



ICAO

# Doc 8400

PROCEDURES FOR AIR NAVIGATION SERVICES

# ICAO Abbreviations and Codes

Ninth Edition, 2016



This edition supersedes, on 10 November 2016, all previous editions of Doc 8400.

INTERNATIONAL CIVIL AVIATION ORGANIZATION





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# FOREWORD

## 1. Introduction

This document contains abbreviations and codes approved by the Council of ICAO for worldwide use in the international aeronautical telecommunication service and in aeronautical information documents, as appropriate, uniform abbreviated phraseology for use in pre-flight information bulletins and ATS data link communications, with the status of Procedures for Air Navigation Services (in abbreviated form the PANS-ABC).

This document is the outgrowth of study by the Air Navigation Commission in consultation with States in the matter of controlling and coordinating abbreviations and codes. It brings together all abbreviations and codes for use in aircraft operations with the following exceptions:

- a) *Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services* promulgated in Doc 8585.
- b) Data designators and geographical designators for meteorological bulletins given in the *Manual of Aeronautical Meteorological Practice* (Doc 8896).
- c) Aeronautical meteorological codes given in the *Manual of Aeronautical Meteorological Practice*.
- d) Additional abbreviations for restricted use in aeronautical information services (AIS) documents given in the *Aeronautical Information Services Manual* (Doc 8126).
- e) *Location Indicators* given in Doc 7910.
- f) *Aircraft Type Designators* given in Doc 8643.

Table A shows the origin of each edition of the PANS-ABC issued since 1964 and subsequent amendments thereto, together with a list of the principal subjects involved, the dates on which the amendments were approved by the Council and the dates on which they became applicable.

## 2. Principles for formulation of abbreviations

The principles applied in the formulation of ICAO abbreviations are:

- a) that allocation of more than one signification to a single abbreviation should be avoided except where it can be reasonably determined that no instances of misinterpretation would arise;
- b) that allocation of more than one abbreviation to the same signification should be avoided even though a different use is prescribed;
- c) that abbreviations should make use of the root word or words and should be derived from words common to the working languages except that where it is impracticable to apply this principle to best advantage, the abbreviation should follow the English text;
- d) that the use of a singular or plural form for the signification of an abbreviation should be selected on the basis of the more common use;

- e) that an abbreviation may represent grammatical variants of the basic signification where such application can be made without risk of confusion and the desired grammatical form can be determined from the context of the message.

With respect to the latter principle, several variants are given for a number of abbreviations where it might not be obvious that the variant is appropriate or acceptable.

### 3. Specifications governing the use of abbreviations

Specifications governing the use of abbreviations and codes are contained in the following ICAO Annexes and PANS:

- a) use of abbreviations in the aeronautical information service: 1.3.4 of Annex 15;
- b) use of the NOTAM Code: 5.2.6 of Annex 15;
- c) use of abbreviations and codes in the international aeronautical telecommunications service: 3.7 of Annex 10, Volume II;
- d) use of abbreviations on aeronautical charts: 2.3.3 and 2.9 of Annex 4;
- e) use of abbreviations in plain language meteorological messages: Chapters 3, 4, 5, 6 and 7 and Appendices 1, 2, 3, 5 and 6 of Annex 3;
- f) use of abbreviations in air-reports: 4.12 of Chapter 4 and Appendix 1 of PANS-ATM (Doc 4444);
- g) use of abbreviations and designators in flight plans and other air traffic services messages: Chapters 11 and 16 and Appendices 2, 3, 5 and 6 of PANS-ATM (Doc 4444).

### 4. Status

The PANS do not have the same status as the Standards and Recommended Practices. While the latter are *adopted* by Council in pursuance of Article 37 of the Convention on International Civil Aviation, and are subject to the full procedure of Article 90, the PANS are *approved* by the Council and recommended to Contracting States for worldwide application.

### 5. Implementation

The implementation of procedures is the responsibility of Contracting States; they are applied in actual operations only after, and in so far as, States have enforced them. However, with a view to facilitating their processing towards implementation by States, this document has been prepared in a manner which will permit direct use by operational personnel.

### 6. Notification of differences

The PANS do not carry the status afforded to Standards adopted by the Council as Annexes to the Convention and, therefore, do not come within the obligation imposed by Article 38 of the Convention to notify differences in the event of non-implementation.

However, the attention of States is drawn to the provision in the *Procedures for Air Navigation Services — Aeronautical Information Management* (PANS-AIM, Doc 10066) related to the publication in Aeronautical Information Publications of a list of abbreviations and their respective significations used by the State in its Aeronautical Information Publications and in the dissemination of aeronautical data and aeronautical information. Differences from ICAO abbreviations or their significations should be identified.

## 7. Editorial presentation

For encoding purposes the abbreviations given in this document are divided among a “general” and several specialized categories. For the convenience of the user, there is some duplication among these categories. Nevertheless, it may be necessary to draw on the “general” category of abbreviations when composing messages using one of the specialized categories.

Certain Q Code signals which through constant use have attained plain language status have been placed with their plain language significations in the portion of this document which contains the “general” category abbreviations.

Throughout the document, decode material is printed on white paper, encode material on green paper.

Any errors, omissions or discrepancies should be brought to the attention of the Secretary General of ICAO, 999 Robert-Bourassa Boulevard, Montréal, Quebec, Canada H3C 5H7.

**Table A. Amendments to the PANS-ABC**

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Approved Applicable</i>
1st Edition (1964)	Air Navigation Commission	Study on the control and coordination of abbreviations and codes.	18 March 1964 1 November 1964
Amendment 1	MET/OPS Meeting (1964); Fifth Meeting of the Panel of Teletypewriter Specialists (1963)	Editorial and consequential amendments emanating from Amendment 44 to Annex 10, Amendment 9 to PANS-MET and Amendment 7 to PANS-RAC; addition and modification of meteorological abbreviations; amendment of abbreviations used on the AFTN.	7 June 1965 10 March 1966
Amendment 2	ICAO Secretariat	Consequential and editorial changes to the Foreword emanating from Air Navigation Commission and Council action on various regulatory and service documents.	25 August 1966
2nd Edition (1967) (includes Amendment 3)	AIS/MAP Divisional Meeting (1966)	Various changes to abbreviations and codes to reflect current operational requirements and practices.	13 June 1967 8 February 1968
Amendment 4	Air Navigation Commission	Consequential changes to abbreviations used for air traffic purposes emanating from Amendment 2 to the Eighth Edition of Doc 4444 (PANS-RAC).	4 April 1968 4 April 1968
Amendment 5	Air Navigation Commission	Consequential changes to abbreviations used for plain language meteorology messages, emanating from Amendment 14 to Doc 7605 (PANS-MET).	28 June 1968 9 January 1969
Amendment 6	Air Navigation Commission	Changes arising from Assembly Resolution A16-19 and Amendment 54 to Annex 3.	23 January 1969 18 September 1969

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Approved Applicable</i>
3rd Edition (1971) (includes Amendments 7 and 8)	Air Navigation Commission	Study of NOTAM composition resulting in expanded use of abbreviations and codes in NOTAM Class I; changes in abbreviations emanating from revised aeronautical meteorological figure codes introduced by WMO; changes introduced as a result of clarification of air traffic control terms contained in ICAO regulatory documents.	19 March 1971 6 January 1972
Amendment 9	Air Navigation Commission	Consequential changes emanating from Amendment 1 to the Tenth Edition of Doc 4444 (PANS-RAC).	24 March 1972 7 December 1972
Amendment 10	Air Navigation Commission; Third Meeting of the Obstacle Clearance Panel (1971)	Consequential amendments to abbreviations and their significations (QFE and QNH); changes to meteorological abbreviations introduced by WMO.	21 March 1973 16 August 1973
Amendment 11	Air Navigation Commission; Seventh Air Navigation Conference (1972)	Addition of abbreviations RNAV and STAR; deletion of abbreviation SIA.	29 May 1973 23 May 1974
Amendment 12	Air Navigation Commission	Inclusion of additional abbreviations for use in the NOTAM Code.	11 December 1974 9 October 1975
Amendment 13	Air Navigation Commission; Eighth Air Navigation Conference (1974)	Additions, deletions and changes in significations of abbreviations mainly emanating from amendments to Annex 3.	8 December 1975 12 August 1976
Amendment 14	Air Navigation Commission; Ninth Air Navigation Conference (1976)	Addition of abbreviations COP, INOP, MRP, RPS and WPT; change in signification of abbreviation ACP as a consequence of Amendment 30 to Annex 14.	9 December 1977 10 August 1978
Amendment 15	Air Navigation Commission	Additions and changes in signification of abbreviations.	26 February 1979 29 November 1979
Amendment 16	Air Navigation Commission	Additions, deletions and changes in signification of abbreviations emanating from a study of abbreviations in common use in States' aeronautical information publications.	11 March 1981 26 November 1981
Amendment 17	Air Navigation Commission	Extensive amendment of abbreviations and codes emanating from a proposal submitted by the United Kingdom.	14 December 1981 9 June 1983
Amendment 18	Air Navigation Commission	Extensive addition of abbreviations and codes consequential to a study of the revision of the NOTAM Code; addition of abbreviations used in Doc 8168 (PANS-OPS).	11 June 1982 9 June 1983
Amendment 19	Air Navigation Commission; Third Meeting of the ATS Data Acquisition, Processing and Transfer (ADAPT) Panel (1981)	Consequential changes emanating from Amendments 64 and 65 to Annex 3, Amendment 14 to Annex 5, Recommendations 1/5 and 3/1 of ADAPT/3, and a new ITU method of designating radio emissions.	15 March 1985 21 November 1985

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Approved Applicable</i>
4th Edition (1989) (includes Amendment 20)	Air Navigation Commission	Additions, changes and deletions of abbreviations and codes to reflect the current operational requirements and practices; introduction of new sections for abbreviations used in radiotelephony in a spoken form (Decode, Encode) and for the Procedure signals used in aeronautical telecommunication service (Decode); consequential and editorial amendments.	24 February 1989 16 November 1989
Amendment 21	Air Navigation Commission; Communications/ Meteorology/ Operations (COM/MET/OPS) Divisional Meeting (1990)	Additions, changes and deletions of abbreviations and codes to reflect the current operational requirements and practices; consequential amendments arising from Amendment 69 to Annex 3, Amendment 13 to Annex 5, Amendment 39 to Annex 14, Amendment 27 to Annex 15 and Amendment 13 to PANS-OPS.	2 December 1992 1 July 1993
Amendment 22	Air Navigation Commission	Consequential changes emanating from: Amendment 70 to Annex 3 Amendment 69 to Annex 10 Amendment 15 to Annex 12 Amendment 28 to Annex 15 Amendment 7 to PANS-OPS, Volume I.	30 November 1995 7 November 1996
5th Edition (1999) (includes Amendment 23)	AIS/MAP Divisional Meeting (1998); Air Navigation Commission	Extensive amendments emanating from the AIS/MAP Divisional Meeting (1998) and the Air Navigation Commission, including additions, changes and deletions of abbreviations; addition and deletion of abbreviations and terms transmitted as spoken words; addition of abbreviations and terms transmitted using the individual letters in non-phonetic form; addition of a NOTAM Code for controller-pilot data link communications and automatic dependent surveillance; deletion of Procedure Signals for use in the International Aeronautical Telecommunication Service (Decode and Encode); deletion of the Q-Code (Preface, Decode and Encode).	26 February 1999 4 November 1999
Amendment 24	Air Navigation Commission	Consequential changes emanating from Amendment 71 to Annex 3.	9 June 2000 2 November 2000
Amendment 25	Air Navigation Commission	Consequential changes emanating from Amendment 72 to Annex 3.	10 July 2002 28 November 2002
Amendment 26	Conclusion 40/51 b) of the European Air Navigation Planning Group (EANPG) and the Secretariat	Consequential changes emanating from Amendment 32 to Annex 15.	23 July 2003 27 November 2003
Sixth Edition (2004) (includes Amendment 27)	Global Navigation Satellite System Panel (GNSSP/4); MET Divisional Meeting (2002); Air Navigation Commission	New abbreviations and updated specifications for the NOTAM Code related to GNSS; and consequential changes emanating from Amendment 73 to Annex 3, Amendment 53 to Annex 4 and Amendments 13 and 12 to the PANS-OPS, Volumes I and II, respectively.	6 May 2004 25 November 2004
Seventh Edition (2007) (includes Amendment 28)	Fourteenth Meeting of the Obstacle Clearance Panel (OCP/14); Air Navigation Commission; and the Secretariat	New abbreviations related to updated provisions in the PANS-OPS; the use of ADS-B, ADS-C and RCP in the provision of air traffic services; consequential changes emanating from Amendment 74 to Annex 3 and Amendment 34 to Annex 15; and editorial amendments.	3 August 2007 22 November 2007

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Approved Applicable</i>
Amendment 29	First working group of the whole meeting of the Instrument Flight Procedures Panel (IFPP/WG/WHL/1); Secretariat, with the assistance of the Required Navigation Performance and Special Operational Requirements Study Group (RNPSORSG), concerning PBN terminology	New abbreviations related to updated provisions in the PANS-OPS with regard to the performance-based navigation (PBN) concept and ground-based augmentation system (GBAS) landing system.	7 October 2008 20 November 2008
Eighth Edition (2010) (includes Amendment 30)	Ninth meeting of the Operations Panel Working Group of the Whole (OPSP/WG-WHL/9); sixth meeting of the Operations Panel (OPSP/6); and the Secretariat with the assistance of the Aeronautical Information Management Study Group (AIS-AIMSG/1), International Airways Volcano Watch Operations Group (IAVWOPSG/4), Meteorological Warnings Study Group (METWSG/2), and Aerodrome Meteorological Observation and Forecast Study Group (AMOFSG/7).	New abbreviations related to cockpit displays, unmanned aircraft, volcanic ash information provided by volcanic ash advisory centres (VAAC), the elimination of routine voice reports, completion of tropical cyclone advisories in graphical format and the use of data link for meteorological information, aerodrome observations and forecasts. Update of the NOTAM code.	23 July 2010 18 November 2010
Amendment 31	Seventh, eighth, ninth, tenth and eleventh meetings of the Instrument Flight Procedures Panel Working Group of the Whole (IFPP/WG WHL/7, 8, 9, 10 and 11)	Amendment concerning procedure design criteria and charting requirements to support helicopter point-in-space (PinS) approach and departure operations	7 March 2014 13 November 2014

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Approved Applicable</i>
Ninth Edition (2016) (includes Amendment 32)	Fifty-fourth Meeting of the European Air Navigation Planning Group (EANPG/54); Meteorology (MET) Divisional Meeting (2014); fifth meeting of the Meteorological Warnings Study Group (METWSG/5); second meeting of the Operational Data Link Panel (OPLINKP/2); and the Secretariat.	Deletion of abbreviations not in common use; addition of new abbreviations consistent with common use in NOTAM associated with PBN implementation, AIM transition, meteorological warnings, PBCS and SATVOICE implementation; and consequential changes emanating from Amendment 77-A to Annex 3.	5 May 2016 10 November 2016
Amendment 33	Second meeting of the Meteorology Panel (METP/2); twelfth meeting of the Aeronautical Information Services- Aeronautical Information Management Study Group (AIS-AIMSG/12)	Amendment concerning provision of space weather information; and change of references concerning PANS-AIM.	29 June 2018 8 November 2018
Amendment 34	Fourth meeting of the Air Traffic Management Requirements and Performance Panel (ATMRPP/4)  Second meeting of the Information Management Panel (IMP/2)	Initial implementation of the flight and flow – information for a collaborative environment (FF-ICE) services.  The NOTAM code for hang gliding and paragliding activities.	5 April 2024 28 November 2024



## ABBREVIATIONS

### DECODE

<b>A</b>		ADIZ†	<i>(to be pronounced "AY-DIZ")</i> Air defence identification zone
A	Amber	ADJ	Adjacent
AAA	<i>(or AAB, AAC . . . etc., in sequence)</i>	ADO	Aerodrome office <i>(specify service)</i>
	Amended meteorological message	ADR	Advisory route
	<i>(message type designator)</i>	ADS*	Address <i>(when this abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI ADS) (to be used in AFS as a procedure signal)</i>
A/A	Air-to-air		
AAD	Assigned altitude deviation	ADS-B‡	Automatic dependent surveillance — broadcast
AAR	Air to air refuelling	ADS-C‡	Automatic dependent surveillance — contract
AAIM	Aircraft autonomous integrity monitoring	ADSU	Automatic dependent surveillance unit
AAL	Above aerodrome level	ADVS	Advisory service
ABI	Advance boundary information	ADZ	Advise
ABM	Abeam	AES	Aircraft earth station
ABN	Aerodrome beacon	AFIL	Flight plan filed in the air
ABT	About	AFIS	Aerodrome flight information service
ABV	Above	AFM	Yes <i>or</i> affirm <i>or</i> affirmative <i>or</i> that is correct
AC	Altocumulus	AFS	Aeronautical fixed service
ACARS†	<i>(to be pronounced "AY-CARS")</i>	AFT . . .	After <i>(followed by time or place)</i>
	Aircraft communication addressing and reporting system	AFTN‡	Aeronautical fixed telecommunication network
ACAS†	<i>(to be pronounced "AY-CAS")</i>	A/G	Air-to-ground
	Airborne collision avoidance system	AGA	Aerodromes, air routes and ground aids
ACC‡	Area control centre <i>or</i> area control	AGL	Above ground level
ACCID	Notification of an aircraft accident	AGN	Again
ACFT	Aircraft	AIC	Aeronautical information circular
ACK	Acknowledge	AIDC	Air traffic services interfacility data communications
ACL	Altimeter check location	AIM	Aeronautical information management
ACN	Aircraft classification number	AIP	Aeronautical information publication
ACP	Acceptance <i>(message type designator)</i>	AIRAC	Aeronautical information regulation and control
ACPT	Accept <i>or</i> accepted		
ACT	Active <i>or</i> activated <i>or</i> activity	AIREP†	Air-report
AD	Aerodrome		
ADA	Advisory area		
ADC	Aerodrome chart		
ADDN	Addition <i>or</i> additional		
ADF‡	Automatic direction-finding equipment		

† When radiotelephony is used, the abbreviations and terms are transmitted as spoken words.

‡ When radiotelephony is used, the abbreviations and terms are transmitted using the individual letters in non-phonetic form.

\* Signal is also available for use in communicating with stations of the maritime mobile service.

# Signal for use in the teletypewriter service only.

AIRMET†	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations	APV	Approach procedure with vertical guidance
AIS	Aeronautical information services	ARC	Area chart
ALA	Alighting area	ARNG	Arrange
ALERFA†	Alert phase	ARO	Air traffic services reporting office
ALR	Alerting ( <i>message type designator</i> )	ARP	Aerodrome reference point
ALRS	Alerting service	ARP	Air-report ( <i>message type designator</i> )
ALS	Approach lighting system	ARQ	Automatic error correction
ALT	Altitude	ARR	Arrival ( <i>message type designator</i> )
ALTN	Alternate or alternating ( <i>light alternates in colour</i> )	ARR	Arrive or arrival
ALTN	Alternate ( <i>aerodrome</i> )	ARS	Special air-report ( <i>message type designator</i> )
AMA	Area minimum altitude	ARST	Arresting ( <i>specify (part of) aircraft arresting equipment</i> )
AMD	Amend or amended ( <i>used to indicate amended meteorological message; message type designator</i> )	AS	Altostratus
AMDT	Amendment ( <i>AIP Amendment</i> )	ASAP	As soon as possible
AMS	Aeronautical mobile service	ASC	Ascend to or ascending to
AMSL	Above mean sea level	ASDA	Accelerate-stop distance available
AMSS	Aeronautical mobile satellite service	ASE	Altimetry system error
ANC . . .	Aeronautical chart — 1:500 000 ( <i>followed by name/title</i> )	ASHTAM	Special series NOTAM notifying by means of a specific format change in activity of a volcano, a volcanic eruption and/or volcanic ash cloud that is of significance to aircraft operations
ANCS . . .	Aeronautical navigation chart — small scale ( <i>followed by name/title and scale</i> )	ASPH	Asphalt
ANS	Answer	AT . . .	At ( <i>followed by time at which weather change is forecast to occur</i> )
AO	Aircraft operator	ATA‡	Actual time of arrival
AOC . . .	Aerodrome obstacle chart ( <i>followed by type and name/title</i> )	ATC‡	Air traffic control ( <i>in general</i> )
AP	Airport	ATCSMAC. . .	Air traffic control surveillance minimum altitude chart ( <i>followed by name/title</i> )
APAPI†	( <i>to be pronounced "AY-PAPI"</i> ) Abbreviated precision approach path indicator	ATD‡	Actual time of departure
APCH	Approach	ATFM	Air traffic flow management
APDC . . .	Aircraft parking/docking chart ( <i>followed by name/title</i> )	ATIS†	( <i>to be pronounced "AY-TIS"</i> ) Automatic terminal information service
APN	Apron	ATM	Air traffic management
APP	Approach control office or approach control or approach control service	ATN	Aeronautical telecommunication network
APR	April	ATP . . .	At ( <i>followed by time or place</i> )
APRX	Approximate or approximately	ATS	Air traffic services
APSG	After passing	ATTN	Attention
APU	Auxiliary power unit		

† When radiotelephony is used, the abbreviations and terms are transmitted as spoken words.

