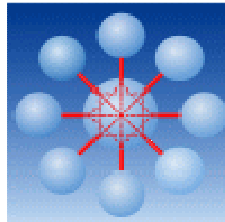

EDI-Services

Cargo-IMP Amendments For ZAPP-Air - ZUC – Announcing “local” goods -

Version 2.0.1



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Cargo-IMP Amendments For ZAPP-Air

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1. The ZAPP-Air EDI Interface

1.1 General Information

1.1.1 Introduction

Based on the message format „Cargo-IMP“, defined by the IATA/ATA, DAKOSY has created an EDI interface for the communication between ZAPP-Air and the inhouse systems of ZAPP-Air participants.

Cargo-IMP is an abbreviation for „Cargo Interchange Message Procedures“, it defines a variety of EDI messages for electronic data interchange in the airfreight sector.

This document explains the Cargo-IMP message ZUC, which has been defined specifically for ZAPP-Air.

The message ZUC is an optional message used to improve communication between a forwarder and it's handling agents. However, it is not necessary for basic ZAPP-Air usage.

1.1.2 Information on Message Exchange

Usually, the FTP protocol is used for the exchange of messages between DAKOSY and it's customers. Detailed information can be found in the (german) document „Datenaustausch mit DAKOSY über FTP“¹.

The use of different communication protocols is possible, but requires additional talks with DAKOSY.

1.2 Message Format Cargo-IMP

The following chapter gives an overview of the Cargo-IMP format as it is used by DAKOSY as well as the EDIFACT envelope used for addressing communication partners.

1.2.1 Structures and Limitations

The Cargo-IMP Standard defines a number of limitations and regulations regarding the character set to be used and the formatting of the individual records. These are as follows:

Table 1 - Syntax Cargo-IMP

Element	Description
Segments	A Cargo-IMP Message is sub-divided into logical groups of data (“Segments”). The shipper address would be an example for a segment. Usually segments are identified by a three-character field at their beginning, the so-called “Tag”. The Tag for the shipper address is “SHP”, for example.
Fields	Cargo-IMP Segments are divided into individual data elements (Fields) which contain the actual data. The fields are separated, either by a separator character (Slash, Dash or Carriage Return, for example) or by fixing the fields' length. Each field has a fixed format, defining the characters/values that may be used for it's content.

¹ http://www.dakosy.de/support/documents/hb_ftp_v3.3_d_210905.pdf

Repetition and Grouping of fields	In some cases, fields or groups of fields may be repeated within a segment.
Character Set	<p>Depending on the field format, the following characters may be used in Cargo-IMP messages:</p> <ul style="list-style-type: none"> ▪ Capital Letters A – Z (no Diacriticals / Umlauts) ▪ Digits 0 – 9 ▪ The point '.' ▪ The dash '-' ▪ A white space character ' ' <p>The point is defined to be the decimal point.</p>
Line Length	<p>The maximum length for a line in Cargo-IMP is defined to be 70 characters (including a carriage return at it's end).</p> <p>If a segment's content can be longer than 70 characters, the segment's fields are spread over several lines. After a segment's first line, each subsequent line is begun with a slash:</p> <p>CNE/MR. MARK MYERS /TADMORE STREET /NEW YORK</p>

1.2.2 The EDIFACT Envelope

Since Cargo-IMP itself does not define any possibilities for addressing messages, a UN/EDIFACT envelope is used for this purpose. Within the EDIFACT envelope, the Cargo-IMP message is used as if it was a single EDIFACT segment.

A detailed discussion of the UN/EDIFACT standard is not a part of this document, please refer to the documentation of the UN's Joint Syntax Working Group² for further information.

1.2.3 Structure of the UN/EDIFACT Envelope

The basic structure of a Cargo-IMP message with the UN/EDIFACT envelope is as follows:

```

UNB-Segment
UNH-Segment
Cargo-IMP Nachricht
UNT-Segment
UNZ-Segment

```

Graphic 1 - Structure of a Cargo-IMP message within the EDIFACT envelope

Since the Cargo-IMP message is treated as a single EDIFACT segment within the envelope, the segment counter in the envelope's UNT segment has a fixed value '3'.

