IATA Guidance on Compliance with Electronic Advance Cargo Information requirements
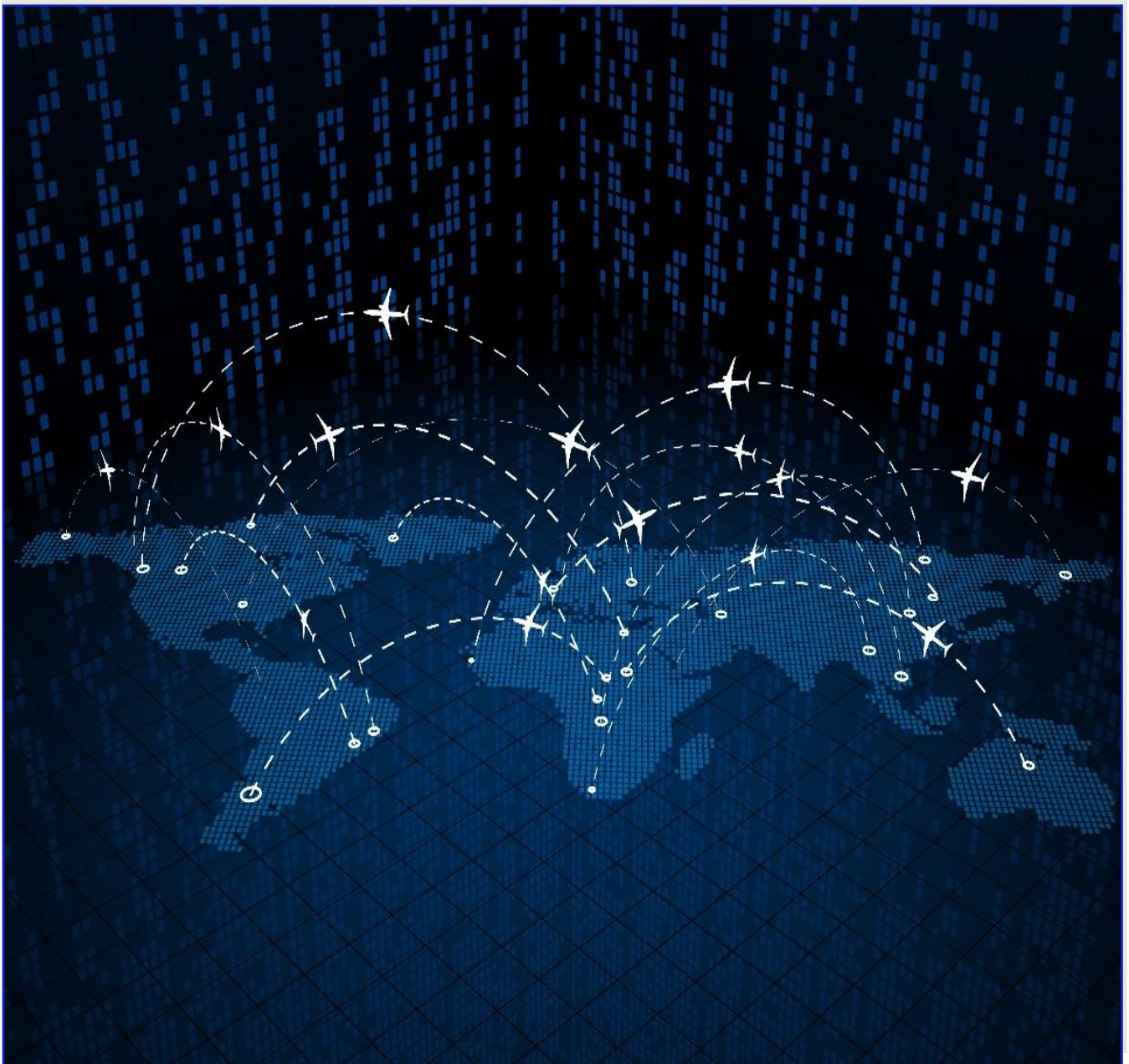
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Glossary of Terms

ACI   Advance Cargo Information

IATA   International Air Transport Association

UNCTAD   United Nations Conference on Trade and Development

XML   Extensible Markup Language

WCO   World Customs Organization

WCO SAFE   WCO SAFE Framework of Standards to secure and facilitate trade

1. Executive Summary

The objective of this document is to facilitate the implementation of efficient security risk assessment programs for air cargo. In order to reach this objective, this document is providing guidance for the development and deployment of Advance Cargo Information (ACI) requirements. Such guidance should be useful in countries where administrations are resolute to ensure that their national regulatory requirements are aligned with both existing international standards and business processes applicable to the movement of air cargo

This document is mainly intended for regulators (Customs and Civil Aviation authorities) but can also be beneficial to air cargo carriers and their partners (freight forwarders, ground handlers, IT/messaging service providers, etc.) as well as IATA staff involved with air cargo security.

Noting that there has been, over the past years, a surge of regulatory requirements for the advance electronic transmission of air cargo data to offset security risk, IATA has intensified its efforts to assist Customs authorities to meet their risk management objectives while minimizing the impact on existing electronic data interchange used by airlines and their supply chain partners.

In doing so, IATA has developed a significant expertise in ACI program deployment. This Guidance Document is summarizing this expertise by providing input on the key elements to consider when drafting the regulatory requirements and determining the components of a successful ACI program. It provides explanations on why these elements are relevant, first by resuming the background of ACI programs and then by focusing on the regulatory aspects as well as the technical components required for a successful ACI program implementation. Finally, this document also provides some useful references to existing standards, a list of suggested success factors and case studies as well as a template for ACI deployment planning.