‡ When radiotelephony is used, the abbreviations and terms are transmitted using the individual letters in non-phonetic form.

\* Signal is also available for use in communicating with stations of the maritime mobile service.

# Signal for use in the teletypewriter service only.

AT-VASIS†	(to be pronounced "AY-TEE-VASIS") Abbreviated T visual approach slope indicator system	BTL	Between layers
ATZ	Aerodrome traffic zone	BTN	Between
AUG	August	BUFR	Binary universal form for the representation of meteorological data
AUTH	Authorized <i>or</i> authorization		
AUTO	Automatic		
AUW	All up weight	<b>C</b>	
AUX	Auxiliary	... C	Centre (preceded by runway designation number to identify a parallel runway)
AVBL	Available <i>or</i> availability	C	Degrees Celsius (Centigrade)
AVG	Average	CA	Course to an altitude
AVGAS†	Aviation gasoline	CAA	Civil aviation authority <i>or</i> civil aviation administration
AWOS	Automated weather observation system	CAT	Category
AWTA	Advise at what time able	CAT	Clear air turbulence
AWY	Airway	CAVOK†	(to be pronounced "KAV-OH-KAY") Visibility, cloud and present weather better than prescribed values or conditions
AZM	Azimuth		
<b>B</b>			
B	Blue	CB‡	(to be pronounced "CEE BEE") Cumulonimbus
BA	Braking action	CC	Cirrocumulus
BARO-VNAV†	(to be pronounced "BAA-RO-VEE- NAV") Barometric vertical navigation	CCA	(or CCB, CCC . . . etc., in sequence) Corrected meteorological message (message type designator)
BASE†	Cloud base	CCO	Continuous climb operations
BCFG	Fog patches	CD	Candela
BCN	Beacon (aeronautical ground light)	CDN	Coordination (message type designator)
BCST	Broadcast	CDO	Continuous descent operations
BDRY	Boundary	CDR	Conditional route
BECMG	Becoming	CF	Change frequency to . . .
BFR	Before	CF	Course to a fix
BKN	Broken	CFM*	Confirm <i>or</i> I confirm (to be used in AFS as a procedure signal)
BL . . .	Blowing (followed by DU = dust, SA = sand <i>or</i> SN = snow)	CGL	Circling guidance light(s)
BLDG	Building	CH	Channel
BLO	Below clouds	CH#	This is a channel-continuity-check of transmission to permit comparison of your record of channel- sequence numbers of messages received on the channel (to be used in AFS as a procedure signal)
BLW	Below		
BOMB	Bombing		
BR	Mist		
BRF	Short (used to indicate the type of approach desired <i>or</i> required)		
BRG	Bearing		
BRKG	Braking		
BS	Commercial broadcasting station		

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# Signal for use in the teletypewriter service only.

CHEM	Chemical	CRM	Collision risk model
CHG	Modification ( <i>message type designator</i> )	CRP	Compulsory reporting point
CI	Cirrus	CRZ	Cruise
CIDIN†	Common ICAO data interchange network	CS	Call sign
CIV	Civil	CS	Cirrostratus
CK	Check	CTA	Control area
CL	Centre line	CTAM	Climb to and maintain
CLA	Clear type of ice formation	CTC	Contact
CLBR	Calibration	CTL	Control
CLD	Cloud	CTN	Caution
CLG	Calling	CTR	Control zone
CLIMB-OUT	Climb-out area	CU	Cumulus
CLR	Clear(s) <i>or</i> cleared to . . . <i>or</i> clearance	CUF	Cumuliform
CLRD	Runway(s) cleared ( <i>used in METAR/SPECI</i> )	CUST	Customs
CLSD	Close <i>or</i> closed <i>or</i> closing	CVR	Cockpit voice recorder
CM	Centimetre	CW	Continuous wave
CMB	Climb to <i>or</i> climbing to	CWY	Clearway
C MPL	Completion <i>or</i> completed <i>or</i> complete	<b>D</b>	
CNL	Cancel <i>or</i> cancelled	D	Downward ( <i>tendency in RVR during previous 10 minutes</i> )
CNL	Flight plan cancellation ( <i>message type designator</i> )	D . . .	Danger area ( <i>followed by identification</i> )
CNS	Communications, navigation and surveillance	DA	Decision altitude
COM	Communications	D-ATIS†	( <i>to be pronounced "DEE-ATIS"</i> ) Data link automatic terminal information service
CONC	Concrete	DCD	Double channel duplex
COND	Condition	DCKG	Docking
CONS	Continuous	DCP	Datum crossing point
CONST	Construction <i>or</i> constructed	DCPC	Direct controller-pilot communications
CONT	Continue(s) <i>or</i> continued	DCS	Double channel simplex
COOR	Coordinate <i>or</i> coordination	DCT	Direct ( <i>in relation to flight plan clearances and type of approach</i> )
COORD	Coordinates	DE*	From ( <i>used to precede the call sign of the calling station</i> ) ( <i>to be used in AFS as a procedure signal</i> )
COP	Change-over point	DEC	December
COR	Correct <i>or</i> correction <i>or</i> corrected ( <i>used to indicate corrected meteorological message; message type designator</i> )	DEG	Degrees
COT	At the coast	DEP	Depart <i>or</i> departure
COV	Cover <i>or</i> covered <i>or</i> covering	DEP	Departure ( <i>message type designator</i> )
CPDLC‡	Controller-pilot data link communications	DEPO	Deposition
CPL	Current flight plan ( <i>message type designator</i> )	DER	Departure end of the runway
CRC	Cyclic redundancy check		

† When radiotelephony is used, the abbreviations and terms are transmitted as spoken words.

‡ When radiotelephony is used, the abbreviations and terms are transmitted using the individual letters in non-phonetic form.

\* Signal is also available for use in communicating with stations of the maritime mobile service.

# Signal for use in the teletypewriter service only.

DES	Descend to <i>or</i> descending to	EB	Eastbound
DEST	Destination	EDA	Elevation differential area
DETRESFA†	Distress phase	EDTO	Extended diversion time operations
DEV	Deviation <i>or</i> deviating	EEE#	Error ( <i>to be used in AFS as a procedure signal</i> )
DF	Direction finding	EET	Estimated elapsed time
DFDR	Digital flight data recorder	EFC	Expect further clearance
DFTI	Distance from touchdown indicator	EFIS†	( <i>to be pronounced “EE-FIS”</i> ) Electronic flight instrument system
DH	Decision height	eFPL	Filed flight plan exchanged via flight and flow – information for a collaborative environment (FF-ICE) services
DIF	Diffuse	EGNOS†	( <i>to be pronounced “EGG-NOS”</i> ) European geostationary navigation overlay service
DIST	Distance	EHF	Extremely high frequency [30 000 to 300 000 MHz]
DIV	Divert <i>or</i> diverting	ELBA†	Emergency location beacon — aircraft
DLA	Delay <i>or</i> delayed	ELEV	Elevation
DLA	Delay ( <i>message type designator</i> )	ELR	Extra long range
DLIC	Data link initiation capability	ELT	Emergency locator transmitter
DLY	Daily	EM	Emission
DME‡	Distance measuring equipment	EMBD	Embedded in a layer ( <i>to indicate cumulonimbus embedded in layers of other clouds</i> )
DNG	Danger <i>or</i> dangerous	EMERG	Emergency
DOF	Date of flight	END	Stop-end ( <i>related to RVR</i> )
DOM	Domestic	ENE	East-north-east
DP	Dew point temperature	ENG	Engine
DPT	Depth	ENR	En route
DR	Dead reckoning	ENRC . . .	Enroute chart ( <i>followed by name/title</i> )
DR . . .	Low drifting ( <i>followed by DU = dust, SA = sand or SN = snow</i> )	EOBT	Estimated off-block time
DRG	During	EQN	Equatorial latitudes northern hemisphere
DS	Duststorm	EQPT	Equipment
DSB	Double sideband	EQS	Equatorial latitudes southern hemisphere
DTAM	Descend to and maintain	ESE	East-south-east
DTG	Date-time group	EST	Estimate <i>or</i> estimated <i>or</i> estimation ( <i>message type designator</i> )
DTHR	Displaced runway threshold	ETA*‡	Estimated time of arrival <i>or</i> estimating arrival
DTRT	Deteriorate <i>or</i> deteriorating	ETD‡	Estimated time of departure <i>or</i> estimating departure
DTW	Dual tandem wheels	ETO	Estimated time over significant point
DU	Dust		
DUC	Dense upper cloud		
DUPE#	This is a duplicate message ( <i>to be used in AFS as a procedure signal</i> )		
DUR	Duration		
D-VOLMET	Data link VOLMET		
DVOR	Doppler VOR		
DW	Dual wheels		
DZ	Drizzle		
<b>E</b>			
E	East <i>or</i> eastern longitude		
EAT	Expected approach time		

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# Signal for use in the teletypewriter service only.

EUR RODEX	European regional OPMET data exchange	FLY	Fly <i>or</i> flying
EV	Every	FM	Course from a fix to manual termination ( <i>used in navigation database coding</i> )
EVS	Enhanced vision system		
EXC	Except	FM	From
EXER	Exercises <i>or</i> exercising <i>or</i> to exercise	FM . . .	From ( <i>followed by time at which weather change is forecast to begin</i> )
EXP	Expect <i>or</i> expected <i>or</i> expecting		
EXTD	Extend <i>or</i> extending <i>or</i> extended		
<b>F</b>			
F	Fixed	FMC	Flight management computer
FA	Course from a fix to an altitude	FMS‡	Flight management system
FAC	Facilities	FMU	Flow management unit
FAF	Final approach fix	FNA	Final approach
FAL	Facilitation of international air transport	FPAP	Flight path alignment point
FAP	Final approach point	FPL	Filed flight plan exchanged via aeronautical fixed service (AFS)
FAS	Final approach segment		
FATO	Final approach and take-off area	FPM	Feet per minute
FAX	Facsimile transmission	FPR	Flight plan route
FBL	Light ( <i>used to indicate the intensity of weather phenomena, interference or static reports, e.g. FBL RA = light rain</i> )	FR	Fuel remaining
FC	Funnel cloud ( <i>tornado or waterspout</i> )	FREQ	Frequency
FCST	Forecast	FRI	Friday
FCT	Friction coefficient	FRNG	Firing
FDPS	Flight data processing system	FRONT†	Front ( <i>relating to weather</i> )
FEB	February	FROST†	Frost ( <i>used in aerodrome warnings</i> )
FEW	Few	FRQ	Frequent
FG	Fog	FSL	Full stop landing
FIC	Flight information centre	FSS	Flight service station
FIR‡	Flight information region	FST	First
FIS	Flight information service	FT	Feet ( <i>dimensional unit</i> )
FISA	Automated flight information service	FTE	Flight technical error
FL	Flight level	FTP	Fictitious threshold point
FLD	Field	FTT	Flight technical tolerance
FLG	Flashing	FU	Smoke
FLR	Flares	FZ	Freezing
FLT	Flight	FZDZ	Freezing drizzle
FLTCK	Flight check	FZFG	Freezing fog
FLUC	Fluctuating <i>or</i> fluctuation <i>or</i> fluctuated	FZRA	Freezing rain
FLW	Follow(s) <i>or</i> following		
		<b>G</b>	
		G	Green
		G . . .	Variations from the mean wind speed (gusts) ( <i>followed by figures in METAR/SPECI and TAF</i> )
		GA	General aviation
		GA	Go ahead, resume sending ( <i>to be used in AFS as a procedure signal</i> )

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# Signal for use in the teletypewriter service only.

G/A	Ground-to-air	<b>H</b>	
G/A/G	Ground-to-air and air-to-ground	H	High pressure area <i>or</i> the centre of high pressure
GAGAN†	GPS and geostationary earth orbit augmented navigation	H . . .	Significant wave height ( <i>followed by figures in METAR/SPECI</i> )
GAIN	Airspeed or headwind gain	H24	Continuous day and night service
GAMET	Area forecast for low-level flights	HA	Holding/racetrack to an altitude
GARP	GBAS azimuth reference point	HAPI	Helicopter approach path indicator
GBAS†	( <i>to be pronounced "GEE-BAS"</i> ) Ground-based augmentation system	HBN	Hazard beacon
GCA‡	Ground controlled approach system <i>or</i> ground controlled approach	HCH	Heliport crossing height
GEN	General	HDF	High frequency direction-finding station
GEO	Geographic <i>or</i> true	HDG	Heading
GES	Ground earth station	HEL	Helicopter
GLD	Glider	HF	Holding/racetrack to a fix
GLONASS†	( <i>to be pronounced "GLO-NAS"</i> ) Global navigation satellite system	HF‡	High frequency [3 000 to 30 000 kHz]
GLS‡	GBAS landing system	HGT	Height <i>or</i> height above
GMC . . .	Ground movement chart ( <i>followed by name/title</i> )	HJ	Sunrise to sunset
GND	Ground	HLDG	Holding
GNDCK	Ground check	HLP	Heliport
GNSS‡	Global navigation satellite system	HLS	Helicopter landing site
GOV	Government	HM	Holding/racetrack to a manual termination
GP	Glide path	HN	Sunset to sunrise
GPA	Glide path angle	HNH	High latitudes northern hemisphere
GPIP	Glide path intercept point	HO	Service available to meet operational requirements
GPS‡	Global positioning system	HOL	Holiday
GPU	Ground power unit	HOSP	Hospital aircraft
GPWS‡	Ground proximity warning system	HPA	Hectopascal
GR	Hail	HR	Hours
GRAS†	( <i>to be pronounced "GRASS"</i> ) Ground-based regional augmentation system	HRP	Heliport reference point
GRASS	Grass landing area	HS	Service available during hours of scheduled operations
GRIB	Processed meteorological data in the form of grid point values expressed in binary form ( <i>in meteorological code</i> )	HSH	High latitudes southern hemisphere
GRVL	Gravel	HUD	Head-up display
GS	Ground speed	HUM	Humanitarian
GS	Small hail and/or snow pellets	HURCN	Hurricane
GUND	Geoid undulation	HVDF	High and very high frequency direction-finding stations ( <i>at the same location</i> )
		HVY	Heavy
		HVY	Heavy ( <i>used to indicate the intensity of weather phenomena, e.g. HVYRA = heavy rain</i> )
		HX	No specific working hours
		HYR	Higher
		HZ	Haze
		HZ	Hertz ( <i>cycle per second</i> )

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# Signal for use in the teletypewriter service only.

<b>I</b>		ISA	International standard atmosphere
IAC . . .	Instrument approach chart ( <i>followed by name/title</i> )	ISB	Independent sideband
IAF	Initial approach fix	ISOL	Isolated
IAO	In and out of clouds	<b>J</b>	
IAP	Instrument approach procedure	JAN	January
IAR	Intersection of air routes	JTST	Jet stream
IAS	Indicated airspeed	JUL	July
IBN	Identification beacon	JUN	June
ICAO	International Civil Aviation Organization	<b>K</b>	
ICE	Icing	KG	Kilograms
ID	Identifier <i>or</i> identify	KHZ	Kilohertz
IDENT†	Identification	KIAS	Knots indicated airspeed
IF	Intermediate approach fix	KM	Kilometres
IFF	Identification friend/foe	KMH	Kilometres per hour
IFR‡	Instrument flight rules	KPA	Kilopascal
IGA	International general aviation	KT	Knots
ILS‡	Instrument landing system	KW	Kilowatts
IM	Inner marker	<b>L</b>	
IMC‡	Instrument meteorological conditions	. . . L	Left ( <i>preceded by runway designation number to identify a parallel runway</i> )
IMG	Immigration	L	Litre
IMI*	Interrogation sign (question mark) ( <i>to be used in AFS as a procedure signal</i> )	L	Locator
IMPR	Improve <i>or</i> improving	L	Low pressure area <i>or</i> the centre of low pressure
IMT	Immediate <i>or</i> immediately	LAM	Logical acknowledgement ( <i>message type designator</i> )
INA	Initial approach	LAN	Inland
INBD	Inbound	LAT	Latitude
INC	In cloud	LCA	Local <i>or</i> locally <i>or</i> location <i>or</i> located
INCERFA†	Uncertainty phase	LDA	Landing distance available
INCORP	Incorporated	LDAH	Landing distance available, helicopter
INFO†	Information	LDG	Landing
INOP	Inoperative	LDI	Landing direction indicator
INP	If not possible	LEN	Length
INPR	In progress	LF	Low frequency [30 to 300 kHz]
INS	Inertial navigation system	LGT	Light <i>or</i> lighting
INSTL	Install <i>or</i> installed <i>or</i> installation	LGTD	Lighted
INSTR	Instrument		
INT	Intersection		
INTL	International		
INTRG	Interrogator		
INTRP	Interrupt <i>or</i> interruption <i>or</i> interrupted		
INTSF	Intensify <i>or</i> intensifying		
INTST	Intensity		
IR	Ice on runway		
IRS	Inertial reference system		

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# Signal for use in the teletypewriter service only.

LIH	Light intensity high	MAP	Aeronautical maps and charts
LIL	Light intensity low	MAPT	Missed approach point
LIM	Light intensity medium	MAR	At sea
LINE	Line ( <i>used in SIGMET</i> )	MAR	March
LM	Locator, middle	MATF	Missed approach turning fix
LMT	Local mean time	MATZ	Military aerodrome traffic zone
LNAV†	( <i>to be pronounced “EL-NAV”</i> ) Lateral navigation	MAX	Maximum
LNG	Long ( <i>used to indicate the type of approach desired or required</i> )	MAY	May
LO	Locator, outer	MBST	Microburst
LOC	Localizer	MCA	Minimum crossing altitude
LONG	Longitude	MCTR	Military control zone
LORAN‡	LORAN ( <i>long range air navigation system</i> )	MCW	Modulated continuous wave
LOSS	Airspeed or headwind loss	MDA	Minimum descent altitude
LPV	Localizer performance with vertical guidance	MDF	Medium frequency direction-finding station
LR	Last message received by me was . . . ( <i>to be used in AFS as a procedure signal</i> )	MDH	Minimum descent height
LRG	Long range	MEA	Minimum en-route altitude
LS	Last message sent by me was . . . or Last message was . . . ( <i>to be used in AFS as a procedure signal</i> )	MEDEVAC	Medical evacuation flight
LTA	Lower control area	MEHT	Minimum eye height over threshold ( <i>for visual approach slope indicator systems</i> )
LTD	Limited	MET†	Meteorological or meteorology
LTP	Landing threshold point	METAR‡	Aerodrome routine meteorological report ( <i>in meteorological code</i> )
LV	Light and variable ( <i>relating to wind</i> )	MET	
LVE	Leave or leaving	REPORT	Local routine meteorological report ( <i>in abbreviated plain language</i> )
LVL	Level	MF	Medium frequency [300 to 3 000 kHz]
LVP	Low visibility procedures	MHA	Minimum holding altitude
LYR	Layer or layered	MHDF	Medium and high frequency direction-finding stations ( <i>at the same location</i> )
<b>M</b>		MHVDF	Medium, high and very high frequency direction-finding stations ( <i>at the same location</i> )
. . . M	Metres ( <i>preceded by figures</i> )	MHZ	Megahertz
M . . .	Mach number ( <i>followed by figures</i> )	MID	Mid-point ( <i>related to RVR</i> )
M . . .	Minimum value of runway visual range ( <i>followed by figures in METAR/SPECI</i> )	MIFG	Shallow fog
MAA	Maximum authorized altitude	MIL	Military
MAG	Magnetic	MIN*	Minutes
MAHF	Missed approach holding fix	MIS	Missing . . . ( <i>transmission identification to be used in AFS as a procedure signal</i> )
MAINT	Maintenance	MKR	Marker radio beacon
		MLS‡	Microwave landing system
		MM	Middle marker
		MNH	Middle latitudes northern hemisphere

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# Signal for use in the teletypewriter service only.

