ETSI TS 101 756 V1.1.1 (2000-10)

Technical Specification

Digital Audio Broadcasting (DAB);
Registered Tables

European Broadcasting Union   Union Européenne de Radio-Télévision

EBU·UER

DAB
Digital Audio Broadcasting
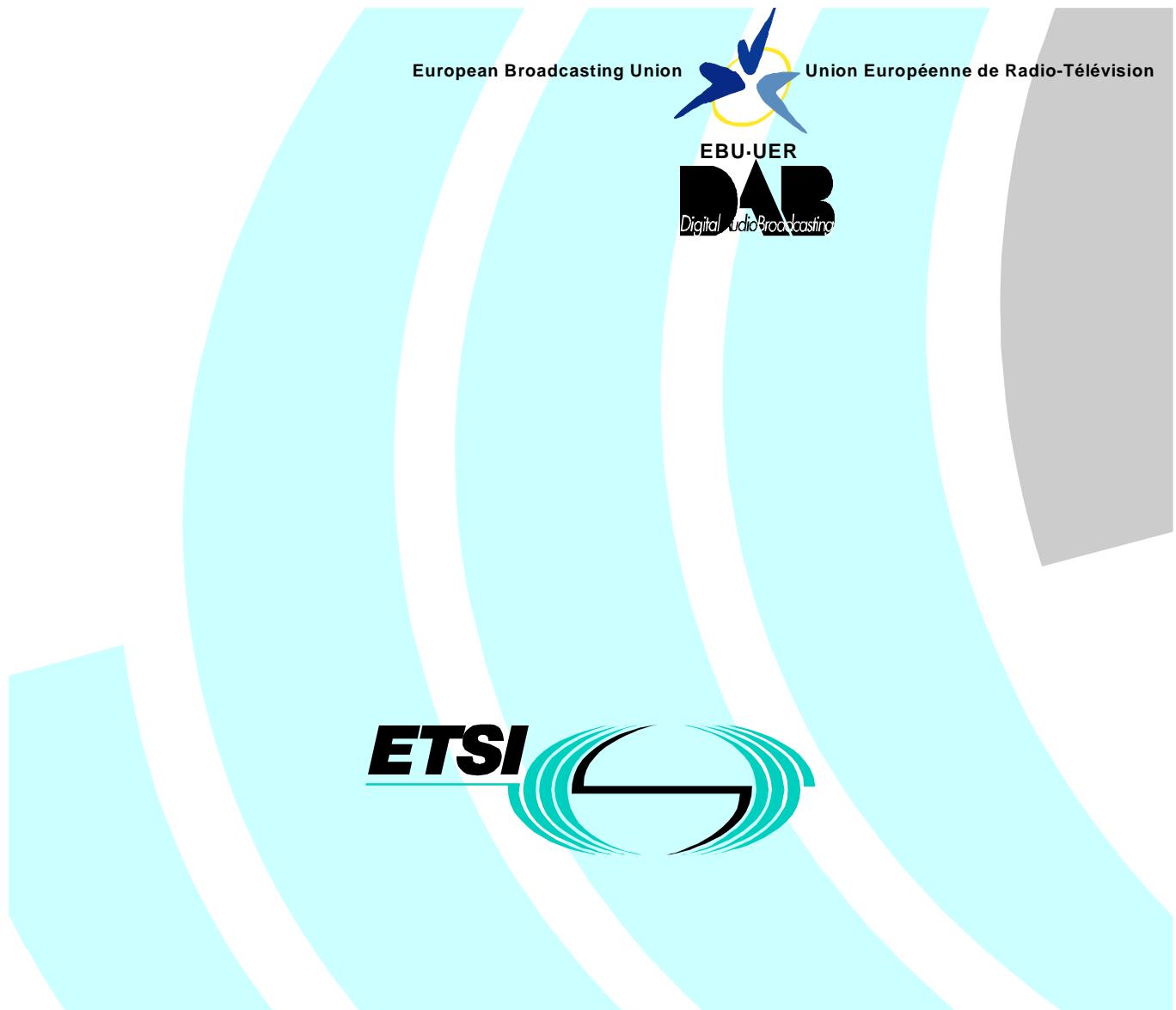
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Reference
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Foreword

This Technical Report (TR) has been produced by the Joint Technical Committee (JTC) Broadcast of the European Broadcasting Union (EBU), Comité Européen de Normalisation ELECtrotechnique (CENELEC) and the European Telecommunications Standards Institute (ETSI).

NOTE: The EBU/ETSI JTC Broadcast was established in 1990 to co-ordinate the drafting of standards in the specific field of broadcasting and related fields. Since 1995 the JTC Broadcast became a tripartite body by including in the Memorandum of Understanding also CENELEC, which is responsible for the standardization of radio and television receivers. The EBU is a professional association of broadcasting organizations whose work includes the co-ordination of its members' activities in the technical, legal, programme-making and programme-exchange domains. The EBU has active members in about 60 countries in the European broadcasting area; its headquarters is in Geneva.

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Digital Audio Broadcasting (DAB) Eureka Project 147

The Eureka Project 147 was established in 1987, with funding from the European Commission, to develop a system for the broadcasting of audio and data to fixed, portable or mobile receivers. Their work resulted in the publication of European Standard, ETS 300 401 [1], for DAB (see note) which now has worldwide acceptance. The members of the Eureka Project 147 are drawn from broadcasting organizations and telecommunication providers together with companies from the professional and consumer electronics industry.

NOTE: DAB is a registered trademark owned by one of the Eureka Project 147 partners.

1 Scope

The present document contains a number of tables for use in the implementation of the Digital Audio Broadcasting (DAB), system [1] and the related Multimedia Object Transfer (MOT) standard [5]. The tables in the present document are maintained by the WorldDAB Information and Registration Centre (WorldDAB IRC), Wyvil Court, Wyvil Road, London, SW8 2TG, England. The WorldDAB IRC apply an easy procedure for registering new values, to ensure that they may be used without the need to change the so-called 'main DAB standard' ETS 300 401 [1].

The procedure for registering a new value in an existing table or the registration of a new table in the present document is described in clause 4.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies.

[1]   ETSI EN 300 401: "Radio broadcasting systems; Digital Audio Broadcasting (DAB) to mobile, portable and fixed receivers".

[2]   EN 50094: "Access control system for the MAC/packet family: EUROCRYPT".

[3]   EN 50067: "Specification of the radio data system (RDS) for VHF/FM sound broadcasting in the frequency range from 87,5 to 108,0 MHz".

[4]   ETSI ETS 300 250: "Television systems; Specification of the D2-MAC/Packet system".

[5]   ETSI EN 301 234: "Digital Audio Broadcasting (DAB); Multimedia Object Transfer (MOT) protocol".

[6]   RFC 1521 (1993): "MIME (Multipurpose Internet Mail Extensions)
Part One: Mechanisms for Specifying and Describing the Format of Internet Message Bodies",
N. Borenstein, N. Freed.

[7]   RFC 1945 (1996): "Hypertext Transfer Protocol - HTTP/1.0", T. Berners-Lee, R. Fielding, H. Nielsen.

[8]   ISO/IEC 646 (1991): "Information Technology; ISO 7-bit coded character set for information interchange".

[9]   ISO 8859-1 (1987): "Information processing - 8 bit single-byte coded graphic character sets - Part 1: Latin alphabet No. 1".

[10]   RFC 1866 (1995): "Hypertext Markup Language - 2.0", T. Berners-Lee, D. Connolly.

[11]   ISO 10918: "Information technology - Digital compression and coding of continuous-tone still images", Joint Photographers Experts Group (JPEG).

[12]   ISO/IEC 11172-3 (1993): "Information technology; Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s; Part 3: Audio".

[13]   ISO/IEC 13818-3 (1998): "Information technology - Generic coding of moving pictures and associated audio information - Part 3: Audio".

[14]   ITU-T Recommendation G.711: "Pulse Code Modulation (PCM) of voice frequencies".

[15] ISO/IEC 14496-3: "Information technology - Coding of audio-visual objects - Part 3: Audio".

[16] ISO/IEC 11172-2 (1993): "Information technology; Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s; Part 2: Video".

[17] ISO/IEC 13818-2 (1994): "Information technology - Generic coding of moving pictures and associated audio information: Video". It is also standardized by ITU-T as Recommendation H.262.

[18] ISO/IEC 14496-2: "Information technology - Coding of audio-visual objects - Part 2: Visual".

[19] ITU-T Recommendation H.263: "Video coding for low bit rate communication".

[20] ISO/IEC 13522: "Information technology - Coding of multimedia and hypermedia information".

[21] IEC 62106 (2000): "Specifications of the Radio Data System (RDS) for VHF/FM sound broadcasting in the range 87.5 to 108.0 MHz".

