Doc 8400

Procedures for
Air Navigation Services

ICAO Abbreviations and Codes

This edition incorporates all amendments approved by the Council prior to 4 August 2007 and supersedes, on 22 November 2007, all previous editions of PANS-ABC (Doc 8400).

Seventh Edition — 2007

International Civil Aviation Organization

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AMENDMENTS

The issue of amendments is announced regularly in the *ICAO Journal* and in the monthly *Supplement to the Catalogue of ICAO Publications and Audio-visual Training Aids*, which holders of this publication should consult. The space below is provided to keep a record of such amendments.

RECORD OF AMENDMENTS AND CORRIGENDA

AMENDMENTS			
No.	Date applicable	Date entered	Entered by
1-28	Incorporated in this Edition.		

CORRIGENDA			
No.	Date of issue	Date entered	Entered by

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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: 3.6.4 of Annex 15;

b) use of the NOTAM Code: 5.2 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, 6 and 7, Appendices 1, 2 and 5 and Attachment A 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 Procedures for Air Navigation Services (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, subject to the full procedure of Article 90, the PANS are approved by the President of the Council on behalf of the Council and recommended to Contracting States for worldwide application.

5. Implementation

The implementation of ICAO Standards, Recommended Practices and 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.

The attention of States is, however, drawn to the provision in Annex 15 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 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 University Street, Montréal, Quebec, Canada H3C 5H7.

Table A. Amendments to the PANS-ABC

Amendment	*Source(s)*	*Subject(s)*	*Approved* *Applicable*
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
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	*Source(s)*	*Subject(s)*	*Approved* *Applicable*
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
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

Amendment	*Source(s)*	*Subject(s)*	*Approved* *Applicable*
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

ABBREVIATIONS

DECODE

A

A	Amber
AAA	*(or AAB, AAC . . . etc., in sequence)* Amended meteorological message *(message type designator)*
A/A	Air-to-air
AAD	Assigned altitude deviation
AAIM	Aircraft autonomous integrity monitoring
AAL	Above aerodrome level
ABI	Advance boundary information
ABM	Abeam
ABN	Aerodrome beacon
ABT	About
ABV	Above
AC	Altocumulus
ACARS†	*(to be pronounced "AY-CARS")* Aircraft communication addressing and reporting system
ACAS†	Airborne collision avoidance system
ACC‡	Area control centre *or* area control
ACCID	Notification of an aircraft accident
ACFT	Aircraft
ACK	Acknowledge
ACL	Altimeter check location
ACN	Aircraft classification number
ACP	Acceptance *(message type designator)*
ACPT	Accept *or* accepted
ACT	Active *or* activated *or* activity
AD	Aerodrome
ADA	Advisory area
ADC	Aerodrome chart
ADDN	Addition *or* additional
ADF‡	Automatic direction-finding equipment
ADIZ†	*(to be pronounced "AY-DIZ")* Air defence identification zone
ADJ	Adjacent
ADO	Aerodrome office *(specify service)*
ADR	Advisory route
ADS*	The address *(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)*
ADS-B‡	Automatic dependent surveillance — broadcast
ADS-C‡	Automatic dependent surveillance — contract
ADSU	Automatic dependent surveillance unit
ADVS	Advisory service
ADZ	Advise
AES	Aircraft earth station
AFIL	Flight plan filed in the air
AFIS	Aerodrome flight information service
AFM	Yes *or* affirm *or* affirmative *or* that is correct
AFS	Aeronautical fixed service
AFT . . .	After . . . *(time or place)*
AFTN‡	Aeronautical fixed telecommunication network
A/G	Air-to-ground
AGA	Aerodromes, air routes and ground aids
AGL	Above ground level
AGN	Again
AIC	Aeronautical information circular
AIDC	Air traffic services interfacility data communications
AIP	Aeronautical information publication
AIRAC	Aeronautical information regulation and control
AIREP†	Air-report
AIRMET†	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations
AIS	Aeronautical information services
ALA	Alighting area
ALERFA†	Alert phase
ALR	Alerting *(message type designator)*
ALRS	Alerting service
ALS	Approach lighting system
ALT	Altitude

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† *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.*

ALTN Alternate *or* alternating *(light alternates in colour)*
ALTN Alternate *(aerodrome)*
AMA Area minimum altitude
AMD Amend *or* amended *(used to indicate amended meteorological message; message type designator)*
AMDT Amendment *(AIP Amendment)*
AMS Aeronautical mobile service
AMSL Above mean sea level
AMSS Aeronautical mobile satellite service
ANC . . . Aeronautical chart — 1:500 000 *(followed by name/title)*
ANCS . . . Aeronautical navigation chart — small scale *(followed by name/title and scale)*
ANS Answer
AOC . . . Aerodrome obstacle chart *(followed by type and name/title)*
AP Airport
APAPI† *(to be pronounced "AY-PAPI")* Abbreviated precision approach path indicator
APCH Approach
APDC . . . Aircraft parking/docking chart *(followed by name/title)*
APN Apron
APP Approach control office *or* approach control *or* approach control service
APR April
APRX Approximate *or* approximately
APSG After passing
APV Approve *or* approved *or* approval
ARC Area chart
ARNG Arrange
ARO Air traffic services reporting office
ARP Aerodrome reference point
ARP Air-report *(message type designator)*
ARQ Automatic error correction
ARR Arrival *(message type designator)*
ARR Arrive *or* arrival
ARS Special air-report *(message type designator)*
ARST Arresting *(specify (part of) aircraft arresting equipment)*
AS Altostratus
ASC Ascend to *or* ascending to
ASDA Accelerate-stop distance available
ASE Altimetry system error
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
ASPEEDG Airspeed gain
ASPEEDL Airspeed loss
ASPH Asphalt
AT . . . At *(followed by time at which weather change is forecast to occur)*
ATA‡ Actual time of arrival
ATC‡ Air traffic control *(in general)*
ATCSMAC. . . Air traffic control surveillance minimum altitude chart *(followed by name/title)*
ATD‡ Actual time of departure
ATFM Air traffic flow management
ATIS† Automatic terminal information service
ATM Air traffic management
ATN Aeronautical telecommunication network
ATP . . . At . . . *(time or place)*
ATS Air traffic services
ATTN Attention
AT-VASIS† *(to be pronounced "AY-TEE-VASIS")* Abbreviated T visual approach slope indicator system
ATZ Aerodrome traffic zone
AUG August
AUTH Authorized *or* authorization
AUW All up weight
AUX Auxiliary
AVBL Available *or* availability
AVG Average
AVGAS† Aviation gasoline
AWTA Advise at what time able
AWY Airway
AZM Azimuth

B

B Blue
BA Braking action
BARO-VNAV† *(to be pronounced "BAA-RO-VEE-NAV")* Barometric vertical navigation
BASE† Cloud base
BCFG Fog patches

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

BCN	Beacon *(aeronautical ground light)*
BCST	Broadcast
BDRY	Boundary
BECMG	Becoming
BFR	Before
BKN	Broken
BL . . .	Blowing *(followed by DU = dust, SA = sand or SN = snow)*
BLDG	Building
BLO	Below clouds
BLW . . .	Below . . .
BOMB	Bombing
BR	Mist
BRF	Short *(used to indicate the type of approach desired or required)*
BRG	Bearing
BRKG	Braking
BS	Commercial broadcasting station
BTL	Between layers
BTN	Between

C

. . . C	Centre *(preceded by runway designation number to identify a parallel runway)*
C	Degrees Celsius *(Centigrade)*
CA	Course to an altitude
CAT	Category
CAT	Clear air turbulence
CAVOK†	*(to be pronounced "KAV-OH-KAY")* Visibility, cloud and present weather better than prescribed values or conditions
CB‡	*(to be pronounced "CEE BEE")* Cumulonimbus
CC	Cirrocumulus
CCA	*(or CCB, CCC . . . etc., in sequence)* Corrected meteorological message *(message type designator)*
CD	Candela
CDN	Coordination *(message type designator)*
CF	Change frequency to . . .
CF	Course to a fix
CFM*	Confirm *or* I confirm *(to be used in AFS as a procedure signal)*
CGL	Circling guidance light(s)
CH	Channel
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)*
CHG	Modification *(message type designator)*
CI	Cirrus
CIDIN†	Common ICAO data interchange network
CIT	Near *or* over large towns
CIV	Civil
CK	Check
CL	Centre line
CLA	Clear type of ice formation
CLBR	Calibration
CLD	Cloud
CLG	Calling
CLIMB-OUT	Climb-out area
CLR	Clear(s) *or* cleared to . . . *or* clearance
CLRD	Runway(s) cleared *(used in METAR/SPECI)*
CLSD	Close *or* closed *or* closing
CM	Centimetre
CMB	Climb to *or* climbing to
CMPL	Completion *or* completed *or* complete
CNL	Cancel *or* cancelled
CNL	Flight plan cancellation *(message type designator)*
CNS	Communications, navigation and surveillance
COM	Communications
CONC	Concrete
COND	Condition
CONS	Continuous
CONST	Construction *or* constructed
CONT	Continue(s) *or* continued
COOR	Coordinate *or* coordination
COORD	Coordinates
COP	Change-over point
COR	Correct *or* correction *or* corrected *(used to indicate corrected meteorological message; message type designator)*
COT	At the coast
COV	Cover *or* covered *or* covering
CPDLC‡	Controller-pilot data link communications
CPL	Current flight plan *(message type designator)*
CRC	Cyclic redundancy check
CRM	Collision risk model

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CRZ	Cruise
CS	Call sign
CS	Cirrostratus
CTA	Control area
CTAM	Climb to and maintain
CTC	Contact
CTL	Control
CTN	Caution
CTR	Control zone
CU	Cumulus
CUF	Cumuliform
CUST	Customs
CVR	Cockpit voice recorder
CW	Continuous wave
CWY	Clearway

D

D	Downward *(tendency in RVR during previous 10 minutes)*
D . . .	Danger area *(followed by identification)*
DA	Decision altitude
D-ATIS†	*(to be pronounced "DEE-ATIS")* Data link automatic terminal information service
DCD	Double channel duplex
DCKG	Docking
DCP	Datum crossing point
DCPC	Direct controller-pilot communications
DCS	Double channel simplex
DCT	Direct *(in relation to flight plan clearances and type of approach)*
DE*	From *(used to precede the call sign of the calling station) (to be used in AFS as a procedure signal)*
DEC	December
DEG	Degrees
DEP	Depart *or* departure
DEP	Departure *(message type designator)*
DER	Departure end of the runway
DES	Descend to *or* descending to
DEST	Destination
DETRESFA†	Distress phase
DEV	Deviation *or* deviating
DF	Direction finding
DFDR	Digital flight data recorder
DFTI	Distance from touchdown indicator
DH	Decision height
DIF	Diffuse
DIST	Distance
DIV	Divert *or* diverting
DLA	Delay *or* delayed
DLA	Delay *(message type designator)*
DLIC	Data link initiation capability
DLY	Daily
DME‡	Distance measuring equipment
DNG	Danger *or* dangerous
DOM	Domestic
DP	Dew point temperature
DPT	Depth
DR	Dead reckoning
DR . . .	Low drifting *(followed by DU = dust, SA = sand or SN = snow)*
DRG	During
DS	Duststorm
DSB	Double sideband
DTAM	Descend to and maintain
DTG	Date-time group
DTHR	Displaced runway threshold
DTRT	Deteriorate *or* deteriorating
DTW	Dual tandem wheels
DU	Dust
DUC	Dense upper cloud
DUPE#	This is a duplicate message *(to be used in AFS as a procedure signal)*
DUR	Duration
D-VOLMET	Data link VOLMET
DVOR	Doppler VOR
DW	Dual wheels
DZ	Drizzle

E

E	East *or* eastern longitude
EAT	Expected approach time
EB	Eastbound
EDA	Elevation differential area
EEE#	Error *(to be used in AFS as a procedure signal)*
EET	Estimated elapsed time
EFC	Expect further clearance

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\# *Signal for use in the teletypewriter service only.*

EFIS†	*(to be pronounced "EE-FIS")* Electronic flight instrument system
EGNOS†	*(to be pronounced "EGG-NOS")* European geostationary navigation overlay service
EHF	Extremely high frequency [30 000 to 300 000 MHz]
ELBA†	Emergency location beacon — aircraft
ELEV	Elevation
ELR	Extra long range
ELT	Emergency locator transmitter
EM	Emission
EMBD	Embedded in a layer *(to indicate cumulonimbus embedded in layers of other clouds)*
EMERG	Emergency
END	Stop-end *(related to RVR)*
ENE	East-north-east
ENG	Engine
ENR	En route
ENRC . . .	Enroute chart *(followed by name/title)*
EOBT	Estimated off-block time
EQPT	Equipment
ER*	Here . . . *or* herewith
ESE	East-south-east
EST	Estimate *or* estimated *or* estimation *(message type designator)*
ETA*‡	Estimated time of arrival *or* estimating arrival
ETD‡	Estimated time of departure *or* estimating departure
ETO	Estimated time over significant point
EV	Every
EXC	Except
EXER	Exercises *or* exercising *or* to exercise
EXP	Expect *or* expected *or* expecting
EXTD	Extend *or* extending