MNM	Minimum	<b>N</b>	
MNPS	Minimum navigation performance specifications	N	No distinct tendency ( <i>in RVR during previous 10 minutes</i> )
MNT	Monitor <i>or</i> monitoring <i>or</i> monitored	N	North <i>or</i> northern latitude
MNTN	Maintain	NADP	Noise abatement departure procedure
MOA	Military operating area	NASC†	National AIS system centre
MOC	Minimum obstacle clearance ( <i>required</i> )	NAT	North Atlantic
MOCA	Minimum obstacle clearance altitude	NAV	Navigation
MOD	Moderate ( <i>used to indicate the intensity of weather phenomena, interference or static reports, e.g. MODRA = moderate rain</i> )	NAVAID	Navigation aid
MON	Above mountains	NB	Northbound
MON	Monday	NBFR	Not before
MOPS†	Minimum operational performance standards	NC	No change
MOV	Move <i>or</i> moving <i>or</i> movement	NCD	No cloud detected ( <i>used in automated METAR/SPECI</i> )
MPS	Metres per second	NDB‡	Non-directional radio beacon
MRA	Minimum reception altitude	NDV	No directional variations available ( <i>used in automated METAR/SPECI</i> )
MRG	Medium range	NE	North-east
MRP	ATS/MET reporting point	NEB	North-eastbound
MS	Minus	NEG	No <i>or</i> negative <i>or</i> permission not granted <i>or</i> that is not correct
MSA	Minimum sector altitude	NGT	Night
MSAS†	( <i>to be pronounced "EM-SAS"</i> ) Multi-functional transport satellite (MTSAT) satellite-based augmentation system	NIL*†	None <i>or</i> I have nothing to send to you
MSAW	Minimum safe altitude warning	NM	Nautical miles
MSG	Message	NML	Normal
MSH	Middle latitudes southern hemisphere	NN	No name, unnamed
MSL	Mean sea level	NNE	North-north-east
MSR#	Message . . . ( <i>transmission identification</i> ) has been misrouted ( <i>to be used in AFS as a procedure signal</i> )	NNW	North-north-west
MSSR	Monopulse secondary surveillance radar	NO	No (negative) ( <i>to be used in AFS as a procedure signal</i> )
MT	Mountain	NOF	International NOTAM office
MTOM	Maximum take-off mass	NONSTD	Non-standard
MTU	Metric units	NOSIG†	No significant change ( <i>used in trend-type landing forecasts</i> )
MTW	Mountain waves	NOTAM†	Notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations
MVDF	Medium and very high frequency direction- finding stations ( <i>at the same location</i> )	NOTAMC	Cancelling NOTAM
MWO	Meteorological watch office	NOTAMN	New NOTAM
MX	Mixed type of ice formation ( <i>white and clear</i> )		

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# Signal for use in the teletypewriter service only.

NOTAMR	Replacing NOTAM
NOV	November
NOZ‡	Normal operating zone
NPA	Non-precision approach
NR	Number
NRH	No reply heard
NS	Nimbostratus
NSC	Nil significant cloud
NSE	Navigation system error
NSW	Nil significant weather
NTL	National
NTZ‡	No transgression zone
NW	North-west
NWB	North-westbound
NXT	Next
<b>O</b>	
OAC	Oceanic area control centre
OAS	Obstacle assessment surface
OBS	Observe <i>or</i> observed <i>or</i> observation
OBSC	Obscure <i>or</i> obscured <i>or</i> obscuring
OBST	Obstacle
OCA	Obstacle clearance altitude
OCA	Oceanic control area
OCC	Occluding ( <i>light</i> )
OCH	Obstacle clearance height
OCNL	Occasional <i>or</i> occasionally
OCS	Obstacle clearance surface
OCT	October
OFZ	Obstacle free zone
OGN	Originate ( <i>to be used in AFS as a procedure signal</i> )
OHD	Overhead
OIS	Obstacle identification surface
OK*	We agree <i>or</i> It is correct ( <i>to be used in AFS as a procedure signal</i> )
OLDI†	On-line data interchange
OM	Outer marker
OPA	Opaque, white type of ice formation
OPC	Control indicated is operational control
OPMET†	Operational meteorological ( <i>information</i> )
OPN	Open <i>or</i> opening <i>or</i> opened
OPR	Operator <i>or</i> operate <i>or</i> operative <i>or</i> operating <i>or</i> operational

OPS†	Operations
O/R	On request
ORD	Order
OSV	Ocean station vessel
OTP	On top
OTS	Organized track system
OUBD	Outbound
OVC	Overcast

**P**

P . . .	Maximum value of wind speed or runway visual range ( <i>followed by figures in METAR/SPECI and TAF</i> )
P . . .	Prohibited area ( <i>followed by identification</i> )
PA	Precision approach
PALS	Precision approach lighting system ( <i>specify category</i> )
PANS	Procedures for air navigation services
PAPI†	Precision approach path indicator
PAR‡	Precision approach radar
PARL	Parallel
PATC . . .	Precision approach terrain chart ( <i>followed by name/title</i> )
PAX	Passenger(s)
PBC	Performance-based communication
PBN	Performance-based navigation
PBS	Performance-based surveillance
PCD	Proceed <i>or</i> proceeding
PCL	Pilot-controlled lighting
PCN	Pavement classification number
PCT	Per cent
PDC‡	Pre-departure clearance
PDG	Procedure design gradient
PER	Performance
PERM	Permanent
PFP	Preliminary flight plan
PIB	Pre-flight information bulletin
PJE	Parachute jumping exercise
PL	Ice pellets
PLA	Practice low approach
PLVL	Present level
PN	Prior notice required
PNR	Point of no return
PO	Dust/sand whirls ( <i>dust devils</i> )
POB	Persons on board

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# Signal for use in the teletypewriter service only.

POSS	Possible
PPI	Plan position indicator
PPR	Prior permission required
PPSN	Present position
PRFG	Aerodrome partially covered by fog
PRI	Primary
PRKG	Parking
PROB†	Probability
PROC	Procedure
PROP	Propeller
PROV	Provisional
PRP	Point-in-space reference point
PS	Plus
PSG	Passing
PSN	Position
PSP	Pierced steel plank
PSR‡	Primary surveillance radar
PSYS	Pressure system(s)
PTN	Procedure turn
PTS	Polar track structure
PWR	Power

**Q**

QDL	Do you intend to ask me for a series of bearings? <i>or</i> I intend to ask you for a series of bearings <i>(to be used in radiotelegraphy as a Q Code)</i>
QDM‡	Magnetic heading <i>(zero wind)</i>
QDR	Magnetic bearing
QFE‡	Atmospheric pressure at aerodrome elevation <i>(or at runway threshold)</i>
QFU	Magnetic orientation of runway
QGE	What is my distance to your station? <i>or</i> Your distance to my station is <i>(distance figures and units) (to be used in radiotelegraphy as a Q Code)</i>
QJH	Shall I run my test tape/a test sentence? <i>or</i> Run your test tape/a test sentence <i>(to be used in AFS as a Q Code)</i>
QNH‡	Altimeter sub-scale setting to obtain elevation when on the ground
QSP	Will you relay to . . . free of charge? <i>or</i> I will relay to . . . free of charge <i>(to be used in AFS as a Q Code)</i>

QTA	Shall I cancel telegram number . . . ? <i>or</i> Cancel telegram number . . . <i>(to be used in AFS as a Q Code)</i>
QTE	True bearing
QTF	Will you give me the position of my station according to the bearings taken by the D/F stations which you control? <i>or</i> The position of your station according to the bearings taken by the D/F stations that I control was . . . latitude . . . longitude <i>(or other indication of position)</i> , class . . . at . . . hours <i>(to be used in radiotelegraphy as a Q Code)</i>
QUAD	Quadrant
QUJ	Will you indicate the TRUE track to reach you? <i>or</i> The TRUE track to reach me is . . . degrees at . . . hours <i>(to be used in radiotelegraphy as a Q Code)</i>

**R**

. . . R	Right <i>(preceded by runway designation number to identify a parallel runway)</i>
R	Rate of turn
R	Red
R . . .	Radial from VOR <i>(followed by three figures)</i>
R . . .	Restricted area <i>(followed by identification)</i>
R . . .	Runway <i>(followed by figures in METAR/SPECI)</i>
R*	Received <i>(acknowledgement of receipt) (to be used in AFS as a procedure signal)</i>
RA	Rain
RA	Resolution advisory
RAC	Rules of the air and air traffic services
RAG	Ragged
RAG	Runway arresting gear
RAI	Runway alignment indicator
RAIM†	Receiver autonomous integrity monitoring
RASC†	Regional AIS system centre
RASS	Remote altimeter setting source
RB	Rescue boat
RCA	Reach cruising altitude
RCC	Rescue coordination centre

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# Signal for use in the teletypewriter service only.

RCF	Radiocommunication failure ( <i>message type designator</i> )	RPLC	Replace or replaced
RCH	Reach or reaching	RPS	Radar position symbol
RCL	Runway centre line	RPT*	Repeat or I repeat ( <i>to be used in AFS as a procedure signal</i> )
RCLL	Runway centre line light(s)	RQ*	Request ( <i>to be used in AFS as a procedure signal</i> )
RCLR	Recleared	RQMNTS	Requirements
RCP‡	Required communication performance	RQP	Request flight plan ( <i>message type designator</i> )
RDH	Reference datum height	RQS	Request supplementary flight plan ( <i>message type designator</i> )
RDL	Radial	RR	Report reaching
RDO	Radio	RRA	(or RRB, RRC . . . etc., in sequence) Delayed meteorological message ( <i>message type designator</i> )
RDOACT	Radioactive	RSC	Rescue sub-centre
RE	Recent ( <i>used to qualify weather phenomena, e.g. RERA = recent rain</i> )	RSCD	Runway surface condition
REC	Receive or receiver	RSP	Responder beacon
REDL	Runway edge light(s)	RSP‡	Required surveillance performance
REF	Reference to . . . or refer to . . .	RSR	En-route surveillance radar
REG	Registration	RSS	Root sum square
RENL	Runway end light(s)	RTD	Delayed ( <i>used to indicate delayed meteorological message; message type designator</i> )
REP	Report or reporting or reporting point	RTE	Route
REQ	Request or requested	RTF	Radiotelephone
RERTE	Re-route	RTG	Radiotelegraph
RESA	Runway end safety area	RTHL	Runway threshold light(s)
RF	Constant radius arc to a fix	RTN	Return or returned or returning
RFFS	Rescue and fire fighting services	RTODAH	Rejected take-off distance available, helicopter
RG	Range ( <i>lights</i> )	RTS	Return to service
RHC	Right-hand circuit	RTT	Radioteletypewriter
RIF	Reclearance in flight	RTZL	Runway touchdown zone light(s)
RIME†	Rime ( <i>used in aerodrome warnings</i> )	RUT	Standard regional route transmitting frequencies
RL	Report leaving	RV	Rescue vessel
RLA	Relay to	RVA	Radar vectoring area
RLCE	Request level change en route	RVR‡	Runway visual range
RLLS	Runway lead-in lighting system	RVSM‡	Reduced vertical separation minimum [300 m (1 000 ft) between FL 290 and FL 410]
RLNA	Requested level not available	RWY	Runway
RMK	Remark		
RNAV†	( <i>to be pronounced "AR-NAV"</i> ) Area navigation		
RNG	Radio range		
RNP‡	Required navigation performance		
ROBEX†	Regional OPMET bulletin exchange ( <i>scheme</i> )		
ROC	Rate of climb		
ROD	Rate of descent		
RON	Receiving only		
RPDS	Reference path data selector		
RPI‡	Radar position indicator		
RPL	Repetitive flight plan		

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# Signal for use in the teletypewriter service only.

<b>S</b>		<b>SHF</b>	Super high frequency [3 000 to 30 000 MHz]
S	South <i>or</i> southern latitude	SI	International system of units
S . . .	State of the sea ( <i>followed by figures in METAR/SPECI</i> )	SID†	Standard instrument departure
SA	Sand	SIF	Selective identification feature
SALS	Simple approach lighting system	SIG	Significant
SAN	Sanitary	SIGMET†	Information concerning en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations
SAR	Search and rescue	SIMUL	Simultaneous <i>or</i> simultaneously
SARPS	Standards and Recommended Practices [ICAO]	SIWL	Single isolated wheel load
SAT	Saturday	SKED	Schedule <i>or</i> scheduled
SATCOM†	Satellite communication ( <i>used only when referring generally to both voice and data satellite communication or only data satellite communication</i> )	SLP	Speed limiting point
SATVOICE†	Satellite voice communication	SLW	Slow
SB	Southbound	SMC	Surface movement control
SBAS†	( <i>to be pronounced "ESS-BAS"</i> ) Satellite-based augmentation system	SMR	Surface movement radar
SC	Stratocumulus	SN	Snow
SCT	Scattered	SNOCLO	Aerodrome closed due to snow ( <i>used in METAR/SPECI</i> )
SD	Standard deviation	SNOWTAM†	Special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format
SDBY	Stand by	SOC	Start of climb
SDF	Step down fix	SPECI†	Aerodrome special meteorological report ( <i>in meteorological code</i> )
SE	South-east	SPECIAL†	Local special meteorological report ( <i>in abbreviated plain language</i> )
SEA	Sea ( <i>used in connection with sea-surface temperature and state of the sea</i> )	SPI	Special position indicator
SEB	South-eastbound	SPL	Supplementary flight plan ( <i>message type designator</i> )
SEC	Seconds	SPOC	SAR point of contact
SECN	Section	SPOT†	Spot wind
SECT	Sector	SQ	Squall
SELCAL†	Selective calling system	SQL	Squall line
SEP	September	SR	Sunrise
SER	Service <i>or</i> servicing <i>or</i> served	SRA	Surveillance radar approach
SEV	Severe ( <i>used to qualify icing and turbulence reports</i> )	SRE	Surveillance radar element of precision approach radar system
SFC	Surface	SRG	Short range
SG	Snow grains	SRR	Search and rescue region
SGL	Signal	SRY	Secondary
SH . . .	Shower ( <i>followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. SHRASN = showers of rain and snow</i> )	SS	Sandstorm

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# Signal for use in the teletypewriter service only.

SS	Sunset	TCAC	Tropical cyclone advisory centre
SSB	Single sideband	TCAS RA†	<i>(to be pronounced “TEE-CAS-AR-AY”)</i> Traffic alert and collision avoidance system resolution advisory
SSE	South-south-east	TCH	Threshold crossing height
SSR‡	Secondary surveillance radar	TCU	Towering cumulus
SST	Supersonic transport	TDO	Tornado
SSW	South-south-west	TDZ	Touchdown zone
ST	Stratus	TECR	Technical reason
STA	Straight-in approach	TEL	Telephone
STAR†	Standard instrument arrival	TEMPO†	Temporary <i>or</i> temporarily
STD	Standard	TF	Track to fix
STF	Stratiform	TFC	Traffic
STN	Station	TGL	Touch-and-go landing
STNR	Stationary	TGS	Taxiing guidance system
STOL	Short take-off and landing	THR	Threshold
STS	Status	THRU	Through
STWL	Stopway light(s)	THU	Thursday
SUBJ	Subject to	TIBA†	Traffic information broadcast by aircraft
SUN	Sunday	TIL†	Until
SUP	Supplement ( <i>AIP Supplement</i> )	TIP . . .	Until past ( <i>followed by place</i> )
SUPPS	Regional supplementary procedures	TKOF	Take-off
SVC	Service ( <i>message type only</i> )	TL . . .	Till ( <i>followed by time by which weather change is forecast to end</i> )
SVCBL	Serviceable	TLOF	Touchdown and lift-off area
SW	South-west	TMA‡	Terminal control area
SWB	South-westbound	TN . . .	Minimum temperature ( <i>followed by figures in TAF</i> )
SWX	Space weather	TNA	Turn altitude
SWXC	Space weather centre	TNH	Turn height
SWY	Stopway	TO . . .	To ( <i>followed by place</i> )
<b>T</b>		TOC	Top of climb
T	Temperature	TODA	Take-off distance available
. . . T	True ( <i>preceded by a bearing to indicate reference to True North</i> )	TODAH	Take-off distance available, helicopter
TA	Traffic advisory	TOP†	Cloud top
TA	Transition altitude	TORA	Take-off run available
TAA	Terminal arrival altitude	TOX	Toxic
TACAN†	UHF tactical air navigation aid	TP	Turning point
TAF†	Aerodrome forecast ( <i>in meteorological code</i> )	TR	Track
TA/H	Turn at an altitude/height	TRA	Temporary reserved airspace
TAIL†	Tail wind	TRANS	Transmits <i>or</i> transmitter
TAR	Terminal area surveillance radar	TREND†	Trend forecast
TAS	True airspeed	TRG	Training
TAX	Taxiing <i>or</i> taxi	TRL	Transition level
TC	Tropical cyclone	TROP	Tropopause

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# Signal for use in the teletypewriter service only.

TS	Thunderstorm ( <i>in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome</i> )	UIC	Upper information centre
TS . . .	Thunderstorm ( <i>followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. TSRASN = thunderstorm with rain and snow</i> )	UIR‡	Upper flight information region
TSUNAMI†	Tsunami ( <i>used in aerodrome warnings</i> )	ULM	Ultra light motorized aircraft
TT	Teletypewriter	ULR	Ultra long range
TUE	Tuesday	UNA	Unable
TURB	Turbulence	UNAP	Unable to approve
T-VASIS†	( <i>to be pronounced "TEE-VASIS"</i> ) T visual approach slope indicator system	UNL	Unlimited
TVOR	Terminal VOR	UNREL	Unreliable
TWR	Aerodrome control tower <i>or</i> aerodrome control	UP	Unidentified precipitation ( <i>used in automated METAR/SPECI</i> )
TWY	Taxiway	U/S	Unserviceable
TX . . .	Maximum temperature ( <i>followed by figures in TAF</i> )	UTA	Upper control area
TXL	Taxilane	UTC‡	Coordinated Universal Time
TXT*	Text ( <i>when the abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI TXT</i> ) ( <i>to be used in AFS as a procedure signal</i> )		
TYP	Type of aircraft	<b>V</b>	
TYPH	Typhoon	. . . V . . .	Variations from the mean wind direction ( <i>preceded and followed by figures in METAR/SPECI, e.g. 350V070</i> )
<b>U</b>		VA	Heading to an altitude
U	Upward ( <i>tendency in RVR during previous 10 minutes</i> )	VA	Volcanic ash
UA	Unmanned aircraft	VAAC	Volcanic ash advisory centre
UAB	Until advised by . . .	VAC . . .	Visual approach chart ( <i>followed by name/title</i> )
UAC	Upper area control centre	VAL	In valleys
UAR	Upper air route	VAN	Runway control van
UAS	Unmanned aircraft system	VAR	Magnetic variation
UDF	Ultra high frequency direction-finding station	VAR	Visual-aural radio range
UFN	Until further notice	VASIS	Visual approach slope indicator systems
UHDT	Unable higher due traffic	VC . . .	Vicinity of the aerodrome ( <i>followed by FG = fog, FC = funnel cloud, SH = shower, PO = dust/sand whirls, BLDU = blowing dust, BLSA = blowing sand, BLSN = blowing snow, DS = duststorm, SS = sandstorm, TS = thunderstorm or VA = volcanic ash, e.g. VCFG = vicinity fog</i> )
UHF‡	Ultra high frequency [300 to 3 000 MHz]	VCY	Vicinity
		VDF	Very high frequency direction-finding station
		VER	Vertical
		VFR‡	Visual flight rules
		VHF‡	Very high frequency [30 to 300 MHz]
		VI	Heading to an intercept
		VIP‡	Very important person

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# Signal for use in the teletypewriter service only.