² <http://www.gefeg.com/jswg/>

1.2.4 Structure of the UNB-Segment

Below, one can find an example of a UNB-Segment as it is used for Cargo-IMP messaging:

Character Set: „IATA:1“	Recipient's PIMA Address	Message's UNB reference
UNB+IATA:1+SENDER:PIMA+EMPFÄNGER:PIMA+071105:1052+ZPH01141+++++1'		
Sender's PIMA Address	Date/Time of the message	Test Indicator

Graphic 2 - Structure of the UNB Segment for Cargo-IMP messaging

The test indicator in the UNB segment must be set for all test messages sent to ZAPP-Air. For the use in production, the indicator must not be used.

1.2.5 Structure of the UNH segment

Below, an example for the UNH-Segment is depicted. The information on the message type (CIMFWB : 15) is of special importance. When using the EDIFACT envelope for Cargo-IMP messaging, the format for the message type fields is: CIM[Message Type]:[Version].

Example for the UNH segment used with an FWB message:

```
UNH+1+CIMFWB:15+1'
```

1.2.6 PIMA Addresses

For a Cargo-IMP message's EDIFACT envelope, the IATA/ATA has defined the structure of sender/recipient addresses as depicted below. For communicating with ZAPP-Air, the participant's PIMA address has to be registered with DAKOSY.

DAKOSY's PIMA Address is: REUSWH87DEDKSY

Table 2 - Structure of PIMA Addresses

Field	Length	Status
CCS System Identifier	3	Mandatory
CCS Group Code	3	Mandatory
CCS Code Type	2	Mandatory
CCS Participant Identifier	19	Mandatory
Slash	1	Conditional
Airport Code	3	Optional
CCS Participant Office	2	Optional

2. Structure of the Message Descriptions

2.1 Terminology

Table 3 - Terms used within the Cargo-IMP message descriptions

Begriff	Bedeutung
CRLF	“Carriage Return, Line Feed“ (Newline)
Hyphen	-
Slash	/
SMI	Standard Message Identifier – The first segment of a Cargo-IMP message, describing the message's type and version (e.g. FWB/15)

2.2 Presentation of the Message Structure

This documentation presents the structure of a Cargo-IMP message as follows:

Table 4 - Example of a Message Structure

Message NAME

Segment Group: X		Occurences: Z/Y		
No.	Tag	Name	Rpt.	Remarks
1	ABC	Standard Message Identifier	1	Information
2	DEF	DDD	1 - 2	Further Informationen
(...)				

The meaning of the individual elements of a Message Structure table is as follows:

Nachricht NAME:

NAME is the name of the Cargo-IMP message.

Segment Group: X

Some of the Cargo-IMP messages used in ZAPP-Air are sub-divided into segment groups. A segment group is a repeatable group of segments within a Cargo-IMP message. Inside of a segment group, the individual segments have to appear in a fixed order, depending on the minimum/maximum repetition defined for the segment.

Occurences: Z/Y

The number of the (minimum)/maximum repetitions allowed for a segment group. A fixed number of repetitions is represented by a single digit (i.e. 2 for exactly two occurrences of a segment)

No.

No special meaning.

Tag

The „Tag“ are three capital letters which identify a segment

Name

The segment's name

Rpt.

The number of minimum/maximum occurrences allowed for a segment within a segment group (e.g. "1 - 3" the segment has to occur at least once, but not more often than 3)

Remarks

Self explaining

Segments shaded in blue

...are segments which have been added or amended for the use with ZAPP-Air.

2.3 Structure of the Segment Descriptions

The structure of the individual segments and field contents of the Cargo-IMP messages is presented as depicted below:

Table 5 - Example for a segment structure

Segment FSU

Field Group: 1		Occurrences: 1			
No	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	FSU	Fester Wert „FSU“

Field Group: 1

Like segments, fields within segments can be grouped as well.

Occurrences: 1

The number of repetitions admissible for a field group.

Segment FSU

The name of a segment (usually the same as it's tag)

No.

No special meaning

Status

Possible statuses are:

Table 6 - Possible Field Statuses

Status	Bedeutung
M	The segment must occur
O	The segment may occur
D	The segment must occur under certain circumstances (as described in "Remarks")
X	The segment must not be used

Format

The format describes the characters allowed for a field's content. It is structured like this:

[Character[[Length]][Decimal Point]

Table 7 - Formats

Format	Character Set
a	A – Z, capital letters only
n	digits 0 – 9
m	All characters from set a to n
t	All characters from set m, point, dash and white space

Example

Self explaining

Remarks

Self explaining

3. The ZUC message – “Local” goods

3.1 Usage in ZAPP-Air

3.1.1 Function

DAKOSY defined the message ZUC for the communication between Handling Agent and Carrier. This message is used for the exchange of information on airfreight consignments, but contains additional information and references when compared to the FHL/FWB message types. Moreover, the ZUC message does not involve any data exchange to rates and charges.