F

F	Fixed
FA	Course from a fix to an altitude
FAC	Facilities
FAF	Final approach fix
FAL	Facilitation of international air transport
FAP	Final approach point
FAS	Final approach segment
FATO	Final approach and take-off area
FAX	Facsimile transmission
FBL	Light *(used to indicate the intensity of weather phenomena, interference or static reports, e.g. FBL RA = light rain)*
FC	Funnel cloud *(tornado or water spout)*
FCST	Forecast
FCT	Friction coefficient
FDPS	Flight data processing system
FEB	February
FEW	Few
FG	Fog
FIC	Flight information centre
FIR‡	Flight information region
FIS	Flight information service
FISA	Automated flight information service
FL	Flight level
FLD	Field
FLG	Flashing
FLR	Flares
FLT	Flight
FLTCK	Flight check
FLUC	Fluctuating *or* fluctuation *or* fluctuated
FLW	Follow(s) *or* following
FLY	Fly *or* flying
FM	Course from a fix to manual termination *(used in navigation database coding)*
FM	From
FM . . .	From *(followed by time weather change is forecast to begin)*
FMC	Flight management computer
FMS‡	Flight management system
FMU	Flow management unit
FNA	Final approach
FPAP	Flight path alignment point
FPL	Filed flight plan *(message type designator)*
FPM	Feet per minute
FPR	Flight plan route
FR	Fuel remaining
FREQ	Frequency
FRI	Friday
FRNG	Firing
FRONT†	Front *(relating to weather)*
FROST†	Frost *(used in aerodrome warnings)*
FRQ	Frequent
FSL	Full stop landing

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\# *Signal for use in the teletypewriter service only.*

FSS	Flight service station
FST	First
FT	Feet *(dimensional unit)*
FTE	Flight technical error
FTP	Fictitious threshold point
FTT	Flight technical tolerance
FU	Smoke
FZ	Freezing
FZDZ	Freezing drizzle
FZFG	Freezing fog
FZRA	Freezing rain

G

G	Green
G . . .	Variations from the mean wind speed (gusts) *(followed by figures in METAR/SPECI and TAF)*
GA	Go ahead, resume sending *(to be used in AFS as a procedure signal)*
G/A	Ground-to-air
G/A/G	Ground-to-air and air-to-ground
GAGAN†	GPS and geostationary earth orbit augmented navigation
GAMET	Area forecast for low-level flights
GARP	GBAS azimuth reference point
GBAS†	*(to be pronounced "GEE-BAS")* Ground-based augmentation system
GCA‡	Ground controlled approach system *or* ground controlled approach
GEN	General
GEO	Geographic *or* true
GES	Ground earth station
GLD	Glider
GLONASS†	*(to be pronounced "GLO-NAS")* Global orbiting navigation satellite system
GMC . . .	Ground movement chart *(followed by name/title)*
GND	Ground
GNDCK	Ground check
GNSS‡	Global navigation satellite system
GP	Glide path
GPA	Glide path angle
GPIP	Glide path intercept point
GPS‡	Global positioning system
GPWS‡	Ground proximity warning system
GR	Hail
GRAS†	*(to be pronounced "GRASS")* Ground-based regional augmentation system
GRASS	Grass landing area
GRIB	Processed meteorological data in the form of grid point values expressed in binary form *(meteorological code)*
GRVL	Gravel
GS	Ground speed
GS	Small hail and/or snow pellets
GUND	Geoid undulation

H

H	High pressure area *or* the centre of high pressure
H24	Continuous day and night service
HA	Holding/racetrack to an altitude
HAPI	Helicopter approach path indicator
HBN	Hazard beacon
HDF	High frequency direction-finding station
HDG	Heading
HEL	Helicopter
HF‡	High frequency [3 000 to 30 000 kHz]
HF	Holding/racetrack to a fix
HGT	Height *or* height above
HJ	Sunrise to sunset
HLDG	Holding
HM	Holding/racetrack to a manual termination
HN	Sunset to sunrise
HO	Service available to meet operational requirements
HOL	Holiday
HOSP	Hospital aircraft
HPA	Hectopascal
HR	Hours
HS	Service available during hours of scheduled operations
HURCN	Hurricane
HVDF	High and very high frequency direction-finding stations *(at the same location)*
HVY	Heavy

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HVY	Heavy *(used to indicate the intensity of weather phenomena, e.g. HVY RA = heavy rain)*
HX	No specific working hours
HYR	Higher
HZ	Haze
HZ	Hertz *(cycle per second)*

I

IAC . . .	Instrument approach chart *(followed by name/title)*
IAF	Initial approach fix
IAO	In and out of clouds
IAP	Instrument approach procedure
IAR	Intersection of air routes
IAS	Indicated airspeed
IBN	Identification beacon
IC	Ice crystals *(very small ice crystals in suspension, also known as diamond dust)*
ICE	Icing
ID	Identifier *or* identify
IDENT†	Identification
IF	Intermediate approach fix
IFF	Identification friend/foe
IFR‡	Instrument flight rules
IGA	International general aviation
ILS‡	Instrument landing system
IM	Inner marker
IMC‡	Instrument meteorological conditions
IMG	Immigration
IMI*	Interrogation sign (question mark) *(to be used in AFS as a procedure signal)*
IMPR	Improve *or* improving
IMT	Immediate *or* immediately
INA	Initial approach
INBD	Inbound
INC	In cloud
INCERFA†	Uncertainty phase
INFO†	Information
INOP	Inoperative
INP	If not possible
INPR	In progress
INS	Inertial navigation system
INSTL	Install *or* installed *or* installation
INSTR	Instrument
INT	Intersection
INTL	International
INTRG	Interrogator
INTRP	Interrupt *or* interruption *or* interrupted
INTSF	Intensify *or* intensifying
INTST	Intensity
IR	Ice on runway
IRS	Inertial reference system
ISA	International standard atmosphere
ISB	Independent sideband
ISOL	Isolated

J

JAN	January
JTST	Jet stream
JUL	July
JUN	June

K

KG	Kilograms
KHZ	Kilohertz
KIAS	Knots indicated airspeed
KM	Kilometres
KMH	Kilometres per hour
KPA	Kilopascal
KT	Knots
KW	Kilowatts

L

. . . L	Left *(preceded by runway designation number to identify a parallel runway)*
L	Locator *(see* LM, LO*)*
L	Low pressure area *or* the centre of low pressure
LAM	Logical acknowledgement *(message type designator)*
LAN	Inland
LAT	Latitude

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LCA	Local *or* locally *or* location *or* located
LDA	Landing distance available
LDAH	Landing distance available, helicopter
LDG	Landing
LDI	Landing direction indicator
LEN	Length
LF	Low frequency [30 to 300 kHz]
LGT	Light *or* lighting
LGTD	Lighted
LIH	Light intensity high
LIL	Light intensity low
LIM	Light intensity medium
LINE	Line *(used in SIGMET)*
LM	Locator, middle
LMT	Local mean time
LNAV†	*(to be pronounced "EL-NAV")* Lateral navigation
LNG	Long *(used to indicate the type of approach desired or required)*
LO	Locator, outer
LOC	Localizer
LONG	Longitude
LORAN†	LORAN *(long range air navigation system)*
LPV	Localizer performance with vertical guidance
LR	The last message received by me was . . . *(to be used in AFS as a procedure signal)*
LRG	Long range
LS	The last message sent by me was . . . *or* Last message was . . . *(to be used in AFS as a procedure signal)*
LTD	Limited
LTP	Landing threshold point
LTT	Landline teletypewriter
LV	Light and variable *(relating to wind)*
LVE	Leave *or* leaving
LVL	Level
LVP	Low visibility procedures
LYR	Layer *or* layered

M

. . . M	Metres *(preceded by figures)*
M . . .	Mach number *(followed by figures)*
M . . .	Minimum value of runway visual range *(followed by figures in METAR/SPECI)*
MAA	Maximum authorized altitude
MAG	Magnetic
MAHF	Missed approach holding fix
MAINT	Maintenance
MAP	Aeronautical maps and charts
MAPT	Missed approach point
MAR	At sea
MAR	March
MAS	Manual Al simplex
MATF	Missed approach turning fix
MAX	Maximum
MAY	May
MBST	Microburst
MCA	Minimum crossing altitude
MCW	Modulated continuous wave
MDA	Minimum descent altitude
MDF	Medium frequency direction-finding station
MDH	Minimum descent height
MEA	Minimum en-route altitude
MEHT	Minimum eye height over threshold *(for visual approach slope indicator systems)*
MET†	Meteorological *or* meteorology
METAR†	Aerodrome routine meteorological report *(in meteorological code)*
MET REPORT	Local routine meteorological report *(in abbreviated plain language)*
MF	Medium frequency [300 to 3 000 kHz]
MHDF	Medium and high frequency direction-finding stations *(at the same location)*
MHVDF	Medium, high and very high frequency direction-finding stations *(at the same location)*
MHZ	Megahertz
MID	Mid-point *(related to RVR)*
MIFG	Shallow fog
MIL	Military
MIN*	Minutes
MIS	Missing . . . *(transmission identification) (to be used in AFS as a procedure signal)*
MKR	Marker radio beacon
MLS‡	Microwave landing system
MM	Middle marker
MNM	Minimum
MNPS	Minimum navigation performance specifications

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MNT	Monitor *or* monitoring *or* monitored
MNTN	Maintain
MOA	Military operating area
MOC	Minimum obstacle clearance *(required)*
MOCA	Minimum obstacle clearance altitude
MOD	Moderate *(used to indicate the intensity of weather phenomena, interference or static reports, e.g. MODRA = moderate rain)*
MON	Above mountains
MON	Monday
MOPS†	Minimum operational performance standards
MOTNE	Meteorological Operational Telecommunications Network Europe
MOV	Move *or* moving *or* movement
MPS	Metres per second
MRA	Minimum reception altitude
MRG	Medium range
MRP	ATS/MET reporting point
MS	Minus
MSA	Minimum sector altitude
MSAS†	*(to be pronounced "EM-SAS")* Multi-functional transport satellite (MTSAT) satellite-based augmentation system
MSAW	Minimum safe altitude warning
MSG	Message
MSL	Mean sea level
MSR#	Message . . . *(transmission identification)* has been misrouted *(to be used in AFS as a procedure signa*l)
MSSR	Monopulse secondary surveillance radar
MT	Mountain
MTU	Metric units
MTW	Mountain waves
MVDF	Medium and very high frequency direction-finding stations *(at the same location)*
MWO	Meteorological watch office
MX	Mixed type of ice formation *(white and clear)*

N

N	No distinct tendency *(in RVR during previous 10 minutes)*
N	North *or* northern latitude
NADP	Noise abatement departure procedure
NASC†	National AIS system centre
NAT	North Atlantic
NAV	Navigation
NB	Northbound
NBFR	Not before
NC	No change
NCD	No cloud detected *(used in automated METAR/SPECI)*
NDB‡	Non-directional radio beacon
NDV	No directional variations available *(used in automated METAR/SPECI)*
NE	North-east
NEB	North-eastbound
NEG	No *or* negative *or* permission not granted *or* that is not correct
NGT	Night
NIL*†	None *or* I have nothing to send to you
NM	Nautical miles
NML	Normal
NNE	North-north-east
NNW	North-north-west
NO	No (negative) *(to be used in AFS as a procedure signal)*
NOF	International NOTAM office
NOSIG†	No significant change *(used in trend-type landing forecasts)*
NOTAM†	A 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
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

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O

OAC	Oceanic area control centre
OAS	Obstacle assessment surface
OBS	Observe *or* observed *or* observation
OBSC	Obscure *or* obscured *or* obscuring
OBST	Obstacle
OCA	Obstacle clearance altitude
OCA	Oceanic control area
OCC	Occulting *(light)*
OCH	Obstacle clearance height
OCNL	Occasional *or* occasionally
OCS	Obstacle clearance surface
OCT	October
OFZ	Obstacle free zone
OGN	Originate *(to be used in AFS as a procedure signal)*
OHD	Overhead
OIS	Obstacle identification surface
OK*	We agree *or* It is correct *(to be used in AFS as a procedure signal)*
OLDI†	On-line data interchange
OM	Outer marker
OPA	Opaque, white type of ice formation
OPC	Control indicated is operational control
OPMET†	Operational meteorological *(information)*
OPN	Open *or* opening *or* opened
OPR	Operator *or* operate *or* operative *or* operating *or* operational
OPS†	Operations
O/R	On request
ORD	Order
OSV	Ocean station vessel
OTLK	Outlook *(used in SIGMET messages for volcanic ash and tropical cyclones)*
OTP	On top
OTS	Organized track system
OUBD	Outbound
OVC	Overcast

P

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

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PTS	Polar track structure
PWR	Power

Q

QDL	Do you intend to ask me for a series of bearings? *or* I intend to ask you for a series of bearings *(to be used in radiotelegraphy as a Q Code)*
QDM‡	Magnetic heading *(zero wind)*
QDR	Magnetic bearing
QFE‡	Atmospheric pressure at aerodrome elevation *(or at runway threshold)*
QFU	Magnetic orientation of runway
QGE	What is my distance to your station? *or* Your distance to my station is *(distance figures and units) (to be used in radiotelegraphy as a Q Code)*
QJH	Shall I run my test tape/a test sentence? *or* Run your test tape/a test sentence *(to be used in AFS as a Q Code)*
QNH‡	Altimeter sub-scale setting to obtain elevation when on the ground
QSP	Will you relay to . . . free of charge? *or* I will relay to . . . free of charge *(to be used in AFS as a Q Code)*
QTA	Shall I cancel telegram number . . .? *or* Cancel telegram number . . . *(to be used in AFS as a Q Code)*
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? *or* The position of your station according to the bearings taken by the D/F stations that I control was . . . latitude . . . longitude (*or* other indication of position), class . . . at . . . hours *(to be used in radiotelegraphy as a Q Code)*
QUAD	Quadrant
QUJ	Will you indicate the TRUE track to reach you? *or* The TRUE track to reach me is . . . degrees at . . . hours *(to be used in radiotelegraphy as a Q Code)*

