RESOLUTION 792

BAR CODED BOARDING PASS (BCBP)—VERSION 5

PSC(33)792 Expiry: Indefinite
Type: B

RESOLVED that:

Members may issue, either for online or interline carriage, a Boarding Pass with version 5 of the Boarding Pass standard as described herein. All of the following specifications define the required characteristics of the elements and format of the Bar Code on the Boarding Pass or electronic (mobile) device or stored on the NFC chip.

Section 1—General

INTRODUCTION

This resolution defines Boarding Pass data supporting single-segment, multi-segment and interline journeys; it also defines a machine-readable bar code format and an NFC format. Both 2-dimensional bar code and NFC have the capacity to convey this data allowing a wide range of devices to display or produce a boarding pass with encoded data.

1.1 USE OF BAR CODED BOARDING PASS

This resolution addresses the Bar Code format for use on single-segment and multi-segment Boarding Passes. This does not preclude the ability for a Member to adopt their own Bar Code for online use, or for use as bilaterally agreed upon between a Member and an interline partner.

The Bar Code format also permits an airline to include its own proprietary data, and a digital signature alongside the required Bar Code information.

A Bar Coded Boarding Pass may not be issued for more than one passenger.

1.1.1 USE OF PAPER BAR CODED BOARDING PASS

The Bar Code presented here is designed for use on all forms of Boarding Pass stock, including ATB (Automated Ticket and Boarding Pass), General Purpose (i.e. kiosk) and self-printed (i.e. web check-in). The Bar Code shall be printed on the same side of the page as the passenger and flight information. The Bar Code does not require any specific placement or orientation on the Boarding Pass. However it is recommended that the Bar Code be printed adjacent and parallel to an edge of the document in order to facilitate the use of reading devices.

1.1.2 USE OF ELECTRONIC (MOBILE) DEVICE BOARDING PASS

The data can be stored either in a Bar Code or in an NFC chip. The Bar Codes presented here are designed for use on an electronic (mobile) boarding pass. The NFC format presented here is designed for use on an NFC mobile device. Airport Boarding Gate Readers should be able to read the mobile Boarding Pass, either Bar Code symbologies or NFC chip.

1.2 ACCEPTANCE

In accordance with their interline travel agreements, Members shall accept and honour Boarding Passes or documentation with Bar Codes issued under this resolution.

Section 2—Technical Specifications Scope

This data structure is designed exclusively for use on Bar Coded airline boarding documents, passes and Electronic Ticket Itinerary Receipts. The resolution defines the encoding of Bar Code data, and its visual representation and placement on a document or electronic (mobile) device.

The use of this Bar Code does not impose additional requirements or restrictions on what else is displayed on the boarding document or pass.

2.1 TECHNICAL REQUIREMENTS

2.1.1 Bar Code on Printed Boarding Pass

The Bar Code presented here is a 2-dimensional Bar Code in PDF417 standard containing a structured data message (SDM). This message as defined in ISO/IEC 15438 contains fixed-length fields and variable-length data that can be used by airlines at their discretion.

The PDF417 Bar Code format permits flexibility in the size, readability, robustness and capacity of printed Bar Codes. It is widely supported by current Bar Code scanners and printers, and is already in use within the airline industry.

2.1.2 Bar Code on Electronic (Mobile) Boarding Pass

The Bar Codes presented here are 2-dimensional bar codes in Aztec, Datamatrix and QR code formats containing a structured data message (SDM). Airlines are free to choose one of the three presented Bar Code formats.

The Datamatrix message as defined in ISO/IEC 16022 contains fixed-length fields and variable-length data that can be used by airlines at their discretion.

The QR message as defined in ISO/IEC 18004 contains fixed-length fields and variable-length data that can be used by airlines at their discretion.

The Aztec message as defined in ISO/IEC 24778 contains fixed-length fields and variable-length data that can be used by airlines at their discretion.

Aztec, Datamatrix and QR permit flexibility in the size, readability, robustness and capacity of Bar Codes.

2.1.3 NFC on Electronic (Mobile) Boarding Pass

The NFC format for Boarding Pass contains structured data as defined in the resolution. NFC relies on ISO/IEC 14443 to communicate data between the mobile device and the reader. The NFC message contains data that can be used by airlines at their discretion.

2.2 STRUCTURE REQUIREMENTS

The Boarding Pass data format allows for 1 fixed-length and 2 variable-length sets of data. The fixed-length data refers to all elements that are required and must be included within every Bar Code. The first set of variable-length data is conditional (use if available) and the second set of variable length data is optional which allows airlines to include their own information alongside the required elements.

The 2nd variable-length data (optional) can include non-printable (binary) data. A Bar Code scanning system designed for this Bar Code format must scan and accept with valid data, including non-printable data in the variable length segment, even if it does not use of all of the data. The maximum size of the bar code shall not exceed 600 characters.

