

Flight Information Service Officer Manual

CAP 797



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Safety and Airspace Regulation Group



CAP 797

Flight Information Service Officer Manual

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List of effective pages

Chapter	Page	Date
Contents	1	December 2015
Contents	2	December 2015
Contents	3	May 2015
Contents	4	December 2015
Contents	5	May 2015
Contents	6	December 2015
Contents	7	December 2015
Contents	8	May 2015
Contents	9	December 2015
Contents	10	December 2015
Foreword	11	November 2014
Foreword	12	May 2015
Foreword	13	May 2015
Foreword	14	May 2015
Glossary	15	December 2015
Glossary	16	December 2015
Glossary	17	December 2015
Glossary	18	May 2015
Glossary	19	December 2015
Glossary	20	May 2015
Glossary	21	December 2015
Glossary	22	December 2015
Glossary	23	December 2015
Glossary	24	December 2015
Glossary	25	December 2015
Glossary	26	December 2015
Glossary	27	December 2015
Glossary	28	December 2015
Glossary	29	December 2015
Glossary	30	December 2015
Glossary	31	December 2015
Glossary	32	December 2015
Unit of Measure	33	May 2015
Unit of Measure	34	May 2015
Unit of Measure	35	May 2015
Unit of Measure	36	May 2015
Section 1 Chapter 1	37	December 2015
Section 1 Chapter 1	38	April 2014
Section 1 Chapter 2	39	April 2014

Chapter	Page	Date
Section 1 Chapter 2	40	April 2014
Section 1 Chapter 2	41	May 2015
Section 1 Chapter 2	42	November 2014
Section 1 Chapter 3	43	November 2014
Section 1 Chapter 3	44	December 2015
Section 1 Chapter 3	45	December 2015
Section 1 Chapter 3	46	December 2015
Section 1 Chapter 3	47	December 2015
Section 1 Chapter 3	48	November 2014
Section 1 Chapter 4	49	November 2014
Section 1 Chapter 4	50	May 2015
Section 1 Chapter 4	51	May 2015
Section 1 Chapter 4	52	May 2015
Section 1 Chapter 4	53	May 2015
Section 1 Chapter 4	54	December 2015
Section 1 Chapter 4	55	December 2015
Section 1 Chapter 4	56	December 2015
Section 1 Chapter 4	57	December 2015
Section 1 Chapter 4	58	December 2015
Section 1 Chapter 5	59	November 2014
Section 1 Chapter 5	60	April 2014
Section 1 Chapter 5	61	April 2014
Section 1 Chapter 5	62	April 2014
Section 1 Chapter 6	63	April 2014
Section 1 Chapter 6	64	April 2014
Section 1 Chapter 7	65	November 2014
Section 1 Chapter 7	66	April 2014
Section 1 Chapter 7	67	April 2014
Section 1 Chapter 7	68	November 2014
Section 2 Chapter 8	69	December 2015
Section 2 Chapter 8	70	May 2015
Section 2 Chapter 8	71	April 2014
Section 2 Chapter 8	72	April 2014
Section 2 Chapter 8	73	April 2014
Section 2 Chapter 8	74	April 2014
Section 2 Chapter 8	75	April 2014
Section 2 Chapter 8	77	May 2015
Section 2 Chapter 8	78	May 2015

Chapter	Page	Date
Section 2 Chapter 8	79	April 2014
Section 2 Chapter 8	80	April 2014
Section 2 Chapter 8	81	April 2014
Section 2 Chapter 8	82	April 2014
Section 2 Chapter 8	83	April 2014
Section 2 Chapter 8	84	May 2015
Section 2 Chapter 8	85	May 2015
Section 2 Chapter 8	86	April 2014
Section 2 Chapter 8	87	April 2014
Section 2 Chapter 8	88	November 2014
Section 2 Chapter 9	89	May 2015
Section 2 Chapter 9	90	April 2014
Section 2 Chapter 10	91	April 2014
Section 2 Chapter 10	92	April 2014
Section 2 Chapter 10	93	April 2014
Section 2 Chapter 10	94	April 2014
Section 2 Chapter 10	95	April 2014
Section 2 Chapter 10	96	April 2014
Section 2 Chapter 11	97	May 2015
Section 2 Chapter 11	98	April 2014
Section 2 Chapter 12	99	May 2015
Section 2 Chapter 12	100	November 2014
Section 3 Chapter 13	101	April 2014
Section 3 Chapter 13	102	May 2015
Section 3 Chapter 13	103	April 2014
Section 3 Chapter 13	104	April 2014
Section 3 Chapter 13	105	April 2014
Section 3 Chapter 13	106	November 2014
Section 4 Chapter 14	107	May 2015
Section 4 Chapter 14	108	November 2014
Section 4 Chapter 14	109	November 2014
Section 4 Chapter 14	110	May 2015
Section 4 Chapter 14	111	May 2015
Section 4 Chapter 14	112	May 2015
Section 4 Chapter 14	113	May 2015
Section 4 Chapter 14	114	May 2015
Section 4 Chapter 14	115	December 2015
Section 4 Chapter 14	116	December 2015
Section 4 Chapter 14	117	May 2015
Section 4 Chapter 14	118	May 2015
Section 4 Chapter 14	119	May 2015
Section 4 Chapter 14	120	May 2015
Section 4 Chapter 14	121	May 2015

Chapter	Page	Date
Section 4 Chapter 14	122	May 2015
Section 5 Chapter 15	123	December 2015
Section 5 Chapter 15	124	May 2015
Section 5 Chapter 15	125	May 2015
Section 5 Chapter 15	126	May 2015
Section 6 Chapter 16	127	December 2015
Section 6 Chapter 16	128	May 2015
Section 6 Chapter 16	129	May 2015
Section 6 Chapter 16	130	May 2015
Section 6 Chapter 16	131	December 2015
Section 6 Chapter 16	132	December 2015
Section 6 Chapter 16	133	May 2015
Section 6 Chapter 16	134	May 2015
Section 6 Chapter 16	135	May 2015
Section 6 Chapter 16	136	May 2015
Section 6 Chapter 17	137	April 2014
Section 6 Chapter 17	138	April 2014
Section 6 Chapter 18	139	April 2014
Section 6 Chapter 18	140	April 2014
Section 6 Chapter 18	141	April 2014
Section 6 Chapter 18	142	November 2014
Section 6 Chapter 19	143	May 2015
Section 6 Chapter 19	144	May 2015
Section 6 Chapter 19	145	May 2015
Section 6 Chapter 19	146	May 2015
Section 7 Chapter 20	147	April 2014
Section 7 Chapter 20	148	May 2015
Section 7 Chapter 20	149	April 2014
Section 7 Chapter 20	150	May 2015
Section 7 Chapter 20	151	May 2015
Section 7 Chapter 20	152	May 2015
Section 7 Chapter 20	153	May 2015
Section 7 Chapter 20	154	November 2014
Section 8 Chapter 21	155	April 2014
Section 8 Chapter 21	156	April 2014
Section 8 Chapter 21	157	April 2014
Section 8 Chapter 21	158	November 2014
Section 9 Chapter 22	159	April 2014
Section 9 Chapter 22	160	April 2014
Section 9 Chapter 22	161	May 2015
Section 9 Chapter 22	162	May 2015
Section 10 Chapter 23	163	December 2015
Section 10 Chapter 23	164	December 2015