R

. . . R	Right *(preceded by runway designation number to identify a parallel runway)*
R	Rate of turn
R	Red
R . . .	Restricted area *(followed by identification)*
R . . .	Runway *(followed by figures in METAR/SPECI)*
R*	Received *(acknowledgement of receipt) (to be used in AFS as a procedure signal)*
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
RCF	Radiocommunication failure *(message type designator)*
RCH	Reach *or* reaching
RCL	Runway centre line
RCLL	Runway centre line light(s)
RCLR	Recleared
RCP‡	Required communication performance
RDH	Reference datum height
RDL	Radial
RDO	Radio
RE	Recent *(used to qualify weather phenomena, e.g. RERA = recent rain)*
REC	Receive *or* receiver
REDL	Runway edge light(s)
REF	Reference to . . . *or* refer to . . .
REG	Registration
RENL	Runway end light(s)
REP	Report *or* reporting *or* reporting point
REQ	Request *or* requested
RERTE	Re-route
RESA	Runway end safety area
RF	Constant radius arc to a fix

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RG	Range *(lights)*
RHC	Right-hand circuit
RIF	Reclearance in flight
RIME†	Rime *(used in aerodrome warnings)*
RITE	Right *(direction of turn)*
RL	Report leaving
RLA	Relay to
RLCE	Request level change en route
RLLS	Runway lead-in lighting system
RLNA	Request level not available
RMK	Remark
RNAV†	*(to be pronounced "AR-NAV")* Area navigation
RNG	Radio range
RNP‡	Required navigation performance
ROBEX†	Regional OPMET bulletin exchange *(scheme)*
ROC	Rate of climb
ROD	Rate of descent
ROFOR	Route forecast *(in meteorological code)*
RON	Receiving only
RPDS	Reference path data selector
RPI‡	Radar position indicator
RPL	Repetitive flight plan
RPLC	Replace *or* replaced
RPS	Radar position symbol
RPT*	Repeat *or* I repeat *(to be used in AFS as a procedure signal)*
RQ*	Request *(to be used in AFS as a procedure signal)*
RQMNTS	Requirements
RQP	Request flight plan *(message type designator)*
RQS	Request supplementary flight plan *(message type designator)*
RR	Report reaching
RRA	*(or RRB, RRC . . . etc., in sequence)* Delayed meteorological message *(message type designator)*
RSC	Rescue sub-centre
RSCD	Runway surface condition
RSP	Responder beacon
RSR	En-route surveillance radar
RSS	Root sum square
RTD	Delayed *(used to indicate delayed meteorological message; message type designator)*
RTE	Route
RTF	Radiotelephone
RTG	Radiotelegraph
RTHL	Runway threshold light(s)
RTN	Return *or* returned *or* returning
RTODAH	Rejected take-off distance available, helicopter
RTS	Return to service
RTT	Radioteletypewriter
RTZL	Runway touchdown zone light(s)
RUT	Standard regional route transmitting frequencies
RV	Rescue vessel
RVR‡	Runway visual range
RVSM‡	Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410
RWY	Runway

S

S	South *or* southern latitude
S . . .	State of the sea *(followed by figures in METAR/SPECI)*
SA	Sand
SALS	Simple approach lighting system
SAN	Sanitary
SAP	As soon as possible
SAR	Search and rescue
SARPS	Standards and Recommended Practices [ICAO]
SAT	Saturday
SATCOM†	Satellite communication
SB	Southbound
SBAS†	*(to be pronounced "ESS-BAS")* Satellite-based augmentation system
SC	Stratocumulus
SCT	Scattered
SD	Standard deviation
SDBY	Stand by
SDF	Step down fix
SE	South-east
SEA	Sea *(used in connection with sea-surface temperature and state of the sea)*
SEB	South-eastbound
SEC	Seconds
SECN	Section
SECT	Sector

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SELCAL†	Selective calling system
SEP	September
SER	Service *or* servicing *or* served
SEV	Severe *(used e.g. to qualify icing and turbulence reports)*
SFC	Surface
SG	Snow grains
SGL	Signal
SH . . .	Shower *(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)*
SHF	Super high frequency [3 000 to 30 000 MHz]
SI	International system of units
SID†	Standard instrument departure
SIF	Selective identification feature
SIG	Significant
SIGMET†	Information concerning en-route weather phenomena which may affect the safety of aircraft operations
SIMUL	Simultaneous *or* simultaneously
SIWL	Single isolated wheel load
SKC	Sky clear
SKED	Schedule *or* scheduled
SLP	Speed limiting point
SLW	Slow
SMC	Surface movement control
SMR	Surface movement radar
SN	Snow
SNOCLO	Aerodrome closed due to snow *(used in METAR/SPECI)*
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
SOC	Start of climb
SPECI†	Aerodrome special meteorological report *(in meteorological code)*
SPECIAL†	Local special meteorological report *(in abbreviated plain language)*
SPI	Special position indicator
SPL	Supplementary flight plan *(message type designator)*
SPOC	SAR point of contact
SPOT†	Spot wind
SQ	Squall
SQL	Squall line
SR	Sunrise
SRA	Surveillance radar approach
SRE	Surveillance radar element of precision approach radar system
SRG	Short range
SRR	Search and rescue region
SRY	Secondary
SS	Sandstorm
SS	Sunset
SSB	Single sideband
SSE	South-south-east
SSR‡	Secondary surveillance radar
SST	Supersonic transport
SSW	South-south-west
ST	Stratus
STA	Straight-in approach
STAR†	Standard instrument arrival
STD	Standard
STF	Stratiform
STN	Station
STNR	Stationary
STOL	Short take-off and landing
STS	Status
STWL	Stopway light(s)
SUBJ	Subject to
SUN	Sunday
SUP	Supplement *(AIP Supplement)*
SUPPS	Regional supplementary procedures
SVC	Service message
SVCBL	Serviceable
SW	South-west
SWB	South-westbound
SWY	Stopway

T

T	Temperature
TA	Traffic advisory
TA	Transition altitude
TAA	Terminal arrival altitude
TACAN†	UHF tactical air navigation aid

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TAF†	Aerodrome forecast *(in meteorological code)*
TA/H	Turn at an altitude/height
TAIL†	Tail wind
TAR	Terminal area surveillance radar
TAS	True airspeed
TAX	Taxiing *or* taxi
TC	Tropical cyclone
TCAC	Tropical cyclone advisory centre
TCAS RA†	*(to be pronounced "TEE-CAS-AR-AY")* Traffic alert and collision avoidance system resolution advisory
TCH	Threshold crossing height
TCU	Towering cumulus
TDO	Tornado
TDZ	Touchdown zone
TECR	Technical reason
TEL	Telephone
TEMPO†	Temporary *or* temporarily
TF	Track to fix
TFC	Traffic
TGL	Touch-and-go landing
TGS	Taxiing guidance system
THR	Threshold
THRU	Through
THU	Thursday
TIBA†	Traffic information broadcast by aircraft
TIL†	Until
TIP	Until past . . . *(place)*
TKOF	Take-off
TL . . .	Till *(followed by time by which weather change is forecast to end)*
TLOF	Touchdown and lift-off area
TMA‡	Terminal control area
TN . . .	Minimum temperature *(followed by figures in TAF)*
TNA	Turn altitude
TNH	Turn height
TO . . .	To . . . *(place)*
TOC	Top of climb
TODA	Take-off distance available
TODAH	Take-off distance available, helicopter
TOP†	Cloud top
TORA	Take-off run available
TP	Turning point
TR	Track
TRA	Temporary reserved airspace
TRANS	Transmits *or* transmitter
TREND†	Trend forecast
TRL	Transition level
TROP	Tropopause
TS	Thunderstorm *(in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome)*
TS . . .	Thunderstorm *(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)*
TSUNAMI†	Tsunami *(used in aerodrome warnings)*
TT	Teletypewriter
TUE	Tuesday
TURB	Turbulence
T-VASIS†	(*to be pronounced "TEE-VASIS")* T visual approach slope indicator system
TVOR	Terminal VOR
TWR	Aerodrome control tower *or* aerodrome control
TWY	Taxiway
TWYL	Taxiway-link
TX . . .	Maximum temperature *(followed by figures in TAF)*
TXT*	Text *(when the abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI TXT) (to be used in AFS as a procedure signal)*
TYP	Type of aircraft
TYPH	Typhoon

U

U	Upward *(tendency in RVR during previous 10 minutes)*
UAB . . .	Until advised by . . .
UAC	Upper area control centre
UAR	Upper air route
UDF	Ultra high frequency direction-finding station
UFN	Until further notice
UHDT	Unable higher due traffic
UHF‡	Ultra high frequency [300 to 3 000 MHz]
UIC	Upper information centre

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UIR‡	Upper flight information region
ULR	Ultra long range
UNA	Unable
UNAP	Unable to approve
UNL	Unlimited
UNREL	Unreliable
UP	Unidentified precipitation *(used in automated METAR/SPECI)*
U/S	Unserviceable
UTA	Upper control area
UTC‡	Coordinated Universal Time

V

. . . V . . .	Variations from the mean wind direction *(preceded and followed by figures in METAR/SPECI, e.g. 350V070)*
VA	Heading to an altitude
VA	Volcanic ash
VAAC	Volcanic ash advisory centre
VAC . . .	Visual approach chart *(followed by name/title)*
VAL	In valleys
VAN	Runway control van
VAR	Magnetic variation
VAR	Visual-aural radio range
VASIS	Visual approach slope indicator systems
VC . . .	Vicinity of the aerodrome *(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)*
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
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†	*(to be pronounced "VEE-NAV")* Vertical navigation
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
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 *(followed by figures in METAR/SPECI and TAF)*

W

W	West *or* western longitude
W	White
W . . .	Sea-surface temperature *(followed by figures in METAR/SPECI)*
WAAS†	Wide area augmentation system
WAC. . .	World Aeronautical Chart — ICAO 1:1 000 000 *(followed by name/title)*
WAFC	World area forecast centre
WB	Westbound
WBAR	Wing bar lights
WDI	Wind direction indicator
WDSPR	Widespread
WED	Wednesday
WEF	With effect from *or* effective from
WGS-84	World Geodetic System — 1984
WI	Within
WID	Width *or* wide
WIE	With immediate effect *or* effective immediately
WILCO†	Will comply
WIND	Wind
WINTEM	Forecast upper wind and temperature for aviation
WIP	Work in progress
WKN	Weaken *or* weakening

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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

X

X	Cross
XBAR	Crossbar *(of approach lighting system)*
XNG	Crossing
XS	Atmospherics

Y

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

Z

Z	Coordinated Universal Time *(in meteorological messages)*

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ABBREVIATIONS

ENCODE

A

Abbreviated precision approach path indicator *(to be pronounced "AY-PAPI")*	APAPI†
Abbreviated T visual approach slope indicator system *(to be pronounced "AY-TEE-VASIS")*	AT-VASIS†
Abeam	ABM
About	ABT
Above	ABV
Above aerodrome level	AAL
Above ground level	AGL
Above mean sea level	AMSL
Above mountains	MON
Accelerate-stop distance available	ASDA
Accept *or* accepted	ACPT
Acceptance *(message type designator)*	ACP
Acknowledge	ACK
Active *or* activated *or* activity	ACT
Actual time of arrival	ATA‡
Actual time of departure	ATD‡
Addition *or* additional	ADDN
Adjacent	ADJ
Advance boundary information	ABI
Advise	ADZ
Advise at what time able	AWTA
Advisory area	ADA
Advisory route	ADR
Advisory service	ADVS
Aerodrome	AD
Aerodrome beacon	ABN
Aerodrome chart	ADC
Aerodrome closed due to snow *(used in METAR/SPECI)*	SNOCLO
Aerodrome control tower *or* aerodrome control	TWR
Aerodrome flight information service	AFIS
Aerodrome forecast *(in meteorological code)*	TAF†
Aerodrome obstacle chart *(followed by type and name/title)*	AOC . . .
Aerodrome office *(specify service)*	ADO
Aerodrome partially covered by fog	PRFG
Aerodrome reference point	ARP
Aerodrome routine meteorological report *(in meteorological code)*	METAR†
Aerodrome special meteorological report *(in meteorological code)*	SPECI†
Aerodromes, air routes and ground aids	AGA
Aerodrome traffic zone	ATZ
Aeronautical chart — 1:500 000 *(followed by name/title)*	ANC . . .
Aeronautical fixed service	AFS
Aeronautical fixed telecommunication network	AFTN‡
Aeronautical information circular	AIC
Aeronautical information publication	AIP
Aeronautical information regulation and control	AIRAC
Aeronautical information services	AIS
Aeronautical maps and charts	MAP
Aeronautical mobile satellite service	AMSS
Aeronautical mobile service	AMS
Aeronautical navigation chart — small scale *(followed by name/title and scale)*	ANCS . . .
Aeronautical telecommunication network	ATN
After . . . *(time or place)*	AFT . . .
After passing	APSG
Again	AGN
Airborne collision avoidance system	ACAS†
Aircraft	ACFT
Aircraft accident, notification of	ACCID
Aircraft autonomous integrity monitoring	AAIM
Aircraft classification number	ACN
Aircraft communication addressing and reporting system *(to be pronounced "AY-CARS")*	ACARS†
Aircraft earth station	AES