Within the ZAPP-Air processes, the message ZUC is used for two purposes:

3.1.1.1 **ZUC as a notification about „local goods“**

Originally the ZUC message has been created with the aim to enable the Handling Agent to inform his carrier about a delivery devoid of existing AWB data (as the name implies „ZAPP-Air Unknown Consignment Message“).

3.1.1.2 **ZUC as an additional notification to the „Gate-IN“**

The Handling Agent may as well use the ZUC message to transfer further informations (e.g. number of storage) of the consignment to his Carrier, after the arrival of goods at the Handling Agent („Gate-IN“).

There are two versions of the message ZUC. Version 1 has not been documented in public; Version 2 (which is described in this document) should be used for any ZUC implementation.

3.2 Message structure

The following table gives an overview about the segments of the ZMF message. Segment groups/segments are shown in the same order of appearance as listed in the ZMF message.

Message ZUC

Segment group: 1		: 1		
No.	Tag	Name	Occ.	Remarks
1	ZUC	Standard Message Identifier	1	Identifies the message as ZUC message.
2	ZEV	ZAPP-Air Envelope	1	This segment indicates, which of the ZAPP-Air participants are involved in the consignment.
3	SHP	Shipper	1	Shipper-Address
4	TRK	Trucking Information	0 – 1	Information, with which truck the consignment will be delivered at the airport.
5	RFF	References	1 – 5	References
Segment group: 2		Ocurrences: 1 – n		
ZUC Positions				
6	CPS	Consignment Position	1	Basic data to a consignment position
7	MRK	Marks	1	Marks
8	GDS	Goods Description	0 – 1	Goods description to a position
9	RMK	Remark	0 – 1	Further remarks
10	DIM	Dimensions	0 – 1	Dimensions of the packages

3.3 Segment description

3.3.1 ZUC

3.3.1.1 Short description

The segment ZMF is the Standard Message Identifier of the message. It identifies the message as ZAPP-Air manifest and specifies the version of the standard that is being used.

3.3.1.2 Segment structure

The following table gives an overview about the individual elements of the segment. The elements are shown in the same order of appearance as listed in the actual segment.

Segment ZUC

Field group:1		Ocourrences: 1			
No.	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	ZUC	Constant value „ZUC“
2	Slash	M		/	
3	Version	M	n[1]	2	Constatn value „2“
4	CRLF	M			

3.3.1.3 Example

ZUC/2

3.3.2 ZEV

3.3.2.1 Short description

The segment „ZEV“ (ZAPP-Air Envelope) is used to identify the parties, who are taking part in a process, based on their ZAPP-Air participant code.

If you need a detailed explanation about the individual roles whom the participant codes are classified with, please refer to the ZAPP-Air conception.

3.3.2.2 Segment structure

The following table gives an overview about the individual elements of the segment. The elements are shown in the same order of appearance as listed in the actual segment.

Segment ZEV

Field group:1		Ocourrences: 1			
No.	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	ZEV	Constant value „ZEV“
2	Slash	M		/	
3	Forwarder	M	a[7]	FWDXFRA	ZAPP-Air participant code of the freight forwarder responsible for the consignment
4	Slash	D		/	To use, if any of the following fields is being used.
5	Gateway Handling Agent	O	a[7]	HAGWFRA	ZAPP-Air participant code of the Gateway Handling Agent
6	Slash	D		/	To use, if any of the following fields is being used.
7	Local Handling Agent	O	a[7]	HALOFRA	ZAPP-Air participant code of the local Handling Agent.

8	Slash	D		/	To use, if any of the following fields is being used.
9	Carrier Handling Agent	O	a[7]	HAC1HAM	ZAPP-Air participant code of the Handling Agent of the Carrier.
10	Slash	D		/	To use, if any of the following fields is being used.
11	Forwarding Code	O	a[7]	TRAXFRA	Participant code of another party, who shall receive a message.
12	CRLF	M			

3.3.2.3 **Example**
ZEV/FWDXFRA/HAGWFRA/HALOFRA/HAC1HAM

3.3.3 SHP

3.3.3.1 Short description

The shipper's address (as far as is known) is indicated in the segment SHP.

3.3.3.2 Segment structure

The following table gives an overview about the individual elements of the segment. The elements are shown in the same order of appearance as listed in the actual segment.