VIS	Visibility
VLF	Very low frequency [3 to 30 kHz]
VLR	Very long range
VM	Heading to a manual termination
VMC‡	Visual meteorological conditions
VNAV†	( <i>to be pronounced “VEE-NAV”</i> ) Vertical navigation
VOL . . .	Volume ( <i>followed by I, II . . .</i> )
VOLMET†	Meteorological information for aircraft in flight
VOR‡	VHF omnidirectional radio range
VORTAC†	VOR and TACAN combination
VOT	VOR airborne equipment test facility
VPA	Vertical path angle
VPT	Visual manoeuvre with prescribed track
VRB	Variable
VSA	By visual reference to the ground
VSP	Vertical speed
VTF	Vector to final
VTOL	Vertical take-off and landing
VV . . .	Vertical visibility ( <i>followed by figures in METAR/SPECI and TAF</i> )

**W**

W	West <i>or</i> western longitude
W	White
W . . .	Sea-surface temperature ( <i>followed by figures in METAR/SPECI</i> )
WAAS†	Wide area augmentation system
WAC . . .	World Aeronautical Chart — ICAO 1:1 000 000 ( <i>followed by name/title</i> )
W AFC	World area forecast centre
WB	Westbound
WBAR	Wing bar lights
WDI	Wind direction indicator
WDSPR	Widespread
WED	Wednesday
WEF	With effect from <i>or</i> effective from
WGS-84	World Geodetic System — 1984
WI	Within
WID	Width <i>or</i> wide

WIE	With immediate effect <i>or</i> effective immediately
WILCO†	Will comply
WIND	Wind
WIP	Work in progress
WKN	Weaken <i>or</i> weakening
WNW	West-north-west
WO	Without
WPT	Way-point
WRNG	Warning
WS	Wind shear
WSPD	Wind speed
WSW	West-south-west
WT	Weight
WTSPT	Waterspout
WWW	Worldwide web
WX	Weather
WXR	Weather radar

**X**

X	Cross
XBAR	Crossbar ( <i>of approach lighting system</i> )
XNG	Crossing
XS	Atmospherics

**Y**

Y	Yellow
YCZ	Yellow caution zone ( <i>runway lighting</i> )
YES*	Yes (affirmative) ( <i>to be used in AFS as a procedure signal</i> )
YR	Your

**Z**

Z	Coordinated Universal Time ( <i>in meteorological messages</i> )
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# Signal for use in the teletypewriter service only.



## ABBREVIATIONS

### ENCODE

#### A

Abbreviated precision approach path indicator <i>(to be pronounced "AY-PAPI")</i>	APAPI†	Aerodrome closed due to snow <i>(used in METAR/SPECI)</i>	SNOCLO
Abbreviated T visual approach slope indicator system <i>(to be pronounced "AY-TEE-VASIS")</i>	AT-VASIS†	Aerodrome control tower or aerodrome control	TWR
Abeam	ABM	Aerodrome flight information service	AFIS
About	ABT	Aerodrome forecast <i>(in meteorological code)</i>	TAF†
Above	ABV	Aerodrome obstacle chart <i>(followed by type and name/title)</i>	AOC . . .
Above aerodrome level	AAL	Aerodrome office <i>(specify service)</i>	ADO
Above ground level	AGL	Aerodrome partially covered by fog	PRFG
Above mean sea level	AMSL	Aerodrome reference point	ARP
Above mountains	MON	Aerodrome routine meteorological report <i>(in meteorological code)</i>	METAR†
Accelerate-stop distance available	ASDA	Aerodrome special meteorological report <i>(in meteorological code)</i>	SPECI†
Accept or accepted	ACPT	Aerodromes, air routes and ground aids	AGA
Acceptance <i>(message type designator)</i>	ACP	Aerodrome traffic zone	ATZ
Acknowledge	ACK	Aeronautical chart — 1:500 000 <i>(followed by name/title)</i>	ANC . . .
Active or activated or activity	ACT	Aeronautical fixed service	AFS
Actual time of arrival	ATA‡	Aeronautical fixed telecommunication network	AFTN‡
Actual time of departure	ATD‡	Aeronautical information circular	AIC
Addition or additional	ADDN	Aeronautical information management	AIM
Address <i>(when this abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI ADS) (to be used in AFS as a procedure signal)</i>	ADS*	Aeronautical information publication	AIP
Adjacent	ADJ	Aeronautical information regulation and control	AIRAC
Advance boundary information	ABI	Aeronautical information services	AIS
Advise	ADZ	Aeronautical maps and charts	MAP
Advise at what time able	AWTA	Aeronautical mobile satellite service	AMSS
Advisory area	ADA	Aeronautical mobile service	AMS
Advisory route	ADR	Aeronautical navigation chart — small scale <i>(followed by name/title and scale)</i>	ANCS . . .
Advisory service	ADVS	Aeronautical telecommunication network	ATN
Aerodrome	AD	After <i>(to be followed by time or place)</i>	AFT . . .
Aerodrome beacon	ABN	After passing	APSG
Aerodrome chart	ADC	Again	AGN

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Airborne collision avoidance system ( <i>to be pronounced "AY-CAS"</i> )	ACAS†	Alto cumululus	AC
Aircraft	ACFT	Altostratus	AS
Aircraft accident, notification of	ACCID	Amber	A
Aircraft autonomous integrity monitoring	AAIM	Amend or amended ( <i>used to indicate amended meteorological message; message type designator</i> )	AMD
Aircraft classification number	ACN	Amended meteorological message ( <i>message type designator</i> )	AAA (or AAB, AAC . . . etc., in sequence)
Aircraft communication addressing and reporting system ( <i>to be pronounced "AY-CARS"</i> )	ACARS†	Amendment ( <i>AIP Amendment</i> )	AMDT
Aircraft earth station	AES	Answer	ANS
Aircraft operator	AO	Approach	APCH
Aircraft parking/docking chart ( <i>followed by name/title</i> )	APDC . . .	Approach control office or approach control or approach control service	APP
Air defence identification zone ( <i>to be pronounced "AY-DIZ"</i> )	ADIZ†	Approach lighting system	ALS
Airport	AP	Approach procedure with vertical guidance	APV
Air-report	AIREP†	Approximate or approximately	APRX
Air-report ( <i>message type designator</i> )	ARP	April	APR
Airspeed or headwind gain	GAIN	Apron	APN
Airspeed or headwind loss	LOSS	Area chart	ARC
Air-to-air	A/A	Area control centre or area control	ACC‡
Air-to-ground	A/G	Area forecast for low-level flights	GAMET
Air to air refuelling	AAR	Area minimum altitude	AMA
Air traffic control ( <i>in general</i> )	ATC‡	Area navigation ( <i>to be pronounced "AR-NAV"</i> )	RNAV†
Air traffic control surveillance minimum altitude chart ( <i>followed by name/title</i> )	ATCSMAC . . .	Arrange	ARNG
Air traffic flow management	ATFM	Arresting ( <i>specify (part of) aircraft arresting equipment</i> )	ARST
Air traffic management	ATM	Arrival ( <i>message type designator</i> )	ARR
Air traffic services	ATS	Arrive or arrival	ARR
Air traffic services interfacility data communications	AIDC	Ascend to or ascending to	ASC
Air traffic services reporting office	ARO	Asphalt	ASPH
Airway	AWY	Assigned altitude deviation	AAD
Alert phase	ALERFA†	As soon as possible	ASAP
Alerting ( <i>message type designator</i> )	ALR	At ( <i>followed by time at which weather change is forecast to occur</i> )	AT . . .
Alerting service	ALRS	At ( <i>followed by time or place</i> )	ATP . . .
Alighting area	ALA	Atmospheric pressure at aerodrome elevation ( <i>or at runway threshold</i> )	QFE‡
All up weight	AUW	Atmospherics	XS
Alternate or alternating ( <i>light alternates in colour</i> )	ALTN	At sea	MAR
Alternate ( <i>aerodrome</i> )	ALTN	ATS/MET reporting point	MRP
Altimeter check location	ACL	Attention	ATTN
Altimeter sub-scale setting to obtain elevation when on the ground	QNH‡	At the coast	COT
Altimetry system error	ASE	August	AUG
Altitude	ALT		

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# Signal for use in the teletypewriter service only.

Authorized <i>or</i> authorization	AUTH	Broken	BKN
Automated flight information service	FISA	Building	BLDG
Automated weather observation system	AWOS		
Automatic	AUTO		
Automatic dependent surveillance — broadcast	ADS-B‡	<b>C</b>	
Automatic dependent surveillance — contract	ADS-C‡	Calibration	CLBR
Automatic dependent surveillance unit	ADSU	Call sign	CS
Automatic direction-finding equipment	ADF‡	Calling	CLG
Automatic error correction	ARQ	Cancel <i>or</i> cancelled	CNL
Automatic terminal information service ( <i>to be pronounced “AY-TIS”</i> )	ATIS†	Cancelling NOTAM	NOTAMC
Auxiliary	AUX	Candela	CD
Auxiliary power unit	APU	Category	CAT
Available <i>or</i> availability	AVBL	Caution	CTN
Average	AVG	Celsius ( <i>Centigrade</i> ), degrees	C
Aviation gasoline	AVGAS†	Centimetre	CM
Azimuth	AZM	Centre ( <i>preceded by runway designation number to identify a parallel runway</i> )	... C
		Centre line	CL
<b>B</b>		Change frequency to . . .	CF
Barometric vertical navigation ( <i>to be pronounced “BAA-RO-VEE-NAV”</i> )	BARO-VNAV†	Change-over point	COP
Beacon ( <i>aeronautical ground light</i> )	BCN	Channel	CH
Bearing	BRG	Check	CK
Becoming	BECMG	Chemical	CHEM
Before	BFR	Circling guidance light(s)	CGL
Below	BLW	Cirrocumulus	CC
Below clouds	BLO	Cirrostratus	CS
Between	BTN	Cirrus	CI
Between layers	BTL	Civil	CIV
Binary universal form for the representation of meteorological data	BUFR	Civil aviation authority <i>or</i> civil aviation administration	CAA
Blowing ( <i>followed by DU = dust, SA = sand or SN = snow</i> )	BL . . .	Clear air turbulence	CAT
Blue	B	Clear(s) <i>or</i> cleared to . . . <i>or</i> clearance	CLR
Bombing	BOMB	Clear type of ice formation	CLA
Boundary	BDRY	Clearway	CWY
Braking	BRKG	Climb-out area	CLIMB-OUT
Braking action	BA	Climb to <i>or</i> climbing to	CMB
Broadcast	BCST	Climb to and maintain	CTAM
Broadcasting station, commercial	BS	Close <i>or</i> closed <i>or</i> closing	CLSD
		Cloud	CLD
		Cloud base	BASE†
		Cloud top	TOP†
		Cockpit voice recorder	CVR
		Collision risk model	CRM
		Completion <i>or</i> completed <i>or</i> complete	CMPL

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# Signal for use in the teletypewriter service only.

Commercial broadcasting station	BS	Crossing	XNG
Common ICAO data interchange network	CIDIN†	Cruise	CRZ
Communications	COM	Cumuliform	CUF
Communications, navigation and surveillance	CNS	Cumulonimbus ( <i>to be pronounced "CEE BEE"</i> )	CB‡
Compulsory reporting point	CRP	Cumulus	CU
Concrete	CONC	Current flight plan ( <i>message type designator</i> )	CPL
Condition	COND	Customs	CUST
Conditional route	CDR	Cyclic redundancy check	CRC
Confirm or I confirm ( <i>to be used in AFS as a procedure signal</i> )	CFM*		
Constant radius arc to a fix	RF	<b>D</b>	
Construction or constructed	CONST	Daily	DLY
Contact	CTC	Danger or dangerous	DNG
Continue(s) or continued	CONT	Danger area ( <i>followed by identification</i> )	D . . .
Continuous	CONS	Data link automatic terminal information service ( <i>to be pronounced "DEE-ATIS"</i> )	D-ATIS†
Continuous climb operations	CCO	Data link initiation capability	DLIC
Continuous day and night service	H24	Data link VOLMET	D-VOLMET
Continuous descent operations	CDO	Date of flight	DOF
Continuous wave	CW	Date-time group	DTG
Control	CTL	Datum crossing point	DCP
Control area	CTA	Dead reckoning	DR
Control indicated is operational control	OPC	December	DEC
Controller-pilot data link communications	CPDLC‡	Decision altitude	DA
Control zone	CTR	Decision height	DH
Coordinate or coordination	COOR	Degrees	DEG
Coordinated Universal Time	UTC‡	Degrees Celsius ( <i>Centigrade</i> )	C
Coordinated Universal Time ( <i>in meteorological messages</i> )	Z	Delay ( <i>message type designator</i> )	DLA
Coordinates	COORD	Delay or delayed	DLA
Coordination ( <i>message type designator</i> )	CDN	Delayed ( <i>used to indicate delayed meteorological message; message type designator</i> )	RTD
Correct or correction or corrected ( <i>used to indicate corrected meteorological message; message type designator</i> )	COR	Delayed meteorological message ( <i>message type designator</i> )	RRA ( <i>or RRB, RRC . . . etc., in sequence</i> )
Corrected meteorological message ( <i>message type designator</i> )	CCA ( <i>or CCB, CCC . . . etc., in sequence</i> )		
Course from a fix to an altitude	FA	Dense upper cloud	DUC
Course from a fix to manual termination ( <i>used in navigation database coding</i> )	FM	Depart or departure	DEP
Course to a fix	CF	Departure ( <i>message type designator</i> )	DEP
Course to an altitude	CA	Departure end of the runway	DER
Cover or covered or covering	COV	Deposition	DEPO
Cross	X	Depth	DPT
Crossbar ( <i>of approach lighting system</i> )	XBAR	Descend to or descending to	DES

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# Signal for use in the teletypewriter service only.

Descend to and maintain	DTAM	Effective immediately <i>or</i> with immediate effect	WIE
Destination	DEST	Electronic flight instrument system ( <i>to be pronounced "EE-FIS"</i> )	EFIS†
Deteriorate <i>or</i> deteriorating	DTRT	Elevation	ELEV
Deviation <i>or</i> deviating	DEV	Elevation differential area	EDA
Dew point temperature	DP	Embedded in a layer ( <i>to indicate cumulonimbus embedded in layers of other clouds</i> )	EMBD
Diffuse	DIF	Emergency	EMERG
Digital flight data recorder	DFDR	Emergency location beacon — aircraft	ELBA†
Direct ( <i>in relation to flight plan clearances and type of approach</i> )	DCT	Emergency locator transmitter	ELT
Direct controller-pilot communications	DCPC	Emission	EM
Direction finding	DF	Engine	ENG
Displaced runway threshold	DTHR	Enhanced vision system	EVS
Distance	DIST	En route	ENR
Distance from touchdown indicator	DFTI	Enroute chart ( <i>followed by name/title</i> )	ENRC . . .
Distance measuring equipment	DME‡	En-route surveillance radar	RSR
Distress phase	DETRESFA†	Equatorial latitudes northern hemisphere	EQN
Divert <i>or</i> diverting	DIV	Equatorial latitudes southern hemisphere	EQS
Docking	DCKG	Equipment	EQPT
Domestic	DOM	Error ( <i>to be used in AFS as a procedure signal</i> )	EEE#
Doppler VOR	DVOR	Estimate <i>or</i> estimated <i>or</i> estimation ( <i>message type designator</i> )	EST
Double channel duplex	DCD	Estimated elapsed time	EET
Double channel simplex	DCS	Estimated off-block time	EOBT
Double sideband	DSB	Estimated time of arrival <i>or</i> estimating arrival	ETA*‡
Downward ( <i>tendency in RVR during previous 10 minutes</i> )	D	Estimated time of departure <i>or</i> estimating departure	ETD‡
Do you intend to ask me for a series of bearings? <i>or</i> I intend to ask you for a series of bearings ( <i>to be used in radiotelegraphy as a Q Code</i> )	QDL	Estimated time over significant point	ETO
Drizzle	DZ	European geostationary navigation overlay service ( <i>to be pronounced "EGG-NOS"</i> )	EGNOS†
Dual tandem wheels	DTW	European regional OPMET data exchange	EUR RODEX
Dual wheels	DW	Every	EV
Duration	DUR	Except	EXC
During	DRG	Exercises <i>or</i> exercising <i>or</i> to exercise	EXER
Dust	DU	Expect <i>or</i> expected <i>or</i> expecting	EXP
Dust/sand whirls ( <i>dust devils</i> )	PO	Expect further clearance	EFC
Duststorm	DS	Expected approach time	EAT
		Extend <i>or</i> extending <i>or</i> extended	EXTD
<b>E</b>		Extended diversion time operations	EDTO
East <i>or</i> eastern longitude	E	Extra long range	ELR
Eastbound	EB		
East-north-east	ENE		
East-south-east	ESE		
Effective from <i>or</i> with effect from	WEF		

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# Signal for use in the teletypewriter service only.

Extremely high frequency [30 000 to 300 000 MHz]	EHF	Flow management unit	FMU
		Fluctuating <i>or</i> fluctuation <i>or</i> fluctuated	FLUC
		Fly <i>or</i> flying	FLY
		Fog	FG
		Fog patches	BCFG
		Follow(s) <i>or</i> following	FLW
		Forecast	FCST
		Freezing	FZ
		Freezing drizzle	FZDZ
		Freezing fog	FZFG
		Freezing rain	FZRA
		Frequency	FREQ
		Frequent	FRQ
		Friction coefficient	FCT
		Friday	FRI
		From	FM
		From ( <i>followed by time at which weather change is forecast to begin</i> )	FM . . .
		From ( <i>used to precede the call sign of the calling station</i> ) ( <i>to be used in AFS as a procedure signal</i> )	DE*
		Front ( <i>relating to weather</i> )	FRONT†
		Frost ( <i>used in aerodrome warnings</i> )	FROST†
		Fuel remaining	FR
		Full stop landing	FSL
		Funnel cloud ( <i>tornado or waterspout</i> )	FC
		<b>G</b>	
		GBAS azimuth reference point	GARP
		GBAS landing system	GLS‡
		General	GEN
		General aviation	GA
		Geographic <i>or</i> true	GEO
		Geoid undulation	GUND
		Glide path	GP
		Glide path angle	GPA
		Glide path intercept point	GPIP
		Glider	GLD
		Global navigation satellite system	GNSS‡
		Global navigation satellite system ( <i>to be pronounced "GLO-NAS"</i> )	GLONASS†
		Global positioning system	GPS‡
		Go ahead, resume sending ( <i>to be used in AFS as a procedure signal</i> )	GA
Facilitation of international air transport	FAL		
Facilities	FAC		
Facsimile transmission	FAX		
February	FEB		
Feet ( <i>dimensional unit</i> )	FT		
Feet per minute	FPM		
Few	FEW		
Fictitious threshold point	FTP		
Field	FLD		
Filed flight plan exchanged via aeronautical fixed service (AFS)	FPL		
Filed flight plan exchanged via flight and flow – information for a collaborative environment (FF-ICE) services	eFPL		
Final approach	FNA		
Final approach and take-off area	FATO		
Final approach fix	FAF		
Final approach point	FAP		
Final approach segment	FAS		
Firing	FRNG		
First	FST		
Fixed	F		
Flares	FLR		
Flashing	FLG		
Flight	FLT		
Flight check	FLTCK		
Flight data processing system	FDPS		
Flight information centre	FIC		
Flight information region	FIR‡		
Flight information service	FIS		
Flight level	FL		
Flight management computer	FMC		
Flight management system	FMS‡		
Flight path alignment point	FPAP		
Flight plan cancellation ( <i>message type designator</i> )	CNL		
Flight plan filed in the air	AFIL		
Flight plan route	FPR		
Flight service station	FSS		
Flight technical error	FTE		
Flight technical tolerance	FTT		

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# Signal for use in the teletypewriter service only.

Government	GOV	High and very high frequency direction-finding stations ( <i>at the same location</i> )	HVDF
GPS and geostationary earth orbit augmented navigation	GAGAN†	High frequency [3 000 to 30 000 kHz]	HF‡
Grass landing area	GRASS	High frequency direction-finding station	HDF
Gravel	GRVL	High latitudes northern hemisphere	HNH
Green	G	High latitudes southern hemisphere	HSH
Ground	GND	High pressure area <i>or</i> the centre of high pressure	H
Ground-based augmentation system ( <i>to be pronounced “GEE-BAS”</i> )	GBAS†	Higher	HYR
Ground-based regional augmentation system ( <i>to be pronounced “GRASS”</i> )	GRAS†	Holding	HLDG
Ground check	GNDCK	Holding/racetrack to a fix	HF
Ground controlled approach system <i>or</i> ground controlled approach	GCA‡	Holding/racetrack to a manual termination	HM
Ground earth station	GES	Holding/racetrack to an altitude	HA
Ground movement chart ( <i>followed by name/title</i> )	GMC . . .	Holiday	HOL
Ground power unit	GPU	Hospital aircraft	HOSP
Ground proximity warning system	GPWS‡	Hours	HR
Ground speed	GS	Humanitarian	HUM
Ground-to-air	G/A	Hurricane	HURCN
Ground-to-air and air-to-ground	G/A/G		
<b>H</b>		<b>I</b>	
Hail	GR	I have nothing to send to you <i>or</i> none	NIL*†
Hazard beacon	HBN	Ice on runway	IR
Haze	HZ	Ice pellets	PL
Heading	HDG	Icing	ICE
Heading to a manual termination	VM	Identification	IDENT†
Heading to an altitude	VA	Identification beacon	IBN
Heading to an intercept	VI	Identification friend/foe	IFF
Head-up display	HUD	Identifier <i>or</i> identify	ID
Heavy	HVY	If not possible	INP
Heavy ( <i>used to indicate the intensity of weather phenomena, e.g. heavy rain = HVY RA</i> )	HVY	Immediate <i>or</i> immediately	IMT
Hectopascal	HPA	Immigration	IMG
Height <i>or</i> height above	HGT	Improve <i>or</i> improving	IMPR
Helicopter	HEL	In and out of clouds	IAO
Helicopter approach path indicator	HAPI	In cloud	INC
Helicopter landing site	HLS	Inbound	INBD
Heliport	HLP	Incorporated	INCORP
Heliport crossing height	HCH	Independent sideband	ISB
Heliport reference point	HRP	Indicated airspeed	IAS
Hertz ( <i>cycle per second</i> )	HZ	Inertial navigation system	INS
		Inertial reference system	IRS
		Information	INFO†
		Information concerning en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations	SIGMET†

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# Signal for use in the teletypewriter service only.

Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations	AIRMET†	<b>K</b>	
Initial approach	INA	Kilograms	KG
Initial approach fix	IAF	Kilohertz	KHZ
Inland	LAN	Kilometres	KM
Inner marker	IM	Kilometres per hour	KMH
Inoperative	INOP	Kilopascal	KPA
In progress	INPR	Kilowatts	KW
Install <i>or</i> installed <i>or</i> installation	INSTL	Knots	KT
Instrument	INSTR	Knots indicated airspeed	KIAS
Instrument approach chart ( <i>followed by name/title</i> )	IAC . . .	<b>L</b>	
Instrument approach procedure	IAP	Landing	LDG
Instrument flight rules	IFR‡	Landing direction indicator	LDI
Instrument landing system	ILS‡	Landing distance available	LDA
Instrument meteorological conditions	IMC‡	Landing distance available, helicopter	LDAH
Intensify <i>or</i> intensifying	INTSF	Landing threshold point	LTP
Intensity	INTST	Last message received by me was . . . ( <i>to be used in AFS as a procedure signal</i> )	LR
Intermediate approach fix	IF	Last message sent by me was . . . <i>or</i> Last message was . . . ( <i>to be used in AFS as a procedure signal</i> )	LS
International	INTL	Lateral navigation ( <i>to be pronounced "EL-NAV"</i> )	LNAV†
International Civil Aviation Organization	ICAO	Latitude	LAT
International general aviation	IGA	Layer <i>or</i> layered	LYR
International NOTAM office	NOF	Leave <i>or</i> leaving	LVE
International standard atmosphere	ISA	Left ( <i>preceded by runway designation number to identify a parallel runway</i> )	. . . L
International system of units	SI	Length	LEN
Interrogation sign (question mark) ( <i>to be used in AFS as a procedure signal</i> )	IMI*	Level	LVL
Interrogator	INTRG	Light ( <i>used to indicate the intensity of weather phenomena, interference or static reports, e.g. light rain = FBL RA</i> )	FBL
Interrupt <i>or</i> interruption <i>or</i> interrupted	INTRP	Light <i>or</i> lighting	LGT
Intersection	INT	Light and variable ( <i>relating to wind</i> )	LV
Intersection of air routes	IAR	Light intensity high	LIH
In valleys	VAL	Light intensity low	LIL
Isolated	ISOL	Light intensity medium	LIM
<b>J</b>		Lighted	LGTD
January	JAN	Limited	LTD
Jet stream	JTST	Line ( <i>used in SIGMET</i> )	LINE
July	JUL		
June	JUN		

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# Signal for use in the teletypewriter service only.

Litre	L	Maximum temperature (followed by figures in TAF)	TX . . .
Local or locally or location or located	LCA	Maximum value of wind speed or runway visual range (followed by figures in METAR/SPECI and TAF)	P . . .
Local mean time	LMT	May	MAY
Local routine meteorological report (in abbreviated plain language)	MET REPORT	Mean sea level	MSL
Local special meteorological report (in abbreviated plain language)	SPECIAL†	Medical evacuation flight	MEDEVAC
Localizer	LOC	Medium and high frequency direction-finding stations (at the same location)	MHDF
Localizer performance with vertical guidance	LPV	Medium and very high frequency direction-finding stations (at the same location)	MVDF
Locator	L	Medium frequency [300 to 3 000 kHz]	MF
Locator, middle	LM	Medium frequency direction-finding station	MDF
Locator, outer	LO	Medium, high and very high frequency direction-finding stations (at the same location)	MHVDF
Logical acknowledgement (message type designator)	LAM	Medium range	MRG
Long (used to indicate the type of approach desired or required)	LNG	Megahertz	MHZ
Longitude	LONG	Message	MSG
Long range	LRG	Message . . . (transmission identification) has been misrouted (to be used in AFS as a procedure signal)	MSR#
LORAN (long range air navigation system)	LORAN†	Meteorological or meteorology	MET†
Low drifting (followed by DU = dust, SA = sand or SN = snow)	DR . . .	Meteorological information for aircraft in flight	VOLMET†
Low frequency [30 to 300 kHz]	LF	Meteorological watch office	MWO
Low pressure area or the centre of low pressure	L	Metres (preceded by figures)	. . . M
Low visibility procedures	LVP	Metres per second	MPS
Lower control area	LTA	Metric units	MTU
		Microburst	MBST
<b>M</b>		Microwave landing system	MLS‡
Mach number (followed by figures)	M . . .	Middle latitudes northern hemisphere	MNH
Magnetic	MAG	Middle latitudes southern hemisphere	MSH
Magnetic bearing	QDR	Middle marker	MM
Magnetic heading (zero wind)	QDM‡	Mid-point (related to RVR)	MID
Magnetic orientation of runway	QFU	Military	MIL
Magnetic variation	VAR	Military aerodrome traffic zone	MATZ
Maintain	MNTN	Military control zone	MCTR
Maintenance	MAINT	Military operating area	MOA
March	MAR	Minimum	MNM
Marker radio beacon	MKR	Minimum crossing altitude	MCA
Maximum	MAX	Minimum descent altitude	MDA
Maximum authorized altitude	MAA	Minimum descent height	MDH
Maximum take-off mass	MTOM		

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# Signal for use in the teletypewriter service only.

Minimum en-route altitude	MEA	<b>N</b>	
Minimum eye height over threshold ( <i>for visual approach slope indicator systems</i> )	MEHT	National	NTL
Minimum holding altitude	MHA	National AIS system centre	NASC†
Minimum navigation performance specifications	MNPS	Nautical miles	NM
Minimum obstacle clearance ( <i>required</i> )	MOC	Navigation	NAV
Minimum obstacle clearance altitude	MOCA	Navigation aid	NAVAID
Minimum operational performance standards	MOPS†	Navigation system error	NSE
Minimum reception altitude	MRA	New NOTAM	NOTAMN
Minimum safe altitude warning	MSAW	Next	NXT
Minimum sector altitude	MSA	Night	NGT
Minimum temperature ( <i>followed by figures in TAF</i> )	TN . . .	Nil significant cloud	NSC
Minimum value of runway visual range ( <i>followed by figures in METAR/SPECI</i> )	M . . .	Nil significant weather	NSW
Minus	MS	Nimbostratus	NS
Minutes	MIN*	No <i>or</i> negative <i>or</i> permission not granted <i>or</i> that is not correct	NEG
Missed approach holding fix	MAHF	No change	NC
Missed approach point	MAPT	No cloud detected ( <i>used in automated METAR/SPECI</i> )	NCD
Missed approach turning fix	MATF	No directional variations available ( <i>used in automated METAR/SPECI</i> )	NDV
Missing . . . ( <i>transmission identification</i> ) ( <i>to be used in AFS as a procedure signal</i> )	MIS	No distinct tendency ( <i>in RVR during previous 10 minutes</i> )	N
Mist	BR	No name, unnamed	NN
Mixed type of ice formation ( <i>white and clear</i> )	MX	No (negative) ( <i>to be used in AFS as a procedure signal</i> )	NO
Moderate ( <i>used to indicate the intensity of weather phenomena, interference or static reports, e.g. moderate rain = MODRA</i> )	MOD	No reply heard	NRH
Modification ( <i>message type designator</i> )	CHG	No significant change ( <i>used in trend-type landing forecasts</i> )	NOSIG†
Modulated continuous wave	MCW	No specific working hours	HX
Monday	MON	No transgression zone	NTZ‡
Monitor <i>or</i> monitoring <i>or</i> monitored	MNT	Noise abatement departure procedure	NADP
Monopulse secondary surveillance radar	MSSR	Non-directional radio beacon	NDB‡
Mountain	MT	Non-precision approach	NPA
Mountain waves	MTW	Non-standard	NONSTD
Move <i>or</i> moving <i>or</i> movement	MOV	None <i>or</i> I have nothing to send to you	NIL*†
Multi-functional transport satellite (MTSAT) satellite-based augmentation system ( <i>to be pronounced "EM-SAS"</i> )	MSAS†	Normal	NML
		Normal operating zone	NOZ‡
		North <i>or</i> northern latitude	N
		North Atlantic	NAT
		Northbound	NB
		North-east	NE
		North-eastbound	NEB
		North-north-east	NNE
		North-north-west	NNW
		North-west	NW

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# Signal for use in the teletypewriter service only.

North-westbound	NWB	Originate ( <i>to be used in AFS as a procedure signal</i> )	OGN
Not before	NBFR	Outbound	OUBD
Notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations	NOTAM†	Outer marker	OM
November	NOV	Overcast	OVC
Number	NR	Overhead	OHD
<b>O</b>			
Obscure <i>or</i> obscured <i>or</i> obscuring	OBSC	<b>P</b>	
Observe <i>or</i> observed <i>or</i> observation	OBS	Parachute jumping exercise	PJE
Obstacle	OBST	Parallel	PARL
Obstacle assessment surface	OAS	Parking	PRKG
Obstacle clearance altitude	OCA	Passenger(s)	PAX
Obstacle clearance height	OCH	Passing	PSG
Obstacle clearance surface	OCS	Pavement classification number	PCN
Obstacle free zone	OFZ	Per cent	PCT
Obstacle identification surface	OIS	Performance	PER
Occasional <i>or</i> occasionally	OCNL	Performance-based communication	PBC
Occulting ( <i>light</i> )	OCC	Performance-based navigation	PBN
Ocean station vessel	OSV	Performance-based surveillance	PBS
Oceanic area control centre	OAC	Permanent	PERM
Oceanic control area	OCA	Persons on board	POB
October	OCT	Pierced steel plank	PSP
On-line data interchange	OLDI†	Pilot-controlled lighting	PCL
On request	O/R	Plan position indicator	PPI
On top	OTP	Plus	PS
Opaque, white type of ice formation	OPA	Point-in-space reference point	PRP
Open <i>or</i> opening <i>or</i> opened	OPN	Point of no return	PNR
Operations	OPS†	Polar track structure	PTS
Operator <i>or</i> operate <i>or</i> operative <i>or</i> operating <i>or</i> operational	OPR	Position	PSN
Operational control is the control indicated	OPC	Possible	POSS
Operational meteorological ( <i>information</i> )	OPMET†	Power	PWR
Order	ORD	Practice low approach	PLA
Organized track system	OTS	Precision approach	PA
		Precision approach lighting system ( <i>specify category</i> )	PALS
		Precision approach path indicator	PAPI†
		Precision approach radar	PAR‡
		Precision approach terrain chart ( <i>followed by name/title</i> )	PATC . . .
		Pre-departure clearance	PDC‡
		Pre-flight information bulletin	PIB
		Preliminary flight plan	PFP
		Present level	PLVL
		Present position	PPSN
		Pressure system(s)	PSYS

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# Signal for use in the teletypewriter service only.

Primary	PRI	Reach <i>or</i> reaching	RCH
Primary surveillance radar	PSR‡	Reach cruising altitude	RCA
Prior notice required	PN	Receive <i>or</i> receiver	REC
Prior permission required	PPR	Received ( <i>acknowledgement of receipt</i> )	
Probability	PROB†	( <i>to be used in AFS as a procedure signal</i> )	R*
Procedure	PROC	Receiver autonomous integrity monitoring	RAIM†
Procedure design gradient	PDG	Receiving only	RON
Procedure turn	PTN	Recent ( <i>used to qualify weather phenomena, e.g. recent rain = RERA</i> )	RE
Procedures for air navigation services	PANS	Reclearance in flight	RIF
Proceed <i>or</i> proceeding	PCD	Recleared	RCLR
Processed meteorological data in the form of grid point values expressed in binary form ( <i>in meteorological code</i> )	GRIB	Red	R
Prohibited area ( <i>followed by identification</i> )	P . . .	Reduced vertical separation minimum [300 m (1 000 ft) between FL 290 and FL 410]	RVSM‡
Propeller	PROP	Reference datum height	RDH
Provisional	PROV	Reference path data selector	RPDS
		Reference to . . . <i>or</i> refer to . . .	REF
<b>Q</b>		Regional AIS system centre	RASC†
Quadrant	QUAD	Regional OPMET bulletin exchange ( <i>scheme</i> )	ROBEX†
		Regional supplementary procedures	SUPPS
<b>R</b>		Registration	REG
Radar position indicator	RPI‡	Rejected take-off distance available, helicopter	RTODAH
Radar position symbol	RPS	Relay to	RLA
Radar vectoring area	RVA	Remark	RMK
Radial	RDL	Remote altimeter setting source	RASS
Radial from VOR ( <i>followed by three figures</i> )	R . . .	Repeat <i>or</i> I repeat ( <i>to be used in AFS as a procedure signal</i> )	RPT*
Radio	RDO	Repetitive flight plan	RPL
Radio range	RNG	Replace <i>or</i> replaced	RPLC
Radioactive	RDOACT	Replacing NOTAM	NOTAMR
Radiocommunication failure ( <i>message type designator</i> )	RCF	Report <i>or</i> reporting <i>or</i> reporting point	REP
Radiotelegraph	RTG	Report leaving	RL
Radiotelephone	RTF	Report reaching	RR
Radioteletypewriter	RTT	Request <i>or</i> requested	REQ
Ragged	RAG	Request ( <i>to be used in AFS as a procedure signal</i> )	RQ*
Rain	RA	Request flight plan ( <i>message type designator</i> )	RQP
Range ( <i>lights</i> )	RG	Request level change en route	RLCE
Rate of climb	ROC	Request supplementary flight plan ( <i>message type designator</i> )	RQS
Rate of descent	ROD		
Rate of turn	R		

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# Signal for use in the teletypewriter service only.

Requested level not available	RLNA	S		
Required communication performance	RCP‡		Sand	SA
Required navigation performance	RNP‡		Sandstorm	SS
Required surveillance performance	RSP‡		Sanitary	SAN
Requirements	RQMNTS		SAR point of contact	SPOC
Re-route	RERTE		Satellite-based augmentation system ( <i>to be pronounced "ESS-BAS"</i> )	SBAS†
Rescue and fire fighting services	RFFS		Satellite communication ( <i>used only when referring generally to both voice and data satellite communication or only data satellite communication</i> )	SATCOM†
Rescue boat	RB		Satellite voice communication	SATVOICE†
Rescue coordination centre	RCC		Saturday	SAT
Rescue sub-centre	RSC		Scattered	SCT
Rescue vessel	RV		Schedule or scheduled	SKED
Resolution advisory	RA		Sea ( <i>used in connection with sea-surface temperature and state of sea</i> )	SEA
Responder beacon	RSP		Sea-surface temperature ( <i>followed by figures in METAR/SPECI</i> )	W . . .
Restricted area ( <i>followed by identification</i> )	R . . .		Search and rescue	SAR
Return or returned or returning	RTN		Search and rescue region	SRR
Return to service	RTS		Secondary	SRY
Right ( <i>preceded by runway designation number to identify a parallel runway</i> )	. . . R		Secondary surveillance radar	SSR‡
Right-hand circuit	RHC		Seconds	SEC
Rime ( <i>used in aerodrome warnings</i> )	RIME†		Section	SECN
Root sum square	RSS		Sector	SECT
Route	RTE		Selective calling system	SELCAL†
Rules of the air and air traffic services	RAC		Selective identification feature	SIF
Runway	RWY		September	SEP
Runway ( <i>followed by figures in METAR/SPECI</i> )	R . . .	Service or servicing or served	SER	
Runway alignment indicator	RAI	Service available during hours of scheduled operation	HS	
Runway arresting gear	RAG	Service available to meet operational requirements	HO	
Runway centre line	RCL	Service ( <i>message type only</i> )	SVC	
Runway centre line light(s)	RCLL	Serviceable	SVCBL	
Runway(s) cleared ( <i>used in METAR/SPECI</i> )	CLRD	Severe ( <i>used to qualify icing and turbulence reports</i> )	SEV	
Runway control van	VAN	Shall I cancel telegram number . . . ? or Cancel telegram number . . . ( <i>to be used in AFS as a Q Code</i> )	QTA	
Runway edge light(s)	REDL	Shall I run my test tape/a test sentence? or Run your test tape/a test sentence ( <i>to be used in AFS as a Q Code</i> )	QJH	
Runway end light(s)	RENL	Shallow fog	MIFG	
Runway end safety area	RESA			
Runway lead-in lighting system	RLLS			
Runway surface condition	RSCD			
Runway threshold light(s)	RTHL			
Runway touchdown zone light(s)	RTZL			
Runway visual range	RVR‡			

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# Signal for use in the teletypewriter service only.

Short ( <i>used to indicate the type of approach desired or required</i> )	BRF	Special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format	SNOWTAM†
Short range	SRG	Speed limiting point	SLP
Short take-off and landing	STOL	Spot wind	SPOT†
Shower ( <i>followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. showers of rain and snow = SHRASN</i> )	SH . . .	Squall	SQ
Signal	SGL	Squall line	SQL
Significant	SIG	Stand by	SDBY
Significant wave height ( <i>followed by figures in METAR/SPECI</i> )	H . . .	Standard	STD
Simple approach lighting system	SALS	Standard deviation	SD
Simultaneous or simultaneously	SIMUL	Standard instrument arrival	STAR†
Single isolated wheel load	SIWL	Standard instrument departure	SID†
Single sideband	SSB	Standard regional route transmitting frequencies	RUT
Slow	SLW	Standards and Recommended Practices [ICAO]	SARPS
Small hail and/or snow pellets	GS	Start of climb	SOC
Smoke	FU	State of the sea ( <i>followed by figures in METAR/SPECI</i> )	S . . .
Snow	SN	Station	STN
Snow grains	SG	Stationary	STNR
South or southern latitude	S	Status	STS
Southbound	SB	Step down fix	SDF
South-east	SE	Stop-end ( <i>related to RVR</i> )	END
South-eastbound	SEB	Stopway	SWY
South-south-east	SSE	Stopway light(s)	STWL
South-south-west	SSW	Straight-in approach	STA
South-west	SW	Stratiform	STF
South-westbound	SWB	Stratocumulus	SC
Space weather	SWX	Stratus	ST
Space weather centre	SWXC	Subject to	SUBJ
Special air-report ( <i>message type designator</i> )	ARS	Sunday	SUN
Special position indicator	SPI	Sunrise	SR
Special series NOTAM notifying by means of a specific format change in activity of a volcano, a volcanic eruption and/or volcanic ash cloud that is of significance to aircraft operations	ASHTAM	Sunrise to sunset	HJ
		Sunset	SS
		Sunset to sunrise	HN
		Super high frequency [3 000 to 30 000 MHz]	SHF
		Supersonic transport	SST
		Supplement ( <i>AIP Supplement</i> )	SUP
		Supplementary flight plan ( <i>message type designator</i> )	SPL
		Surface	SFC

† When radiotelephony is used, the abbreviations and terms are transmitted as spoken words.

‡ When radiotelephony is used, the abbreviations and terms are transmitted using the individual letters in non-phonetic form.

\* Signal is also available for use in communicating with stations of the maritime mobile service.