[22] ISO/IEC 15948: "Information technology - Portable Network Graphics".

[23] ETSI TS 101 498: "Digital Audio Broadcasting (DAB); Broadcast Website".

3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ACS	Access Control System
AppTy	Application Type
BWS	Broadcast Web Site
CA	Conditional Access
CAId	Conditional Access Identifier
DAB	Digital Audio Broadcasting
DGCA	Data Group Conditional Access
DLS	Dynamic Label Segment
DSCTy	Data Service Component Type
EBU	European Broadcasting Union
ECM	Entitlement Checking Message
EMM	Entitlement Management Message
ETS	European Telecommunication Standard
EWS	Emergency Warning System
F-PAD	Fixed Programme Associated Data
FIC	Fast Information Channel
FIDC	Fast Information Data Channel
FIG	Fast Information Group
ITTS	Interactive Text Transmission System
ITU	International Telecommunications Union
MOT	Multimedia Object Transfer
MPEG	Moving Pictures Expert Group
MSb	Most Significant bit
MSB	Most Significant Byte
PAD	Programme Associated Data
PNG	Portable Network Graphics
PTy	Programme Type
RDS	Radio Data System
rfa	reserved for future addition
rfu	reserved for future use
SId	Service Identifier
TII	Transmitter Identification Information
tba	to be announced
TMC	Traffic Message Channel
TMId	Transport Mechanism Identifier
UAtype	User Application type
WorldDAB IRC	WorldDAB Information and Registration Centre

X-PAD   Extended Programme Associated Data

4 Registration procedure

4.1 Registration authority

The content of the present document is maintained by WorldDAB Information and Registration Centre (WorldDAB IRC). Applications for the registration of a value in an existing table or registration of a new table are to be sent to the address below. Note that only applications which are in line with the rules described in the following subclauses can be accepted by the registration authority.

Applications for registration should be sent to:

> WorldDAB Information and Registration Centre,
> Wyvil Court,
> Wyvil Road,
> LONDON SW8 2TG,
> England
> Tel: +44 20 7896 90 51
> Fax: +44 20 7896 90 55
> E-mail: worlddab-irc@worlddab.org

4.2 Registration of a value in an existing table

Applications for a new value to be defined in an **existing** table shall be sent to the WorldDAB Information and Registration Centre. The requirement shall be clearly stated, including table to be considered, requirement and proposed number to be used. Support from other organizations for the request should be cited also.

The WorldDAB Information and Registration Centre will confirm that no numbering conflicts occur at this stage and circulate the proposal to WorldDAB Module A members for a 30 day comment period. If there are no adverse comments, then the application, as amended by any helpful editorial suggestions will be accepted and published within 30 days on the WorldDAB website. If there are adverse comments, then the application will be considered by WorldDAB Module A at its next plenary meeting following the comment period. WorldDAB Information and Registration Centre will prepare a briefing for that meeting and the applicant will be given an opportunity to describe their proposal and reasons for it. The decision of the WorldDAB Module A meeting will be final and if the application is accepted, as amended by any helpful editorial suggestions, it will be published within 30 days on the WorldDAB website.

4.3 Registration of a new table

Applications for a **new** table to be defined shall be sent to the WorldDAB Information and Registration Centre. The requirement shall be clearly stated, including table function to be considered, requirement and proposed numbering system to be used. Support from other organizations for the request should be cited also.

The WorldDAB Information and Registration Centre will prepare a briefing for the next WorldDAB Module A plenary meeting and the applicant will be given an opportunity to describe their proposal and reasons for it. The decision of the WorldDAB Module A meeting will be final and if the application is accepted, as amended by any helpful editorial suggestions, it will be published within 30 days on the WorldDAB website.

5 Registered tables in EN 300 401

5.1 General

Each table following is listed in subclause number order of appearance in EN 300 401 [1].

5.2   Conditional Access Identifier (CAId)

See subclause 6.3.1 of EN 300 401 [1].

Table 1 contains all *presently* registered Conditional Access Identifiers and their bit values, which identify the Access Control System (ACS) used for a service. If no ACS is used for the service, CAId is set to zero. All the remaining values are reserved for future use.

Table 1: CAId types

b_6	b_5	b_4	CAId types
0	0	0	No access control for all the components of the service
0	0	1	NR-MSK
0	1	0	Eurocrypt EN 50094 [2]
0	1	1	*rfu*
1	0	0	*rfu*
1	0	1	*rfu*
1	1	0	*rfu*
1	1	1	*rfu*

5.3   Data Service Component Type (DSCTy)

See subclause 6.3.1 of EN 300 401 [1].

Table 2 contains all *presently* registered Data Service Component Types and their bit values. All the remaining values (not shown) are reserved for future use.

Table 2: DSCTy types

b_{13}	b_{12}	b_{11}	b_{10}	b_9	b_8	Dec	DSCTy types
0	0	0	0	0	0	0	Unspecified data
0	0	0	0	0	1	1	Traffic message Channel (TMC)
0	0	0	0	1	0	2	Emergency Warning System (EWS)
0	0	0	0	1	1	3	Interactive Text Transmission System (ITTS)
0	0	0	1	0	0	4	Paging
0	0	0	1	0	1	5	Transparent Data Channel (TDC)
							: *rfu*
1	1	1	0	1	1	59	Embedded IP packets
1	1	1	1	0	0	60	Multimedia Object Transfer (MOT)
1	1	1	1	0	1	61	Proprietary service: no DSCTy signalled
1	1	1	1	1	0	62	Proprietary service: DSCTy from the service-specific extension table
1	1	1	1	1	1	63	DSCTy from general extension table

5.4   Country Id

5.4.1   General

See subclause 6.3.1 of EN 300 401 [1].

The following tables are separated into International Telecommunications Union (ITU) regions for convenience only; they contain Country Identifiers (Country Id) and the Extended Country Codes (ECC) - see annexes D and N of EN 50067 [3], and, for information, the ITU code. The Country Id codes and ECC are shown in their binary-coded hexadecimal form. Country identifier code "0" (hex) is not used.

NOTE: Lower case characters have been used where there is no known ITU code.

Table 3: ITU Region 1 (European broadcasting area)

Country	ITU code	ECC	Country Id	Country	ITU code	ECC	Country Id
Albania	ALB	E0	9	Lebanon	LBN	E3	A
Algeria	ALG	E0	2	Libya	LBY	E1	D
Andorra	AND	E0	3	Leichtenstein	LIE	E2	9
Austria	AUT	E0	A	Lithuania (ex USSR)	LTU	E2	C
Azores (Portugal)	AZR	E0	8	Luxembourg	LUX	E1	7
Belgium	BEL	E0	6	Macedonia	mkd	E4	3
Belarus (ex USSR)	BLR	E3	F	Madeira	MDR	E2	8
Bosnia i Hercegovina	bih	E4	F	Malta	MLT	E0	C
Bulgaria	BUL	E1	8	Marocco	MRC	E2	1
Canaries (Spain)	CNR	E0	E	Moldova	MDA	E4	1
Croatia	HRV	E3	C	Monaco	MCO	E2	B
Cyprus	CYP	E1	2	Montenegro	men	E3	1
Czech Republic	czr	E2	2	Netherlands	HOL	E3	8
Denmark	DNK	E1	9	Norway	NOR	E2	F
Egypt	EGY	E0	F	Poland	POL	E2	3
Estonia (ex USSR)	EST	E4	2	Portugal	POR	E4	8
Faroe (Denmark)	DNK	E1	9	Roumania	ROU	E1	E
Finland	FNL	E1	6	Russian Federation	RUS	E0	7
France	F	E1	F	San Marino	SM	E1	3
Germany	D	E0	D	Serbia	srb	E2	D
		E0	1	Slovenia	SVN	E4	9
Gibralatar (UK)	GIB	E1	A	Slovak Replublic	slr	E2	5
Greece	GRC	E1	1	Spain	E	E2	E
Hungary	HNG	E0	B	Sweden	S	E3	E
Iceland	ISL	E2	A	Switzerland	SUI	E1	4
Iraq	IRQ	E1	B	Syria	SYR	E2	6
Ireland	IRL	E3	2	Tunisia	TUN	E2	7
Israel	ISR	E0	4	Turkey	TUR	E3	3
Italy	I	E0	5	Ukraine	UKR	E4	6
Jordan	JOR	E1	5	United Kingdom	G	E1	C
Latvia (ex USSR)	LVA	E3	9	Vatican	CVA	E2	4

Table 4: ITU Region 1 (African broadcasting area)

