Transport & Logistics Domain

Air Cargo Digitalization in COVID-19 Times: Multimodal Interoperability

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UN/CEFACT Expert
UNTTTC
Transport & Trade Connectivity in the age of pandemics

• UN New York launched **COVID-19 initiative to encourage exchange of digitised electronic data** rather than paper documents in transport contract related data exchanges

• **UNECE and UN/CEFACT joint contribution:**
  - Cross-modal project to develop modal guides on reuse of the UN/CEFACT MMT Reference Data Model to support digitised data exchanges between transport modes
  - **7 Heads of Delegation** Supported the Project
    (Germany, Spain, Greece, Russia, Italy, US and Ukraine)
  - For more information: [unttc.org](http://unttc.org)
Modal Specific MMT-based Customisations

- ✓ Maritime
- ✓ Road
- ✓ Rail
- ✓ Inland Waterway
- ✓ Air
Documents/dataset mappings to MMT RDM:

1. Air Waybill (AWB)
2. Dangerous Goods Declaration (DGD)
3. Consignment Security Declaration (CSD)

Now:
- Draft Standards Reviewed by Experts
- Baselined and artefacts produced
- Bureau approved / ready for publishing

Plan:
Two phases
1. Standards – Drafts Done
2. Implementations – Ongoing

1. Standards:
Follows UN/CEFACT MMT RDM
- Business Requirements Specifications (BRS)
- Core Component Library (CCL) Structure
- Dataset alignment with other ‘document’ objects
- XLS guideline structure
- XSD schema
- UML diagrams
- HTML index
- JSON-LD schema
  (future development across UN/CEFACT)

2. Pilots:
In collaboration with ICAO
- Identify/outreach to candidate ‘corridors’
- Engage . Educate . Assist – with deployments
Air Foundation Common Data Elements

Core Mappings

AWB

DGD

CSD
### Air Data Model D21A

**Reference Data Model (RDM)**

**Air Foundation**

- **DGD**
- **AWB**
- **CSD**

**All Air Data Elements**

**Sub-sets**

**GEFEG.FX**

**File Structure**

- COVID19-Phase 3
- 3-Workspace
- Air
  - Air Foundation
  - Air Waybill
- DG Dec
  - DG Declaration; D21A
- Security Dec
  - CSD; D21A

- Re-use Core Components
- Apply Air Business Names
- Identify gaps
- Define new elements
Team of **Air Domain** experts, representing main stakeholder groups, including:

- Carriers
- Freight Forwarders
- Dangerous Goods
- Safety & Security (AVSEC)
- Ports/Airports/Handling
- Multi-Modal Transport / Cross Domain
- Data & Digitalization
- Standards Organizations
Standards Development Process

Project Group

All Experts

Expert Focus Groups

AWB

DGD

CSD

All Experts

Artefacts finalization

Bureau approval

Publish on sites:

UNTTC & UN/CEFACT
Air Waybill

- Air Cargo Transport Document/Dataset
- Usability for ‘transport corridors’
- Interoperable between different transport modes
- Subset of standard AWB information
- Focus on the operational exchange of goods
- No commercial / customs data
- Mapped between other Transport Documents such as Road eCMR, Maritime BoL…
- Added to the Transport Document Matrix for a complete set of inter-operable data elements
Dangerous Goods Decl.

- Air DGD one of several DG projects underway
  - UN Transport Div: Road/Rail/Inland Waterway
  - Maritime IMO
- Data Model mainly supported requirements
- One of the more complex & specialised models
- Some specific to Air transport
- Several new elements e.g. Radioactive Materials
- Air DG applies Road requirements for Truck Flights
- Possible future mapping between DG models
Consignment Security Decl.

- Declared security status of a consignment
- New:
  - Document type for UN/CEFACT
  - Security status, screening types, exemptions
- Reuse of elements from Data Pipeline (PDES)
- Requirements specified via ICAO:
  - Annex 17 of the Chicago Convention
- Data can be included within AWB
- CSD not yet used for other modes of transport
- Potential for Road use for Truck Flights
### Results – September 2021

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Example of extended use mapping with electronic freight & transport information

Air Cargo Security at the DTLF – Digital Transport & Logistics Forum 24 September 2021

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Further Information

All documents will be made available on UNTTC.org and UN/CEFACT Project pages.

UN/CEFACT Standards – artefacts will be published: Streamlined presentation of UN/CEFACT standards | UNECE

Information on the UN/CEFACT projects:
https://uncefact.unece.org/display/uncefactpublic/Transport+Modal+Views+of+MMT

Thank you!

Questions . Comments . Feedback