# Signal for use in the teletypewriter service only.

Surface movement control	SMC	Thunderstorm ( <i>in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome</i> )	TS
Surface movement radar	SMR	Thunderstorm ( <i>followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. thunderstorm with rain and snow = TSRASN</i> )	TS . . .
Surveillance radar approach	SRA	Thursday	THU
Surveillance radar element of precision approach radar system	SRE	Till ( <i>followed by time by which weather change is forecast to end</i> )	TL . . .
<b>T</b>		To ( <i>followed by place</i> )	TO . . .
Tail wind	TAIL†	Top of climb	TOC
Take-off	TKOF	Tornado	TDO
Take-off distance available	TODA	Touch-and-go landing	TGL
Take-off distance available, helicopter	TODAH	Touchdown and lift-off area	TLOF
Take-off run available	TORA	Touchdown zone	TDZ
Taxiing <i>or</i> taxi	TAX	Towering cumulus	TCU
Taxiing guidance system	TGS	Toxic	TOX
Taxilane	TXL	Track	TR
Taxiway	TWY	Track to fix	TF
Technical reason	TECR	Traffic	TFC
Telephone	TEL	Traffic advisory	TA
Teletypewriter	TT	Traffic alert and collision avoidance system resolution advisory ( <i>to be pronounced “TEE-CAS-AR-AY”</i> )	TCAS RA†
Temperature	T	Traffic information broadcast by aircraft	TIBA†
Temporary <i>or</i> temporarily	TEMPO†	Training	TRG
Temporary reserved airspace	TRA	Transition altitude	TA
Terminal area surveillance radar	TAR	Transition level	TRL
Terminal arrival altitude	TAA	Transmits <i>or</i> transmitter	TRANS
Terminal control area	TMA‡	Trend forecast	TREND†
Terminal VOR	TVOR	Tropical cyclone	TC
Text ( <i>when the abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI TXT</i> ) ( <i>to be used in AFS as a procedure signal</i> )	TXT*	Tropical cyclone advisory centre	TCAC
This is a channel-continuity-check of transmission to permit comparison of your record of channel-sequence numbers of messages received on the channel ( <i>to be used in AFS as a procedure signal</i> )	CH#	Tropopause	TROP
This is a duplicate message ( <i>to be used in AFS as a procedure signal</i> )	DUPE#	True ( <i>preceded by a bearing to indicate reference to True North</i> )	. . . T
Threshold	THR	True airspeed	TAS
Threshold crossing height	TCH	True bearing	QTE
Through	THRU	Tsunami ( <i>used in aerodrome warnings</i> )	TSUNAMI†
		Tuesday	TUE
		Turbulence	TURB
		Turn altitude	TNA
		Turn at an altitude/height	TA/H

† When radiotelephony is used, the abbreviations and terms are transmitted as spoken words.

‡ When radiotelephony is used, the abbreviations and terms are transmitted using the individual letters in non-phonetic form.

\* Signal is also available for use in communicating with stations of the maritime mobile service.

# Signal for use in the teletypewriter service only.







## ABBREVIATIONS FOR IDENTIFYING AERONAUTICAL FIXED SERVICE (AFS) MESSAGES

Abbreviations for use as the first word of the text of a message

### ENCODE

#### Aircraft Accident Notification Messages

Notification of an aircraft accident      ACCID

#### Air Traffic Services Messages

Acceptance	ACP
Alerting	ALR
Arrival	ARR
Coordination	CDN
Current flight plan	CPL
Delay	DLA
Departure	DEP
Estimate	EST
Flight plan cancellation	CNL
Logical acknowledgement	LAM
Modification	CHG
Radiocommunication failure	RCF
Request flight plan	RQP
Request supplementary flight plan	RQS
Supplementary flight plan	SPL

#### Meteorological Messages

Data designators for meteorological bulletins are given in the *Manual of Aeronautical Meteorological Practice* (Doc 8896)

#### Other messages

Notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations      NOTAM

Special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format      SNOWTAM

Service (*to be used by AFS stations only*)      SVC



## ABBREVIATIONS AND TERMS TO BE TRANSMITTED AS SPOKEN WORDS WHEN USED IN RADIOTELEPHONY

### DECODE

ACARS	<i>(to be pronounced "AY-CARS")</i> Aircraft communication addressing and reporting system	FRONT	Front <i>(relating to weather)</i>
ACAS	<i>(to be pronounced "AY-CAS")</i> Airborne collision avoidance system	FROST	Frost <i>(used in aerodrome warnings)</i>
ADIZ	<i>(to be pronounced "AY-DIZ")</i> Air defence identification zone	GAGAN	GPS and geostationary earth orbit augmented navigation
AIREP	Air-report	GBAS	<i>(to be pronounced "GEE-BAS")</i> Ground-based augmentation system
AIRMET	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations	GLONASS	<i>(to be pronounced "GLO-NAS")</i> Global navigation satellite system
ALERFA	Alert phase	GRAS	<i>(to be pronounced "GRASS")</i> Ground-based regional augmentation system
APAPI	<i>(to be pronounced "AY-PAPI")</i> Abbreviated precision approach path indicator	IDENT	Identification
ATIS	<i>(to be pronounced "AY-TIS")</i> Automatic terminal information service	INCERFA	Uncertainty phase
AT-VASIS	<i>(to be pronounced "AY-TEE-VASIS")</i> Abbreviated T visual approach slope indicator system	INFO	Information
AVGAS	Aviation gasoline	LNAV	<i>(to be pronounced "EL-NAV")</i> Lateral navigation
BARO-VNAV	<i>(to be pronounced "BAA-RO-VEE-NAV")</i> Barometric vertical navigation	LORAN	LORAN <i>(long range air navigation system)</i>
BASE	Cloud base	MET	Meteorological <i>or</i> meteorology
CAVOK	<i>(to be pronounced "KAV-OH-KAY")</i> Visibility, cloud and present weather better than prescribed values or conditions	METAR	Aerodrome routine meteorological report <i>(in meteorological code)</i>
CIDIN	Common ICAO data interchange network	MOPS	Minimum operational performance standards
D-ATIS	<i>(to be pronounced "DEE-ATIS")</i> Data link automatic terminal information service	MSAS	<i>(to be pronounced "EM-SAS")</i> Multi-functional transport satellite (MTSAT) satellite-based augmentation system
DETRESFA	Distress phase	NASC	National AIS system centre
EFIS	<i>(to be pronounced "EE-FIS")</i> Electronic flight instrument system	NIL	None <i>or</i> I have nothing to send you
EGNOS	<i>(to be pronounced "EGG-NOS")</i> European geostationary navigation overlay service	NOSIG	No significant change <i>(used in trend-type landing forecasts)</i>
ELBA	Emergency location beacon — aircraft	NOTAM	Notice distributed by means of telecommunication containing information concerning the establishment, conditions or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations

OLDI	On-line data interchange	SPECI	Aerodrome special meteorological report ( <i>in meteorological code</i> )
OPMET	Operational meteorological ( <i>information</i> )	SPECIAL	Local special meteorological report ( <i>in abbreviated plain language</i> )
OPS	Operations	SPOT	Spot wind
PAPI	Precision approach path indicator	STAR	Standard instrument arrival
PROB	Probability		
RAIM	Receiver autonomous integrity monitoring	TACAN	UHF tactical air navigation aid
RASC	Regional AIS system centre	TAF	Aerodrome forecast ( <i>in meteorological code</i> )
RIME	Rime ( <i>used in aerodrome warnings</i> )	TAIL	Tail wind
RNAV	( <i>to be pronounced "AR-NAV"</i> ) Area navigation	TCAS RA	( <i>to be pronounced "TEE-CAS-AR-AY"</i> ) Traffic alert and collision avoidance system resolution advisory
ROBEX	Regional OPMET bulletin exchange ( <i>scheme</i> )	TEMPO	Temporary <i>or</i> temporarily
SATCOM	Satellite communication ( <i>used only when referring generally to both voice and data satellite communication or only data satellite communication</i> )	TIBA	Traffic information broadcast by aircraft
SATVOICE	Satellite voice communication	TIL	Until
SBAS	( <i>to be pronounced "ESS-BAS"</i> ) Satellite-based augmentation system	TOP	Cloud top
SELCAL	Selective calling system	TREND	Trend forecast
SID	Standard instrument departure	TSUNAMI	Tsunami ( <i>used in aerodrome warnings</i> )
SIGMET	Information concerning en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations	T-VASIS	( <i>to be pronounced "TEE-VASIS"</i> ) T visual approach slope indicator system
SNOWTAM	Special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format	VNAV	( <i>to be pronounced "VEE-NAV"</i> ) Vertical navigation
		VOLMET	Meteorological information for aircraft in flight
		VORTAC	VOR and TACAN combination
		WAAS	Wide area augmentation system
		WILCO	Will comply

## ABBREVIATIONS AND TERMS TO BE TRANSMITTED AS SPOKEN WORDS WHEN USED IN RADIOTELEPHONY

### ENCODE

Abbreviated precision approach path indicator ( <i>to be pronounced "AY-PAPI"</i> )	APAPI	European geostationary navigation overlay service ( <i>to be pronounced "EGG-NOS"</i> )	EGNOS
Abbreviated T visual approach slope indicator system ( <i>to be pronounced "AY-TEE-VASIS"</i> )	AT-VASIS	Front ( <i>relating to weather</i> )	FRONT
Aerodrome forecast ( <i>in meteorological code</i> )	TAF	Frost ( <i>used in aerodrome warnings</i> )	FROST
Aerodrome routine meteorological report ( <i>in meteorological code</i> )	METAR	Global navigation satellite system ( <i>to be pronounced "GLO-NAS"</i> )	GLONASS
Aerodrome special meteorological report ( <i>in meteorological code</i> )	SPECI	GPS and geostationary earth orbit augmented navigation	GAGAN
Airborne collision avoidance system ( <i>to be pronounced "AY-CAS"</i> )	ACAS	Ground-based augmentation system ( <i>to be pronounced "GEE-BAS"</i> )	GBAS
Aircraft communication addressing and reporting system ( <i>to be pronounced "AY-CARS"</i> )	ACARS	Ground-based regional augmentation system ( <i>to be pronounced "GRASS"</i> )	GRAS
Air defence identification zone ( <i>to be pronounced "AY-DIZ"</i> )	ADIZ	Identification Information	IDENT INFO
Air-report	AIREP	Information concerning en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations	SIGMET
Alert phase	ALERFA	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations	AIRMET
Area navigation ( <i>to be pronounced "AR-NAV"</i> )	RNAV	Lateral navigation ( <i>to be pronounced "EL-NAV"</i> )	LNAV
Automatic terminal information service ( <i>to be pronounced "AY-TIS"</i> )	ATIS	Local special meteorological report ( <i>in abbreviated plain language</i> )	SPECIAL
Aviation gasoline	AVGAS	LORAN ( <i>long range air navigation system</i> )	LORAN
Barometric vertical navigation ( <i>to be pronounced "BAA-RO-VEE-NAV"</i> )	BARO-VNAV	Meteorological or meteorology	MET
Cloud base	BASE	Meteorological information for aircraft in flight	VOLMET
Cloud top	TOP	Minimum operational performance standards	MOPS
Common ICAO data interchange network	CIDIN	Multi-functional transport satellite (MTSAT) satellite-based augmentation system ( <i>to be pronounced "EM-SAS"</i> )	MSAS
Data link automatic terminal information service ( <i>to be pronounced "DEE-ATIS"</i> )	D-ATIS	National AIS system centre	NASC
Distress phase	DETRESFA		
Electronic flight instrument system ( <i>to be pronounced "EE-FIS"</i> )	EFIS		
Emergency location beacon — aircraft	ELBA		

None <i>or</i> I have nothing to send you	NIL	Special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format	SNOWTAM
No significant change ( <i>used in trend-type landing forecasts</i> )	NOSIG	Spot wind	SPOT
Notice distributed by means of telecommunication containing information concerning the establishment, conditions or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations	NOTAM	Standard instrument arrival	STAR
		Standard instrument departure	SID
		Tail wind	TAIL
		Temporary <i>or</i> temporarily	TEMPO
On-line data interchange	OLDI	Traffic alert and collision avoidance system resolution advisory ( <i>to be pronounced "TEE-CAS-AR-AY"</i> )	TCAS RA
Operational meteorological ( <i>information</i> )	OPMET	Traffic information broadcast by aircraft	TIBA
Operations	OPS	Trend forecast	TREND
Precision approach path indicator	PAPI	Tsunami ( <i>used in aerodrome warnings</i> )	TSUNAMI
Probability	PROB	T visual approach slope indicator system ( <i>to be pronounced "TEE-VASIS"</i> )	T-VASIS
Receiver autonomous integrity monitoring	RAIM	UHF tactical air navigation aid	TACAN
Regional AIS system centre	RASC	Uncertainty phase	INCERFA
Regional OPMET bulletin exchange ( <i>scheme</i> )	ROBEX	Until	TIL
Rime ( <i>used in aerodrome warnings</i> )	RIME	Vertical navigation ( <i>to be pronounced "VEE-NAV"</i> )	VNAV
Satellite-based augmentation system ( <i>to be pronounced "ESS-BAS"</i> )	SBAS	Visibility, cloud and present weather better than prescribed values or conditions ( <i>to be pronounced "KAV-OH-KAY"</i> )	CAVOK
Satellite communication ( <i>used only when referring generally to both voice and data satellite communication or only data satellite communication</i> )	SATCOM	VOR and TACAN combination	VORTAC
Satellite voice communication	SATVOICE	Wide area augmentation system	WAAS
Selective calling system	SELCAL	Will comply	WILCO

**ABBREVIATIONS AND TERMS TO BE TRANSMITTED USING  
THE INDIVIDUAL LETTERS IN NON-PHONETIC FORM  
WHEN USED IN RADIOTELEPHONY**

**DECODE**

ACC	Area control centre <i>or</i> area control	MLS	Microwave landing system
ADF	Automatic direction-finding equipment	NDB	Non-directional radio beacon
ADS-B	Automatic dependent surveillance — broadcast	NOZ	Normal operating zone
ADS-C	Automatic dependent surveillance — contract	NTZ	No transgression zone
AFTN	Aeronautical fixed telecommunication network	PAR	Precision approach radar
ATA	Actual time of arrival	PDC	Pre-departure clearance
ATC	Air traffic control ( <i>in general</i> )	PSR	Primary surveillance radar
ATD	Actual time of departure	QDM	Magnetic heading ( <i>zero wind</i> )
CB	( <i>to be pronounced “CEE BEE”</i> ) Cumulonimbus	QFE	Atmospheric pressure at aerodrome elevation ( <i>or at runway threshold</i> )
CPDLC	Controller-pilot data link communications	QNH	Altimeter sub-scale setting to obtain elevation when on the ground
DME	Distance measuring equipment	RCP	Required communication performance
ETA	Estimated time of arrival <i>or</i> estimating arrival	RNP	Required navigation performance
ETD	Estimated time of departure <i>or</i> estimating departure	RPI	Radar position indicator
FIR	Flight information region	RSP	Required surveillance performance
FMS	Flight management system	RVR	Runway visual range
GCA	Ground controlled approach system <i>or</i> ground controlled approach	RVSM	Reduced vertical separation minimum [300 m (1 000 ft) between FL 290 and FL 410]
GLS	GBAS landing system	SSR	Secondary surveillance radar
GNSS	Global navigation satellite system	TMA	Terminal control area
GPS	Global positioning system	UHF	Ultra high frequency [300 to 3 000 MHz]
GPWS	Ground proximity warning system	UIR	Upper flight information region
HF	High frequency [3 000 to 30 000 kHz]	UTC	Coordinated universal time
IFR	Instrument flight rules	VFR	Visual flight rules
ILS	Instrument landing system	VHF	Very high frequency [30 to 300 MHz]
IMC	Instrument meteorological conditions	VIP	Very important person
		VMC	Visual meteorological conditions
		VOR	VHF omnidirectional radio range



**ABBREVIATIONS AND TERMS TO BE TRANSMITTED USING  
THE INDIVIDUAL LETTERS IN NON-PHONETIC FORM  
WHEN USED IN RADIOTELEPHONY**

**ENCODE**

Actual time of arrival	ATA	High frequency [3 000 to 30 000 kHz]	HF
Actual time of departure	ATD		
Aeronautical fixed telecommunication network	AFTN	Instrument flight rules	IFR
Air traffic control ( <i>in general</i> )	ATC	Instrument landing system	ILS
Altimeter sub-scale setting to obtain elevation when on the ground	QNH	Instrument meteorological conditions	IMC
Area control centre <i>or</i> area control	ACC	Magnetic heading ( <i>zero wind</i> )	QDM
Atmospheric pressure at aerodrome elevation ( <i>or at runway threshold</i> )	QFE	Microwave landing system	MLS
Automatic dependent surveillance — broadcast	ADS-B	No transgression zone	NTZ
Automatic dependent surveillance — contract	ADS-C	Non-directional radio beacon	NDB
Automatic direction-finding equipment	ADF	Normal operating zone	NOZ
Controller-pilot data link communications	CPDLC	Precision approach radar	PAR
Coordinated universal time	UTC	Pre-departure clearance	PDC
Cumulonimbus ( <i>to be pronounced "CEE BEE"</i> )	CB	Primary surveillance radar	PSR
Distance measuring equipment	DME	Radar position indicator	RPI
Estimated time of arrival <i>or</i> estimating arrival	ETA	Reduced vertical separation minimum [300 m (1 000 ft) between FL 290 and FL 410]	RVSM
Estimated time of departure <i>or</i> estimating departure	ETD	Required communication performance	RCP
Flight information region	FIR	Required navigation performance	RNP
Flight management system	FMS	Required surveillance performance	RSP
GBAS landing system	GLS	Runway visual range	RVR
Global navigation satellite system	GNSS	Secondary surveillance radar	SSR
Global positioning system	GPS	Terminal control area	TMA
Ground controlled approach system <i>or</i> ground controlled approach	GCA	Ultra high frequency [300 to 3 000 MHz]	UHF
Ground proximity warning system	GPWS	Upper flight information region	UIR
		Very high frequency [30 to 300 MHz]	VHF
		Very important person	VIP
		VHF omnidirectional radio range	VOR
		Visual flight rules	VFR
		Visual meteorological conditions	VMC



## DESIGNATION OF TYPICAL RADIOCOMMUNICATION EMISSIONS

<i>Type of modulation of main carrier</i>	<i>Type of transmission</i>	<i>Supplementary characteristics</i>	<i>Abbre- viation</i>	
None	Continuous wave	—	NON	
Amplitude modulation	Telegraphy without the use of a modulating audio frequency (by on-off keying)	—	A1A	
	Telegraphy by the on-off keying of an amplitude-modulating audio frequency or audio frequencies, or by the on-off keying of the modulated emission (special case: an unkeyed emission amplitude modulated)	—	A2A	
	Telephony	Double sideband		A3A
		Single sideband, reduced carrier		R3E
		Single sideband, full carrier		H3E
		Single sideband, suppressed carrier		J3E
		Two independent sidebands containing quantized or digital information		B7E
		Two independent sidebands containing analogue information		B8E
	Facsimile (by sub-carrier frequency modulation)	—		A4
		Single sideband, reduced carrier		R3C
Single sideband, suppressed carrier			J3C	
Television		Vestigial sideband		C3F
Multichannel voice-frequency telegraphy		Single sideband, reduced carrier		R7B
Cases not covered by the above, e.g. a combination of telephony and telegraphy	Two independent sidebands		B9W	
Frequency (or phase) modulation	Telegraphy by frequency shift keying without the use of a modulating audio frequency: one of two frequencies being emitted at any instant	—	F1A	
	Telegraphy by the on-off keying of a frequency-modulating audio frequency or by the on-off keying of a frequency-modulated emission (special case: an unkeyed emission, frequency modulated)	—	F2A	
	Telephony	—	F3E	
	Facsimile by direct frequency modulation of the carrier	—	F1C	
	Television	—	F3F	
	Four-frequency duplex telegraphy	—	F7B	

<i>Type of modulation of main carrier</i>	<i>Type of transmission</i>	<i>Supplementary characteristics</i>	<i>Abbreviation</i>
Pulse modulation	A pulsed carrier without any modulation intended to carry information (e.g. radar)	—	P0N
	Telegraphy by the on-off keying of a pulsed carrier without the use of a modulating audio frequency	—	P1D
<p><i>Note.</i>— Emissions where the main character is directly modulated by a signal which has been coded into quantized form (e.g. pulse code modulation) should be designated by the appropriate emission under amplitude or frequency modulation, above.</p>			
	Cases not covered by the above in which the main carrier is pulse modulated		WXX

*Note.*— For additional assistance, see ITU Radio Regulations, *Appendix 1 and Recommendation ITU-R SM.1138.*

## SIGNAL REPORTING CODES

**Codes for use in the international aeronautical telecommunication service  
for the preparation of messages relating to monitoring,  
propagation disturbance and radio interference reports**

### Introduction

1. A signal report shall consist of the code word SINPO or SINPFEMO followed by a five- or eight-figure group respectively rating the five or eight characteristics of the signal code.
2. The letter X shall be used instead of a numeral for characteristics not rated.
3. Although the code word SINPFEMO is intended for telephony, either code word may be used for telegraphy or telephony as may be desired.

