Radio Communication Procedures (Phraseology Guide)
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SUBJECT: Phraseology Guide and Communication Practices

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SCOPE: This document serves as a reference for all Hong Kong vACC members undergoing training to become a Student Controller. This guide was written and will be maintained by the ATC Training Department of Hong Kong vACC.

Contents

1. ROLES AND RESPONSIBILITIES

The ATC Training Department of HKVACC under the supervision of Manager, Training (ACCHKG3) is primarily responsible for revision, update or cancellation of this document. Any suggestions for modification / amendment should be sent to the Manager, ATC Training (ACCHKG3).

2. DISTRIBUTION

This guide is created for all controllers – visiting and local ATCOs - staffing ATC positions within Hong Kong FIR on the VATSIM network.

3. RADIO COMMUNICATION PROCEDURES

3.1 Time System

3.1.1 In the aeronautical mobile service, Coordinated Universal Time (UTC) shall be used.

3.1.2 The beginning of the day shall be designated as 0000, the end as 2359.

3.1.3 The hour begins with minute 00 and ends with minute 59.

3.1.4 The minute begins with second 00 and ends with second 59.

3.1.5 As time, the minute figures shall be transmitted in two digits. If a confusion is possible, all four digits of the current hour and minute shall be transmitted.

3.2 Categories of Messages and Order of Priority

The following messages are authorised in the aeronautical mobile service:

3.2.1 Distress calls, distress messages and distress traffic

3.2.2 Urgency messages, including messages preceded by the medical transports signal. A condition concerning the safety of an aircraft or other vehicle, or of some person on board or within sight, but which does not require immediate assistance.

3.2.3 Messages Relating to Direction Finding
Messages relating to direction finding are messages for transmission of direction finding values.

3.2.4 Flight Safety Messages
Flight safety messages are:

1. messages which are transmitted while performing air traffic control (air traffic control messages),
2. position reports from pilots,
3. messages from pilots or aircraft operators which are of immediate concern to an aircraft in flight.

3.2.5 Meteorological Messages Meteorological messages are messages for transmission of weather data.

3.2.6 Flight Regularity Messages Flight regularity messages are:

1. messages concerning changes in aircraft operation schedules,
2. messages concerning servicing of aircraft,
3. instructions of aircraft operators representatives concerning changes in requirements for passengers and crew, caused by unavoidable deviations from normal operation schedules; individual requirements of passengers and crew are not permitted,
4. messages concerning non-routine landings,
5. messages concerning aircraft parts and material urgently required,
6. messages concerning operation or maintenance of facilities essential for the safety or regularity of aircraft operations.

3.2.7 State Telegrams

State telegrams are messages which are transmitted by sovereigns or persons of equal rank who are on board an aircraft.

3.2.8 For the messages listed, the sequence indicated is decisive for the priority.

3.2.9 Flight regularity messages and state telegrams shall be transmitted on frequencies of the flight information service or on another frequency assigned by ATC in order to avoid interference with the execution of air traffic control.

3.3 Procedures for Radio Communications

3.3.1 To obtain a precise, not misunderstandable and uniform method of transmission, the standard phrases and phraseologies contained in the attachments shall be used as far as possible.

a. The manner of speaking shall be distinct and in a normal conversational tone as well as at an even volume and rate of speech.
b. Irrelevant and improper remarks are not permitted.

3.3.2 Phrases such as IMMEDIATELY or EXPEDITE shall only be used if this is unavoidable. If for reasons of a safe conduct of flight an immediate execution is not possible, the instruction shall be followed – as far as possible – and ATC advised accordingly.

3.3.3 The use of abbreviations in voice communications is not permitted. This does not apply to abbreviations which are generally understood in air traffic (e.g. ATC, FIR, IFR, RVR, VFR, VMC, VOR), to the Q-groups (e.g. QNH, QFE, QDM) and abbreviations for types of aircraft (e.g. ATR 72, MD 11).

3.3.4 The call sign shall be transmitted at the beginning of a message. A direct answer to a message may be terminated by the call sign instead.

3.3.5 A control frequency may only be left with the explicit approval of air traffic control, except after reaching the final parking position (on blocks). Air traffic control shall be notified prior to leaving a flight information frequency.

3.3.6 Flights in airspace classes G may be requested by air traffic control to report leaving the airspace or to remain on the frequency.

3.3.7 Pilots of aircraft shall announce the missing RNAV equipment when establishing communications with ATC and after each change of frequency with the phrase NON RNAV after the call sign.

3.3.8 Pilots of aircraft shall announce the failure of the RNAV equipment when establishing communications with ATC and after each change of frequency with the phrase UNABLE RNAV DUE EQUIPMENT after the call sign.

3.4 Establishment of Radiotelephony Contact

3.4.1 Radio contact shall be established as follows:

Initial Call:
1. Call sign of the radio station to be addressed;
2. Call sign of the calling radio station.

Reply:
1. Call sign of the radio station to be addressed;
2. Call sign of the replying radio station.

3.4.2 If it can be expected that the radio station called receives the call, a message may be sent immediately after the initial call. For VFR flights this procedure may only be applied if air traffic control requests the aircraft to change frequency.

3.4.3 If the call sign of the calling station is not understood, the phrase SAY AGAIN YOUR CALL SIGN shall be used.

3.4.4 In case a station is uncertain as to whether it has been called or not, this call shall not be answered but another clarifying call be awaited.

3.4.5. A flight according to instrument flight rules shall, with every frequency change, state the level and, when during climb or descent, the cleared level. When changing from approach control to aerodrome control, the level announcement is not required. During approaches to aerodromes with parallel runways, the designator of the runway being approached shall be stated.

3.4.6 If a pilot is not able to establish radio contact on the prescribed frequency, he will try to establish radio contact on another frequency published for the route of flight, e. g. the emergency frequency 121.500 MHz. If these efforts remain unsuccessful, he shall try to establish radio contact with other aeronautical stations or aircraft. If this does not enable him to establish contact with the appropriate air traffic control either, the pilot shall follow the lost communication procedures.

Note: The misuse of control frequencies shall be taken into consideration.

3.4.7 After successfully establishing radiotelephony communications, the aircraft station no longer has to repeat the aeronautical station until the contact is terminated.

3.5 Acknowledgement of Messages

3.5.1 The receipt of messages from aircraft shall be acknowledged ifan exception has not been granted as detailed below.

3.5.2 In the case of repeated position reports by aircraft with existing radiotelephony communication which are located in the traffic circuit of an aerodrome without an ATC unit, the aeronautical station is not required to acknowledge a message. If the aircraft station requests acknowledgement or if it is otherwise obvious that the message is addressed to the aeronautical station exclusively, the aeronautical station shall acknowledge these messages also.

3.5.3 An aircraft station shall acknowledge the receipt of a message by transmitting its own call sign and, if necessary, the phrase ROGER.

3.5.3.1 The aircraft station shall read back safety-related parts of ATC clearances and instructions. The following items shall always be read back in full:

A. ATC route clearances;

B. Clearances and instructions to enter, land on, take off from, hold short of, cross, taxi and backtrack on any runway;

C. Runway-in-use;

D. Altimeter settings;

E. SSR codes;

F. Level instructions;

Note: If the level of an aircraft is reported in relation to the standard atmospheric pressure 1013.25 hPa, the words FLIGHT LEVEL shall precede the level value. If the level of the aircraft is reported in relation to QNH/QFE, the level value shall be followed by the word FEET.

G. Heading and speed instructions;

H. Newly assigned radio communication channels;

I. Transition levels, whether issued by the controller or contained in ATIS broadcasts.

3.5.3.2 The aircraft station shall acknowledge the receipt of other instructions by using the phrase WILCO.

3.5.4 An aeronautical station shall acknowledge the receipt of a message of an aircraft station by:

1. the transmission of the call sign of the aircraft station and if necessary a phrase like e. g. ROGER; or
2. the transmission of the own call sign and if necessary a phrase like e. g. ROGER; or
3. the transmission of the call sign of the aircraft station, the own call sign and if necessary a phrase like e. g. ROGER;

3.5.5 After the establishment of voice communication

1. the location name or the name of the aeronautical station or

2. the function identification and other phrases like e. g. ROGER may be omitted if confusion is excluded.

3.5.6 If the acknowledgement of a message is missing, an acknowledgement shall be obtained, otherwise the message is considered as not transmitted.

