information (AR) Flag
b. IMPC Code List

c. UPU Translation Table

The minimum requirement for converting a CARDIT into XFWB 3.00 and XFHL 2.00 is to use CARDIT version 2.1.

To ensure compliance with ICS2 Release 2, the above business processes must be implemented by the Postal Operators as well as air carriers. In addition, the Postal Operators’ mail system as well as Air carriers’ cargo systems must be enhanced to support the Postal Air Waybill functionality and messaging standards.

IATA and UPU already developed the standard principles and business processes for the Mail Electronic Consignment Security Declaration (e-CSD) which are published in the IATA Cargo Services Conference (CSC) Recommended Practice 1688 i.e. Mail Consignment Security Declaration. The work related to e-CSD will prove beneficial during the EU-ICS2 implementation.
**Postal Operator Process**

1. **Postal Operator**
2. Generate CARDIT version 2.1 or above
3. Is Postal Air Waybill PAWB# assigned?
   - Yes: Agreement to provide PAWB#
   - No: Proceed to next step
4. Is Conversion Solution in place?
   - Yes: Assign PAWB#
   - No: Proceed to next step
5. XFWB 3.00 and XFHL 2.00 available?
   - Yes: Transmit CARDIT version 2.1 or above
   - No: Proceed to next step
6. Transmit XFWB 3.00 and XFHL 2.00

**Carrier Process**

1. **Carrier**
2. Receive Messages from Post
3. Process CARDIT
4. Is Conversion Solution in place?
   - Yes: Proceed to next step
   - No: Process Stop
5. Is Postal Air Waybill # assigned?
   - Yes: Assign Postal Air Waybill # from AWB Stock
   - No: Proceed to next step
6. XFWB 3.00 and XFHL 2.00 Available?
   - Yes: Proceed to next step
   - No: Process Stop
7. Carrier ACI Filing on Consignment Level
8. Apply Conversion
   - Yes: Send RESDIT with Postal Air Waybill#
   - No: Process Stop

**Figure 7.0 Business Processes for Postal Air Waybill Assignment**
12. Conclusion & Next Steps

Mail consignments will no longer be exempted from the security risk assessment as of March 2021. To ensure compliance with the new Mail EAD regulations, air carriers and Postal Operators must upgrade their Cargo and Mail systems, validate the newly developed business processes and initiate pilot testing without any delay.

Customs authorities need to be engaged to assess the validity of these business processes and newly developed solutions hence, the mail EAD pilots must include EU customs/member states on top of the Postal Operators and air carriers.

3rd Party IT Service Providers for Mail handling solutions are going to play a key role in the industry readiness for EU-ICS2.

While IATA and UPU have come a long way to address the challenges of EU-ICS2, there are still a number of outstanding issues including the standardization of the outstanding business processes such as Mail Part Consignment, Mail Transfer and Transit Mail processes. As the Mail consignment transiting through Europe Union without involvement of the local EU postal operator are out of scope for EU-ICS2, this maintains a security risk for aviation and industry as a whole must take necessary steps to mitigate the risk. IATA believes that under the current EU legislation, if this issue is not resolved by March 2023, air carriers will not be able to carry mail consignments transiting through EU.

Business processes and new SOPs must be agreed and implemented for these scenarios in order to ensure appropriate compliance with the upcoming Mail EAD requirements coming into force in 2023 in EU.