2.3 BOARDING PASS DATA STRUCTURE SPECIFICATIONS

See Resolution 792, Attachment ‘A’.

2.4 EXAMPLES

Five examples reflecting the positioning of the data in the bar code and the string of characters to be encoded can be found in Resolution 792, Attachment ‘B’.

2.5 BAR CODE SPECIFICATION

2.5.1 PDF 417 barcode

As it is envisaged that Bar Codes will be produced in different environments (e.g. home printer, kiosk, etc.) and read with different devices (laser, optical, etc.), the following guidelines have been developed.

Printing resolution of an ink jet personal printer: minimum 300 dpi (maximum not applicable).

Printing resolution of a direct thermal GPP (General Purpose Printer): minimum 200 dpi (maximum not applicable).

Recommended Setting for PDF 417

X Dim = 10 mils or 0.03CM (one inch is approximately 3CM)

X to Y ratio = 3

Note: *X Dim is the width of a narrow bar. The Y dimension is the height of each row within the PDF417 symbol.*

Error Correction Level	3	4
Number of characters encoded	41–160	161–320

2.6 REFERENCES: BAR CODE SPECIFICATIONS

See Resolution 792, Attachment ‘C’.

2.7 USAGE ON ELECTRONIC TICKET PASSENGER ITINERARY RECEIPT

When a Bar Code is printed or displayed on an electronic passenger itinerary receipt, it shall be in accordance with the provisions of this resolution. Conditional element 16 shall be present with indicator ‘I’ to identify that the Bar Code is printed on an itinerary receipt and not the boarding pass document.

2.8 DATA EXCHANGE OF BOARDING PASS DATA ELEMENTS

2.8.1 IATA PADIS XML message standards shall be used for the Data Exchange of the 2D bar code data elements.

2.8.2 For data message exchange of 2D bar code data elements between a system or process needing to read and validate the data in the 2D barcode and an airline's DCS system, an IATA PADIS XML Message Exchange Standard has been developed to support this exchange.

2.8.3 This PADIS XML standard is developed and maintained by PADIS XMLWG under the PADIS BOARD umbrella as defined in IATA Resolution 783.

2.8.4 The XML Standard messages (schema) and supporting documentation is stored under the IATA PADIS private site and can be accessed by following URL: http://extranet2.iata.org/sites/padis_xml_typex_releases/default.aspx.

RESOLUTION 792

Attachment 'A'

BCBP M FORMAT VERSION 5

	New item number	Element Description	Field Size	Unique / repeated	Data type	Formatting	Ref no(s)
Mandatory items	1	Format Code	1	U	f	M is always used to represent either one or multiple segments	a
	5	Number of Legs Encoded	1	U	N		b
	11	Passenger Name	20	U	f	Left justified and trailing blanks	14
	253	Electronic Ticket Indicator	1	U	f		65
	7	Operating carrier PNR Code	7	R	f	Left justified and trailing blanks	c
	26	From City Airport Code	3	R	a		56
	38	To City Airport Code	3	R	a		56
	42	Operating carrier Designator	3	R	f	Left justified and trailing blanks	
	43	Flight Number	5	R	NNNN[a]	Leading zeros on numerics, followed by an alpha or a blank	
	46	Date of Flight (Julian Date)	3	R	N	Leading zeros	4
	71	Compartment Code	1	R	a		17
	104	Seat Number	4	R	NNNa	Leading zeros on numerics	
	107	Check-In Sequence Number	5	R	NNNN[f]	Leading zeros on numerics and alpha or blank on last digit	u
	113	Passenger Status	1	R	f		16
Conditional items	6	Field Size of variable size field (Conditional + Airline item 4)	2	R	f	Right justified leading zeros. Represented in Hexadecimal value	d
	8	Beginning of version number	1	U		> sign	
	9	Version Number	1	U	f	Currently at 5 ...but extensible beyond 10 by using A to Z if needed	f
	10	Field Size of following structured message – unique	2	U	f	Right justified leading zeros. Represented in Hexadecimal value	g
	15	Passenger Description	1	U	f		49
	12	Source of check-in	1	U	f		h
	14	Source of Boarding Pass Issuance	1	U	f		
	22	Date of Issue of Boarding Pass (Julian Date)	4	U	N	First digit for the year then 3 digits with leading zeros	4
	16	Document Type	1	U	f		j
	21	Airline Designator of boarding pass issuer	3	U	f	Left justified and trailing blanks	o
	23	Baggage Tag Licence Plate Number (s)	13	U	f	The 10 digit bag tag number, as per BSM specifications, Reso 740 and 3 digits identifying the number of consecutive tags	p
	31	1st Non-Consecutive Baggage Tag License Plate Number	13	U	f	The 10 digit bag tag number, as per BSM specifications, Reso 740 and 3 digits identifying the number of consecutive tags	p
	32	2nd Non-Consecutive Baggage Tag License Plate Number	13	U	f	The 10 digit bag tag number, as per BSM specifications, Reso 740 and 3 digits identifying the number of consecutive tags	p
	17	Field Size of Following Structured Message – repeated	2	R	N	Right justified leading zeros. Represented in Hexadecimal value	k
	142	Airline Numeric Code	3	R	N	Right justified leading zeros	
	143	Document Form/Serial Number	10	R	f	Right justified leading zeros	
	18	Selectee indicator	1	R	f		l
	108	International Documentation Verification	1	R	f		22
	19	Marketing carrier designator	3	R	f	Left justified and trailing blanks	m
	20	Frequent Flyer Airline Designator	3	R	f	Left justified and trailing blanks	n
	236	Frequent Flyer Number	16	R	f	Depends on carriers and alliances, left justified and trailing blanks	42
	89	ID/AD Indicator	1	R	f		53
	118	Free Baggage Allowance	3	R	f		59
	254	Fast Track	1	R	f		t
Security	4	For individual airline use	Var	R		^ sign	e
	25	Beginning of Security Data	1	U			
	28	Type of Security Data	1	U	f		
	29	Length of Security Data	2	U	f	Right justified leading zeros. Represented in Hexadecimal value	q
	30	Security Data	Var	U	f		r