Country	ITU code	ECC	Country Id	Country	ITU code	ECC	Country Id
Ascension island	ASC	D1	A	Mauritius	MAU	D3	A
Angola	AGL	D0	6	Madagascar	MDG	D0	4
Algeria	ALG	E0	2	Malawi	MWI	D0	F
Burindi	BDI	D1	9	Mali	MLI	D0	5
Benin	BEN	D0	E	Marocco	MRC	E2	1
Burkina Faso	BFA	D0	B	Mauritania	MTN	D1	4
Botswana	BOT	D1	B	Mozambique	MOZ	D2	3
Cabinda	cba	D3	4	Niger	NGR	D2	8
Cameroon	CME	D0	1	Nigeria	NIG	D1	F
Canary Islands	CNR	E0	E	Namibia	NMB	D1	1
Central African Republic	CAF	D0	2	Rwanda	RRW	D3	5
Chad	TCD	D2	9	Sao Tome & Principe	STP	D1	5
Congo	COG	D0	C	Seychelles	SEY	D3	8
Comoros	COM	D1	C	Senegal	SEN	D1	7
Cape Verde	CPV	D1	6	Sierra Leone	SRL	D2	1
Cote d'Ivoire	CTI	D2	C	Somalia	SOM	D2	7
Djibouti	DJI	D0	3	South Africa	AFS	D0	A
Egypt	EGY	E0	F	Sudan	SDN	D3	C
Ethiopia	ETH	D1	E	Swaziland	SWZ	D2	5
Gabon	GAB	D0	8	Togo	TGO	D0	D
Ghana	GHA	D1	3	Tunisia	TUN	E2	7
Gambia	GMB	D1	8	Tanzania	TZA	D1	D
Guinea-Bissau	GNB	D2	A	Uganda	UGA	D2	4
Equatorial Guinea	GNE	D0	7	Western Sahara	AOE	D3	3
Republic of Guinea	GUI	D0	9	Zaire	ZAI	D2	B
Kenya	KEN	D2	6	Zambia	ZMB	D2	E
Liberia	LBR	D1	2	Zanzibar	ZAN	D2	D
Libya	LBY	E1	D	Zimbabwe	ZWE	D2	2
Lesotho	LSO	D3	6				

Table 5: ITU Region 1 (Former Soviet Union broadcasting area)

Country	ITU code	ECC	Country Id	Country	ITU code	ECC	Country Id
Armenia	ARM	E4	A	Lithuania	LTU	E2	C
Azerbaijan	AZE	E3	B	Moldova	MDA	E4	1
Belarus	BLR	E3	F	Russian Federation	RUS	E0	7
Estonia	EST	E4	2	Tajikistan	TJK	E3	5
Georgia	GEO	E4	C	Turkmenistan	TKM	E4	E
Kazakhstan	KAZ	E3	D	Ukraine	UKR	E4	6
Kyrghyzstan	KGZ	E4	3	Uzbekistan	UZB	E4	B
Latvia	LVA	E3	9				

Table 6: ITU Region 2 (North and South Americas)

Country	ITU code	ECC	Country Id	Country	ITU code	ECC	Country Id
Anguilla	AIA	A2	1	Guyana	GUY	A3	F
Antigua & Barbuda	ATG	A2	2	Haiti	HTI	A4	D
Argentina	ARG	A2	A	Honduras	HND	A4	2
Aruba	ABW	A4	3	Jamaica	JMC	A3	3
Bahamas	BAH	A2	F	Martinique	MRT	A3	4
Barbados	BRB	A2	5	Mexico	MEX	A4	F
Belize	BLZ	A2	6	Montserrat	MSR	A4	5
Bermuda	BER	A2	C	Netherlands Antilles	ATN	A2	D
Bolivia	BOL	A3	1	Nicaragua	NCG	A3	7
Brazil	B	A2	B	Panama	PNR	A3	9
Canada	CAN	A1	C	Paraguay	PRG	A3	6
Cayman Islands	CYM	A2	7	Peru	PRU	A4	7
Chile	CHL	A3	C	Puerto Rico	PTR	A3	8
Colombia	CLM	A3	2	St. Kitts	SCN	A4	A
Costa Rica	CTR	A2	8	St. Lucia	LCA	A4	B
Cuba	CUB	A2	9	St. Pierre & Michelon	SPM	A6	F
Dominica	DMA	A3	A	St. Vincent	VCT	A5	C
Dominican Republic	DOM	A3	B	Surinam	SUR	A4	8
Equador	EQA	A2	3	Trinidad & Tobago	TRD	A4	6
El Salvador	SLV	A4	C	Turks & Caicos islands	TCA	A3	E
Falkland Islands	FLK	A2	4	United States of America	USA	A0	1.. 9, A, B, D, E
Greenland	GRL	A1	F	Uruguay	URG	A4	9
Grenada	GRD	A3	D	Venezuela	VEN	A4	E
Guadeloupe	GDL	A2	E	Virgin islands (British)	VRG	A5	F
Guatemala	GTM	A4	1	Virgin islands (USA)	VIR	A5	F

Table 7: ITU Region 3 (Asia and Pacific)

Country	ITU code	ECC	Country Id	Country	ITU code	ECC	Country Id
Afganistan	AFG	F0	A	Korea (South)	KOR	F1	E
Saudi Arabia	ARS	F0	9	Korea (North)	KRE	F0	D
Australia:				Kuwait	KWT	F2	1
Capital Territory	act	F0	1	Laos	LAO	F3	1
New South Wales	ans	F0	2	Macau	MAC	F2	6
Victoria	avi	F0	3	Malaysia	MLA	F0	F
Queensland	aqu	F0	4	Maldives	MLD	F2	B
South Australia	asa	F0	5	Micronesia	mic	F3	E
Western Australia	awa	F0	6	Mongolia	MNG	F3	F
Tasmania	ata	F0	7	Nepal	NPL	F2	E
Northern Territory	ant	F0	8	Nauru	NRU	F1	7
Bangladesh	BGD	F1	3	New Zealand	NZL	F1	9
Bahrain	BHR	F0	E	Oman	OMA	F1	6
Myanmar (Burma)	BRM	F0	B	Pakistan	PAK	F1	4
Brunei Darussalam	BRU	F1	B	Philippines	PHL	F2	8
Bhutan	BTN	F1	2	Papua New Guinea	PNG	F3	9
Cambodia	CBG	F2	3	Qatar	QAT	F2	2
China	CHN	F0	C	Solomon Islands	SLM	F1	A
Sri Lanka	CLN	F1	C	Western Samoa	SMO	F2	4
Fiji	FJI	F1	5	Singapore	SNG	F2	A
Hong Kong	HKG	F1	F	Taiwan	twn	F1	D
India	IND	F2	5	Thailand	THA	F3	2
Indonesia	INS	F2	C	Tonga	TON	F3	3
Iran	IRN	F0	8	United Arab Emirates	UAE	F2	D
Iraq	IRQ	E1	B	Vietnam	VTN	F2	7
Japan	J	F2	9	Vanuatu	VUT	F2	F
Kiribati	KIR	F1	1	Yemen	YEM	F3	B

5.5   X-PAD Application types

See subclause 7.4.3 of EN 300 401 [1].

Table 8 contains the application types in the X-PAD, which consist of three parts:

   a) first part comprises the application types 0 to 30;

   b) second part comprises the application types 31 to 255;

   c) third part comprises the application types 256 to 286.

Application types 0 to 15, 23, 32 and 33 are defined in table 8. Application type 0 has a special meaning. The remaining application types are reserved for future definition.

Table 8: X-PAD Application types

Application type	Description
0	End marker
1	MOT X-PAD Data Group Length
2	Dynamic label segment, start of X-PAD data group
3	Dynamic label segment, continuation of X-PAD data group
4	ITTS, start of X-PAD data group, see Bibliography
5	ITTS, continuation of X-PAD data group, see Bibliography
6	In-house information, start of X-PAD data group
7	In-house information, continuation of X-PAD data group
8	Closed user-group packet channel, start of X-PAD data group
9	Closed user-group packet channel, continuation of X-PAD data group
10	Table of contents, start of X-PAD data group
11	Table of contents, continuation of X-PAD data group
12	MOT, start of X-PAD Data Group
13	MOT, continuation of X-PAD Data Group
14	MOT, start of CA messages
15	MOT, continuation of CA messages
	: rfu
23	Transparent data channel,
	: rfu
32	Closed user-group stream channel, start of X-PAD data group
33	Closed user-group stream channel, continuation of X-PAD data group

5.6   Languages code tables

5.6.1   General

See subclause 8.1 of EN 300 401 [1].

The following tables show the codes to be used when describing a number of different language parameters in a DAB service (e.g. service component language, language field in PTy, PTy downloading and PTy preview, etc.) - see also ETS 300 250 [4]. The Language codes are shown in their binary-coded hexadecimal form.