### SINPO signal reporting code

Rating scale	S	I	N	P	O
	Signal strength	<i>Degrading effect of</i>			Overall readability (QRK)
		Interference (QRM)	Noise (QRN)	Propagation disturbance	
5	Excellent	Nil	Nil	Nil	Excellent
4	Good	Slight	Slight	Slight	Good
3	Fair	Moderate	Moderate	Moderate	Fair
2	Poor	Severe	Severe	Severe	Poor
1	Barely audible	Extreme	Extreme	Extreme	Unusable

### SINPFEMO signal reporting code

Rating scale	S	I	N	P	F	E	M	O
	Signal strength	<i>Degrading effect of</i>			Frequency of fading	<i>Modulation</i>		Overall rating
		Interference (QRM)	Noise (QRN)	Propagation disturbance		Quality	Depth	
5	Excellent	Nil	Nil	Nil	Nil	Excellent	Maximum	Excellent
4	Good	Slight	Slight	Slight	Slow	Good	Good	Good
3	Fair	Moderate	Moderate	Moderate	Moderate	Fair	Fair	Fair
2	Poor	Severe	Severe	Severe	Fast	Poor	Poor or Nil	Poor
1	Barely audible	Extreme	Extreme	Extreme	Very fast	Very poor	Continuously overmodulated	Unusable



# THE NOTAM CODE

## PREFACE

(See 5.2.5.1.2 and Appendix 3 of the PANS-AIM.)

### 1. Introduction

The NOTAM Code is provided to enable the coding of information regarding the establishment, condition or change of radio aids, aerodromes and lighting facilities, dangers to aircraft, or search and rescue facilities. The NOTAM Code is a comprehensive description of information contained in NOTAM. It serves as an important criterion for storage and retrieval of information, as well as for deciding whether an item is of operational significance or not. It also establishes the relevance of the NOTAM to the various types of flight operations and determines whether it must therefore be part of a pre-flight information bulletin. In addition, it assists in specifying those items which are subject to immediate notification processes. The NOTAM Code also standardizes the presentation of the related plain-language text required at Item E) of the NOTAM Format as contained in Appendix 3 of the PANS-AIM. Thus, the NOTAM Code is the basis for determination of the qualifiers TRAFFIC, PURPOSE and SCOPE used in the Q (Qualifiers) line and the related text to appear in Item E) of the NOTAM Format.

### 2. Procedures

The transmission of NOTAM over the international aeronautical telecommunication service is governed by the appropriate sections of Annex 10, Volume II, Annex 15 and the PANS-AIM. The former contains information on the acceptability of and priority to be accorded to NOTAM for transmission over the aeronautical fixed service (AFS), the latter full instructions on the textual format and contents of NOTAM.

### 3. Composition

#### *General*

3.1 All NOTAM Code groups contain a total of five (5) letters. The first letter of the code group is always the letter Q to indicate that it is a code abbreviation for use in the composition of NOTAM. The letter Q has been chosen to avoid conflict with any assigned radio call sign.

3.2 The second and third letters identify the subject reported upon and the fourth and fifth letters denote its status of operation. The code identifying the subject or denoting its status of operation is, whenever possible, self-evident. Where more than one subject could be identified by the same self-evident code, the most important subject is chosen.

3.3 If the subject of the NOTAM is not listed in the NOTAM Code, insert "XX" as the second and third letters.

3.4 If the condition of the subject is not listed in the NOTAM Code, insert "XX" as the fourth and fifth letters.

3.5 When a NOTAM is issued containing a checklist of valid NOTAM, use KKKK as the second, third, fourth and fifth letters. When a NOTAM containing operationally significant information is issued in accordance with Chapter 6 of Annex 15 and Chapter 6 of the PANS-AIM, and when it is used to announce the existence of AIRAC AIP amendments or supplements (trigger NOTAM), insert "TT" as the fourth and fifth letters.

**Classification by subject (second and third letters)**

3.6 Facilities, services and other information which require coding have been classified by subject into sections and subsections. The second letter of the code group, which may be any letter of the alphabet except Q, indicates the subject subsections as follows:

*AGA (Aerodromes)*

.....	<u>L</u> IGHTING facilities	— L
.....	<u>M</u> OVEMENT and landing area	— M
.....	<u>F</u> ACILITIES and services	— F

*ATM (Air Traffic Management)*

.....	<u>A</u> IRSPACE organization	— A
.....	air traffic and VOLMET <u>S</u> ERVICES	— S
.....	air traffic <u>P</u> ROCEDURES	— P

*CNS (Communications, Navigation and Surveillance)*

.....	<u>C</u> OMMUNICATION and radar facilities	— C
.....	<u>I</u> NSTRUMENT and microwave landing systems	— I
.....	<u>G</u> NSS services	— G
.....	terminal and en-route <u>N</u> AVIGATION facilities	— N

*Navigation Warnings*

.....	airspace <u>R</u> ESTRICTIONS	— R
.....	<u>W</u> ARNINGS	— W

*Other Information*

.....	<u>O</u> THER information	— O
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**Classification by status (fourth and fifth letters)**

3.7 The fourth letter of the code group, which may be any letter of the alphabet except Q, indicates status subsections as follows:

A	<u>A</u> VAILABILITY
C	<u>C</u> HANGES
H	<u>H</u> AZARD conditions
L	<u>L</u> IMITATIONS
XX	Other

3.8 The following fourth and fifth letters of the NOTAM Code should be used in NOTAM cancellations:

- AK: RESUMED NORMAL OPERATION
- AL: OPERATIVE (OR REOPERATIVE) SUBJECT TO PREVIOUSLY PUBLISHED LIMITATIONS/CONDITIONS
- AO: OPERATIONAL
- CC: COMPLETED
- XX: PLAIN LANGUAGE

#### 4. Significations/uniform abbreviated phraseology

The significations/approved uniform abbreviated phraseology assigned to NOTAM Code groups, as required for use in Item E) of the NOTAM Format (PANS-AIM, Appendix 3), are to be amplified or completed where necessary by the addition of appropriate location indicators, name of station, geographical coordinates, abbreviations, frequencies, call signs, figures and plain language. ICAO abbreviations are to be used in preference to plain language wherever possible. In order to facilitate the dissemination of NOTAM by reducing the transmission time over telecommunication channels, eliminate translation and provide a suitable pre-flight information bulletin entry, the approved uniform abbreviated phraseology assigned to each signification of a two-letter combination in the NOTAM Code — Decode part is to be used in preference to significations wherever possible.

*Note.— In addition, to meet certain requirements, a State may wish to provide a translation of the approved uniform phraseology in another language.*

#### 5. Text in parentheses

The information necessary to complete a signification/uniform abbreviated phraseology, as indicated between parentheses, shall be given as applicable.

#### 6. Amplification of significations/uniform abbreviated phraseology

The following is applicable to amplification of significations/uniform abbreviated phraseology:

- a) amplifications relating to significations/uniform abbreviated phraseology of the second and third letters (subject of the NOTAM) must *precede* signification/uniform abbreviated phraseology of the NOTAM Code;
- b) amplifications relating to significations/uniform abbreviated phraseology of the fourth and fifth letters (status of operation) must *follow* signification/uniform abbreviated phraseology of the NOTAM Code.

*Examples (as applicable to Item E) of the NOTAM Format)*

- a) The touchdown zone lights of RWY 27 are not available due to power failure.

E) RWY 27 RTZL NOT AVBL DUE PWR FAILURE

- b) The taxiway edge lights of taxiway B are obscured by snow.  
E) TWY B EDGE LGT OBSC BY SN
- c) On the strip of RWY 09/27 snow banks to a height of 15 ft exist.  
E) RWY 09/27 STRIP SN BANKS HGT 15 FT
- d) The minimum sector altitude in the sector 90° to 180° inbound VOR ident DOM changed to 3 600 ft MSL.  
E) 90 TO 180 DEG INBD VOR DOM MSA CHANGED 3 600 FT MSL

## 7. Use of NOTAM Code groups

7.1 Five-letter NOTAM Code groups are to be used in conjunction with the NOTAM Format (Annex 15, 5.4.2.2 and PANS-AIM, 5.2.5.1.1 and Appendix 3). They also constitute the basis for determination of the qualifiers Traffic, Purpose and Scope. Both NOTAM Code groups and NOTAM qualifiers are to be inserted in the Q (Qualifiers) line of the NOTAM Format.

*Note.— The most commonly used NOTAM Code groups and their respective relation with the qualifiers Traffic, Purpose and Scope are presented in the NOTAM Selection Criteria tables (Doc 8126 — Aeronautical Information Services Manual, Appendix B to Chapter 6).*

7.2 Five-letter NOTAM Code groups are formed in the following manner:

### FIRST LETTER

The letter Q (see 3.1).

### SECOND AND THIRD LETTERS

The appropriate combination of two letters selected from the *Second and Third Letters* section of the NOTAM Code to identify the facility, service or danger to aircraft being reported upon. (See 3.3, 3.5 and 3.6.)

### FOURTH AND FIFTH LETTERS

The appropriate combination of two letters selected from the *Fourth and Fifth Letters* section of the NOTAM Code to denote the status of operation of the facility, service or danger to aircraft reported upon. (See 3.4, 3.5 and 3.7.)

### Examples

*Note.— In the examples of NOTAM below, the letters Q to G inclusive, each followed by a closing parenthesis, identify an item in the NOTAM Format (PANS-AIM, Appendix 3).*

- a) The distance measuring equipment (DME), at Paris/Orly, will not be available from the 31st day of March 1992 at 2359 UTC until the 1st day of April 1992 at 0600 UTC.

*NOTAM:*

Q) LFFF/QNDAU/IV/BO/AE/ . . .  
 A) LFPO B) 9203312359 C) 9204010600  
 E) DME NOT AVBL

*Meaning of NOTAM:*

## Item Q):

- LFFF: ICAO location indicator identifying Paris FIR in which the facility reported on is located;
- QNDAU: The letter “Q” identifies the five-letter code group as the NOTAM Code group. Second and third letters “ND” identifying “distance measuring equipment” and fourth and fifth letters “AU” denoting that the facility is “not available”;
- IV: Letters identifying that the information affects both IFR and VFR traffic;
- BO: Letters identifying that NOTAM is selected for pre-flight information bulletins entry and that it is operationally significant information for IFR flights;
- AE: Letters identifying that facility is serving a dual purpose as terminal and en-route aid.

## Item A):

- LFPO: ICAO location indicator identifying Paris/Orly, the location of the facility being reported on.

## Item B):

- 9203312359: Date/time group of the beginning of the period of validity in which the facility is not available.

## Item C):

- 9204010600: Date/time group of the end of the period of validity in which the facility is not available.

## Item E):

- DME NOT AVBL: Plain-language entry using ICAO abbreviations.

- b) With immediate effect, the VHF omnidirectional radio range on frequency 116.9 MHz at New York/La Guardia will be out of service until approximately the 13th day of November 1992 at 0900 UTC.

*NOTAM:*

Q) KZWY/QNVAS/IV/BO/AE/ . . .  
 A) KLG A B) 9211020615 C) 9211130900 EST  
 E) 116.9 MHz VOR U/S

*Note.— In the above example, the amplification (i.e. VOR frequency 116.9 MHz) relating to the second and third letters precedes the NOTAM Code signification.*

- c) Runway 30 at Stockholm/Bromma is permanently closed for VFR operations.

*NOTAM:*

- Q) ESOS/QMRLV/V/NB/A/ . . .  
A) ESSB B) 9210221430 C) PERM  
E) RWY 30 CLSD TO VFR OPS

- d) The VHF omnidirectional radio range on frequency 116.30 MHz station VOZICE in PRAHA FIR will be out of service from the 10th day of November 1992 at 0800 UTC until the 13th day of November 1992 at 0900 UTC.

*NOTAM:*

- Q) LKAA/QNVAS/IV/BO/E/ . . .  
A) LKAA B) 9211100800 C) 9211130900  
E) VOZ 116.30 MHZ VOR U/S

*Note.— In the above example, the amplification (i.e. station identification VOZ and VOR frequency 116.30 MHz) relating to the second and third letters precedes the NOTAM Code signification.*

- e) In the Montreal FIR, gun firing will take place on the 21st day of February 1993 from 0800 UTC until 1100 UTC within an area of 10 NM radius around the location 45°37' North, 74°00' West from the surface up to an altitude of 6 100 m (20 000 ft) MSL.

*NOTAM:*

- Q) CZUL/QWMLW/IV/BO/W/000/200/4537N07400W010  
A) CZUL B) 9302210800 C) 9302211100  
E) GUN FRNG WILL TAKE PLACE RADIUS 10 NM AROUND 4537N07400W  
F) SFC G) 6100 M (20000 FT) MSL

# THE NOTAM CODE — DECODE

## SECOND AND THIRD LETTERS

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
AGA		
Lighting facilities (L)		
LA	Approach lighting system ( <i>specify runway and type</i> )	als
LB	Aerodrome beacon	abn
LC	Runway centre line lights ( <i>specify runway</i> )	rell
LD	Landing direction indicator lights	ldi lgt
LE	Runway edge lights ( <i>specify runway</i> )	redl
LF	Sequenced flashing lights ( <i>specify runway</i> )	sequenced flg lgt
LG	Pilot-controlled lighting	pcl
LH	High intensity runway lights ( <i>specify runway</i> )	high intst rwy lgt
LI	Runway end identifier lights ( <i>specify runway</i> )	rwy end id lgt
LJ	Runway alignment indicator lights ( <i>specify runway</i> )	rai lgt
LK	Category II components of approach lighting system ( <i>specify runway</i> )	cat II components als
LL	Low intensity runway lights ( <i>specify runway</i> )	low intst rwy lgt
LM	Medium intensity runway lights ( <i>specify runway</i> )	medium intst rwy lgt
LP	Precision approach path indicator ( <i>specify runway</i> )	papi
LR	All landing area lighting facilities	ldg area lgt fac
LS	Stopway lights ( <i>specify runway</i> )	stwl
LT	Threshold lights ( <i>specify runway</i> )	thr lgt
LU	Helicopter approach path indicator	hapi
LV	Visual approach slope indicator system ( <i>specify type and runway</i> )	vasis
LW	Heliport lighting	heliport lgt
LX	Taxiway centre line lights ( <i>specify taxiway</i> )	twy cl lgt
LY	Taxiway edge lights ( <i>specify taxiway</i> )	twy edge lgt
LZ	Runway touchdown zone lights ( <i>specify runway</i> )	rtzl
AGA		
Movement and landing area (M)		
MA	Movement area	mov area
MB	Bearing strength ( <i>specify part of landing area or movement area</i> )	bearing strength
MC	Clearway ( <i>specify runway</i> )	cwy
MD	Declared distances ( <i>specify runway</i> )	declared dist
MG	Taxiing guidance system	tgs
MH	Runway arresting gear ( <i>specify runway</i> )	rag
MK	Parking area	prkg area
MM	Daylight markings ( <i>specify threshold, centre line, etc.</i> )	day markings
MN	Apron	apron
MO	Stopbar ( <i>specify taxiway</i> )	stopbar
MP	Aircraft stands ( <i>specify</i> )	acft stand
MR	Runway ( <i>specify runway</i> )	rwy
MS	Stopway ( <i>specify runway</i> )	swy

Code	Signification	Uniform abbreviated phraseology
MT	Threshold ( <i>specify runway</i> )	thr
MU	Runway turning bay ( <i>specify runway</i> )	rwyt turning bay
MW	Strip/shoulder ( <i>specify runway</i> )	strip/shoulder
MX	Taxiway(s) ( <i>specify</i> )	twy
MY	Rapid exit taxiway ( <i>specify</i> )	rapid exit twy
AGA		
Facilities and services (F)		
FA	Aerodrome	ad
FB	Friction measuring device ( <i>specify type</i> )	friction measuring device
FC	Ceiling measurement equipment	ceiling measurement eqpt
FD	Docking system ( <i>specify AGNIS, BOLDS, etc.</i> )	dckg system
FE	Oxygen ( <i>specify type</i> )	oxygen
FF	Firefighting and rescue	fire and rescue
FG	Ground movement control	gnd mov ctl
FH	Helicopter alighting area/platform	hel alighting area
FI	Aircraft de-icing ( <i>specify</i> )	acft de-ice
FJ	Oils ( <i>specify type</i> )	oil
FL	Landing direction indicator	ldi
FM	Meteorological service ( <i>specify type</i> )	met
FO	Fog dispersal system	fg dispersal
FP	Heliport	heliport
FS	Snow removal equipment	sn removal eqpt
FT	Transmissometer ( <i>specify runway and, where applicable, designator(s) of transmissometer(s)</i> )	transmissometer
FU	Fuel availability	fuel avbl
FW	Wind direction indicator	wdi
FZ	Customs/immigration	cust/immigration
ATM		
Airspace organization (A)		
AA	Minimum altitude ( <i>specify en-route/crossing/safe</i> )	min alt
AC	Control zone	ctr
AD	Air defence identification zone	adiz
AE	Control area	cta
AF	Flight information region	fir
AH	Upper control area	uta
AL	Minimum usable flight level	min usable fl
AN	Area navigation route	rnav rte
AO	Oceanic control area	oca
AP	Reporting point ( <i>specify name or coded designator</i> )	rep
AR	ATS route ( <i>specify</i> )	ats rte
AT	Terminal control area	tma
AU	Upper flight information region	uir
AV	Upper advisory area	uda
AX	Significant point	sig
AZ	Aerodrome traffic zone	atz

Code	Signification	Uniform abbreviated phraseology
ATM		
Air traffic and VOLMET services (S)		
SA	Automatic terminal information service	atis
SB	ATS reporting office	aro
SC	Area control centre	acc
SE	Flight information service	fis
SF	Aerodrome flight information service	afis
SL	Flow control centre	flow ctl centre
SO	Oceanic area control centre	oac
SP	Approach control service	app
SS	Flight service station	fss
ST	Aerodrome control tower	twr
SU	Upper area control centre	uac
SV	VOLMET broadcast	volmet
SY	Upper advisory service ( <i>specify</i> )	upper advisory ser
ATM		
Air traffic procedures (P)		
PA	Standard instrument arrival ( <i>specify route designator</i> )	star
PB	Standard VFR arrival	std vfr arr
PC	Contingency procedures	contingency proc
PD	Standard instrument departure ( <i>specify route designator</i> )	sid
PE	Standard VFR departure	std vfr dep
PF	Flow control procedure	flow ctl proc
PH	Holding procedure	hldg proc
PI	Instrument approach procedure ( <i>specify type and runway</i> )	instr apch proc
PK	VFR approach procedure	vfr apch proc
PL	Flight plan processing, filing and related contingency	fpl
PM	Aerodrome operating minima ( <i>specify procedure and amended minimum</i> )	opr minima
PN	Noise operating restrictions	noise opr restrictions
PO	Obstacle clearance altitude and height ( <i>specify procedure</i> )	oca och
PR	Radio failure procedure	rdo failure proc
PT	Transition altitude or transition level ( <i>specify</i> )	ta/trl
PU	Missed approach procedure ( <i>specify runway</i> )	missed apch proc
PX	Minimum holding altitude ( <i>specify fix</i> )	mmn hldg alt
PZ	ADIZ procedure	adiz proc
CNS		
Communications and surveillance facilities (C)		
CA	Air/ground facility ( <i>specify service and frequency</i> )	a/g fac
CB	Automatic dependent surveillance — broadcast ( <i>details</i> )	ads-b
CC	Automatic dependent surveillance — contract ( <i>details</i> )	ads-c
CD	Controller-pilot data link communications ( <i>details</i> )	cpdcl
CE	En-route surveillance radar	rsr
CG	Ground controlled approach system	gca
CL	Selective calling system	selcal