This document should serve to establish the indispensable dialogue between Customs authorities and industry representatives on each of these key elements. IATA remains at the disposal of regulators to contribute to this discussion and to provide a range of related services (toolkits, trainings, etc.)[1].

Any comment or follow up on this document can be provided to the IATA Cargo Border Management team at cbm@iata.org

2. Background

The advance electronic transmission of air cargo data is primarily aimed at offsetting security risks by providing to Customs administrations sufficient time to undertake an adequate risk assessment of cargo prior to the arrival of the carrying aircraft in their territory.

The provision of electronic ACI by air carriers and/or their supply chain partners to Customs authorities is one important element of the multi-layered approach IATA is advocating for a robust air cargo security strategy. IATA supports the submission of data before the aircraft's arrival because this approach relies on the application of risk management processes to target high risk cargo and facilitating legitimate cargo flows. Thus airlines are able to benefit from less inspections and border delays and improve the predictability of goods to markets.

Such an approach is also endorsed by the World Customs Organization (WCO), which created international standards on this topic already in the first publication of the "WCO SAFE Framework of Standards to secure and facilitate trade" (WCO SAFE) in 2005[2].

Since the WCO SAFE first publication, some 170 countries have committed to implement these standards. Over the past years, there has been a significant surge of electronic pre-arrival information requirements in various parts of the world[3]. Unfortunately, those requirements are not always aligned with the WCO international standards. As a result, airlines and their partners are confronted with different time limits, a disparate variety of data elements, disharmonized formats for the electronic transmission, etc. Moreover, the timeframes for implementing those requirements vary significantly from one country to the other, thus creating a severe burden on the air cargo industry which is forced to comply with those legal requirements within a very limited timeframe. This can result in inadequate transmissions and poor data quality, leading frequently to a revision of the initial requirements – which is neither in the interest of the regulators nor of the regulated parties.

Recognizing that the most efficient ACI requirements should both be aligned with the WCO SAFE and take into account the electronic data interchange already used in the air cargo industry, IATA has strived over the past years to work with national regulators, IT providers and international institutions that are developing ACI-related tools (ASYCUDAWorld[4], WCO CTS[5]) in order to assist with the developments of systems that can meet Customs' risk management objectives while minimizing the impact on existing electronic data interchange used by airlines and their supply chain partners.

Drawing from this experience, IATA has prepared this document, endorsed by the IATA Cargo Customs Working Group[6], to serve as a possible roadmap for the deployment of ACI requirements in countries where the administrations wish to ensure that their national regulatory requirements are aligned with existing international standards and business processes.

This document is focusing on **pre-arrival** ACI requirements for general air cargo, i.e. requirements applicable to general air cargo between the moment when the aircraft has left the last point of departure and when the aircraft is entering the Customs territory. Indeed, those are the most common ACI requirements and are the most appropriate to start any ACI program. Other requirements focused on pre-loading data or on specific types of cargo (e.g. mail) are not addressed in this document, because those specific programs are still at a pilot stage and have not led to definitive processes yet.

This document is a living document and will be updated whenever further experiences with the deployment of ACI requirements for air cargo command adaptations. It has been drafted with the intent to provide constructive recommendations and to serve as a basis for a more detailed dialogue with all concerned parties, including regulators and impacted parties.

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[2] **These standards are now available in the latest (2018) publication of the WCO SAFE, under Section III, par. 2.1.3.**

[3] **IATA has identified at least 70 countries requesting ACI submissions with specific reference to WCO SAFE implementation.**

[4] **ASYCUDAWorld stands for Automated System for Customs Data and is a computerized system designed by the United Nations Conference on Trade and Development (UNCTAD) to assist countries' customs administrations. Currently, more than 90 countries use some version of ASYCUDA or ASYCUDAWorld. The versions 4.3.2 and higher of ASYCUDAWorld (successfully tested and deployed in 2017) are compatible with the following IATA standard messages: XFFM (2.00), XFWB (3.00), XFZB (3.00) and XFNM (3.00).**

[5] **WCO CTS stands for World Customs Organization Cargo Targeting System, which is a risk assessment tool made available by the WCO to its member countries. Since September 2017, the WCO CTS integrates an Air Module which is compatible with the following IATA standard messages: XFFM (2.00), XFWB (3.00), XFZB (3.00) and XFNM (3.00).**

[6] **The IATA Cargo Customs Working Group is an IATA industry group composed of IATA member airlines whose objective is to review all customs matters impacting air cargo.**

3. Regulatory Aspects

The submission of ACI requires the involvement of several stakeholders (airlines, freight forwarders, cargo community system providers, cargo agents, etc.) and financial investments to develop appropriate connectivity with the Customs system.

> **Whether the connection is host-to-host or via an intermediary, experience has demonstrated that the period to develop appropriate connections to the Customs system is often underestimated.**

That is why clear regulatory requirements are necessary, in order to allow airlines and their relevant partners to undertake with certainty the appropriate investments.

To ensure appropriate clarity, it is recommended in particular to address ACI requirements in specific sections for each impacted mode of transport, in recognition of the fact that business processes vary greatly between the different modes (maritime, general air cargo, express air cargo, rail, road, etc.).

In line with IATA's "Smarter Regulation" principles[7], the applicable regulation should deliver clearly defined, measurable policy objectives in the least burdensome way.