3.6 Multiple Call

3.6.1 Stations in the aeronautical mobile service may simultaneously call several stations.

3.6.2 Stations called in a multiple call shall acknowledge receipt of the message in the sequence used by the calling station.

3.7 General Call

3.7.1 Stations in the aeronautical mobile service may simultaneously call all stations maintaining listening watch on a frequency.

3.7.2 A general call starts with the phrase ALL STATIONS followed by the call sign of the transmitting station and ends with the word OUT.

3.7.3 An acknowledgement of a general call is not expected.

3.8 Blind Transmissions

3.8.1 If the pilot has tried in vain to establish radio contact with the appropriate air traffic control but has indications that his transmissions are received, he will, in addition to the provisions laid down in Item 7 chapter 6 transmit important messages blind. The message will commence with the phrase TRANSMITTING BLIND and will be repeated completely. In the message, time and / or position of the next transmission are announced and, in case of an intended frequency change, also the frequency to be changed to and the aeronautical station to be called.

3.8.2 If an aeronautical station is not able to establish radio contact with an aircraft on the frequencies the aircraft might listen in, it shall, if necessary:

1. request assistance from other aeronautical stations to call the aircraft or to relay messages;
2. request aircraft in the vicinity to establish radio contact or to relay messages.

3.8.3 If the efforts mentioned above remain unsuccessful, the aeronautical station should transmit messages by blind transmission on the frequency / frequencies the aircraft might listen in (e. g. the emergency frequencies 121.500 MHz).

3.8.4 Blind transmissions of air traffic control clearances to an aircraft by another aircraft shall only be relayed after specific request of ATC.

3.9 Distress Traffic

3.9.1 A distress call shall be initiated by the emissions of the distress signal MAYDAY, preferably three times, and be transmitted on the frequency used or on the emergency frequency; it shall be addressed to a definite aeronautical station and contain the call sign of the aircraft in distress.

3.9.2 The distress message following the distress call shall contain the following data:

1. nature of distress;
2. intentions of the pilot;
3. kind of assistance required;
4. data concerning position, course and level.

3.9.3 The station in distress or controlling the distress traffic may impose silence on all or on certain radio stations interfering with the distress traffic with the instruction STOP TRANSMITTING MAYDAY

3.9.4 As soon as the distress traffic is ended or if the silence condition is no longer required, the station having controlled the distress traffic shall transmit the message DISTRESS TRAFFIC ENDED on the same frequency.

3.9.5 The use of the emergency frequencies is permitted only in cases of emergency or failure of all other frequencies.

3.10 Urgency Traffic

3.10.1 An urgency call will be initiated by the emission of the urgency signal PAN PAN, preferably three times, and transmitted on the frequency used; it shall be addressed to a definite aeronautical station and contain the call sign of the aircraft transmitting the message.

Note: An urgency call may also concern the calling aircraft.

3.10.2 The urgency message following the urgency call shall contain the following data:

1. the nature of the urgency condition;
2. the intention of the pilot-in-command;
3. present position, level and heading;
4. any other useful information.

3.10.3 When communicating in special situations/medical emergencies, a difference shall be made between situations in which priority of service is necessary and those which (merely) affect ground handling processes. Priority of service and reports of medical emergencies with priority of service shall be communicated directly per radiotelephony with the ground station of the ATC unit.

3.10.4 For the purpose of announcing and identifying aircraft used for medical transports, the radiotelephony urgency signal PAN PAN shall be spoken three times, followed by the radiotelephony signal for medical transports MEDICAL. The use of the signals described above indicates that the message which follows concerns a protected medical transport. The message shall convey the following data:

1. call sign or other recognised means of identification of the medical transports;
2. position of the medical transports;
3. number and type of the medical transports;
4. intended route;
5. estimated time en-route and of departure and arrival, as appropriate; and
6. any other information, such as flight altitude, radio frequencies guarded, languages used and secondary surveillance radar (SSR) modes and codes.

3.11 Check of Radio Equipment

3.11.1 The form of test transmissions shall be as follows:

a) the identification of the station being called;
b) the identification of the station calling;
c) the words "RADIO CHECK"
d) the frequency being used.

3.11.2 The reply to a test transmission shall be as follows:

a) the identification of the station requesting the test;
b) the identification of the station replying;
c) information regarding the readability of the station requesting the test transmission.

3.11.3 The following degrees of readability are applied to a radio check:

1 = unreadable
2 = readable now and then
3 = readable but with difficulty
4 = readable
5 = perfectly readable

4. GENERAL

4.1 The phraseology listed below cannot cover all situations. Therefore additional phraseology, which is short and cannot be misinterpreted, shall be used, if required.

4.2 The order of the phraseology in chapters does not mean that phraseology of one chapter may not be used in other situations.

4.3 The parts of the phraseology printed bold shall be used.

4.4 Parts of the phraseology marked by asterisks (*) shall be used additionally, as far as necessary.

4.5 Parts of the phraseology divided by diagonals (/) shall be used alternatively, as far as necessary.

4.6 Parts of the phraseology marked by brackets shall be completed by the resp. statements.

5. AERODROMES WITHOUT AIR TRAFFIC CONTROL

Note: If at any time it is apparent that the pilot is not aware that aerodrome control service is not provided, the pilot should immediately be informed of this fact using the following phraseology: "AERODROME CONTROL SERVICE NOT REPEAT NOT PROVIDED"

P – Pilot / Flight Crew C – Controller / ATCO

5.1 Taxiing / air-taxiing

P: **TAXIING FROM** (significant point) TO (destination)
P: **TAXIING** *VIA (significant point / taxi route)* TO (significant point) *AVOIDING (information)*
P: **AIR-TAXIING TO HELICOPTER STAND / HELIPAD / HELICOPTER PARKING POSITION** (significant point)
P: **WILL CROSS RUNWAY** (designator) *BEHIND LANDING /DEPARTING (type of aircraft)*

Note: For helicopter traffic, TAXI is substituted by AIR-TAXI if the helicopter hovers.

5.1.1 Taxi information for departing aircraft

P: (type of aircraft) (significant point) **VFR VIA** (departure route) / **TO THE** (direction) *(intentions)*
C: **RUNWAY** (designator) *VIA (taxi route)* **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* *QNH (figures) (traffic information)*

5.2 Departure

C: **REPORT** *WHEN* **READY** *FOR DEPARTURE*
P: **READY** *FOR DEPARTURE*
C: **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* (traffic information)
P: **REQUEST RIGHT TURN** *WHEN AIRBORNE*
C: **RIGHT TURN APPROVED** *WHEN AIRBORNE*
P: **TAKING OFF/ WILL TAKE OFF BEHIND LANDING / DEPARTING** (type of aircraft)

5.3 Approach

P: (type of aircraft) (significant point) **FOR LANDING / LOW APPROACH / TOUCH AND GO**
C: **RUNWAY** (designator) **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* *QNH (figures) (traffic information)*
P: **REQUEST RIGHT TRAFFIC CIRCUIT / RIGHT DOWNWIND / RIGHT BASE / STRAIGHT-IN APPROACH**
C: **RIGHT TRAFFIC CIRCUIT / RIGHT DOWNWIND / RIGHT BASE APPROVED**

Note: The aviation supervision office / flight control (e.g. AFIS) may allow exceptions to the prescribed direction of the traffic circuit in individual cases. They are not authorised to conduct air traffic control.

5.4 Special intentions of the pilot

P: **GOING AROUND**
P: **MAKING LOW APPROACH**
P: **MAKING SHORT / LONG LANDING**
P: **MAKING SPOT LANDING**
P: **APPROACHING FOR BANNER PICK-UP**
P: **APPROACHING TO DROP BANNER / ROPE**
P: **FLYING TRAFFIC CIRCUIT(S)**
P: **MAKING TOUCH AND GO**
P: **LEAVING YOUR FREQUENCY / CHANNEL**

5.5 Instructions for protection from danger

C: **HOLD POSITION** *(reason)*
P: **HOLDING**
C: **VACATE RUNWAY IMMEDIATELY** *(reason)*
P: **VACATING RUNWAY IMMEDIATELY**
C: **EXPEDITE TAKE OFF / TAXI** *(reason)*
P: **EXPEDITING**
C: **TAKE-OFF / LANDING NOT PERMITTED** *(reason)*
C: **STOP IMMEDIATELY *(repeat aircraft call sign) STOP IMMEDIATELY***
P: **STOPPING**
C: **GO AROUND *(reason)***
P: **GOING AROUND**

Note: Further phraseologies for flights from and to aerodromes without air traffic control are to be found in chapter 7 of this attachment.