Chapter	Page	Date
Section 10 Chapter 23	165	December 2015
Section 10 Chapter 23	166	December 2015
Section 10 Chapter 23	167	December 2015
Section 10 Chapter 23	168	December 2015
Appendix A	169	April 2014
Appendix A	170	May 2015
Appendix B	171	April 2014
Appendix B	172	May 2015
Appendix B	173	April 2014
Appendix B	174	April 2014
Appendix B	175	April 2014
Appendix B	176	April 2014
Appendix B	177	April 2014
Appendix B	178	April 2014
Appendix C	179	April 2014
Appendix C	180	April 2014
Appendix C	181	April 2014
Appendix C	182	April 2014
Appendix D	183	May 2015
Appendix D	184	November 2014
Appendix D	185	April 2014

100

Revision History

The table below is provided as a reference to highlight when major changes were made to the content of CAP 797. It does not cover editorial changes. As necessary, an update will be added to the table at each amendment.

Second Edition Amendment 3

Section	Subject	Source
<u>Definitions</u>	<u>Incorporate SI 2015/03</u>	<u>ICAO</u>
<u>Communications Procedures</u>	<u>Incorporate SI 2015/03</u>	<u>RTFPWG</u>
<u>Meteorological Services</u>	<u>Incorporate SI 2015/02</u>	<u>CAA</u>

Second Edition Amendment 2

Section	Subject	Source
Definitions	Incorporate SI 2014/01	EASA
Flight Rules	Incorporate 2014/01 Incorporate SI 2015/01	EASA EASA
FIS at Aerodromes	Address EU 923/2012 (SERA.9005(b)(2)) Incorporate 2014/01 Incorporate SI 2015/01 Incorporate Instrument Approach Procedures	EASA EASA EASA CAA
Instrument Approach Procedures	Incorporate Instrument Approach Procedures	CAA
Communication Procedures	Incorporate Instrument Approach Procedures Incorporate revised traffic information phraseology	CAA
Alerting Service	Incorporate SI 2014/01	EASA
Aircraft Emergencies	Incorporate SI 2014/01	EASA
Aerodrome Emergency Services	Incorporate aerodrome categories Provide consistency in definition of terms across CAA policy documentation set	CAA
Administration	Incorporate Instrument Approach Procedures	CAA

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Contents

List of effective pages	i
Revision History	v
Contents	1
Foreword	11
Introduction	11
Language requirement	11
Flight Information Service (FIS)	11
Flight Information Service Officer (FISO)	12
Purpose	12
Interpretation of Words	12
Gender	13
CAP 797 Amendments	13
Amendments	13
Supplementary Instructions	13
Enquiries	14
Glossary of terms	15
Definitions	15
Abbreviations	27
Units of measurement and conversion tables	33
Units of measurement	33
Conversion tables	34
Chapter 1	37
Service provision by FISOs	37
Responsibility	37
Liaison between AFIS units and other ATSUs	38
Introduction	38
Arriving traffic	38
Departing traffic	38

Tactical co-ordination with other ATSUs	38
Chapter 2	39
Altimeter setting procedures	39
Units of pressure	39
Pressure setting	39
System of flight levels	39
Regional pressure setting	39
Transition	40
Transition Altitude	40
Transition Level	40
Transition layer	40
Expression of vertical position of aircraft	40
Procedures at Aerodromes	41
Chapter 3	43
Flight Priorities	43
Table of flight priorities	43
<u>Minimum Fuel and Fuel Shortage</u>	<u>44</u>
Unusual Aerial Activity (UAA)	44
Police flights	45
<u>Helicopter Emergency Medical Services (HEMS)</u>	<u>46</u>
Mareva Injunctions	46
Chapter 4	49
Flight Rules	49
Division of airspace	49
Classification of airspace	49
Aerodrome Traffic Zone (ATZ)	49
Visual Flight Rules (VFR)	50
Instrument Flight Rules (IFR)	51
Airspace Speed limit	52
Procedure Speed Limits	53
Filing of flight plans	53

Availability of supplementary flight plan information	54
Booking-out	55
Infringement of legislation	55
Weather minima	55
Non standard flights and exemptions	55
Failure of navigation lights	55
Operations of aircraft with unserviceable equipment	56
Action when captive balloons break free	56
Radio Mandatory Zones (RMZ)	56
Chapter 5	59
Airborne Collision Avoidance System (ACAS)	59
Introduction	59
TCAS II warnings	59
TCAS phraseology	60
Reporting	61
Chapter 6	63
Diversion Procedures	63
Introduction	63
Diversions initiated by the pilot	63
Diversions requested by FIS units	64
Diversion of military aircraft	64
Chapter 7	65
Royal Flights	65
Introduction	65
Procedures for Royal flights in fixed-wing aircraft	65
Establishment of Temporary (Class D) Controlled Airspace (CAS-T)	65
Procedure at AFIS Units on notification of a Royal flight	65
Promulgation of Royal flight information	66
Royal flight callsigns	66
Royal flights in helicopters	66
Selected helicopter flights	66
SSR code	66

Diversions	66
Incidents involving Royal flights	67
Chapter 8	69
Flight Information Service at Aerodromes	69
<u>Introduction</u>	<u>69</u>
Traffic information	69
Wake turbulence and jet blast hazards	70
Windshear	71
Introduction	71
Conditions conducive to windshear	72
AFISO action	72
Essential information on aerodrome conditions	72
Ground vehicles and personnel	74
Work on the manoeuvring area	74
Crossing runways	75
Uncertainty of position on the manoeuvring area	75
Runway incursion or obstruction	76
Visual signals	77
Aerodrome signals and markings	78
Selection of runway	78
Runway changes	79
Closure or restricted operation of aerodromes	79
Responsibilities of the aerodrome operator	79
Responsibilities of the AFIS Unit	79
Use of runway holding positions	80
Order of priority for arriving and departing aircraft	80
Information related to departing aircraft	80
Start-up time procedures	80
Taxi instructions	81
Take-off	82
Designated positions in the traffic circuit	84