Specifically, the regulation establishing ACI requirements should be explicit on:

a)   the data required

b)   the parties responsible for filing

c)   the deadlines for filing

d)   the timeframe for implementation

e)   the "informed compliance" period

f)   in case penalties are considered, the means of recourse available.

a) Data required

For regulated parties, it is essential to know which data elements are required, and under which format.

The WCO is providing in the WCO SAFE the list of data elements that are necessary for ACI purposes[8]. Those data elements are organized into two categories:

- data elements available at the Goods Declaration level;
- data elements available at the Cargo Declaration level.

Such split into Goods and Cargo Declarations corresponds to the organization of trade documentation: Goods Declarations cover the information available to parties involved in the contract of sales (i.e. invoices, packing lists, etc.), while Cargo Declarations cover information available to parties involved in the contract of carriage/transportation (i.e. booking lists, air waybills, etc.) - cf. below Figure 1.
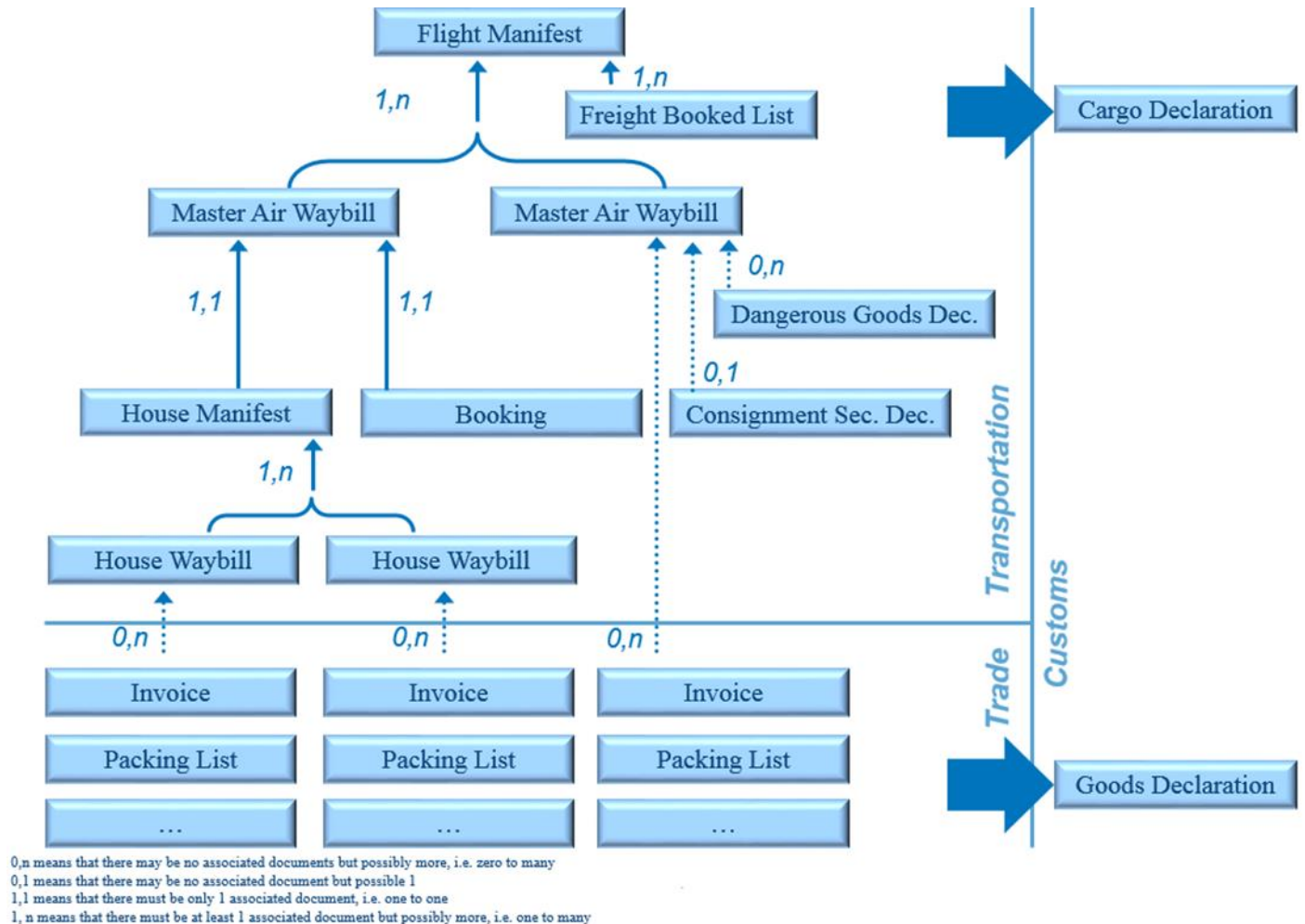

0,n means that there may be no associated documents but possibly more, i.e. zero to many
0,1 means that there may be no associated document but possible 1
1,1 means that there must be only 1 associated document, i.e. one to one
1, n means that there must be at least 1 associated document but possibly more, i.e. one to many

Fig. 1 – Goods and Cargo Declarations in Air Cargo

This Figure 1 shows that the necessary data elements can be extracted from existing cargo documentation.

Specifically, for ACI purposes Customs will need data from:
- **the Airline's Flight Manifest;**
- **the Master Air Waybill;**
- **the House Air Waybill.**

Those three business documents gather all necessary data identified by the WCO as relevant for ACI purposes, at the Goods and Cargo Declaration levels.