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Aircraft parking/docking chart *(followed by name/title)*	APDC . . .
Air defence identification zone *(to be pronounced "AY-DIZ")*	ADIZ†
Airport	AP
Air-report	AIREP†
Air-report *(message type designator)*	ARP
Airspeed gain	ASPEEDG
Airspeed loss	ASPEEDL
Air-to-air	A/A
Air-to-ground	A/G
Air traffic control *(in general)*	ATC‡
Air traffic control surveillance minimum altitude chart *(followed by name/title)*	ATCSMAC . . .
Air traffic flow management	ATFM
Air traffic management	ATM
Air traffic services	ATS
Air traffic services interfacility data communications	AIDC
Air traffic services reporting office	ARO
Airway	AWY
Alerting *(message type designator)*	ALR
Alerting service	ALRS
Alert phase	ALERFA†
Alighting area	ALA
All up weight	AUW
Alternate *or* alternating *(light alternates in colour)*	ALTN
Alternate *(aerodrome)*	ALTN
Altimeter check location	ACL
Altimeter sub-scale setting to obtain elevation when on the ground	QNH‡
Altimetry system error	ASE
Altitude	ALT
Altocumulus	AC
Altostratus	AS
Amber	A
Amend *or* amended *(used to indicate amended meteorological message; message type designator)*	AMD
Amended meteorological message *(message type designator)*	AAA *(or AAB, AAC . . . etc., in sequence)*
Amendment *(AIP Amendment)*	AMDT
Answer	ANS
Approach	APCH
Approach control office *or* approach control *or* approach control service	APP
Approach lighting system	ALS
Approve *or* approved *or* approval	APV
Approximate *or* approximately	APRX
April	APR
Apron	APN
Area chart	ARC
Area control centre *or* area control	ACC‡
Area forecast for low-level flights	GAMET
Area minimum altitude	AMA
Area navigation *(to be pronounced "AR-NAV")*	RNAV†
Arrange	ARNG
Arresting *(specify (part of) aircraft arresting equipment)*	ARST
Arrival *(message type designator)*	ARR
Arrive *or* arrival	ARR
Ascend to *or* ascending to	ASC
Asphalt	ASPH
Assigned altitude deviation	AAD
As soon as possible	SAP
At *(followed by time at which weather change is forecast to occur)*	AT . . .
At . . . *(time or place)*	ATP . . .
Atmospheric pressure at aerodrome elevation *(or at runway threshold)*	QFE‡
Atmospherics	XS
At sea	MAR
ATS/MET reporting point	MRP
Attention	ATTN
At the coast	COT
August	AUG
Authorized *or* authorization	AUTH
Automated flight information service	FISA
Automatic dependent surveillance — broadcast	ADS-B‡
Automatic dependent surveillance — contract	ADS-C‡
Automatic dependent surveillance unit	ADSU
Automatic direction-finding equipment	ADF‡
Automatic error correction	ARQ
Automatic terminal information service	ATIS†
Auxiliary	AUX

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Available *or* availability	AVBL
Average	AVG
Aviation gasoline	AVGAS†
Aerodrome meteorological report *(in meteorological code)*	METAR†
Aerodrome special meteorological report *(in meteorological code)*	SPECI†
Azimuth	AZM

B

Barometric vertical navigation *(to be pronounced "BAA-RO-VEE-NAV")*	BARO-VNAV†
Beacon *(aeronautical ground light)*	BCN
Bearing	BRG
Becoming	BECMG
Before	BFR
Below . . .	BLW . . .
Below clouds	BLO
Between	BTN
Between layers	BTL
Blowing *(followed by DU = dust, SA = sand or SN = snow)*	BL . . .
Blue	B
Bombing	BOMB
Boundary	BDRY
Braking	BRKG
Braking action	BA
Broadcast	BCST
Broadcasting station, commercial	BS
Broken	BKN
Building	BLDG
By visual reference to the ground	VSA

C

Calibration	CLBR
Call sign	CS
Calling	CLG
Cancel *or* cancelled	CNL
Candela	CD
Category	CAT
Caution	CTN
Celsius *(Centigrade)*, Degrees	C
Centimetre	CM
Centre *(preceded by runway designation number to identify a parallel runway)*	. . . C
Centre line	CL
Change frequency to . . .	CF
Change-over point	COP
Channel	CH
Check	CK
Circling guidance light(s)	CGL
Cirrocumulus	CC
Cirrostratus	CS
Cirrus	CI
Civil	CIV
Clear air turbulence	CAT
Clear(s) *or* cleared to . . . *or* clearance	CLR
Clear type of ice formation	CLA
Clearway	CWY
Climb-out area	CLIMB-OUT
Climb to *or* climbing to	CMB
Climb to and maintain	CTAM
Close *or* closed *or* closing	CLSD
Cloud	CLD
Cloud base	BASE†
Cloud top	TOP†
Cockpit voice recorder	CVR
Collision risk model	CRM
Completion *or* completed *or* complete	CMPL
Commercial broadcasting station	BS
Common ICAO data interchange network	CIDIN†
Communications	COM
Communications, navigation and surveillance	CNS
Concrete	CONC
Condition	COND
Confirm *or* I confirm *(to be used in AFS as a procedure signal)*	CFM*
Constant radius arc to a fix	RF
Construction *or* constructed	CONST
Contact	CTC
Continue(s) *or* continued	CONT
Continuous	CONS
Continuous day and night service	H24
Continuous wave	CW
Control	CTL
Control area	CTA
Control indicated is operational control	OPC

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Controller-pilot data link communications	CPDLC‡
Control zone	CTR
Coordinate *or* coordination	COOR
Coordinated Universal Time	UTC‡
Coordinated Universal Time *(in meteorological messages)*	Z
Coordinates	COORD
Coordination *(message type designator)*	CDN
Correct *or* correction *or* corrected *(used to indicate corrected meteorological message; message type designator)*	COR
Corrected meteorological message *(message type designator)*	CCA *(or CCB, CCC . . . etc., in sequence)*
Course from a fix to an altitude	FA
Course from a fix to manual termination *(used in navigation database coding)*	FM
Course to a fix	CF
Course to an altitude	CA
Cover *or* covered *or* covering	COV
Cross	X
Crossbar *(of approach lighting system)*	XBAR
Crossing	XNG
Cruise	CRZ
Cumuliform	CUF
Cumulonimbus *(to be pronounced "CEE BEE")*	CB‡
Cumulus	CU
Current flight plan *(message type designator)*	CPL
Customs	CUST
Cyclic redundancy check	CRC

D

Daily	DLY
Danger *or* dangerous	DNG
Danger area *(followed by identification)*	D . . .
Data link automatic terminal information service *(to be pronounced "DEE-ATIS")*	D-ATIS†
Data link initiation capability	DLIC
Data link VOLMET	D-VOLMET
Date-time group	DTG
Datum crossing point	DCP
Dead reckoning	DR
December	DEC
Decision altitude	DA
Decision height	DH
Degrees	DEG
Degrees Celsius *(Centigrade)*	C
Delay *(message type designator)*	DLA
Delay *or* delayed	DLA
Delayed *(used to indicate delayed meteorological message; message type designator)*	RTD
Delayed meteorological message *(message type designator)*	RRA *(or RRB, RRC . . . etc., in sequence)*
Dense upper cloud	DUC
Depart *or* departure	DEP
Departure *(message type designator)*	DEP
Departure end of the runway	DER
Depth	DPT
Descend to *or* descending to	DES
Descend to and maintain	DTAM
Destination	DEST
Deteriorate *or* deteriorating	DTRT
Deviation *or* deviating	DEV
Dew point temperature	DP
Diffuse	DIF
Digital flight data recorder	DFDR
Direct *(in relation to flight plan clearances and type of approach)*	DCT
Direct controller-pilot communications	DCPC
Direction finding	DF
Displaced runway threshold	DTHR
Distance	DIST
Distance from touchdown indicator	DFTI
Distance measuring equipment	DME‡
Distress phase	DETRESFA†
Divert *or* diverting	DIV
Docking	DCKG
Domestic	DOM
Doppler VOR	DVOR
Double channel duplex	DCD
Double channel simplex	DCS
Double sideband	DSB

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Downward *(tendency in RVR during previous 10 minutes)*	D
Do you intend to ask me for a series of bearings? *or* I intend to ask you for a series of bearings *(to be used in radiotelegraphy as a Q Code)*	QDL
Drizzle	DZ
Dual tandem wheels	DTW
Dual wheels	DW
Duration	DUR
During	DRG
Dust	DU
Dust/sand whirls *(dust devils)*	PO
Duststorm	DS

E

East *or* eastern longitude	E
Eastbound	EB
East-north-east	ENE
East-south-east	ESE
Effective from *or* with effect from	WEF
Effective immediately *or* with immediate effect	WIE
Electronic flight instrument system *(to be pronounced "EE-FIS")*	EFIS†
Elevation	ELEV
Elevation differential area	EDA
Embedded in a layer *(to indicate cumulonimbus embedded in layers of other clouds)*	EMBD
Emergency	EMERG
Emergency location beacon — aircraft	ELBA†
Emergency locator transmitter	ELT
Emission	EM
Engine	ENG
En route	ENR
Enroute chart *(followed by name/title)*	ENRC . . .
En-route surveillance radar	RSR
Equipment	EQPT
Error *(to be used in AFS as a procedure signal)*	EEE#
Estimate *or* estimated *or* estimation *(message type designator)*	EST
Estimated elapsed time	EET
Estimated off-block time	EOBT
Estimated time of arrival *or* estimating arrival	ETA*‡
Estimated time of departure *or* estimating departure	ETD‡
Estimated time over significant point	ETO
European geostationary navigation overlay service *(to be pronounced "EGG-NOS")*	EGNOS†
Every	EV
Except	EXC
Exercises *or* exercising *or* to exercise	EXER
Expect *or* expected *or* expecting	EXP
Expect further clearance	EFC
Expected approach time	EAT
Extend *or* extending	EXTD
Extra long range	ELR
Extremely high frequency [30 000 to 300 000 MHz]	EHF

F

Facilitation of international air transport	FAL
Facilities	FAC
Facsimile transmission	FAX
February	FEB
Feet *(dimensional unit)*	FT
Feet per minute	FPM
Few	FEW
Fictitious threshold point	FTP
Field	FLD
Filed flight plan *(message type designator)*	FPL
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

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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	PLN
Flight plan cancellation *(message type designator)*	CNL
Flight plan filed in the air	AFIL
Flight plan route	FPR
Flight service station	FSS
Flight technical error	FTE
Flight technical tolerance	FTT
Flow management unit	FMU
Fluctuating *or* fluctuation *or* fluctuated	FLUC
Fly *or* flying	FLY
Fog	FG
Fog patches	BCFG
Follow(s) *or* following	FLW
Forecast	FCST
Forecast upper wind and temperature for aviation	WINTEM
Freezing	FZ
Freezing drizzle	FZDZ
Freezing fog	FZFG
Freezing rain	FZRA
Frequency	FREQ
Frequent	FRQ
Friction coefficient	FCT
Friday	FRI
From	FM
From *(followed by time weather change is forecast to begin)*	FM . . .
From *(used to precede the call sign of the calling station) (to be used in AFS as a procedure signal)*	DE*
Front *(relating to weather)*	FRONT†
Frost *(used in aerodrome warnings)*	FROST†
Fuel remaining	FR
Full stop landing	FSL
Funnel cloud *(tornado or water spout)*	FC

G

GBAS azimuth reference point	GARP
General	GEN
Geographic *or* 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 orbiting navigation satellite system *(to be pronounced "GLO-NAS")*	GLONASS†
Global positioning system	GPS‡
Go ahead, resume sending *(to be used in AFS as a procedure signal)*	GA
GPS and geostationary earth orbit augmented navigation	GAGAN†
Grass landing area	GRASS
Gravel	GRVL
Green	G
Ground	GND
Ground-based augmentation system *(to be pronounced "GEE-BAS")*	GBAS†
Ground-based regional augmentation system *(to be pronounced "GRASS")*	GRAS†
Ground — by visual reference to the	VSA
Ground check	GNDCK
Ground controlled approach system *or* ground controlled approach	GCA‡
Ground earth station	GES
Ground movement chart *(followed by name/title)*	GMC . . .
Ground proximity warning system	GPWS‡
Ground speed	GS
Ground-to-air	G/A
Ground-to-air and air-to-ground	G/A/G

H

Hail	GR
Hazard beacon	HBN
Haze	HZ
Heading	HDG

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Heading to a manual termination	VM
Heading to an altitude	VA
Heading to an intercept	VI
Heavy	HVY
Heavy *(used to indicate the intensity of weather phenomena, e.g. heavy rain = HVY RA)*	HVY
Hectopascal	HPA
Height *or* height above	HGT
Helicopter	HEL
Helicopter approach path indicator	HAPI
Here . . . *or* herewith	ER*
Hertz *(cycle per second)*	HZ
High and very high frequency direction-finding stations *(at the same location)*	HVDF
High frequency [3 000 to 30 000 kHz]	HF‡
High frequency direction-finding station	HDF
High pressure area *or* the centre of high pressure	H
Higher	HYR
Holding	HLDG
Holding/racetrack to a fix	HF
Holding/racetrack to a manual termination	HM
Holding/racetrack to an altitude	HA
Holiday	HOL
Hospital aircraft	HOSP
Hours	HR
Hurricane	HURCN