Table 9: European languages

Table 11 contains the European languages written with 'Latin-based' alphabets and their hex code:

Language	Code (hex)	Language	Code (hex)
Unknown/not applicable	00	Luxembourgian	19
Albanian	01	Lithuanian	1A
Breton	02	Hungarian	1B
Catalan	03	Maltese	1C
Croatian	04	Dutch	1D
Welsh	05	Norwegian	1E
Czech	06	Occitan	1F
Danish	07	Polish	20
German	08	Portuguese	21
English	09	Romanian	22
Spanish	0A	Romansh	23
Esperanto	0B	Serbian	24
Estonian	0C	Slovak	25
Basque	0D	Slovene	26
Faroese	0E	Finnish	27
French	0F	Swedish	28
Frisian	10	Turkish	29
Irish	11	Flemish	2A
Gaelic	12	Walloon	2B
Galician	13	*rfu*	2C
Icelandic	14	*rfu*	2D
Italian	15	*rfu*	2E
Lappish	16	*rfu*	2F
Latin	17	Reserved for national assigment	30 – 3F
Latvian	18		

Table 10: Other languages

Language	Code (hex)	Language	Code (hex)
Amharic	7F	Marathi	5F
Arabic	7E	Ndebele	5E
Armenian	7D	Nepali	5D
Assamese	7C	Oriya	5C
Azerbijani	7B	Papamiento	5B
Bambora	7A	Persian	5A
Belorussian	79	Punjabi	59
Bengali	78	Pushtu	58
Bulgarian	77	Quechua	57
Burmese	76	Russian	56
Chinese	75	Ruthenian	55
Churash	74	Serbo-Croat	54
Dari	73	Shona	53
Fulani	72	Sinhalese	52
Georgian	71	Somali	51
Greek	70	Sranan Tongo	50
Gujurati	6F	Swahili	4F
Gurani	6E	Tadzhik	4E
Hausa	6D	Tamil	4D
Hebrew	6C	Tatar	4C
Hindi	6B	Telugu	4B
Indonesian	6A	Thai	4A
Japanese	69	Ukranian	49
Kannada	68	Urdu	48
Kazakh	67	Uzbek	47
Khmer	66	Vietnamese	46
Korean	65	Zulu	45
Laotian	64	*rfu*	44
Macedonian	63	*rfu*	43
Malagasay	62	*rfu*	42
Malaysian	61	*rfu*	41
Moldavian	60	Background sound/clean feed	40

5.7   International Table Id

See subclause 8.1.3.2 of EN 300 401 [1].

This table contains *presently* registered International table identifiers and their bit values. All the remaining values (not shown) are reserved for future use.

Table 11: International table identifiers

b$_7$	b$_6$	b$_5$	b$_4$	b$_3$	b$_2$	b$_1$	b$_0$	International table identifiers
0	0	0	0	0	0	0	1	Comprises the use of a PTY from table 12 and an Announcement type from table 14.
0	0	0	0	0	0	1	0	Comprises the use of an RBDS PTY from table 13 and an Announcement type from table 14.

5.8   Programme Type

See subclause 8.1.5 of EN 300 401 [1]. These tables contain Programme types, their numbers and bit values and abbreviations for display.

Table 12 is largely co-ordinated with the Programme Type codes used in RDS (except code 30 and 31) and specified in annex F of EN 50067 [3]. The 16-character and 8-character abbreviations are recommended for display on DAB products in the English language. Other language abbreviations are shown in annex A.

**Table 12: Programme type codes and abbreviations in the English language,
applying to all countries, except for North America**

Decimal Number	Code					Programme type	16-character abbreviation	8-character abbreviation
	b_4	b_3	b_2	b_1	b_0			
0	0	0	0	0	0	No programme type	None	None
1	0	0	0	0	1	News	News	News
2	0	0	0	1	0	Current Affairs	Current _ Affairs	Affairs
3	0	0	0	1	1	Information	Information	Info
4	0	0	1	0	0	Sport	Sport	Sport
5	0	0	1	0	1	Education	Education	Educate
6	0	0	1	1	0	Drama	Drama	Drama
7	0	0	1	1	1	Culture	Cultures	Culture
8	0	1	0	0	0	Science	Science	Science
9	0	1	0	0	1	Varied	Varied _ Speech	Varied
10	0	1	0	1	0	Pop Music	Pop _ Music	Pop _ M
11	0	1	0	1	1	Rock Music	Rock _ Music	Rock _ M
12	0	1	1	0	0	Easy Listening Music	Easy _ Listening	Easy _ M
13	0	1	1	0	1	Light Classical	Light _ Classics _ M	Light _ M
14	0	1	1	1	0	Serious Classical	Serious _ Classics	Classics
15	0	1	1	1	1	Other Music	Other _ Music	Other M
16	1	0	0	0	0	Weather/meteorology	Weather _ & _ Metr	Weather
17	1	0	0	0	1	Finance/Business	Finance	Finance
18	1	0	0	1	0	Children's programmes	Children's _ Progs	Children
19	1	0	0	1	1	Social Affairs	Social _ Affairs	Social
20	1	0	1	0	0	Religion	Religion	Religion
21	1	0	1	0	1	Phone In	Phone _ In	Phone _ In
22	1	0	1	1	0	Travel	Travel _ & _ Touring	Travel
23	1	0	1	1	0	Leisure	Leisure _ & _ Hobby	Leisure
24	1	1	0	0	0	Jazz Music	Jazz _ Music	Jazz
25	1	1	0	0	1	Country Music	Country _ Music	Country
26	1	1	0	1	0	National Music	National _ Music	Nation _ M
27	1	1	0	1	1	Oldies Music	Oldies _ Music	Oldies
28	1	1	1	0	0	Folk Music	Folk _ Music	Folk _ M
29	1	1	1	0	1	Documentary	Documentary	Document
30	1	1	1	1	0	*Not used*		
31	1	1	1	1	1	*Not used*		

NOTE 1:   This table forms part 1 of the International Table Identifier /0000 0001/ (see subclause 5.7) which references the PTy codes for DAB use, **except** in North America.

NOTE 2:   The notation _ is used to indicate the use of the 'space' character.

Table 13 is co-ordinated with the Program Type codes used in North America (except code 30 and 31) and specified in annex F.2 of IEC 62106 [21]. The 16-character and 8-character abbreviations are recommended for display on DAB products for use in North America.

**Table 13: Programme type codes and abbreviations in the English language,
applying to North America**

Decimal Number	Code					Program type	16-character abbreviation	8-character abbreviation
	b_4	b_3	b_2	b_1	b_0			
0	0	0	0	0	0	No program type	None	None
1	0	0	0	0	1	News	News	News
2	0	0	0	1	0	Information	Information	Inform
3	0	0	0	1	1	Sports	Sports	Sports
4	0	0	1	0	0	Talk	Talk	Talk
5	0	0	1	0	1	Rock	Rock	Rock
6	0	0	1	1	0	Classic Rock	Classic _ Rock	Cls _ Rock
7	0	0	1	1	1	Adult Hits	Adult _ Hits	Adlt _ Hit
8	0	1	0	0	0	Soft Rock	Soft _ Rock	Soft _ Rck
9	0	1	0	0	1	Top 40	Top _ 40	Top _ 40
10	0	1	0	1	0	Country	Country	Country
11	0	1	0	1	1	Oldies	Oldies	Oldies
12	0	1	1	0	0	Soft	Soft	Soft
13	0	1	1	0	1	Nostalgia	Nostalgia	Nostalga
14	0	1	1	1	0	Jazz	Jazz	Jazz
15	0	1	1	1	1	Classical	Classical	Classicl
16	1	0	0	0	0	Rhythm and Blues	Rhythm _ and _ Blues	R _ & _ B
17	1	0	0	0	1	Soft Rhythm and Blues	Soft _ R _ & _ B	Soft _ R&B
18	1	0	0	1	0	Foreign Language	Foreign _ Language	Language
19	1	0	0	1	1	Religious Music	Religious _ Music	Rel _ Musc
20	1	0	1	0	0	Religious Talk	Religious _ Talk	Rel _ Talk
21	1	0	1	0	1	Personality	Personality	Persnlty
22	1	0	1	1	0	Public	Public	Public
23	1	0	1	1	0	College	College	College
24	1	1	0	0	0	*: rfu*		
25	1	1	0	0	1	*: rfu*		
26	1	1	0	1	0	*: rfu*		
27	1	1	0	1	1	*: rfu*		
28	1	1	1	0	0	*: rfu*		
29	1	1	1	0	1	Weather	Weather	Weather
30	1	1	1	1	0	*Not used*		
31	1	1	1	1	1	*Not used*		
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0010/ (see subclause 5.7) which references the PTy codes for North American DAB use.								
NOTE 2: The notation _ is used to indicate the use of the 'space' character.								