For more information on the electronic format for this data and the related encompassing messages relevant for ACI purposes, cf. Section 4.1 below.

b) Parties responsible for filing

The below Figure 2 provides (from bottom to top) an overview of the air cargo documentation flow.
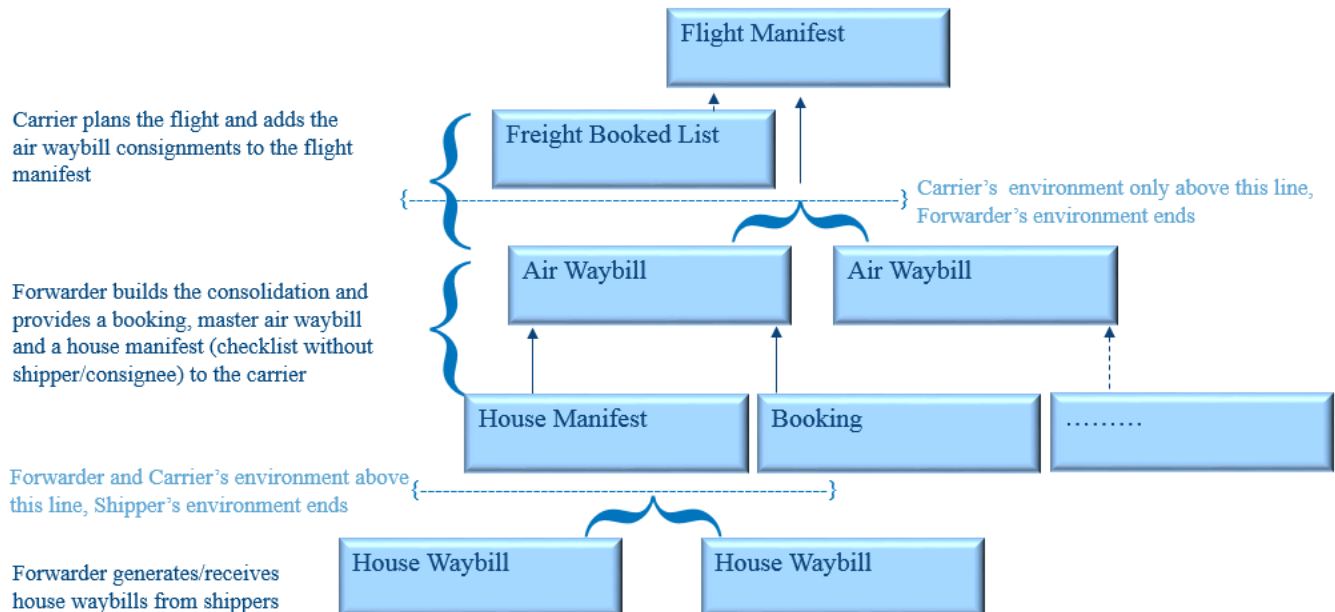

Fig. 2 – Hierarchy of Air Cargo Documentation

Data is not always owned by the same party, as evidenced by the above Figure 2: data at the Master level are owned by the carrier, whereas data at the House level are owned by freight forwarders.

In principle, the relevant data should be obtained from the party who owns that data.

That is why the WCO standards refers not only to carriers as providers of ACI import data, but also to the "importer or his/her agent"[9].

In order to align with this standard, several countries have developed "multiple filing" (also known as "dual filing") requirements, whereas each owner of data (incoming carrier, freight forwarders) can file directly their own data to the requesting authority. Such "multiple filing" approach is in conformance with the WCO SAFE requirements and with the way the air cargo industry functions. The opposite approach, i.e. a "single filing" approach whereby the carrier would be responsible to file all data including those in possession of other parties in the supply chain (e.g. freight forwarders), would be inappropriate as it makes the carriers responsible for data that they cannot control.

The effective filings may of course be done by other parties than those owning the data (e.g. one party may file on behalf of another party), but such practical considerations do not change the accountability (meaning also the related exposure to penalties) which remains with the owner of the data.

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[9] **WCO SAFE 2018, under Section III, par. 2.1.3, item ii.**

For more details on data filing, cf. section 4.1 below.

c) Deadlines for filing

According to the WCO standards[10], the following filing deadlines are applicable to air cargo:

- **Short haul: at the latest at the time of "Wheels Up" of aircraft;**
- **Long haul: at the latest 4 hours prior to arrival at the first port in the country of destination.**

"Short haul" is not defined by the WCO but should be understood to mean any journey lasting less than 4 hours.

Airlines and their partners will file the information at the earliest practical moment, which will in many instances be before the above deadlines. However, the above internationally consistent deadlines are appropriate because they ensure that adequate business processes, compliance rules, etc. can be set up without having to vary depending on each destination.

d) Timeframe for implementation

Airlines need, in general, a minimum of three to six months to adapt their systems to new requirements. This is however only a general assessment based on the following considerations:

- it will take airlines a minimum of 3 to 4 weeks to tender a contract with external providers if they choose to use one (and if they do not, some additional time is needed to engage the internal IT department);
- an additional 2 to 3 weeks is required for approval and contract signing;
- systems developments will take a minimum of 30 days. Considering that the system development may vary depending on the complexity of the requirements, those 30 days may often not be enough.

Internally, airlines – like any other business – have complex procedures for the deployment of new patches/updates (e.g. internal testing, Board approval for IT changes and related budgetary implications, etc.).

The above considerations are not specific to the air mode.