I

I have nothing to send to you *or* none	NIL*†
Ice crystals *(very small ice crystals in suspension, also known as diamond dust)*	IC
Ice on runway	IR
Ice pellets	PL
Icing	ICE
Identification	IDENT†
Identification beacon	IBN
Identification friend/foe	IFF
Identifier *or* identify	ID
If not possible	INP
Immediate *or* immediately	IMT
Immigration	IMG
Improve *or* improving	IMPR
In and out of clouds	IAO
In cloud	INC
Inbound	INBD
Independent sideband	ISB
Indicated airspeed	IAS
Indicator for maximum temperature *(used in the TAF code form)*	TX
Inertial navigation system	INS
Inertial reference system	IRS
Information	INFO†
Information concerning en-route weather phenomena which may affect the safety of aircraft operations	SIGMET†
Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations	AIRMET†
Initial approach	INA
Initial approach fix	IAF
Inland	LAN
Inner marker	IM
Inoperative	INOP
In progress	INPR
Install *or* installed *or* installation	INSTL
Instrument	INSTR
Instrument approach chart *(followed by name/title)*	IAC . . .
Instrument approach procedure	IAP
Instrument flight rules	IFR‡
Instrument landing system	ILS‡
Instrument meteorological conditions	IMC‡
Intensify *or* intensifying	INTSF
Intensity	INTST
Intermediate approach fix	IF
International	INTL
International general aviation	IGA
International NOTAM office	NOF
International standard atmosphere	ISA
International system of units	SI
Interrogation sign (question mark) *(to be used in AFS as a procedure signal)*	IMI*
Interrogator	INTRG
Interrupt *or* interruption *or* interrupted	INTRP
Intersection	INT
Intersection of air routes	IAR

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In valleys	VAL
Isolated	ISOL

J

January	JAN
Jet stream	JTST
July	JUL
June	JUN

K

Kilograms	KG
Kilohertz	KHZ
Kilometres	KM
Kilometres per hour	KMH
Kilopascal	KPA
Kilowatts	KW
Knots	KT
Knots indicated airspeed	KIAS

L

Landing	LDG
Landing direction indicator	LDI
Landing distance available	LDA
Landing distance available, helicopter	LDAH
Landing threshold point	LTP
Landline teletypewriter	LTT
Lateral navigation *(to be pronounced "EL-NAV")*	LNAV†
Latitude	LAT
Layer *or* layered	LYR
Leave *or* leaving	LVE
Left *(preceded by runway designation number to identify a parallel runway)*	. . . L
Length	LEN
Level	LVL
Light *(used to indicate the intensity of weather phenomena, interference or static reports, e.g. light rain = FBL RA)*	FBL
Light *or* lighting	LGT
Light and variable *(relating to wind)*	LV
Light intensity high	LIH
Light intensity low	LIL
Light intensity medium	LIM
Lighted	LGTD
Limited	LTD
Line *(used in SIGMET)*	LINE
Local *or* locally *or* location *or* located	LCA
Local mean time	LMT
Local routine meteorological report *(in abbreviated plain language)*	MET REPORT
Local special meteorological report *(in abbreviated plain language)*	SPECIAL†
Localizer	LOC
Localizer performance with vertical guidance	LPV
Locator	L
Locator, middle	LM
Locator, outer	LO
Logical acknowledgement *(message type designator)*	LAM
Long *(used to indicate the type of approach desired or required)*	LNG
Longitude	LONG
Long range	LRG
LORAN *(long range air navigation system)*	LORAN†
Low drifting *(followed by DU = dust, SA = sand or SN = snow)*	DR . . .
Low frequency [30 to 300 kHz]	LF
Low pressure area *or* the centre of low pressure	L
Low visibility procedures	LVP

M

Mach number *(followed by figures)*	M . . .
Magnetic	MAG
Magnetic bearing	QDR
Magnetic heading *(zero wind)*	QDM‡
Magnetic orientation of runway	QFU
Magnetic variation	VAR
Maintain	MNTN
Maintenance	MAINT
Manual A1 simplex	MAS
March	MAR
Marker radio beacon	MKR

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Maximum	MAX
Maximum authorized altitude	MAA
Maximum tempterature *(followed by figures in TAF)*	TX . . .
Maximum value of wind speed or runway visual range *(followed by figures in METAR/SPECI and TAF)*	P . . .
May	MAY
Mean sea level	MSL
Medium and high frequency direction-finding stations *(at the same location)*	MHDF
Medium and very high frequency direction-finding stations *(at the same location)*	MVDF
Medium frequency [300 to 3 000 kHz]	MF
Medium frequency direction-finding station	MDF
Medium, high and very high frequency direction-finding stations *(at the same location)*	MHVDF
Medium range	MRG
Megahertz	MHZ
Message	MSG
Message . . . *(transmission identification)* has been misrouted *(to be used in AFS as a procedure signal)*	MSR#
Meteorological *or* meteorology	MET†
Meteorological information for aircraft in flight	VOLMET†
Meteorological Operational Telecommunications Network Europe	MOTNE
Meteorological watch office	MWO
Metres *(preceded by figures)*	. . . M
Metres per second	MPS
Metric units	MTU
Microburst	MBST
Microwave landing system	MLS‡
Middle marker	MM
Mid-point *(related to RVR)*	MID
Military	MIL
Military operating area	MOA
Minimum	MNM
Minimum crossing altitude	MCA
Minimum descent altitude	MDA
Minimum descent height	MDH
Minimum en-route altitude	MEA
Minimum eye height over threshold *(for visual approach slope indicator systems)*	MEHT
Minimum navigation performance specifications	MNPS
Minimum obstacle clearance *(required)*	MOC
Minimum obstacle clearance altitude	MOCA
Minimum operational performance standards	MOPS†
Minimum reception altitude	MRA
Minimum safe altitude warning	MSAW
Minimum sector altitude	MSA
Minimum temperature *(followed by figures in TAF)*	TN . . .
Minimum value of runway visual range *(followed by figures in METAR/SPECI)*	M . . .
Minus	MS
Minutes	MIN*
Missed approach holding fix	MAHF
Missed approach point	MAPT
Missed approach turning fix	MATF
Missing . . . (*transmission identification) (to be used in AFS as a procedure signal)*	MIS
Mist	BR
Mixed type of ice formation *(white and clear)*	MX
Moderate *(used to indicate the intensity of weather phenomena, interference or static reports, e.g. moderate rain = MODRA)*	MOD
Modification *(message type designator)*	CHG
Modulated continuous wave	MCW
Monday	MON
Monitor *or* monitoring *or* monitored	MNT
Monopulse secondary surveillance radar	MSSR
Mountain	MT
Mountain waves	MTW
Move *or* moving *or* movement	MOV
Multi-functional transport satellite (MTSAT) satellite-based augmentation system *(to be pronounced "EM-SAS")*	MSAS†

N

National	NTL
National AIS system centre	NASC†
Nautical miles	NM

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Navigation	NAV
Navigation system error	NSE
Near *or* over large towns	CIT
Next	NXT
Night	NGT
Nil significant cloud	NSC
Nil significant weather	NSW
Nimbostratus	NS
No *or* negative *or* permission not granted *or* that is not correct	NEG
No change	NC
No cloud detected *(used in automated METAR/SPECI)*	NCD
No directional variations available *(used in automated METAR/SPECI)*	NDV
No distinct tendency *(in RVR during previous 10 minutes)*	N
No (negative) *(to be used in AFS as a procedure signal)*	NO
No reply heard	NRH
No significant change *(used in trend-type landing forecasts)*	NOSIG†
No specific working hours	HX
No transgression zone	NTZ‡
Noise abatement departure procedure	NADP
Non-directional radio beacon	NDB‡
Non-precision approach	NPA
None *or* I have nothing to send to you	NIL*†
Normal	NML
Normal operating zone	NOZ‡
North *or* 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
North-westbound	NWB
Not before	NBFR
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†
Notification of an aircraft accident	ACCID
November	NOV
Number	NR

O

Obscure *or* obscured *or* obscuring	OBSC
Observe *or* observed *or* observation	OBS
Obstacle	OBST
Obstacle assessment surface	OAS
Obstacle clearance altitude	OCA
Obstacle clearance height	OCH
Obstacle clearance surface	OCS
Obstacle free zone	OFZ
Obstacle identification surface	OIS
Occasional *or* occasionally	OCNL
Occulting *(light)*	OCC
Ocean station vessel	OSV
Oceanic area control centre	OAC
Oceanic control area	OCA
October	OCT
On-line data interchange	OLDI†
On request	O/R
On top	OTP
Opaque, white type of ice formation	OPA
Open *or* opening *or* opened	OPN
Operations	OPS†
Operator *or* operate *or* operative *or* operating *or* operational	OPR
Operational control is the control indicated	OPC
Operational meteorological *(information)*	OPMET†
Order	ORD
Organized track system	OTS
Originate *(to be used in AFS as a procedure signal)*	OGN
Outbound	OUBD

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Outer marker	OM
Outlook *(used in SIGMET messages for volcanic ash and tropical cyclones)*	OTLK
Overcast	OVC
Overhead	OHD

P

Parachute jumping exercise	PJE
Parallel	PARL
Parking	PRKG
Passenger(s)	PAX
Passing	PSG
Pavement classification number	PCN
Performance	PER
Permanent	PERM
Persons on board	POB
Pierced steel plank	PSP
Pilot-controlled lighting	PCL
Plan position indicator	PPI
Plus	PS
Point-in-space reference point	PRP
Point of no return	PNR
Polar track structure	PTS
Position	PSN
Possible	POSS
Power	PWR
Practice low approach	PLA
Precision approach	PA
Precision approach lighting system *(specify category)*	PALS
Precision approach path indicator	PAPI†
Precision approach radar	PAR‡
Precision approach terrain chart *(followed by name/title)*	PATC . . .
Pre-departure clearance	PDC‡
Preflight information bulletin	PIB
Present level	PLVL
Present position	PPSN
Pressure system(s)	PSYS
Primary	PRI
Primary surveillance radar	PSR‡
Prior notice required	PN
Prior permission required	PPR
Probability	PROB†
Procedure	PROC
Procedure design gradient	PDG
Procedure turn	PTN
Procedures for air navigation services	PANS
Proceed *or* proceeding	PCD
Processed meteorological data in the form of grid point values expressed in binary form *(meteorological code)*	GRIB
Prohibited area *(followed by identification)*	P . . .
Provisional	PROV

Q

Quadrant	QUAD

R

Radar position indicator	RPI‡
Radar position symbol	RPS
Radial	RDL
Radio	RDO
Radio range	RNG
Radiocommunication failure *(message type designator)*	RCF
Radiotelegraph	RTG
Radiotelephone	RTF
Radioteletypewriter	RTT
Ragged	RAG
Rain	RA
Range *(lights)*	RG
Rate of climb	ROC
Rate of descent	ROD
Rate of turn	R
Reach *or* reaching	RCH
Reach cruising altitude	RCA
Receive *or* receiver	REC
Received *(acknowledgement of receipt) (to be used in AFS as a procedure signal)*	R*
Receiver autonomous integrity monitoring	RAIM†
Receiving only	RON
Recent *(used to qualify weather phenomena, e.g. recent rain = RERA)*	RE
Reclearance in flight	RIF
Recleared	RCLR

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Red	R
Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410	RVSM‡
Reference datum height	RDH
Reference path data selector	RPDS
Reference to . . . *or* refer to . . .	REF
Regional AIS system centre	RASC†
Regional OPMET bulletin exchange *(scheme)*	ROBEX†
Regional supplementary procedures	SUPPS
Registration	REG
Rejected take-off distance available, helicopter	RTODAH
Relay to	RLA
Remark	RMK
Remote altimeter setting source	RASS
Repeat *or* I repeat *(to be used in AFS as a procedure signal)*	RPT*
Repetitive flight plan	RPL
Replace *or* replaced	RPLC
Report *or* reporting *or* reporting point	REP
Report leaving	RL
Report reaching	RR
Request *or* requested	REQ
Request *(to be used in AFS as a procedure signal)*	RQ*
Request flight plan *(message type designator)*	RQP
Request level change en route	RLCE
Request supplementary flight plan *(message type designator)*	RQS
Requested level not available	RLNA
Required communication performance	RCP‡
Required navigation performance	RNP‡
Requirements	RQMNTS
Re-route	RERTE
Rescue boat	RB
Rescue coordination centre	RCC
Rescue sub-centre	RSC
Rescue vessel	RV
Resolution advisory	RA
Responder beacon	RSP
Restricted area *(followed by identification)*	R . . .
Return *or* returned *or* returning	RTN
Return to service	RTS
Right *(direction of turn)*	RITE
Right *(preceded by runway designation number to identify a parallel runway)*	. . . R
Right-hand circuit	RHC
Rime *(used in aerodrome warnings)*	RIME†
Root sum square	RSS
Route	RTE
Route forecast *(in meteorological code)*	ROFOR
Rules of the air and air traffic services	RAC
Runway	RWY
Runway *(followed by figures in METAR/SPECI)*	R . . .
Runway alignment indicator	RAI
Runway arresting gear	RAG
Runway centre line	RCL
Runway centre line light(s)	RCLL
Runway(s) cleared *(used in METAR/SPECI)*	CLRD
Runway control van	VAN
Runway edge light(s)	REDL
Runway end light(s)	RENL
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‡