f Alpha-Numerical (full set ASCII including symbols)
N Numerical (0-9)
a Alphabetical (A-Z)
[ ] optional
* Mandatory when issued on an ET Itinerary Receipt
** Optional when issued on an ET Itinerary Receipt

RESOLUTION 792

Attachment 'B'

EXAMPLE 1—M1 USING MANDATORY ELEMENTS AND SECURITY FIELDS

	New item number	Element Description	Field Size	Unique / repeated	Value 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Notes
Mandatory items	1	Format Code	1	U	M																				
	5	Number of Legs Encoded	1	U	1																				
	11	Passenger Name	20	U	D	E	S	M	A	R	A	I	S	/	L	U	C								
	253	Electronic Ticket Indicator	1	U	E																				
	7	Operating carrier PNR Code	7	R	A	B	C	1	2	3															
	26	From City Airport Code	3	R	Y	U	L																		
	38	To City Airport Code	3	R	F	R	A																		
	42	Operating carrier Designator	3	R	A	C																			
	43	Flight Number	5	R	0	8	3	4																	
	46	Date of Flight (Julian Date)	3	R	2	2	6																		August 14th
	71	Compartment Code	1	R	F																				
	104	Seat Number	4	R	0	0	1	A																	
	107	Check-In Sequence Number	5	R	0	0	2	5																	
	113	Passenger Status	1	R	1																				
	6	Field size of following variable size field	2	R	0	0																			0 in Decimal = 00 in Hexidecimal
Conditional items - Flight segment #1	8	Beginning of version number	1	U																					
	9	Version number	1	U																					
	10	Field size of following structured message - unique	2	U																					11 in Decimal = B in Hexadecimal
	15	Passenger Description	1	U																					
	12	Source of check-in	1	U																					
	14	Source of Boarding Pass Issuance	1	U																					
	22	Date of Issue of Boarding Pass (Julian Date)	4	U																					6 = 2006, 225 = August 13th
	16	Document Type	1	U																					
	21	Airline Designator of boarding pass issuer	3	U																					
	23	Baggage Tag Licence Plate Number (s)	13	U																					
	17	Field size of following structured message - repeated	2	R																					41 in Decimal = 29 in Hexadecimal
	142	Airline Numeric Code	3	R																					
	143	Document Form/Serial Number	10	R																					
	18	Selectee indicator	1	R																					Not applicable to that flight
	108	International Documentation Verification	1	R																					
	19	Marketing carrier designator	3	R																					
	20	Frequent Flyer Airline Designator	3	R																					
	236	Frequent Flyer Number	16	R																					
	89	ID/AD Indicator	1	R																					
	118	Free Baggage Allowance	3	R																					
	254	Fast Track	1	R																					
	4	For individual airline use	Var	R																					airline specific
	25	Beginning of Security Data	1	U	^																				
	28	Type of Security Data	1	U	1																				
	29	Length of Security Data	2	U	6	4																			100 in Decimal = 64 in Hexadecimal
Security	30	Security Data	100	U	G	I	W	V	C	5	E	H	7	J	N	T	6	8	4	F	V	N	J	9	
					1	W	2	Q	A	4	D	V	N	5	J	8	K	4	F	0	L	0	G	E	continued from previous row
					Q	3	D	F	5	T	G	B	N	8	7	0	9	H	K	T	5	D	3	D	continued from previous row
					W	3	G	B	H	F	C	V	H	M	Y	7	J	5	T	6	H	F	R	4	continued from previous row
					1	W	2	Q	A	4	D	V	N	5	J	8	K	4	F	0	L	0	G	E	continued from previous row