6. AERODROMES WITH AIR TRAFFIC CONTROL

6.1 Start-up procedures Aircraft / Air Traffic Control

P: (significant point) *INFORMATION (ATIS code letter)* **REQUEST START UP**
C: **START UP APPROVED**
C: **NEGATIVE START UP** (reason)
C: *EXPECT* **START UP AT** (time)
C: *EXPECT DEPARTURE (time)* **START UP AT OWN DISCRETION**
C: **REPORT READY TO / FOR START *UP***

6.1.1 Push-back / power back

P: (significant point) **REQUEST PUSH BACK / POWER BACK**
C: **PUSH BACK / POWER BACK APPROVED**
C: **PUSH BACK / POWER BACK NEGATIVE**
C: **STAND BY**
C: **PUSH BACK / POWER BACK AT OWN DISCRETION**
C: **EXPECT** (number) **MINUTES DELAY** *DUE (reason)*
P: **STOP PUSH BACK / POWER BACK**

6.1.3 Tow procedures

P: **REQUEST TOW** (company name) (type of aircraft) **FROM** (significant point) **TO** (significant point)
C: **TOW APPROVED VIA** (route)
C: **HOLD POSITION**
C: **STAND BY**

6.2 Aerodrome data for departing aircraft

P: **REQUEST DEPARTURE INFORMATION**
C: **RUNWAY** (designator) **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* *VISIBILITY (figures) METRES / KILOMETRES*; RVR (figures) METRES / NOT REPORTED* **TEMPERATURE** (figures) DEW **POINT** (figures) **QNH** (figures)

6.3 Taxi Procedures
6.3.1 Departure with flight plan

P: (significant point) *INFORMATION (ATIS code letter)* **REQUEST TAXI**

6.3.2 Departure without flight plan

P: (type of aircraft) (significant point) **VFR VIA** (departure route) *INFORMATION (ATIS code letter)* **REQUEST TAXI** *(intentions)*

6.3.3 Taxi / Air-taxi

C: **TAXI TO HOLDING POINT RUNWAY** (designator) **VIA** (taxi route) *WIND (direction) DEGREES (speed) KNOTS* *GUSTS (speed) KNOTS* *QNH (figures)*
C: **TAKE / TURN FIRST / SECOND / CONVENIENT** (taxi route) **LEFT / RIGHT** *AND CONTACT GROUND*
C: **TAXI VIA** (taxi route)
C: **TAXI VIA RUNWAY** (designator)
C: **TAXI TO** (destination on aerodrome)
P: **REQUEST BACKTRACK RUNWAY** (designator)
C: **BACKTRACK** *APPROVED* **RUNWAY** (designator)
P: (significant point) **REQUEST TAXI** (to destination on aerodrome)
C: **TAXI STRAIGHT AHEAD**
C: **GIVE WAY TO** (description and position of traffic)
P: **GIVING WAY** *TO (traffic)*
P: **TRAFFIC** / (type of aircraft) **IN SIGHT**
C: **TAXI INTO HOLDING BAY**
C: **FOLLOW** (description of traffic)
C: **VACATE RUNWAY** (designator)
C: **REPORT VACATED**
P: **RUNWAY** *(designator)* **VACATED**
C: **YOUR STAND / GATE** (designator)
C: **EXPEDITE TAXI** *(reason)*
P: **EXPEDITING**
C: *CAUTION* **TAXI SLOWER** *(reason)*
P: **SLOWING DOWN**
C: **AIR-TAXI TO HELICOPTER STAND / HELIPAD / HELICOPTER PARKING POSITION** (significant point)
P: **AIR-TAXIING TO HELICOPTER STAND / HELIPAD / HELICOPTER PARKING POSITION** (significant point)

Note: For helicopter traffic, TAXI is substituted by AIR-TAXI if the helicopter hovers. For instructions to vehicles the phrase TAXI is substituted by the phrase PROCEED.

6.3.4 Holding

C: **HOLD POSITION** *(reason)*
P: **HOLDING**

6.3.5 To hold short of a runway

C: **HOLD** (direction) **OF** (significant point)
C: **HOLD** (distance) **FROM** (significant point)
C: **HOLD SHORT OF** (significant point)
P: **HOLDING / HOLDING SHORT**
C: **HOLD AT** *CAT II / III* **HOLDING POINT** RUNWAY (designator)

6.3.6 To cross a runway

P: **REQUEST** *TO* **CROSS RUNWAY** (designator)
C: **CROSS RUNWAY** (designator) *REPORT VACATED*
C: **EXPEDITE CROSSING RUNWAY** (designator) *TRAFFIC (type of aircraft) (distance) MILES FINAL*
P: **RUNWAY** (designator) **VACATED**

Note: If the report "runway vacated" is requested, it shall be made when the entire aircraft is beyond the relevant runway holding point.

6.3.7 When a taxi instruction contains a taxi limit beyond a runway

C: **TAXI TO HOLDING POINT RUNWAY** (designator) **VIA** (specific taxi route to be followed) **HOLD SHORT OF RUNWAY** (designator) / **CROSS RUNWAY** (designator)

Note 1: When a taxi instruction is given to a taxi limit beyond a runway, it shall contain explicit permission to cross that runway or an instruction to hold short of that runway.

Note 2: Holding point: A designated position intended to protect a runway, an obstacle limitation surface, or an ILS / MLS critical / sensitive area at which taxiing aircraft and vehicles shall stop and hold unless otherwise authorised by the aerodrome control tower.

6.3.8 Intersection take-off

P: **REQUEST DEPARTURE FROM RUNWAY** (designator), **INTERSECTION** (designator)
C: **ROGER, TAXI TO HOLDING POINT RUNWAY** (designator), **INTERSECTION** (designator) ***VIA** (taxi route)*
C: **NEGATIVE, TAXI TO HOLDING POINT RUNWAY** (designator), **INTERSECTION** (designator) ***VIA** (taxi route)*
C: **ADVISE ABLE TO DEPART FROM RUNWAY** (designator), **INTERSECTION** (designator)
C: **TORA RUNWAY** (designator), **FROM INTERSECTION** (designator), (distance in metres)

Note: TORA pronounced TOR-AH

6.4 Departure instructions

P: **REQUEST DEPARTURE INSTRUCTIONS** *(details)*
C: **LEAVE CONTROL ZONE** *SPECIAL VFR* **VIA** (route) *AT (figures) FEET / OR ABOVE / BELOW* *(instructions)*
C: **UNABLE TO ISSUE DEPARTURE VIA** (designator) *(reason)*
C: **REPORT** *WHEN* **READY** *FOR DEPARTURE*
C: **ARE YOU READY** *FOR DEPARTURE*
P: **READY** *FOR DEPARTURE*
C: ARE YOU READY FOR IMMEDIATE DEPARTURE
P: READY FOR IMMEDIATE DEPARTURE
C: **WAIT** *(reason)*
C: **WHEN AIRBORNE** (instructions)

6.5 Clearance to enter runway and await take-off clearance

C: **LINE UP RUNWAY** (designator) *AND WAIT*
C: **LINE UP RUNWAY** (designator) *BE READY FOR / EXPECT IMMEDIATE* *DEPARTURE*

6.5.1 Conditional clearance

C: **REPORT LANDING / DEPARTING** (traffic information) **IN SIGHT**
P: **LANDING / DEPARTING** (traffic information) **IN SIGHT / NOT IN SIGHT**
C: **BEHIND LANDING / DEPARTING** (traffic information) **LINE UP RUNWAY** (designator) *AND WAIT* **BEHIND**
P: **BEHIND LANDING / DEPARTING** (traffic information) **LINING UP RUNWAY** (designator) *AND WAITING* **BEHIND**

Note: Conditional clearances shall be read back verbatim including condition(s) (e.g. BEHIND LANDING ...).

6.6 Take-off

C: **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* **RUNWAY** (designator) **CLEARED FOR TAKE-OFF** *REPORT AIRBORNE*
C: **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* **RUNWAY** (designator) **CLEARED** *FOR* **IMMEDIATE TAKE- OFF**

6.6.1 Helicopter operation

C: **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* **RUNWAY** (designator) **CLEARED FOR TAKE-OFF**
C: **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* **CLEARED FOR TAKE-OFF** *FROM THE* **HELIPAD** / **FROM** (location, if not runway / helipad)

6.6.2 When take-off clearance has not been complied with

C: **TAKE OFF IMMEDIATELY OR VACATE RUNWAY** *(instructions)*
C: **TAKE OFF IMMEDIATELY OR HOLD** *(significant point) e.g. SHORT OF RUNWAY*

6.6.3 To cancel a take-off clearance

C: **HOLD POSITION CANCEL TAKE-OFF I SAY AGAIN CANCEL TAKE-OFF** *(reason)*
P: **HOLDING**

6.6.4 To stop a take-off after an aircraft has commenced take-off roll

C: **STOP IMMEDIATELY** *(repeat aircraft call sign) STOP IMMEDIATELY*
P: **STOPPING**

6.6.5 When airborne

P: **REQUEST LEFT / RIGHT TURN**
C: **LEFT / RIGHT TURN NEGATIVE / APPROVED**
C: **STAND BY FOR LEFT / RIGHT TURN**
P: **UNABLE LEFT / RIGHT TURN** *(reason)*
C: **AFTER REACHING / PASSING** (level or significant point) (instructions)
C: (standard departure name and number) **DEPARTURE**

6.6.6 Heading to be followed

C: **CLIMB STRAIGHT AHEAD / ON RUNWAY HEADING** *(instructions)*
C: **WHEN AIRBORNE**
C: **FLY / TURN LEFT / RIGHT HEADING** (three figures) / **CONTINUE RUNWAY HEADING / CLIMB** (instructions)

6.7 Entering control zone / aerodrome traffic circuit

P: (type of aircraft) **VFR** (significant point / altitude) *INFORMATION (ATIS code letter)* **FOR LANDING / LOW APPROACH / TOUCH AND GO**
C: **ENTER CONTROL ZONE** *SPECIAL VFR* **VIA** (route) *AT (figures) FEET* **RUNWAY** (designator) **QNH** (figures) *(instructions)*

Note: A clearance to enter control zone is no authorisation to join traffic circuit. If no clearance to join traffic circuit was issued the holding pattern has to be entered.

C: **JOIN** *RIGHT* **TRAFFIC CIRCUIT** / *DIRECT* (part of traffic circuit) ***RUNWAY** (designator)* *WIND (direction) DEGREES (speed) KNOTS* *GUSTS (speed) KNOTS* *QNH (figures)* *(traffic information)*

Note: If the QNH was already delivered with the clearance to enter control zone, a repetition in the clearance to join traffic circuit is superfluous (except with changes of value).

6.7.1 To shorten traffic circuit

P: **REQUEST STRAIGHT-IN- / DIRECT APPROACH RUNWAY** (designator)
C: **MAKE STRAIGHT-IN- / DIRECT APPROACH RUNWAY** (designator) *(traffic information)*

6.7.2 Helicopter operation

C: **PROCEED / TURN** *DIRECT* *TO* (significant point) / **RUNWAY** (designator) / **HELIPAD** *(traffic information)*

6.7.3 Request for position reports

C: **REPORT FIELD / RUNWAY** (designator) / **APPROACH LIGHTS IN SIGHT**
C: REPORT VISUAL
C: **REPORT** (details / part of traffic circuit)

6.7.4 Instructions for landing sequence

C: **NUMBER** (figure) **FOLLOW** (type of aircraft, position) **REPORT TRAFFIC IN SIGHT**
C: **MAKE SHORT / LONG APPROACH**
C: **EXTEND / SHORTEN DOWNWIND** (details)
C: **CONTINUE** *APPROACH / BASE / DOWNWIND / FINAL*
C: **MAKE ANOTHER** *RIGHT HAND* **TRAFFIC CIRCUIT**

6.8 Landing

C: **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* **RUNWAY** (designator) **CLEARED TO LAND**
C: **MAKE SHORT / LONG LANDING**

Note: To reduce the potential for misunderstanding, the landing clearance shall include the designator of the landing runway.

6.8.1 Helicopter operations

C: **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* **RUNWAY** (designator) **CLEARED TO LAND**
C: **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS* **CLEARED TO LAND** *ON THE* **HELIPAD / ON** (significant point)

6.8.2 Special Procedures

P: **REQUEST TOUCH AND GO RUNWAY** (designator)
C: **RUNWAY** (designator) **CLEARED TOUCH AND GO**
C: **MAKE FULL STOP** *LANDING* **RUNWAY** (designator)

6.8.3 Approach over or along a runway

P: **REQUEST LOW APPROACH**
C: **CLEARED LOW APPROACH RUNWAY** (designator) *ALONG* *(altitude restriction)* (go around instructions)

6.8.4 Visual inspection by persons on the ground

P: **REQUEST LOW PASS**
C: **CLEARED LOW PASS** (instructions)

6.8.5 To delay aircraft

C: **HOLD** *OVER* (significant point) / **ORBIT** *LEFT / RIGHT* *(reason)*
C: **MAKE A LEFT / RIGHT THREE SIXTY** *(reason)*

6.8.6 Missed approach

C: **GO AROUND** *(reason)*
P: **GOING AROUND** *(reason)*

7. ADDITIONAL PHRASEOLOGIES FOR AERODROME TRAFFIC

7.1 Landing gear trouble

C: (part(s) of landing gear) *DO(ES) NOT* **APPEAR(S) DOWN / UP**

7.2 Aircraft without radio transmitter

C: **ACKNOWLEDGE BY MOVING AILERONS / RUDDER**
C: **ACKNOWLEDGE BY ROCKING WINGS**
C: **ACKNOWLEDGE BY FLASHING LANDING LIGHTS**

7.3 Additional traffic information

C: (type of aircraft) **DEPARTING / LANDING ON RUNWAY** (designator)
C: (type of aircraft) **APPROACHING FROM / DEPARTING TO** (direction)
C: *ADDITIONAL* **TRAFFIC** *IS* (details)

7.3.1 Wake turbulence warning

C: **CAUTION WAKE TURBULENCE** *FROM ARRIVING / DEPARTING (type of aircraft)* *(additional information, as required)*
C: **NUMBER** (figure) / **FOLLOW** (type of aircraft) (position) *(level)*

7.3.2 Jet blast / slipstream

C: **CAUTION SLIPSTREAM**
C: **CAUTION JET BLAST**

7.3.3 Aerodrome information

C: *(location)* **RUNWAY SURFACE CONDITION RUNWAY** (designator) (condition)
C: *(location)* **RUNWAY SURFACE CONDITION RUNWAY** (designator) **NOT CURRENT**
C: **RUNWAY REPORT AT** (observation time) **RUNWAY** (designator) (type of precipitant) **UP TO** (depth of deposit) **MILLIMETRES. ESTIMATED SURFACE FRICTION GOOD / MEDIUM TO GOOD / MEDIUM / MEDIUM TO POOR / POOR**
C: **CAUTION CONSTRUCTION WORK** (location)
C: **CAUTION** (specify reasons) **RIGHT / LEFT / BOTH SIDES OF RUNWAY** (designator)
C: **CAUTION WORK IN PRO-GRESS / OBSTRUCTION** (position and any necessary advice)
C: **RUNWAY / TAXIWAY** (designator) **DRY / WET / STANDING WATER / SNOW REMOVED** (length and width as applicable) / **TREATED / COVERED WITH PATCHES OF DRY SNOW / WET SNOW / COMPACTED SNOW / SLUSH / FROZEN SLUSH / ICE / WET ICE / ICE UNDERNEATH / ICE AND SNOW / SNOWDRIFTS / FROZEN RUTS AND RIDGES**

C: (part of movement area) **SLIPPERY / SNOW / ICE REMOVED / SANDED / SPRAYED**
C: (part of movement area) **CLOSED / SOFT / ROUGH**
C: **CAUTION FLOCK OF BIRDS** *CROSSING LEFT TO RIGHT / RIGHT TO LEFT*
C: **CAUTION LASERGLARE** *POSITION*

7.3.4 Braking action in landing direction

C: **BRAKING ACTION** *REPORTED BY (type of aircraft) AT (time)* **GOOD / MEDIUM TO GOOD / MEDIUM / MEDIUM TO POOR / POOR**

7.3.5 Braking coefficients / estimated braking action in landing direction

C: **BRAKING COEFFICIENTS / ESTIMATED BRAKING ACTION A**T (time) **RUNWAY** (designator) (values)

7.3.6 Operational status of visual and other landing aids

C: (part of lighting system) **UNSERVICEABLE**
C: (type) **LIGHTING** (status)
C: **ILS / GBAS** (category) (status)
C: (specify visual or non-visual aid) **RUNWAY** (designator) (description of deficiencies)

7.3.7 Meteorological conditions

C: **WIND** (direction) **DEGREES** (speed) **KNOTS** *GUSTS (speed) KNOTS*
C: **VISIBILITY** (figures) **METRES / KILOMETRES**
Transmission of the cloud coverage:
- **SKY CLEAR**
- **FEW** (1-2/8)
- **SCATTERED** (3-4/8)
- **BROKEN** (5-7/8)
- **OVERCAST** (8/8)
- **NO SIGNIFICANT CLOUDS**

C: **REPORT FLIGHT CONDITIONS**

7.4 Determining of position

C: **SHOW LANDING LIGHTS**

7.5 Information on times

P: **REQUEST TIME CHECK / LANDING TIME / AIRBORNE TIME**
C: **TIME** (time)
C: **AIRBORNE** *AT/ TIME* (time)

8. FREQUENCY CHANGE

8.1 IFR traffic and VFR in airspace Class C before frequency change

C: *AT / OVER (time or significant point)* **CONTACT** (unit) *ON* (frequency)
C: **IF NO CONTACT** (instructions)
P: **REQUEST** *FREQUENCY* **CHANGE** *TO (frequency)
C: *FREQUENCY * **CHANGE APPROVED**

8.2 IFR after frequency change

P: (level, including passed and cleared level if not maintaining the cleared level);*CLIMBING / DESCENDING (level)*

Note: When changing from approach control to tower control the indication of the level, resp. the passed and cleared level is not required.

P: **RUNWAY** (designator)

Note: For approaches to aerodromes with parallel runway systems, the runway designator shall be indicated in addition to the radio call sign of the aircraft.

P: (speed, if a speed was assigned)

Note: The assigned speed shall also be advised on first contact with an ATC unit after a frequency change, whether or not a full position report is required.

8.3 VFR and IFR

C: **APPROVED TO LEAVE** *FREQUENCY* *FOR (figures) MINUTE(S)*
C: **REMAIN** *ON* **THIS FREQUENCY** *UNTIL (significant point / time / level) / FOR (figures) MINUTE(S)*
C: *WHEN READY* **CONTACT** (unit) *ON* (frequency)
C: **AT / OVER** (time / significant point) **CONTACT** (unit) *ON* (frequency)
C: *WHEN AIRBORNE* **STAND BY FOR** (unit) *ON* (frequency)
C: **MONITOR** (unit) *ON* (frequency)

Note: An aircraft may be requested:

a) to **STANDBY** on a frequency when it is intended that the ATS unit will initiate communications soon,

b) to **MONITOR** a frequency when information is being broadcast thereon.

8.4 Equipment with 8.33 kHz channel spacing

C: **CONFIRM EIGHT POINT THREE THREE EQUIPPED**
P: **AFFIRM EIGHT POINT THREE THREE**
P: **NEGATIVE EIGHT POINT THREE THREE**
C: **CONFIRM EIGHT POINT THREE THREE EXEMPTED**
P: **AFFIRM / NEGATIVE EIGHT POINT THREE THREE EXEMPTED**
C: (clearance / instruction) **DUE** *TO* **EIGHT POINT THREE THREE REQUIREMENT**

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

C: **CONFIRM EIGHT POINT THREE THREE CHANNEL** (name)
P: **AFFIRM EIGHT POINT THREE THREE CHANNEL** (name)

8.5 UHF Capability

C: **CONFIRM UHF**
P: **AFFIRM UHF / NEGATIVE UHF**

9. FLIGHTS ACCORDING TO VISUAL FLIGHT RULES IN AIRSPACE CLASSES C (not aerodrome traffic zone)

9.1 Flights below flight level 100

9.1.1 Clearance request

P: (type of aircraft) (significant point) **VFR** AT (figures) **FEET / FLIGHT LEVEL** (figures) **REQUEST CROSSING AIRSPACE CHARLIE VIA** (route) (figures) **FEET / FLIGHT LEVEL** (figures)

9.1.2 Crossing clearance

C: **CROSSING APPROVED VIA** (route) (figures) **FEET / FLIGHT LEVEL** (figures)

9.1.3 Entry into the airspace

C: **YOU ARE ENTERING AIRSPACE CHARLIE**

9.1.4 Route instruction

C: **PROCEED ON RADIAL** (three digits) **OF** (name of VOR) **TO** (position)

9.1.5 Level instruction

C: **MAINTAIN** (figures) **FEET / FLIGHT LEVEL** (figures)
C: **CROSS** (significant point) **AT** (figures) **FEET / FLIGHT LEVEL** (figures) *OR ABOVE / BELOW*
C: *AFTER PASSING (significant point)* **CLIMB / DESCEND** *ALTITUDE* (figures) **FEET / FLIGHT LEVEL** (figures) / **AND MAINTAIN BLOCK** (level) **UNTIL** (level)
C: **REPORT LEAVING / PASSING / REACHING** (figures) **FEET / FLIGHT LEVEL** (figures)

9.1.6 Holding instructions

C: **HOLD OVER** (significant point) **EXPECT FURTHER CLEARANCE AT** (time) / **IN** (minutes)

9.1.7 Request for revised clearance (e.g. due to weather)

P: **REQUEST** (figures) **FEET / FLIGHT LEVEL** (figures) **VIA** (route) *DUE TO (reason)*

9.1.8 Leaving the airspace

C: **LEAVE AIRSPACE DIRECTION / HEADING** (three figures) / **AT** (figures) **FEET / FLIGHT LEVEL** (figures) *(reason)*
P: **LEAVING AIRSPACE CHARLIE**
C: **YOU ARE LEAVING AIRSPACE CHARLIE**

9.2 Flights at and above flight level 100
9.2.1 Clearance request

P: (type of aircraft) **SPEED** (figures) **POSITION** (significant point) (figures) **FEET / FLIGHT LEVEL** (figures) **VFR TO** (destination) **REQUEST ENTERING AIRSPACE CHARLIE AND FLIGHT LEVEL** (figures) VIA (route)

9.2.2 Clearance

C: **ENTER AIRSPACE CHARLIE CLIMB FLIGHT LEVEL** (figures) **PROCEED TO** (significant point)

9.2.3 Instruction to leave airspace

P: **DESCEND BELOW FLIGHT LEVEL** (figures)

9.3 Instructions for radar vectoring

C: **SQUAWK** (code)
C: **SQUAWK IDENT**
C: **IDENTIFIED** *(significant point)*
C: **RADAR CONTACT** *(significant point)*
C: **TURN LEFT / RIGHT HEADING** (three digits) *FOR SEPARATION*

9.3.1 Termination of radar vectoring

C: **RADAR VECTORING TERMINATED RESUME OWN NAVIGATION POSITION** (significant point)

10. FLIGHTS ACCORDING TO INSTRUMENT FLIGHT RULES

10.1 Instructions
10.1.1 Departure Instructions

C: **CLEARED** (designator) **DEPARTURE**
C: *WHEN AIRBORNE* **TURN LEFT / RIGHT HEADING** (three figures)
C: **SET HEADING TO** / *PROCEED* **DIRECT** (significant point) ***AT** (time)*
C: **AFTER PASSING / REACHING SET HEADING TO** / *PROCEED* **DIRECT** (significant point) *AT (time)*
C: **CLEARANCE EXPIRES AT** (time)

10.1.2 Approach instructions

P: **REQUEST** (type of approach) ***RUNWAY** (designator)*
C: **CLEARED** (type of approach) ***RUNWAY** (designator)*
C: **CLEARED** (type of approach) **RUNWAY** (designator) **FOLLOWED BY CIRCLING RUNWAY** (designator)
C: **COMMENCE APPROACH AT** (time)
C: **REPORT RUNWAY / LIGHTS / FIELD IN SIGHT**
C: **REPORT COMMENCING PROCEDURE TURN**
C: **MAINTAIN OWN SEPARATION** (traffic)
C: **ARE YOU FAMILIAR WITH** (type of approach) **RUNWAY** (designator)

10.2 Holding procedures
10.2.1 Visual holding instructions

C: **HOLD VISUAL OVER** (significant point) / **BETWEEN** (significant points)

10.2.2 Published holding procedure over a facility or a fix

C: **HOLD AT / OVER** (significant point, name of facility or fix) **MAINTAIN / CLIMB / DESCEND** (level) *(additional instructions, if necessary)* **EXPECT FURTHER CLEARANCE AT** (time) / **IN** (minutes) / **EXPECTED APPROACH TIME** (time)

10.2.3 When pilot requests description of holding procedure based on a facility (VOR or NDB)

P: **REQUEST HOLDING INSTRUCTIONS**
C: **HOLD AT / OVER** (significant point, name of facility or fix) *(identification / frequency)* *MAINTAIN / CLIMB / DESCEND (level)* *(direction)* *(specified) RADIAL / COURSE / INBOUND TRACK (three figures) DEGREES* *LEFT / RIGHT HAND PATTERN* *OUTBOUND TIME (figure) MINUTE(S) *(additional instructions, if necessary)*
C: **HOLD BETWEEN** (figures) **AND** (figures) **DME** *AT / MAINTAIN / CLIMB / DESCEND (level)* *LEFT / RIGHT HAND PATTERN* *(additional instructions, if necessary)*

10.2.4 Expected approach time

C: **NO DELAY EXPECTED**
C: **EXPECTED APPROACH TIME** (time)
C: **REVISED EXPECTED APPROACH TIME** (time)
C: **DELAY NOT DETERMINED** (reasons)

10.3 Radar approach control service
10.3.1 Provision of service

C: **EXPECT / VECTORING** *FOR* (type of approach) **RUNWAY** (designator)
C: **EXPECT / VECTORING** *FOR / TO* (significant point)
C: (type of approach) **NOT AVAILABLE DUE TO** (reason) *(instructions)*

10.3.2 Instructions and information

C: **YOU WILL INTERCEPT** (navigational aid or track) (distance) **FROM** (significant point)
C: **REPORT ESTABLISHED** *ON ILS / LOCALIZER / GLIDE PATH* *(or ON GBAS / MLS APPROACH COURSE)*
C: **CLOSING FROM LEFT / RIGHT**
C: **INTERCEPT** (navigational aid)
C: **TURN LEFT / RIGHT HEADING** (three digits) *TO INTERCEPT (navigational aid)*
C: **EXPECT VECTOR ACROSS** (navigational aid) *(reason)*
C: **THIS TURN WILL TAKE YOU THROUGH** (navigational aid) *(reason)*
C: **TAKING YOU THROUGH** (navigational aid) *(reason)*
C: **MAINTAIN** (level) **UNTIL GLIDE PATH** *interception*
C: **REPORT RUNWAY** (designator) / **LIGHTS / FIELD IN SIGHT**

10.3.3 Surveillance Radar Approach

C: **THIS WILL BE A SURVEILLANCE RADAR APPROACH RUNWAY** (designator) **TERMINATING AT MISSED APPROACH POINT OBSTACLE CLEARANCE ALTITUDE** (figures) **FEET CHECK YOUR MINIMA**
C: **VECTORING FOR SURVEILLANCE RADAR APPROACH RUNWAY** (designator)
C: **HEADING IS GOOD**

C: **TURN LEFT / RIGHT HEADING** (three digits)
C: (distance) **FROM TOUCHDOWN COMMENCE DESCENT NOW**
C: (distance) **FROM TOUCHDOWN ALTITUDE SHOULD BE** (figures) **FEET**
C: **CHECK GEAR DOWN** *AND LOCKED*
C: **PASSING MISSED APPROACH POINT**
C: **OVER THRESHOLD**
C: **APPROACH COMPLETED CONTACT** (unit) *ON* (frequency)

10.3.4 Missed approach procedure

C: **CONTINUE VISUALLY OR GO AROUND** *(missed approach instructions)*
C: **GO AROUND** (missed approach instructions) (reason)
P: **GOING AROUND**
C: **ARE YOU GOING AROUND?**
P: **IN CASE OF MISSED APPROACH / IF GOING AROUND** (instructions)

10.4 Visual approach
10.4.1 If visual approach can be initiated promptly

P: **REQUEST VISUAL APPROACH RUNWAY** (*designator)*
C: **CLEARED VISUAL APPROACH RUNWAY** *(designator)*

10.4.2 If visual approach is intended

P: **REQUEST VECTORS FOR VISUAL APPROACH** *RUNWAY (designator)*
C: **STAND BY FOR VISUAL APPROACH** *RUNWAY (designator)* *(reason)*
C: **ADVISE ABLE** *TO ACCEPT* **VISUAL APPROACH** *RUNWAY (designator)*
P: **ABLE** *TO ACCEPT* **VISUAL APPROACH** *RUNWAY (designator)*

10.4.3 Delegation of the obligation to provide separation to the pilot (only during day-time)

C: **NUMBER** (figures) **FOLLOW** (type of aircraft / *wake turbulence category*) (position) **MAINTAIN OWN SEPARATION** *WAKE TURBULENCE CATEGORY*

Note: Only to be used when two aircraft are approaching the same runway.

C: **NUMBER** (figures) **MAINTAIN OWN SEPARATION FROM PRECEDING** (type of aircraft / *wake turbulence category*) *(position)* *APPROACHING ALTERNATE RUNWAY* *CAUTION WAKE TURBULENCE*

Note: To be used when two aircraft are approaching parallel runways.

10.5 Visual departure

10.5.1 Issuing visual departure instructions

P: **REQUEST VISUAL DEPARTURE** *DIRECT* *TO / UNTIL (significant point / altitude)*
C: **VISUAL DEPARTURE RUNWAY** (designator) **APPROVED TURN LEFT / RIGHT** *DIRECT* *TO* (heading / significant point) * *CLIMB (level)* *MAINTAIN VISUAL REFERENCE TO *THE* TERRAIN UNTIL (level)*
C: **ADVISE ABLE** *TO ACCEPT* **VISUAL DEPARTURE** *DIRECT* *TO / UNTIL* (significant point) / altitude
P: **ABLE** *TO ACCEPT* **VISUAL DEPARTURE** *RUNWAY (designator)*

10.5.2 Pilot's agreement on executing a visual departure prior to take-off, i.e. read back of additional ATC clearance

P: **VISUAL DEPARTURE TO / UNTIL** (significant point / altitude)

10.6 Parallel operations

C: **CLEARED** (type of approach) **RUNWAY** (designator)
C: **YOU HAVE CROSSED** *THE* LOCALIZER **TURN LEFT / RIGHT** *IMMEDIATELY* **AND RETURN TO** *THE* **LOCALIZER**

C: **ILS RUNWAY** (designator) **LOCALIZER FREQUENCY** *IS* (frequency)
C: **TURN LEFT / RIGHT** (number) **DEGREES / HEADING** (three figures) **IMMEDIATELY TO AVOID TRAFFIC** *DEVIATING FROM ADJACENT APPROACH* **CLIMB** (level)

10.7 Runway visual range

C: **RVR** *RUNWAY (designator)* *FIRST PART* (value) **METRES / NOT AVAILABLE / NOT REPORTED** *SECOND PART* (value) **METRES / NOT AVAILABLE / NOT REPORTED** *THIRD PART* (value) **METRES / NOT AVAILABLE / NOT REPORTED** *FOURTH PART* *(value) METRES/ NOT AVAILABLE / NOT REPORTED*

C: **RVR** *RUNWAY (designator)* *TOUCHDOWN ZONE*(value) **METRES / NOT AVAILABLE / NOT REPORTED** *MID POINT* (value) **METRES / NOT AVAILABLE / NOT REPORTED** *STOP END* (value) **METRES / NOT AVAILABLE / NOT REPORTED**

C: **TRANSMISSOMETER** (significant point) **UNSERVICEABLE**

Note 1: Multiple RVR observations are always representative of touchdown zone, midpoint and stop end respectively.

Note 2: Where reports for three or more locations are given, the indication of these locations may be omitted, if the reports are passed in the order of touchdown zone, midpoint and stop end.

10.8 Change of flight rules

10.8.1 Change from IFR to VFR

P: **CANCELLING** *MY* **IFR** *FLIGHT*
C: **IFR** *FLIGHT* **CANCELLED** AT (time) *(instructions)*
C: **UNABLE TO ACCEPT CANCELLATION** *DUE TO (reason)*

Note: Only the IFR portion of the flight plan is cancelled, the flight plan is still active, report of arrival required.

10.8.2 Change from VFR to IFR

P: **REQUEST IFR CLEARANCE**
C: **CLEARED** *TO* (clearance limit) **VIA** (route) **CLIMB** (level) **IFR STARTS AT** (significant point / time) / **WHEN PASSING / REACHING** (level) / **NOW** *(instructions)*

11. CONTROLLED FLIGHTS

11.1 Issuance of en-route clearance

P: **REQUEST** *EN-ROUTE* **CLEARANCE**

The phraseologies for issuing an en-route clearance distinguish between four cases:

1. Clearances for a SID without altitude indication:
If a pilot is issued an en-route clearance without altitude indication, both the published initial altitude of the SID (AIP part AD-2-VHHH-SID) as well as all published restrictions apply.

C: **CLEARED** / **PROCEED** *TO* (clearance limit) **VIA** (SID / details of route to be followed / instructions) **FLIGHT PLANNED ROUTE** (or description of route) **SQUAWK** (four figures) *(instructions)*

2. Clearances for SIDs with altitude indication below the published initial altitude:
If the pilot receives an en-route clearance with altitude indication below the published initial altitude, all published restrictions up to the cleared altitude shall apply.

C: **CLEARED / PROCEED** *TO* (clearance limit) **VIA** (SID / details of route to be followed / instructions) **FLIGHT PLANNED ROUTE** (or description of route) **CLIMB** (altitude) **SQUAWK** (four figures) *(instructions)*

3. Clearances for SIDs with altitude indication above the published initial altitude:
Restrictions up to the published initial altitude remain valid.

a) If no level or speed restrictions have been published for a SID above the initial altitude, the phraseology "**CLIMB** (altitude)" should be used.

C: **CLEARED / PROCEED** *TO* (clearance limit) **VIA** (SID / details of route to be followed / instructions) **FLIGHT PLANNED ROUTE** (or description of route) **CLIMB** (altitude) **SQUAWK** (four figures) *(instructions)*

b) If altitude or speed restrictions have been published for a SID above the initial altitude, the phraseology "**CLIMB VIA SID** (altitude)" should be used.

C: **CLEARED / PROCEED** *TO* (clearance limit) **VIA** (SID / details of route to be followed / instructions) **FLIGHT PLANNED ROUTE** (or description of route) **CLIMB VIA SID** (altitude) **SQUAWK** (four figures) *(instructions)*

4. Other clearances for other flights

C: **CLEARED** *TO* (clearance limit) ***VIA** (route/FLIGHT PLANNED ROUTE) (altitude) (details)* **SQUAWK** (four figures)
C: **RECLEARED** (amended clearance details) *REST OF CLEARANCE UNCHANGED*
C: **RECLEARED** (amended route portion) **TO** (significant point of original route) *REST OF CLEARANCE UNCHANGED*

11.1.1 If clearance cannot be issued immediately upon request

C: **EXPECT CLEARANCE AT** (time) / **IN** (figures) **MINUTES**

11.1.2 When clearance for deviation cannot be issued

C: **UNABLE, TRAFFIC** (direction) **BOUND** (type of aircraft) (level) **ESTIMATED / OVER** (significant point) **AT** (time) **CALL SIGN** (call sign**) ADVISE INTENTIONS**

11.1.3 Time limit for clearance validity

C: **DEPART NOT EARLIER / LATER THAN** (time)
C: **CLEARANCE VALID FROM** (time) **TO** (time)
C: **CLEARANCE EXPIRES AT** (time)

11.1.4 When there is doubt that an aircraft can comply with a clearance or instruction

C: **IF UNABLE** *(instructions) AND* **ADVISE**

11.1.5 When a pilot is unable to comply with a clearance or instruction

P: **UNABLE**

11.2 Air traffic control clearances without prefix „cleared“
11.2.1 Route

C: **JOIN** (specify) **AT** (significant point) **AT** (level) ***AT** (time)*
C: *PROCEED* **FROM** (significant point) **TO** (significant point)
C: **PROCEED** / (followed as necessary by)
– **TO** (significant point)
– **DIRECT** (significant point)
– **VIA** (route and / or significant point(s))
– **VIA FLIGHT PLANNED ROUTE**
– **VIA** (distance) **DME ARC** (direction) **OF** (name of DME station)
C: (level / route) **NOT AVAILABLE** *DUE TO (reason)* **ALTERNATIVE(S) IS / ARE** (levels / routes) *ADVISE INTENTIONS*

11.2.2 Level

C: **FLIGHT LEVEL** (number)
C: *ALTITUDE* / *HEIGHT* (number) **FEET**

Note: The term LEVEL may be variously FLIGHT LEVEL or ALTITUDE OR HEIGHT ABOVE GROUND.

C: **MAINTAIN** (level) (followed as necessary by)
– **TO** (significant point)
– **UNTIL PASSING** (significant point)
– **UNTIL** (time)
– **UNTIL ADVISED BY** (unit)
– **UNTIL FURTHER ADVISED**
– **WHILE IN CONTROLLED AIRSPACE**

Note: The term MAINTAIN shall not be used instead of DESCEND or CLIMB when instructing an aircraft to change level.

11.2.3 Level changes, rates of climb / descent

C: **CLIMB/DESCEND** (followed as necessary by)
– (level)
– **IMMEDIATELY**
– **TO REACH** (level) **AT** (time or significant point)
– **AT** (figures) **FEET PER MINUTE / OR GREATER / LESS** *(restrictions)*
– **AT ASSIGNED RATE** *UNTIL PASSING (level)*
– **AND MAINTAIN BLOCK** (level) **UNTIL** (level)
C: **WHEN READY CLIMB / DESCEND** (level) *REPORT LEAVING (level)*
P: **CLIMB / DESCEND** (level) **MAINTAINING** (level) *WILCO*
C: **WHEN READY DESCEND TO REACH** (level) **AT** (significant point)
C: **WHEN READY DESCEND** (level) **TRACK MILES** (NM from touchdown) **COMMENCE CDO**
C: (distance) **MILES TO FLY**
C: **RESUME NORMAL RATE OF DESCENT / CLIMB**
C: **REPORT LEAVING / REACHING / PASSING** (level)
P: **REQUEST LEVEL CHANGE / CLIMB / DESCENT AT** (time or significant point)
C: **EXPECT LEVEL CHANGE / CLIMB / DESCENT**
– **FROM** (unit)
– **AT** (time or significant point)
– **AFTER PASSING** (significant point)
– **IN** (figures) **MINUTES**
C: **STOP CLIMB / DESCENT AT** (level)
C: **CONTINUE CLIMB / DESCENT** (level)
C: **EXPEDITE CLIMB / DESCENT UNTIL PASSING** (level)

11.2.4 Clearances on a SID with published level and/or speed restrictions

C: **CLEARED** (designator) **DEPARTURE**
C: *CONTINUE* **CLIMB VIA SID** (level)
C: *CONTINUE* **CLIMB VIA SID** (level) **CANCEL LEVEL / SPEED RESTRICTION(S)** *AT (significant point)*
C: **CLIMB UNRESTRICTED** (level)
C: **EXPECT** TO REJOIN SID *(designator)* *AT WAYPOINT*
C: **REJOIN SID** *(designator)**AT WAYPOINT*

Note 1: A clearance by ATC containing rates of climb cancels published level restrictions up to the cleared level.

Note 2: A clearance to climb UNRESTRICTED relieves the pilot from adhering to level and speed restrictions on the SID up to the cleared level.

Note 3: If there are no remaining published level and/or speed restrictions on the SID, the phrase **CLIMB** (level) should be used.