Trade (across all industries) is consistently requesting at least 12 months to develop, build and implement the IT systems required for ACI filing, counting from the moment when all specifications and Message Implementation Guidelines have been made available to trade.

In addition, an adequate testing period of at least 6 months is strongly recommended[11].

Finally, experience has shown that a "live testing" (= live pilot) phase is critical – cf. section 4.4 below.

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[10] WCO SAFE 2018, under Section III, par. 2.1.3, item ix.
[11] Cf. WCO Advance Cargo Implementation Guidance, item XIII iii.

e) "Informed compliance" period

The "informed compliance" period is a period of leniency during which the requirements will be applicable but not enforceable yet. Such a period allows for adjustments by both the filing parties and receiving parties.

An "informed compliance" period of at least 6 months is recommended[12].

f) Penalties

Customs and the air cargo industry have the same interest in the application of sound risk management processes to target high risk cargo. Penalties should therefore not be necessary for the development of an ACI program.

If Customs wish to impose penalties as part of the enforcement process after the end of the "informed compliance period", those penalties should be transparent, proportional, fair and non-discriminatory.

Possible means of recourse when the penalties' application is deemed unfair by the penalized party should be clearly indicated.

In addition to regulatory requirements and in order to avoid any unnecessary delays for this requirements' implementation, the official business processes, technical specifications and message implementation guidelines should be issued once the industry has been consulted. Those elements – which are essential components of any ACI program – are addressed in the below Chapter 4.

4. Components of ACI Programs

The successful implementation of an ACI program requires several components. This Chapter is organized into 4 sections addressing the key elements that need consideration before ACI requirements can be successfully implemented. Those key elements answer the following questions:

- Which electronic data are pertinent for ACI purposes and how should they be transmitted?
- What should be addressed in the documentation issued beside the legal provisions?
- How should the connectivity between the filers and the receiving authority be established?
- How should the tests/pilots be conducted once the connectivity is established?

Each component should be subject to a dialogue between Customs authorities and representatives from affected parties in order to strike an efficient balance between Customs' expectations and the private sector's ability to meet those expectations.

IATA can assist Customs in this dialogue and help authorities to dispatch the below elements to affected airlines.

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[12] **Cf. WCO Advance Cargo Implementation Guidance, item XIII viii.**

4.1. Electronic Data

Customs authorities have agreed within the WCO on the data elements that are pertinent for ACI purposes[8]. In the air cargo industry, those data elements can be found in three messages:

- The Flight Manifest
- The Master Air Waybill
- The House Air Waybill

Those messages are owned by different parties: the Flight Manifest and the Master Air Waybill data are owned by the Airlines, while the House Air Waybill data are owned by Freight Forwarders.

The data ownership shall determine who is responsible for that data. Most ACI programs foresee that the transmission of the data can be done either directly or through a third party (e.g. Airlines on behalf of Freight Forwarders, IT Service Providers, Ground Handlers, etc.). When the data is transmitted by a third party, that third party is not responsible for its content. The third party can only be responsible that the data is transmitted.

The role of each involved stakeholder is summarized in the below Figure 3.
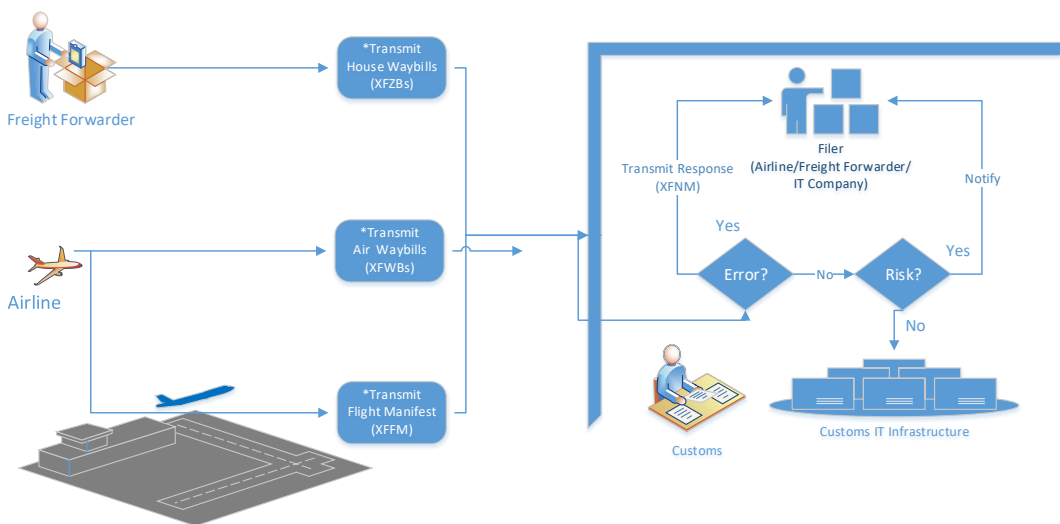
* Transmission could be either directly or through a 3rd party where 3rd party includes Airlines, IT Service Provider, Ground Handler

Fig. 3 – Parties involved in ACI transmissions

Each air cargo document has a corresponding electronic version. In the air cargo industry standards, those electronic messages are available in either of two messaging standards: Cargo-XML or Cargo-IMP – cf. below Figure 4.

Cargo-XML (emerging)	Maintained by Cargo-XML Task Force (CXMLTF)	Published in Cargo-XML Manual and Toolkit
Cargo-IMP (traditional)	Maintained by Cargo-Data Interchange Task Force (CDITF)	Published in Cargo-IMP Manual

Fig. 4 – IATA Cargo-IMP and Cargo-XML

As per industry demand, the IATA Cargo Services Conference decided to freeze Cargo-IMP Messages and to discontinue the IATA Cargo-IMP Manual.