EXAMPLE 2—1 SEGMENT, ALL CONDITIONAL AND OPTIONAL DATA FIELDS POPULATED

	New item number	Element Description	Field Size	Unique / repeated	Value 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Notes
Mandatory items	1	Format Code	1	U	M																				
	5	Number of Legs Encoded	1	U	1																				
	11	Passenger Name	20	U	D	E	S	M	A	R	A	I	S	/	L	U	C								
	253	Electronic Ticket Indicator	1	U	E																				
	7	Operating carrier PNR Code	7	R	A	B	C	1	2	3															
	26	From City Airport Code	3	R	Y	U	L																		
	38	To City Airport Code	3	R	F	R	A																		
	42	Operating carrier Designator	3	R	A	C																			
	43	Flight Number	5	R	0	8	3	4																	
	46	Date of Flight (Julian Date)	3	R	2	2	6																		August 14th
	71	Compartment Code	1	R	F																				
	104	Seat Number	4	R	0	0	1	A																	
	107	Check-In Sequence Number	5	R	0	0	2	5																	
	113	Passenger Status	1	R	1																				
	6	Field Size of variable size field (Conditional + Airline item 4)	2	R	6	7																			103 in Decimal = 67 in Hexadecimal
Conditional items - Flight segment #1	8	Beginning of version number	1	U	>																				
	9	Version Number	1	U	5																				
	10	Field size of following structured message - unique	2	U	1	8																			24 in Decimal = 18 in Hexadecimal
	15	Passenger Description	1	U	1																				
	12	Source of check-in	1	U	W																				
	14	Source of Boarding Pass Issuance	1	U	W																				
	22	Date of Issue of Boarding Pass (Julian Date)	4	U	6	2	2	5																	6 = 2006, 225 = August 13th
	16	Document Type	1	U	B																				
	21	Airline Designator of boarding pass issuer	3	U	A	C																			
	23	Baggage Tag Licence Plate Number (s)	13	U	0	0	8	5	1	2	3	4	5	6	0	0	3								
	17	Field Size of Following Structured Message - repeated	2	R	2	A																			42 in Decimal = 2A in Hexadecimal
	142	Airline Numeric Code	3	R	0	1	4																		
	143	Document Form/Serial Number	10	R	1	2	3	4	5	6	7	8	9	0											
	18	Selectee indicator	1	R																					Not applicable to that flight
	108	International Documentation Verification	1	R	1																				
	19	Marketing carrier designator	3	R	A	C																			
	20	Frequent Flyer Airline Designator	3	R	A	C																			
	236	Frequent Flyer Number	16	R	1	2	3	4	5	6	7	8	9	0	1	2	3								
	89	ID/AD Indicator	1	R																					
	118	Free Baggage Allowance	3	R	2	P	C																		
	254	Fast Track	1	R	Y																				Fast Track elligible
	4	For individual airline use	Var	R	L	X	5	8	Z																airline specific
Security	25	Beginning of Security Data	1	U	^																				
	28	Type of Security Data	1	U	1																				
	29	Length of Security Data	2	U	6	4																			100 in Decimal = 64 in Hexadecimal
	30	Security Data	100	U	G	I	W	V	C	5	E	H	7	J	N	T	6	8	4	F	V	N	J	9	
					1	W	2	Q	A	4	D	V	N	5	J	8	K	4	F	0	L	0	G	E	continued from previous row
					Q	3	D	F	5	T	G	B	N	8	7	0	9	H	K	T	5	D	3	D	continued from previous row
					W	3	G	B	H	F	C	V	H	M	Y	7	J	5	T	6	H	F	R	4	continued from previous row
					1	W	2	Q	A	4	D	V	N	5	J	8	K	4	F	0	L	0	G	E	continued from previous row