5.9   Announcements

See subclause 8.1.6 of EN 300 401 [1]. Table 14 contains all *presently* registered announcement types, their descriptions and bit flags. This table forms part 2 of the International Table Identifiers /0000 0001/ and /0000 0010/ (see table 11). All the remaining values (not detailed) are reserved for future use.

Table 14: Announcement types and their descriptions

Bit flag	Announcement type	Description
b_0	Alarm	Information about a serious or even life-threatening situation such as: nuclear fallout or war.
b_1	Road Traffic flash	Information about problems on the road.
b_2	Transport flash	Information concerning Public Transport, such as: schedules of buses, ferries, planes or trains.
b_3	Warning/Service	Information about incidents of less importance than Alarm Announcements, such as: disruption of power or water supplies.
b_4	News flash	News bulletin
b_5	Area weather flash	Weather bulletin
b_6	Event announcement	Information about commercial, cultural or public events.
b_7	Special event	Information on unscheduled or previously unforeseen events.
b_8	Programme Information	Information about current or future radio broadcasts or programmes.
b_9	Sport report	Bulletin of news about sport.
b_{10}	Financial report	Bulletin of news about finance or business.
b_{11}	*Reserved for future definition*	tba
b_{12}	*Reserved for future definition*	tba
b_{13}	*Reserved for future definition*	tba
b_{14}	*Reserved for future definition*	tba
b_{15}	*Reserved for future definition*	tba

Table 15 shows the 16-character and 8-character abbreviations recommended for display on DAB products for the English language. Other languages abbreviations are detailed in annex B. All the remaining values (not detailed) are reserved for future use.

Table 15: Announcement types and abbreviations in the English language

Bit flag	Announcement type	16-character abbreviation	8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Traffic _ News	Traffic
b_2	Transport flash	Transport News	Travel
b_3	Warning/Service	Warning	Warning
b_4	News flash	News	News
b_5	Area weather flash	Weather	Weather
b_6	Event announcement	Event	Event
b_7	Special event	Special _ event	Special
b_8	Programme Information	Radio _ info	Rad _ info
b_9	Sport report	Sports _ news	Sports
b_{10}	Financial report	Financial _ news	Finance
b_{11}	*Reserved for future definition*	tba	tba
b_{12}	*Reserved for future definition*	tba	tba
b_{13}	*Reserved for future definition*	tba	tba
b_{14}	*Reserved for future definition*	tba	tba
b_{15}	*Reserved for future definition*	tba	tba
NOTE: The notation _ is used to indicate the use of the 'space' character.			

5.10 User Application type (UAtype)

See subclause 8.1.20 of EN 300 401 [1]. Table 16 contains User Appplication type identifiers and their bit values, which are required to decode the data in the channel identified by SId and SCIdS. All the remaining values (not shown) are reserved for future use.

Table 16: User Application types

b_{15}	b_{14}	b_{13}	b_{12}	b_{11}	b_{10}	b_9	b_8	b_7	b_6	b_5	User Application type
0	0	0	0	0	0	0	0	0	0	0	Reserved for future definition
0	0	0	0	0	0	0	0	0	0	1	Dynamic labels (X-PAD only)
0	0	0	0	0	0	0	0	0	1	0	MOT Slideshow
0	0	0	0	0	0	0	0	0	1	1	MOT Broadacst Web Site
0	0	0	0	0	0	0	0	1	0	0	TPEG
0	0	0	0	0	0	0	0	1	0	1	DGPS
0	0	0	0	0	0	0	0	1	1	0	Reserved for future definition
											:rfu
0	1	1	1	1	1	1	1	1	1	1	Reserved for future definition
1	0	0	0	0	0	0	0	0	0	0	Reserved for proprietary applications
											:rfu
1	1	1	1	1	1	1	1	1	1	1	Reserved for proprietary applications

6 Registered tables in EN 301 234 (MOT)

6.1 Content type and content subtypes

Table 17 contains values for the MOT header parameters content type and content subtype. A basic variant containing the original values of this table can be found in table 1 within the DAB; MOT protocol specification [5].

Table 17: Content type and content subtypes

Content type b_{14} b_9	Interpretation	Content subtype b_8 b_0	Interpretation
000000	general data	000000000	Object Transfer
		000000001	MIME/HTTP [6], [7]
000001	text	000000000	Text (US ASCII) [8]
		000000001	Text (see ISO Latin 1) [9]
		000000010	HTML [10]
000010	image	000000000	GIF (see Bibliography)
		000000001	JFIF [11]
		000000010	BMP (see Bibliography)
		000000011	PNG [22]
000011	audio	000000000	MPEG I audio Layer I [12]
		000000001	MPEG I audio Layer II [12]
		000000010	MPEG I audio Layer III [12]
		000000011	MPEG II audio Layer I [13]
		000000100	MPEG II audio Layer II [13]
		000000101	MPEG II audio Layer III [13]
		000000110	uncompressed PCM audio [14]
		000000111	AIFF (see Bibliography)
		000001000	ATRAC (see Bibliography)
		000001001	ATRAC II (see Bibliography)
		000001010	MPEG 4 audio [15]
000100	video	000000000	MPEG I video [16]
		000000001	MPEG II video [17]
		000000010	MPEG 4 video [18]
		000000011	H263 [19]
000101	MOT transport	000000000	Header update
000110	system	000000000	MHEG [20]
		000000001	Java (see Bibliography)
111111	proprietary table	000000000 ... 111111111	proprietary

6.2   Extension parameter

Table 18 contains ParameterId values for coding the MOT header extension parameter types. A basic variant containing the original values of this table can be found in table 2 within the DAB; MOT protocol specification [5].

Table 18

Parameter Id b5 b0	Parameter	Data field length	Possible occurrences	Data field	Interpretation
000010	CreationTime	4 bytes 6 bytes	only once	see [5] P.1	see [5] P.2
000011	StartValidity	4 bytes 6 bytes	only once	see [5] P.1	see [5] P.3
000100	ExpireTime	4 bytes 6 bytes	only once	see [5] P.1	see [5] P.4
000101	TriggerTime	4 bytes 6 bytes	once or several times	see [5] P.1	see [5] P.5
000110	VersionNumber	1 byte	only once	see [5] P.6	see [5] P.6
000111	RepetitionDistance	4 bytes	only once	see [5] P.7	see [5] P.7
001000	GroupReference	6 bytes	once or several times	see [5] P.8	see [5] P.8
001010	Priority	1 byte	only once	see [5] P.9	see [5] P.9
001011	Label	19 bytes	only once	see [5] P.10	see [5] P.10
001100	ContentName	variable	only once	see [5] P.11	see [5] P.11
001111	ContentDescription	variable	only once	see [5] P.12	see [5] P.12
010000	Mime Type	variable	only once	see note	see note
010001	CompressionType	1 byte	only once	see note	see note
111111	Application specific	variable	once or several times	not defined	not defined
NOTE: TS 101 498 [23] : "DAB; Broadcast Web Site Application".					

6.3   Character set indicator

Table 19 contains values for coding the character set indicator for the MOT ContentName. A basic variant containing the original values of this table can be found in table 2 within the DAB; MOT protocol specification [5].

Table 19

b7 b4	Description
0000	complete EBU Latin based repertoire [3]
0001	EBU Latin based common core, Cyrillic, Greek [3]
0010	EBU Latin based core, Arabic, Hebrew, Cyrillic, Greek [3]
0011	ISO Latin Alphabet No 2 (see ISO-8859-2 [9])
0100	ISO Latin Alphabet No 1 (see ISO-8859-1 [9])

6.4   Directory extension parameters

Table 20 contains ParameterId values for coding the MOT directory extension parameter types. A basic variant containing the original values of this table can be found in table 2 within the DAB; MOT protocol specification [5].

Table 20

ParamId	Description
0 x 00 - 0 x 1f	Reserved for MOT
0 x 20 - 0 x 3f	Application specific

Annex A (informative):
Programme Type Codes, translations

Tables are not shown in alphabetical order, because new tables may be added at the end of this appendix in the future.