Since the 1st of January 2015, the Cargo-IMP Manual 34th Edition is the final edition of this Manual and there is no longer any change to the Cargo-IMP Messages. The Cargo-IMP standard can continue to be used, however since 2015 developments of messaging standards have occurred in the Cargo-XML standards only.

It is therefore recommended to focus on the Cargo-XML messaging standards to fulfill the ACI program's objectives. The relationship between the relevant air cargo documentation and the related IATA Cargo-XML messages is illustrated in the below Figure 5.
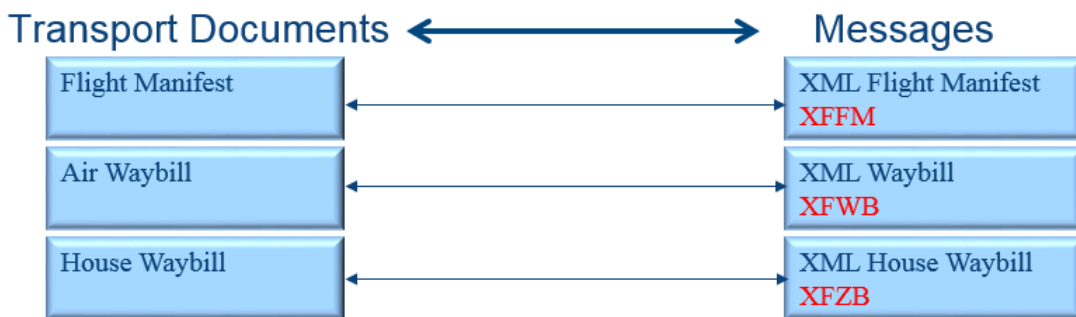

Fig. 5 – Relationship between air cargo documentation and IATA Cargo-XML standard messages

Because those IATA Cargo-XML messaging standards are developed based on existing and available documentation in the airline industry, it is highly recommended not to develop separate, proprietary xml messaging requirements, but to focus instead on those specific standards messages that are already used in the airline industry.

Some Customs administrations and International Organizations (UNCTAD, WCO) have confirmed already through ACI practice that the message versions listed in the below Figure 6 are appropriate for the required electronic data exchanges:

IATA Cargo-XML Message	Version	Document Equivalent	Message Purpose
XFFM	2.00	Flight Manifest	To transmit details of consignments loaded on a single flight to customs.
XFWB	3.00	Air Waybill	To transmit a complete set of data related to an Air Waybill to customs.
XFZB	3.00	House Air Waybill	To transmit a complete set of data related to a House Air Waybill to customs
XFNM	3.00	Response	To receive Custom response (acknowledge or error) notices.

Fig. 6 – List of IATA Cargo-XML messages/documents relevant for ACI

Those messaging standards are all published and detailed in the IATA Cargo-XML Manual and Toolkit[13]. This Toolkit can be freely licensed to Governments, Regulatory Entities and International Organizations provided they sign a Non-Disclosure Agreement.

The Toolkit is providing for each above message: Strategy & Examples, Message Specifications and Schemas, Migration Guidelines (if required), downloadable sample messages and implementation rules and guidelines.

4.2. Business Process and Technical Guidelines

Several detailed technical specifications and guidelines can be found in the IATA Cargo-XML Toolkit. In addition, IATA has co-developed Business Processes with some Customs administrations that are accepting ACI submissions using the existing IATA Cargo-XML messaging standard (cf. Annex II – Case Studies).

Obviously, each Customs authority may have different processes depending on the current set-up of the IT infrastructure. In any case, it is important to develop the ACI business process as well as technical specifications and guidelines jointly with the affected airline representatives and IATA to ensure that existing business models are duly taken into consideration.

Business processes should, for example, address the following (non-exhaustive) points:

- Who is responsible for filing which message
- Who are the other eligible filers
- What is the cut-off time for each message
- Which elements are mandatory/optional
- How submitted messages can be amended, by whom
- How submitted messages can be cancelled
- How duplicative messages are addressed
- How rejections are managed

4.3. Digital connectivity and Technical Setup

A Technical Setup is an essential pre-requisite for the exchange of electronic information between regulated parties and Customs. It is a 3-step approach (cf. below Figure 7).

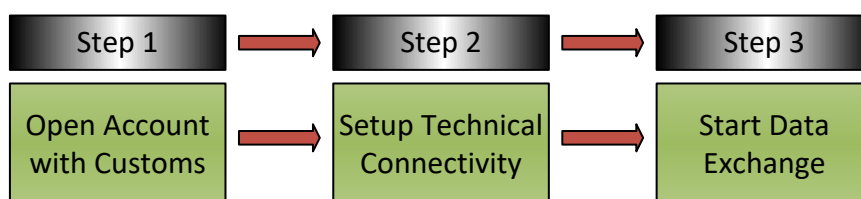*Fig. 7 – Technical Setup*

Step 1: Open Account with Customs

Customs should provide information on how to open an account, e.g. through a dedicated website. A Customs contact/Administrator should also be communicated to all potential users.

Step 2: Setup Technical Connectivity

Customs should set up an account for the user based on the registration request and provide necessary connectivity information. Such information could be, for example, through:

- a Web service
- secure File Transfer Protocol (FTP)
- a Virtual Private Network (VPN)
- Simple Mail Transfer Protocol (SMTP)

Step 3: Start Data Exchange

Once approved, the filer can start filing data. Such filing should be done first in a test environment – cf. below Chapter 4.4/Pilot.