EXAMPLE 3—1 SEGMENT, PARTIALLY POPULATED

	New item number	Element Description	Field Size	Unique / repeated	Value 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Notes
Mandatory items	1	Format Code	1	U	M																				
	5	Number of Legs Encoded	1	U	1																				
	11	Passenger Name	20	U	G	R	A	N	D	M	A	I	R	E	/	M	E	L	A	N	I	E		
	253	Electronic Ticket Indicator	1	U	E																				
	7	Operating carrier PNR Code	7	R	A	B	C	1	2	3															
	26	From City Airport Code	3	R	G	V	A																		
	38	To City Airport Code	3	R	C	D	G																		
	42	Operating carrier Designator	3	R	A	F																			
	43	Flight Number	5	R	0	1	2	3																	
	46	Date of Flight (Julian Date)	3	R	2	2	8																		August 16th
	71	Compartment Code	1	R	C																				
	104	Seat Number	4	R	0	0	2	F																	
	107	Check-In Sequence Number	5	R	0	0	2	5																	
	113	Passenger Status	1	R	1																				
	6	Field Size of variable size field (Conditional + Airline item 4)	2	R	3	0																			48 in Decimal = 30 in Hexadecimal
Conditional items - Flight segment #1	8	Beginning of version number	1	U	>																				
	9	Version Number	1	U	5																				
	10	Field size of following structured message - unique	2	U	0	0																			
	15	Passenger Description	1	U																					
	12	Source of check-in	1	U																					
	14	Source of Boarding Pass Issuance	1	U																					
	22	Date of Issue of Boarding Pass (Julian Date)	4	U																					
	16	Document Type	1	U																					
	21	Airline Designator of boarding pass issuer	3	U																					
	23	Baggage Tag Licence Plate Number (s)	13	U																					
	17	Field Size of Following Structured Message - repeated	2	R	2	A																			42 in Decimal = 2A in Hexadecimal
	142	Airline Numeric Code	3	R	0	5	7																		
	143	Document Form/Serial Number	10	R	1	2	3	4	5	6	7	8	9	0											
	18	Selectee indicator	1	R																					
	108	International Documentation Verification	1	R																					
	19	Marketing carrier designator	3	R																					
	20	Frequent Flyer Airline Designator	3	R																					
	236	Frequent Flyer Number	16	R																					
	89	ID/AD Indicator	1	R																					
	118	Free Baggage Allowance	3	R																					
	254	Fast Track	1	R	Y																				Fast Track elligible
Security	4	For individual airline use	Var	R																					
	25	Beginning of Security Data	1	U	^																				
	28	Type of Security Data	1	U	1																				
	29	Length of Security Data	2	U	6	4																			100 in Decimal = 64 in Hexadecimal
	30	Security Data	100	U	G	I	W	V	C	5	E	H	7	J	N	T	6	8	4	F	V	N	J	9	
					1	W	2	Q	A	4	D	V	N	5	J	8	K	4	F	0	L	0	G	E	continued from previous row
					Q	3	D	F	5	T	G	B	N	8	7	0	9	H	K	T	5	D	3	D	continued from previous row
					W	3	G	B	H	F	C	V	H	M	Y	7	J	5	T	6	H	F	R	4	continued from previous row
					1	W	2	Q	A	4	D	V	N	5	J	8	K	4	F	0	L	0	G	E	continued from previous row