Arriving aircraft	84
ATZ transit traffic	86
Formation procedures	86
Availability of aerodrome services outside published hours	86
Abnormal aircraft configuration and condition	87
Release of racing pigeons	87
Chapter 9	89
Aerodrome Lighting Aids	89
Lighting systems in use at UK aerodromes	89
Operation of lighting systems and intensity controls	89
Periods of display	89
Chapter 10	91
Aerodrome and Lighting Inspections	91
Aerodrome inspections	91
Significant changes	93
Runway surface condition reporting	93
Wet runways	94
Aerodrome lighting inspections	96
Reporting unserviceabilities	96
Post-accident checks	96
Chapter 11	97
Aerodrome Fire Service	97
Introduction	97
Aerodrome categories	97
Reduced protection	97
Practice exercises and drills	97
Exercises on the manoeuvring area	98
Other duties of the aerodrome fire service	98
Chapter 12	99
Instrument Approach Procedures	99
Introduction	99
RNAV (GNSS) Instrument Approach Procedures	99

Chapter 13	101
Flight Information Service at Area Control Centres	101
Limiting factors	101
Co-ordination and liaison	102
Aircraft joining or crossing Controlled Airspace	103
Flight information display	103
Conspicuity codes	103
Transponder Mandatory Zone (TMZ)	104
Frequency monitoring codes	105
Chapter 14	107
Communication Procedures	107
Introduction	107
Readback of instructions, clearances and safety related information	107
Phraseology regarding the provision of information	108
Aerodrome helicopter operations	109
Introduction	109
Helicopter phraseology for taxiing	109
Helicopter phraseology for take-off and landing	110
General	110
<u>Phraseology for use on and in the vicinity of the aerodrome</u>	<u>113</u>
Information to aircraft	117
Phraseology for vehicles/persons on the manoeuvring area	119
Liaison between FIS units and other ATSUs	121
Emergency phraseology	121
Mareva injunction	122
AFIS requirements for communications	122
Air to ground communication	122
Chapter 15	123
Alerting Service	123
Application	123
Action by FIS units	123
Phases of emergency	124

Aeronautical Rescue Co-ordination Centres	125
Rescue craft – callsign	126
Telephone message	126
Chapter 16	127
Aircraft Emergencies	127
Introduction	127
FISO responsibilities	128
Recognising an emergency situation	129
Distress and urgency messages	129
Indications by visual signal from aircraft	130
Use of communication facilities	130
Plotting aircraft in a state of emergency	131
Information to aircraft operating in the vicinity of an aircraft in a state of emergency	131
Aircraft lost	131
<u>Distress and diversion calls</u>	<u>131</u>
Reports from outside sources	132
Unlawful interference and aircraft bomb threat	132
Ballistic recovery systems	133
Explanation of terms	134
Aircraft accident	134
Reportable accident	134
Chapter 17	137
Communications Failure	137
Air to ground communications failure	137
Chapter 18	139
Contingencies	139
Introduction	139
Radio-communications contingencies	139
Unauthorised use of AFIS Frequency	139
Malicious use of lasers against aircraft and FIS facilities	139
Malicious use of lasers against aircraft	140
Malicious use of lasers against FIS units	141

Chapter 19	143
Aerodrome Emergency Services	143
Introduction	143
Aerodrome Operator	143
Action by AFISO	143
Categories of emergency	145
Aircraft Accident/Aircraft Accident Imminent	145
Aircraft Ground Incident	145
Full Emergency	145
Local Standby	145
Weather Standby	145
Unlawful Acts	145
Other Duties	145
Removal of crashed aircraft	146
Emergency removal	146
Chapter 20	147
Administration	147
Opening watch	147
Handing over watch	147
Closing watch	148
Accuracy of clocks	148
Emergency telephone	148
Watch log	148
Data display	149
Introduction	149
Symbols	150
Local instructions	151
Chapter 21	155
Aeronautical Information Service	155
AIS office	155
International NOTAM Office (INO)	155

Static data office	155
Amending the aeronautical information publication	156
Sponsors of amendments to the AIP (AIRAC and Non-AIRAC)	156
UK AIP Amendment Service/Supplements to the AIP and Aeronautical Information circulars.	156
Telephone information line	156
NOTAM (Notices to Airmen)	157
NOTAM service	157
NOTAM Proposal	157
Chapter 22	159
Reporting Procedures	159
Explanation of terms	159
Reportable Occurrence	159
Aircraft Accident	159
Reportable Accident	159
Aircraft Proximity (AIRPROX)	160
Birdstrikes	161
Maritime pollution	161
FIS unit action	161
Recording and retention of data for investigative purposes	162
Search action	162
Chapter 23	163
Meteorological Services	163
Meteorological Requirements at AFIS units	163
Briefing of FISOs	164
Explanation of Terms	164
Aircraft Observations and Reports	164
Meteorological Observations and Reports	165
Special Aerodrome Meteorological Reports	167
Reports to aircraft for take-off and landing	167
Contingency Arrangements	167

<u>Recording of Information</u>	167
Appendix A	169
Tailwind and crosswind component	169
Appendix B	171
Pressure	171
Determining Transition Level	171
QNE values	172
Appendix C	179
Wake turbulence categorisation	179
Categories	179
Appendix D	183
Directory	183
AAIB (Air Accident Investigation Branch)	183
CAA Safety & Airspace Regulation Group	183
Regional Offices	183
CAA Airspace Regulation	184
CAA Press Office	184
DfT Transport Security Division	185
Military	185
NATS	185
United Kingdom AIRPROX Board (UKAB)	185

Foreword

Introduction

Air Traffic Services within the UK are provided in accordance with the Air Navigation Order and Rules of the Air Regulations. Generally these are in line with the Standards and Recommended Practices (SARPs) of the International Civil Aviation Organisation (ICAO).

This document contains instructions and guidance for Flight Information Service Officers (FISOs) providing Flight Information Services (FIS), to cater for both routine and many emergency situations. However, nothing in this manual prevents FISOs from using their own discretion and initiative in response to unusual circumstances, which may not be covered by the procedures herein.

Language requirement

In accordance with ICAO requirements the English language shall be used for all operational communications at FIS Units within the United Kingdom (UK).

Operational communication between UK and non-UK ATSUs shall, on the part of the UK Air Navigation Service Provider (ANSP), be conducted in the English language.

ANSPs may designate, within their unit, operational areas in which all communications (operational and non-operational) shall be in the English language.

Flight Information Service (FIS)

A FIS, as defined by ICAO, is a service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flight, together with pertinent information about:

- a) weather;
- b) changes to serviceability of facilities;
- c) conditions at aerodromes;
- d) any other information likely to affect safety.

Within the UK, the scope of FIS, as defined in ICAO Annex 11, and transposed into European Law through Implementing Regulation (EU) No 923/2012, is met through the provision of:

- a) Aerodrome Flight Information Service (AFIS);

- b) A suite of services detailed in CAP 774 (www.caa.co.uk/CAP774), known collectively as the UK Flight Information Services, which comprises:
- i. Basic Service;
 - ii. Traffic Service;
 - iii. Deconfliction Service;
 - iv. Procedural service.

NOTE: FISOs are not licensed to provide a Traffic Service, a Deconfliction Service, or a Procedural Service.

FIS Units comprise:

- a) Aerodrome Flight Information Service (AFIS) units; and
- b) Area FIS units.

Where the term 'FIS unit' is used in this manual, it applies to all FIS units, whether at an aerodrome or an area centre.

Flight Information Service Officer (FISO)

A FISO at an aerodrome is referred to as an Aerodrome Flight Information Service Officer (AFISO).

Where the term FISO is used in this manual, it applies to all FISOs, whether at an aerodrome or an area centre.

Purpose

This document contains procedures, instructions, and information which are intended to form the basis of the services provided by FISOs within the UK. It is published for use by FISOs and pilots. This document will be supplemented by local instructions.

Interpretation of Words

To avoid any misunderstanding within this document, certain words or terms are to be interpreted as having specific meanings as follows:

is to, are to, shall, must	Mean that the instruction is mandatory
should	Means that it is strongly advisable that an instruction is carried out; it is recommended or discretionary. It is applied where the more positive 'shall' is unreasonable but nevertheless a pilot/ FISO would have to have good reason for not doing so.

may	Means that an instruction is permissive, optional or alternative, e.g. 'an FISO may seek assistance' but would not if he did not need it.
will	Is used for informative or descriptive writing, e.g. 'pilots will file...' is not an instruction to the FISO

Where reference is made to an Area Control Centre (ACC) it shall be the centre within whose Flight Information Region (FIR) the aerodrome is situated. Where guidance on an air traffic matter is required, it may be obtained from the watch supervisor at the ACC.

Gender

In the interests of simplicity, any reference to the masculine gender can be taken to mean either male or female.

CAP 797 Amendments

Amendments

Amendments to CAP 797 will be published in April and October.

Underlining is used to indicate new or revised text. Prior to the effective date of an amendment, the full version of CAP 797 will be available on the CAA website (www.caa.co.uk). This document will contain a summary of changes and an updated List of Effective Pages. From the effective date of the amendment, the superseded version of CAP 797 will be removed from the website.

The effective date of an instruction is stated at the foot of the page. Publication of a new edition means that all pages will have the same date; however, new instructions are effective on the amendment publication date.

Supplementary Instructions

Supplementary Instructions to CAP 797 are issued for the following reasons:

- a. to introduce an entirely new subject or a radical change to existing instructions;
- b. to re-emphasise an existing instruction.

Supplementary Instructions will be incorporated into the main body of the document in a suitable and timely manner.

Enquiries

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Glossary of terms

Definitions

The following terms have been defined to remove any doubt about the meaning of instructions in the text of the Manual and associated documents. Where a definition in law exists it is given here. Suitable interpretations, where they exist, have been selected from national and international documents. Some terms appear in more than one document and sometimes with different meanings. Terms which have not been annotated are those which have specific meanings within the text and have been defined to avoid ambiguity or misunderstanding. In some cases they are slight modifications of definitions in other documents.

A

Advisory Airspace An airspace of defined dimensions, or designated route, within which air traffic advisory service is available. (EU 923/2012)

Advisory Route A designated route along which air traffic advisory service is available. (EU 923/2012)

Aerodrome A defined area (including any buildings, installations and equipment) on land or water or on a fixed, fixed off-shore or floating structure intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft. [\(EU 923/2012\)](#)

Aerodrome Control Service Air traffic control service for aerodrome traffic. (EU 923/2012)

Aerodrome Traffic All traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome. An aircraft operating in the vicinity of an aerodrome includes, but is not limited to, aircraft entering or leaving an aerodrome traffic circuit. (EU 923/2012)

Aerodrome Traffic Circuit The specified path to be flown by aircraft operating in the vicinity of an aerodrome. (EU 923/2012)

Aerodrome Traffic Zone Airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic. (EU 923/2012)

Aircraft Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface. (EU 923/2012)

Aircraft Identification A group of letters, figures or a combination thereof which is either identical to, or the coded equivalent of, the aircraft call sign to be used in air-ground communications, and which is used to identify the aircraft in ground-ground air traffic services communications. (EU 923/2012)

Air-Ground Communication Two way communication between aircraft and stations or locations on the surface of the earth. (EU 923/2012)

Air Navigation Service Provider An organisation having applied for a certificate to provide such services. (EU 1035/2011)

Air-taxiing The movement of a helicopter/VTOL above the surface of an aerodrome, normally in ground effect and at a ground speed normally less than 37 km/h (20 kt). (EU 923/2012)

Note: The actual height during air-taxiing may vary, and some helicopters may require air-taxiing above 8 m (25 ft) AGL to reduce ground effect turbulence or provide clearance for cargo sling loads. (GM1 Article 2(25))

Air Traffic All aircraft in flight or operating on the manoeuvring area of an aerodrome. (EU 923/2012)

Air Traffic Advisory Service A service provided within advisory airspace to ensure separation, in so far as practical, between aircraft which are operating on Instrument Flight Rules (IFR) flight plans. (EU 923/2012)

Air Traffic Control Clearance Authorisation for an aircraft to proceed under conditions specified by an air traffic control unit. (EU 923/2012)

Air Traffic Flow Management A service established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring that Air Traffic Control (ATC) capacity is utilised to the maximum extent possible, and that the traffic volume is compatible with the capacities declared by the appropriate ATS authority. (ICAO)

Air Traffic Management The aggregation of the airborne and ground-based functions (air traffic services, airspace management and air traffic flow management) required to ensure the safe and efficient movement of aircraft during all phases of operations. (EU 549/2004)

Air Traffic Service A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service). (EU 923/2012)

Airway A control area or portion thereof established in the form of a corridor. (EU 923/2012)

Alternate Aerodrome An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing. Alternate aerodromes include the following: [\(EU 923/2012\)](#)

a. 'take-off alternate' means an alternate aerodrome at which an aircraft can land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure.

b. 'en-route alternate' means an aerodrome at which an aircraft would be able to land after experiencing an abnormal or emergency condition while en route.

c. 'ETOPS en-route alternate' means a suitable and appropriate alternate aerodrome at which an aeroplane would be able to land after experiencing an engine shutdown or other abnormal or emergency condition while en route in an ETOPS operation.

d. 'destination alternate' means an alternate aerodrome to which an aircraft may proceed should it become either impossible or inadvisable to land at the aerodrome of intended landing.

Note: The aerodrome from which a flight departs may also be an en-route or a destination alternate aerodrome for that flight. [\(GM1 Article 2\(38\)\)](#)

Altitude The vertical distance of a level, a point or object considered as a point, measured from mean sea level. (EU 923/2012)

Note 1: A pressure type altimeter calibrated in accordance with the Standard Atmosphere when set to a QNH altimeter setting will indicate altitude (above the mean sea level). [\(GM1 Article 2\(39\)\(a\)\)](#)

Note 2: The term 'altitude' indicates altimetric rather than geometric altitude. (GM1 Article 2(39)(b))

Approach Control Service Air traffic control service for arriving or departing controlled flights. (EU 923/2012)

Approved Departure Time An allocated take-off time calculated from the elapsed flight time between the aerodrome of departure and the point at which the regulated flow is effective.

Apron A defined area, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance. (EU 923/2012)

Area Control Centre An Air Traffic Control unit established to provide an air traffic control service to controlled flights in control areas under its jurisdiction. (EU 923/2012)

Area Navigation (RNAV) A method of navigation which permits aircraft operation on any desired flight path within the coverage of station-referenced navigation aids or within the limits of the capability of self-contained aids, or a combination of these. [\(EU 923/2012\)](#)

Note: Area navigation includes performance-based navigation as well as other operations that do not meet the definition of performance-based navigation. [\(GM1 Article 2\(45\)\)](#)

Area Control Service An Air Traffic Control service for controlled flights in control areas. (EU 923/2012)

Arrival Routes Routes identified in an instrument approach procedure by which aircraft may proceed from the En-route phase of flight to an initial approach fix. (EU 923/2012)

ATS Route A specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services. (EU 923/2012)

Note 1: Includes airways, advisory routes, controlled or uncontrolled route, arrival or departure route, etc.

Note 2: An ATS route is defined by route specifications which include an ATS route designator, the track to or from significant points (waypoints), distance between significant points, reporting requirements, and as determined by the competent authority, the lowest safe altitude.

ATS Surveillance Service Term used to indicate a service provided directly by means of an ATS surveillance system. (ICAO)

ATS Surveillance System A generic term meaning variously, Automatic Dependent Surveillance Broadcast (ADS-B), Primary Surveillance Radar (PSR), Secondary Surveillance Radar (SSR) or any comparable ground-based system that enables the identification of aircraft. A comparable ground-based system is one that has been demonstrated, by comparative assessment or other methodology to have a level of safety and performance equal to or better than monopulse SSR. (ICAO)

B

Backtrack To taxi on a runway-in-use, in the opposite direction to the aircraft's take-off or landing direction.

C

Clearway An area at the end of the take-off run available, selected or prepared as a suitable area over which an aircraft may make a portion of its initial climb to a specified height.

Ceiling The height above the ground or water of the base of the lowest layer of cloud below 6 000 m (20 000 ft) covering more than half the sky. (EU 923/2012)

Control Area Controlled airspace extending upwards from a specified limit above the earth. (EU 923/2012)

Controlled Airspace Airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification. (EU 923/2012)

Control Zone Controlled airspace extending upwards from the surface of the earth to a specified upper limit. (EU 923/2012)

Co-ordination The act of negotiation between two or more parties each vested with the authority to make executive decisions appropriate to the task being discharged.

Cruising Level A level maintained during a significant portion of a flight. (EU 923/2012)

Current Flight Plan The flight plan, including changes, if any, brought about by subsequent clearances. (EU 923/2012)

D

Duty Engineering Officer Generic term meaning the person(s) responsible for the specified task, namely engineering/telecommunications/ surveillance systems etc. As appropriate, locally established personnel shall be specified in unit local procedures.

E

Elevation The vertical distance of a point or level on, or affixed to, the surface of the earth measured from mean sea level. (ICAO)

En-route Operations Operations conducted on published ATS routes, direct point-to-point operations between defined waypoints, or along great circle routes which are other than take-off, landing, departure, arrival or terminal operations. [ICAO Doc 9613]

Note: This includes all transit flights outside published ATS routes in receipt of an ATS from either a civil or military ATS provider.

Entry Point The first airways/advisory airspace reporting point over which a flight passes on entering an FIR. (ICAO)

Exit Point The last airways/advisory airspace reporting point over which a flight passes before leaving an FIR. (ICAO)

Estimated Time of Arrival For IFR flights, the time at which it is estimated that the aircraft will arrive over that designated point, defined by reference to navigation aids, from which it is intended that an instrument approach procedure will be commenced, or, if no navigation aid is associated with the aerodrome, the time at which the aircraft will arrive over the aerodrome. For Visual Flight Rules (VFR) flights, the time at which it is estimated that the aircraft will arrive over the aerodrome. (EU 923/2012)

F

Flight Level A surface of constant atmospheric pressure, which is related to a specific pressure datum, 1013.2 hPa, and is separated from other such surfaces by specific pressure intervals. (EU 923/2012)

Note: A pressure type altimeter calibrated in accordance with the Standard Atmosphere when set to a QNH altimeter setting, will indicate altitude; when set to a QFE altimeter setting, will indicate height above the QFE reference datum; when set to a pressure of 1 013.2 hPa, may be used to indicate flight levels. The terms 'height' and 'altitude', used above, indicate altimetric rather than geometric heights and altitudes.

Flight Plan Specified information provided to ATSUs relative to an intended flight or portion of a flight of an aircraft. (EU 923/2012)

Flight Visibility The visibility forward from the cockpit of an aircraft in flight. (EU 923/2012)

G

General Air Traffic Flights conducted in accordance with the regulations and procedures for flight promulgated by the state civil aviation authorities and operating under the control or authority of the civil ATS organisation.

Global Navigation Satellite System (GNSS) A worldwide position and time determination system that includes one or more satellite constellations, aircraft receivers and system integrity monitoring, augmented as necessary to support the required navigation performance for the intended operation.

Ground Visibility The visibility at an aerodrome, as reported by an accredited observer or by automatic systems. ((EU) 923/2012)

H

Heading The direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from North (true, magnetic or compass). (EU 923/2012)

Height The vertical distance of a level, a point or an object considered as a point, measured from a specified datum. (EU 923/2012)

Note: A pressure type altimeter calibrated in accordance with the Standard Atmosphere when set to a QFE altimeter setting, will indicate height (above the QFE reference datum).

Holding Point Either:

- a) A specified location, identified by visual or other means, in the vicinity of which the position of an aircraft in flight is maintained in accordance with air traffic control clearances; or
- b) A speech abbreviation used in radiotelephony phraseology having the same meaning as runway holding position or intermediate holding position as defined in CAP 168 Licensing of Aerodromes.

Hot Spot A location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary. (ICAO)

I

IFR flight A flight conducted in accordance with the instrument flight rules. ((EU) 923/2012)

Instrument Approach Procedure A series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en-route obstacle clearance criteria apply. (EU 923/2012) Instrument approach procedures are classified as follows:

- (1) Non-precision approach (NPA) procedure means an instrument approach procedure which utilizes lateral guidance but does not utilize vertical guidance.
- (2) Approach procedure with vertical guidance (APV) means an instrument procedure which utilizes lateral and vertical guidance but does not meet the requirements established for precision approach and landing operations.
- (3) Precision approach (PA) procedure means an instrument approach procedure using precision lateral and vertical guidance with minima as determined by the category of operation.

Note: Lateral and vertical guidance utilized in an instrument approach procedure refers to the guidance provided either by:

- (1) a ground-based navigation aid; (GM1 Article 2(90)(a)) or
- (2) computer-generated navigation data. (GM1 Article 2(90)(b))

Instrument Meteorological Conditions Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for Visual Meteorological Conditions. (EU 923/2012).

K

Known Traffic Traffic, the current flight details and intentions of which are known to the controller/FISO.

L

Level A generic term relating to the vertical position of an aircraft in flight and meaning variously height, altitude or flight level. (EU 923/2012)

M

Manoeuvring Area The part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons. (EU 923/2012)

Minimum Fuel The term used to describe a situation in which an aircraft's fuel supply has reached a state where the flight is committed to land at a specific aerodrome and no additional delay can be accepted. (ICAO)

Note: This is not an emergency situation but merely indicates that an emergency situation is possible, should any undue delay occur.

Minimum Sector Altitude The lowest safe altitude for instrument flight within sectors of an aid, facility or aerodrome which is published in the appropriate approach chart.N

Night Means the hours between the end of evening civil twilight and the beginning of morning civil twilight. Civil twilight ends in the evening when the centre of the sun's disc is 6 degrees below the horizon and begins in the morning when the centre of the sun's disc is 6 degrees below the horizon.

Note: To enable practical application of the definition of night, evening and morning civil twilight may be promulgated pertinent to the date and position.

O

Operational Air Traffic Flights conducted under the control or authority of the military ATS organisation.

P

Prevailing Visibility The visibility value that is reached or exceeded within at least half the horizon circle or within at least half of the surface of the aerodrome. These areas could comprise contiguous or non-contiguous sectors.

Procedural Control Term used to indicate that information derived from an ATS surveillance system is not required for the provision of ATC service. (ICAO)

Psychoactive Substances Term used to mean alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded. (EU 923/2012)

R

Radio Mandatory Zone Airspace of defined dimensions wherein the carriage and operation of suitable/appropriate radio equipment is mandatory. (EU No 923/2012)

Radar Service Term used to indicate a service provided directly by means of radar. Radial A magnetic bearing extending from a VOR/VORTAC/TACAN

Reporting Point A specified geographical location in relation to which the position of an aircraft can be reported. (EU No 923/2012)

Runway A defined rectangular area on a land aerodrome prepared for the landing and take-off run of aircraft along its length. (EU No 923/2012)

Runway holding Position A designated position intended to protect a runway, an obstacle limitation surface, or an ILS/MLS critical/sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorised by the aerodrome control tower. (EU No 923/2012)

Runway Incursion Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft.

Runway Visual Range (RVR) The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line. (EU 923/2012)

S

SAFETYCOM A common frequency (135.475 MHz) made available for use at aerodromes where no other frequency is allocated, to enable pilots to broadcast their intentions to other aircraft that may be operating on, or in the vicinity of, the aerodrome. SAFETYCOM is not an air traffic service and procedures for its use by pilots are notified in the UK AIP.

Semi-Circular Cruising Level Specified cruising levels determined in relation to magnetic track within hemispheres of the compass. (CAA)

SERA Standardised European Rules of the Air.

SIGMET Information Information issued by meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of aircraft operations. (EU 923/2012)

Significant Point A specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigation and ATS purposes. (EU 923/2012)

Note: There are three categories of significant points: ground based navigation aid, intersection and waypoint. In the context of this definition, intersection is a significant point expressed as radials, bearings and/or distances from ground-based navigation aids.

Stopway A defined rectangular area at the end of the take-off run available, prepared and designated as a suitable area in which an aircraft can be stopped in the case of a discontinued take-off.

Surface Visibility The horizontal visibility as measured at a height of 2 metres above the ground.

T

Taxiway A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including:

- a) Aircraft stand taxilane means a portion of an apron designated as a taxiway and intended to provide access to aircraft stands only.
- b) Apron taxiway means a portion of a taxiway system located on an apron and intended to provide a through taxi route across the apron.

c) Rapid exit taxiway means a taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on other exit taxiways thereby minimizing runway occupancy times. (EU 923/2012)

Taxiway Holding Position A designated position at which taxiing aircraft and vehicles may be required to hold in order to provide adequate clearance from a runway or taxiway.

Note: In radiotelephony phraseologies, the expression 'holding point' is used to designate the runway-holding position or taxiway holding position.

Terminal Control Area A control area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes. (ICAO)

Threshold The beginning of that portion of the runway usable for landing. (EU 923/2012)

Track The projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid). (EU 923/2012)

Traffic Information Information issued by an air traffic services unit to alert a pilot or controller to other known or observed air traffic which may be in proximity to the position or intended route of flight and to help the pilot avoid a collision. (EU 923/2012)

Transition Altitude The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes. (EU 923/2012)

Transition Level The lowest flight level available for use above the transition altitude. (EU 923/2012)

Transponder A receiver/transmitter which will generate a reply signal upon interrogation.

Transponder Mandatory Zone A Transponder Mandatory Zone (TMZ) is airspace of defined dimensions wherein the carriage and operation of pressure-altitude reporting transponders is mandatory. (EU 923/2012)

V

Visibility Visibility for aeronautical purposes is the greater of:

- The greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognised when observed against a bright background;
- The greatest distance at which lights in the vicinity of 1,000 candelas can be seen and identified against an unlit background. (EU 923/2012)

Note 1: The two distances which may be defined by a given visibility have different values in air of a given extinction coefficient. Visibility based on seeing and recognizing an object (a above) is represented by the meteorological optical range (MOR). Visibility based on seeing and identifying lights (b above) varies with the background illumination. (GM 1 Article 2(141)(a))

Note 2: The definition of visibility applies to the observations of visibility in local routine and special reports, to the observations of prevailing and minimum visibility reported in METAR and SPECI and to the observations of ground visibility. (GM 1 Article 2(141)(b))

Visual Approach An approach by an IFR flight when part or all of an instrument approach procedure is not completed and the approach is executed with visual reference to terrain. (ICAO)

Visual Meteorological Conditions Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima. (EU 923/2012)

W

With the surface in sight Means with the flight crew being able to see sufficient surface features or surface illumination to enable the flight crew to maintain the aircraft in a desired attitude without reference to any flight instrument and 'when the surface is not in sight' shall be construed accordingly. (ANO)

Windshear A sudden change in wind speed and/or direction in space, including updrafts and downdrafts.

Note 1: Vertical wind shear is defined as change of horizontal wind direction and/or speed with height, as would be determined by means of two or more anemometers mounted at different heights on a single mast. (ICAO Doc 9817)

Note 2: Horizontal wind shear is defined as change of horizontal wind direction and/or speed with horizontal distance, as would be determined by two or more anemometers mounted at the same height along a runway. (ICAO Doc 9817)

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Abbreviations

A

AAC	Army Air Corps
AAIB	Air Accidents Investigation Branch
AATSD	Aerodrome and Air Traffic Standards Division
ACAS	Airborne Collision Avoidance System
ACC	Area Control Centre
ADS-B	Automatic Dependent Surveillance-Broadcast
AFIS	Aerodrome Flight Information Service
AFISO	Aerodrome Flight Information Service Officer
AFTN	Aeronautical Fixed Telecommunications Network
AGCS	Air/Ground Communications Service
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIRPROX	Aircraft Proximity
AIS	Aeronautical Information Service
amsl	Above Mean Sea Level
ANO	Air Navigation Order
ANSP	Air Navigation Service Provider
AR	Airspace Regulation (of CAA SARG)
ARCC	Aeronautical Rescue Co-ordination Centre
ASR	Altimeter Setting Region
ATAS	Air Traffic Advisory Service
ATC	Air Traffic Control
ATCO	Air Traffic Control Officer
ATCU	Air Traffic Control Unit
ATD	Actual Time of Departure

ATFM	Air Traffic Flow Management
ATIS	Automatic Terminal Information Service
ATS	Air Traffic Service
ATSU	Air Traffic Service Unit
ATZ	Aerodrome Traffic Zone
C	
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
CAS-T	Temporary class D Controlled Airspace
CFME	Continuous Friction Measuring Equipment
c/s	Callsign
D	
DfT	Department for Transport
DME	Distance Measuring Equipment
D&D	RAF Distress and Diversion Cells
E	
ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
F	
FIR	Flight Information Region
FIS	Flight Information Service(s)
FISO	Flight Information Service Officer
FL	Flight Level
ft	Foot (feet)
G	
GAT	General Air Traffic
GNSS	Global Navigation Satellite System
H	
H	Hour

hPa Hectopascal

I

ICAO International Civil Aviation Organisation

IFR Instrument Flight Rules

ILS Instrument Landing System

IMC Instrument Meteorological Conditions

K

kg Kilogramme(s)

km Kilometre(s)

kt Knot(s)

M

m metre(s)

mm millimetre(s)

MATS Manual of Air Traffic Services

MHz Mega-hertz

MLS Microwave Landing System

MoD Ministry of Defence

MOR Mandatory Occurrence Report

MTOM Maximum Take-off Mass

N

NATS National Air Traffic Services

NDS Non-Deviating Status

NM Nautical Mile(s)

NOTAM Notice to Airmen

P

PIB Pre-flight Information Bulletin

Q

QFE Atmospheric pressure at aerodrome elevation

QNH Regional atmospheric pressure at sea level

R

RA	Resolution Advisory
RAF	Royal Air Force
RFFS	Rescue and Fire Fighting Service
RMZ	Radio Mandatory Zone
RN	Royal Navy
RNAV	Area Navigation
RTF	Radiotelephone

S

SAR	Search and Rescue
SARG	Safety and Airspace Regulation Group (of the CAA)
SARPs (ICAO)	Standards and Recommended Practices
SDD	Safety Data Department SRG Safety Regulation Group

T

TA	Traffic Advisory
TA	Transition Altitude
TACAN	Tactical Air Navigation
TCAS	Traffic Alert and Collision Avoidance System
TMZ	Transponder Mandatory Zone
TQHF	The Queen's Helicopter Flight TRA Temporary Reserved Area

U

UAA	Unusual Aerial Activity
UHF	Ultra High Frequency
UIR	Upper Flight Information Region
UK	United Kingdom
UKAB	United Kingdom AIRPROX Board
UTC	Co-ordinated Universal Time

V

VFR	Visual Flight Rules
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VHF	Very High Frequency
VOR	VHF Omni-directional Range
VORTAC	VHF Omni-directional Range Tactical Air Navigation
VVIP	Very Very Important Person

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Units of measurement and conversion tables

Units of measurement

The units of measurement to be used by FISOs in communication with aircraft are listed in the table below:

Measurement of	Units
Distance used in navigation, position reporting, etc; generally in excess of 2 to 3 nautical miles.	Nautical miles and tenths but spoken as 'miles'.
Distance from cloud	Metres.
Relatively short distances such as those relating to aerodromes (e.g. runway lengths, distances of obstructions from runway or of facilities from the aerodrome where accuracy of greater than one tenth of a nautical mile is required).	Metres.
Radar-position reporting and ranges from touchdown.	Nautical miles and/or fractions thereof but spoken as 'miles'.
Radar-azimuth displacement from final approach track.	Metres.
Altitudes elevations and heights.	Feet.
Depths of snow and slush.	Centimetres or millimetres
Horizontal speed including wind speed.	Knots.
Vertical speed.	Feet per minute.
Wind direction for landing and take-off.	Degrees Magnetic.
Wind direction except for landing and taking off.	Degrees True.
Visibility (including flight visibility).	Kilometres and Metres.
Runway visual range.	Metres.
Altimeter setting.	Hectopascals.
Temperature.	Degrees Celsius.
Weight.	Metric tons or Kilogrammes.
Time.	Hours and minutes, the day of 24 hours beginning at midnight UTC.

Conversion tables

Tables for converting values from one unit to another appear below.

Metres/Feet/Metres		
Metres	Feet/ Metres	Feet
0.305	1	3.281
0.61	2	6.562
0.914	3	9.842
1.219	4	13.123
1.524	5	16.404
1.829	6	19.685
2.134	7	22.966
2.438	8	26.247
2.743	9	29.528
3.048	10	32.809
6.096	20	65.617
9.144	30	98.426
12.192	40	131.234
15.24	50	164.043
18.29	60	196.852
21.34	70	229.66
24.38	80	262.469
27.43	90	295.278
30.48	100	328.087
60.96	200	656.1
91.44	300	984.3
121.92	400	1,312.3
152.4	500	1,640.4
304.8	1,000	3,280.9
609.6	2,000	6,561.7
914.4	3,000	9,842.6
1,219.2	4,000	13,123.5
1,524.0	5,000	16,404.3

NM/Statute Miles/Kilometres		
NM	Statute Miles	Km
0.87	1	1.61
1.74	2	3.22
2.61	3	4.83
3.47	4	6.44
4.34	5	8.05
5.21	6	9.66
6.08	7	11.27
6.95	8	12.88
7.82	9	14.49
8.68	10	16.09

Lb/Kg/Lb		
Kg	Lb/Kg	Lb
0.454	1	2.205
0.907	2	4.409
1.361	3	6.614
1.814	4	8.818
2.268	5	11.023
2.722	6	13.228
3.175	7	15.432
3.629	8	17.637
4.082	9	19.842
4.536	10	22.046
9.072	20	44.092
13.608	30	66.139
18.144	40	88.185
22.680	50	110.231
1 000 Kg = 1 metric ton		

Nautical Miles/Kilometres/Statute Miles		
NM	Km	SM
0.54	1	0.62
1.08	2	1.24
1.62	3	1.86
2.16	4	2.49
2.70	5	3.11
3.24	6	3.73
3.78	7	4.35
4.32	8	4.99
4.86	9	5.59
5.40	10	6.21

Statute Miles/ Nautical Miles/Kilometres		
SM	NM	Km
1.15	1	1.85
2.30	2	3.70
3.45	3	5.56
4.61	4	7.41
5.76	5	9.26
6.91	6	11.11
8.06	7	12.96
9.21	8	14.82
10.36	9	16.67
11.52	10	18.52

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Section 1 FISO Procedures

Chapter 1

Service provision by FISOs

Responsibility

- 1.1 FISOs may issue advice and shall issue information to aircraft in their area of responsibility, useful for the safe and efficient conduct of flights.
- 1.2 FISOs are not permitted to issue instructions, except for those circumstances in paragraph 1.3, or when relaying a clearance from an air traffic control unit. Pilots therefore are wholly responsible for collision avoidance in conformity with the Rules of the Air.
- 1.3 In granting or refusing permission under Rules 12 and 13 of the Rules of the Air, AFISOs are permitted to pass instructions to vehicles and personnel operating on the manoeuvring area, as well as:
- a) departing aircraft about to move or moving on the apron and manoeuvring area up to and including the holding point of the runway to be used for departure;
 - b) departing aircraft required to utilise the runway for the purposes of taxiing, who will not subsequently vacate the runway prior to departure
 - c) arriving aircraft moving on the manoeuvring area and apron, following the completion of the landing roll;
 - d) all other taxiing aircraft intending to move or moving on the apron and manoeuvring area, including the crossing of runways;
 - e) to helicopters engaged in air taxiing for departure, up to and including the holding point of the runway to be used for departure or up to and including such other location on the aerodrome from which the helicopter will depart; and
 - f) to helicopters engaging in air taxiing on completion of landing or that have reached the hover prior to air taxiing.

Elsewhere on the ground and at all times in the air, information shall be passed.

- 1.4 In providing advice to aircraft, FISOs should carefully consider whether such advice could be misconstrued as an instruction and should phrase that advice accordingly. The provision of advice by a FISO should be limited to those occasions where they consider that it is essential for the safe conduct of flight; for example the provision of advice on local joining procedures to arriving aircraft approaching the traffic circuit.

Liaison between AFIS units and other ATSUs

Introduction

- 1.5 Where necessary, FIS units should develop letters of agreement with appropriate ATSUs for the handling of arriving and departing aircraft. The procedures in paragraphs 1.6 to 1.11 below may be used as a template for the inter-unit liaison detailed within such a letter of agreement.

Arriving traffic

- 1.6 For arriving traffic the following information should be exchanged:
- Estimated time of arrival (ETA) updated as necessary;
 - Traffic known to the AFISO which the arriving aircraft should be aware of before transfer of communication; and
 - Aerodrome QNH.
- 1.7 Transfer of communications shall be achieved in sufficient time to allow the AFISO to provide information on other aircraft operating in the vicinity of the aerodrome.
- 1.8 Should the aircraft fail to establish communications with the AFIS unit within five minutes after the latest received ETA, the AFIS unit shall inform the ATSU from whom the ETA was received and take appropriate action as required.

Departing traffic

- 1.9 For departing traffic the following information should be exchanged:
- Estimated time of departure (ETD) updated as necessary;
 - When necessary, runway-in-use;
 - When requested, actual time of departure (ATD); and
 - ATC clearance including transponder code when required, as well as traffic information about traffic known to the ATC unit that the departing aircraft will need to be informed of before departure.
- 1.10 The AFISO shall read back the ATC clearance received.
- 1.11 The AFISO shall relay to a pilot the ATC clearance provided, transponder code, and traffic information in exactly the form it was received and ensure a correct readback is received.

Tactical co-ordination with other ATSUs

- 1.12 FISOs are not permitted to enter into tactical co-ordination with other ATSUs regarding aircraft receiving a service, due to the limitations of the FISO Licence.

Chapter 2

Altimeter setting procedures

Units of pressure

- 2.1 Hectopascals (hPa) are the notified units for the measurements of pressure for flying within UK airspace. Pilots are normally expected to carry out their own conversion from hectopascals to inches of mercury if this is necessary and FISOs will only provide pressure settings in inches of mercury when specifically requested by an individual aircraft. A conversion table can be found in Appendix B.

Pressure setting

- 2.2 A correctly calibrated pressure altimeter when set to:
- a) QNH altimeter setting – will indicate altitude;
 - b) QFE altimeter setting – will indicate height above the reference datum.
- 2.3 Both of these settings are rounded down to the nearest whole hectopascal before being passed to the pilot. However, they are given to the nearest tenth of a hectopascal if requested.

System of flight levels

- 2.4 Flight Levels are measured with reference to the standard pressure setting of 1013.2 hPa. In the UK, consecutive Flight Levels above the transition level are separated by pressure intervals corresponding to 500 ft; at and above FL200, by pressure intervals corresponding to 1 000 ft (except in an active Temporary Reserved Area (TRA) where 500 ft pressure intervals are applied up to FL245).

Regional pressure setting

- 2.5 The Regional Pressure Setting is a forecast of the lowest QNH value within an Altimeter Setting Region (ASR). The values which are made available hourly for the period Hour (H) + 1 to (H) + 2 are given in whole hectopascals.
- 2.6 AFIS Units are to have available the Regional Pressure Setting for the ASR in which they are situated and appropriate adjacent regions. Area FIS Units are to have available Regional Pressure Settings for their area of coverage and appropriate adjacent regions. These values are to be passed to pilots when requested or at the discretion of the FISO. However, a pressure setting shall not be volunteered if a FISO is uncertain that it is appropriate to the flight.

- 2.7 Airspace below Terminal Control Areas (TMAs) and Control Areas (CTAs) listed in the UK Aeronautical Information Publication (AIP) at ENR 1-7-2 does not form part of the ASR Regional Pressure Setting system. Instead, the QNH of an adjacent aerodrome should be used for aircraft at or below the Transition Altitude.

Transition

Transition Altitude

- 2.8 Transition Altitude is the altitude at or below which the vertical position of an aircraft is normally controlled by reference to altitude (or height when QFE is used). Unless otherwise notified the transition altitude for civil aerodromes is 3,000 ft.

Transition Level

- 2.9 Transition Level is the lowest Flight Level available for use above the Transition Altitude. It is determined from the table in Appendix B as follows:
- a) Within controlled airspace by the controlling authority, where it will normally be based on the QNH of the major aerodrome;
 - b) Outside controlled airspace by the Aerodrome Operator, where it will be based on the aerodrome QNH.

Transition layer

- 2.10 Transition layer is the airspace between the Transition Altitude and the Transition Level.

Expression of vertical position of aircraft

- 2.11 A pilot normally assesses the vertical position of his aircraft above obstacles by using an accurately set altimeter. It is imperative, therefore, that FISOs always issue the correct pressure setting and that they check the readback from the pilot.
- 2.12 When transmitting altimeter pressure settings that are lower than 1,000 hPa, FISOs are to specify clearly the unit of measurement and pay particular attention to the readback.