S

Sand	SA
Sandstorm	SS
Sanitary	SAN
SAR point of contact	SPOC
Satellite-based augmentation system *(to be pronounced "ESS-BAS")*	SBAS†
Satellite communication	SATCOM†
Saturday	SAT
Scattered	SCT
Schedule *or* scheduled	SKED
Sea *(used in connection with sea-surface temperature and state of sea)*	SEA
Sea-surface temperature *(followed by figures in METAR/SPECI)*	W . . .
Search and rescue	SAR

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Search and rescue region	SRR
Secondary	SRY
Secondary surveillance radar	SSR‡
Seconds	SEC
Section	SECN
Sector	SECT
Selective calling system	SELCAL†
Selective identification feature	SIF
September	SEP
Service *or* servicing *or* served	SER
Service available during hours of scheduled operation	HS
Service available to meet operational requirements	HO
Service message	SVC
Serviceable	SVCBL
Severe *(e.g. used to qualify icing and turbulence reports)*	SEV
Shall I cancel telegram number . . .? *or* Cancel telegram number . . . *(to be used in AFS as a Q Code)*	QTA
Shall I run my test tape/a test sentence? *or* Run your test tape/a test sentence *(to be used in AFS as a Q Code)*	QJH
Shallow fog	MIFG
Short *(used to indicate the type of approach desired or required)*	BRF
Short range	SRG
Short take-off and landing	STOL
Shower *(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)*	SH . . .
Signal	SGL
Significant	SIG
Simple approach lighting system	SALS
Simultaneous *or* simultaneously	SIMUL
Single isolated wheel load	SIWL
Single sideband	SSB
Sky clear	SKC
Slow	SLW
Small hail and/or snow pellets	GS
Smoke	FU
Snow	SN
Snow grains	SG
South *or* southern latitude	S
Southbound	SB
South-east	SE
South-eastbound	SEB
South-south-east	SSE
South-south-west	SSW
South-west	SW
South-westbound	SWB
Special air-report *(message type designator)*	ARS
Special position indicator	SPI
Special series of 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
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†
Speed limiting point	SLP
Spot wind	SPOT†
Squall	SQ
Squall line	SQL
Stand by	SDBY
Standard	STD
Standard deviation	SD
Standard instrument arrival	STAR†
Standard instrument departure	SID†
Standard regional route transmitting frequencies	RUT
Standards and Recommended Practices [ICAO]	SARPS
Start of climb	SOC
State of the sea *(followed by figures in METAR/SPECI)*	S . . .
Station	STN
Stationary	STNR
Status	STS
Step down fix	SDF
Stop-end *(related to RVR)*	END
Stopway	SWY
Stopway light(s)	STWL
Straight-in approach	STA

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Stratiform	STF
Stratocumulus	SC
Stratus	ST
Subject to	SUBJ
Sunday	SUN
Sunrise	SR
Sunrise to sunset	HJ
Sunset	SS
Sunset to sunrise	HN
Super high frequency [3 000 to 30 000 MHz]	SHF
Supersonic transport	SST
Supplement *(AIP Supplement)*	SUP
Supplementary flight plan *(message type designator)*	SPL
Surface	SFC
Surface movement control	SMC
Surface movement radar	SMR
Surveillance radar approach	SRA
Surveillance radar element of precision approach radar system	SRE

T

Tail wind	TAIL†
Take-off	TKOF
Take-off distance available	TODA
Take-off distance available, helicopter	TODAH
Take-off run available	TORA
Taxiing *or* taxi	TAX
Taxiing guidance system	TGS
Taxiway	TWY
Taxiway-link	TWYL
Technical reason	TECR
Telephone	TEL
Teletypewriter	TT
Temperature	T
Temporary *or* temporarily	TEMPO†
Temporary reserved airspace	TRA
Terminal area surveillance radar	TAR
Terminal arrival altitude	TAA
Terminal control area	TMA‡
Terminal VOR	TVOR
Text *(when the abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI TXT) (to be used in AFS as a procedure signal)*	TXT*
The address *(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)*	ADS*
The last message received by me was . . . *(to be used in AFS as a procedure signal)*	LR
The last message sent by me was . . . *or* Last message was . . . *(to be used in AFS as a procedure signal)*	LS
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)*	CH#
This is a duplicate message *(to be used in AFS as a procedure signal)*	DUPE#
Threshold	THR
Threshold crossing height	TCH
Through	THRU
Thunderstorm *(in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome)*	TS
Thunderstorm *(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)*	TS . . .
Thursday	THU
Till *(followed by time by which weather change is forecast to end)*	TL . . .
To . . . *(place)*	TO . . .
Top of climb	TOC
Tornado	TDO
Touch-and-go landing	TGL
Touchdown and lift-off area	TLOF
Touchdown zone	TDZ
Towering cumulus	TCU

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Track	TR
Track to fix	TF
Traffic	TFC
Traffic advisory	TA
Traffic alert and collision avoidance system resolution advistory *(to be pronounced "TEE-CAS-AR-AY")*	TCAS RA†
Traffic information broadcast by aircraft	TIBA†
Transition altitude	TA
Transition level	TRL
Transmits *or* transmitter	TRANS
Trend forecast	TREND†
Tropical cyclone	TC
Tropical cyclone advisory centre	TCAC
Tropopause	TROP
True airspeed	TAS
True bearing	QTE
Tsunami *(used in aerodrome warnings)*	TSUNAMI†
Tuesday	TUE
Turbulence	TURB
Turn altitude	TNA
Turn at an altitude/height	TA/H
Turn height	TNH
Turning point	TP
T visual approach slope indicator system *(to be pronounced "TEE-VASIS")*	T-VASIS†
Type of aircraft	TYP
Typhoon	TYPH

U

UHF tactical air navigation aid	TACAN†
Ultra high frequency [300 to 3 000 MHz]	UHF‡
Ultra high frequency direction-finding station	UDF
Ultra long range	ULR
Unable	UNA
Unable higher due traffic	UHDT
Unable to approve	UNAP
Uncertainty phase	INCERFA†
Unidentified precipitation *(used in automated METAR/SPECI)*	UP
Unlimited	UNL
Unreliable	UNREL
Unserviceable	U/S
Until	TIL†
Until advised by . . .	UAB . . .
Until further notice	UFN
Until past . . . *(place)*	TIP
Upper air route	UAR
Upper area control centre	UAC
Upper control area	UTA
Upper flight information region	UIR‡
Upper information centre	UIC
Upward *(tendency in RVR during previous 10 minutes)*	U

V

Variable	VRB
Variations from the mean wind direction *(preceded and followed by figures in METAR/SPECI, e.g. 350V070)*	. . . V . . .
Variations from the mean wind speed (gusts) *(followed by figures in METAR/SPECI and TAF)*	G . . .
Vector to final	VTF
Vertical	VER
Vertical navigation *(to be pronounced "VEE-NAV")*	VNAV†
Vertical path angle	VPA
Vertical speed	VSP
Vertical take-off and landing	VTOL
Vertical visibility *(followed by figures in METAR/SPECI and TAF)*	VV . . .
Very high frequency [30 to 300 MHz]	VHF‡
Very high frequency direction-finding station	VDF
Very important person	VIP‡
Very long range	VLR
Very low frequency [3 to 30 kHz]	VLF
VHF omnidirectional radio range	VOR‡
Vicinity	VCY
Vicinity of the aerodrome *(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)*	VC . . .

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Visibility	VIS
Visibility, cloud and present weather better than prescribed values *or* conditions *(to be pronounced "KAV-OH-KAY")*	CAVOK†
Visual approach chart *(followed by name/title)*	VAC . . .
Visual approach slope indicator systems	VASIS
Visual-aural radio range	VAR
Visual flight rules	VFR‡
Visual meteorological conditions	VMC‡
Visual reference to the ground, by	VSA
Volcanic ash	VA
Volcanic ash advisory centre	VAAC
VOR airborne equipment test facility	VOT
VOR and TACAN combination	VORTAC†

W

Warning	WRNG
Waterspout	WTSPT
Way-point	WPT
We agree *or* It is correct *(to be used in AFS as a procedure signal)*	OK*
Weaken *or* weakening	WKN
Weather	WX
Wednesday	WED
Weight	WT
West *or* western longitude	W
Westbound	WB
West-north-west	WNW
West-south-west	WSW
What is my distance to your station? *or* Your distance to my station is *(distance figures and units) (to be used in radiotelegraphy as a Q Code)*	QGE
White	W
White type of ice formation, opaque	OPA
Wide area augmentation system	WAAS†
Widespread	WDSPR
Width *or* wide	WID
Will comply	WILCO†
Will you give me the position of my station according to the bearings taken by the D/F stations which you control? *or* The position of your station according to the bearings taken by the D/F stations that I control was . . . latitude . . . longitude *(or other indication of position)*, class . . . at . . . hours *(to be used in radiotelegraphy as a Q Code)*	QTF
Will you indicate the TRUE track to reach you? *or* The TRUE track to reach me is . . . degrees at . . . hours *(to be used in radiotelegraphy as a Q Code)*	QUJ
Will you relay to . . . free of charge? *or* I will relay to . . . free of charge *(to be used in AFS as a Q Code)*	QSP
Wind	WIND
Wind direction indicator	WDI
Wind shear	WS
Wind speed	WSPD
Wing bar lights	WBAR
With effect from *or* effective from	WEF
With immediate effect *or* effective immediately	WIE
Within	WI
Without	WO
Work in progress	WIP
World Aeronautical Chart — ICAO 1:1 000 000 *(followed by name/title)*	WAC . . .
World area forecast centre	WAFC
World Geodetic System — 1984	WGS-84
Worldwide web	WWW

Y

Yellow	Y
Yellow caution zone *(runway lighting)*	YCZ
Yes *or* affirm *or* affirmative *or* that is correct	AFM
Yes (affirmative) *(to be used in AFS as a procedure signal)*	YES*
Your	YR

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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
Filed flight plan	FPL
Flight plan cancellation	CNL
Logical acknowledgement	LAM
Modification	CHG
Radio communication 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 message *(to be used by AFS stations only)*	SVC

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

DECODE

ACARS *(to be pronounced "AY-CARS")* Aircraft communication addressing and reporting system
ACAS Airborne collision avoidance system
ADIZ *(to be pronounced "AY-DIZ")* Air defence identification zone
AIREP Air-report
AIRMET Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations
ALERFA Alert phase
APAPI *(to be pronounced "AY-PAPI")* Abbreviated precision approach path indicator
ATIS Automatic terminal information service
AT-VASIS *(to be pronounced "AY-TEE-VASIS")* Abbreviated T visual approach slope indicator system
AVGAS Aviation gasoline

BARO-VNAV *(to be pronounced "BAA-RO-VEE-NAV")* Barometric vertical navigation
BASE Cloud base

CAVOK *(to be pronounced "KAV-OH-KAY")* Visibility, cloud and present weather better than prescribed values or conditions
CIDIN Common ICAO data interchange network

D-ATIS *(to be pronounced "DEE-ATIS")* Data link automatic terminal information service
DETRESFA Distress phase

EFIS *(to be pronounced "EE-FIS")* Electronic flight instrument system
EGNOS *(to be pronounced "EGG-NOS")* European geostationary navigation overlay service
ELBA Emergency location beacon — aircraft

FRONT Front *(relating to weather)*
FROST Frost *(used in aerodrome warnings)*

GAGAN GPS and geostationary earth orbit augmented navigation
GBAS *(to be pronounced "GEE-BAS")* Ground-based augmentation system
GLONASS *(to be pronounced "GLO-NAS")* Global orbiting navigation satellite system
GRAS *(to be pronounced "GRASS")* Ground-based regional augmentation system

IDENT Identification
INCERFA Uncertainty phase
INFO Information

LNAV *(to be pronounced "EL-NAV")* Lateral navigation
LORAN LORAN *(long range air navigation system)*

MET Meteorological *or* meteorology
METAR Aviation routine weather report *(in aeronautical meteorological code)*
MOPS Minimum operational performance standards
MSAS *(to be pronounced "EM-SAS")* Multi-functional transport satellite (MTSAT) satellite-based augmentation system

NASC National AIS system centre
NIL None *or* I have nothing to send you
NOSIG No significant change *(used in trend-type landing forecast)*
NOTAM A 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
OPMET Operational meteorological *(information)*
OPS Operations

PAPI Precision approach path indicator
PROB Probability

RAIM Receiver autonomous integrity monitoring
RASC Regional AIS system centre
RIME Rime *(used in aerodrome warnings)*