Segment SHP

Field group: 1 Ocurrences: 1					
No.	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	SHP	Constant value „SHP“
2	Slash	D		/	Mandatory field, if the following one is filled
3	Account Number	O	t[1..14]	AX340	Shipper's Customer ID at the carrier
5	CRLF	M			
6	Slash	M		/	Mandatory field, if the following one is filled
7	Name	M	t[1..35]	DAKOSY AG	Shipper's name
8	CRLF	M			
Field group: 2 Ocurrences: 0 - 1					
<i>Street Address</i>					
No.	Name	Status	Format	Example	Remarks
9	Slash	M		/	
10	Street	M	t[1..35]	MATTENTWIETE	Street and street number
11	CRLF	M			
Field group: 3 Ocurrences: 0 - 1					
<i>Location</i>					
No.	Name	Status	Format	Example	Remarks
12	Slash	M		/	
13	Place	M	t[1..17]	HAMBURG	City
14	Slash	D			
15	State/Province	O	t[1..9]	HAMBURG	State
16	CRLF	M			
Field group: 4 Ocurrences: 0 - 1					
<i>Country</i>					
No.	Name	Status	Format	Example	Remarks
17	Slash	M		/	
18	Country	M	a[2]	DE	ISO Country Code
19	Slash	D		/	
20	ZIP Code	O	t[1..9]	20457	ZIP code
21	CRLF	M			

If one of the fields „Street“ or „Location“ is left in blank and there're still data following in the SHP segment, the Street- respectively Location field has to be filled with one single point (.):

```
SHP
/NAME
/STREET
/.
/DE
```

3.3.3.3 *Example*

SHP/AX340
/DAKOSY
/MATTENTWIETE
/HAMBURG/HAMBURG
/DE/20457

3.3.4 TRK

3.3.4.1 *Short description*

Using the TRK segment, the Handling Agent may indicate with which truck the described consignment will be delivered at the airport.

3.3.4.2 *Segment structure*

The following table gives an overview about the individual elements of the segment. The elements are shown in the same order of appearance as listed in the actual segment.

Segment TRK

Field group: 1 Occurrences: 1					
No.	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	TRK	Constant value „TRK“
2	Slash	M		/	
3	Company Name	M	t[1..50]	MEYER TRANSPORT	Company, who's in charge with the truck
4	CRLF	M			
5	Slash	M		/	
6	Driver Name	M	t[1..30]	HERBERT HUBERT	Driver's name
7	Slash	D		/	Only mandatory if a second driver is indicated
8	2nd Driver	O	t[1..30]	HUBERT HERBERT	Name of second driver
9	CRLF	M			
10	Slash	M		/	
11	Truck ID	M	t[1..15]	HH-JK 3345	Truck license number
12	CRLF	M			

3.3.4.3 *Example*

TRK/MEYER TRANSPORT
/HERBERT HUBERT
/HUBERT HERBERT
/HH-JK 3345

3.3.5 RFF

3.3.5.1 *Short description*

The segment RFF is used to transmit several references to a consignment. The segment may be iterated, if required.

3.3.5.2 *Segment structure*

The following table gives an overview about the individual elements of the segment. The elements are shown in the same order of appearance as listed in the actual segment.

Segment RFF

Field group: 1		Occurrences: 1 - 5			
No.	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	RFF	Constant value „RFF“
2	Slash	M		/	
3	Qualifier	M	a[1]	H	Type of indicated reference
4	Reference	M	t[1..35]	08704450	Reference number
5	CRLF	M			

3.3.5.3 *Qualifier*

The field „Qualifier“ is used to indicate the type of the assigned reference:

Table 1 – Codes for Reference Qualifier

Code	Meaning/explanation
S	Shipper's Reference
F	Forwarder's Reference
H	Handling Agent's Reference (storage number)
1	Further reference (by agreement)
2	Further reference (by agreement)

3.3.5.4 *Example*

RFF/H08704450

3.3.6 Segment group CPS („ZUC positions“)

The segments described in the following are forming a repeatable group. The group CPS will be repeated once for every position of goods, that shall be transmitted per ZUC.

3.3.6.1 Short description

The segment CPS contains the basic data to a position of the ZUC message.

3.3.6.2 Segment structure

The following table gives an overview about the individual elements of the segment. The elements are shown in the same order of appearance as listed in the actual segment.

Segment CPS

Field group: 1		Occurrences: 1			
No.	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	CPS	Constant value „CPS“
2	Slash	M		/	
3	MRN	X	m[18]		NOT USED
4	Slash	M		/	
5	Packages	M	n[1..5]	32	Number of packages on this position
6	Slash	M		/	
7	Weight Unit	M	a[1]	K	Unit in which the weight is indicated
8	Weight	M	n[1..6]p	344.5	Weight (of total position)
9	Slash	D		/	Only mandatory, if the volume is indicated
10	Volume Unit	D		MC	Only mandatory, if the volume is indicated
11	Volume	O	n[1..7]p	4.0	Volume (of total position)
12	CRLF	M			

3.3.6.3 Weight Unit

The Qualifier „Weight Unit“ is used to specify the unit, in which the total weight of the position will be indicated.

Table 2 - Codes for Weight Unit

Code	Meaning/explanation
K	Kilogram
L	American pound

3.3.6.4 *Volume Unit*

The Qualifier „Volume Unit“ is used to specify the unit, in which the volume of the position will be indicated.

Table 3 - Codes for Volume Unit

Code	Meaning/explanation
CC	Cubic centimeter
CF	Cubic foot
CI	Cubic inch
MC	Cubic meter

3.3.6.5 *Example*

CPS//22/K32/MC4.0

3.3.7 Segment MRK

3.3.7.1 *Short description*

The marks of single packages of a consignment, described in a CPS group.

3.3.7.2 *Segment structure*

The following table gives an overview about the individual elements of the segment. The elements are shown in the same order of appearance as listed in the actual segment.

Segment MRK

Field group: 1		Occurrences: 1			
No.	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	MRK	Constant value „MRK“
Field group: 2		Occurrences: 1 - 2			
<i>Marks</i>					
2	Slash	M		/	
3	Marks	M	t[1..35]	MARKSNUMBERS	
4	CRLF	M			

3.3.7.3 *Example*

MRK/MARKSNUMBERS
/MORE MARKSNUMBERS

3.3.8 Segment GDS

3.3.8.1 *Short description*

This segment may be used to transfer a description of goods, if desired.

3.3.8.2 *Segment structure*

The following table gives an overview about the individual elements of the segment. The elements are shown in the same order of appearance as listed in the actual segment.

Segment GDS

Field group: 1					
Occurrences: 1					
No.	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	GDS	Constant value „GDS“
Field group: 2					
Occurrences: 1 - 2					
<i>Goods Description</i>					
2	Slash	M		/	
3	Goods Description	M	t[1..35]	STUFF	
4	CRLF	M			

3.3.8.3 *Example*

GDS/STUFF
/MORE STUFF

3.3.9 Segment RMK

3.3.9.1 *Short description*

Further remarks/texts to a consignment position may be transmitted in segment RMK.

3.3.9.2 *Segment structure*

The following table gives an overview about the individual elements of the segment. The elements are shown in the same order of appearance as listed in the actual segment.

Segment RMK

Field group: 1		Occurrences: 1			
Lno.	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	RMK	Constant value „RMK“
Field group: 2		Occurrences: 1 - 5			
<i>Remarks</i>					
2	Slash	M		/	
3	Remark	M	t[1..35]	DELAY POSSIBLE	
4	CRLF	M			

3.3.9.3 *Example*

```
RMK/DELAY POSSIBLE
/DURING TRUCKING TO
/FRANKFURT
```

3.3.10 Segment DIM

3.3.10.1 *Short description*

This segment may be used to transmit the dimensions of a consignment position. The Cargo-IMP standard doesn't provide a specific unit for the relevant data elements (608, 609, 610); the assumed unit has to be agreed between sender and recipient.

3.3.10.2 *Segment structure*

The following table gives an overview about the individual elements of the segment. The elements are shown in the same order of appearance as listed in the actual segment.

Segment DIM

Field group: 1		Occurrences: 1			
No.	Name	Status	Format	Example	Remarks
1	Tag	M	a[3]	DIM	Constant Value „DIM“
2	Slash	M		/	
3	Length Dimension	M	n[1..5]	22	
4	Hyphen	M		-	
5	Width Dimension	M	n[1..5]	34	
6	Hyphen	M		-	
7	Height Dimension	M	n[1..5]	67	
8	CRLF	M			

3.3.10.3 *Example*

DIM/22/34/67

4. Message examples

(Currently none)

5. Graphic/ Tables

Fehler! Es konnten keine Einträge für ein Abbildungsverzeichnis gefunden werden.

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