EXAMPLE 4—2 SEGMENTS, ALL CONDITIONAL AND OPTIONAL DATA FIELDS POPULATED

	New item number	Element Description	Field Size	Unique / repeated	Value 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Notes
Mandatory items	1	Format Code	1	U	M																				
	5	Number of Legs Encoded	1	U	2																				
	11	Passenger Name	20	U	D	E	S	M	A	R	A	I	S	/	L	U	C								
	253	Electronic Ticket Indicator	1	U	E																				
	7	Operating carrier PNR Code	7	R	A	B	C	1	2	3															
	26	From City Airport Code	3	R	Y	U	L																		
	38	To City Airport Code	3	R	F	R	A																		
	42	Operating carrier Designator	3	R	A	C																			
	43	Flight Number	5	R	0	8	3	4																	
	46	Date of Flight (Julian Date)	3	R	2	2	6																		226 = August 14th
	71	Compartment Code	1	R	F																				
	104	Seat Number	4	R	0	0	1	A																	
	107	Check-in Sequence Number	5	R	0	0	2	5																	
	113	Passenger Status	1	R	1																				
	6	Field Size of variable size field (Conditional + Airline Item 4)	2	R	5	A																			90 in Decimal = 5A in Hexadecimal
Conditional items - Flight segment #1	8	Beginning of version number	1	U	>																				
	9	Version Number	1	U	5																				
	10	Field size of following structured message - unique	2	U	1	8																			24 in Decimal = 18 in Hexadecimal
	15	Passenger Description	1	U	1																				
	12	Source of check-in	1	U	W																				
	14	Source of Boarding Pass Issuance	1	U	W																				
	22	Date of Issue of Boarding Pass (Julian Date)	4	U	6	2	2	5																	6 = 2006, 225 = August 13th
	16	Document Type	1	U	B																				
	21	Airline Designator of boarding pass issuer	3	U	A	C																			
	23	Baggage Tag Licence Plate Number (s)	13	U	0	0	8	5	1	2	3	4	5	6	0	0	3								
	17	Field Size of Following Structured Message – repeated	2	R	2	A																			42 in Decimal = 2A in Hexadecimal
	142	Airline Numeric Code	3	R	0	1	4																		
	143	Document Form/Serial Number	10	R	1	2	3	4	5	6	7	8	9	0											
	18	Selectee indicator	1	R																					
	108	International Documentation Verification	1	R	1																				Not applicable to that flight
	19	Marketing carrier designator	3	R	A	C																			
	20	Frequent Flyer Airline Designator	3	R	A	C																			
	236	Frequent Flyer Number	16	R	1	2	3	4	5	6	7	8	9	0	1	2	3								
	89	ID/AD Indicator	1	R																					
	118	Free Baggage Allowance	3	R	2	0	K																		
	254	Fast Track	1	R	Y																				Fast Track eligible for this segment
Mandatory items - Flight segment #2	4	For individual airline use	Var	R	L	X	5	8	Z																
	7	Operating carrier PNR Code	7	R	D	E	F	4	5	6															
	26	From City Airport Code	3	R	F	R	A																		
	38	To City Airport Code	3	R	G	V	A																		
	42	Operating carrier Designator	3	R	L	H																			
	43	Flight Number	5	R	3	6	4																		
	46	Date of Flight (Julian Date)	3	R	2	2	7																		227 = August 15th
	71	Compartment Code	1	R	C																				
	104	Seat Number	4	R	0	1	2	C																	
	107	Check-in Sequence Number	5	R	0	0	0	2																	
	113	Passenger Status	1	R	1																				
	6	Field Size of variable size field (Conditional + Airline Item 4)	2	R	2	E																			46 in Decimal = 2E in Hexadecimal
Conditional items - Flight segment #2	17	Field Size of Following Structured Message – repeated	2	R	2	A																			42 in Decimal = 2A in Hexadecimal
	142	Airline Numeric Code	3	R	0	1	4																		
	143	Document Form/Serial Number	10	R	0	9	8	7	6	5	4	3	2	1											
	18	Selectee indicator	1	R																					
	108	International Documentation Verification	1	R	1																				
	19	Marketing carrier designator	3	R	A	C																			
	20	Frequent Flyer Airline Designator	3	R	A	C																			
	236	Frequent Flyer Number	16	R	1	2	3	4	5	6	7	8	9	0	1	2	3								
	89	ID/AD Indicator	1	R																					
	118	Free Baggage Allowance	3	R	2	P	C																		
	254	Fast Track	1	R	N																				Fast Track Not eligible for this segment
Security	4	For individual airline use	Var	R	W	Q																			
	25	Beginning of Security Data	1	U	^																				
	28	Type of Security Data	1	U	1																				
	29	Length of Security Data	2	U	6	4																			100 in Decimal = 64 in Hexadecimal
	30	Security Data	100	U	G	I	W	V	C	5	E	H	7	J	N	T	6	8	4	F	V	N	J	9	
					1	W	2	Q	A	4	D	V	N	5	J	8	K	4	F	0	L	0	G	E	continued from previous row
					Q	3	D	F	5	T	G	B	N	8	7	0	9	H	K	T	5	D	3	D	continued from previous row
					W	3	G	B	H	F	C	V	H	M	Y	7	J	5	T	6	H	F	R	4	continued from previous row
					1	W	2	Q	A	4	D	V	N	5	J	8	K	4	F	0	L	0	G	E	continued from previous row

EXAMPLE 5—2 SEGMENTS, PARTIALLY POPULATED

	New item number	Element Description	Field Size	Unique / repeated	Value 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Notes
Mandatory items	1	Format Code	1	U	M																				
	5	Number of Legs Encoded	1	U	2																				
	11	Passenger Name	20	U	G	R	A	N	D	M	A	I	R	E	/	M	E	L	A	N	I	E		
	253	Electronic Ticket Indicator	1	U	E																				
	7	Operating carrier PNR Code	7	R	A	B	C	1	2	3															
	26	From City Airport Code	3	R	G	V	A																		
	38	To City Airport Code	3	R	C	D	G																		
	42	Operating carrier Designator	3	R	A	F																			
	43	Flight Number	5	R	0	1	2	3																	
	46	Date of Flight (Julian Date)	3	R	2	2	8																		228 = August 16th
	71	Compartment Code	1	R	C																				
	104	Seat Number	4	R	0	0	2	F																	
	107	Check-In Sequence Number	5	R	0	0	2	5																	
	113	Passenger Status	1	R	1																				
	6	Field Size of variable size field	2	R	2	F																			47 in Decimal = 2F in Hexadecimal
Conditional items - Flight segment #1	8	Beginning of version number	1	U	>																				
	9	Version Number	1	U	5																				
	10	Field size of following structured message - unique	2	U	0	0																			
	15	Passenger Description	1	U																					
	12	Source of check-in	1	U																					
	14	Source of Boarding Pass Issuance	1	U																					
	22	Date of Issue of Boarding Pass (Julian Date)	4	U																					
	16	Document Type	1	U																					
	21	Airline Designator of boarding pass issuer	3	U																					
	23	Baggage Tag Licence Plate Number (s)	13	U																					
	17	Field Size of Following Structured Message –repeated	2	R	2	A																			42 in Decimal = 2A in Hexadecimal
	142	Airline Numeric Code	3	R	0	5	7																		
	143	Document Form/Serial Number	10	R	1	2	3	4	5	6	7	8	9	0											
	18	Selectee indicator	1	R																					Not applicable to that flight
	108	International Documentation Verification	1	R																					
	19	Marketing carrier designator	3	R																					
	20	Frequent Flyer Airline Designator	3	R																					
	236	Frequent Flyer Number	16	R																					
	89	ID/AD Indicator	1	R																					
	118	Free Baggage Allowance	3	R	2	0	K																		
	254	Fast Track	1	R	Y																				Fast Track elligible for this segment
Mandatory items - Flight segment #2	4	For individual airline use	Var	R																					
	7	Operating carrier PNR Code	7	R	D	E	F	4	5	6															
	26	From City Airport Code	3	R	C	D	G																		
	38	To City Airport Code	3	R	D	T	W																		
	42	Operating carrier Designator	3	R	N	W																			
	43	Flight Number	5	R	0	0	4	9																	
	46	Date of Flight (Julian Date)	3	R	2	2	8																		228 = August 16th
	71	Compartment Code	1	R	F																				
	104	Seat Number	4	R	0	0	1	A																	
	107	Check-in Sequence Number	5	R	0	0	0	2																	
	113	Passenger Status	1	R	1																				
	6	Field Size of variable size field (Conditional + Airline Item 4)	2	R	2	C																			44 in Decimal = 2C in Hexadecimal
Conditional items - Flight segment #2	17	Field Size of Following Structured Message –repeated	2	R	2	A																			42 in Decimal = 2A in Hexadecimal
	142	Airline Numeric Code	3	R	0	1	2																		
	143	Document Form/Serial Number	10	R	0	9	8	7	6	5	4	3	2	1											
	18	Selectee indicator	1	R	0																				
	108	International Documentation Verification	1	R	1																				
	19	Marketing carrier designator	3	R																					
	20	Frequent Flyer Airline Designator	3	R																					
	236	Frequent Flyer Number	16	R																					
	89	ID/AD Indicator	1	R																					
	118	Free Baggage Allowance	3	R	2	P	C																		
	254	Fast Track	1	R																					Fast Track eligibility is not qualified
Security	4	For individual airline use	Var	R																					
	25	Beginning of Security Data	1	U	^																				
	28	Type of Security Data	1	U	1																				
	29	Length of Security Data	2	U	6	4																			100 in Decimal = 64 in Hexadecimal
	30	Security Data	100	U	G	I	W	V	C	5	E	H	7	J	N	T	6	8	4	F	V	N	J	9	
					1	W	2	Q	A	4	D	V	N	5	J	8	K	4	F	0	L	0	G	E	continued from previous row
					Q	3	D	F	5	T	G	B	N	8	7	0	9	H	K	T	5	D	3	D	continued from previous row
					W	3	G	B	H	F	C	V	H	M	Y	7	J	5	T	6	H	F	R	4	continued from previous row
					1	W	2	Q	A	4	D	V	N	5	J	8	K	4	F	0	L	0	G	E	continued from previous row

RESOLUTION 792
Attachment 'C'

REFERENCES

No	Description	Notes	Set of values
4	Date of Flight - Date of Issue	Calendar date. In date of issue, precede by single digit for year.	"001": Jan 1st, "6001": Jan 1st 2006, "365" Dec 31st, "6365": 31st Dec 2006
14	Passenger Name	Surname of passenger followed by an oblique and the given name, when available. When there is not enough space for the given name, encode at least one alpha character or initial. If surname exceeds 18 characters, truncate at 18th character followed by an oblique and one alpha initial.	
16	Passenger Status		0 ticket issuance/passenger not checked in, 1 ticket issuance/passenger checked in, 2 baggage checked - passenger not checked in, 3 Baggage checked/passenger checked in, 4 Passenger passed security check, 5 Passenger passed gate exit (coupon used), 6 Transit, 7 Standby. Seat Number not printed on Boarding pass at time of check-in. (Seat number to be printed at time of seat assignment.) 8 Boarding data revalidation done. (Gate, Boarding Time and Seat on Revalidation Field already used.) 9 Original boarding line used at time of ticket issuance. A Up- or down-grading required at close out, e.g. when passenger waitlisted in C class and OK in Y class. B–Z Reserved for future industry use.
17	Compartment Code	Optional at time of ticket issuance - See Resolution 728 for list of codes	e.g. F (First Class), J (Business Class Premium), Y (Economy/Coach)
22	International Documentation Verification		0 travel document verification not required, 1 travel document verification required, 2 travel document verification performed
42	Frequent Flyer Number	2 characters or 3 letters airline designator followed by up the 13 numerics or alphanumerics, or 16 numerics if the FFN is 16 digits. Up to 16 Numerics or Alphanumeric's	Depends on carriers and alliances, left justified and trailing blanks with a maximum of 16 Alphanumeric's
49	Passenger Description		0 adult, 1 Male, 2 Female, 3 child, 4 infant, 5 no passenger (cabin baggage), 6 adult travelling with infant, 7 unaccompanied minor, 8–9 Future industry use, A–Z Future industry use
53	ID/AD Indicator	Industry discount ticket (see Recommended Practice 1788):	"0": IDN1 positive space, "1": IDN2 Space available, 2 IDB1 Positive space, 3 IDB2 Space available, 4 AD, 5 DG, 6 DM, 7 GE, 8 IG, 9 RG, A UD, B ID — Industry discount not followed any classification, C IDFS1, D IDFS2, E IDR1, F IDR2, G-Z for future industry use
56	From City Airport Code - To City Airport Code	Elements 26 and 38 are Airport/City codes concerning the segment covered by the document in hand	
59	Free Baggage Allowance	See Resolution 722 - example: "20K"	"K": kilos, "L": pounds, "PC": pieces
65	Electronic Ticket Indicator		"E": Boarding pass issued against an Electronic Ticket
a	Format Code		S for Single, M for Multiple
b	Number of Legs Encoded	Minimum 1 segment, Maximum 4 segments to limit the size of the bar code	1, 2, 3 or 4
c	PNR Code	operating carrier, independent of code-share or lease or other issues	
d	Field size of variable size field (Conditional + Airline item 4)	Size of data used within the subsequent conditional and airline individual fields (item 8 to 118, plus item 4), in ASCII-printed hexadecimal. If not used, enter "00"	"00" to "FF"
e	For individual airline use	Optional, whose data length must be given in the previous filed value	
f	Version number	Version of the structured message of the M format	
g	Field size of following structured message - unique	Size of data used within the subsequent fields (item 15 to 23), in ASCII-printed hexadecimal.If not used, enter 00	"00" to "FF"
h	Source of check-in	Where the check-in was initiated	"W": Web, "K": Airport Kiosk, "R": Remote or Off Site Kiosk, "M": Mobile Device, "O": Airport Agent, "T": Town Agent, "v": Third Party Vendor
I	Source of Boarding Pass Issuance	Where the Boarding Pass was issued	W - Web Printed / K - Airport Kiosk Printed / X - Transfer Kiosk Printed / R - Remote or Off Site Kiosk Printed / M - Mobile Device Printed / O - Airport Agent Printed / T - Town Agent Printed / V - Third Party Vendor Printed / Blank - Unable to support
j	Document Type	Boarding Pass or Itinerary Receipt	"B": Boarding Pass, "I": Itinerary Receipt
k	Field size of following structured message - repeated	Size of data used within the subsequent fields (item 142 to 118), in ASCII-printed hexadecimal.If not used, enter 00	
l	Selectee indicator		"1": selectee, "0": not selectee
m	Marketing carrier Designator	Airline code of the marketing carrier (can be same as operating carrier)	Both two IATA character code or three IATA letter code can be used
n	Frequent Flyer Airline	Airline code of the airline's FFP	
o	Airline Designator of boarding pass issuer	Identifies the origin of the data encoded in the airline individual use field	Both two IATA character code or three IATA letter code can be used
p	Baggage tag licence plate number	A maximum of 3 instances of consecutive tags per passenger are able to be encoded in the Boarding pass Barcode – see item 23	
q	Length of Security Data	Size of data used within the subsequent security field (item 30), in ASCII-printed hexadecimal. If field not used, leave blank.	"00" to "FF"
r	Security Data	Digital signature generated according to the rules of the country where the Boarding Pass is used. All the data prior to the signature field (including items 1 to 4, excluding items 25 to 29) should be signed.	
s	Fast Track	Indicates if the passenger is elligible to Fast Track	"Y": Yes, "N": No, Blank means it is unqualified (Field is omitted if not used)
t	Operating Carrier Designator	Airline code of the Operating carrier	Both two IATA character code or three IATA letter code can be used
u	Check-In Sequence Number	References obtained from the operating carrier for the flight	Usually appears as 4 numerics and an optional alpha or a blank. However, "Infants" are a known exception where Alphanumerical (full ASCII set) values may appear, depending on individual Host Systems.