Those three steps are essential to ensure appropriate compliance with the incoming ACI requirements. IATA has set up various channels to dispatch such information to its membership once this information is available. That is why, in order to ensure an appropriate dispatch of those elements, IATA has prepared a template form available in Annex III of this Guidance Paper. Such a form is first completed by Customs and should be dispatched by:

- the Customs administration through its national channels and
- IATA through its membership's network.

This will ensure that not only local operators, but also the airline headquarters have all necessary information to proceed with the data transmission.

4.4. Pilot

As mentioned in Chapter 3, an adequate testing period of at least 6 months is recommended. An additional 6 months of Informed Compliance is also advised to ensure that all concerned parties, including administrations, can draw the lessons learned during the live pilot.

There are at least four dates that are relevant to the regulated parties:

1. Start of data submission within a test environment
2. Live Pilot period
3. Informed Compliance period
4. Enforcement date.

The test environment can involve a selection of stakeholders. However, once the Live Pilot has started, all regulated parties should be allowed to join. This is the only way to ensure appropriate compliance in due time by all concerned parties.
IATA can assist Customs on these two matters, by:
  a) reaching out to potential volunteers for the test environment
  b) dispatching information to all impacted airlines for the Live Pilot, Informed Compliance and Enforcement date.

Also, for the sake of good coordination, it is recommended that Customs keep IATA informed of the progresses in the test environment as well as during the Live Pilot. IATA can also provide technical support and/or specific training when those tests/pilots are based on IATA Cargo-XML message standards.

5. Success factors

There are several success factors to take into consideration before an ACI program can be considered as successful and consequently enforceable. They can be sorted into 4 categories:

1. Stakeholders' engagement

2. IT Service

3. Data Quality

4. Communication

5.1. Stakeholders' engagement

ACI requirements are applicable to all incoming aircraft that carry cargo for import and/or transit. In a proper "multiple filing" approach (cf. Chapter 3(b) above), those ACI requirements apply not only to airlines, but also to freight forwarders.

Consequently, an engagement with local stakeholders only is not sufficient. Foreign airlines flying into the country, their respective IT providers, freight forwarders and agents must be involved as early as possible in the program development process.

As previously noted in this paper, IATA can assist national authorities by reaching out to airline members flying to the country, thus contributing to ensure that no impacted parties are left aside.

A successful ACI program will have engaged all relevant stakeholders at the latest by the moment when the Live Pilot is launched.

5.2. IT service

An ACI program can only work if electronic transmissions function adequately. A correct impact assessment before deploying the ACI program should ensure that the dedicated IT system will be able to manage all ACI transmissions, including inevitable message amendments, cancellations, etc.

It is also recommended to develop some business continuity plan in case of a system failure.

5.3. Data quality

The risk assessment must be based on high data quality. That is why it is so crucial to require the relevant data from the relevant party (cf. Chapters 3(a), 3(b) and 4.1 above). A successful ACI program is a program that allows efficient risk management based on appropriate data.

5.4. Communication

Communication between regulators and the regulated parties, i.e. all the stakeholders impacted by the ACI program is key for a successful deployment. Several methods of communication are available (through local agents, Boards of Airlines Representatives, national industry groups, etc.).

Because any ACI program will have an impact on foreign carriers (at last points of departure and in their headquarters), IATA has set up its own communication channels (through its Cargo Customs Working Group,

Cargo Border Management bulletins, etc.) to communicate with its membership on any upcoming ACI requirements.

The fastest deployments of ACI programs have taken place in countries where national administrations and IATA have worked jointly. Those positive experiences have led to the development of this Guidance Document so that administrations considering the development or upgrade of their ACI requirements realize that they have in IATA a partner available to assist in the efficient deployment of risk management programs that serve the common interest of secure and safe movements of air cargo into the country.

Annexes

Annex I – WCO ACI Implementation Guidance

Annex II – Case Studies: Ghana, Jamaica

Annex III – Connectivity Details and Deployment Planning Template

Annex I – WCO Advance Cargo Information Implementation Guidance

The WCO Advance Cargo Implementation Guidance was finalized by the WCO SAFE Working Group in October 2017 and endorsed by the WCO Council in June 2018.

This document provides general background on the concept of Advance Cargo Information as foreseen by the WCO SAFE Framework of Standards to Secure and Facilitate Global Trade, provides a list of the elements that are "enablers to successfully introduce ACI programme" and details the process recommended by the WCO to implement Advance Cargo Information. It also provides elements for the evaluation of an ACI Programme and a checklist for the introduction of ACI.

IATA was actively involved in the drafting of this WCO Advance Cargo Implementation Guidance.

The WCO Advance Cargo Implementation Guidance can be found at:

http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/instruments-and-tools/tools/safe-package/aci_implementation-guidance.pdf?la=en

Annex II – Case Studies

A. Ghana

The Ghana Revenue Authority Customs Division has fully integrated IATA Cargo-XML standards into its Ghana National Single Window (GNSW) platform in 2017.

The relevant Customs Act was amended in 2016 leading to the development of an Advance Cargo Declaration Module coupled to the Pre-Arrival Assessment Reporting System (PAARS). In November 2016, airlines bringing cargo to Ghana were informed that cargo system messaging details should be sent to a specific address.