RNAV	*(to be pronounced "AR-NAV")* Area navigation
ROBEX	Regional OPMET bulletin exchange *(scheme)*
SATCOM	Satellite communication
SBAS	*(to be prounounced "ESS-BAS")* Satellite-based augmentation system
SELCAL	Selective calling system
SID	Standard instrument departure
SIGMET	Information concerning en-route weather phenomena which may affect the safety of aircraft operations
SNOWTAM	A 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
SPECI	Aviation selected special weather report *(in aeronautical meteorological code)*
SPECIAL	Special meteorological report *(in abbreviated plain language)*
SPOT	Spot wind
STAR	Standard instrument arrival
TACAN	UHF tactical air navigation system
TAF	Aerodrome forecast
TAIL	Tail wind
TCAS RA	*(to be pronounced "TEE-CAS-AR-AY")* Traffic alert and collision avoidance system resolution advisory
TEMPO	Temporary *or* temporarily
TREND	Trend forecast
TIBA	Traffic information broadcast by aircraft
TIL	Until
TOP	Cloud top
TSUNAMI	Tsunami *(used in aerodrome warnings)*
T-VASIS	*(to be pronounced "TEE–VASIS")* T visual approach slope indicator system
VNAV	*(to be pronounced "VEE-NAV")* 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 *(to be pronounced "AY-PAPI")*	APAPI
Abbreviated T visual approach slope indicator system *(to be pronounced "AY-TEE-VASIS")*	AT-VASIS
Aerodrome forecast	TAF
Airborne collision avoidance system	ACAS
Aircraft communication addressing and reporting system *(to be pronounced "AY-CARS")*	ACARS
Air defence identification zone *(to be pronounced ''AY-DIZ")*	ADIZ
Air-report	AIREP
Alert phase	ALERFA
Area navigation *(to be pronounced "AR-NAV")*	RNAV
Automatic terminal information service	ATIS
Aviation gasoline	AVGAS
Aviation routine weather report *(in aeronautical meteorological code)*	METAR
Aviation selected special weather report *(in aeronautical meteorological code)*	SPECI
Barometric vertical navigation *(to be pronounced "BAA-RO-VEE-NAV")*	BARO-VNAV
Cloud base	BASE
Cloud top	TOP
Common ICAO data interchange network	CIDIN
Data link automatic terminal information service *(to be pronounced "DEE-ATIS")*	D-ATIS
Distress phase	DETRESFA
Electronic flight instrument system *(to be pronounced "EE-FIS")*	EFIS
Emergency location beacon — aircraft	ELBA
European geostationary navigation overlay service *(to be pronounced "EGG-NOS")*	EGNOS
Front *(relating to weather)*	FRONT
Frost *(used in aerodrome warnings)*	FROST
Global orbiting navigation satellite system *(to be pronounced "GLO-NAS")*	GLONASS
GPS and geostationary earth orbit augmented navigation	GAGAN
Ground-based augmentation system *(to be pronounced "GEE-BAS")*	GBAS
Ground-based regional augmentation system *(to be pronounced "GRASS")*	GRAS
Identification	IDENT
Information	INFO
Information concerning en-route weather phenomena which may affect the safety of aircraft operations	SIGMET
Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations	AIRMET
Lateral navigation *(to be pronounced "EL-NAV")*	LNAV
LORAN *(long range air navigation system)*	LORAN
Meteorological *or* meteorology	MET
Meteorological information for aircraft in flight	VOLMET
Minimum operational performance standards	MOPS
Multi-functional transport satellite (MTSAT) satellite-based augmentation system *(to be pronounced "EM-SAS")*	MSAS
National AIS system centre	NASC
None *or* I have nothing to send you	NIL
No significant change *(used in trend-type landing forecast)*	NOSIG
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
On-line data interchange	OLDI
Operational meteorological *(information)*	OPMET
Operations	OPS
Precision approach path indicator	PAPI
Probability	PROB
Receiver autonomous integrity monitoring	RAIM

Regional AIS system centre	RASC
Regional OPMET bulletin exchange *(scheme)*	ROBEX
Rime *(used in aerodrome warnings)*	RIME
Satellite-based augmentation system *(to be pronounced "ESS-BAS")*	SBAS
Satellite communication	SATCOM
Selective calling system	SELCAL
Special meteorological report *(in abbreviated plain language)*	SPECIAL
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
Spot wind	SPOT
Standard instrument arrival	STAR
Standard instrument departure	SID
Tail wind	TAIL
Temporary *or* temporarily	TEMPO
Traffic alert and collision avoidance system resolution advisory *(to be pronounced "TEE-CAS-AR-AY")*	TCAS RA
Traffic information broadcast by aircraft	TIBA
Trend forecast	TREND
Tsunami *(used in aerodrome warnings)*	TSUNAMI
T visual approach slope indicator system *(to be pronounced "TEE–VASIS")*	T-VASIS
UHF tactical air navigation system	TACAN
Uncertainty phase	INCERFA
Until	TIL
Vertical navigation *(to be pronounced "VEE-NAV")*	VNAV
Visibility, cloud and present weather better than prescribed values or conditions *(to be pronounced ''KAV-OH-KAY'')*	CAVOK
VOR and TACAN combination	VORTAC
Wide area augmentation system	WAAS
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 *or* area control
ADF	Automatic direction-finding equipment
ADS-B	Automatic dependent surveillance — broadcast
ADS-C	Automatic dependent surveillance — contract
AFTN	Aeronautical fixed telecommunication network
ATA	Actual time of arrival
ATC	Air traffic control *(in general)*
ATD	Actual time of departure
CB	*(to be pronounced "CEE BEE")* Cumulonimbus
CPDLC	Controller-pilot data link communications
DME	Distance measuring equipment
ETA	Estimated time of arrival *or* estimating arrival
ETD	Estimated time of departure *or* estimating departure
FIR	Flight information region
FMS	Flight management system
GCA	Ground controlled approach system *or* ground controlled approach
GNSS	Global navigation satellite system
GPS	Global positioning system
GPWS	Ground proximity warning system
HF	High frequency [3 000 to 30 000 KHz]
IFR	Instrument flight rules
ILS	Instrument landing system
IMC	Instrument meteorological conditions
MLS	Microwave landing system
NDB	Non-directional radio beacon
NOZ	Normal operating zone
NTZ	No transgression zone
PAR	Precision approach radar
PDC	Pre-departure clearance
PSR	Primary surveillance radar
QDM	Magnetic heading *(zero wind)*
QFE	Atmospheric pressure at aerodrome elevation *(or at runway threshold)*
QNH	Altimeter sub-scale setting to obtain elevation when on the ground
RCP	Required communication performance
RNP	Required navigation performance
RPI	Radar position indicator
RVSM	Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410
RVR	Runway visual range
SSR	Secondary surveillance radar
TMA	Terminal control area
UHF	Ultra high frequency [300 to 3 000 MHz]
UIR	Upper flight information region
UTC	Coordinated universal time
VFR	Visual flight rules
VHF	Very high frequency [30 to 300 MHz]
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
Actual time of departure	ATD
Aeronautical fixed telecommunication network	AFTN
Air traffic control *(in general)*	ATC
Altimeter sub-scale setting to obtain elevation when on the ground	QNH
Area control centre *or* area control	ACC
Atmospheric pressure at aerodrome elevation *(or at runway threshold)*	QFE
Automatic dependent surveillance — broadcast	ADS-B
Automatic dependent surveillance — contract	ADS-C
Automatic direction-finding equipment	ADF
Controller-pilot data link communications	CPDLC
Coordinated universal time	UTC
Cumulonimbus *(to be pronounced "CEE BEE")*	CB
Distance measuring equipment	DME
Estimated time of arrival *or* estimating arrival	ETA
Estimated time of departure *or* estimating departure	ETD
Flight information region	FIR
Flight management system	FMS
Global navigation satellite system	GNSS
Global positioning system	GPS
Ground controlled approach system *or* ground controlled approach	GCA
Ground proximity warning system	GPWS
High frequency [3 000 to 30 000 KHz]	HF
Instrument flight rules	IFR
Instrument landing system	ILS
Instrument meteorological conditions	IMC
Magnetic heading *(zero wind)*	QDM
Microwave landing system	MLS
No transgression zone	NTZ
Non-directional radio beacon	NDB
Normal operating zone	NOZ
Precision approach radar	PAR
Pre-departure clearance	PDC
Primary surveillance radar	PSR
Radar position indicator	RPI
Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410	RVSM
Required communication performance	RCP
Required navigation performance	RNP
Runway visual range	RVR
Secondary surveillance radar	SSR
Terminal control area	TMA
Ultra high frequency [300 to 3 000 MHz]	UHF
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

Type of modulation of main carrier	*Type of transmission*	*Supplementary characteristics*	*Abbre-viation*
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

Type of modulation of main carrier	*Type of transmission*	*Supplementary characteristics*	*Abbre-viation*
	Four-frequency diplex telegraphy	—	F7B
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
Note.— 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.			
	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

	S	I	N	P	O
		Degrading effect of			
Rating scale	*Signal strength*	*Interference (QRM)*	*Noise (QRN)*	*Propagation disturbance*	*Overall readability (QRK)*
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

	S	I	N	P	F	E	M	O
		Degrading effect of				*Modulation*		
Rating scale	*Signal strength*	*Interference (QRM)*	*Noise (QRN)*	*Propagation disturbance*	*Frequency of fading*	*Quality*	*Depth*	*Overall rating*
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 5.2.2 and Appendix 6 of Annex 15)

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 6 of Annex 15. Thus, the NOTAM Code is the basis for determination of the qualifiers TRAFFIC, PURPOSE and SCOPE used in 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, and Annex 15. 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 Appendix 4 and Chapter 6 of Annex 15 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)

. . . . .	LIGHTING facilities	— L
. . . . .	MOVEMENT and landing area	— M
. . . . .	FACILITIES and services	— F

ATM (Air Traffic Management)

. . . . .	AIRSPACE organization	— A
. . . . .	air traffic and VOLMET SERVICES	— S
. . . . .	air traffic PROCEDURES	— P

CNS (Communications, Navigation and Surveillance)

. . . . .	COMMUNICATION and radar facilities	— C
. . . . .	INSTRUMENT and microwave landing systems	— I
. . . . .	GNSS services	— G
. . . . .	terminal and en-route NAVIGATION facilities	— N

Navigation Warnings

. . . . .	airspace RESTRICTIONS	— R
. . . . .	WARNINGS	— W

Other Information

. . . . .	OTHER information	— O

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 AVAILABILITY

C CHANGES

H HAZARD conditions

L LIMITATIONS

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 (Annex 15, Appendix 6), 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 OBSCURED 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, 5.2.1, 5.3.2 and Appendix 6). 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 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, *Attachment to Appendix C).*

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 (Annex 15, Appendix 6).

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) KLGA 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, gunfiring 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

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

Code	*Signification*	*Uniform abbreviated phraseology*
MW	Strip *(specify runway)*	strip
MX	Taxiway(s) *(specify)*	twy

AGA
Facilities and services (F)

FA	Aerodrome	ad
FB	Friction measuring device *(specify type)*	friction measuring device
FC	Ceiling measurement equipment	ceiling measurement eqpt
FD	Docking system *(specify AGNIS, BOLDS, etc.)*	dckg system
FE	Oxygen *(specify type)*	oxygen
FF	Firefighting and rescue	fire and rescue
FG	Ground movement control	gnd mov ctl
FH	Helicopter alighting area/platform	hel alighting area
FJ	Oils *(specify type)*	oil
FL	Landing direction indicator	ldi
FM	Meteorological service *(specify type)*	met
FO	Fog dispersal system	fg dispersal
FP	Heliport	heliport
FS	Snow removal equipment	sn removal eqpt
FT	Transmissometer *(specify runway and, where applicable, designator(s) of transmissometer(s))*	transmissometer
FU	Fuel availability	fuel avbl
FW	Wind direction indicator	wdi
FZ	Customs	cust

ATM
Airspace organization (A)

AA	Minimum altitude *(specify en-route/crossing/safe)*	mnm 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	mnm usable fl
AN	Area navigation route	rnav rte
AO	Oceanic control area	oca
AP	Reporting point *(specify name or coded designator)*	rep
AR	ATS route *(specify)*	ats rte
AT	Terminal control area	tma
AU	Upper flight information region	uir
AV	Upper advisory area	uda
AX	Intersection	int
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 *(specify)*	upper advisory ser
ATM Air traffic procedures (P)		
PA	Standard instrument arrival *(specify route designator)*	star
PB	Standard VFR arrival	std vfr arr
PC	Contingency procedures	contingency proc
PD	Standard instrument departure *(specify route designator)*	sid
PE	Standard VFR departure	std vfr dep
PF	Flow control procedure	flow ctl proc
PH	Holding procedure	hldg proc
PI	Instrument approach procedure *(specify type and runway)*	instr apch proc
PK	VFR approach procedure	vfr apch proc
PM	Aerodrome operating minima *(specify procedure and amended minimum)*	opr minima
PO	Obstacle clearance altitude *(specify procedure)*	oca
PP	Obstacle clearance height *(specify procedure)*	och
PR	Radio failure procedure	rdo failure proc
PT	Transition altitude	ta
PU	Missed approach procedure *(specify runway)*	missed apch proc
PX	Minimum holding altitude *(specify fix)*	mnm hldg alt
PZ	ADIZ procedure	adiz proc
CNS Communications and surveillance facilities (C)		
CA	Air/ground facility *(specify service and frequency)*	a/g fac
CB	Automatic dependent surveillance — broadcast *(details)*	ads-b
CC	Automatic dependent surveillance — contract *(details)*	ads-c
CD	Controller-pilot data link communications *(details)*	cpdlc
CE	En-route surveillance radar	rsr
CG	Ground controlled approach system	gca
CL	Selective calling system	selcal