Table A.1: Dutch Programme types and 16-character and 8-character abbreviations

Decimal Number	Programme type - see table 12	Dutch PTy	Dutch 16-character abbreviation	Dutch 8-character abbreviation
0	No programme type	niet gedefinieerd	niet_bepaald	geen
1	News	Nieuws	Nieuws	Nieuws
2	Current Affairs	Actualiteit	Actualiteit	Actueel
3	Information	Informatie	Informatie	Info
4	Sport	Sport	Sport	Sport
5	Education	Educatie	Educatie	Educat.
6	Drama	Drama	Drama	Drama
7	Culture	Cultuur	Cultuur	Cultuur
8	Science	Wetenschap	Wetenschap	Wetensch
9	Varied	Varia en gesprekken	Varia	Varia
10	Pop Music	Pop	Popmuziek	Pop
11	Rock Music	Rock	Rockmuziek	Rock
12	Easy Listening Music	Melodie: ontspanningsmuziek	Melodie	Melodie
13	Light Classical	Licht klassiek	Licht _ klassiek	Licht _ Kl
14	Serious Classical	Klassiek	Klassieke _ muziek	Klassiek
15	Other Music	Overige muziek	Muziek	Muziek
16	Weather/meteorology	Weerbericht	Het _ weer	Het _ weer
17	Finance/Business	Economie	Economie	Economie
18	Children's programmes	Voor kinderen	Voor _ kinderen	Kinderen
19	Social Affairs	Maatschappelijk	Maatschappelijk	Maatsch.
20	Religion	Religie	Religie	Religie
21	Phone In	Doe mee !	Doe _ mee _ !	Doe _ mee
22	Travel	Reizen	Reizen	Reizen
23	Leisure	Vrije tijd	Vrije _ tijd	Vrije _ T.
24	Jazz Music	Jazz	Jazz	Jazz
25	Country Music	Country	Countrymuziek	Country
26	National Music	Nationale muziek	Nationale _ muziek	Eigen _ M
27	Oldies Music	Gouwe Ouwe	Gouwe _ ouwe	Goud
28	Folk Music	Volksmuziek	Volksmuziek	Folk
29	Documentary	Documentaires	Documentaires	Document
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see subclause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the 'space' character.				

Table A.2: French Programme types and 16-character and 8-character abbreviations

Decimal Number	Programme type - see table 12	French PTy	French 16-character abbreviation	French 8-character abbreviation
0	No programme type	Codification de programme non utilisée ou genre non défini	Non _ défini	Aucun
1	News	Informations	Informations	Infos
2	Current Affairs	Magazine	Magazine	Magazine
3	Information	Info-Service	Info-Service	Services
4	Sport	Sport	Sport	Sport
5	Education	Education	Educatif	Educatif
6	Drama	Dramatique	Fiction	Fiction
7	Culture	Culture	Culture	Culture
8	Science	Sciences	Sciences	Sciences
9	Varied	Divertissement	Divertissement	Divers
10	Pop Music	Pop	Musique _ Pop	M _ Pop
11	Rock Music	Rock	Musique _ Rock	M _ Rock
12	Easy Listening Music	Chansons	Chansons	Chansons
13	Light Classical	Classique Léger	Classique _ Léger	M _ Cl _ Lég
14	Serious Classical	Musique Classique	MusiqueClassique	Classiq
15	Other Music	Autre Musique	Autre _ Musique	Autre _ M
16	Weather/meteorology	Météo	Météo	Météo
17	Finance/Business	Economie et Finances	Economie	Economie
18	Children's programmes	Programmes pour enfants	Enfants	Enfants
19	Social Affairs	Société	Société	Société
20	Religion	Religion	Religion	Religion
21	Phone In	Ligne ouverte et interactivité	Ligne _ ouverte	Forum
22	Travel	Voyages	Voyages	Voyages
23	Leisure	Loisirs	Loisirs	Loisirs
24	Jazz Music	Musique de jazz	Jazz	Jazz
25	Country Music	Musique de country	Country	Country
26	National Music	Chansons du pays	Chanson _ du _ pays	Ch _ pays
27	Oldies Music	Musique rétro	Musique _ rétro	Rétro
28	Folk Music	Musique folklorique	Folklore	Folklore
29	Documentary	Documentaire	Documentaire	Document
30	*Not used*			
31	*Not used*			

NOTE 1:   This table forms part 1 of the International Table Identifier /0000 0001/ (see subclause 5.7) which references the PTy codes for DAB use, **except** in North America.
NOTE 2:   The notation _ is used to indicate the use of the 'space' character.

Table A.3: German Programme types and 16-character and 8-character abbreviations

Decimal Number	Programme type - see table 12	German PTy	German 16-character abbreviation	German 8-character abbreviation
0	No programme type	Keine Programmartkennung	Kein _ PTY	Kein _ PTY
1	News	Nachrichtendienst	Nachrichten	Nachrich
2	Current Affairs	Politik und Zeitgeschehen	Aktuelle _ Info	Aktuell
3	Information	Service Programm	Service _ Programm	Service
4	Sport	Sport	Sport	Sport
5	Education	Lernen und Weiterbildung	Bildung	Bildung
6	Drama	Hörspiel und Literatur	Hörspiel _ + _ Lit	Hör+Lit
7	Culture	Kultur, Kirche und Gesellschaft	Kultur+Gesellsch	Kultur
8	Science	Wissenschaft	Wissenschaft	Wissen
9	Varied	Unterhaltendes Wort	Unterhaltung	Unterh
10	Pop Music	Popmusik	Pop _ Musik	Pop
11	Rock Music	Rockmusik	Rock _ Musik	Rock
12	Easy Listening Music	Unterhaltungsmusik	Unterhalt _ Musik	U-Musik
13	Light Classical	Leichte klassische Musik	Leichte _ Klassik	L-Musik
14	Serious Classical	Ernste klassische Musik	Ernste _ Klassik	E-Musik
15	Other Music	Spezielle Musikprogramme	Spezielle _ Musik	Musik
16	Weather/meteorology	Wetter	Wetter	Wetter
17	Finance/Business	Wirtschaft	Wirtschaft	Wirtsch
18	Children's programmes	Kinderprogramm	Kinderprogramm	Kinder
19	Social Affairs	Soziales	Soziales	Soziales
20	Religion	Religion	Religion	Religion
21	Phone In	Anrufsendung	Anrufsendung	Anruf
22	Travel	Reiseinformation	Reiseinformation	Reise
23	Leisure	Freizeit	Freizeit	Freizeit
24	Jazz Music	Jazz	Jazz	Jazz
25	Country Music	Countrymusik	Country _ Musik	Country
26	National Music	Musik des Landes	Landesmusik	Landes _ M
27	Oldies Music	Oldiemusik	Oldies _ Musik	Oldies
28	Folk Music	Folklore	Folklore	Folklore
29	Documentary	Feature	Feature	Feature
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see subclause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the 'space' character.				

Table A.4: Norwegian Programme types and 16-character and 8-character abbreviations

Decimal Number	Programme type - see table 12	Norwegian PTy	Norwegian 16-character abbreviation	Norwegian 8-character abbreviation
0	No programme type	Ingen programtype eller udefinert	Ikke _ PTY	Ikke _ PTY
1	News	Nyheter	Nyheter	Nyheter
2	Current Affairs	Aktuell reportasje	Aktuelt	Aktuelt
3	Information	Informasjon	Informasjon	Info
4	Sport	Sport	Sport	Sport
5	Education	Undervisning	Undervisning	Undervsn
6	Drama	Radioteater	Radioteater	Teater
7	Culture	Kultur	Kultur	Kultur
8	Science	Vitenskap	Vitenskap	Vitenskp
9	Varied	Underholdning	Underholdning	Underh
10	Pop Music	Pop musikk	Pop _ musikk	Pop _ mus
11	Rock Music	Rock musikk	Rock _ musikk	Rock _ mus
12	Easy Listening Music	Lett musikk	Lett _ musikk	Lett _ mus
13	Light Classical	Underholdningsmusikk	Lett _ klassisk	Undh _ mus
14	Serious Classical	Klassisk musikk	Klassisk _ musikk	Klas _ mus
15	Other Music	Diverse musikk	Diverse _ musikk	Div _ mus
16	Weather/meteorology	Værmelding	Værmelding	Vær
17	Finance/Business	Økonomi	Økonomi	Økonomi
18	Children's programmes	Barneprogram	Barneprogram	Barn
19	Social Affairs	Sosialprogram	Sosialprogram	Sosial
20	Religion	Religion	Religion	Religion
21	Phone In	Innringing	Ring _ inn	Ring _ inn
22	Travel	Reiseprogram	Reiseliv	Reise
23	Leisure	Fritidsprogram	Fritid	Fritid
24	Jazz Music	Jazz	Jazz _ musikk	Jazz
25	Country Music	Countrymusikk	Countrymusikk	Country
26	National Music	Nasjonal musikk	Nasjonal _ musikk	Nasj _ mus
27	Oldies Music	Gammelpop	Gammelpop	Gml _ pop
28	Folk Music	Folkemusikk	Folkemusikk	Folk _ mus
29	Documentary	Dokumentar	Dokumentar	Dok
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see subclause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the 'space' character.				