Having received this information from some airline members, IATA contacted the Ghana Revenue Authority Customs Division to suggest integrating the IATA C-XML messaging standards into the Ghana National Single Window platform. A few phone conferences as well as several email exchanges over the following three months between IATA experts and the Customs IT Provider led to the production on the 19th of April 2017 of the official "Guidelines for IATA Cargo-XML Filing to Ghana Revenue Authority - Customs Division" providing to the relevant stakeholders all the necessary information to successfully file advance information to the single window platform through the submission of the master air waybill, house waybill and flight manifest messages (respectively XFWB 3.00, XFZB 3.00 and XFFM 2.00).

These Guidelines were distributed by the Ghana Revenue Authority and IATA to the relevant airlines in the second half of April. A pilot started on the 28th of April 2017 for one month with a limited number of airlines, then expanded to all airlines from June 2017. IATA assisted Ghana authorities for the deployment of the pilot by approaching all concerned IATA member airlines to ensure full compliance with the new requirements.

In addition, a Cargo-XML workshop was organized jointly by IATA and the Ghana Revenue Authority in June 2017 to address any remaining questions from representatives of airlines, IT providers, freight forwarders and local ground handling agents.

To achieve this result, the following steps were crucial:

- Strategic alignment: a regular dialogue between Ghana Customs commissioned IT experts and IATA allowed to align the business and IT strategy. This dialogue resulted in the recognition of the WCO SAFE Framework and IATA standard messages, legislative amendments and a roadmap for implementation.
- Resource planning: Customs and IATA jointly identified the stakeholders and business processes. Customs and IATA agreed on the Implementation approach as well as filing schedule, amendment and cancellation rules. Customs obtained the necessary documentation (e.g. IATA Cargo-XML Toolkit, delivered free of charge against signature of a Non-Disclosure Agreement) and related IATA support.
- Pilot: Ghana Customs deployed the solution in the test environment. IATA engaged relevant stakeholders to start filing data. The Customs IT providers fine-tuned the solution in accordance with the pilot findings.
- Industry engagement: Customs and IATA developed User Guidance and industry communication material such as the filing standards, timelines, responsible parties and compliance conditions including final enforcement date.

B. Jamaica

The United Nations Conference on Trade and Development (UNCTAD) has fully integrated IATA Cargo-XML standards into its automated customs management system ASYCUDA World which is used by 90 countries worldwide for their customs procedures. The integration of IATA Cargo-XML in ASYCUDA World standardizes the electronic communications between airlines and customs authorities using the program. UNCTAD has integrated IATA Cargo-XML recognizing that such integration "makes it easier for airlines, freight forwarders and shippers to ensure that the information being provided to the customs authorities is technically correct and in line with the standards of international bodies such as the World Customs Organization (WCO) and United Nations. It also facilitates customs risk assessments for air cargo shipments and improves compliance with security regulations. [It is] enhancing efficiency, driving trade growth and maximizing safety and security in over 90 countries"[14].

Jamaica has become the first country to implement IATA Cargo-XML standards using the UNCTAD ASYCUDA World system for its advance cargo information filing. Carriers flying into Jamaica are required to provide advance information for air waybill, house waybill and flight manifest to Jamaica customs prior to flight arrival using respective IATA Cargo-XML standards. The project is:

- setting up the foundation for paperless trade
- modernizing customs operations
- leading to better trade efficiency and competitiveness
- enhancing security
- promoting sustainable development by using electronic transactions (removing paper)
- ensuring compliance by carriers with customs requirements through the use of global standards.

To achieve this result, the following steps were crucial:

- Strategic alignment: a regular dialogue between Jamaica Customs, UNCTAD and IATA allowed to align the business and IT strategy. This dialogue resulted in the recognition of the WCO SAFE Framework and IATA standard messages, legislative amendments and a roadmap for implementation.
- Resource planning: Customs, UNCTAD and IATA jointly identified the stakeholders and business processes. Customs and IATA agreed on the Implementation approach as well as filing schedule, amendment and cancellation rules. Customs obtained the necessary documentation (e.g. IATA Cargo-XML Toolkit, delivered free of charge against signature of a Non-Disclosure Agreement) and related IATA support.
- Pilot: UNCTAD and Customs deployed the solution in the test environment. IATA engaged relevant stakeholders to start filing data. UNCTAD and Customs fine-tuned the solution in accordance with the pilot findings.
- Industry engagement: Customs, UNCTAD and IATA developed User Guidance and industry communication material such as the filing standards, timelines, responsible parties and compliance conditions including final enforcement date.

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[14] **UNCTAD flyer on "IATA Cargo-XML and ASYCUDA" (cf. https://asycuda.org/wp-content/uploads/flyer-iata-cargoxml-asycuda-en.pdf).**

ANNEX III – Connectivity Details and Deployment Planning Template

Technical Requirement	Customs Information
Systems Address	https:…
Communication Protocols	https:…
Details of Communication Protocols	*For example: "An http post has to be made to the system address using the IATA-XML message as the content".*

Technical Requirement	Customs Information
Legal Basis	Customs (Amendment) Act…
Pilot Commencement Date	DD/MM/YYY
Implementation Date	DD/MM/YYY (*in general Pilot commencement date + 2-3 months, depending on how long piloting is necessary*)
Informed Compliance Period	2 Months (*recommended but can be also longer*)
Enforcement Date	DD/MM/YYY (*in general Implementation Day + 2 months*)
Information Availability (website, etc.)	www.[XXX]
Point of Contact	[XXX] Revenue Authority, Customs Division Address Email: Tel: