CAP 413

Radiotelephony Manual

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# List of Effective Pages

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
<th>Date</th>
<th>Chapter</th>
<th>Page</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>iii</td>
<td>1 September 2003</td>
<td>Chapter 4</td>
<td>5</td>
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<td>iv</td>
<td>1 September 2003</td>
<td>Chapter 4</td>
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<td>Chapter 4</td>
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<td>1 September 2003</td>
<td>Chapter 4</td>
<td>8</td>
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<td>vii</td>
<td>1 September 2003</td>
<td>Chapter 4</td>
<td>9</td>
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<td>viii</td>
<td>1 September 2003</td>
<td>Chapter 4</td>
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<td>Chapter 4</td>
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<td>xi</td>
<td>1 September 2003</td>
<td>Chapter 4</td>
<td>13</td>
<td>1 September 2003</td>
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<td></td>
<td>xii</td>
<td>1 September 2003</td>
<td>Chapter 4</td>
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</tr>
<tr>
<td>Index</td>
<td>7</td>
<td>1 September 2003</td>
</tr>
</tbody>
</table>
Contents

List of Effective Pages iii
Amendment Record x
Revisions in this Edition x
Foreword xi
Status xi
Document References and Publication Details xi
Format xi

Chapter 1 Glossary
Terms 1
Definitions 1
Abbreviations 4

Chapter 2 Radiotelephony
General Procedures 1
Introduction 1
Transmitting Technique 1
Transmission of Letters 2
Transmission of Numbers 3
Transmission of Time 4
Standard Words and Phrases 5
Callsigns for Aeronautical Stations 7
Callsigns for Aircraft 8
Continuation of Communications 8
Corrections and Repetitions 10
Acknowledgement of Receipt 10
Transfer of Communications 10
Issue of Clearance and Read Back Requirements 11
Communication Failure 13
Test Procedures 14
Chapter 3  General Phraseology

General
1

Introduction
1

Level Instructions
1

Position Reporting
4

Flight Plans
4

Reply to ‘Pass your Message’
5

Designated Positions in the Traffic Circuit
6

Chapter 4  Aerodrome Phraseology

Air Traffic Control Service
1

Introduction
1

Type of Service
1

Departure Information and Engine Starting Procedures
1

Pushback and Powerback
2

Taxi Instructions
2

Pre-Departure Manoeuvring
4

Take-Off Clearance
5

Aerodrome Traffic Circuit
7

Final Approach and Landing
9

Missed Approach
11

Runway Vacating and Communicating After Landing
11

Essential Aerodrome Information
12

Aerodrome Flight Information Service
13

Introduction
13

Type of Service
13

AFIS Phraseology for Ground Movement, Take-off, Landing and Transit
14

Aerodrome Phraseology for Vehicles (ATC and FIS only)
16

Introduction
16

Movement Instructions
16
To Cross a Runway 17
Vehicles Towing Aircraft 18
Aerodrome Air/Ground Communication Service 19
  Introduction 19
  Type of Service 19
  Air/Ground Station Identification 19
  Phraseology and Examples 19
  Offshore Aeronautical Service 22
Aerodrome Information 25
  Meteorological Conditions 25
  Voice Weather Broadcast (VOLMET) UK 25
  Runway Visual Range (RVR)/Visibility/Absolute Minimum 26
  Runway Surface Conditions 26
  Automatic Terminal Information Service (ATIS) UK 27

Chapter 5 Radar Phraseology

General 1
  Introduction 1
  Radar Identification of Aircraft 1
  Secondary Surveillance Radar Phraseology 2
  Radar Service 4
  Radar Vectoring 4
  Traffic Information and Avoiding Action Phraseology 5
  ACAS/TCAS Phraseology 6
  Communications and Loss of Communications 7
  Danger Area Crossing Service/Danger Area Activity Information Service 7

Chapter 6 Approach Phraseology

Approach Control Service 1
  IFR Departures 1
  VFR Departures 1
  IFR Arrivals 2
  VFR Arrivals 6
  Special VFR Flights 7
  Vectoring to Final Approach 7
  Direction Finding (DF) 10
QGH Procedure
VDF Procedure
NDB(L) and VOR Procedures
Surveillance Radar Approach (SRA)
Landing Altimeter Setting (QNE)
PAR Approach
Military Aerodrome Traffic Zones (MATZ) and Penetration Services
Lower Airspace Radar Service (LARS)

<table>
<thead>
<tr>
<th>Chapter 7</th>
<th>Area Phraseology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Control Service</td>
<td>1</td>
</tr>
<tr>
<td>Area Control Phraseology</td>
<td>1</td>
</tr>
<tr>
<td>Position Reporting</td>
<td>1</td>
</tr>
<tr>
<td>Flights Joining Airways</td>
<td>2</td>
</tr>
<tr>
<td>Flights Leaving Airways</td>
<td>2</td>
</tr>
<tr>
<td>Flights Crossing Airways</td>
<td>3</td>
</tr>
<tr>
<td>Flights Holding En-Route</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 8</th>
<th>Emergency Phraseology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distress and Urgency Communication Procedures</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>States of Emergency</td>
<td>1</td>
</tr>
<tr>
<td>VHF Emergency Service</td>
<td>1</td>
</tr>
<tr>
<td>VHF Emergency Service – General Procedures</td>
<td>2</td>
</tr>
<tr>
<td>Emergency Message</td>
<td>3</td>
</tr>
<tr>
<td>Speechless Code</td>
<td>4</td>
</tr>
<tr>
<td>Radio Procedures – Practice Emergencies</td>
<td>4</td>
</tr>
<tr>
<td>Training Fix</td>
<td>5</td>
</tr>
<tr>
<td>Relayed Emergency Message</td>
<td>5</td>
</tr>
<tr>
<td>Imposition of Silence</td>
<td>5</td>
</tr>
<tr>
<td>Termination of Distress Communications and of RTF Silence</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 9</th>
<th>Miscellaneous Phraseology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Communications</td>
<td>1</td>
</tr>
<tr>
<td>Wake Vortex</td>
<td>1</td>
</tr>
<tr>
<td>Wind Shear</td>
<td>1</td>
</tr>
<tr>
<td>AIRPROX Reporting</td>
<td>1</td>
</tr>
</tbody>
</table>
Chapter 10  Phraseology Examples

Examples of Types of Flights  
   Introduction  
   An IFR Flight  
   A VFR/IFR Flight  
   Flight in the Military Visual Circuit  
   Flight Receiving Lower Airspace Radar Service (LARS) and Danger Area Crossing Service (DACS)  
   Military Safety Broadcast - Securité  
   Flight Receiving Avoiding Action  
   Flight Receiving En-Route Flight Information Service  
   Flight Transmitting a Practice Pan  
   Arrival Flight (Aerodrome FIS)  

Bibliography  

Index  

1 September 2003
Amendment Record

<table>
<thead>
<tr>
<th>Amendment Number</th>
<th>Amendment Date</th>
<th>Incorporated by</th>
<th>Incorporated on</th>
</tr>
</thead>
<tbody>
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<td>5 February 2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amendment 1</td>
<td>7 February 2002</td>
<td></td>
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<tr>
<td>Edition 13</td>
<td>1 October 2002</td>
<td></td>
<td></td>
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<tr>
<td>Edition 14</td>
<td>1 September 2003</td>
<td></td>
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</tr>
</tbody>
</table>

1. Revisions in this Edition

1.1 This edition incorporates a changed format, including revised paragraph and heading numbering. The index is re-introduced to aid cross-referencing of important RTF terms and subjects.

1.2 Other changes in this edition:
   - Description of the military use of the SECURITÉ broadcast.
   - Introduction of readback requirements for Approach Clearances.
   - Description of FISO Position Report requests.
Foreword

1 Status

1.1 Document References and Publication Details

1.1.1 This publication is based on the International Standards and Recommended Practices contained in ICAO Annex 10 Volume 2 (Communications Procedures) to the Convention on International Civil Aviation and the PANS-ATM (Procedures for Air Navigation Services - Air Traffic Management) Doc 4444 (formerly PANS-RAC).

1.1.2 CAP 413 is a useful reference book for the examination for the Flight Radiotelephony Operator’s Licence. Current operational details are to be found in the United Kingdom AIP, however, air traffic controllers, flight information service officers and aeronautical radio station operators should refer to Manual of Air Traffic Services (CAP 493), Manual of Flight Information Services (CAP 410) and Aeronautical Radio Station Operators’ Guide (CAP 452) respectively for comprehensive instructions on phraseology. Candidates for JAA professional pilot and instrument rating examinations, which were introduced on 1 January 1999, should note that the ‘Communications’ examination syllabus is based on ICAO Annex 10 Vol 2 and Doc 9432–AN/925 Manual of Radiotelephony, and not CAP 413.

1.1.3 Major changes to RTF phraseology will be notified in Aeronautical Information Circulars (AICs); updated versions of this Manual will be published at regular intervals. Users of this manual who do not already have access to AICs may wish to consider subscribing to the AIC Amendment Service in order to maintain the currency of this publication. Details of this service may be obtained from the CAA at the address shown in the Bibliography at the rear of this document.

1.1.4 This document is available on the website of the Civil Aviation Authority (www.caa.co.uk). Visitors to the website may view, download and reproduce this version for use within their company or organisation, or for their own personal use. Printed copies are available for purchase from the CAA’s sales agency for printed publications Documedia Solutions Limited. Contact details are given on the inside cover of this publication.

1.2 Format

1.2.1 The examples of phraseology in this handbook are intended to be representative of radiotelephony procedures in common use. The initial call in a series of messages in Chapters 2–11 inclusive always appear on the left hand side of the page; remaining messages connected with the subject of the initial call appear in chronological order on the right hand side.

1.2.2 The use of colour has been discontinued to facilitate printing on monochrome printers. Instead, the agency making the transmission is identified by the line style of the outline of, and the symbol in, the box as follows:

- AIRCRAFT

- GROUND STATION
  (ATC, FIS, AGCS)

- VEHICLE
1.2.3 While the procedures and phraseologies specifically reflect the situation in an environment where Very High Frequency (VHF) is in use, they are equally applicable in those areas where High Frequency (HF) is used. In the latter case a strict adherence to procedures is considered essential because of the greater interference potential and in many cases poor reception resulting from the propagation characteristics of certain frequency bands.

1.2.4 Significant changes to the text are indicated by the use of side line revision marks as shown to the left of this paragraph.

1.2.5 The contact address, should you have any comments concerning the content of this document, is given on the inside cover of this publication.
Chapter 1   Glossary

1   Terms

1.1   Definitions

**Absolute Minimum** The calculated RVR, or at aerodromes where; RVR measurements are not taken or available, the visibility, which is the lowest possible for any instrument approach to be made using that particular approach aid.

**Advisory Area** A designated area where air traffic advisory service is available.

**Advisory Route** A designated route along which air traffic advisory service is available.

**Aerodrome** Any area of land or water designed, equipped, set apart or commonly used for affording facilities for the landing and departure of aircraft.

**Aerodrome Control Service** Air traffic control service for aerodrome traffic.

**Aerodrome Flight Information Service (AFIS)** A flight information service provided to aerodrome traffic.

**Aerodrome Traffic** All traffic on the manoeuvring area of an aerodrome and all aircraft operating in the vicinity of an aerodrome.

**Aerodrome Traffic Zone** Airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic.

**Aeronautical Mobile Service** A radio communication service between aircraft stations and aeronautical stations, or between aircraft stations.

**Aeronautical Station** A land station in the aeronautical mobile service. In certain instances, an aeronautical station may be placed on board a ship or an earth satellite.

**Airborne Collision Avoidance System** An aircraft system based on SSR transponder signals which operates independently of groundbased equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders.

**Aircraft Station** A mobile station in the aeronautical mobile service on board an aircraft.

**Air-ground Communications** Two-way communication between aircraft and stations or locations on the surface of the earth.

**Air/Ground Communication Service** A service that permits information to be passed from an aeronautical station to an aircraft station on or in the vicinity of an aerodrome.

**AIRPROX** A situation in which, in the opinion of a pilot or controller, the distance between aircraft as well as their relative positions and speed have been such that the safety of the aircraft involved was or may have been compromised.

**Air Traffic** All aircraft in flight or operating on the manoeuvring area of an aerodrome.

**Air Traffic Control Clearance** Authorisation for an aircraft to proceed under conditions specified by an air traffic control unit.
Air Traffic Service (ATS) 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.

Airway A control area or part of a control area established in the form of a corridor equipped with radio navigation aids.

Altitude The vertical distance of a level, a point or an object considered as a point, measured from mean sea level.

Area Control Centre A term used in the United Kingdom to describe a unit providing en-route air traffic control services.

Automatic Terminal Information Service (ATIS) (UK) The provision of current, routine information to arriving and departing aircraft by means of continuous and repetitive broadcasts throughout the day or a specified portion of the day.

Base Turn A turn executed by the aircraft during the initial approach between the end of the outboard track and the beginning of the intermediate or final approach track. The tracks are not reciprocal.

Blind Transmission A transmission from one station to another station in circumstances where two-way communication cannot be established but where it is believed that the called station is able to receive the transmission.

Broadcast A transmission of information relating to air navigation that is not addressed to a specific station or stations.

Clearance Limit The point to which an aircraft is granted an air traffic control clearance.

Control Area A controlled airspace extending upwards from a specified limit above the surface of the earth.

Controlled Airspace An airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification.

Control Zone A controlled airspace extending upwards from the surface of the earth to a specified upper limit.

Cruising Level A level maintained during a significant portion of a flight.

Decision Altitude/Height A specified altitude/height in a precision approach at which a missed approach must be initiated if the required visual reference to continue the approach to land has not been established.

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

Estimated Time of Arrival The time at which the pilot estimates that the aircraft will be over a specific location.

Flight Information Service (FIS) A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

Flight Level A surface of constant atmospheric pressure, which is related to a specific pressure datum, 1013.2 mb, and is separated from other such surfaces by specific pressure intervals.

Flight Plan Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft. Flight Plans fall into two categories: Full Flight Plans and Abbreviated Flight Plans.

General Air Traffic Flights operating in accordance with civil air traffic procedures.
Heading The direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from North (magnetic).

Height The vertical distance of a level, a point, or an object considered as a point measured from a specified datum.

Holding Point A speech abbreviation used in radiotelephony phraseology having the same meaning as Taxiway Holding Position as defined in CAP 168 Licensing of Aerodromes.

IFR Flight A flight conducted in accordance with the instrument flight rules.

Instrument Meteorological Conditions (IMC) Meteorological conditions expressed in terms of visibility, horizontal and vertical distance from cloud, less than the minima specified for visual meteorological conditions.

Known Traffic Traffic, the current flight details and intentions of which are known to the controller concerned through direct communication or co-ordination.

Level A generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level.

Level Bust Any deviation from assigned altitude, height or flight level in excess of 300 feet.

Minimum Descent Altitude/Height A altitude/height in a nonprecision or circling approach below which descent may not be made without visual reference.

Missed Approach Point (MAPt) The point in an instrument approach procedure at or before which the prescribed missed approach procedure must be initiated in order to ensure that the minimum obstacle clearance is not infringed.

Missed Approach Procedure The procedure to be followed if the approach cannot be continued.

Procedure Turn A manoeuvre in which a turn is made away from a designated track followed by a turn in the opposite direction to permit the aircraft to intercept and proceed along the reciprocal of the designated track.

Radar Approach An approach, executed by an aircraft, under the direction of a radar controller.

Radar Contact The situation which exists when the radar blip or radar position symbol of a particular aircraft is seen and identified on a radar display.

Radar Identification The process of correlating a particular radar blip or radar position symbol with a specific aircraft.

Radar Vectoring Provision of navigational guidance to aircraft in the form of specific headings, based on the use of radar.

Reporting Point A specified geographical location in relation to which the position of an aircraft can be reported.

Runway A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

Runway Visual Range The range over which the pilot of an aircraft on the centre line of a runway can expect to see the runway surface markings, or the lights delineating the runway or identifying its centre line.

Signal Area An area on an aerodrome used for the display of ground signals.
**Significant Point** A specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigational and ATS purposes.

**Special VFR Flight** A flight made at any time in a control zone which is Class A airspace or is in any other control zone in IMC or at night, in respect of which the appropriate air traffic control unit has given permission for the flight to be made in accordance with special instructions given by that unit, instead of in accordance with the Instrument Flight Rules and in the course of which flight the aircraft complies with any instructions given by that unit and remains clear of cloud and in sight of the surface.

**Straight Ahead** When used in departure clearances means: ‘track extended runway centre-line’.

When given in Missed Approach Procedures means: ‘continue on Final Approach Track’.

**Terminal Control Area** A control area normally established at the confluence of airways in the vicinity of one or more major aerodromes.

**Threshold** The beginning of that portion of the runway useable for landing.

**Traffic Alert and Collision Avoidance System (TCAS)** See ACAS.

**VFR Flight** A flight conducted in accordance with the visual flight rules.

**Visual Meteorological Conditions (VMC)** Meteorological conditions expressed in terms of visibility, horizontal and vertical distance from cloud, equal to or better than specified minima.

### 1.2 Abbreviations

1.2.1 The abbreviations annotated with an asterisk are normally spoken as complete words. The remainder are normally spoken using the constituent letters rather than the spelling alphabet.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAIB</td>
<td>Air Accident Investigation Branch</td>
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<tr>
<td>aal</td>
<td>Above Aerodrome Level</td>
</tr>
<tr>
<td>ACAS*</td>
<td>Airborne Collision Avoidance System (pronounced A-kas) (see TCAS)</td>
</tr>
<tr>
<td>ACC</td>
<td>Area Control Centre</td>
</tr>
<tr>
<td>ADF</td>
<td>Automatic Direction-Finding Equipment</td>
</tr>
<tr>
<td>ADR</td>
<td>Advisory Route</td>
</tr>
<tr>
<td>ADT</td>
<td>Approved Departure Time</td>
</tr>
<tr>
<td>AFTN</td>
<td>Aeronautical Fixed Telecommunication Network</td>
</tr>
<tr>
<td>AFIS</td>
<td>Aerodrome Flight Information Service</td>
</tr>
<tr>
<td>AGCS</td>
<td>Air Ground Communication Service</td>
</tr>
<tr>
<td>agl</td>
<td>Above Ground Level</td>
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<tr>
<td>AIC</td>
<td>Aeronautical Information Circular</td>
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<tr>
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<td>Aeronautical Information Publication</td>
</tr>
<tr>
<td>AIRPROX*</td>
<td>Aircraft Proximity (replaces Airmiss/APHAZ)</td>
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<td>Acronym</td>
<td>Description</td>
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<tr>
<td>AIS</td>
<td>Aeronautical Information Services</td>
</tr>
<tr>
<td>amsl</td>
<td>Above Mean Sea Level</td>
</tr>
<tr>
<td>ANO</td>
<td>Air Navigation Order</td>
</tr>
<tr>
<td>APAPI</td>
<td>Abbreviated Precision Approach Path Indicator (pronounced Ay-PAPI)</td>
</tr>
<tr>
<td>ATA</td>
<td>Actual Time of Arrival</td>
</tr>
<tr>
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<td>Air Traffic Control (in general)</td>
</tr>
<tr>
<td>ATD</td>
<td>Actual Time of Departure</td>
</tr>
<tr>
<td>ATIS*</td>
<td>Automatic Terminal Information Service</td>
</tr>
<tr>
<td>ATS</td>
<td>Air Traffic Service</td>
</tr>
<tr>
<td>ATSU</td>
<td>Air Traffic Service Unit</td>
</tr>
<tr>
<td>AT-VASIS</td>
<td>Abbreviated T Visual Approach Slope Indicator System (pronounced Ay-Tee-VASIS)</td>
</tr>
<tr>
<td>ATZ</td>
<td>Aerodrome Traffic Zone</td>
</tr>
<tr>
<td>C</td>
<td>Civil Aviation Authority</td>
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<tr>
<td>CAA</td>
<td>Civil Aviation Authority</td>
</tr>
<tr>
<td>CAVOK*</td>
<td>Visibility, cloud and present weather better than prescribed values or conditions (CAVOK pronounced Cav-okay)</td>
</tr>
<tr>
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<td>Callsign</td>
</tr>
<tr>
<td>CTA</td>
<td>Control Area</td>
</tr>
<tr>
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<td>Control Zone</td>
</tr>
<tr>
<td>D</td>
<td>Danger Area Activity Information Service (DAAIS pronounced DAY-ES)</td>
</tr>
<tr>
<td>DACS*</td>
<td>Danger Area Crossing Service</td>
</tr>
<tr>
<td>DF</td>
<td>Direction Finding</td>
</tr>
<tr>
<td>DME</td>
<td>Distance Measuring Equipment</td>
</tr>
<tr>
<td>DR</td>
<td>Dead Reckoning</td>
</tr>
<tr>
<td>E</td>
<td>Expected Approach Time</td>
</tr>
<tr>
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</tr>
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</tr>
<tr>
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<td>Estimated Time of Departure</td>
</tr>
<tr>
<td>F</td>
<td>Final Approach Fix</td>
</tr>
<tr>
<td>FIR</td>
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</tr>
<tr>
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<td>Flight Information Service</td>
</tr>
<tr>
<td>FL</td>
<td>Flight Level</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Ft</td>
<td>Foot (feet)</td>
</tr>
<tr>
<td>G</td>
<td>General Air Traffic</td>
</tr>
<tr>
<td>GAT</td>
<td>General Air Traffic</td>
</tr>
<tr>
<td>GLONASS*</td>
<td>Global Orbiting Navigation Satellite System (pronounced Glo-NAS)</td>
</tr>
<tr>
<td>GMC</td>
<td>Ground Movement Control</td>
</tr>
<tr>
<td>GNSS</td>
<td>Global Navigation Satellite System</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>H</td>
<td>Continuous day and night service (H24 pronounced Aitch Twenty Fower)</td>
</tr>
<tr>
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</tr>
<tr>
<td>HF</td>
<td>High Frequency</td>
</tr>
<tr>
<td>HJ</td>
<td>Sunrise to Sunset</td>
</tr>
<tr>
<td>HN</td>
<td>Sunset to Sunrise</td>
</tr>
<tr>
<td>I</td>
<td>Initial Approach Fix</td>
</tr>
<tr>
<td>IAF</td>
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</tr>
<tr>
<td>ICAO*</td>
<td>International Civil Aviation Organisation</td>
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<tr>
<td>IF</td>
<td>Intermediate Approach Fix</td>
</tr>
<tr>
<td>IFR</td>
<td>Instrument Flight Rules</td>
</tr>
<tr>
<td>ILS</td>
<td>Instrument Landing System</td>
</tr>
<tr>
<td>IMC</td>
<td>Instrument Meteorological Conditions</td>
</tr>
<tr>
<td>IRVR</td>
<td>Instrumented Runway Visual Range</td>
</tr>
<tr>
<td>K</td>
<td>Kilogramme(s)</td>
</tr>
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<tr>
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<td>Kilohertz</td>
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<tr>
<td>MAPt</td>
<td>Missed Approach Point</td>
</tr>
<tr>
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</tr>
<tr>
<td>mb</td>
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<td>MDA/H</td>
<td>Minimum Descent Altitude/Height</td>
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<tr>
<td>MEDA*</td>
<td>Military Emergency Diversion Aerodrome</td>
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<td>MET*</td>
<td>Meteorological or Meteorology</td>
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<td>Routine aviation aerodrome weather report</td>
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<td>NATS</td>
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T
TA  Traffic Advisory (see TCAS)
TAF*  Terminal Aerodrome Forecast
TCAS*  Traffic Alert and Collision Avoidance System (pronounced Tee-kas) (see ACAS)
TMA  Terminal Control Area
TVASIS  T Visual Approach Slope Indicator System (pronounced TEE-VASIS)

U
UAS  Upper Airspace
UHF  Ultra-High Frequency
UIR  Upper Flight Information Region
UTC  Co-ordinated Universal Time

V
VASIS*  Visual Approach Slope Indicator System (pronounced VASIS)
VDF  Very High Frequency Direction-Finding Station
VFR  Visual Flight Rules
VHF  Very High Frequency (30 to 300 MHz)
VMC  Visual Meteorological Conditions
VOLMET*  Meteorological information for aircraft in flight
VOR  VHF Omnidirectional Radio Range
VORTAC*  VOR and TACAN combination
Chapter 2 Radiotelephony

1 General Procedures

1.1 Introduction
Radiotelephony provides the means by which pilots and ground personnel communicate with each other. Used properly, the information and instructions transmitted are of vital importance in assisting in the safe and expeditious operation of aircraft. However, the use of non-standard procedures and phraseology can cause misunderstanding. Incidents and accidents have occurred in which a contributing factor has been the misunderstanding caused by the use of non-standard phraseology. The importance of using correct and precise standard phraseology cannot be over-emphasised.

1.2 Transmitting Technique

1.2.1 The following transmitting techniques will assist in ensuring that transmitted speech is clearly and satisfactorily received.

a) Before transmitting check that the receiver volume is set at the optimum level and listen out on the frequency to be used to ensure that there will be no interference with a transmission from another station.

b) Be familiar with microphone operating techniques and do not turn your head away from it whilst talking or vary the distance between it and your mouth. Severe distortion of speech may arise from:
   i) talking too close to the microphone
   ii) touching the microphone with the lips
   iii) holding the microphone or boom (of a combined headset/microphone system).

c) Use a normal conversation tone, speak clearly and distinctly.

d) Maintain an even rate of speech not exceeding 100 words per minute. When it is known that elements of the message will be written down by the recipients, speak at a slightly slower rate.

e) Maintain the speaking volume at a constant level.

f) A slight pause before and after numbers will assist in making them easier to understand.

g) Avoid using hesitation sounds such as ‘er’.

h) Depress the transmit switch fully before speaking and do not release it until the message is complete. This will ensure that the entire message is transmitted. However, do not depress transmit switch until ready to speak.

i) Be aware that the mother tongue of the person receiving the message may not be English. Therefore, speak clearly and use standard radiotelephony (RTF) words and phrases wherever possible.

1.2.2 One of the most irritating and potentially dangerous situations in radiotelephony is a ‘stuck’ microphone button. Operators should always ensure that the button is released after a transmission and the microphone placed in an appropriate place that will ensure that it will not inadvertently be switched on.
1.2.3 After a call has been made, a period of at least 10 seconds should elapse before a second call is made. This should eliminate unnecessary transmissions while the receiving station is getting ready to reply to the initial call.

1.3 Transmission of Letters

1.3.1 The words in the table below shall be used when individual letters are required to be transmitted. The syllables to be emphasised are underlined.

**Table 1**

<table>
<thead>
<tr>
<th>Letter</th>
<th>Word</th>
<th>Appropriate pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Alpha</td>
<td>AL FAH</td>
</tr>
<tr>
<td>B</td>
<td>Bravo</td>
<td>BRAH VOH</td>
</tr>
<tr>
<td>C</td>
<td>Charlie</td>
<td>CHAR LEE</td>
</tr>
<tr>
<td>D</td>
<td>Delta</td>
<td>DELL TAH</td>
</tr>
<tr>
<td>E</td>
<td>Echo</td>
<td>ECK OH</td>
</tr>
<tr>
<td>F</td>
<td>Foxtrot</td>
<td>FOKS TROT</td>
</tr>
<tr>
<td>G</td>
<td>Golf</td>
<td>GOLF</td>
</tr>
<tr>
<td>H</td>
<td>Hotel</td>
<td>HOH TELL</td>
</tr>
<tr>
<td>I</td>
<td>India</td>
<td>IN DEE AH</td>
</tr>
<tr>
<td>J</td>
<td>Juliett</td>
<td>JEW LEE ETT</td>
</tr>
<tr>
<td>K</td>
<td>Kilo</td>
<td>KEY LOH</td>
</tr>
<tr>
<td>L</td>
<td>Lima</td>
<td>LEE MAH</td>
</tr>
<tr>
<td>M</td>
<td>Mike</td>
<td>MIKE</td>
</tr>
<tr>
<td>N</td>
<td>November</td>
<td>NO VEM BER</td>
</tr>
<tr>
<td>O</td>
<td>Oscar</td>
<td>OSS CAH</td>
</tr>
<tr>
<td>P</td>
<td>Papa</td>
<td>PAH PAH</td>
</tr>
<tr>
<td>Q</td>
<td>Quebec</td>
<td>KEH BECK</td>
</tr>
<tr>
<td>R</td>
<td>Romeo</td>
<td>ROW ME OH</td>
</tr>
<tr>
<td>S</td>
<td>Sierra</td>
<td>SEE AIR RAH</td>
</tr>
<tr>
<td>T</td>
<td>Tango</td>
<td>TANG GO</td>
</tr>
<tr>
<td>U</td>
<td>Uniform</td>
<td>YOU NEE FORM</td>
</tr>
<tr>
<td>V</td>
<td>Victor</td>
<td>VIK TAH</td>
</tr>
<tr>
<td>W</td>
<td>Whiskey</td>
<td>WISS KEY</td>
</tr>
<tr>
<td>X</td>
<td>X-ray</td>
<td>ECKS RAY</td>
</tr>
<tr>
<td>Y</td>
<td>Yankee</td>
<td>YANG KEE</td>
</tr>
<tr>
<td>Z</td>
<td>Zulu</td>
<td>ZOO LOO</td>
</tr>
</tbody>
</table>
1.4 Transmission of Numbers

1.4.1 The syllables to be emphasised are underlined.

**Table 2**

<table>
<thead>
<tr>
<th>Numeral or numeral element</th>
<th>Latin alphabet representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>ZERO</td>
</tr>
<tr>
<td>1</td>
<td>WUN</td>
</tr>
<tr>
<td>2</td>
<td>TOO</td>
</tr>
<tr>
<td>3</td>
<td>TREE</td>
</tr>
<tr>
<td>4</td>
<td>FOWER</td>
</tr>
<tr>
<td>5</td>
<td>FIFE</td>
</tr>
<tr>
<td>6</td>
<td>SIX</td>
</tr>
<tr>
<td>7</td>
<td>SEVEN</td>
</tr>
<tr>
<td>8</td>
<td>AIT</td>
</tr>
<tr>
<td>9</td>
<td>NINER</td>
</tr>
<tr>
<td>Decimal</td>
<td>DAYSEEMAL</td>
</tr>
<tr>
<td>Hundred</td>
<td>HUN DRED</td>
</tr>
<tr>
<td>Thousand</td>
<td>TOUSAND</td>
</tr>
</tbody>
</table>

1.4.2 All numbers, except those contained in paragraph 4.2(b) shall be transmitted by pronouncing each digit separately as follows:

a) When transmitting messages containing aircraft callsigns, altimeter settings, flight levels (with the exception of FL 100, 200, 300 etc. which are expressed at ‘Flight Level (number) HUN DRED’), headings, wind speeds/directions, pressure settings, transponder codes and frequencies, each digit shall be transmitted separately; examples of this convention are as follows:

**Table 3**

<table>
<thead>
<tr>
<th>Number</th>
<th>Transmitted as</th>
<th>Pronounced as</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAW246</td>
<td>Speedbird Two Four Six</td>
<td>SPEEDBIRD TOO FOWER SIX</td>
</tr>
<tr>
<td>FL 100</td>
<td>Flight Level One Hundred</td>
<td>FLIGHT LEVEL WUN HUN DRED</td>
</tr>
<tr>
<td>FL 180</td>
<td>Flight Level One Eight Zero</td>
<td>FLIGHT LEVEL WUN AIT ZERO</td>
</tr>
<tr>
<td>150 Degrees</td>
<td>One Five Zero Degrees</td>
<td>WUN FIFE ZERO DEGREES</td>
</tr>
<tr>
<td>18 Knots</td>
<td>One Eight Knots</td>
<td>WUN AIT KNOTS</td>
</tr>
<tr>
<td>122.1</td>
<td>One Two Two Decimal One</td>
<td>WUN TOO TOO DAYSEEMAL WUN</td>
</tr>
<tr>
<td>6500</td>
<td>Six Five Zero Zero</td>
<td>SIX FIFE ZERO ZERO (SQUAWK)</td>
</tr>
</tbody>
</table>
b) All numbers used in the transmission of altitude, height, cloud height, visibility and runway visual range information which contain whole hundreds and whole thousands shall be transmitted by pronouncing each digit in the number of hundreds or thousands followed by the word HUNDRED or TOUSAND as appropriate. Combinations of thousands and whole hundreds shall be transmitted by pronouncing each digit in the number of thousands followed by the word THOUSAND and the number of hundreds followed by the word HUNDRED; examples of this convention are as follows:

**Table 4**

<table>
<thead>
<tr>
<th>Number</th>
<th>Transmitted as</th>
<th>Pronounced as</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>One Zero</td>
<td>WUN ZERO</td>
</tr>
<tr>
<td>100</td>
<td>One Hundred</td>
<td>WUN HUNDRED</td>
</tr>
<tr>
<td>2500</td>
<td>Two Thousand Five Hundred</td>
<td>TOO TOUSAND FIFE HUNDRED</td>
</tr>
<tr>
<td>11000</td>
<td>One One Thousand</td>
<td>WUN WUN TOUSAND</td>
</tr>
<tr>
<td>25000</td>
<td>Two Five Thousand</td>
<td>TOO FIFE TOUSAND</td>
</tr>
</tbody>
</table>

1.4.3 Numbers containing a decimal point shall be transmitted as prescribed in 4.1 with the decimal point in appropriate sequence being indicated by the word decimal.

**Table 5**

<table>
<thead>
<tr>
<th>Number</th>
<th>Transmitted as</th>
<th>Pronounced as</th>
</tr>
</thead>
<tbody>
<tr>
<td>118.1</td>
<td>One One Eight Decimal One</td>
<td>WUN WUN AIT DAY SEE MAL WUN</td>
</tr>
<tr>
<td>120.375</td>
<td>One Two Zero Decimal Three Seven</td>
<td>WUN TOO ZERO DAY SEE MAL TREE SEVEN</td>
</tr>
</tbody>
</table>

**NOTE:** Only the first five figures are used when identifying frequencies separated by 25 kHz. See Chapter 9 for phraseology for operations in 8.33 kHz environments.

1.4.4 When it is necessary to verify the accurate reception of numbers the person transmitting the message shall request the person receiving the message to read back the numbers.

1.5 **Transmission of Time**

1.5.1 When transmitting time, only the minutes of the hour are normally required. However, the hour should be included if there is any possibility of confusion. Time checks shall be given to the nearest minute. Co-ordinated Universal Time (UTC) is to be used at all times, unless specified. 2400 hours designates midnight, the end of the day, and 0000 hours the beginning of the day.
Table 6

<table>
<thead>
<tr>
<th>Number</th>
<th>Transmitted as</th>
<th>Pronounced as</th>
</tr>
</thead>
<tbody>
<tr>
<td>0823</td>
<td>Two Three or Zero Eight Two Three</td>
<td>TOO TREE (or ZERO AIT TOO TREE)</td>
</tr>
<tr>
<td>1300</td>
<td>One Three Zero Zero</td>
<td>WUN TREE ZERO ZERO</td>
</tr>
<tr>
<td>2057</td>
<td>Five Seven or Two Zero Five Seven</td>
<td>FIFE SEVEN (or TOO ZERO FIFE SEVEN)</td>
</tr>
</tbody>
</table>

1.6 Standard Words and Phrases

The following words and phrases shall be used in radiotelephony communications as appropriate and shall have the meaning given below:

Table 7

<table>
<thead>
<tr>
<th>Word/Phrase</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGE</td>
<td>Let me know that you have received and understood this message.</td>
</tr>
<tr>
<td>AFFIRM</td>
<td>Yes.</td>
</tr>
<tr>
<td>APPROVED**</td>
<td>Permission for proposed action granted.</td>
</tr>
<tr>
<td>BREAK</td>
<td>Indicates the separation between messages.</td>
</tr>
<tr>
<td>BREAK BREAK</td>
<td>Indicates the separation between messages transmitted to different aircraft in a busy environment.</td>
</tr>
<tr>
<td>CANCEL</td>
<td>Annul the previously transmitted clearance.</td>
</tr>
<tr>
<td>CHANGING TO</td>
<td>I intend to call . . . (unit) on . . . (frequency).</td>
</tr>
<tr>
<td>CHECK</td>
<td>Examine a system or procedure. (Not to be used in any other context. No answer is normally expected.)</td>
</tr>
<tr>
<td>CLEARED ‡</td>
<td>Authorised to proceed under the conditions specified.</td>
</tr>
<tr>
<td>CLIMB ‡</td>
<td>Climb and maintain.</td>
</tr>
<tr>
<td>CONFIRM</td>
<td>I request verification of: (clearance, instruction, action, information).</td>
</tr>
<tr>
<td>CONTACT</td>
<td>Establish communications with ... (your details have been passed).</td>
</tr>
<tr>
<td>CORRECT</td>
<td>True or accurate.</td>
</tr>
<tr>
<td>CORRECTION</td>
<td>An error has been made in this transmission (or message indicated). The correct version is ...</td>
</tr>
<tr>
<td>DESCEND ‡</td>
<td>Descend and maintain.</td>
</tr>
<tr>
<td>DISREGARD</td>
<td>Ignore.</td>
</tr>
<tr>
<td>FANSTOP</td>
<td>I am initiating a practice engine failure after take off. (Used only by pilots of single engine aircraft.) The response should be, “REPORT CLIMBING AWAY”</td>
</tr>
</tbody>
</table>
Table 7

<table>
<thead>
<tr>
<th>Word/Phrase</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREECALL</td>
<td>Call . . . (unit) (your details have not been passed – mainly used by military ATC).</td>
</tr>
<tr>
<td>HOW DO YOU READ</td>
<td>What is the readability of my transmission?</td>
</tr>
<tr>
<td>I SAY AGAIN</td>
<td>I repeat for clarity or emphasis.</td>
</tr>
<tr>
<td>MAINTAIN ‡</td>
<td>Continue in accordance with the condition(s) specified or in its literal sense, e.g. “Maintain VFR.”</td>
</tr>
<tr>
<td>MONITOR</td>
<td>Listen out on (frequency).</td>
</tr>
<tr>
<td>NEGATIVE</td>
<td>No; or Permission not granted; or That is not correct; or Not capable.</td>
</tr>
<tr>
<td>OUT*</td>
<td>This exchange of transmissions is ended and no response is expected.</td>
</tr>
<tr>
<td>OVER*</td>
<td>My transmission is ended and I expect a response from you.</td>
</tr>
<tr>
<td>PASS YOUR MESSAGE</td>
<td>Proceed with your message.</td>
</tr>
<tr>
<td>READ BACK</td>
<td>Repeat all, or the specified part, of this message back to me exactly as received.</td>
</tr>
<tr>
<td>REPORT **</td>
<td>Pass requested information.</td>
</tr>
<tr>
<td>REQUEST</td>
<td>I should like to know ... or I wish to obtain ...</td>
</tr>
<tr>
<td>ROGER</td>
<td>I have received all your last transmission.</td>
</tr>
<tr>
<td></td>
<td>Note: Under no circumstances to be used in reply to a question requiring a direct answer in the affirmative (AFFIRM) or negative (NEGATIVE).</td>
</tr>
<tr>
<td>SAY AGAIN</td>
<td>Repeat all, or the following part of your last transmission.</td>
</tr>
<tr>
<td>SPEAK SLOWER</td>
<td>Reduce your rate of speech.</td>
</tr>
<tr>
<td>STANDBY</td>
<td>Wait and I will call you.</td>
</tr>
<tr>
<td></td>
<td>Note: No onward clearance to be assumed. The caller would normally re-establish contact if the delay is lengthy. STANDBY is not an approval or denial.</td>
</tr>
<tr>
<td>UNABLE</td>
<td>I cannot comply with your request, instruction or clearance.</td>
</tr>
<tr>
<td></td>
<td>Unable is normally followed by a reason.</td>
</tr>
<tr>
<td>WILCO</td>
<td>I understand your message and will comply with it (abbreviation for will comply)</td>
</tr>
<tr>
<td>WORDS TWICE</td>
<td>As a request: Communication is difficult. Please send every word twice.</td>
</tr>
<tr>
<td></td>
<td>As Information: Since communication is difficult, every word in this message will be sent twice.</td>
</tr>
</tbody>
</table>

* Not normally used in U/VHF Communications.

** Not used by Air/Ground Communication Service Operators (c/s “Radio”).

‡ Not used by Air/Ground Communication Service Operators (c/s “Radio”) or Flight Information Service Officers (c/s “Information”).
1.7 **Callsigns for Aeronautical Stations**

1.7.1 Aeronautical stations are identified by the name of the location followed by a suffix except that the name of the rig/platform/vessel is normally used by offshore mineral extraction agencies. The suffix indicates the type of service being provided.

**Table 8**

<table>
<thead>
<tr>
<th>Service</th>
<th>Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Control</td>
<td>CONTROL</td>
</tr>
<tr>
<td>Radar (in general)</td>
<td>RADAR</td>
</tr>
<tr>
<td>Approach Control</td>
<td>APPROACH</td>
</tr>
<tr>
<td>Aerodrome Control</td>
<td>TOWER</td>
</tr>
<tr>
<td>Approach Control Radar</td>
<td>DIRECTOR/DEPARTURE (RADAR – when tasks combined)/ARRIVAL – (when approved))</td>
</tr>
<tr>
<td>Arrival/Departure</td>
<td></td>
</tr>
<tr>
<td>Ground Movement Control</td>
<td>GROUND</td>
</tr>
<tr>
<td>Precision Approach Radar</td>
<td>TALKDOWN (Military – FINAL CONTROLLER)</td>
</tr>
<tr>
<td>Flight Information</td>
<td>INFORMATION</td>
</tr>
<tr>
<td>Air/Ground Communication Service</td>
<td>RADIO</td>
</tr>
<tr>
<td>Ground Movement Planning</td>
<td>DELIVERY</td>
</tr>
</tbody>
</table>

1.7.2 There are three main categories of aeronautical communications service:

- Air Traffic Control Service (ATC) which can only be provided by licensed Air Traffic Control Officers who are closely regulated by the CAA.
- Flight Information Service at aerodromes can be provided only by licensed Flight Information Service Officers (FISOs), who are also regulated by the CAA.
- Aerodrome Air/Ground Communication Service (AGCS) which can be provided by Radio Operators who are not licensed but have obtained a certificate of competency to operate radio equipment on aviation frequencies from the CAA. These operations come under the jurisdiction of the radio license holder, but are not regulated in any other way.

1.7.3 It is an offence to use a callsign for a purpose other than that for which it has been notified.

1.7.4 When satisfactory communication has been established, and provided that it will not be confusing, the name of the location or the callsign suffix may be omitted.

1.7.5 It is correct procedure to announce identity on all telephone calls: with incoming calls it is the opening remark and with outgoing calls it is the reply to the recipient’s announcement of identity. FISOs and AGCS operators must never identify themselves as ‘...air traffic control’. It is just as important that this procedure is not relaxed for direct telephone lines because mistaken identity can occur when another line has been inadvertently left open from a previous call. The identity to be used is that of the function relative to the telephone extension being used.
1.8 **Callsigns for Aircraft**

1.8.1 When establishing communication an aircraft shall use the full callsigns of both stations.

1.8.2 After satisfactory communication has been established and provided that no confusion is likely to occur, the ground station may abbreviate callsigns (see table below). A pilot may *only* abbreviate the callsign of his aircraft if it has *first* been abbreviated by the aeronautical station.

**Table 9**

<table>
<thead>
<tr>
<th>Full callsign</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBFRM</td>
<td>G-RM</td>
</tr>
<tr>
<td>Speedbird GBGDC</td>
<td>Speedbird DC</td>
</tr>
<tr>
<td>N31029</td>
<td>N029</td>
</tr>
<tr>
<td>N753DA</td>
<td>N3DA</td>
</tr>
<tr>
<td>Midland 120</td>
<td>No abbreviation</td>
</tr>
<tr>
<td>* Piper GBSZT</td>
<td>Piper ZT</td>
</tr>
</tbody>
</table>

* The name of either the aircraft manufacturers or name of aircraft model may be used as a prefix to the callsign.

1.8.3 An aircraft should request the service required on initial contact when freecalling a ground station.

1.8.4 An aircraft shall not change its callsign type during a flight. **However**, where there is a likelihood that confusion may occur because of similar callsigns, an aircraft may be instructed by an air traffic service unit (ATSU) to change the type of its callsign temporarily.

1.8.5 Aircraft in the heavy wake vortex category shall include the word ‘HEAVY’ immediately after the aircraft callsign in the initial call to each ATSU.

1.9 **Continuation of Communications**

1.9.1 The placement of the callsigns of both the aircraft and the ground station *within* an established RTF exchange should be as follows:

Ground to Air: Aircraft callsign – message or reply.
Air to Ground:

a) Initiation of new information/request etc. – Aircraft callsign then message;

b) Reply – Repeat of pertinent information/readback/acknowledgement then aircraft callsign.

1.9.2 When it is considered that reception is likely to be difficult, important elements of the message should be spoken twice.

1.9.3 When a ground station wishes to broadcast information to all aircraft likely to receive it, the message should be prefaced by the call ‘All stations’.

No reply is expected to such general calls unless individual stations are subsequently called upon to acknowledge receipt.

1.9.4 If there is doubt that a message has been correctly received, a repetition of the message shall be requested either in full or in part.

Table 10

<table>
<thead>
<tr>
<th>Phrase</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Say again</td>
<td>Repeat entire message</td>
</tr>
<tr>
<td>Say again ... (item)</td>
<td>Repeat specific item</td>
</tr>
<tr>
<td>Say again all before ... (the first word satisfactorily received)</td>
<td></td>
</tr>
<tr>
<td>Say again all after ... (the last word satisfactorily received)</td>
<td></td>
</tr>
<tr>
<td>Say again ... (word before missing portion) to ... (word after missing portion)</td>
<td></td>
</tr>
</tbody>
</table>
1.9.5 When a station is called but is uncertain of the identification of the calling station, the calling station should be requested to repeat its callsign until identification is established.

Stourton Ground Fastair 345
Station calling Stourton Ground say again your callsign

1.10 Corrections and Repetitions

1.10.1 When an error is made in a transmission the word ‘CORRECTION’ shall be spoken, the last correct group or phrase repeated and then the correct version transmitted.

Fastair 345 Wicken 47
FL 280 Marlow 07
correction Marlow 57
Fastair 345 Roger

1.10.2 If a correction can best be made by repeating the entire message, the operator shall use the phrase ‘CORRECTION I SAY AGAIN’ before transmitting the message a second time.

1.11 Acknowledgement of Receipt

Acknowledgements of information should be signified by the use of the receiving stations’ callsign or Roger callsign, and not by messages such as: ‘callsign-copy the weather’ or ‘callsign-copy the traffic’.

1.12 Transfer of Communications

1.12.1 An aircraft will normally be advised by the appropriate aeronautical station to change from one radio frequency to another in accordance with agreed procedures.

Fastair 345 contact Wrayton Control 129.1
Wrayton Control 129.1
Fastair 345

In the absence of such advice, the aircraft shall notify the aeronautical station before such a change takes place. Aircraft flying in controlled airspace must obtain permission from the controlling authority before changing frequency.

1.12.2 An aircraft may be instructed to ‘standby’ on a frequency when it is intended that the ATSU will initiate communications, and to monitor a frequency on which information is being broadcast.

Fastair 345 standby 118.9 for Kennington Tower
Standby 118.9 for Kennington Tower
Fastair 345

Fastair 345 monitor 128.2 for ATIS
Monitor 128.2 for ATIS
Fastair 345

1.12.3 If the airspace does not dictate that an aircraft must remain in contact with a specific ATSU and the pilot wishes to freecall another agency he should request, or notify such an intention.
1.13 Issue of Clearance and Read Back Requirements

1.13.1 Provisions governing clearances are contained in the PANS-ATM (ICAO Doc 4444). A clearance may vary in content from a detailed description of the route and levels to be flown to a brief standard instrument departure (SID) according to local procedures.

1.13.2 Controllers will pass a clearance slowly and clearly since the pilot needs to write it down; wasteful repetition will thus be avoided. Whenever possible a route clearance should be passed to an aircraft before start up and the aircraft’s full callsign will always be used. **Generally controllers will avoid passing a clearance to a pilot engaged in complicated taxiing manoeuvres and on no occasion when the pilot is engaged in line up or take-off manoeuvres.**

1.13.3 An ATC route clearance is **NOT** an instruction to take-off or enter an active runway. The words ‘TAKE-OFF’ are used only when an aircraft is cleared for take-off. At all other times the word ‘DEPARTURE’ is used.

1.13.4 The stringency of the read back requirement is directly related to the possible seriousness of a misunderstanding in the transmission and receipt of ATC clearance and instructions. **ATC route clearances shall always be read back unless otherwise authorised by the appropriate ATS authority** in which case they shall be acknowledged in a positive manner. Read backs shall always include the aircraft callsign.
1.13.5 Pilots of departing aircraft flying in controlled airspace which suffer radio communication failure prior to reaching cruising level should be aware of the procedures to be adopted when the following types of clearance (detailed in UK AIP ENR) are issued:

a) Request level change en-route.

b) Climb under radar.

c) Temporary restriction to climb.

1.13.6 The ATS messages listed below are to be read back in full by the pilot/driver. If a readback is not received the pilot/driver will be asked to do so. Similarly, the pilot/driver is expected to request that instructions are repeated or clarified if any are not fully understood.

- Taxi/Towing Instructions
- Level Instructions
- Heading Instructions
- Speed Instructions
- Airways or Route Clearances
- Approach Clearances
- Runway-in-Use
- Clearance to Enter, Land On, Take-Off On, Backtrack, Cross, or Hold Short of any Active Runway
- SSR Operating Instructions
- Altimeter Settings
- VDF Information
- Frequency Changes
- Type of Radar Service
- Transition Levels

G-ABCD cleared to cross A1 at Wicken, maintain FL 70 whilst in controlled airspace. Report entering the airway.

Cleared to cross A1 at Wicken, maintain FL 70 in controlled airspace, Wilco. G-ABCD

Holding G-CD

Ground on 118.05 G-CD

6402 Fastair 345

1 September 2003
1.13.7 Items which do not appear in the above list may be acknowledged with an abbreviated read back.

1.13.8 If an aircraft read back of a clearance or instruction is incorrect, the controller shall transmit the word ‘NEGATIVE’ followed by the correct version.

1.13.9 If at any time a pilot receives a clearance or instruction with which he cannot comply, he should advise the controller using the phrase ‘UNABLE’ (COMPLY) and give the reason(s).

1.14 Communication Failure

1.14.1 Air – Ground

a) Check the following points:

i) The correct frequency has been selected for the route being flown.

ii) The Aeronautical Station being called is open for watch.

iii) The aircraft is not out of radio range.

iv) Receiver volume correctly set.

b) If the previous points are in order it may be that the aircraft equipment is not functioning correctly. Complete the checks of headset and radio installation appropriate to the aircraft.

c) When an aircraft station is unable to establish contact with the aeronautical station on the designated frequency it shall attempt to establish contact on another frequency appropriate to the route being flown. If this attempt fails, the aircraft station shall attempt to establish communication with other aircraft or other aeronautical stations on frequencies appropriate to the route.

d) The pilot may still be unable to establish communication on any designated aeronautical station frequency, or with any other aircraft. The pilot is then to transmit his message twice on the designated frequency, including the addressee for whom the message is intended, preceded by the phrase ‘TRANSMITTING BLIND’ in case the transmitter is still functioning.
e) Where a transmitter failure is suspected, check or change the microphone. Listen out on the designated frequency for instructions. It should be possible to answer questions by use of the carrier wave if the microphone is not functioning (see Chapter 8 paragraph 1.6).

f) In the case of a receiver failure transmit reports twice at the scheduled times or positions on the designated frequency preceded by the phrase ‘TRANSMITTING BLIND DUE TO RECEIVER FAILURE’.

g) An aircraft which is being provided with air traffic control service, advisory service or aerodrome flight information service is to transmit information regarding the intention of the pilot in command with respect to the continuation of the flight. Specific procedures for the action to be taken by pilots of IFR and Special VFR flights are contained in the appropriate AIP ENR and/or AD sections.

1.14.2 Ground – Air

1.14.2.1 After completing checks of ground equipment (most airports have standby and emergency communications equipment) the ground station will request other aeronautical stations and aircraft to attempt to communicate with the aircraft which has failed to maintain contact.

1.14.2.2 If still unable to establish communication the aeronautical station will transmit messages addressed to the aircraft by blind transmission on the frequency on which the aircraft is believed to be listening.

1.14.2.3 These will consist of:

   a) The level, route and EAT (or ETA) to which it is assumed the aircraft is adhering.
   b) The weather conditions at the destination aerodrome and suitable alternate and, if practicable, the weather conditions in an area or areas suitable for descent through cloud procedure to be effected. (See AIP ENR Section.)

1.15 Test Procedures

1.15.1 Test transmissions should take the following form:

   a) the identification of the aeronautical station being called;
   b) the aircraft identification;
   c) the words ‘RADIO CHECK’;
   d) the frequency being used.

1.15.2 Replies to test transmissions should be as follows:

   a) the identification of the station calling;
   b) the identification of the station replying;
   c) information regarding the readability of the transmission.
1.15.3 The readability of a transmission should be classified by the number in the table below, together with any other information regarding the transmission which may be useful to the station making the test.

### Table 11

<table>
<thead>
<tr>
<th>Readability Scale</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unreadable</td>
</tr>
<tr>
<td>2</td>
<td>Readable now and then</td>
</tr>
<tr>
<td>3</td>
<td>Readable but with difficulty</td>
</tr>
<tr>
<td>4</td>
<td>Readable</td>
</tr>
<tr>
<td>5</td>
<td>Perfectly readable</td>
</tr>
</tbody>
</table>

or,

G-ABCD Borton Tower readability 5

or,

G-CD Borton Tower readability 3 with a loud background whistle

or,

Station calling Borton Tower readiness 1

1.15.4 When it is necessary for a ground station to make test signals, either for the adjustment of a transmitter before making a call or for the adjustment of a receiver, such signals shall not continue for more than 10 seconds. The test should comprise spoken numbers (WUN, TOO, TREE etc.) followed by the radio callsign of the station transmitting the test signals. Such transmissions shall be kept to a minimum.

1.16 **Pilot Complaints Concerning Aeronautical Telecommunications**

Pilots’ reports of faults concerning services and facilities in the Aeronautical Mobile, Broadcast and Navigation Services may be recorded on the CAA Form CA 647. The Pilot should ensure that the Briefing Officer, Senior Telecommunications Officer or Senior Controller at the destination or airport of first landing receives full details in order that remedial action can be taken. Reports of local unserviceabilities will be forwarded to the Telecommunications staff if received on RTF by the ATSU.

1.17 **Air Traffic Service Complaints Concerning Aircraft Communications**

Aircraft radio faults including technical failure, incorrect operating procedures and misuse of specific radio channels may result in the aircraft operator receiving a communication from the CAA detailing the fault condition inviting the operator to explain and/or state what corrective action has been taken.
1.18 **Hours of Service and Communications Watch**

1.18.1 The hours of service of the radio facilities available in the United Kingdom are published in the UK AIP (ENR and AD) which also details those periods set aside for maintenance.

1.18.2 Aircraft stations shall, if possible, communicate directly with the ATSU appropriate to the area in which the aircraft are flying. If unable to do so, aircraft stations shall use any relay means available and appropriate to transmit messages to the ATSU.

1.18.3 When normal communications from an aeronautical station to an aircraft station cannot be established, the aeronautical station shall use any relay means available and appropriate to transmit messages to the aircraft station.

1.18.4 When an aircraft has established communication with an ATSU it is required to maintain a listening watch with that ATSU and advise the ATSU when the listening watch is about to cease. Aircraft should not cease to maintain a listening watch, except for reasons of safety, without informing the ATSU concerned. A time at which it is expected that the watch will be resumed must be stated.

1.19 **Record of Communications**

All ATC units have automatic equipment to record air-ground communications and some other ATS units (e.g. AFIS) also have such equipment.

1.20 **Categories of Message**

The categories of messages handled by the aeronautical mobile service are in the following order of priority:

a) Distress messages  
   b) Urgency messages  

\{  
  c) Communications relating to direction finding  
 \}

   d) Flight safety messages  
   e) Meteorological messages  
   f) Flight Regularity messages  

See Chapter 8 – Emergency Phraseology  
See Chapter 6 paragraph 1.7  
See Chapter 9 paragraph 1.6  
See Chapter 4 section 5  
See Chapter 9 paragraph 1.6.
Chapter 3  General Phraseology

1  General

1.1  Introduction

1.1.1 The phraseology detailed in this manual has been established for the purpose of ensuring uniformity in RTF communications. Communications shall be concise and unambiguous, using standard phraseology whenever available. Obviously, it is not practicable to detail phraseology examples suitable for every situation which may occur. However, if standard phrases are adhered to when composing a message, any possible ambiguity will be reduced to a minimum.

1.1.2 Some abbreviations, which by their common usage have become part of aviation terminology, may be spoken using their constituent letters rather than the spelling alphabet, for example, ILS, QNH, RVR, etc., (see Chapter 1, paragraph 1.2).

1.1.3 The following words may be omitted from transmissions provided that no confusion or ambiguity will result:

a) ‘Surface’ and ‘knots’ in relation to surface wind direction and speed.

b) ‘Degrees’ in relation to surface wind direction and headings.

c) ‘Visibility’, ‘cloud’ and ‘height’ in meteorological reports.

d) ‘Millibars’ when giving pressure settings of 1000 mbs and above.

e) ‘over’, ‘roger’ and ‘out’.

1.1.4 The excessive use of courtesies should be avoided.

1.2  Level Instructions

1.2.1 Only basic level instructions are detailed in this chapter. More comprehensive phrases are contained in subsequent chapters in the context in which they are most commonly used.

1.2.2 The precise phraseology used in the transmission and acknowledgement of climb and descent clearances will vary, depending upon the circumstances, traffic density and nature of the flight operations.

1.2.3 However, care must be taken to ensure that misunderstandings are not generated as a consequence of the phraseology employed during these phases of flight. For example, levels may be reported as altitude, height or flight levels according to the phase of flight and the altimeter setting. Therefore, when passing level messages, the following conventions apply:

a) The word ‘to’ is to be omitted from messages relating to FLIGHT LEVELS.

b) All messages relating to an aircraft’s climb or descent to a HEIGHT or ALTITUDE employ the word ‘to’ followed immediately by the word HEIGHT or ALTITUDE. Furthermore, the initial message in any such RTF exchange will also include the appropriate QFE or QNH.

c) The phrase ‘re-cleared’ should not be employed.

d) When transmitting messages containing flight levels each digit shall be transmitted separately. However, in an endeavour to reduce ‘level busts’ caused by the confusion between some levels (100/110, 200/220 etc.), levels which are
whole hundreds e.g. FL 100, 200, 300 shall be spoken as “Flight level (number) HUNDRED”. The word hundred must not be used for headings.

1. Use of the word ‘millibars’ for pressures lower than 1000
2. Transmission of Regional Pressure Setting (Wessex) limited to regional name and pressure.

1.2.3.1 In the following examples the operations of climbing and descending are interchangeable and examples of only one form are given.

<table>
<thead>
<tr>
<th>Command</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-CD report your level</td>
<td>G-CD maintaining FL 65</td>
</tr>
<tr>
<td>G-CD descend FL 45</td>
<td>Descend FL 45 G-CD</td>
</tr>
<tr>
<td>G-CD descend to altitude 2000 feet</td>
<td>Borton QNH 1000 G-CD</td>
</tr>
<tr>
<td>G-CD descend to altitude 2500 feet</td>
<td>Wessex 998 millibars</td>
</tr>
<tr>
<td>G-CD descend to height 1000 feet</td>
<td>QFE 997 millibars G-CD</td>
</tr>
<tr>
<td>G-CD report passing FL 80</td>
<td>Report passing FL 80 G-CD</td>
</tr>
<tr>
<td>G-CD passing FL 80</td>
<td></td>
</tr>
</tbody>
</table>
1.2.3.2 Exceptionally, a best rate of climb or descent may be required.

- Fastair 345 expedite descent FL 180
- Fastair 345 climb FL 280 expedite until passing FL 180

or,

- Fastair 345 unable expedite climb due weight

1.2.3.3 Under exceptional circumstances, if instant descent/climb is required, the word ‘immediately’ shall be used.

- Fastair 345 descend immediately FL 200 due traffic

1.2.3.4 Pilots are expected to comply with ATC instructions as soon as they are issued. However, when a climb/descent is left to the discretion of the pilot, the words ‘when ready’ shall be used; in these circumstances the pilot will report ‘leaving’ his present level. Should pilots be instructed to report leaving a level, they should inform ATC that they have left an assigned level only when the aircraft’s altimeter indicates that the aircraft has actually departed from that level and is

1 September 2003
maintaining a positive rate of climb or descent, in accordance with published procedures.

1.3 **Position Reporting**

1.3.1 Position reports shall contain the following elements of information:

a) Aircraft identification

b) Position

c) Time

d) Level

e) Next position and ETA

1.3.2 Where adequate flight progress data is available from other sources, such as ground radar, aircraft may be exempted from the requirement to make compulsory position reports.

1.4 **Flight Plans**

1.4.1 A pilot may file a flight plan with an ATSU during flight, although the use of busy RTF channels should be avoided; normally the FIS frequency should be used.
1.4.2 The format for an airborne flight plan is as follows:

   a) Aircraft identification and type.
   b) Position and heading.
   c) Level and flight conditions.
   d) Departure aerodrome.
   e) Estimated time at entry point.
   f) Route and point of first intended landing.
   g) True airspeed.
   h) Desired level on airway or advisory route.

1.4.3 During a flight a pilot may elect to cancel an IFR flight plan.

   Wrayton control G-CD cancel my
   IFR flight plan

   G-CD Roger IFR flight plan cancelled
   at time 47

1.4.4 When a pilot has expressed his intention to cancel an IFR flight plan, the ATSU will
   pass the pilot any available meteorological information which makes it likely that flight
   in VMC cannot be maintained.

   G-CD IMC reported in the vicinity of
   Kennington

   G-CD Roger remaining IFR

1.5 Reply to ‘Pass your Message’

   The service that an aircraft requires should be passed in the initial call to the ATSU;
   when requested by the ATSU to ‘pass your message’ a suitable reply could contain
   the following information which, whenever possible, should be given in the following
   order:
   
   a) Aircraft identification and type.
   b) Point of departure and estimated position.
   c) Heading.
   d) Level.
   e) Intention (next reporting/turning point/destination)
   f) Type of service required.

   Westbury Approach, G-ABCD
   request Lower Airspace Radar
   Service

   G-BCD Westbury Approach pass
   your message

   G-ABCD, T67, from Borton 15 miles
   south-east of Westbury, heading
   350, altitude 2500 feet Wessex 1008,
   destination Walden, request Radar
   Information Service
1.6 Designated Positions in the Traffic Circuit

Typical Left-Hand Circuit

Position 1 Aircraft reports on downwind leg when abeam upwind end of runway.

Position 2 Aircraft reports ‘Late downwind’ if it is on the downwind leg, has been unable to report ‘Downwind’ and has passed abeam the downwind end of the runway.

Position 3 ‘Base’ leg report (if required).


Position 5 ‘Long final’ report (between 8 and 4 miles) when aircraft is on a straight in approach.

NOTE: For light aircraft operations, circuit dimensions may be reduced but the relative RTF reporting points are maintained.

Figure 1 Designated positions in the traffic circuit
Chapter 4  Aerodrome Phraseology

1  Air Traffic Control Service

1.1  Introduction

1.1.1  Concise and unambiguous phraseology used at the correct time is vital to the smooth, safe and expeditious running of an aerodrome and associated ATZ. It is not only the means by which instructions and information are passed but it also assists pilots in maintaining an awareness of other traffic in their vicinity, particularly in poor visibility conditions.

1.1.2  Messages will not be transmitted to an aircraft during take-off, the last part of final approach or the landing roll, unless it is necessary for safety reasons, because it will be distracting to the pilot at a time when the cockpit workload is often at its highest.

1.1.3  Local procedures vary from aerodrome to aerodrome and it is impossible to give examples to cover every situation which may arise at the multiplicity of different types of aerodrome. Information in addition to that shown in the examples, e.g. time checks, etc. may be provided as necessary.

1.2  Type of Service

1.2.1  As described in Chapter 2 the type of service provided at an aerodrome falls into one of three categories. In this section the examples are confined to those used by air traffic controllers.

1.2.2  Whilst the RTF procedures used by air traffic controllers form the main content of this publication it should be noted that the phraseology used by FISOs and Air/Ground Communication Service operators is different from that used by controllers. Examples of phraseology for Flight Information Service Officers and Air/Ground Communication Service operators may be found in Chapter 4 sections 2 and 4 respectively.

1.3  Departure Information and Engine Starting Procedures

1.3.1  Where no ATIS is provided the pilot may ask for current aerodrome information before requesting start up.

Stourton Ground Fastair 345, request departure information

Fastair 345 Stourton Ground departure runway 32 wind 290 4, QNH 1008, temperature -2, dewpoint -3, RVR 550 metres

Runway 32, QNH 1008, will call for start up Fastair 345

Stourton Ground Fastair 345, stand 24 information Bravo, QNH 1022 request start up

Fastair 345 Stourton Ground start up at time 35

1 September 2003
1.3.3 When there will be a delay to the departure of the aircraft the controller will normally indicate a time to start up or expect to start up.

```
Stourton Ground Fastair 345
information Charlie QNH 1022,
request start up
```

```
Fastair 345 Stourton Ground start up
approved, temperature -2
```

```
or,
```

```
Fastair 345 Stourton Ground expect
start up at time 35
```

```
or,
```

```
Fastair 345 Stourton Ground expect
departure at time 49 start up at own
discretion temperature -2
```

1.4 Pushback and Powerback

At many aerodromes at which large aircraft operate, the aircraft are parked nose-in to the terminal in order to save parking space. Aircraft have to be pushed backwards by tugs before they can taxi for departure. Some aircraft also have the capability to reverse from a nose-in position to the terminal under their own power. This procedure is known as powerback. Requests for pushback or powerback are made to ATC depending on the local procedures.

```
Fastair 345 stand 27 request
pushback/powerback
```

```
Fastair 345 pushback/powerback
approved
```

```
or,
```

```
Fastair 345 negative. Expect one
minute delay due B747 taxying behind
```

1.5 Taxi Instructions

1.5.1 Taxi instructions issued by a controller will always contain a clearance limit, which is the point at which the aircraft must stop unless further permission to proceed is given. For departing aircraft the clearance limit will normally be the holding point of the runway in use, but it may be any other position on the aerodrome depending on the prevailing traffic.

```
Borton Tower G-ABCD T67 by the
south side hangars request taxi for
VFR flight to Walden
```

```
G-CD taxi holding point G2
runway 24 via taxiway Charlie QNH
967 millibars
```

```
Taxi holding point G2 runway 24 via
taxiway Charlie QNH 967 millibars
G-CD
```
G-CD request surface wind

G-CD surface wind 220 6

G-CD request runway 14

G-CD follow the Seneca coming from your left taxi holding point B1 runway 14

Following the Seneca, taxi holding point B1 runway 14. G-CD

Borton Tower G-ABCD T67 at the fuel station VFR to Walden request taxi

G-CD runway 06 QNH 1008 taxi holding point BZ2 runway 14 via taxiway Alpha

QNH 1008 G-CD request taxiway Bravo, and backtrack runway 06

G-CD taxi holding point H1 runway 06 via taxiway Bravo

Taxi holding point H1 runway 06 via taxiway Bravo G-CD

Borton Tower G-ABCD at the fuel station request taxi to flying club

G-CD taxi holding point VA1 runway 24 via Charlie

Taxi holding point VA1 runway 24 via Charlie G-CD

G-CD holding point VA1 runway 24 request cross

G-CD negative. I will call you

Holding G-CD
1.5.2 Where an ATIS broadcast is established the controller does not need to pass
departure information to the pilot when giving taxi instructions. He will, however,
check that the aircraft is in possession of the latest QNH.

1.6 Pre-Departure Manoeuvring

1.6.1 Meticulous care has been taken to ensure that the phraseology which is to be
employed during the pre-departure manoeuvres cannot be interpreted as a take-off
clearance. This is to avoid the serious consequences that could result if there is any
misunderstanding in the granting or acknowledgement of take-off clearances.

1.6.2 At busy aerodromes with a separate ground and tower function, aircraft are usually
transferred to the tower frequency at or approaching the holding point.

1.6.3 Many types of aircraft carry out engine checks prior to departure and are not always
ready for take-off when they reach the holding point.
1.7 Take-Off Clearance

1.7.1 Except in cases of emergency, messages will not be transmitted to an aircraft in the process of taking off or in the final stages of an approach and landing.

1.7.2 Controllers will use the following phraseology for take off.

1.7.3 For traffic reasons a controller may consider it necessary for an aircraft to take off without any delay. Therefore, when given the instruction ‘cleared for immediate take-off’, the pilot is expected to act as follows:

a) At the holding point: taxi immediately on to the runway and commence take-off without stopping the aircraft.

b) If already lined up on the runway: take-off without delay.

1.7.4 For reason of expedition a controller may wish to line-up an aircraft for departure before conditions allow take-off.

1.7.5 In poor visibility the controller may state the runway and request the pilot to report when airborne.
1.7.6 Conditional phrases will not be used for movements affecting the active runway(s), except when the aircraft or vehicles concerned are seen by the controller and pilot. Conditional clearances are to relate to one movement only and, in the case of landing traffic, this must be the first aircraft on approach. A conditional instruction shall be given as follows:

a) callsign;

b) the condition;

c) identification of subject of the condition;

d) the instruction.

```
Fastair 345 after the landing DC9, line up  
After the landing DC9 line up Fastair 345
```

1.7.7 When several runways are in use and/or there is any possibility that the pilot may be confused as to which one to use, the runway number will be stated.

```
Fastair 345 runway 09 left cleared for take-off  
Runway 09 left cleared for take-off Fastair 345
```

1.7.8 Local departure instructions may be given with the take-off clearance. Such instructions are normally given to ensure separation between aircraft operating in the vicinity of the aerodrome.

```
Fastair 345 after departure climb straight ahead to altitude 2500 feet before turning right. Cleared for take-off  
After departure climb straight ahead to altitude 2500 feet before turning right. Cleared for take-off Fastair 345
```

```
G-CD after departure request right turn  
G-CD right turn approved cleared for take-off
```

```
Right turn approved cleared for take-off G-CD
```

1.7.9 Due to unexpected traffic developments or a departing aircraft taking longer to take-off than anticipated, it is occasionally necessary to rescind the take-off clearance or quickly free the runway for landing traffic.

```
Fastair 345 take-off immediately or vacate runway  
Taking-off Fastair 345
```

```
Fastair 345 take-off immediately or hold short of runway  
Holding short Fastair 345
```
1.7.10 When an aircraft is about to take-off or has commenced the take-off roll, and it is necessary that the aircraft should abandon take-off, the aircraft will be instructed to cancel take-off or stop immediately; these instructions will be repeated.

G-CD hold position, cancel take-off
I say again cancel take-off, acknowledge

Holding G-CD

Fastair 345 stop immediately I say again Fastair 345 stop immediately, acknowledge

Stopping Fastair 345

1.7.11 When a pilot abandons take-off he should, as soon as practicable, inform the tower that he is doing so. Likewise, as soon as practicable, he should inform the tower of the reasons for abandoning take-off if applicable, and request further manoeuvring instructions.

Fastair 345 stopping

Fastair 345

Fastair 345 request backtrack for another departure

Fastair 345 backtrack approved

1.8 Aerodrome Traffic Circuit

1.8.1 Requests for circuit-joining instructions should be made in sufficient time for a planned entry into the circuit taking other traffic into account. Where ATIS is established, receipt of the broadcast should be acknowledged in the initial call to an aerodrome. When the traffic circuit is a right-hand pattern it shall be specified. A left-hand pattern need not be specified although it is essential to do so when the circuit direction is variable.

Walden Tower G-ABCD T67 10 miles south altitude 2500 feet Wessex 1008 request joining instructions

G-CD join righthand downwind runway 27 height 1000 feet QFE 1006

Join righthand downwind runway 27 height 1000 feet QFE 1006 G-CD

1.8.2 In some circumstances, an aircraft may be instructed to complete a standard overhead join which comprises the following:

a) Overfly at 2000 ft above Aerodrome Elevation.

b) If not already known, determine the circuit direction from the signals square, other traffic or windsock.

c) Descend on the ‘dead side’ to circuit height (‘G-CD deadside descending’).
d) Join the circuit by crossing the upwind end of the runway at circuit height.
e) Position downwind.

**NOTE:** Aerodromes with overhead joins at variance to the above standard procedure will notify such differences.

### 1.8.3
Depending on prevailing traffic conditions and the direction from which an aircraft is arriving, it may be possible to make a straight-in approach.

- **Walden Tower G-ABCD T67 10 miles south altitude 2500 feet**
  - Wessex 1008 request straight in approach runway 34
- **G-CD cleared straight in approach runway 34 QFE 1006 report final**

### 1.8.4
The pilot having joined the traffic circuit makes routine reports as required by local procedures.

- **G-CD downwind**
- **G-CD number 2 follow the Cherokee on base**
- **Number 2, in sight Cherokee G-CD**
- **G-CD base**
- **G-CD**
- **G-CD final**
- **G-CD runway 34 cleared to land surface wind 270 7**
- **Runway 34 cleared to land G-CD**

### 1.8.5
It may be necessary in order to co-ordinate traffic in the circuit to issue delaying or expediting instructions.

- **G-CD extend downwind number 2 to a Cherokee 4 miles final**
  - *Extend downwind, number 2 G-CD*
- **G-CD delaying action. Orbit right report again on base**
  - *Orbit right, Wilco G-CD*
1.8.6 In order to save taxying time when flying training in the traffic circuit pilots may wish to carry out a ‘touch and go’, i.e. the aircraft lands, continues rolling and takes-off, without stopping.

```
G-CD downwind touch and go
```

```
G-CD Roger
```

```
G-CD final
```

```
G-CD runway 34 cleared touch and go
```

```
surface wind calm
```

```
Runway 34 cleared touch and go G-CD
```

or,

```
G-CD unable to approve due traffic
make full stop landing runway 34
```

```
cleared to land surface wind calm
```

```
Runway 34 cleared to land G-CD
```

1.8.7 It is helpful for circuit management purposes if a controller is informed when an aircraft which has been engaged in multiple approaches is on his last circuit.

```
G-CD downwind final full stop
```

```
G-CD Roger
```

1.9 Final Approach and Landing

1.9.1 A ‘final’ report is made when an aircraft turns onto final approach. If the turn on is made at a distance greater than 4 nm from touchdown a ‘long final’ report is made. The landing/touch and go/low approach clearance will include the runway designation.

```
G-CD final
```

```
G-CD runway 34 cleared to land
```

```
surface wind 270 7
```

```
Runway 34 cleared to land runway 34 G-CD
```

```
Fastair 345 long final
```

```
Fastair 345 report final surface wind 260 18
```

```
Wilco Fastair 345
```

1 September 2003
NOTE: Where established, an ‘outer marker’ instead of a ‘final’ report may be made.

1.9.2 The runway may be obstructed when the aircraft makes its ‘final’ report at 4 nm or less from touchdown but is expected to be available in good time for the aircraft to make a safe landing. On these occasions the controller will delay landing clearance. The controller may or may not explain why the landing clearance has been delayed but the instruction to ‘continue’ IS NOT an invitation to land and the pilot must wait for landing clearance or initiate a missed approach (see Chapter 4, paragraph 1.10.3).

1.9.3 A landing aircraft may be permitted to touch down before a preceding landing aircraft which has landed is clear of the runway provided that:

a) the runway is long enough to allow safe separation between the two aircraft and there is no evidence to indicate that braking may be adversely affected;

b) it is during daylight hours;

c) the controller is satisfied that the landing aircraft will be able to see the preceding aircraft which has landed, clearly and continuously, until it is clear of the runway; and

d) the pilot of the following aircraft is warned. (Responsibility for ensuring adequate separation rests with the pilot of the following aircraft.)

1.9.4 A pilot may request to fly past the control tower or other observation point for the purpose of visual inspection from the ground.

1.9.5 If the low pass is made for the purpose of observing the undercarriage, one of the following replies could be used to describe its condition but these examples are not exhaustive:

a) landing gear appears down;

b) right (or left, or nose) wheel appears up (or down);

c) wheels appear up;
d) right (or left, or nose) wheel does not appear up (or down).

1.9.6 For training purposes, a pilot may request permission to make an approach along, or parallel to the runway, without landing.

1.10 Missed Approach

1.10.1 Instructions to carry out a missed approach may be given to avert an unsafe situation. When a missed approach is initiated cockpit workload is inevitably high. Any transmissions to aircraft going around will be brief and kept to a minimum.

1.10.2 An aircraft on an instrument approach is to carry out the published missed approach procedure and an aircraft operating VFR is to continue into the normal traffic circuit unless instructions are issued to the contrary.

1.10.3 In the event of missed approach being initiated by the pilot the phrase ‘going around’ shall be used.

1.10.4 At military aerodromes ‘GO AROUND’ is also employed to instruct an aircraft to fly another circuit. Unless otherwise instructed, circuit height should be maintained (or regained) and a ‘Deadside’ call made before turning Crosswind to report Downwind.

1.11 Runway Vacating and Communicating After Landing

1.11.1 Unless absolutely necessary, controllers will not give taxi instructions to pilots until the landing roll is complete. Unless otherwise advised pilots should remain on tower frequency until the runway is vacated.

1 September 2003
1.12 **Essential Aerodrome Information**

Essential Aerodrome Information is information regarding the manoeuvring area and its associated facilities which is necessary to ensure the safe operation of aircraft. Essential Aerodrome Information is passed to aircraft whenever possible prior to start-up or taxi and prior to the commencement of final approach.

- Fastair 345 caution construction work at the end of Stand 37
- ... caution work in progress ahead north side of taxiway Alpha
- ... caution centre line taxiway lighting unserviceable
- ... caution PAPIs runway 27 unserviceable
- ... caution large flock of birds north of runway 27 near centre taxiway
- ... message from aerodrome authority, fire and rescue services reduced. The aerodrome can only accept aircraft up to and including category (number)
2 Aerodrome Flight Information Service

2.1 Introduction

2.1.1 Concise and unambiguous phraseology used at the correct time is vital to the smooth, safe and expeditious running of an aerodrome and associated ATZ. It is not only the means by which instructions and information are passed but it also assists pilots in maintaining an awareness of other traffic in their vicinity, particularly in poor visibility conditions.

2.1.2 Messages will not be transmitted to an aircraft during take-off, the last part of final approach or the landing roll, unless it is necessary for safety reasons, because it will be distracting to the pilot at a time when the cockpit workload is often at its highest.

2.1.3 Local procedures vary from aerodrome to aerodrome and it is impossible to give examples to cover every situation which may arise at the multiplicity of different types of aerodrome. Information in addition to that shown in the examples, e.g. time checks, etc. may be provided as necessary.

2.2 Type of Service

2.2.1 As described in Chapter 2 the type of service provided at an aerodrome falls into one of three categories. In this section the examples are confined to those used by Flight Information Service Officers (FISO). Phraseology for air traffic controllers may be found in Chapter 4 section 1 and that for Air/Ground Communication Service Operators in Chapter 4 section 4.

2.2.2 Whilst the RT procedures used by air traffic controllers form the main content of this publication it should be noted that the phraseology used by FISOs is different from that used by controllers. Flight Information Service (FIS) provided at an aerodrome is a service to give information useful for the safe and efficient conduct of flights in the Aerodrome Traffic Zone. From the information received pilots will be able to decide the appropriate course of action to be taken to ensure the safety of flight. Generally, the Flight Information Service Officer is not permitted to issue instructions or advice to pilots of his own volition. However, in granting or refusing permission under Rule 35 and 36 of the Rules of the Air, FISOs at aerodromes are permitted to pass instructions to vehicles and personnel operating on the manoeuvring area and information and instructions to aircraft moving on the apron and specific parts of the manoeuvring area. Elsewhere on the manoeuvring area and at all times in the air, information only shall be passed to pilots. Further details on the passing of instructions by FISOs at aerodromes are contained in CAP 410 Part B Aerodromes.

2.2.3 FIS is available at aerodromes during the hours of operation indicated in the UK AIP. The service is easily identifiable by the callsign suffix ‘INFORMATION’.

2.2.4 FISOs are also permitted to pass messages on behalf of other agencies and instructions from the aerodrome operator. If they do so, they will include the name of the agency so that pilots will be aware that the message comes from a legitimate source, e.g. ‘Wrayton Control clears you to join ...’.

2.2.5 With the exception of issuing instructions to aircraft on the ground as described in section 3, FISOs are reminded that the service they provide is an information service relating to the ATZ and aerodrome. They must ensure that the information given to pilots is distinct and unambiguous, as pilots will use this information for the safe and efficient conduct of their flights.
2.2.6 A FISO may request pilots to make position reports e.g. downwind, final etc. These requests do not have the status of instructions, although it is expected that most pilots will comply.

2.2.7 From the instructions and information provided by the FISO to aircraft on the appropriate areas of the aerodrome, the pilot will be able to determine if it is safe to taxi. From the information provided by the FISO, the pilot will determine if it is safe to land, take-off or transit the ATZ. FISOs are not permitted to refuse entry into the ATZ when requested by a pilot. The aerodrome authority may decide that they will not permit an aircraft to land at their aerodrome and request that the FISO pass this message on. Such a message must be prefixed: ‘Message from the aerodrome authority...’ FISOs may not issue such messages of their own volition.

2.3 **AFIS Phraseology for Ground Movement, Take-off, Landing and Transit**

2.3.1 RTF messages transmitted on aviation VHF frequencies should normally comprise callsign and text as described earlier in this document.

2.3.2 Ground movement instructions are similar for aircraft, vehicles and tractors towing aircraft but the operative word in the message is ‘taxi’, ‘proceed’ and ‘tow’ respectively.

<table>
<thead>
<tr>
<th>Phraseology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxi Instructions prior to take off, after landing and other ground movement.</td>
</tr>
<tr>
<td>(Aircraft callsign) taxi holding point (designation) runway (designation) via (route), surface wind (number) degrees (number) knots, QNH/QFE (pressure) millibars, left/right hand circuit.</td>
</tr>
<tr>
<td>(Aircraft callsign) taxi to stand (designation) via (route).</td>
</tr>
<tr>
<td>(Aircraft callsign) taxi to (location).</td>
</tr>
<tr>
<td>When necessary, detailed taxying instructions e.g. turn left from the apron and take the first intersection right.</td>
</tr>
<tr>
<td>(Aircraft callsign) after the (aircraft type) passing (e.g. left to right) taxi holding point (designation) runway (designation) surface wind (number) degrees (number) knots, QNH/QFE (pressure) millibars, left/right hand circuit.</td>
</tr>
<tr>
<td>(Aircraft callsign) follow the (aircraft type) (position of aircraft).</td>
</tr>
<tr>
<td>(Aircraft callsign) hold position.</td>
</tr>
<tr>
<td><strong>Note:</strong> FISOs are permitted to pass instructions to helicopters engaged in air taxiing. However, when the pilot reports ready to lift and depart, the FISO shall pass information. For all inbound helicopters, information shall be passed until they land or reach the hover prior to air taxiing to the parking area. Thereafter, instructions shall be given until the helicopter lands.</td>
</tr>
</tbody>
</table>

| Aircraft at the holding point of runway to be used for departure ready for take-off |
| (Aircraft callsign) hold position. |
| (Aircraft callsign) take off at your discretion, surface wind (number) degrees (number) knots. |
| (Aircraft callsign) traffic is (traffic information) take off at your discretion, surface wind (number) degrees (number) knots. **Note:** Pilots will notify the FISO of their intentions. |
| Aircraft at the holding point of runway to be used for departure ready for take-off with the possibility of requiring a backtrack | (Aircraft callsign) do you require to backtrack the runway?**

**Note:** Pilots will notify the FISO of their intentions. |
|---|
| Aircraft requiring a backtrack | (Aircraft callsign) report entering the runway.
(Aircraft callsign) report lining up.**
(Aircraft callsign) traffic is (traffic information) report entering the runway and lining up.**
(Aircraft callsign) the runway is occupied (details of traffic). Report lining up.**
(Aircraft callsign) the (aircraft type) has landed to vacate and there is a (aircraft type) on a 2 mile final. Report lining up.**
(Aircraft callsign) backtrack as required, surface wind (number) degrees (number) knots, take off at your discretion.**

**Note:** Pilots will notify the FISO of their intentions. |
| Instructions for crossing runway in use | (Aircraft callsign) cross runway (designation) at (point of crossing). Report vacated.*
(Aircraft callsign) cross, report vacated.*
(Aircraft callsign) negative, hold position, I will call you.
*‘Report vacated’ instructions may be omitted when the FISO has continuous sight of the vehicle or aircraft crossing. |
| When airborne | (Aircraft callsign) roger, report (downwind or position). |
| Aircraft wishes to transit the ATZ | (Aircraft callsign) (traffic and aerodrome information), report entering/overhead/leaving. |
| Aircraft wishes to enter the ATZ for landing | (Aircraft callsign) runway (designation) left/right hand circuit, surface wind (number) degrees (number) knots, QNH/QFE (pressure) millibars (traffic information and essential aerodrome information as appropriate). |
| Aircraft reports joining the circuit | (Aircraft callsign) roger, (traffic information) report downwind/base/final. |
| Aircraft reports final | *(If number 1 and runway is clear)*
(Aircraft callsign) land/touch and go at your discretion, surface wind (number) degrees (number) knots.
OR
*(If aircraft has traffic ahead on final)*
(Aircraft callsign) roger, (number) aircraft ahead on final.
OR
*(If the runway is occupied)*
(Aircraft callsign) the runway is occupied (traffic information). |
| Aircraft expects Air Traffic Control Service | (Aircraft callsign) no ATC Service available. Flight Information Service only. |
3 Aerodrome Phraseology for Vehicles (ATC and FIS only)

3.1 Introduction

3.1.1 The expeditious movement of vehicles plays an essential supporting role in the operation of an aerodrome. Whenever possible the areas in which vehicles and aircraft operate are segregated. However, there are many occasions when vehicles need to move on the manoeuvring area either for maintenance purposes or in direct support of aircraft operations.

3.1.2 Procedures governing the movement of vehicles vary widely from aerodrome to aerodrome, but certain factors to be taken into account when driving on an aerodrome are common to all:

a) in general, aircraft are by no means as manoeuvrable as ground vehicles;

b) the visibility from an aircraft cockpit for ground movement purposes is often restricted compared with a vehicle.

Therefore when vehicles are operating in close proximity to aircraft, drivers should be extremely vigilant and comply with Rule 36/37 of the Rules of the Air and, if applicable, ATC instructions.

3.1.3 Correct RTF operating technique must be observed by all users. For all vehicles on the movement area, it is important that a continuous listening watch is maintained, not only in case of further instructions or information from the tower, but also so that drivers can be aware of the movements, and intended movements, of other traffic thereby reducing the risk of confliction.

3.1.4 The examples that follow are applicable to air traffic controllers and FISOs only. Air/Ground Communication Service operators are not to pass instructions and must use the phraseology they would use for the movement of aircraft on the aerodrome.

3.2 Movement Instructions

3.2.1 Drivers on first call should identify themselves by their vehicle call sign, state their position and intended destination (and possibly required route).

Ground Works 21 stand 27 request proceed to work in progress taxiway Hotel

Works 21 proceed to taxiway Hotel via Kilo and Alpha

Proceed to taxiway Hotel via Kilo and Alpha Works 21

3.2.2 If the controller is too busy he will reply ‘standby’. This means that the driver should wait until the controller calls back. The driver shall not proceed until permission is given.

3.2.3 When there is conflicting traffic the controller may reply ‘hold position’. This means that the driver shall not proceed until the controller calls back with permission. All other replies should contain a clearly defined point to which the driver may proceed; this may or may not be the intended destination. If it is not the intended destination drivers must stop at this point and further permission shall be requested.
NOTE: The vehicle has only been cleared as far as the holding position to await runway crossing clearance and permission to proceed to hangar 3.

3.2.4 Permission to proceed on the apron may include instructions to ensure safe operations.

3.3 To Cross a Runway

3.3.1 Drivers should note carefully the position to which they may proceed, particularly where the intended route involves crossing a runway. Some aerodromes may have procedures that will allow vehicles to proceed to a holding point on the movement area and then request runway crossing instructions. Under no circumstances shall a driver cross a runway unless positive permission has been given and acknowledged. A runway vacated report should not be made until the vehicle (and tow) is clear of the designated runway area.
3.3.2 If a vehicle is operating on the runway, it will be instructed to vacate the runway when it is expected that an aircraft will be landing or taking off.

Works 21 vacate runway 27 take next right, report vacated

Vacate next right, Wilco Works 21

Works 21 runway 27 vacated

Works 21

3.3.3 When a vehicle is moving on the movement area it may be necessary to inform the vehicle of a potentially dangerous situation and to tell it to stop.

Works 21 stop immediately aircraft crossing ahead

Stopping Works 21

3.4 Vehicles Towing Aircraft

Drivers of vehicles required to tow aircraft should not assume that the receiving station is aware that an aircraft is to be towed. The performance and manoeuvrability of ground vehicles is obviously considerably reduced when towing aircraft and this is taken into account when instructions to such vehicles are issued. Therefore, in order to avoid any confusion, and as an aid to identification, drivers should state the type, and where applicable the operator, of the aircraft to be towed in the first call.

Ground Tug 9 request tow Fastair BAE 146 from stand 25 to maintenance hangar 3

Tug 9, tow approved from stand 25 to maintenance hangar 3 via Echo

Tow to maintenance hangar 3 via Echo Tug 9
4 Aerodrome Air/Ground Communication Service

4.1 Introduction

4.1.1 Concise and unambiguous phraseology used at the correct time is vital to the smooth, safe and expeditious running of an aerodrome and associated ATZ. It is not only the means by which information is passed but it also assists pilots in maintaining an awareness of other traffic in their vicinity, particularly in poor visibility conditions.

4.1.2 Messages will not be transmitted to an aircraft during take-off, the last part of final approach or the landing roll, unless it is necessary for safety reasons, because it will be distracting to the pilot at a time when the cockpit workload is often at its highest.

4.1.3 Local procedures vary from aerodrome to aerodrome and it is impossible to give examples to cover every situation which may arise at the multiplicity of different types of aerodrome. Information in addition to that shown in the examples, e.g. time checks, etc. may be provided as necessary.

4.2 Type of Service

4.2.1 As described in Chapter 2 the type of service provided at an aerodrome falls into one of three categories. In this section the examples are confined to those used by Air/Ground Communication Service operators.

4.2.2 Whilst the RTF procedures used by air traffic controllers and FISOs form the main content of this publication it should be noted that the phraseology used by Air/Ground Communication Service operators is different from that used by controllers and FISOs. This section describes only the phraseology provided by AGCS operators and details of the service itself may be found in CAP 452 Aeronautical Radio Station Operator’s Guide on the CAA web site or from Documedia Solutions Ltd. Phraseology for aerodrome air traffic controllers may be found in Chapter 4 section 1 and that for FISOs in Chapter 4 section 2.

4.3 Air/Ground Station Identification

Radio operators must ensure that the full callsign, including the suffix ‘RADIO’, is used in response to the initial call from an aircraft and on any other occasion that there is doubt.

4.4 Phraseology and Examples

4.4.1 From time to time air traffic controllers and flight information service officers are invited by aerodrome authorities to provide an Air/Ground Communication Service. They are permitted to do so in certain circumstances provided they hold a valid Certificate of Competence (CA 1308). However, air traffic controllers, in particular, must appreciate that there is a considerable difference between the service they normally provide and the Air/Ground Communication Service. Therefore they must be careful not to lapse into providing an air traffic control service.

4.4.2 Personnel providing an Air/Ground Communication Service must ensure that they do not pass a message which could be construed to be either an air traffic control instruction or an instruction issued by FISOs for specific situations. Clearances initiated by an air traffic control unit may be relayed but the name of the authority must be included in the message, e.g:

‘London control clears you to join controlled airspace . . . ’

NOTE: Air Traffic Control clearances passed to radio operators to be issued on behalf of the ATC unit are to be read back in full to the issuing authority. The pilot is to readback, in full, the clearance relayed by the Air/Ground Communication Service operator.
<table>
<thead>
<tr>
<th>Event</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/C ready to taxi</td>
<td>(Aircraft callsign) runway (designation) left/right hand circuit QFE/QNH (pressure) millibars.</td>
</tr>
<tr>
<td>A/C wishes to cross a runway</td>
<td>(Aircraft callsign) (traffic information e.g. I have no known traffic, or, after the (aircraft type) has landed I have no known traffic).</td>
</tr>
<tr>
<td>A/C ready to take off</td>
<td>(Aircraft callsign) no known traffic (or traffic information) surface wind (number) degrees (number) knots.</td>
</tr>
<tr>
<td>A/C reports airborne</td>
<td>(Aircraft callsign) roger</td>
</tr>
<tr>
<td>A/C overflying reports entering ATZ or asks for traffic information</td>
<td>(Aircraft callsign) (traffic information) (aerodrome information)</td>
</tr>
<tr>
<td>A/C requests joining information for a landing</td>
<td>(Aircraft callsign) runway (designation) surface wind (number) degrees (number) knots, QFE/ QNH (pressure) millibars (traffic information).</td>
</tr>
<tr>
<td>A/C reports joining circuit</td>
<td>(Aircraft callsign) roger, (plus, when applicable, updated traffic information and any changes to aerodrome information).</td>
</tr>
<tr>
<td>A/C reports landed and/or runway vacated</td>
<td>(Aircraft callsign) (any appropriate aerodrome information).</td>
</tr>
</tbody>
</table>

**NOTE:** Air ground operators must not use the expression ‘at your discretion’ as this is associated with the service provided by FISOs and is likely to cause confusion to pilots.

4.4.3 An example of a typical RTF exchange is detailed below:

- **Seaton Radio G-ABCD radio check** 123.0 and taxi information
- **G-ABCD Seaton Radio readability 5 runway 23 left hand circuit QNH 1022**
- **G-ABCD readability 5 also, taxiing for runway 23 left hand QNH 1022**
- **G-CD Seaton roger**
- **G-CD ready for departure**
- **G-CD roger. No known traffic, surface wind 230 degrees 10 knots** or,
- **G-CD there is a Cherokee on 2 mile final, surface wind 230 degrees 10 knots**
- **Roger taking off G-CD**
or,

Roger holding position G-CD

once Cherokee has landed and vacated

G-CD lining-up and taking off

G-CD roger surface wind 230 degrees 10 knots

G-CD leaving the circuit to the west. Will report when re-joining

G-CD roger two other aircraft known to be operating VFR to the west

Roger G-CD

Seaton Radio this is G-BCDA

G-BCDA Seaton Radio pass your message

G-BCDA is a PA28 from Westbury to Millom position overhead
Marlow heading 180 degrees, 1800 feet on QNH 1021, estimating overhead
Seaton at 1015, request traffic information

QNH 1022 I will report overhead G-DA

G-DA overhead at 15 will report leaving the frequency

G-DA is now clear of your ATZ changing to en route frequency

G-DA roger

Seaton Radio G-ABCD 6 miles west of the airfield request airfield information

G-CD Seaton runway 23 left hand, QFE 1021. There is one Cessna on left base

Roger. Runway 23 left hand, QFE 1021 G-CD

G-CD overhead descending deadside for runway 23

G-CD roger no known traffic
4.5 Offshore Aeronautical Service

4.5.1 Introduction

Aeronautical radio stations located offshore on rigs, platforms and vessels provide an air-ground service to helicopters operating in the vicinity.

4.5.2 Offshore Station Identification

Offshore radio stations must identify themselves using the callsign specified by the CAA in the approval document.

4.5.3 Offshore Phraseology

Actual communications will follow a pattern dictated by the individual circumstances. However, in the interests of conformity and to avoid misunderstandings, a selection is given of the types of messages a helicopter pilot may pass, their meaning where necessary and the response which should be made.

<table>
<thead>
<tr>
<th>Helicopter</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take the Flight Watch (You are asked to guard the channel until guard is taken by some other station)</td>
<td>(Aircraft callsign) I have the Flight Watch.</td>
</tr>
<tr>
<td>My position is ...</td>
<td>(Aircraft callsign) roger.</td>
</tr>
<tr>
<td>Request your weather</td>
<td>(Aircraft callsign) my weather is: (give following information as appropriate) Surface wind (number) degrees (number) knots, Cloud (number) oktas/few/scattered etc. at (number) feet estimated, Visibility (distance) kilometres/metres, Weather (rain, snow, showers, etc.), QFE (pressure) millibars, ONE plus/minus (number) feet,</td>
</tr>
</tbody>
</table>
### Helicopter Response

<table>
<thead>
<tr>
<th>Description</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch (number) degrees: Roll (number) degrees: Heave (number) metres (as applicable), Ambient temperature (number), Helideck temperature (number).</td>
<td>(Aircraft callsign) wilco NDB frequency (number) kHz ident (letters) (if requested).</td>
</tr>
<tr>
<td>Switch on your NDB</td>
<td>(Aircraft callsign) roger.</td>
</tr>
<tr>
<td>My ETA is ...</td>
<td>(Aircraft callsign) roger.</td>
</tr>
<tr>
<td>Landing in ... minutes</td>
<td>(Aircraft callsign) roger.</td>
</tr>
<tr>
<td>I am overhead</td>
<td>(Aircraft callsign) roger.</td>
</tr>
<tr>
<td>Beacon outbound (This indicates the pilot is using the NDB as a navigational aid to take him from overhead to a point where he can safely descend below cloud and return under visual conditions to the helideck)</td>
<td>(Aircraft callsign) roger.</td>
</tr>
<tr>
<td>Is the deck clear for landing?</td>
<td>(Aircraft callsign) deck is clear for landing or Negative clear for landing delay of (number) minutes due to (reason).</td>
</tr>
<tr>
<td>Ready for lift off</td>
<td>(Aircraft callsign) roger (or pass relevant information).</td>
</tr>
<tr>
<td>Lifting</td>
<td>(Aircraft callsign) roger.</td>
</tr>
<tr>
<td>Are you ready to copy my departure message?</td>
<td>(Aircraft callsign) ready to copy departure message (This should be read back in full and then passed to helicopter company base).</td>
</tr>
<tr>
<td>Switch off your NDB</td>
<td>(Aircraft callsign) wilco.</td>
</tr>
<tr>
<td>Am two way with (ATS unit) you may close down the Flight Watch</td>
<td>(Aircraft callsign) closing down Flight Watch.</td>
</tr>
<tr>
<td>Additionally the following are applicable to vessels:</td>
<td></td>
</tr>
<tr>
<td>What is your position?</td>
<td>(Aircraft callsign) my position is (lat/long).</td>
</tr>
<tr>
<td>What is your course and speed?</td>
<td>(Aircraft callsign) my course and speed are (number) degrees (number) knots.</td>
</tr>
<tr>
<td>What is your relative wind? (Relative to ship’s heading)</td>
<td>(Aircraft callsign) my relative wind is Port/ Starboard (number) degrees (number) knots.</td>
</tr>
<tr>
<td>Maintain your course and speed</td>
<td>(Aircraft callsign) wilco.</td>
</tr>
<tr>
<td>Alter course Port/Starboard (number) degrees</td>
<td>(Aircraft callsign) Standby Course now (number) degrees.</td>
</tr>
<tr>
<td>Change speed to (number) knots</td>
<td>(Aircraft callsign) Standby Speed now (number) knots.</td>
</tr>
</tbody>
</table>

**NOTE:** The radio operator must be prepared to volunteer information which may affect the safety of helicopter operations e.g: Caution flare venting, or I am shipping light/heavy spray on deck.
4.5.4 **Helideck Movement**

4.5.4.1 Helicopter crews must be provided with accurate information regarding the heave, pitch and roll of the helideck. Reports on pitch and roll should include values, in degrees, about both axes of the true vertical datum (i.e. relative to the true horizon) and be expressed in relation to the vessel’s heading.

4.5.4.2 Pitch should be expressed in terms of ‘up’ and ‘down’ and roll should be expressed in terms of ‘left’ and ‘right’. Heave should be reported in a single figure, being the total heave motion of the helideck rounded up to the nearest metre. Heave is taken to be the vertical difference between the highest and lowest points of the helideck movement.

4.5.4.3 A standard radio message should be passed to the pilot containing the information on the helideck movement in an unambiguous format. Should the crew require other motion information or amplification of the standard message, they will request it.

4.5.4.4 An example of the ‘standard message’ would be: ‘Roll one degree left and three degrees right; pitch two degrees up and two degrees down; heave two metres’.
5 Aerodrome Information

5.1 Meteorological Conditions

Meteorological information in the form of reports, forecasts or warnings is made available to pilots using the aeronautical mobile service either by broadcast (e.g. VOLMET) or by means of specific transmissions from ground personnel to pilots. Standard meteorological abbreviations and terms should be used and the information should be transmitted slowly and enunciated clearly in order that the recipient may record such data as is necessary.

**NOTE:** Cloud may also be reported as follows:

‘Scattered at five hundred feet, scattered cumulonimbus at one thousand feet, broken at two thousand five hundred feet.’

In the above example ‘scattered’ equates to 3 or 4 Octas and ‘broken’ equates to 5–7 Octas.

Full details of meteorological information is contained in UK AIP GEN section.

5.2 Voice Weather Broadcast (VOLMET) UK

5.2.1 Meteorological aerodrome reports for certain aerodromes are broadcast on specified frequencies. The callsign of the VOLMET, frequency, operating hours, aerodromes contained within the group, and contents are published in the UK AIP.

5.2.2 The content of a VOLMET broadcast is as follows:

a) Aerodrome identification (e.g. Stourton)
b) Surface wind
c) Visibility (Note 1)
d) RVR (if applicable) (Note 1)
e) Weather
f) Cloud (Note 1)
g) Temperature
h) Dewpoint
i) QNH
j) Trend (if applicable)

**NOTES:**

1. Non essential words such as ‘surface wind’, ‘visibility’ etc. are not spoken.
2. ‘SNOCLO’ is used to indicate that aerodrome is unusable for take-off/landings due to heavy snow on runways or snow clearance.
3. All broadcasts are in English.
5.3 Runway Visual Range (RVR)/Visibility/Absolute Minimum

5.3.1 When transmitting the runway visual range the abbreviation RVR will be used without using the phonetic word for each letter, e.g. RVR runway 27, 800 metres. The runway designator may be omitted if there is no possibility of confusion.

5.3.2 Where instrumented runway visual range (IRVR) observations are available, more than one reading may be transmitted.

5.3.3 In the UK, there is an approach ban which states that a pilot may not continue an instrument approach beyond the outer marker, or equivalent position, if the reported RVR, or at aerodromes where RVR measurements are not taken or available, the visibility, is below the minimum specified for that approach. Essentially, this means that a pilot may not descend below 1,000 feet above the aerodrome when these conditions exist. This RVR/visibility is known as an ‘absolute minimum’.

5.3.4 Should a pilot indicate that he or she intends to commence an instrument approach when the reported RVR/visibility is less than the notified ‘absolute minimum’ value, the controller should inform the pilot using the following RTF phraseology:

5.4 Runway Surface Conditions

5.4.1 When conditions of standing water, with or without reports of braking action, are brought to the attention of a controller, the available information will be passed to aircraft likely to be affected.

5.4.2 Information on standing water will be passed in general descriptive terms, for example ‘damp’, ‘wet’, ‘water patches’ or ‘flooded’ according to the amount of water present.

5.4.3 When suitable equipment is available reports of braking action on wet runways will be passed to pilots.

5.4.4 Other runway surface conditions which may be of concern to a pilot will be passed by ATC.
5.5 Automatic Terminal Information Service (ATIS) UK

5.5.1 To alleviate RTF loading at some busy airports, Automatic Terminal Information Service (ATIS) messages are broadcast to pass routine arrival/departure information on a discrete RTF frequency or on an appropriate VOR. Pilots inbound to these airports are normally required on first contact with the aerodrome ATSU to acknowledge receipt of current information by quoting the code letter of the broadcast. Pilots of outbound aircraft are not normally required to acknowledge receipt of departure ATIS except when requested on the actual ATIS broadcast. If, however, pilots report receipt of a departure ATIS broadcast the QNH should be included thereby allowing ATC to check that the quoted QNH is up-to-the-minute.

5.5.2 Aerodromes possessing ATIS, the hours of ATIS operation and the frequency employed are published in the UK AIP.

5.5.3 ATIS broadcasts which should be no more than thirty seconds duration, will include the following:

a) Message identification i.e. ‘This is Stourton Information Alpha’. Each message is consecutively coded using the phonetic alphabet.

b) Time of origin of weather report.

c) Weather report (see paragraph 2.2(a)–(c)).

d) Runway(s) in use.

e) Short term AIS information such as unserviceability of NAV AIDS, runway surfaces etc.

f) Any other routine information useful to pilots operating at the aerodrome.

NOTES:

1 RVR/RVRs are not included, however, IRVRs may be available where approved.

2 Rapidly changing meteorological situations sometimes make it impractical to include weather reports in the broadcast. In these circumstances, ATIS messages will indicate that weather information will be passed on RTF.

3 Any significant change to the content of a current ATIS message will be passed to pilots by RTF until such time as a new message is broadcast.

4 The highest cloud base that will be reported is 10000 feet.

5.6 Example of ATIS broadcast:

‘This is Stourton Approach Information Alpha. 0850 hours weather. 240° 12 kts. 10 km. Intermittent slight rain. Scattered at 1000 ft, overcast at 1800 ft. Temperature +12. Dew point +7. QNH 1011 mbs. Landing runway 28. Report information Alpha received on first contact with Stourton.’

NOTE: A Trend may be included in an ATIS broadcast.
Chapter 5   Radar Phraseology

1 General

1.1 Introduction

1.1.1 This chapter contains general radar phraseology which is commonly used in communications between aircraft and all types of radar unit. Phraseology which is more applicable to approach radar control or area control is to be found in Chapters 6 and 7 as appropriate.

1.1.2 The phrase 'under radar control' shall only be used when a radar control service is being provided. Normally however, the callsign suffix used by the radar unit is sufficient to indicate its function.

1.1.3 In a radar environment heading information given by the pilot and heading instructions given by controllers are normally in degrees magnetic.

1.2 Radar Identification of Aircraft

1.2.1 An aircraft must be identified before it can be provided with a radar service. However, the act of identifying aircraft is not a service in itself and pilots should not assume that they are receiving a radar service, particularly when they are flying outside controlled airspace.

- G-CD report heading
- G-CD heading 350
- G-CD for identification turn left heading 320
- Left heading 320 G-CD
- G-CD identified 18 miles north-west of Borton, Radar Advisory
- Radar Advisory G-CD

or,

- G-CD not identified. Resume own navigation
- Wilco G-CD

1.2.2 When a controller has identified an aircraft he will inform the pilot, according to the circumstances, of the following:
a) that the aircraft is identified, and
b) of the position of the aircraft.

The occasions when the above information will be passed can be summarised as follows:

Table 12

<table>
<thead>
<tr>
<th>Method of Identification</th>
<th>Aircraft flying inside controlled airspace</th>
<th>Aircraft flying outside controlled airspace</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inform Identified</td>
<td>Pass Position</td>
</tr>
<tr>
<td>SSR</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Turn</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Departing aircraft</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Position Report</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

1.2.3 The pilot will be warned if identification is lost, or about to be lost, and appropriate instructions given.

| G-CD radar service terminated due to radar failure. Resume own navigation. Flight Information available from Wrayton on 125.75 |
| Changing to Wrayton 125.75 G-CD |
| G-CD will shortly be leaving radar cover, radar service terminated. Flight Information available from Wrayton on 125.75 |
| G-CD changing to Wrayton 125.75 |
| G-CD |

1.3 Secondary Surveillance Radar Phraseology

1.3.1 The following phrases are instructions which may be given by controllers to pilots regarding the operation of SSR transponders. The phrases used by controllers are given together with their meanings; assignment of a code does not constitute the provision of a radar service.
Table 13

<table>
<thead>
<tr>
<th>Phrase</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squawk (code)</td>
<td>Set the mode and code as instructed</td>
</tr>
<tr>
<td>Confirm squawk</td>
<td>Confirm the mode and code set on the transponder</td>
</tr>
<tr>
<td>Reset squawk (mode) (code)</td>
<td>Reselect assigned mode and code</td>
</tr>
<tr>
<td>Squawk Ident</td>
<td>Operate the special position identification feature</td>
</tr>
<tr>
<td>Squawk Mayday</td>
<td>Select Emergency</td>
</tr>
<tr>
<td>Squawk Standby</td>
<td>Select the standby feature</td>
</tr>
<tr>
<td>Squawk Charlie</td>
<td>Select altitude reporting feature</td>
</tr>
<tr>
<td>Check altimeter setting and confirm (level)</td>
<td>Check pressure setting and confirm your level</td>
</tr>
<tr>
<td>Stop squawk Charlie</td>
<td>Deselect altitude reporting</td>
</tr>
<tr>
<td>Stop squawk Charlie, wrong indication</td>
<td>Stop altitude report, incorrect level readout</td>
</tr>
<tr>
<td>* Confirm (level)</td>
<td>Check and confirm your level is 200 feet or less from that reported by the controller</td>
</tr>
</tbody>
</table>

*Used to verify the accuracy of the Mode C derived level information displayed to the controller.

1.3.2 The pilot must respond to SSR instructions, reading back specific settings.

- Fastair 345 squawk 6411
- Fastair 345 squawk ident
- Fastair 345 squawk 6411 and ident
- Fastair 345 confirm squawk
- Fastair 345 reset squawk 6411
- Fastair 345 check altimeter setting
- Fastair 345 confirm transponder operating
- 6411 Fastair 345
- Squawk ident, Fastair 345
- 6411 and ident, Fastair 345
- Alpha 6411 Fastair 345
- Resetting 6411 Fastair 345
- 1013 set Fastair 345
- Fastair 345 negative, transponder unserviceable

1 September 2003
1.4 **Radar Service**

Where it is not self-evident pilots will normally be informed by the controller when they are under radar control, advisory or information service.

1.5 **Radar Vectoring**

1.5.1 Aircraft may be given specific vectors to fly in order to establish separation. Pilots may be informed of the reasons for radar vectoring.

1.5.2 It may be necessary for a controller to know the heading of an aircraft as separation can often be established by instructing an aircraft to continue on its existing heading.

1.5.3 A controller may not know the aircraft's heading but does require the aircraft to fly a particular heading.
or,

```
Roger, turning right 20 degrees
heading 275, G-CD
```

1.5.4 When vectoring is complete, pilots will be instructed to resume their own navigation, given position information and appropriate instructions as necessary.

```
Fastair 345 resume own navigation for Wicken, magnetic track 070
distance 27 miles
```

```
Wilco Fastair 345
```

```
G-CD resume own navigation for Walden position is 15 miles
southeast of Westbury
```

```
Wilco G-CD
```

1.5.5 Occasionally an aircraft may be instructed to make a complete turn (known as an orbit or a 360 degree turn), for delaying purposes or to achieve a required spacing behind preceding traffic.

```
G-CD delaying action, orbit left for sequencing
```

```
Orbit left G-CD
```

```
Fastair 345 delaying action. Make a 360 turn left
```

```
360 turn left Fastair 345
```

**NOTE:** 360 turn spoken as “three sixty turn”

1.6 **Traffic Information and Avoiding Action Phraseology**

1.6.1 Whenever practicable, information regarding traffic on a possible conflicting path should be given in the following form:

a) relative bearing of the conflicting traffic in terms of the 12 hour clock; or, if the aircraft under service is established in a turn, the relative position of the conflicting traffic in relation to cardinal points i.e. northwest, south etc.;

b) distance from the conflicting traffic;

c) direction of flight of the conflicting traffic; and

d) relative speed of the conflicting traffic or the type of aircraft and level if this is known.

1.6.2 Relative movement should be described by using one of the following terms as applicable:

‘closing, converging, parallel, same direction, opposite direction diverging, overtaking, crossing left to right, crossing right to left; (if level is known) – 1000 feet above/below.’
1.6.3 The controller will inform the pilot when the conflict no longer exists.

1.6.4 Avoiding action to be taken by the pilot is given when the controller considers that an imminent risk of collision will exist if action is not taken immediately.

1.7 **ACAS/TCAS Phraseology**

1.7.1 ACAS/TCAS equipment reacts to transponders of other aircraft in the vicinity to determine whether or not there is a potential confliction. The warning (Traffic Advisory (TA)), based on the time to an assumed collision enables the pilot to identify the conflicting traffic, and if necessary, take avoiding action (Resolution Advisory (RA)). In the UK, this equipment is mainly referred to as ‘TCAS’, however, the use of ‘ACAS’ is an acceptable alternative in phraseology terms.

1.7.2 Pilots should report TCAS manoeuvres.

1.7.3 The pilot should report a TCAS manoeuvre even if it was not possible to notify the Controller that an RA had occurred.

1.7.4 Pilots should report that they are unable to comply with a clearance as a result of a TCAS alert.

In these circumstances the pilot should report when clear of the TCAS conflict.
1.8 **Communications and Loss of Communications**

When a controller suspects that an aircraft is able to receive but not transmit messages, the radar may be used to confirm that the pilot has received instructions. When further instructions are given they should be passed slowly, clearly and be repeated.

| G-CD reply not received if you read Wrayton turn left heading 040 I say again turn left heading 040 |
| G-CD turn observed I will continue to pass instructions |

or,

| Fastair 345 reply not received if you read Wrayton squawk ident I say again squawk ident |
| Fastair 345 squawk observed I will continue to pass instructions |

**NOTES:**

1. An aircraft experiencing a radio communications failure is expected to select the appropriate SSR code.

2. See also Chapter 8.

1.9 **Danger Area Crossing Service/Danger Area Activity Information Service**

1.9.1 In-flight information on the status of Danger Areas (DAs) is available from the nominated service units:

   a) Listed in the UK AIP.

   b) Detailed on the legend of the appropriate UK 1:500 000 Aeronautical Chart.

1.9.2 When available the DA service will either be a Danger Area Crossing Service (DACS) or a Danger Area Activity Information Service (DAAIS). If there is no reply from the appropriate nominated service unit which is to be called for these services, pilots are advised to assume that the relevant danger area is active.

1.9.3 **Danger Area Crossing Service**

The appropriate nominated service unit will, whenever the DA activity permits, provide a clearance for an aircraft to cross the danger area under a RIS or FIS. The clearance is only in relation to Danger Area activity and does not, in traffic management terms, constitute separation from aircraft which might be operating in the area.

Westbury Approach, G-ABCD request Danger Area Crossing Service of Loudwater Range

G-ABCD Westbury Approach Flight Information Service. Loudwater active. Report 10 miles from Loudwater

1 September 2003
1.9.4 **Danger Area Activity Information Service**

The nominated service unit will pass to the pilot, on request, an update on the known activity status of the danger area. Such an update will assist the pilot to decide whether it would be prudent, on flight safety grounds, to penetrate the Danger Area. A DAAIS does NOT constitute a clearance to cross a Danger Area.

1.9.5 Full details of DACS/DAAIS can be found in the UK AIP and AICs.
Chapter 6  Approach Phraseology

1  Approach Control Service

1.1  IFR Departures

1.1.1 At many airports both arrivals and departures are handled by a single approach control unit. At busier airports departures and arrivals may be handled separately.

1.1.2 Pilots of all aircraft flying Instrument Departures are to include the following information on first contact with approach control/departure radar:

a) Call sign;
b) SID Designator where appropriate;
c) Current or passing ALT/FL; PLUS

d) Cleared ALT/FL. For Standard Instrument Departures involving stepped climb profiles, state the initial ALT/FL to which the aircraft is climbing.

1.1.3 In addition to the ATC route clearance, departing IFR flights may be given additional instructions to provide separation in the immediate vicinity.

1.2  VFR Departures

1.2.1 Departing VFR flights, when handled by approach control, may be passed information on relevant known traffic in order to assist the pilot in maintaining his own separation. Pilots should report leaving the area of jurisdiction of the approach control units.
1.2.2 Special VFR flights will be given specific instructions in the clearance to leave the control zone.

| G-CD cleared to the zone boundary route via Whiskey Special VFR not above altitude 1500 feet | Cleared to the zone boundary, route via Whiskey Special VFR not above altitude 1500 feet G-CD |
| G-CD correct |

1.3 **IFR Arrivals**

1.3.1 Aircraft flying within controlled airspace will normally receive descent clearance to the clearance limit from the ACC prior to transfer to an approach control unit. On transfer to approach control further descent instructions may be given.

| Kennington Approach Fastair 345 descending FL 90 Information Charlie | Fastair 345 Kennington Approach cleared direct to North Cross descend FL 50 |
| Direct to North Cross descend FL 50 Fastair 345 |

1.3.2 Arriving IFR flights operating outside controlled airspace are not permitted to enter controlled airspace until cleared to do so. Clearances will be given in a way similar to that in paragraph 3.1 above. In the examples below the initial approach fix is Kennington NDB (or VOR), callsign KTN.

| Kennington Approach Fastair 345 | Fastair 345 Kennington Approach pass your message |
| Fastair 345 from Stourton 25 miles southeast Kennington IFR, FL 125 estimating zone boundary 20 KTN 24 information Charlie |
| Fastair 345 cleared from 10 miles southeast of Kennington to KTN at FL 60. Enter controlled airspace at FL 85 or below |
| Cleared from 10 miles southeast of Kennington to KTN at FL 60. Enter controlled airspace southeast of Kennington at FL 85 or below Fastair 345 |
| Fastair 345 expect ILS approach runway 28 QNH 1011 |
| ILS runway 28 QNH 1011 Request straight in approach Fastair 345 |
Fastair 345 cleared straight in ILS approach runway 28, descend to altitude 3000 feet QNH 1011, report established on the localiser

Cleared straight in ILS approach runway 28 descend to altitude 3000 feet QNH 1011, Wilco Fastair 345

Fastair 345 established on the localiser

Fastair 345 QFE 1008

QFE 1008 Fastair 345 runway in sight

Fastair 345 number 1 contact Tower 118.7

Number 1 Tower 118.7 Fastair 345

Kennington Tower Fastair 345

Fastair 345 Kennington Tower report outer marker

Fastair 345

Fastair 345 outer marker

Fastair 345 runway 28 cleared to land surface wind 280 8

Runway 28 cleared to land Fastair 345

Kennington Approach G-DCAB

G-DCAB Kennington Approach pass your message

G-DCAB PA 31 inbound from Stourton IFR FL 80 estimate KTN 47 information Delta

G-AB remain outside controlled airspace. Time is 41. Expect joining clearance at 44
<table>
<thead>
<tr>
<th><strong>Remain outside controlled airspace, G-AB</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>G-AB cleared from 10 miles southeast of Kennington to KTN at FL 80</td>
</tr>
<tr>
<td><strong>Cleared from 10 miles southeast of Kennington to KTN at FL 80 G-AB</strong></td>
</tr>
<tr>
<td>G-AB expect ILS approach runway 28</td>
</tr>
<tr>
<td>G-AB</td>
</tr>
<tr>
<td>G-AB descend to altitude 3000 feet QNH 1011</td>
</tr>
<tr>
<td>Descend to altitude 3000 feet QNH 1011 G-AB</td>
</tr>
<tr>
<td>G-AB cleared ILS approach runway 28 report KTN outbound</td>
</tr>
<tr>
<td>Cleared ILS runway 28, Wilco G-AB</td>
</tr>
<tr>
<td>G-AB KTN outbound</td>
</tr>
<tr>
<td>G-AB report procedure turn complete QFE 1008</td>
</tr>
<tr>
<td>Wilco, QFE 1008 G-AB</td>
</tr>
<tr>
<td>G-AB procedure turn complete localiser established</td>
</tr>
<tr>
<td>G-AB report at outer marker</td>
</tr>
<tr>
<td>Wilco G-AB</td>
</tr>
<tr>
<td>G-AB outer marker</td>
</tr>
</tbody>
</table>
NOTE: Pilots may be requested to change to tower frequency at any point on final approach.

1.3.3 On occasions IFR aircraft do not complete the instrument approach procedure but request permission to make a visual approach.

1.3.4 Normally a holding procedure is published. However, the pilot may require a detailed description of a specific holding procedure.

It should be noted that the above information is passed in the following order and is for holds other than VOR/DME:

a) Fix
b) Level
c) Inbound track
d) Right or left turns
e) Time of leg

1.3.5 Holding information for VOR/DME substitutes DISTANCE for TIME in e) above:
1.4 VFR Arrivals

1.4.1 Depending on the procedures in use, the pilot of an arriving VFR flight may be required to establish contact with the approach control unit and request instructions before entering its area of jurisdiction e.g. before entering a control zone. Where there is an ATIS broadcast the pilot should acknowledge that he has received it; where no ATIS broadcast is provided the approach controller will pass the aerodrome data.

**NOTE:** The phraseology for joining the aerodrome traffic circuit is detailed in Chapter 4, paragraph 1.8.
1.5 **Special VFR Flights**

1.5.1 Special VFR clearances are only issued for flights within Control Zones and are normally at the request of the pilot. The pilot –

a) must comply with ATC instructions;

b) is responsible for ensuring that his flight conditions enable him to remain clear of cloud, determine his flight path with reference to the surface and to keep clear of obstructions;

c) is responsible for ensuring that he flies within the limitations of his licence;

d) is responsible for complying with the relevant low flying restrictions of Rule 5 of the Rules of the Air Regulations. Note: Whilst the 1500 ft rule may not apply to a pilot in receipt of a Special VFR clearance, the ‘alight clear’ rule always applies. The responsibility to determine whether to accept a Special VFR clearance and still comply with this rule rests with the pilot.

e) is responsible for avoiding aerodrome traffic zones unless prior permission for penetration has been obtained from the relevant ATSU.

1.5.2 A full flight plan is not required for Special VFR flight but the pilot must give brief details of the callsign, aircraft type and pilot’s intentions, including ETA at entry point. A full flight plan is required if the pilot wishes his destination to be notified.

1.5.3 Aircraft are not normally given a specific height to fly but vertical separation from aircraft flying above can be achieved by requiring the Special VFR flight to fly not above a specified level (paragraph d) above must be borne in mind by pilots).

1.5.4 No separation will be provided between Special VFR flights which are flying in notified areas or routes where an individual clearance is not required, or between flights using such areas or routes and other flights on Special VFR clearances. Full details of the procedures for Special VFR flights appear in the UK AIP, ENR, Section 1.

1.6 **Vectoring to Final Approach**

1.6.1 Radar vectors are given to arriving flights to position them onto a pilot interpreted approach aid, to a point from which a radar-assisted approach can be made or to a point from which a visual approach is made.

1.6.2 In the following example an identified aircraft inbound to Kennington is given radar vectors to the ILS. (See Figure 2.)
Figure 2  Radar vectors to an ILS approach

- Kennington Approach Fastair 345 FL 60 information golf
- Fastair 345 Kennington Approach vectoring for ILS approach runway
- Fastair 345
- Fastair 345 leave North Cross heading 120
- Leave North Cross heading 120 Fastair 345
- Fastair 345 report speed
- Fastair 345 speed 260 knots
- Fastair 345 reduce speed to 210 knots
- 210 knots Fastair 345
- Fastair 345 leaving North Cross heading 120
1.6.3 In the example above the approach speed of the aircraft is reduced to maintain separation between aircraft in an approach sequence. Where speed adjustment would be insufficient, it may be necessary to issue additional vectors.
1.7 Direction Finding (DF)

1.7.1 The aeronautical stations that offer a VHF Direction Finding (VDF) service are listed in the UK AIP AD. Some VDF stations stipulate that the service is not available for en-route navigation purposes (except in emergency). VDF bearing information will only be given when conditions are satisfactory and radio bearings fall within calibrated limits of the station. If the provision of a radio bearing is not possible the pilot will be told of the reason.

A pilot may request a bearing or heading using the appropriate phrase or Q code to specify the service required. Each aircraft transmission shall be ended by the aircraft call sign. A VDF station will provide the following as requested:

a) QDR – Magnetic bearing of the aircraft from the station (i.e. … Approach G-ABCD request QDR G-ABCD).

b) QDM – Magnetic heading to be steered by the aircraft (assuming no wind) to reach the VDF station (i.e. … Approach G-ABCD request QDM G-ABCD).

c) QTE – True bearing of the aircraft from the station (i.e. … Approach G-ABCD request True Bearing (or QTE) G-ABCD).

The direction-finding station will reply in the following manner:

a) The appropriate phrase or Q code.

b) The bearing or heading in degrees in relation to the direction finding station.

c) The class of bearing.

d) The time of observation, if necessary.

1.7.2 The accuracy of the observation is classified as follows:

NOTE: 360 spoken as “TREE SIXTY”
Class A – Accurate within plus or minus 2 degrees  
Class B – Accurate within plus or minus 5 degrees  
Class C – Accurate within plus or minus 10 degrees  
Class D – Accuracy less than Class C  
**NOTE:** Normally no better than Class B bearing will be available.

1.8 **QGH Procedure**

1.8.1 QGH letdowns may be provided, when requested by a pilot, at aerodromes where the procedure is approved. The procedure provides for control of an aircraft from its initial approach level to a position from which an approach can be completed visually (see figure 3); this approach may not be aligned with a runway.

1.8.2 On receiving a request for a QGH the aircraft is to be homed overhead the VDF aerial at or descending to the lowest available flight level/altitude taking into account the minimum safe flight level or safety altitude as appropriate. During homing the following message will be passed to the pilot:

- **G-ABCD, Kennington Approach fly heading 230, maintain FL 40 (procedure minimum 670 feet (if requested))**
- **Turning left heading 230 maintaining FL 40 (procedure minimum 670 feet), G-ABCD**

1.8.3 During the procedure aircraft replies are used to obtain D/F bearings. Pilots may be asked to make additional transmissions for D/F. With some equipment the full callsign is sufficient to obtain bearings.

- **G-ABCD transmit for D/F**
- **G-ABCD transmitting for D/F G-ABCD**

or,

- **G-ABCD**
1.8.4 Two D/F indications are required to confirm the aircraft is overhead the VDF aerial; then instructions are given to achieve the desired outbound track.

1.8.5 On completion of the overhead turn and when bearings indicate the aircraft is outbound the controller starts timing the outbound leg and provides heading corrections derived from a series of bearings to make good the desired outbound track. Descent instructions and the appropriate pressure setting are also given during this procedure.
1.8.6 On completion of the timed outbound leg (e.g. 3 min) the aircraft is instructed to turn onto a heading to achieve the final approach track.

1.8.7 When the aircraft reports steady on completion of the inbound turn, headings will continue to be given to achieve the inbound track. During the inbound leg the controller will pass instructions to be followed in the event of a missed approach (Note: At military airfields the weather and missed approach procedure may be passed at an earlier stage in the procedure). Descent clearance to minimum descent height and the QFE will be given on this leg.

1.8.8 If the pilot has not reported 'visual' by the time minimum descent height is reached he may be instructed to maintain level flight until he is overhead the VDF.

1.9 VDF Procedure

1.9.1 This is a procedure whereby a pilot requests a series of QDMs to home to a VDF station on or near an aerodrome and to carry out a prescribed VDF instrument approach procedure to the aerodrome. VDF procedures are notified in the AD section of the UK AIP.

1.9.2 Requests for QDMs are normally initiated by the pilot at intervals of about 1 minute during the initial stages of the homing, increasing in frequency as the VDF overhead is approached. During this procedure QDMs are requested as required to achieve and maintain the specified tracks. The VDF Procedure is totally pilot interpreted.
1.9.3 The pilot employs a series of QDMs to home to the VDF overhead positioning himself to arrive from a direction which will entail the minimum of manoeuvring in the overhead to proceed outbound on the specified track.
1.9.4 The pilot starts timing the outbound leg and, employing a series of QDMs to establish and maintain the prescribed track, descends as notified for the procedure. The timed outbound leg ends with a turn (normally level) onto the final approach QDM.
1.9.5 At the end of the outbound leg the pilot turns as prescribed onto the final approach QDM using a series of QDMs during the turn to achieve the final QDM.

G-ABCD request QDM G-ABCD

G-ABCD QDM 350

QDM 350 G-ABCD

G-ABCD request QDM G-ABCD

G-ABCD QDM 345

QDM 345 G-ABCD

G-ABCD request QDM G-ABCD

G-ABCD QDM 342

QDM 342 G-ABCD

G-ABCD base turn complete, descending inbound, G-ABCD

G-ABCD continue approach, report visual QFE 1007

G-ABCD Wilco, QFE 1007, request QDM G-ABCD

G-ABCD QDM 338

QDM 338 G-ABCD
1.9.6 If no visual contact is gained, a missed approach is initiated at the missed approach point which is normally the VDF overhead.

1.10 NDB(L) and VOR Procedures

1.10.1 NDB(L) and VOR instrument approach procedures are pilot interpreted procedures notified for particular aerodromes and runways where procedural tracks are defined by NDB(L) bearings or VOR radials. Some NDB(L) and VOR procedures may include marker beacons or DME to provide ranging information. Aircraft may also be radar vectored to an NDB(L) or VOR final approach track. An example of a typical NDB(L) instrument approach procedure to an aerodrome outside controlled airspace follows; similar RTF phraseology may be employed in VOR procedures.
NOTES:

1. All manoeuvres associated with entering the holding pattern are considered to be part of the holding procedure.

2. Aircraft engaged in holding for training purposes should notify the controller on the commencement of the penultimate hold, e.g. ‘G-CD on completion of this hold, request commence procedure’.

NOTE: Beacon outbound should be called only at the final passage over the beacon when commencing the outbound portion of the procedure.
1.11 Surveillance Radar Approach (SRA)

1.11.1 During a surveillance radar approach (SRA) the pilot is given distances from touchdown, advisory height information and azimuth instructions to enable him to make an approach to a particular runway. Controllers at civil aerodromes in the UK will normally pass advisory heights based on the QFE.

NOTE: Where step down fixes do not exist in local SRAs, approval for a modified RTF procedure may be sought from ATSSD.

1.11.2 If a pilot wishes to conduct his approach by reference to altitude he must inform the controller and request the QNH. The controller, when passing the QNH, will add the aerodrome or touchdown elevation to the advisory heights. All references to the level of the aircraft will then be to altitude.

1.11.3 If the pilot reports visual in the early stages of the approach he will be asked whether he wishes to continue the SRA. Normally aircraft will not be transferred to aerodrome control until after they have completed the SRA approach and have landed.

1.11.4 The range at which the descent begins depends on the height of the aircraft during the intermediate phase and the angle of the glide path. The following example commences when the aircraft, having been descended to 2000 feet QFE, is awaiting instructions for an approach on a three degree glide path.
Fastair 345, 8 miles from touchdown. Your descent will begin at 6½ miles. Check wheels

Fastair 345, 7 miles from touchdown. Report runway lights in sight

Fastair 345 after landing contact Kennington tower on 118.5

Fastair 345 approaching 6½ miles from touchdown. Commence descent now to maintain a three degree glide path

6 miles from touchdown. Height should be 1850 feet

Slightly left of track. Turn right heading 280

5½ miles from touchdown. Height should be 1700 feet

5 miles from touchdown. Height should be 1550 feet. Heading 280 is good

4½ miles from touchdown. Height should be 1400 feet. Slightly right of track. Turn left 3 degrees heading 277

4 miles from touchdown. Height should be 1250 feet. Do not reply to further instructions

(the gap between further transmissions will be less than 5 seconds)

3½ miles from touchdown. Height should be 1100 feet. Runway 28 cleared to land. Surface wind calm

3 miles from touchdown. Height should be 950 feet. Heading 277 is good
1.11.5 When the SRA terminates at 2 miles from touchdown the advisory level checks at half mile intervals are omitted and pilots are expected to reply to all transmissions from the ground station.

1.11.6 Height checks below the category A aircraft OCH will be omitted.

1.12 **Landing Altimeter Setting (QNE)**

QNE is the indication which the altimeter will give on landing, at a particular time and place, when the millibar scale is set to 1013.2 mb. QNE information may be used by pilots of aircraft whose altimeters cannot be set to below 950 mb. The QFE/QNE conversion will be calculated by ATC.

Example: QFE 947.6
Set 1013.2 on altimeter
Altimeter will read 1842 ft on touchdown

1.13 **PAR Approach**

1.13.1 Pilots visiting military airfields may wish to undertake a PAR Approach (Precision Approach Radar). The following scenario assumes that G-RRRF has already been identified by Westbury Approach and is under an ATC service at 2500 ft on the Regional Pressure Setting.

Westbury Approach, G-RRRF 
request PAR

G-RF Westbury Approach, PAR for runway 27 approved, procedure minimum 300 ft

G-RF 300 ft to land

G-RF roger, set QFE 1001 descend to 1500 ft

1001 set, descend to height 1500 ft, G-RF
G-RF are you familiar with Westbury Missed Approach and Communication Failure Procedure

G-RF negative

G-RF in the event of a missed approach, climb straight ahead to 2300 ft and recall me on this frequency

In the event of a missed approach, climb straight ahead to 2300 ft and recall Westbury on this frequency, G-RF

G-RF correct. If radio contact lost, or if no transmissions are received for 20 seconds, and you are unable to continue this approach, climb to the safety height of 2300 ft and recall Westbury on this or any other published frequency

If radio contact lost, or if no transmissions are received for 20 seconds, and I am unable to continue this approach, climb to the safety height of 2300 ft and recall Westbury on this or any other published frequency, G-RF

G-RF correct. Turn right heading 100 downwind

Right heading 100 G-RF

G-RF heading 100, maintaining 1500 ft

G-RF, 5 miles downwind, cockpit checks report complete

G-RF cockpit checks complete

G-RF turn left heading 360 base leg

Left heading 360, G-RF

G-RF heading 360

G-RF turn left heading 310
Left heading 310, G-RF

<table>
<thead>
<tr>
<th>G-RF heading 310</th>
<th>G-RF turn left heading 265 final approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left heading 265, G-RF</td>
<td></td>
</tr>
<tr>
<td>G-RF, 8 miles, contact Westbury Talkdown on 123.3</td>
<td></td>
</tr>
<tr>
<td>Westbury Talkdown 123.3 G-RF</td>
<td></td>
</tr>
<tr>
<td>Westbury Talkdown G-RRRF</td>
<td></td>
</tr>
<tr>
<td>G-RF Westbury Talkdown identified, turn right heading 270, readback QFE</td>
<td></td>
</tr>
<tr>
<td>Right heading 270, QFE 1001 set G-RF</td>
<td></td>
</tr>
<tr>
<td>G-RF</td>
<td></td>
</tr>
<tr>
<td>G-RF 7 miles, correcting nicely to the centreline</td>
<td></td>
</tr>
<tr>
<td>G-RF 6½ miles, slightly right of centreline, turn left heading 265</td>
<td></td>
</tr>
<tr>
<td>Left heading 265, G-RF</td>
<td></td>
</tr>
<tr>
<td>G-RF when safely on the runway contact Westbury Tower on 132.85</td>
<td></td>
</tr>
<tr>
<td>When safely on the runway contact Westbury Tower on 132.85, G-RF</td>
<td></td>
</tr>
<tr>
<td>G-RF 6 miles, correcting nicely to the centreline, approaching descent point do not acknowledge further instructions unless requested</td>
<td></td>
</tr>
<tr>
<td>5½ miles, heading is good</td>
<td></td>
</tr>
<tr>
<td>Turn right 3° heading 268</td>
<td></td>
</tr>
</tbody>
</table>

1 September 2003
5 miles begin descent now for a 3° glidepath, on the centreline

Turn right 2° heading 270, on the centreline, slightly above the glidepath

4½ miles heading is good, correcting to the glidepath

On glidepath, on centreline, heading 270

4 miles, slightly below glidepath, check gear acknowledge

Gear down, G-RF

Slightly left of centreline turn right heading 273, correcting nicely to the glidepath

3½ miles on glidepath, slightly left of centreline

Turn left 3° heading 270 on centreline

3 miles, cleared to land, surface wind 250 5, on glidepath, on centreline heading 270

Turn left 2° heading 268, on centreline, on glidepath

2½ miles, on centreline, on glidepath

2 miles, slightly right of centreline, turn left 3° heading 265, on glidepath

Slightly above glidepath, correcting nicely to the centreline, heading 265

1½ miles, heading is good, correcting to the glidepath
1.13.2 The following phrases may also be encountered during a PAR; further explanation of some of the terms employed are included in the Remarks column in the table below:

### Table 14

<table>
<thead>
<tr>
<th>Position</th>
<th>Control to Aircraft</th>
<th>Aircraft to Control</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial approach</td>
<td>G-RF Westbury, PAR Azimuth only for runway 27 approved, procedure minimum .... ft</td>
<td>.... ft, G-RF</td>
<td>Employed when no glidepath information is available</td>
</tr>
<tr>
<td>Glidepath and rate of descent</td>
<td>Well above/below glidepath. Acknowledge G-RF correcting rapidly to glidepath</td>
<td>G-RF</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>.... miles</td>
<td></td>
<td>Passed at ½ nm intervals. (RN pass ranges at 1/3 nm intervals)</td>
</tr>
<tr>
<td>Heading</td>
<td>Well/slightly left/right of centreline correcting rapidly/slowly/nicely to centreline</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.14 Military Aerodrome Traffic Zones (MATZ) and Penetration Services

1.14.1 Comprehensive details of MATZ and the associated penetration service, including controlling aerodromes, contact frequencies and hours of watch, are contained in the UK AIP ENR Section, AICs, AIP Supplements or System NOTAM.

1.14.2 While every effort will be made to ensure safe separation, some civil aircraft flying within the MATZ may not be known to controllers and therefore pilots should keep a careful look-out at all times.

1.14.3 Pilots requiring a MATZ penetration service must establish two way RTF communication on the appropriate frequency with the aerodrome controlling the zone when 15 nm or 5 min flying time from the boundary whichever is the sooner. When asked by the controller to ‘pass your message’ the pilot should pass the following information:

   a) Callsign
   b) Type of aircraft
   c) Position
   d) Heading
   e) Altitude/FL
   f) Intentions (e.g. destination)

<table>
<thead>
<tr>
<th>Position</th>
<th>Control to Aircraft</th>
<th>Aircraft to Control</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glidepath failure during PAR</td>
<td>Glidepath failure, the procedure minimum is .... ft – acknowledge G-RF</td>
<td>G-RF</td>
<td>Procedure continues to published Missed Approach Point for AZ only approach</td>
</tr>
<tr>
<td>Undercarriage check</td>
<td>Check gear, acknowledge</td>
<td>Gear down, G-RF</td>
<td>Normally carried out between 3 and 4 nm from touchdown. Not required for aircraft with fixed undercarriage</td>
</tr>
<tr>
<td>Clearance</td>
<td>Final clearance delayed, continue approach</td>
<td></td>
<td>Indicating that required clearance may be forthcoming Specific instructions and reasons will be passed</td>
</tr>
<tr>
<td></td>
<td>Break off this approach – acknowledge .... (further instructions as required)</td>
<td>G-RF acknowledged (repeat of any further instructions)</td>
<td></td>
</tr>
</tbody>
</table>

Table 14

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Glidepath failure during PAR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undercarriage check</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearance</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 September 2003
1.14.4 Whilst working a MATZ unit, pilots are expected to comply with any instructions issued by controllers and maintain a listening watch on the allocated RTF frequency. They should not change heading or level without giving prior warning and should advise when leaving the MATZ. At some MATZ units, the Zone controller is responsible for MATZ penetration services.

1.15 **Lower Airspace Radar Service (LARS)**

1.15.1 LARS is available to assist pilots flying outside controlled airspace up to and including FL 95. LARS is normally provided within 30 nm of the nominated unit and is provided at the discretion of the controller. Therefore, when primary task loadings are high, LARS may not be available. The services available are **Radar Advisory Service (RAS)** or **Radar Information Service (RIS)**; the type of service required should be specified as detailed at paragraph 15.3 below.

1.15.2 Pilots requiring a LARS should establish RTF communication with the appropriate ATSU using the following format:

```
Westbury Approach G-ABCD request Lower Airspace Radar Service
```

1.15.3 Once communications have been established the pilot should pass the following details:

a) Callsign and type of aircraft
b) Point of departure and estimated position
c) Heading
d) Level (or level and band for traffic wishing to carry out general handling)
e) Intention (next reporting/turning point, destination etc.)
f) The flight rules under which he is operating and the type of service required (RAS or RIS)

```
G-ABCD, Slingsby from Borton over Middleton heading 350, altitude 2500 feet Wessex 1005 enroute Walden
```

```
G-CD, cross MATZ at 1500 ft on Westbury QFE 1001. Report entering and leaving the MATZ
```

```
Cross MATZ at 1500 ft on Westbury QFE 1001, Wilco G-CD
```

```
G-ABCD Westbury Approach pass your message
```

```
G-ABCD, T67, 15 miles SE Westbury heading 350, FL45, IFR, destination Walden, request Radar Advisory Service
```

1.15.4 The identification procedure does not imply that a radar service is being provided. The pilot must not assume that he is in receipt of a RAS or RIS until the controller has
made a positive statement to that effect based on an ‘accord’ being reached between the pilot and the controller of the type of service to be provided.

1.15.5 RAS and RIS are defined as follows:

a) **RAS.** RAS is an air traffic radar service in which the controller will provide advice necessary to maintain prescribed separation between aircraft participating in the advisory service, and in which he will pass to the pilot the bearing, distance and, if known, level of conflicting non-participating traffic, together with advice on action necessary to resolve the confliction. Where time does not permit this procedure to be adopted, the controller will pass advice on avoiding action followed by information on the conflicting traffic. Under a RAS the following conditions apply:

i) The service will only be provided to flights under IFR irrespective of meteorological conditions.

ii) Controllers will expect the pilot to accept vectors or level allocations which may require flight in IMC. **Pilots not qualified to fly in IMC should accept a RAS only where compliance with ATC advice permits the flight to be continued in VMC;**

iii) There is no legal requirement for a pilot flying outside Controlled Airspace to comply with instructions because of the advisory nature of the service. However, a pilot who chooses not to comply with advisory avoiding action must inform the controller. The pilot will then become responsible for initiating any avoiding action that may subsequently prove necessary.

iv) The pilot must advise the controller before changing heading or level.

v) The avoiding action instructions which a controller may pass to resolve a confliction with non-participating traffic will, where possible, be aimed at achieving separation which is not less than 5nm or 3000ft, except when specified otherwise by the CAA. However, it is recognised that in the event of the sudden appearance of unknown traffic, and when unknown aircraft make unpredictable changes in flight path, it is not always possible to achieve these minima.

vi) Information on conflicting traffic will be passed until the confliction is resolved.

vii) The pilot remains responsible for terrain clearance, although ATSU providing a RAS will set a level or levels below which a RAS will be refused or terminated.

b) **RIS.** RIS is an air traffic radar service in which the controller will inform the pilot of the bearing, distance and, if known, the level of the conflicting traffic. No avoiding action will be offered. **The pilot is wholly responsible for maintaining separation from other aircraft whether or not the controller has passed traffic information.** Under a RIS the following conditions apply:

i) The service may be requested under any flight rules or meteorological conditions.

ii) The controller will only update details of conflicting traffic after the initial warning, at the pilot’s request, or if the controller considers that the conflicting traffic continues to constitute a definite hazard.

iii) The controller may provide radar vectors for the purpose of tactical planning or at the request of the pilot. However, vectors will not be provided to maintain separation from other aircraft, which remains the responsibility of the pilot. There is no requirement for a pilot to accept vectors.

iv) The pilot must advise the controller before changing level, level band or route.
v) RIS may be offered when the provision of RAS is impracticable.

vi) Request for a RIS to be changed to a RAS will be accepted subject to the
controller’s workload; prescribed separation will be applied as soon as
practicable. If a RAS cannot be provided the controller will continue to offer a
RIS.

vii) For manoeuvring flights which involve frequent changes of heading or flight
level, RIS may be requested by the pilot or offered by the controller. Information
on conflicting traffic will be passed with reference to cardinal points. The pilot
must indicate the level band within which he wishes to operate and is
responsible for selecting the manoeuvring area, but may request the
controller’s assistance in finding a suitable location. The controller may suggest
re-positioning on his own initiative, but the pilot is not bound to comply.

viii) The pilot remains responsible for terrain clearance. ATSUs providing a RIS will
set a level or levels below which vectors will not be provided, except when
specified otherwise by the regulating authority.

1.15.6 Details of LARS, including participating ATSUs, their hours of operation and contact
frequencies, are contained in the UK AIP ENR Section and AICs.
Chapter 7  Area Phraseology

1  Area Control Service

1.1  Area Control Phraseology
The following examples of phraseology are suitable for use at area control centres according to the requirements of the prevailing traffic situation.

- Fastair 345 request descent
- Fastair 345 maintain FL 280 expect descent after Marlow
- Maintaining FL 280 Fastair 345
- Fastair 345 descend FL 120. Cross Colinton FL 170 or above
- Descend FL 120. Cross Colinton FL 170 or above Fastair 345
- Fastair 345 are you able to cross Colinton at time 52
- Affirm Fastair 345
- Fastair 345 cross Colinton 52 or before
- Cross Colinton 52 or before Fastair 345
- Fastair 345 report Colinton
- Fastair 345 report 25 miles DME from Kennington
- Wilco Fastair 345
- Fastair 345 report your DME distance from Kennington
- Fastair 345 26 miles

1.2  Position Reporting
In order to assist in establishing separation, pilots may be instructed to provide additional position report information as well as routine reports.

- Fastair 345 Colinton 47 FL 170 descending FL 120, abeam KTN at 55
- Fastair 345
- Fastair 345 26 miles
1.3 **Flights Joining Airways**

1.3.1 Aircraft requiring to join an airway should make their request to the appropriate ATSU. Where no flight plan has been filed, the request should include the filing of an airborne flight plan (see Chapter 3). Where a flight plan has already been filed an abbreviated call may be made.

1.3.2 Because of the prevailing traffic situation, a joining clearance may not be issued immediately.

1.3.3 In the event that the requested flight level is already occupied the controller will offer an alternative.

1.4 **Flights Leaving Airways**

1.4.1 Flights leaving controlled airspace will normally be given a specific point at which to leave, together with any other relevant instructions necessary to ensure separation.
1.4.2 An aircraft may request permission to leave controlled airspace by descent.

G-RDVC request permission to leave controlled airspace by descent

G-RDVC cleared to leave controlled airspace by descent. Report passing altitude 5500 feet the Wessex is 1014

Cleared to leave controlled airspace by descent will report passing altitude 5500 feet the Wessex is 1014 G-RDVC

In the above example the base of the airway is 5500 feet.

1.5 Flights Crossing Airways

An aircraft requiring to cross an airway should make its request to the appropriate ATSU.

Wrayton Control G-ABCD request crossing of A1 at Wicken

G-ABCD Wrayton Control pass your message

G-ABCD T67 from Borton, 20 miles north of Wicken heading 220 FL 80 IMC request crossing clearance of airway A1 at Wicken FL 80 at 1033

G-ABCD cleared to cross A1 at Wicken, maintain FL 80 whilst in controlled airspace. Report entering the airway

Cleared to cross A1 at Wicken maintain FL 80 in controlled airspace. Wilco. G-ABCD

1.6 Flights Holding En-Route

When an aircraft is required to hold en-route, the controller will issue holding instructions and a time at which onward clearance can be expected. Where it is not self-evident, the reason for the delay should also be given.

Fastair 345 hold at Colinton FL 170, expect onward clearance at 03, landing delays at Kennington 20 minutes

Hold at Colinton FL 170 expect onward clearance at time 03 Fastair 345
Chapter 8   Emergency Phraseology

1  Distress and Urgency Communication Procedures

1.1  Introduction
This chapter describes the characteristics of the VHF International Aeronautical Emergency Service and the RTF procedures which should be used under the Aeronautical Mobile Service during an emergency in the UK. Additional information is published in the UK AIP (GEN) section and AICs.

1.2  States of Emergency
1.2.1 The states of emergency are classified as follows:
a) **Distress** A condition of being threatened by serious and/or imminent danger and of requiring immediate assistance.
b) **Urgency** A condition concerning the safety of an aircraft or other vehicle, or of some person on board or within sight, but does not require immediate assistance.

1.2.2 The pilot should make the appropriate emergency call as follows:
a) **Distress** ‘MAYDAY, MAYDAY, MAYDAY This is —— (Aircraft Callsign)’
b) **Urgency** ‘PAN PAN, PAN PAN, PAN PAN This is —— (Aircraft Callsign)’

1.3  VHF Emergency Service
1.3.1 The UK has two Distress and Diversion (D&D) Sections located at the London and Scottish Area Control Centres. They are manned by RAF control staff who are assisted in the provision of an emergency service on the International Aeronautical Emergency Frequency 121.50 MHz by suitably equipped civil and military units and certain HM Coastguard stations. The service is available continuously to pilots flying within UK airspace who are in distress, in urgent need of assistance, or experiencing difficulties, (i.e. temporarily unsure of position) which could lead to a state of emergency. The service may also be available for practices provided that no actual emergency is in progress on the UHF or VHF distress frequencies. More information on the emergency service for civil pilots can be found in the UK AIP (GEN).

1.3.2 The primary role of the D&D Sections is to provide military and civil pilots with an emergency aid and position fixer service. Autotriangulation (DF) coverage on 121.5 MHz is available over most of the London FIR above 2000 ft amsl to aircraft flying to the east and south of Manchester. In respect of other civil aircraft incidents on VHF they rely for position fixing on DF bearing information obtained by telephone from external units equipped with VDF. This fixing procedure takes time and may require several minutes of concentrated activity because it involves the manual plotting onto 1:250,000 charts of the bearings received. The quality of the position fixes is determined by the availability of VDF bearings, and thus, depends largely on the height of an aircraft and its distance from the VDF stations. The coverage of the VHF fixing service is limited below 3000 ft amsl; indeed, the ability to locate aircraft at low altitude by the use of VDF may be severely inhibited (because of the effects of high ground) over much of Scotland, Wales and SW England. In circumstances where 121.5 MHz DF data is lacking, the controller’s ability to assist a pilot who is uncertain of his position is very limited, and will depend on such factors as the availability of SSR information and the amount and accuracy of the information provided by the pilot about his route, last known position and observed landmarks.
1.3.3 Certain UK aerodromes can also offer civil pilots an effective emergency communications and aid service. Some maintain a continuous watch on 121.50 MHz, but not all are equipped with VDF or SSR. Others do not normally listen out on 121.50 MHz but they do have VDF and may be asked by the Emergency Controller to provide DF bearing information on an aircraft, and other assistance. Where a bearing is required for fixing purposes from an airfield which has VDF but not on 121.5 MHz, the Emergency Controller may instruct the pilot to change temporarily to the frequency on which VDF is available.

1.4 VHF Emergency Service – General Procedures

1.4.1 Pilots should address their emergency calls on 121.50 MHz to ‘London Centre’ when south of N55°, and ‘Scottish Centre’ when north of N55°. If doubt exists about the appropriate centre, it is not necessary to address a specific station. Once two-way communication has been established, pilots should not leave 121.5 MHz without telling the controller. The use of special D&D Sections at the ACCs in the provision of emergency services is unique to the UK. Detailed information on related UK Search and Rescue (SAR) procedures is contained in the GEN Section of the UK AIP.

1.4.2 Pilots are urged – in their own interests – to request assistance from the emergency service as soon as there is any doubt about the safe conduct of their flight. Even then, the provision of assistance may be delayed if a pilot does not pass clear details of his difficulties and requirements, using the international standard RTF prefix ‘MAYDAY, MAYDAY, MAYDAY’ or ‘PAN PAN, PAN PAN, PAN PAN’ as appropriate. For example, a vague request from a pilot for ‘confirmation of position’ is unlikely to be accorded as much priority as would be given to a statement that he is lost. If, subsequent to the transmission of a ‘MAYDAY’ or ‘PAN’, a pilot considers the problem not to be as serious as first thought and priority attention is no longer required, the emergency condition may be cancelled at the pilot’s discretion. It is invariably preferable for pilots believing themselves to be facing emergency situations to declare them as early as possible and then cancel later if they decide the situation allows.

1.4.3 If a pilot is already in communication with a civil or military ATSU, before the emergency arises, assistance should be requested from the controller on the frequency in use. In this case, any SSR code setting previously assigned by ATC (other than the Conspicuity Code 7000) should be retained until instructions are received to change the code setting.

1.4.4 If, however, the pilot is not in direct communication with an ATSU and the aircraft is equipped with an SSR transponder it should be switched, preferably before the emergency call is made, to Mode A Emergency Code 7700, with Mode C if available. If the transponding aircraft is high enough to be within secondary radar cover, the selection of the Emergency 7700 Code will alert the Emergency Controller to the presence of an incident by means of an audio and visual warning. The received SSR plot will show the precise location of the aircraft on the controller’s radar display, and will then obviate the need for the emergency controller to carry out the more time-consuming manual aircraft position plotting procedure. Information on SSR operating procedures, including Special Purpose Codes 7700 (Emergency), 7600 (Radio Failure) and 7500 (Hijack or Other Act of Violence) are detailed in the ENR Section of the UK AIP.

1.4.5 If no acknowledgement of the distress or urgency message is made by the station addressed by the aircraft, other stations shall render assistance. Due to the nature of distress and urgency situations, the originator of messages addressed to an aircraft in distress or urgency condition shall restrict to the minimum the number and volume and content of such messages as required by the condition.
1.5 **Emergency Message**

The emergency message shall contain the following information (time and circumstance permitting) and, whenever possible, should be passed in the order given:

a) ‘MAYDAY/MAYDAY/MAYDAY’ (or ‘PAN PAN/PAN PAN/PAN PAN’);

b) Name of the station addressed (when appropriate and time and circumstances permitting);

c) Callsign;

d) Type of aircraft;

e) Nature of the emergency;

f) Intention of the person-in-command;

g) Present or last known position, flight level/altitude and heading;

h) Pilot qualifications (See Note 1), viz:

i) Student pilots (see Note 2);

ii) No Instrument Qualification;

iii) IMC Rating;

iv) Full Instrument Rating.

i) Any other useful information e.g. endurance remaining, number of people on board (POB) etc.

**NOTES:**

1. There is no ICAO requirement to include pilot qualifications in a distress message. However, this information should be included whenever possible in UK emergency messages as it may help the controller to plan a course of action best suited to the pilot’s ability.

2. Inexperienced civil pilots are invited to use the callsign prefix ‘TYRO’ when in communication with a military unit or the D&D Section to indicate their lack of experience. Upon hearing this code word, military controllers will ensure that they do not issue complex instructions which the pilot could have difficulty in following.

3. POB – Total number of People on Board.

**Example Messages:**

- **MAYDAY MAYDAY MAYDAY**
  Milthorpe Tower G-ABCD Slingsby engine fire losing height intend an immediate forced landing 20 miles south of Milthorpe. Passing 3000 feet heading 360 PPL no instrument qualification 1 POB

- **MAYDAY MAYDAY MAYDAY**
  Milthorpe Tower G-ABCD C172 engine failed. Will attempt to land Milthorpe, 10 miles south, 4000 ft heading 360 Student pilot

- **G-ABCD Milthorpe Tower roger MAYDAY ..... (any pertinent information)**

- **MAYDAY MAYDAY MAYDAY**
  Milthorpe Tower G-ABCD cleared straight-in runway 35 wind 260 10 knots QFE 1008 you are number one
1.6  **Speechless Code**

1.6.1 If an emergency message received by the Military Emergency Controller is weak or distorted to the point of being unintelligible, the pilot may be asked to adopt the Speechless Code. This entails the pilot pressing his transmit button a certain number of times and using carrier wave only transmissions which, by convention, have the following code meanings:

### Table 15

<table>
<thead>
<tr>
<th>Number of transmissions</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Short</td>
<td>‘Yes’ or an acknowledgement</td>
</tr>
<tr>
<td>Two Short</td>
<td>‘No’</td>
</tr>
<tr>
<td>Three Short</td>
<td>‘Say again’ (to be used by the pilot when he has not fully heard the controller’s transmission, or has not understood the transmission, or the transmission was an instruction and the pilot is unable to comply).</td>
</tr>
<tr>
<td>Four Short (letter H in morse)</td>
<td>‘Request Homing’ (to an airfield), or used for initial alerting. (A civil pilot should only use the four short transmissions if he is aware, or suspects before attempting to make initial contact with the Emergency Controller, that his own aircraft microphone is unserviceable. The Emergency Controller will then interrogate the pilot, using the callsign ‘Speechless Aircraft’ if the identity of the aircraft is unknown).</td>
</tr>
<tr>
<td>One Long (2 secs)</td>
<td>‘Manoeuvre Complete’ (e.g. steady on heading).</td>
</tr>
<tr>
<td>One Long, Two Short and One Long (–..–)</td>
<td>‘My aircraft has developed another emergency’</td>
</tr>
</tbody>
</table>

1.6.2 An aircraft SSR transponder can also be used, during times of communication difficulties, by a pilot to acknowledge or respond to messages by the transmission of SSR Code changes or squawking ‘Ident’ as requested by the controller.

1.6.3 If neither the state of DISTRESS nor URGENCY applies, a service is available at lower priority to pilots who find themselves in DIFFICULTY. Such pilots should make their situation clear and then provide as much information as possible to the emergency controller from the list at paragraph 5.1 (a) to (i).

1.7  **Radio Procedures – Practice Emergencies**

1.7.1 Pilots may simulate emergency incidents (BUT NOT THE STATE OF DISTRESS) on 121.50 MHz to enable them to gain experience of the ATC service provided. Before calling, pilots should listen out on the emergency frequency to ensure that no actual or practice incident is already in progress. Practice calls need not disrupt a planned flight or involve additional expense in fuel or time since the pilot can request ‘diversion’ to his intended destination or cancel the exercise when necessary. Simulated emergency calls must be prefixed ‘PRACTICE’ and should be brief, e.g:
The Emergency Controller will then indicate acceptance of the Practice Pan by transmitting:

\`\`PRACTICE PAN, PRACTICE PAN, PRACTICE PAN, LONDON CENTRE G-ABCD\`

The Emergency Controller may instruct the pilot to call at another time, if the practice cannot be accommodated.

1.7.2 If a practice is accepted, the pilot should then pass his details. SSR Mode A Code 7700 should not be selected during a practice emergency exercise unless required by the Emergency Controller. Mode C should be switched on, if available.

1.8 Training Fix

Pilots who do not wish to carry out a practice emergency but only wish to confirm their position may request a ‘Training Fix’ on 121.5 MHz. This ‘Training Fix’ is secondary in importance to actual emergency calls but takes precedence over practice emergency calls in the event of simultaneous incidents.

(Listen out before transmitting)

\`\`Training Fix, Training Fix, Training Fix, G-ABCD G-ABCD, Scottish Centre your position is 7 miles south of Pitlochry\`

1.9 Relayed Emergency Message

Any aeronautical station or aircraft knowing of an emergency incident may transmit a distress message whenever such action is necessary to obtain assistance for the aircraft or vessel in distress. In such circumstances, it should be made clear that the aircraft transmitting is not itself in distress.

\`\`MAYDAY MAYDAY MAYDAY Milthorpe Tower G-ABCD have intercepted MAYDAY from G-BJRD I say again G-BJRD Cessna 172 engine failure forced landing 10 miles west of Wicken VOR, 1000 feet descending, heading 120, IMC rating, over G-ABCD Milthorpe Tower Roger your relayed MAYDAY from G-BJRD\`

1.10 Imposition of Silence

1.10.1 Transmissions from aircraft in distress have priority over all other transmissions. On hearing a distress call, all stations must maintain radio silence on that frequency unless the distress is cancelled or the distress traffic is terminated; all distress traffic has been transferred to other frequencies; the station controlling communications gives permission; it has itself to render assistance. Any station which has knowledge of distress traffic, and which cannot itself assist the station in distress, shall nevertheless continue listening to such traffic until it is evident that assistance is
being provided. Stations should take care not to interfere with the transmission of urgency calls.

1.10.2 The aircraft in distress or the station in control of a distress incident may impose silence either on all stations in the area or on any particular station that interferes with distress transmissions. In either case, the message should take the following form:

<table>
<thead>
<tr>
<th>All stations Milthorpe Tower stop transmitting. MAYDAY</th>
</tr>
</thead>
</table>

or,

<table>
<thead>
<tr>
<th>G-ABCD stop transmitting. MAYDAY</th>
</tr>
</thead>
</table>

1.10.3 The aeronautical station acknowledging a distress message on a particular frequency may consider it prudent to transfer other aircraft from that frequency in order to avoid any disruption of transmission from or to the emergency aircraft.

<table>
<thead>
<tr>
<th>MAYDAY G-BJRD. All other aircraft contact Milthorpe Tower on 123.8, out</th>
</tr>
</thead>
</table>

1.11 Termination of Distress Communications and of RTF Silence

1.11.1 When an aircraft is no longer in distress it shall transmit a message cancelling the emergency condition.

<table>
<thead>
<tr>
<th>Milthorpe Tower G-BJRD cancel MAYDAY, engine restarted, runway in sight. Request landing</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>G-RD runway 35 cleared to land. Surface wind 320 6</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Runway 35 cleared to land G-RD</th>
</tr>
</thead>
</table>

1.11.2 When an distress incident has been resolved, the station which has been controlling the emergency traffic will transmit a message indicating that normal working may be resumed.

<table>
<thead>
<tr>
<th>All stations Milthorpe Tower distress traffic ended</th>
</tr>
</thead>
</table>

1 September 2003
Chapter 9  Miscellaneous Phraseology

1  Other Communications

1.1  Wake Vortex

ATC will provide the appropriate spacing between IFR flights but, if a pilot elects to
execute a visual approach, or is operating as a VFR flight, it is his responsibility to
provide adequate spacing, although ATC will pass the appropriate distance.

G-BJCD caution vortex wake the
recommended spacing is (number)
miles

1.2  Wind Shear

When wind shear is forecast or is reported by aircraft, ATC will warn other aircraft until
such time as aircraft report the phenomenon no longer exists.

G-CD at 0745 a departing B757
reported windshear at 800 feet.
Airspeed loss 20 kts, strong right drift

1.3  AIRPROX Reporting

1.3.1 An AIRPROX Report should be made by any pilot flying in the United Kingdom Flight
Information Region, the Upper Flight Information Region or Shanwick Oceanic Area
when in his opinion, the distance between aircraft as well as their relative positions
and speed have been such that the safety of the aircraft involved was or may have
been compromised.

1.3.2 The initial report is made by RTF to the ATSU in communication with the aircraft
except that if the controllers workload is such that he is not able to accept the report
the pilot will be requested to file details after landing.

1.3.3 The Pilot’s RTF report should commence with words ‘AIRPROX REPORT’ and should
include the following items:

Aircraft Callsign
SSR Code
Position of AIRPROX
Aircraft heading
Flight level, altitude or height
Altimeter setting
Aircraft attitude (level/climbing/descending/turning)
Weather conditions
Date and time (UTC) of the AIRPROX
Description of other aircraft
First sighting distance and details of flight paths of reporting and reported aircraft.
1.3.4 RTF AIRPROX reports are to be confirmed in writing within seven days of the incident to allow follow up action to be taken. (See UK AIP ENR Section.)

1.4 Oil Pollution Reporting

Pilots sighting substantial patches of oil are requested to make reports by RTF to the ATSU with whom they are in communication or the appropriate FIS in order that action can be taken.

The RTF reports should contain the following:

‘OIL POLLUTION REPORT’ or ‘POLLUTION REPORT’

. . . Time and date (if required) pollution was observed and identify of reporting aircraft.
. . . Position and extent of pollution
. . . Tide, windspeed and direction
. . . Weather conditions and Sea state
. . . Characteristics of pollution
. . . Name and nationality or description, including any distinctive markings, of any vessel seen discharging oil or other harmful substances; also estimated course and speed of vessel and if pollution is observed ahead of the discharging ship and the estimated length of pollution in her wake
. . . Identity of any other vessels in the immediate vicinity
. . . Whether photographs taken.

1.5 Interceptions by Military Aircraft

Pilots are warned that should they become involved in an interception by military aircraft they should follow the international procedures as detailed in the UK AIP ENR Section.

1.6 Aircraft Operating Agency Messages

1.6.1 Introduction

An aeronautical radio station which is licensed and established for company operational control communications (OPC) may be used only for communication with company aircraft or aircraft for which the company is the operating agency. A radio operator’s certificate of competence issued by the UK CAA is not required for the use of this radio station.

1.6.2 Limitations

Personnel authorised to use an aircraft operating agency radio must not hold themselves out as providing an air traffic control service i.e. they must not pass instructions to aircraft which could be construed in any way to be such a service. Similar constraints apply with regard to flight information services provided by a FISO for specific ground movements at aerodromes. Flight safety messages must be confined to messages originated by the agency which are of immediate concern to an aircraft in flight or just about to depart. This may include meteorological information.

1.6.3 Aircraft operating agency radio stations may only transmit and receive flight regularity and flight safety messages.

1.6.4 Air traffic service units using direct pilot-controller communication channels shall only be required to handle flight regularity messages provided this can be achieved
without interference with their primary role and no other channels are available for the handling of such messages.

1.6.5 Flight regularity messages comprise the following:

a) Messages regarding the operation or maintenance of facilities essential for the safety or regularity of aircraft operation.

b) Messages concerning the servicing of aircraft.

c) Instructions to aircraft operating agency representatives concerning changes in requirements for passengers and crew caused by unavoidable deviations from normal operating schedules. Individual requirements of passengers or crew are not admissible in this type of message.

d) Messages concerning non-routine landings to be made by the aircraft.

e) Messages concerning aircraft parts and materials urgently required.

f) Messages concerning changes in aircraft operating schedules.

1.6.6 Flight safety messages shall comprise the following:

a) Movement and control messages (e.g. flight plans, clearances),

b) Messages originated by an aircraft operating agency, or by an aircraft, of immediate concern to an aircraft in flight,

c) Meteorological advice of immediate concern to an aircraft in flight or about to depart (individually communicated or for broadcast),

d) Other messages concerning aircraft in flight or about to depart.

1.6.7 It is permissible for aircraft operating agency messages to be handled by the aerodrome communication facility provided this can be achieved without interference with its primary role and no other channels are available for the handling of such messages.

1.6.8 Public correspondence messages are not permitted on VHF frequencies in the aeronautical mobile service.

1.7 8.33 kHz Phraseology

1.7.1 As an interim solution to severe VHF spectrum congestion, ICAO has split the VHF communications band from 25 kHz to 8.33 kHz channel spacing.

1.7.2 8.33 kHz frequencies are referred to as ‘channels’.

1.7.3 There is a sixth digit at the end of the channel designation and when transferring between channels all six digits must be used.

1.7.4 The following phraseology shall only be used when referring to 8.33 kHz channels.
1.7.5 To request the capability of the radio equipment:

- Advise eight point three three equipped
- Affirm eight point three three

or

- Negative eight point three three
- UHF equipped

1.7.6 To request the status regarding exemption:

- Advise eight point three three equipped
- (Aircraft callsign) Exempted eight point three three

1.7.7 To indicate that a certain clearance is given because otherwise a non-equipped aircraft would enter the airspace of mandatory carriage.

- (Clearance/Instruction) Due eight point three three requirement

1.7.8 To request the pilot confirm the 8.33 selection.

- Confirm eight point three three channel (name)
- (Affirm eight point three three channel (name)

1.7.9 Transfer of control and/or change channel.

- Contact (unit callsign) channel (name)
- At (or over) (time or place) contact (unit callsign) channel (name)
- If no contact (instructions)
- Stand by channel (name) for (unit callsign)
- Request change to channel (name)
- Channel change approved

1 September 2003
or.

```
Monitor (unit callsign) channel (name)
```

```
Monitoring channel (name)
```

or.

```
When ready contact (unit callsign) channel (name)
```

or.

```
Remain this channel
```

1.7.10 When transferring an aircraft to a non 8.33 kHz sector, current frequency change phraseology shall be used.
Chapter 10  Phraseology Examples

1  Examples of Types of Flights

1.1  Introduction

An example of an IFR flight from one major airport to another, and an example of a VFR flight from a provincial aerodrome to a landing site, are given in graphic form in this chapter. The latter then changes to an IFR flight on departure again to illustrate the differences between RAS and RIS (see Chapter 6). As before the agency making the initial call is on the lefthand side of the page; thereafter messages connected with the subject appear in chronological order but on the \textit{relative} side of the page. The agencies can be identified as follows:

\begin{center}
\text{FASTAIR 345} \hspace{2cm} \text{G-ABCD} \\
\text{GROUND/TOWER/APPROACH} \hspace{2cm} \text{WRAYTON ACC (CONTROL/INFORMATION)}
\end{center}
1.2 An IFR Flight

1.2.1 Start up

NOTE: The word 'APPROVED' is used - not 'CLEARED'.

1.2.2 Clearance

NOTES:
1. The word CLEARED is introduced.
2. A full readback of a clearance is required – see paragraph 2.4 below.
1.2.3 **Pushback and Taxi**

**NOTE:** The word ‘APPROVED’ is used - not 'CLEARED'.

- **Ground Fastair 345 request pushback**
- **Fastair 345 pushback approved**
- **Ground Fastair 345 information**
  - Charlie QNH 1011 request taxi
- **Fastair 345 taxi holding point G2 runway 24**
- **Taxi holding point G2 runway 24**
  - Fastair 345
- **Fastair 345 contact Stourton Tower 118.9**
- **Stourton Tower 118.9 Fastair 345**
1.2.4 **Pre-departure and Take-off**

**NOTES:**

1. ‘DEPARTURE’ employed and not ‘TAKE-OFF’.
2. ‘CLEARED’ is not used in these cases – see next ‘Notes’.
3. Full readback is required for instructions to ENTER, LAND, TAKE-OFF ON, BACKTRACK, HOLD SHORT OF, OR CROSS a runway.
4. ‘LINE UP AND WAIT’ (plus reason) is employed; ‘LINE UP’ (only) may also be used.
NOTES:

1. TAKE-OFF – these words are only used when an aircraft is cleared for TAKE-OFF.

2. TAKE-OFF clearance requires readback.

3. Use of CLEAR is restricted to:
   i) ATC clearances.
   ii) Departure and Approach instructions.
   iii) Take-off and landing clearances.

NOTE: Full readback of frequency change.
1.2.5 **En-Route**

**NOTES:**
1. Full readback of level instruction.
2. REPORT instruction employed.
NOTE: Position report consists of:

a) Aircraft identification.
b) Position.
c) Time.
d) Level.
e) Next position and ETA.

NOTE: For passing instructions/reports regarding height/altitude or flight level, use CLIMB(ING), DESCEND(ING), PASSING, REACHING or LEAVING but not CLEARED/RE-CLEARED.
Fastair 345 request descent

Descending FL 120 will cross
Colinton FL 170 or above Fastair 345

Fastair 345 descend FL 120 cross Colinton FL 170 or above
NOTE: AFFIRM(ative)/NEGATIVE are used when a question requires a direct answer. Therefore, ROGER is not used in this case.
Fastair 345 Colinton 52 FL 180
descending FL 120 request direct North Cross for ILS approach at Kennington

Direct North Cross descend FL 60.
Wilco Fastair 345

Fastair 345 Roger. Route direct to North Cross. Descend FL 60. Report West abeam KTN

1 September 2003
NOTE: FL 100 spoken as “flight level WUN HUN DRED”
NOTE: Full readback of HEADING (and speed) instructions; also runway identifier.
Fastair 345 North Cross FL 60 heading 120

Descend to altitude 2500 feet QNH 1011 Fastair 345

Fastair 345 position 10 miles northeast of Kennington

Fastair 345 turn right heading 190 base leg 14 miles northeast of Kennington

Right heading 190 Fastair 345
NOTE: Surface wind: ‘Degrees’ and ‘Knots’ may be omitted.
NOTE: VACATE runway and not CLEAR runway.
1.3 **A VFR/IFR Flight**

1.3.1 This particular example is aimed at the pilot flying outside controlled airspace under services provided by the military in the UK (Westbury) to show the slight differences that exist from civil ATS as portrayed in previous chapters.

1.3.2 **Engine Start and Departure Information**

---

Borton Tower G-ABCD radio check 118.7

G-ABCD Borton Tower readability 5

Borton Tower G-ABCD Slingsby T67 starting, request departure information

G-CD departure runway 24 surface wind 220 6, QNH 990 millibars temperature +6 dew point +3

Runway 24 QNH 997 millibars G-CD

QNH 990 millibars G-CD

Borton Tower G-ABCD, T67 at the south side hangars request taxi for VFR flight to Walden

G-CD taxy holding point G1 runway 24 via taxiway Charlie QNH 990 millibars

Holding point G1 runway 24 via taxiway Charlie QNH 990 millibars, request surface wind G-CD

G-CD surface wind calm

G-CD request departure on runway 14

G-CD taxy holding point A1 runway 14

Taxy holding point A1 runway 14 G-CD
1.3.3 Pre-departure and Take-off

NOTES:

1. DEPARTURE used not TAKE-OFF.
2. APPROVED used not CLEARED.
3. Full readback of departure clearance.
4. Runway identified as in this case it is not the runway in use.
5. Readback of take-off clearance.

G-CD ready for departure request left turnout heading 330

G-CD, left turn approved. After departure climb not above altitude 2500 feet until reaching the zone boundary

Left turn approved. Not above altitude 2500 feet until zone boundary G-CD

G-CD runway 14 cleared for take-off surface wind 220 4

Runway 14 cleared for take-off G-CD
1.3.4 Post Departure Flight

NOTES:
1. REPORT introduced.
2. CHANGING TO announces intention to change frequency.
3. Transmission of WESSEX Regional Pressure Setting is limited to regional name and pressure.
1.3.5 **En-route Flight**

Wrayton Information G-ABCD request Flight Information Service

G-ABCD Wrayton Information pass your message

Wrayton G-ABCD T67 from Borton 15 miles northwest of Borton, heading 330, climbing FL 45, VFR destination Walden

G-CD Roger. Flight Information Service

G-CD Flight Information, maintaining FL 45

G-CD

Wrayton G-CD request VHF frequency for Westbury

G-CD Westbury Approach 119.7

Wrayton Information G-CD descending due weather. Changing to Westbury Approach for LARS

G-CD the Wessex is 988 millibars

Wessex 988 millibars G-CD

1 September 2003
1.3.6 **Flight Receiving Lower Airspace Radar Service and MATZ Penetration Service**

**NOTE:** Westbury is a military unit.

---

Westbury Approach G-ABCD request Lower Airspace Radar Service

Westbury G-CD Slingsby T67, from Borton, 20 miles southeast of Westbury, heading 340, FL 40 descending to altitude 2500 feet on Wessex 988 millibars, VFR en-route Walden requesting Radar Information Service

6512 G-CD Radar Information, Wilco. G-CD request MATZ penetration

G-CD Westbury Approach pass your message

G-CD squawk 6512

G-CD identified 16 miles southeast of Westbury. Radar Information. Report reaching 2500 feet

G-CD Roger

**NOTE:** Details of LARS and MATZ Penetration Service can be found in the UK AIP, AICs and Temporary Supplements.
NOTE: Military controllers do not apply the conventions relating to the use of altitude/height clearances as described at Chapter 3, paragraph 1.2.3 b).
NOTES:

1. The question of landing fees etc. is not addressed in this scenario.
2. Circuit direction is only given when circuit is not left-hand.
3. Military units employ QFE in the circuit area, the instrument pattern and for MATZ penetration.
4. POB – Total number of People on Board.
1.4 **Flight in the Military Visual Circuit**

- Westbury Tower G-ABCD 2 miles southeast height 1500 feet QFE 981 millibars to join for one visual circuit

- Join overhead 1500 feet runway 27 right hand QFE 981 millibars G-CD

- G-CD overhead 1500 feet

- G-CD report downwind at 1000 feet one fast jet joining base leg to land

- G-CD Wilco

---

1 September 2003
Military Rectangular Visual Circuit Pattern

NOTES:
1. Downwind report is made abeam upwind end of runway. Aircraft intentions are stated here.
2. ‘Final’ call is made just before turning base leg.
3. Military (jet) circuits tend to be relatively tight and are more oval-shaped.
4. Military use ‘two in’, ‘three in’ etc. for number of aircraft present in the visual circuit.
NOTES:

1. Surface wind is passed at downwind position.

2. An aircraft with retractable undercarriage will be expected to call ‘gear down’ or three greens with the final call.


4. ‘Go Around’ see Chapter 4, paragraph 1.10.4.

NOTE: Full readback of clearance and frequency change.
1.5 Flight Receiving Lower Airspace Radar Service (LARS) and Danger Area Crossing Service (DACS)

Westbury Approach G-ABCD
heading 290 maintaining height
2000 feet QFE 981 millibars now
IFR requesting Radar Advisory Service

Ident G-CD. Request FL 45

Radar Advisory, affirm G-CD

Heading 290 climbing FL 45 G-CD

NOTES:
1 AFFIRM used.
2 Military controllers use ‘MAINTAIN’ heading.
NOTE: Report leaving a MATZ.

G-CD leaving MATZ

G-CD reaching FL 45

G-CD

G-CD Roger I will be turning you right in 7 miles to regain track
1.6 Military Safety Broadcast - Securité

Military ground stations may commence a broadcast message with ‘SECURITÉ SECURITÉ SECURITÉ’ (SEC-URI-TAY spoken three times) to inform all traffic that the message contains information affecting safety, but not an emergency situation. Aircraft acknowledgement is not required, however aircraft may contact the ground station to obtain further details.

SECURITÉ SECURITÉ SECURITÉ,
All traffic, Westbury Approach, D527
now active for live firing, surface to 2500 feet
1.7 **Flight Receiving Avoiding Action**

![Diagram of flight path and tower]

### NOTES:

1. This type of avoiding action when under Radar Advisory is given at the controller’s discretion for late sighting/pop-up traffic.

2. Normally an avoiding action call as follows can be expected: G-CD traffic left 11 o’clock 6 miles height unknown crossing left to right, if not sighted turn left heading 230.

- **G-CD avoiding action, turn left heading 230 pop-up traffic was 12 o’clock range 6 miles no height reciprocal heading**
- **Left heading 230 G-CD**

- **G-CD clear of traffic, turn right heading 340 direct for Walden**
- **Right heading 340. Request change to Wrayton Information 125.75 G-CD**

- **G-CD squawk Alpha 7000 Westbury terminating service**
- **Alpha 7000 G-CD**

1 September 2003
1.8 Flight Receiving En-Route Flight Information Service

Wrayton Information G-ABCD
request Flight Information Service

G-ABCD Wrayton Information pass your message

Wrayton Information G-ABCD T67
from Borton, 15 miles northwest of
Wesbury heading 340, FL 45, VFR,
en-route Walden, request Walden
weather

G-CD Roger Flight Information
Service, standby for weather

Flight Information, G-CD

G-CD I have the Walden weather are you ready to copy?

Affirm G-CD

G-CD Walden 0950 weather runway
27, surface wind calm, visibility 10
kilometres, nil weather, few at 4000 feet,
scattered at 8000 feet, QNH 989 millibars
temperature +4. Dew point +1

G-CD changing to Wrayton on 121.5
for Practice PAN

G-CD
1.9 **Flight Transmitting a Practice Pan**

(121.5 – listen out before transmitting)

---

**Practice Pan, Practice Pan, Practice Pan, Wrayton Centre G-ABCD**

**G-ABCD this is Wrayton Centre continue with Practice Pan**

**Wrayton Centre G-ABCD, Slingsby T67, simulating rough running engine, request diversion to nearest aerodrome, 20 miles northwest of Westbury, FL 45, turning right heading 140, IMC rating, one person on board squawking Alpha 7000 with Charlie**

**G-ABCD Wrayton squawk 7301 ident**

**7301 ident G-ABCD**

---

1 September 2003
NOTE: Use of the VHF International Emergency Service is detailed in the UK AIP and AICs and Chapter 8, Emergency Phraseology.
1.10 **Arrival Flight (Aerodrome FIS)**

![Diagram of arrival flight](image)

**NOTES:**

1. **Joining Information** is provided by FISOs and the pilot should position accordingly.
2. **Joining Instructions** are only issued where an **ATC** service is provided.
3. When taking off or landing, the pilot should state his intention when options are available e.g. landing/going around, taking off/holding position.

---

**Walden Information G-ABCD**

**G-ABCD T67, 6 miles southeast descending to height 1000 feet for landing**

**Runway 27 QFE 986 millibars G-CD**

**G-CD joining left base**

**G-CD final**

**G-CD roger landing**

**G-CD runway vacated**

**G-CD runway now vacated, land at your discretion, surface wind 270 10**

**G-CD runway occupied with a PA28, surface wind 260 6**

**G-CD runway 27 QFE 986 millibars 3 aircraft in circuit**

**G-CD**

**G-ABCD Walden Information pass your message**

---

1 September 2003
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ICAO Annex 10 Volume 2 Communication Procedures
ICAO Document No. 4444 Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM)
CAP 32 UK Aeronautical Information Publication (AIP) (All ‘ENR’ references are contained herein.)
CAP 493 Manual of Air Traffic Services (MATS Part 1)
CAP 410 Manual of Flight Information Services (Consists of two volumes, Part A and Part B)
CAP 452 Aeronautical Radio Station Operator’s Guide

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Index

Numerics

8.33 kHz Phraseology Chapter 9, Page 3

A

Abandon take-off Chapter 4, Page 7
Abbreviations Chapter 1, Page 4
ACAS/TCAS Phraseology Chapter 5, Page 6
Acknowledgement of Receipt Chapter 2, Page 10
Aerodrome Air/Ground Communication Service Chapter 2, Page 7
Aerodrome Control Service Chapter 1, Page 1
Aerodrome Flight Information Service (AFIS) Chapter 1, Page 1
Aerodrome Traffic Circuit Chapter 4, Page 7
Aerodrome Traffic Zone Chapter 1, Page 1, Chapter 4, Page 13

Aeronautical stations Chapter 2, Page 7
Air traffic control service Chapter 2, Page 7
Air/Ground Station Identification Chapter 4, Page 19
Airborne Collision Avoidance System Chapter 1, Page 1
Aircraft Operating Agency Messages Chapter 9, Page 2
Aircraft radio faults Chapter 2, Page 15
AIRPROX

Airway Chapter 1, Page 2
Altitude Chapter 1, Page 2
Approach Control Service Chapter 6, Page 1
Approach control unit Chapter 6, Page 2, Chapter 6, Page 6

Area Control Service Chapter 7, Page 1
ATC instructions Chapter 3, Page 3
ATC route clearance Chapter 2, Page 11, Chapter 6, Page 1
ATIS Chapter 1, Page 5, Chapter 4, Page 1, Chapter 4, Page 4, Chapter 4, Page 7, Chapter 4, Page 27, Chapter 6, Page 6

ATZ Chapter 1, Page 5, Chapter 4, Page 1, Chapter 4, Page 13, Chapter 4, Page 19

Avoiding Action Phraseology Chapter 5, Page 5

C

Callsigns for Aeronautical Stations Chapter 2, Page 7
Callsigns for Aircraft Chapter 2, Page 8
Cancel an IFR flight plan Chapter 3, Page 5
Categories of Message Chapter 2, Page 16
Clearance limit Chapter 4, Page 2
Communication failure Chapter 2, Page 13
Communications and Loss of Communications Chapter 5, Page 7
Conditional clearances Chapter 4, Page 6
Continuation of Communications Chapter 2, Page 8
Continuous listening watch Chapter 4, Page 16
Controlled airspace Chapter 1, Page 2, Chapter 2, Page 12, Chapter 6, Page 2, Chapter 7, Page 2

Corrections and Repetitions Chapter 2, Page 10
Cross a Runway Chapter 4, Page 17

D

D&D Sections Chapter 8, Page 1
DAAIS Chapter 1, Page 5, Chapter 5, Page 8
DACS Chapter 1, Page 5
Danger Area Activity Information Service (DAAIS) Chapter 5, Page 7, Chapter 5, Page 8
Danger Area Crossing Service (DACS) Chapter 5, Page 7, Chapter 10, Page 27

Definitions Chapter 1, Page 1
Departure Information and Engine Starting Procedures Chapter 4, Page 1
Descent clearance Chapter 6, Page 2
| Designated Positions in the Traffic Circuit | Chapter 3, Page 6 |
| Direction Finding (DF) | Chapter 6, Page 10 |
| Distress and Urgency Communication Procedures | Chapter 8, Page 1 |

**E**

| Emergency Message | Chapter 8, Page 3 |
| Emergency Service | Chapter 8, Page 1 |
| Essential Aerodrome Information | Chapter 4, Page 12 |

**F**

| Final Approach and Landing | Chapter 4, Page 9 |
| Flight Information Service (FIS) | Chapter 1, Page 2, Chapter 2, Page 7, Chapter 4, Page 13, Chapter 10, Page 31 |

| Flight Plans | Chapter 3, Page 4 |
| Flight Receiving Avoiding Action | Chapter 10, Page 30 |
| Flight Receiving Lower Airspace Radar Service | Chapter 10, Page 20 |
| Flights Crossing Airways | Chapter 7, Page 3 |
| Flights Holding En-Route | Chapter 7, Page 3 |
| Flights Joining Airways | Chapter 7, Page 2 |
| Flights Leaving Airways | Chapter 7, Page 2 |

**G**

| Go Around | Chapter 4, Page 11 |

**H**

| Hold en-route | Chapter 7, Page 3 |
| Holding pattern | Chapter 6, Page 18 |
| Holding point | Chapter 1, Page 3, Chapter 4, Page 2, Chapter 4, Page 4 |

| Hours of Service and Communications Watch | Chapter 2, Page 16 |

**I**

| IFR Arrivals | Chapter 6, Page 2 |
| IFR Departures | Chapter 6, Page 1 |
| Imposition of Silence | Chapter 8, Page 5 |
| Instrument approach procedures | Chapter 6, Page 17 |
| Instrument Departures | Chapter 6, Page 1 |
| Interceptions by Military Aircraft | Chapter 9, Page 2 |
| Issue of clearance and read back requirements | Chapter 2, Page 11 |
L
Landing Altimeter Setting (QNE) Chapter 6, Page 21
Letters Chapter 2, Page 2
Level Instructions Chapter 3, Page 1
Listening watch Chapter 2, Page 16
Lower Airspace Radar Service (LARS) Chapter 6, Page 27, Chapter 10, Page 27

M
MATZ Chapter 1, Page 6, Chapter 6, Page 27
MATZ Penetration Service Chapter 6, Page 26, Chapter 10, Page 20
MAYDAY Chapter 8, Page 1, Chapter 8, Page 3
Meteorological aerodrome reports Chapter 4, Page 25
Meteorological Conditions Chapter 4, Page 25
Military Safety Broadcast - Sécurité Chapter 10, Page 29
Military Visual Circuit Chapter 10, Page 23
Millibars Chapter 3, Page 2
Missed Approach Chapter 4, Page 11
Missed Approach Procedure Chapter 1, Page 3
Movement Instructions Chapter 4, Page 16
Movement of vehicles Chapter 4, Page 16

N
NDB(L) and VOR Procedures Chapter 6, Page 17
Numbers Chapter 2, Page 3

O
Offshore Aeronautical Service Chapter 4, Page 22
Offshore Phraseology Chapter 4, Page 22
Offshore Station Identification Chapter 4, Page 22
Oil Pollution Reporting Chapter 9, Page 2

P
PAN PAN Chapter 8, Page 1, Chapter 8, Page 3
PAR Approach Chapter 6, Page 21
<table>
<thead>
<tr>
<th>Term</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position Reporting</td>
<td>Chapter 3, Page 4, Chapter 7, Page 1</td>
</tr>
<tr>
<td>Practice Pan</td>
<td>Chapter 10, Page 32</td>
</tr>
<tr>
<td>Pre-Departure Manoeuvring</td>
<td>Chapter 4, Page 4</td>
</tr>
<tr>
<td>Pushback and Powerback</td>
<td>Chapter 4, Page 2</td>
</tr>
<tr>
<td>Q</td>
<td>Chapter 1, Page 7, Chapter 6, Page 11</td>
</tr>
<tr>
<td>QFE</td>
<td>Chapter 1, Page 7, Chapter 4, Page 4, Chapter 6, Page 19</td>
</tr>
<tr>
<td>QGH</td>
<td>Chapter 1, Page 7, Chapter 4, Page 1, Chapter 4, Page 4, Chapter 6, Page 11</td>
</tr>
<tr>
<td>QNH</td>
<td>Chapter 4, Page 4, Chapter 6, Page 19</td>
</tr>
<tr>
<td>Radar Advisory Service (RAS)</td>
<td>Chapter 6, Page 27</td>
</tr>
<tr>
<td>Radar Identification</td>
<td>Chapter 1, Page 3</td>
</tr>
<tr>
<td>Radar Identification of Aircraft</td>
<td>Chapter 5, Page 1</td>
</tr>
<tr>
<td>Radar Information Service (RIS)</td>
<td>Chapter 6, Page 27</td>
</tr>
<tr>
<td>Radar service</td>
<td>Chapter 5, Page 1, Chapter 5, Page 4</td>
</tr>
<tr>
<td>Radar Vectoring</td>
<td>Chapter 1, Page 3, Chapter 5, Page 4</td>
</tr>
<tr>
<td>Radio Check</td>
<td>Chapter 2, Page 14</td>
</tr>
<tr>
<td>Radio Procedures – Practice Emergencies</td>
<td>Chapter 8, Page 4</td>
</tr>
<tr>
<td>RAS</td>
<td>Chapter 6, Page 28</td>
</tr>
<tr>
<td>Readability</td>
<td>Chapter 2, Page 15</td>
</tr>
<tr>
<td>Relayed Emergency Message</td>
<td>Chapter 8, Page 5</td>
</tr>
<tr>
<td>Reply to ‘Pass your Message’</td>
<td>Chapter 3, Page 5</td>
</tr>
<tr>
<td>Reports of faults</td>
<td>Chapter 2, Page 15</td>
</tr>
<tr>
<td>RIS</td>
<td>Chapter 6, Page 28</td>
</tr>
<tr>
<td>Runway Surface Conditions</td>
<td>Chapter 4, Page 26</td>
</tr>
<tr>
<td>Runway Vacating and Communicating After Landing</td>
<td>Chapter 4, Page 11</td>
</tr>
<tr>
<td>Runway Visual Range</td>
<td>Chapter 1, Page 3</td>
</tr>
<tr>
<td>Runway Visual Range (RVR)/Visibility/Absolute Minimum</td>
<td>Chapter 4, Page 26</td>
</tr>
<tr>
<td>RVR</td>
<td>Chapter 1, Page 7, Chapter 4, Page 26</td>
</tr>
</tbody>
</table>
S
Secondary Surveillance Radar Phraseology  Chapter 5, Page 2
Securité  Chapter 10, Page 29
Special Purpose Codes  Chapter 8, Page 2
Special VFR  Chapter 1, Page 4,  Chapter 6, Page 2,  Chapter 6, Page 7
Special VFR clearances  Chapter 6, Page 7
Speechless Code  Chapter 8, Page 4
SRA  Chapter 1, Page 7,  Chapter 6, Page 19
SSR  Chapter 1, Page 7
Standard Words and Phrases  Chapter 2, Page 5
States of Emergency  Chapter 8, Page 1
Straight-in approach  Chapter 4, Page 8
Surveillance Radar Approach (SRA)  Chapter 6, Page 19

T
Take-off  Chapter 2, Page 11,  Chapter 4, Page 1,  Chapter 4, Page 4
Take-off clearance  Chapter 4, Page 5,  Chapter 4, Page 6
Taxi Instructions  Chapter 4, Page 2
TCAS  Chapter 5, Page 6
Terminations of Distress Communications and of RTF Silence  Chapter 8, Page 6
Test procedures  Chapter 2, Page 14
Time  Chapter 2, Page 4
Traffic Alert and Collision Avoidance System (TCAS)  Chapter 1, Page 4
Traffic Information and Avoiding Action Phraseology  Chapter 5, Page 5
Training Fix  Chapter 8, Page 5
Transfer of communications  Chapter 2, Page 10
Transmission of Letters  Chapter 2, Page 2
Transmission of Numbers  Chapter 2, Page 3
Transmission of Time  Chapter 2, Page 4
Transmitter failure  Chapter 2, Page 14
Transmitting Blind  Chapter 2, Page 13
V

VDF Procedure Chapter 6, Page 13
Vectoring to Final Approach Chapter 6, Page 7
Vehicles Towing Aircraft Chapter 4, Page 18
VFR Arrivals Chapter 6, Page 6
VFR Departures Chapter 6, Page 1
VHF Direction Finding (VDF) Chapter 6, Page 10
VHF Emergency Service Chapter 8, Page 1
Voice Weather Broadcast (VOLMET) UK Chapter 4, Page 25

W

Wake Vortex Chapter 9, Page 1
Wake vortex category Chapter 2, Page 8
Wind Shear Chapter 9, Page 1