Table A.5: Portuguese Programme types and 16-character and 8-character abbreviations

Decimal Number	Programme type - see table 12	Portuguese PTy	Portuguese 16-character abbreviation	Portuguese 8-character abbreviation
0	No programme type	Não definido	Não _ definido	Não _ def
1	News	Notícias	Notícias	Notícias
2	Current Affairs	Actualidade	Actualidade	Actual
3	Information	Informação	Informação	Info
4	Sport	Desporto	Desporto	Desporto
5	Education	Educação	Educação	Educação
6	Drama	Teatro Radiofónico	Rádio-Teatro	Teatro
7	Culture	Cultura	Cultura	Cultura
8	Science	Ciência	Ciência	Ciência
9	Varied	Variado	Variado	Variado
10	Pop Music	Música Pop	Música _ Pop	Pop
11	Rock Music	Música Rock	Música _ Rock	Rock
12	Easy Listening Music	Música Ligeira	Música _ Ligeira	MLigeira
13	Light Classical	Clássica Ligeira	Clássica _ Ligeira	ClassLig
14	Serious Classical	Música Clássica	Música _ Clássica	Classica
15	Other Music	Outras Músicas	Outras _ Músicas	Outras _ M
16	Weather/meteorology	Meteorologia	Meteorologia	Meteo
17	Finance/Business	Economia	Economia	Economia
18	Children's programmes	Programa Infantil	Progr. _ Infantil	Infantil
19	Social Affairs	Acontec Sociais	Acontec. _ Social	A.Social
20	Religion	Religião	Religião	Religião
21	Phone In	Telefonemas dos ouvintes	Phone _ In	Phone _ In
22	Travel	Viagens	Viagens	Viagens
23	Leisure	Lazer	Lazer	Lazer
24	Jazz Music	Música de Jazz	Música _ de _ Jazz	Jazz
25	Country Music	Música Country	Música _ Country	Country
26	National Music	Música Nacional	Música _ Nacional	Nacional
27	Oldies Music	Música Antiga	Música _ Antiga	M.Antiga
28	Folk Music	Música Folk	Música _ Folk	Folclore
29	Documentary	Documentário	Documentário	Document
30	*Not used*			
31	*Not used*			
NOTE 1:	This table forms part 1 of the International Table Identifier /0000 0001/ (see subclause 5.7) which references the PTy codes for DAB use, **except** in North America.			
NOTE 2:	The notation _ is used to indicate the use of the 'space' character.			

Table A.6: Spanish Programme types and 16-character and 8-character abbreviations

Decimal Number	Programme type - see table 12	Spanish PTy	Spanish 16-character abbreviation	Spanish 8-character abbreviation
0	No programme type	No se indica el tipo programa	Ninguno	Ninguno
1	News	Noticias	Noticias	Noticias
2	Current Affairs	Magazin	Magazine	Magazine
3	Information	Información	Información	Info
4	Sport	Deportes	Deportes	Deportes
5	Education	Educación	Educación	Educa
6	Drama	Drama	Drama	Drama
7	Culture	Cultura	Cultura	Cultura
8	Science	Ciencia	Ciencia	Ciencia
9	Varied	Varios	Varios	Varios
10	Pop Music	Música Pop	Música _ Pop	M _ Pop
11	Rock Music	Música Rock	Música _ Rock	M _ Rock
12	Easy Listening Music	Grand éxitos	Grandes _ éxitos	G _ éxitos
13	Light Classical	Música Ligera	Música _ Ligera	M _ Ligera
14	Serious Classical	Música Clásica	Música _ Clásica	Clásica
15	Other Music	Otra Música	Música _ Varia	M _ Varia
16	Weather/meteorology	Información Metereológica	Meteorología	Meteo
17	Finance/Business	Economia	Economía	Economía
18	Children's programmes	Infancia	Infancia	Infancia
19	Social Affairs	Sociedad	Sociedad	Sociedad
20	Religion	Religión	Religión	Religión
21	Phone In	Opinión	Opinión-Oyentes	Opinión
22	Travel	Viajes	Viajes	Viajes
23	Leisure	Ocio	Ocio	Ocio
24	Jazz Music	Música Jazz	Música _ Jazz	M _ Jazz
25	Country Music	Música Country	Música _ Country	Country
26	National Music	Música Nacional	Música _ Nacional	Nacional
27	Oldies Music	Música de ayer	Música _ de _ Ayer	M _ Ayer
28	Folk Music	Música Folk	Música _ Folk	M _ Folk
29	Documentary	Documental	Documental	Docu
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see subclause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the 'space' character.				

Table A.7: Swedish Programme types and 16-character and 8-character abbreviations

Decimal Number	Programme type - see table 12	Swedish PTy	Swedish 16-character abbreviation	Swedish 8-character abbreviation
0	No programme type	Programtypen saknas eller är odefinierad	Pty _ saknas	Pty _ sakn
1	News	Korta nyheter	Nyheter	Nyheter
2	Current Affairs	Fördjupning av nyheter	Aktualiteter	Aktuellt
3	Information	Allmän information	Information	Info
4	Sport	Sport	Sport	Sport
5	Education	Utbildningsprogram	Utbildning	Utbildn
6	Drama	Teater och program om teater	Teater	Teater
7	Culture	Kultur i bred mening	Kultur	Kultur
8	Science	Vetenskapsprogram	Vetenskap	Vetenskp
9	Varied	Underhållningsprogram	Underhållning	Underh
10	Pop Music	Populärmusik	Popmusik	Pop
11	Rock Music	Rockmusik	Rockmusik	Rock
12	Easy Listening Music	Underhållningsmusik	Lättlyssnat	Lättlyss
13	Light Classical	Lätt klassisk musik(ej kompletta verk)	Lätt _ klassiskt	L _ klass
14	Serious Classical	Kompletta klassiska verk	Klassisk _ musik	Klassisk
15	Other Music	Övrig Musik	Övrig _ musik	Övrig _ m
16	Weather/meteorology	Väderrapporter	Väder	Väder
17	Finance/Business	Ekonomiprogram	Ekonomi	Ekonomi
18	Children's programmes	Barnprogram	För _ barn	För _ barn
19	Social Affairs	Program om sociala frågor	Sociala _ frågor	Socialt
20	Religion	Andliga frågor	Andliga _ frågor	Andligt
21	Phone In	Telefonväkteri	Telefonväkteri	Telefon
22	Travel	Resor och semester	Resor _ & _ semester	Resor
23	Leisure	Fritid och hobby	Fritid _ & _ hobby	Fritid
24	Jazz Music	Jazzmusik	Jazzmusik	Jazz
25	Country Music	Countrymusik	Countrymusik	Country
26	National Music	Nationell musik	Nationell _ musik	Nation _ m
27	Oldies Music	Klassisk pop	Gamla _ godingar	Oldies
28	Folk Music	Folkmusik	Folkmusik	Folkm
29	Documentary	Dokumentärer	Dokumentärer	Dokument
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see subclause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the 'space' character.				

Table A.8: Finnish Programme types and 16-character and 8-character abbreviations

Decimal Number	Programme type - see table 12	Finnish PTy	Finnish 16-character abbreviation	Finnish 8-character abbreviation
0	No programme type		Ei _ määritelty	Ei _ määr.
1	News		Uutiset	Uutiset
2	Current Affairs		Ajankohtaista	Ajankoht
3	Information		Tiedotuksia	Tiedoksi
4	Sport		Urheilu	Urheilu
5	Education		Opetus	Opetus
6	Drama		Kuunnelma	Kuunn.
7	Culture		Kulttuuri	Kultt.
8	Science		Tiede	Tiede
9	Varied		Puheviihde	P-viihde
10	Pop Music		Pop	Pop
11	Rock Music		Rock	Rock
12	Easy Listening Music		Kevyt _ musiikki	Kevyttä
13	Light Classical		Kevyt _ klassinen	K. _ klass
14	Serious Classical		Klassinen	Klass.
15	Other Music		Muu _ musiikki	Muu _ mus.
16	Weather/meteorology		Säätiedotus	Sää
17	Finance/Business		Talousohjelma	Talous
18	Children's programmes		Lastenohjelma	Lapsille
19	Social Affairs		Yhteiskunta	Yhtkunta
20	Religion		Uskonto	Uskonto
21	Phone In		Yleisökontakti	Kontakti
22	Travel		Matkailu	Matkailu
23	Leisure		Vapaa-aika	Vap.aika
24	Jazz Music		Jazz	Jazz
25	Country Music		Country	Country
26	National Music		Kotim. _ musiikki	Kotim.
27	Oldies Music		Oldies	Oldies
28	Folk Music		Kansanmusiikki	Kansanm.
29	Documentary		Dokumentti	Dokum.
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see subclause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the 'space' character.				

Annex B (informative):
Announcement Type Codes, translations

Tables are not shown in alphabetical order, because new tables may be added at the end of this appendix in the future.

Table B.1: Danish Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	Danish 16-character abbreviation	Danish 8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Trafik	Trafik
b_2	Transport flash	Kollektiv _ Trafik	Trafik
b_3	Warning/Service	Advarsel	Advarsel
b_4	News flash	Nyheder	Nyheder
b_5	Area weather flash	Vejret	Vejret
b_6	Event announcement	Arrangementer	Arrangementer
b_7	Special event	Begivenhed	Begivenhed
b_8	Programme Information	Radio _ info	Radio _ info
b_9	Sport report	Sport	Sport
b_{10}	Financial report	Økonomi	Økonomi
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE:	The notation _ is used to indicate the use of the 'space' character.		

Table B.2: Dutch Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	Dutch 16-character abbreviation	Dutch 8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Verkeersinfo	Verkeer
b_2	Transport flash	Openbaar _ vervoer	Openb.V.
b_3	Warning/Service	Waarschuwing	Opgelet
b_4	News flash	Nieuwsbericht	Nieuws
b_5	Area weather flash	Weerbericht	Het _ weer
b_6	Event announcement	Melding	Melding
b_7	Special event	Speciaal bericht	Speciaal
b_8	Programme Information	Radio-informatie	Radio _ Inf
b_9	Sport report	Sportbericht	Sport
b_{10}	Financial report	Financieel	Financ.
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE:	The notation _ is used to indicate the use of the 'space' character.		

Table B.3: French Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	French 16-character abbreviation	French 8-character abbreviation
b_0	Alarm	Alerte _ générale	Alerte
b_1	Road Traffic flash	Trafic _ routier	Trafic
b_2	Transport flash	Transport/commun	Transpor
b_3	Warning/Service	Incidents	Incident
b_4	News flash	Les_actualités	Nouvelle
b_5	Area weather flash	Flash _ Météo	Météo
b_6	Event announcement	Évènement	Flash
b_7	Special event	Flash _ spécial	Spécial
b_8	Programme Information	Infos _ radio	Info _ rad
b_9	Sport report	Infos _ sport	Sport
b_{10}	Financial report	Financier	Finances
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE:	The notation _ is used to indicate the use of the 'space' character.		

Table B.4: German Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	German 16-character abbreviation	German 8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Verkehr	Verkehr
b_2	Transport flash	Reisen	Reisen
b_3	Warning/Service	Warnung	Warnung
b_4	News flash	Aktuelles	Aktuell
b_5	Area weather flash	Wetter	Wetter
b_6	Event announcement	Service	Service
b_7	Special event	Eilmeldung	Eilmeld
b_8	Programme Information	Programm _ Info	Prog _ Inf
b_9	Sport report	Sport	Sport
b_{10}	Financial report	Wirtschaft	Wirtsch
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the 'space' character.			

Table B.5: Norwegian Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	Norwegian 16-character abbreviation	Norwegian 8-character abbreviation
b_0	Alarm	ALARM	ALARM
b_1	Road Traffic flash	Veitrafikk	Trafikk
b_2	Transport flash	Rutetrafikk	Ruteinfo
b_3	Warning/Service	Service	Service
b_4	News flash	Nyheter	Nyheter
b_5	Area weather flash	Vær	Vær
b_6	Event announcement	Arrangementer	Arrangem
b_7	Special event	I _ dag	I _ dag
b_8	Programme Information	Programinfo	Proginfo
b_9	Sport report	Sportsnytt	Sport
b_{10}	Financial report	Økonominytt	Økonomi
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE:	The notation _ is used to indicate the use of the 'space' character		

Table B.6: Spanish Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	Spanish 16-character abbreviation	Spanish 8-character abbreviation
b_0	Alarm	Alarma	Alarma
b_1	Road Traffic flash	Info _ Tráfico	Tráfico
b_2	Transport flash	Info _ Viaje	Viaje
b_3	Warning/Service	Aviso	Aviso
b_4	News flash	Noticias	Noticias
b_5	Area weather flash	Meteorología	Meteo
b_6	Event announcement	Suceso	Suceso
b_7	Special event	Suceso _ Extraord	Extraord
b_8	Programme Information	InformacionRadio	InfRadio
b_9	Sport report	Deportes	Deportes
b_{10}	Financial report	Economía	Economía
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE:	The notation _ is used to indicate the use of the 'space' character.		

Table B.7: Slovenian Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	Slovenian 16-character abbreviation	Slovenian 8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Promet	Promet
b_2	Transport flash	Javni _ prevoz	Prevozi
b_3	Warning/Service	Opozorilo	Pozor
b_4	News flash	Vest	Vest
b_5	Area weather flash	Vreme	Vreme
b_6	Event announcement	Dogodek	Dogodek
b_7	Special event	Izredni _ dogodek	Nujno
b_8	Programme Information	Radio _ program	Radio
b_9	Sport report	Sport	Sport
b_{10}	Financial report	Finance	Finance
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the 'space' character.			

Table B.8: Swedish Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	Swedish 16-character abbreviation	Swedish 8-character abbreviation
b_0	Alarm	!!LARM!!	!!LARM!!
b_1	Road Traffic flash	Vägtrafikinfo	Väginfo
b_2	Transport flash	Kollektivtrafik	Koll.tra
b_3	Warning/Service	Serviceinfo	Service
b_4	News flash	Nyheter	Nyheter
b_5	Area weather flash	Väder	Väder
b_6	Event announcement	Evenemangsinfo	Evenema
b_7	Special event	Extrasändning	Extra
b_8	Programme Information	Programinfo	Prgminfo
b_9	Sport report	Sportnyheter	Sportnyh
b_{10}	Financial report	Ekonominyheter	Ekonomi
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the 'space' character.			

Table B.9: Finnish Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	Finnish 16-character abbreviation	Finnish 8-character abbreviation
b_0	Alarm	HÄLYTYS	HÄLYTYS
b_1	Road Traffic flash	Liikennetiedote	Liikenne
b_2	Transport flash	Joukkoliikenne	Joukkol.
b_3	Warning/Service	Varoituksia	Varoitus
b_4	News flash	Uutiset	Uutiset
b_5	Area weather flash	Säätiedotus	Sää
b_6	Event announcement	Tapahtumatiedot	Tapahtuu
b_7	Special event	Erikoistiedote	Erikois
b_8	Programme Information	Ohjelmatiedot	Ohjelmat
b_9	Sport report	Urheilu-uutiset	Urheilu
b_{10}	Financial report	Talousuutiset	Talous
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE:	The notation _ is used to indicate the use of the 'space' character.		

Table B.10: Italian Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	Italian 16-character abbreviation	Italian 8-character abbreviation
b_0	Alarm	Allarme	Allarme
b_1	Road Traffic flash	Situaz. _ Traffico	Traffico
b_2	Transport flash	Trasporti	Trasporti
b_3	Warning/Service	Comun. _ Servizio	Servizio
b_4	News flash	Notizie _ flash	Notizie
b_5	Area weather flash	Meteo _ locale	Meteo
b_6	Event announcement	Annuncio _ evento	Evento
b_7	Special event	Evento _ speciale	Speciale
b_8	Programme Information	Info _ programma	ProgInfo
b_9	Sport report	Notizie _ sportive	Sport
b_{10}	Financial report	Economia _ Finanza	Economia
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE:	The notation _ is used to indicate the use of the 'space' character.		

Table B.11: Turkish Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	Turkish 16-character abbreviation	Turkish 8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Yol _ Trafik	Trafik
b_2	Transport flash	Ulaşım	Ulaşım
b_3	Warning/Service	Uyarı	Uyarı
b_4	News flash	Haberler	Haberler
b_5	Area weather flash	Hava _ durumu	Hava
b_6	Event announcement	Etkinlik	Etkinlik
b_7	Special event	Özel _ olay	Özel
b_8	Programme Information	Radyoda _ bugün	Radyoda
b_9	Sport report	Spor	Spor
b_{10}	Financial report	Finans _ haberleri	Finans
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE 1: The notation _ is used to indicate the use of the 'space' character.			
NOTE 2: The Turkish chracaters used in row b2 and b3 *are electronically* correct, but do NOT print correctly on all printers.			

Table B.12 Portuguese Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type – see tables 14 and 15	Portuguese 16-character abbreviation	Portuguese 8-character abbreviation
b_0	Alarm	Alarme	Alarme
b_1	Road Traffic flash	Trânsito	Trânsito
b_2	Transport flash	Transportes	Transpor
b_3	Warning/Service	Aviso	Aviso
b_4	News flash	Notícias	Notícias
b_5	Area weather flash	Meteorologia	Meteo
b_6	Event announcement	Acontecimento	Acontece
b_7	Special event	Especial	Especial
b_8	Programme Information	Informação _ Rádio	InfRadio
b_9	Sport report	Desporto	Desporto
b_{10}	Financial report	Economia	Economia
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the 'space' character.			

Annex C (informative):
Bibliography

The following material, though not specifically referenced in the body of the present document (or not publicly available), gives supporting information.

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