Code	*Signification*	*Uniform abbreviated phraseology*
CM	Surface movement radar	smr
CP	Precision approach radar *(specify runway)*	par
CR	Surveillance radar element of precision approach radar system *(specify wavelength)*	sre
CS	Secondary surveillance radar	ssr
CT	Terminal area surveillance radar	tar

CNS
Instrument and microwave landing systems (I)

IC	Instrument landing system *(specify runway)*	ils
ID	DME associated with ILS	ils dme
IG	Glide path (ILS) *(specify runway)*	ils gp
II	Inner marker (ILS) *(specify runway)*	ils im
IL	Localizer (ILS) *(specify runway)*	ils llz
IM	Middle marker (ILS) *(specify runway)*	ils mm
IN	Localizer *(not associated with ILS)*	llz
IO	Outer marker (ILS) *(specify runway)*	ils om
IS	ILS Category I *(specify runway)*	ils cat I
IT	ILS Category II *(specify runway)*	ils cat II
IU	ILS Category III *(specify runway)*	ils cat III
IW	Microwave landing system *(specify runway)*	mls
IX	Locator, outer (ILS) *(specify runway)*	ils lo
IY	Locator, middle (ILS) *(specify runway)*	ils lm

CNS
GNSS services (G)

GA	GNSS airfield-specific operations *(specify operation)*	gnss airfield
GW	GNSS area-wide operations *(specify operation)*	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 *(specify identification)*	1
NM	VOR/DME	vor/dme
NN	TACAN	tacan
NO	OMEGA	omega
NT	VORTAC	vortac
NV	VOR	vor
NX	Direction-finding station *(specify type and frequency)*	df

Code	*Signification*	*Uniform abbreviated phraseology*
Navigation Warnings Airspace restrictions (R)		
RA	Airspace reservation *(specify)*	airspace reservation
RD	Danger area *(specify national prefix and number)*	. . d . .
RM	Military operating area	moa
RO	Overflying of . . . *(specify)*	overflying
RP	Prohibited area *(specify national prefix and number)*	. . p . .
RR	Restricted area *(specify national prefix and number)*	. . r . .
RT	Temporary restricted area *(specify area)*	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 *(specify)*	exer
WF	Air refuelling	air refuelling
WG	Glider flying	gld fly
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 *(specify)*	radioactive materials/toxic chemicals
WS	Burning or blowing gas	burning/blowing gas
WT	Mass movement of aircraft	mass mov of acft
WV	Formation flight	formation flt
WW	Significant volcanic activity	significant volcanic act
WZ	Model flying	model fly
Other Information (O)		
OA	Aeronautical information service	ais
OB	Obstacle *(specify details)*	obst
OE	Aircraft entry requirements	acft entry rqmnts
OL	Obstacle lights on . . . *(specify)*	obst lgt
OR	Rescue coordination centre	rcc

THE NOTAM CODE — DECODE

FOURTH AND FIFTH LETTERS

Code	*Signification*	*Uniform abbreviated phraseology*
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 . . . *(specify)*	hr ser
AK	Resumed normal operation	okay
AL	Operative *(or reoperative)* 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 *(specify reason if appropriate)*	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 . . . *(specify friction measuring device used)*	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 *(specify)*	hazard due
HI	Covered by ice	cov ice
HJ	Launch planned . . . *(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)*	launch plan
HK	Bird migration in progress *(specify direction)*	bird migration inpr
HL	Snow clearance completed	sn clr cmpl
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 . . . *(specify balloon flight identification or project code name)*	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 . . . *(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)*	launch inpr
HV	Work completed	work cmpl
HW	Work in progress	wip
HX	Concentration of birds	bird concentration
HY	Snow banks exist *(specify height)*	sn banks hgt
HZ	Covered by frozen ruts and ridges	cov frozen ruts and ridges

Code	*Signification*	*Uniform abbreviated phraseology*
Limitations (L)		
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
Other (XX)		
XX	Plain language	

THE NOTAM CODE — ENCODE

SECOND AND THIRD LETTERS

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

Signification	*Code*
Control zone	AC
Flight information region	AF
Intersection	AX
Minimum altitude *(specify en-route/crossing/safe)*	AA
Minimum usable flight level	AL
Oceanic control area	AO
Reporting point *(specify name or coded designator)*	AP
Terminal control area	AT
Upper advisory area	AV
Upper control area	AH
Upper flight information region	AU
ATM	
Air traffic and VOLMET services (S)	
Aerodrome control tower	ST
Aerodrome flight information service	SF
Approach control service	SP
Area control centre	SC
ATS reporting office	SB
Automatic terminal information service	SA
Flight information service	SE
Flight service station	SS
Flow control centre	SL
Oceanic area control centre	SO
Upper advisory service *(specify)*	SY
Upper area control centre	SU
VOLMET broadcast	SV
ATM	
Air traffic procedures (P)	
ADIZ procedure	PZ
Aerodrome operating minima *(specify procedure and amended minimum)*	PM
Contingency procedures	PC
Flow control procedure	PF
Holding procedure	PH
Instrument approach procedure *(specify type and runway)*	PI
Minimum holding altitude *(specify fix)*	PX
Missed approach procedure *(specify runway)*	PU
Obstacle clearance altitude *(specify procedure)*	PO
Obstacle clearance height *(specify procedure)*	PP
Radio failure procedure	PR
Standard instrument arrival *(specify route designator)*	PA
Standard instrument departure *(specify route designator)*	PD
Standard VFR arrival	PB
Standard VFR departure	PE
Transition altitude	PT
VFR approach procedure	PK
CNS	
Communications and surveillance facilities (C)	
Air/ground facility *(specify service and frequency)*	CA
Automatic dependent surveillance — broadcast *(details)*	CB
Automatic dependent surveillance — contract *(details)*	CC
Controller-pilot data link communications *(details)*	CD
En-route surveillance radar	CE
Ground controlled approach system	CG
Precision approach radar *(specify runway)*	CP
Secondary surveillance radar	CS
Selective calling system	CL
Surface movement radar	CM
Surveillance radar element of precision approach radar system *(specify wavelength)*	CR
Terminal area surveillance radar	CT
CNS	
GNSS services (G)	
GNSS airfield-specific operations *(specify operation)*	GA
GNSS area-wide operations *(specify operation)*	GW
CNS	
Instrument and microwave landing systems (I)	
DME associated with ILS	ID
Glide path (ILS) *(specify runway)*	IG
ILS Category I *(specify runway)*	IS
ILS Category II *(specify runway)*	IT
ILS Category III *(specify runway)*	IU
Inner marker (ILS) *(specify runway)*	II
Instrument landing system *(specify runway)*	IC
Localizer (ILS) *(specify runway)*	IL
Localizer *(not associated with ILS)*	IN

Signification	*Code*
Locator, middle (ILS) *(specify runway)*	IY
Locator, outer (ILS) *(specify runway)*	IX
Microwave landing system *(specify runway)*	IW
Middle marker (ILS) *(specify runway)*	IM
Outer marker (ILS) *(specify runway)*	IO
CNS	
Terminal and en-route navigation facilities (N)	
All radio navigation facilities (except . . .)	NA
DECCA	NC
Direction-finding station *(specify type and frequency)*	NX
Distance measuring equipment	ND
Fan marker	NF
Locator *(specify identification)*	NL
Non-directional radio beacon	NB
OMEGA	NO
VOR	NV
VOR/DME	NM
VORTAC	NT
TACAN	NN
Navigation Warnings	
Airspace restrictions (R)	
Airspace reservation *(specify)*	RA
Danger area *(specify national prefix and number)*	RD
Military operating area	RM
Overflying of . . . *(specify)*	RO
Prohibited area *(specify national prefix and number)*	RP

Signification	*Code*
Restricted area *(specify national prefix and number)*	RR
Temporary restricted area *(specify area)*	RT
Navigation Warnings	
Warnings (W)	
Aerobatics	WB
Air display	WA
Air refuelling	WF
Ascent of free balloon	WL
Banner/target towing	WJ
Blasting	WH
Burning or blowing gas	WS
Captive balloon or kite	WC
Demolition of explosives	WD
Exercises *(specify)*	WE
Formation flight	WV
Glider flying	WG
Mass movement of aircraft	WT
Missile, gun or rocket firing	WM
Model flying	WZ
Parachute jumping exercise	WP
Radioactive materials or toxic chemicals *(specify)*	WR
Significant volcanic activity	WW
Other Information (O)	
Aeronautical information service	OA
Aircraft entry requirements	OE
Obstacle *(specify details)*	OB
Obstacle lights on . . . *(specify)*	OL
Rescue coordination centre	OR

THE NOTAM CODE — ENCODE

FOURTH AND FIFTH LETTERS

Signification	*Code*
Availability (A)	
Available for daylight operation	AD
Available for night operation	AN
Available on request	AR
Available, prior permission required	AP
Completely withdrawn	AW
Flight checked and found reliable	AF
Hours of service are now . . . *(specify)*	AH
Military operations only	AM
Not available *(specify reason if appropriate)*	AU
Operating but ground checked only, awaiting flight check	AG
Operational	AO
Operative *(or reoperative)* subject to previously published limitations/conditions	AL
Previously promulgated shutdown has been cancelled	AX
Resumed normal operation	AK
Unserviceable	AS
Withdrawn for maintenance	AC
Changes (C)	
Activated	CA
Cancelled	CN
Changed	CH
Completed	CC
Deactivated	CD
Displaced	CM
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

Signification	*Code*
Hazard Conditions (H)	
Approach according to signal area only	HT
Bird migration in progress *(specify direction)*	HK
Braking action is . . .	
1) Poor	
2) Medium/Poor	
3) Medium	
4) Medium/Good	
5) Good	HA
Concentration of birds	HX
Covered by compacted snow to a depth of	HC
Covered by dry snow to a depth of	HD
Covered by frozen ruts and ridges	HZ
Covered by ice	HI
Covered by water to a depth of	HE
Covered by wet snow or slush to a depth of	HN
Friction coefficient is . . . *(specify friction measuring device used)*	HB
Grass cutting in progress	HG
Hazard due to *(specify)*	HH
Launch in progress . . . *(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)*	HU
Launch planned . . . *(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)*	HJ
Marked by	HM
Obscured by snow	HO
Operation cancelled . . . *(specify balloon flight identification or project code name)*	HQ
Sanding in progress	HS
Snow banks exist *(specify height)*	HY
Snow clearance completed	HL

Signification	*Code*	*Signification*	*Code*
Snow clearance in progress	HP	Operating as a fixed light	LK
Standing water	HR	Operating but caution advised due to	LX
Totally free of snow and ice	HF	Operating on auxiliary power supply	LA
Work completed	HV	Operating without auxiliary power supply	LE
Work in progress	HW	Operating without identification	LG
		Prohibited to	LP
		Reserved for aircraft based therein	LB
		Subject to interruption	LS
Limitations (L)		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		
Closed to VFR operations	LV	Other (XX)	
Interference from	LF		
Limited to	LT	Plain language	XX

— END —

ICAO TECHNICAL PUBLICATIONS

The following summary gives the status, and also describes in general terms the contents of the various series of technical publications issued by the International Civil Aviation Organization. It does not include specialized publications that do not fall specifically within one of the series, such as the Aeronautical Chart Catalogue *or the* Meteorological Tables for International Air Navigation.

International Standards and Recommended Practices are adopted by the Council in accordance with Articles 54, 37 and 90 of the Convention on International Civil Aviation and are designated, for convenience, as Annexes to the Convention. The uniform application by Contracting States of the specifications contained in the International Standards is recognized as necessary for the safety or regularity of international air navigation while the uniform application of the specifications in the Recommended Practices is regarded as desirable in the interest of safety, regularity or efficiency of international air navigation. Knowledge of any differences between the national regulations or practices of a State and those established by an International Standard is essential to the safety or regularity of international air navigation. In the event of non-compliance with an International Standard, a State has, in fact, an obligation, under Article 38 of the Convention, to notify the Council of any differences. Knowledge of differences from Recommended Practices may also be important for the safety of air navigation and, although the Convention does not impose any obligation with regard thereto, the Council has invited Contracting States to notify such differences in addition to those relating to International Standards.

Procedures for Air Navigation Services (PANS) are approved by the Council for worldwide application. They contain, for the most part, operating procedures regarded as not yet having attained a sufficient degree of maturity for adoption as International Standards and Recommended Practices, as well as material of a more permanent character which is considered too detailed for incorporation in an Annex, or is susceptible to frequent amendment, for which the processes of the Convention would be too cumbersome.

Regional Supplementary Procedures (SUPPS) have a status similar to that of PANS in that they are approved by the Council, but only for application in the respective regions. They are prepared in consolidated form, since certain of the procedures apply to overlapping regions or are common to two or more regions.

The following publications are prepared by authority of the Secretary General in accordance with the principles and policies approved by the Council.

Technical Manuals provide guidance and information in amplification of the International Standards, Recommended Practices and PANS, the implementation of which they are designed to facilitate.

Air Navigation Plans detail requirements for facilities and services for international air navigation in the respective ICAO Air Navigation Regions. They are prepared on the authority of the Secretary General on the basis of recommendations of regional air navigation meetings and of the Council action thereon. The plans are amended periodically to reflect changes in requirements and in the status of implementation of the recommended facilities and services.

ICAO Circulars make available specialized information of interest to Contracting States. This includes studies on technical subjects.

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