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
CM	Surface movement radar	smr
CP	Precision approach radar ( <i>specify runway</i> )	par
CR	Surveillance radar element of precision approach radar system ( <i>specify wavelength</i> )	sre
CS	Secondary surveillance radar	ssr
CT	Terminal area surveillance radar	tar
CNS		
Instrument and microwave landing systems (I)		
IC	Instrument landing system ( <i>specify runway</i> )	ils
ID	DME associated with ILS	ils dme
IG	Glide path (ILS) ( <i>specify runway</i> )	ils gp
II	Inner marker (ILS) ( <i>specify runway</i> )	ils im
IL	Localizer (ILS) ( <i>specify runway</i> )	ils llz
IM	Middle marker (ILS) ( <i>specify runway</i> )	ils mm
IN	Localizer ( <i>not associated with ILS</i> )	llz
IO	Outer marker (ILS) ( <i>specify runway</i> )	ils om
IS	ILS Category I ( <i>specify runway</i> )	ils cat I
IT	ILS Category II ( <i>specify runway</i> )	ils cat II
IU	ILS Category III ( <i>specify runway</i> )	ils cat III
IW	Microwave landing system ( <i>specify runway</i> )	mls
IX	Locator, outer (ILS) ( <i>specify runway</i> )	ils lo
IY	Locator, middle (ILS) ( <i>specify runway</i> )	ils lm
CNS		
GNSS services (G)		
GA	GNSS airfield-specific operations ( <i>specify operation</i> )	gnss airfield
GW	GNSS area-wide operations ( <i>specify operation</i> )	gnss area
CNS		
Terminal and en-route navigation facilities (N)		
NA	All radio navigation facilities (except . . .)	all rdo nav fac
NB	Non-directional radio beacon	ndb
NC	DECCA	decca
ND	Distance measuring equipment	dme
NF	Fan marker	fan mkr
NL	Locator ( <i>specify identification</i> )	l
NM	VOR/DME	vor/dme
NN	TACAN	tacan
NO	OMEGA	omega
NT	VORTAC	vortac
NV	VOR	vor
NX	Direction-finding station ( <i>specify type and frequency</i> )	df

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
Navigation Warnings		
Airspace restrictions (R)		
RA	Airspace reservation ( <i>specify</i> )	airspace reservation
RD	Danger area ( <i>specify</i> )	. . d . .
RM	Military operating area	moa
RO	Overflying of . . . ( <i>specify</i> )	overflying
RP	Prohibited area ( <i>specify</i> )	. . p . .
RR	Restricted area	. . r . .
RT	Temporary restricted area ( <i>specify area</i> )	tempo restricted area
Navigation Warnings		
Warnings (W)		
WA	Air display	air display
WB	Aerobatics	aerobatics
WC	Captive balloon or kite	captive balloon/kite
WD	Demolition of explosives	demolition of explosives
WE	Exercises ( <i>specify</i> )	exer
WF	Air refuelling	air refuelling
WG	Glider flying, paragliding or hang gliding	gld fly/paragliding/hang gliding
WH	Blasting	blasting
WJ	Banner/target towing	banner/target towing
WL	Ascent of free balloon	ascent of free balloon
WM	Missile, gun or rocket firing	missile/gun/rocket/frng
WP	Parachute jumping exercise	pje
WR	Radioactive materials or toxic chemicals ( <i>specify</i> )	radioactive materials/toxic chemicals
WS	Burning or blowing gas	burning/blowing gas
WT	Mass movement of aircraft	mass mov of acft
WU	Unmanned aircraft	ua
WV	Formation flight	formation flt
WW	Significant volcanic activity	significant volcanic act
WY	Aerial survey	aerial survey
WZ	Model flying	model fly
Other Information (O)		
OA	Aeronautical information service	ais
OB	Obstacle ( <i>specify details</i> )	obst
OE	Aircraft entry requirements	acft entry rqmnts
OL	Obstacle lights on . . . ( <i>specify</i> )	obst lgt
OR	Rescue coordination centre	rcc

# THE NOTAM CODE — DECODE

## FOURTH AND FIFTH LETTERS

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
Availability (A)		
AC	Withdrawn for maintenance	withdrawn maint
AD	Available for daylight operation	avbl day ops
AF	Flight checked and found reliable	fltck okay
AG	Operating but ground checked only, awaiting flight check	opr but gnd ck only, awaiting fltck
AH	Hours of service are now . . . ( <i>specify</i> )	hr ser
AK	Resumed normal operation	okay
AL	Operative ( <i>or reoperative</i> ) subject to previously published limitations/ conditions	opr subj previous cond
AM	Military operations only	mil ops only
AN	Available for night operation	avbl ngt ops
AO	Operational	opr
AP	Available, prior permission required	avbl, ppr
AR	Available on request	avbl o/r
AS	Unserviceable	u/s
AU	Not available ( <i>specify reason if appropriate</i> )	not avbl
AW	Completely withdrawn	withdrawn
AX	Previously promulgated shutdown has been cancelled	promulgated shutdown cnl
Changes (C)		
CA	Activated	act
CC	Completed	cmpl
CD	Deactivated	deactivated
CE	Erected	erected
CF	Operating frequency(ies) changed to	opr freq changed to
CG	Downgraded to	downgraded to
CH	Changed	changed
CI	Identification or radio call sign changed to	ident/rdo call sign changed to
CL	Realigned	realigned
CM	Displaced	displaced
CN	Cancelled	cnl
CO	Operating	opr
CP	Operating on reduced power	opr reduced pwr
CR	Temporarily replaced by	tempo rplcd by
CS	Installed	instl
CT	On test, do not use	on test, do not use

Code	Signification	Uniform abbreviated phraseology
Hazard Conditions (H)		
HA	Braking action is . . . 1) Poor 2) Medium/Poor 3) Medium 4) Medium/Good 5) Good	ba is...
HB	Friction coefficient is . . . ( <i>specify friction measuring device used</i> )	friction coefficient is
HC	Covered by compacted snow to a depth of	cov compacted sn depth
HD	Covered by dry snow to a depth of	cov dry sn depth
HE	Covered by water to a depth of	cov water depth
HF	Totally free of snow and ice	free of sn and ice
HG	Grass cutting in progress	grass cutting inpr
HH	Hazard due to ( <i>specify</i> )	hazard due
HI	Covered by ice	cov ice
HJ	Launch planned . . . ( <i>specify balloon flight identification or project code name, launch site, planned period of launch(es) — date/time, expected climb direction, estimated time to pass 18 000 m (60 000 ft), or reaching cruise level if at or below 18 000 m (60 000 ft), together with estimated location</i> )	launch plan
HK	Bird migration in progress ( <i>specify direction</i> )	bird migration inpr
HL	Snow clearance completed	sn clr cml
HM	Marked by	marked by
HN	Covered by wet snow or slush to a depth of	cov wet sn/slush depth
HO	Obscured by snow	obscured by sn
HP	Snow clearance in progress	sn clr inpr
HQ	Operation cancelled . . . ( <i>specify balloon flight identification or project code name</i> )	opr cnl
HR	Standing water	standing water
HS	Sanding in progress	sanding inpr
HT	Approach according to signal area only	apch according signal
HU	Launch in progress . . . ( <i>specify balloon flight identification or project code name, launch site, date/time of launch(es), estimated time passing 18 000 m (60 000 ft), or reaching cruising level if at or below 18 000 m (60 000 ft), together with estimated location, estimated date/time of termination of the flight and planned location of ground contact, when applicable</i> )	launch inpr
HV	Work completed	work cml
HW	Work in progress	wip
HX	Concentration of birds	bird concentration
HY	Snow banks exist ( <i>specify height</i> )	sn banks hgt
HZ	Covered by frozen ruts and ridges	cov frozen ruts and ridges

<i>Code</i>	<i>Signification</i>	<i>Uniform abbreviated phraseology</i>
<b>Limitations (L)</b>		
LA	Operating on auxiliary power supply	opr aux pwr
LB	Reserved for aircraft based therein	reserved for acft based therein
LC	Closed	clsd
LD	Unsafe	unsafe
LE	Operating without auxiliary power supply	opr aux wo pwr
LF	Interference from	interference fm
LG	Operating without identification	opr wo ident
LH	Unserviceable for aircraft heavier than	u/s acft heavier than
LI	Closed to IFR operations	clsd ifr ops
LK	Operating as a fixed light	opr as f lgt
LL	Usable for length of . . . and width of . . .	usable len.../wid...
LN	Closed to all night operations	clsd to all ngt ops
LP	Prohibited to	prohibited to
LR	Aircraft restricted to runways and taxiways	acft restricted to rwy and twy
LS	Subject to interruption	subj intrp
LT	Limited to	ltd to
LV	Closed to VFR operations	clsd vfr ops
LW	Will take place	will take place
LX	Operating but caution advised due to	opr but ctn advised due to
<b>Other (XX)</b>		
XX	Plain language	

# THE NOTAM CODE — ENCODE

## SECOND AND THIRD LETTERS

<i>Signification</i>	<i>Code</i>		<i>Signification</i>	<i>Code</i>
AGA			Movement area	MA
Lighting facilities (L)			Parking area	MK
Aerodrome beacon	LB		Rapid exit taxiway ( <i>specify</i> )	MY
All landing area lighting facilities	LR		Runway ( <i>specify runway</i> )	MR
Approach lighting system ( <i>specify runway and type</i> )	LA		Runway arresting gear ( <i>specify runway</i> )	MH
Category II components of approach lighting system ( <i>specify runway</i> )	LK		Runway turning bay ( <i>specify runway</i> )	MU
Helicopter approach path indicator	LU		Stopbar ( <i>specify taxiway</i> )	MO
Heliport lighting	LW		Stopway ( <i>specify runway</i> )	MS
High intensity runway lights ( <i>specify runway</i> )	LH		Strip/shoulder ( <i>specify runway</i> )	MW
Landing direction indicator lights	LD		Taxiing guidance system	MG
Low intensity runway lights ( <i>specify runway</i> )	LL		Taxiway(s) ( <i>specify</i> )	MX
Medium intensity runway lights ( <i>specify runway</i> )	LM		Threshold ( <i>specify runway</i> )	MT
Pilot-controlled lighting	LG		AGA	
Precision approach path indicator ( <i>specify runway</i> )	LP		Facilities and services (F)	
Runway alignment indicator lights ( <i>specify runway</i> )	LJ		Aerodrome	FA
Runway centre line lights ( <i>specify runway</i> )	LC		Aircraft de-icing ( <i>specify</i> )	FI
Runway edge lights ( <i>specify runway</i> )	LE		Ceiling measurement equipment	FC
Runway end identifier lights ( <i>specify runway</i> )	LI		Customs/immigration	FZ
Runway touchdown zone lights ( <i>specify runway</i> )	LZ		Docking system ( <i>specify AGNIS, BOLDS, etc.</i> )	FD
Sequenced flashing lights ( <i>specify runway</i> )	LF		Firefighting and rescue	FF
Stopway lights ( <i>specify runway</i> )	LS		Fog dispersal system	FO
Taxiway centre line lights ( <i>specify taxiway</i> )	LX		Friction measuring device ( <i>specify type</i> )	FB
Taxiway edge lights ( <i>specify taxiway</i> )	LY		Fuel availability	FU
Threshold lights ( <i>specify runway</i> )	LT		Ground movement control	FG
Visual approach slope indicator system ( <i>specify type and runway</i> )	LV		Helicopter alighting area/platform	FH
AGA			Heliport	FP
Movement and landing area (M)			Landing direction indicator	FL
Aircraft stands ( <i>specify</i> )	MP		Meteorological service ( <i>specify type</i> )	FM
Apron	MN		Oils ( <i>specify type</i> )	FJ
Bearing strength ( <i>specify part of landing area or movement area</i> )	MB		Oxygen ( <i>specify type</i> )	FE
Clearway ( <i>specify runway</i> )	MC		Snow removal equipment	FS
Daylight markings ( <i>specify threshold, centre line, etc.</i> )	MM		Transmissometer ( <i>specify runway and, where applicable, designator(s) of transmissometer(s)</i> )	FT
Declared distances ( <i>specify runway</i> )	MD		Wind direction indicator	FW
			ATM	
			Airspace organization (A)	
			Aerodrome traffic zone	AZ
			Air defence identification zone	AD

Signification	Code	Signification	Code
Area navigation route	AN	Obstacle clearance altitude and height	PO
ATS route ( <i>specify</i> )	AR	( <i>specify procedure</i> )	
Control area	AE	Radio failure procedure	PR
Control zone	AC	Standard instrument arrival	PA
Flight information region	AF	( <i>specify route designator</i> )	
Minimum altitude ( <i>specify en-route/crossing/safe</i> )	AA	Standard instrument departure	PD
Minimum usable flight level	AL	( <i>specify route designator</i> )	
Oceanic control area	AO	Standard VFR arrival	PB
Reporting point ( <i>specify name or coded designator</i> )	AP	Standard VFR departure	PE
Significant point	AX	Transition altitude or transition level ( <i>specify</i> )	PT
Terminal control area	AT	VFR approach procedure	PK
Upper advisory area	AV		
Upper control area	AH	CNS	
Upper flight information region	AU	Communications and surveillance facilities (C)	
		Air/ground facility ( <i>specify service and frequency</i> )	CA
ATM		Automatic dependent surveillance — broadcast	CB
Air traffic and VOLMET services (S)		( <i>details</i> )	
		Automatic dependent surveillance — contract	CC
Aerodrome control tower	ST	( <i>details</i> )	
Aerodrome flight information service	SF	Controller-pilot data link communications	CD
Approach control service	SP	( <i>details</i> )	
Area control centre	SC	En-route surveillance radar	CE
ATS reporting office	SB	Ground controlled approach system	CG
Automatic terminal information service	SA	Precision approach radar ( <i>specify runway</i> )	CP
Flight information service	SE	Secondary surveillance radar	CS
Flight service station	SS	Selective calling system	CL
Flow control centre	SL	Surface movement radar	CM
Oceanic area control centre	SO	Surveillance radar element of precision approach radar system ( <i>specify wavelength</i> )	CR
Upper advisory service ( <i>specify</i> )	SY	Terminal area surveillance radar	CT
Upper area control centre	SU		
VOLMET broadcast	SV	CNS	
		GNSS services (G)	
ATM		GNSS airfield-specific operations	GA
Air traffic procedures (P)		( <i>specify operation</i> )	
ADIZ procedure	PZ	GNSS area-wide operations ( <i>specify operation</i> )	GW
Aerodrome operating minima ( <i>specify procedure and amended minimum</i> )	PM		
Contingency procedures	PC	CNS	
Flight plan processing, filing and related contingency	PL	Instrument and microwave landing systems (I)	
Flow control procedure	PF	DME associated with ILS	ID
Holding procedure	PH	Glide path (ILS) ( <i>specify runway</i> )	IG
Instrument approach procedure ( <i>specify type and runway</i> )	PI	ILS Category I ( <i>specify runway</i> )	IS
Minimum holding altitude ( <i>specify fix</i> )	PX	ILS Category II ( <i>specify runway</i> )	IT
Missed approach procedure ( <i>specify runway</i> )	PU	ILS Category III ( <i>specify runway</i> )	IU
Noise operating restrictions	PN	Inner marker (ILS) ( <i>specify runway</i> )	II
		Instrument landing system ( <i>specify runway</i> )	IC

Signification	Code	Signification	Code
Localizer (ILS) ( <i>specify runway</i> )	IL	Navigation Warnings	
Localizer ( <i>not associated with ILS</i> )	IN	Warnings (W)	
Locator, middle (ILS) ( <i>specify runway</i> )	IY		
Locator, outer (ILS) ( <i>specify runway</i> )	IX	Aerial survey	WY
Microwave landing system ( <i>specify runway</i> )	IW	Aerobatics	WB
Middle marker (ILS) ( <i>specify runway</i> )	IM	Air display	WA
Outer marker (ILS) ( <i>specify runway</i> )	IO	Air refuelling	WF
		Ascent of free balloon	WL
CNS		Banner/target towing	WJ
Terminal and en-route navigation facilities (N)		Blasting	WH
		Burning or blowing gas	WS
All radio navigation facilities (except . . .)	NA	Captive balloon or kite	WC
DECCA	NC	Demolition of explosives	WD
Direction-finding station ( <i>specify type and frequency</i> )	NX	Exercises ( <i>specify</i> )	WE
Distance measuring equipment	ND	Formation flight	WV
Fan marker	NF	Glider flying, paragliding or hang gliding	WG
Locator ( <i>specify identification</i> )	NL	Mass movement of aircraft	WT
Non-directional radio beacon	NB	Missile, gun or rocket firing	WM
OMEGA	NO	Model flying	WZ
VOR	NV	Parachute jumping exercise	WP
VOR/DME	NM	Radioactive materials or toxic chemicals ( <i>specify</i> )	WR
VORTAC	NT	Significant volcanic activity	WW
TACAN	NN	Unmanned aircraft	WU
Navigation Warnings			
Airspace restrictions (R)		Other Information (O)	
		Aeronautical information service	OA
Airspace reservation ( <i>specify</i> )	RA	Aircraft entry requirements	OE
Danger area ( <i>specify</i> )	RD	Obstacle ( <i>specify details</i> )	OB
Military operating area	RM	Obstacle lights on . . . ( <i>specify</i> )	OL
Overflying of . . . ( <i>specify</i> )	RO	Rescue coordination centre	OR
Prohibited area ( <i>specify</i> )	RP		
Restricted area	RR		
Temporary restricted area ( <i>specify area</i> )	RT		

## THE NOTAM CODE — ENCODE

### FOURTH AND FIFTH LETTERS

<i>Signification</i>	<i>Code</i>	<i>Signification</i>	<i>Code</i>
Availability (A)		Hazard Conditions (H)	
Available for daylight operation	AD	Approach according to signal area only	HT
Available for night operation	AN	Bird migration in progress ( <i>specify direction</i> )	HK
Available on request	AR	Braking action is . . .	HA
Available, prior permission required	AP	1) Poor	
Completely withdrawn	AW	2) Medium/Poor	
Flight checked and found reliable	AF	3) Medium	
Hours of service are now . . . ( <i>specify</i> )	AH	4) Medium/Good	
Military operations only	AM	5) Good	
Not available ( <i>specify reason if appropriate</i> )	AU	Concentration of birds	HX
Operating but ground checked only, awaiting flight check	AG	Covered by compacted snow to a depth of	HC
Operational	AO	Covered by dry snow to a depth of	HD
Operative ( <i>or reoperative</i> ) subject to previously published limitations/conditions	AL	Covered by frozen ruts and ridges	HZ
Previously promulgated shutdown has been cancelled	AX	Covered by ice	HI
Resumed normal operation	AK	Covered by water to a depth of	HE
Unserviceable	AS	Covered by wet snow or slush to a depth of	HN
Withdrawn for maintenance	AC	Friction coefficient is . . . ( <i>specify friction measuring device used</i> )	HB
Changes (C)		Grass cutting in progress	HG
Activated	CA	Hazard due to ( <i>specify</i> )	HH
Cancelled	CN	Launch in progress . . . ( <i>specify balloon flight identification or project code name, launch site, date/time of launch(es), estimated time passing 18 000 m (60 000 ft), or reaching cruising level if at or below 18 000 m (60 000 ft), together with estimated location, estimated date/time of termination of the flight and planned location of ground contact, when applicable</i> )	HU
Changed	CH	Launch planned . . . ( <i>specify balloon flight identification or project code name, launch site, planned period of launch(es) — date/time, expected climb direction, estimated time to pass 18 000 m (60 000 ft), or reaching cruising level if at or below 18 000 m (60 000 ft), together with estimated location</i> )	HJ
Completed	CC	Marked by	HM
Deactivated	CD	Obscured by snow	HO
Displaced	CM	Operation cancelled . . . ( <i>specify balloon flight identification or project code name</i> )	HQ
Downgraded to	CG		
Erected	CE		
Identification or radio call sign changed to	CI		
Installed	CS		
On test, do not use	CT		
Operating	CO		
Operating frequency(ies) changed to	CF		
Operating on reduced power	CP		
Realigned	CL		
Temporarily replaced by	CR		

<i>Signification</i>	<i>Code</i>	<i>Signification</i>	<i>Code</i>
Sanding in progress	HS	Limited to	LT
Snow banks exist ( <i>specify height</i> )	HY	Operating as a fixed light	LK
Snow clearance completed	HL	Operating but caution advised due to	LX
Snow clearance in progress	HP	Operating on auxiliary power supply	LA
Standing water	HR	Operating without auxiliary power supply	LE
Totally free of snow and ice	HF	Operating without identification	LG
Work completed	HV	Prohibited to	LP
Work in progress	HW	Reserved for aircraft based therein	LB
Limitations (L)		Subject to interruption	LS
		Unsafe	LD
		Unserviceable for aircraft heavier than	LH
Aircraft restricted to runways and taxiways	LR	Usable for length of . . . and width of . . .	LL
Closed	LC	Will take place	LW
Closed to all night operations	LN		
Closed to IFR operations	LI	Other (XX)	
Closed to VFR operations	LV		
Interference from	LF	Plain language	XX

— END —





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