11.25 Clearances on a STAR/TRANSITION with published level and/or speed restrictions

C: **CLEARED** (designator) **ARRIVAL/TRANSITION**
C: *CONTINUE* **DESCEND VIA STAR/TRANSITION** (level)
C: *CONTINUE* **DESCEND VIA STAR/TRANSITION** (level) **CANCEL LEVEL / SPEED RESTRICTION(S)** *AT (waypoint)*
C: **DESCEND UNRESTRICTED** (level)
C: **EXPECT TO REJOIN STAR/TRANSITION** (*designator*) *AT WAYPOINT*
C: **REJOIN STAR/TRANSITION** (*designator*)*AT WAYPOINT*

Note 1: A clearance by ATC containing rates of descend cancels published level restrictions down to the cleared level.

Note 2: A clearance to descend unrestricted relieves the pilot from adhering to level and speed restrictions on the STAR/TRANSITION down to the cleared level.

Note 3: If there are no remaining published level and/or speed restrictions on the STAR/TRANSITION, the phrase **DESCEND** (level) should be used.

11.2.6 To require an aircraft to climb or descend maintaining own separation and VMC

C: **MAINTAIN OWN SEPARATION AND VMC** (limitation) (traffic)
P: **REQUEST VMC DESCENT / CLIMB**

11.2.7 Specification of cruising levels

C: **CROSS** (significant point) **AT / ABOVE / BELOW** (level)
C: **CROSS** (significant point) **AT** (time) **OR LATER / BEFORE AT** (level)
C: **CROSS** (distance) **MILES DME** *(direction)* **OF** (name of DME station) **AT / ABOVE / BELOW** (level)
C: **CROSS** (distance) **MILES GNSS** *(direction)* **OF** (significant point) **AT / ABOVE / BELOW** (level)
C: **ADVISE IF ABLE TO CROSS** (significant point) **AT** (time) / (level)

11.2.8 Use of selected level

C: **CHECK SELECTED LEVEL. CLEARED LEVEL IS** (level)
P: **CLIMBING / DESCENDING / MAINTAINING** (level) *(appropriate information on selected level)*

11.3 Instructions
11.3.1 Heading instructions

C: **LEAVE** (significant point) **HEADING** (three digits) *e.g.: AT (time)*
C: **CONTINUE HEADING** (three digits)
C: **CONTINUE PRESENT HEADING**
C: **FLY HEADING** (three figures) *WHEN ABLE PROCEED DIRECT (designator) (significant point)*
C: **TURN LEFT / RIGHT** (figures) **DEGREES / HEADING** (three digits)
C: **TURN LEFT / RIGHT IMMEDIATELY** (number of degrees) **DEGREES / HEADING** (three figures)
TO AVOID *UNIDENTIFIED* **TRAFFIC** (bearing by clock-reference and distance)
C: **MAKE A LEFT / RIGHT THREE SIXTY** *(reason)*
C: **ORBIT LEFT / RIGHT** *(reason)*
C: **STOP TURN HEADING** (three digits)

Note: When it is necessary to specify a reason for the above instructions, the following phraseologies should be used:
– **DUE** *TO* **TRAFFIC**
– **FOR SPACING**
– **FOR SEPARATION**
– **FOR DOWNWIND / BASE / FINAL**

11.3.2 Speeds

P: **SPEED** (figures) **KNOTS / MACH** (number)
C: **REPORT INDICATED AIRSPEED / MACH NUMBER / SPEED**
C: **MAINTAIN** (figures) **KNOTS / MACH** (number) *UNTIL (significant point)* *OR GREATER / OR LESS*

C: **MAINTAIN PRESENT SPEED**
C: **FLY SPEED MACH** (number) / (figures) **KNOTS**
C: **INCREASE / REDUCE SPEED** *TO* (figures) **KNOTS / MACH** (number)
C: **INCREASE / REDUCE SPEED BY** (figures) **KNOTS / MACH** (number)
C: **RESUME NORMAL / PUBLISHED SPEED**
C: **NO** *ATC* **SPEED RESTRICTIONS**
P: **UNABLE TO COMPLY INDICATED AIRSPEED WILL BE** (figures) **KNOTS / MACH** (number)

Note 1: When assigned a speed to maintain, the flight crew shall include this speed in their position reports. The assigned speed shall also be reported on first contact with an ATC unit after a frequency change, whether or not a full position report is required.

Note 2: The flight crew shall comply with published speed restrictions unless the restrictions are explicitly cancelled or amended by the controller. Speed restrictions based on airspace classification shall be adhered to. Speed instructions by ATC remain valid until explicitly cancelled or amended by controller. A **DESCEND VIA** or **CLIMB VIA** clearance does not cancel speed instructions issued.

11.3.3 Track (offset) parallel to the cleared route

C: **ADVISE IF ABLE TO PROCEED PARALLEL OFFSET**
C: **PROCEED OFFSET** (distance) **RIGHT / LEFT OF** (route) (track) *CENTRE LINE* *AT* (significant point / time) *UNTIL (significant point / time)*
C: **CANCEL OFFSET** (instructions to re-join cleared flight route / other information)

11.4 Identification of aircraft

C: **SQUAWK** *(code)* *IDENT*
C: **REPORT HEADING** *AND FLIGHT LEVEL / ALTITUDE*
C: **FOR IDENTIFICATION TURN LEFT / RIGHT HEADING** (three digits) **FOR** (maximum time 2 minutes) **MINUTE(S) / SECONDS**
C: **TRANSMIT FOR IDENTIFICATION AND REPORT HEADING**
C: **IDENTIFIED / RADAR CONTACT** *(significant point)*
C: **NOT IDENTIFIED CONTINUE OWN NAVIGATION**

11.5 Position
11.5.1 Position information by Air Traffic Control

C: **POSITION** (distance) (direction) **OF** (significant point)
C: **POSITION OVER / ABEAM** (significant point)

11.5.2 Position reports by pilots
11.5.2.1. IFR flights

P: a) (significant point);
b) (actual time over);
c) (level, including passed level and cleared level if not maintaining the cleared level);
d) (next significant point and estimated time over);
e) (ensuing significant point);
f) (speed, if a speed was assigned);

11.5.2.1.1 Elements c), d) and e) may be omitted from position reports transmitted by voice.

11.5.2.1.2 Element f):

If assigned a speed to maintain, this speed shall be included in the position report.

11.5.2.2. VFR flights

P: a) (significant point)
b) (actual time over)
c) (level)

11.5.2.2.1 The announcement of the actual time over may be omitted if the significant point is reached at the moment of the report.

11.5.2.3 Flights in the traffic circuit

P: (part of traffic circuit)

11.5.3 To omit position reports when under radar control

C: **OMIT POSITION REPORTS** *UNTIL (specify)*
C: **NEXT REPORT AT** (significant point)
C: **REPORT(S) REQUIRED ONLY AT** (significant point(s))
C: **RESUME POSITION REPORTING**

11.6 Termination of service

C: **RADAR CONTROL TERMINATED** *DUE TO (reason)*
C: **RADAR SERVICE TERMINATED** *(instructions)*
C: **RESUME OWN NAVIGATION** (position) *(instructions)*
C: **WILL SHORTLY LOSE IDENTIFICATION** (instructions / information)
C: **IDENTIFICATION LOST** *(reasons)* *(instructions)*

11.7 Transponder

C: **ARE YOU TRANSPONDER EQUIPPED**
P: **NEGATIVE TRANSPONDER / AFFIRM**
C: **ADVISE TYPE / MODE / CODE OF TRANSPONDER**
C: *WHEN AIRBORNE* **SQUAWK** (code)
C: **RESET SQUAWK** *(mode)* (code)
P: **RESETTING** (code)
C: **CONFIRM SQUAWK**
P: **SQUAWKING** (code)
C: **SQUAWK** (followed as necessary by)
– *(code)* *AND* **IDENT**
– **CHARLIE**
– **STANDBY**
C: **SQUAWK MODE 3 ALFA ONLY** (Mode 3/A)
C: **CHECK ALTIMETER SETTING AND CONFIRM LEVEL** / (level)
C: **STOP SQUAWK CHARLIE WRONG INDICATION**
C: **STOP SQUAWK**
C: **CHECK MODE S AIRCRAFT ID**
C: **RESET MODE S AIRCRAFT ID**

11.8 Special phraseologies
11.8.1 TCAS (ACAS) phraseologies

P: **TCAS RA**
C: **ROGER**
P: **CLEAR OF CONFLICT, RETURNING TO** (assigned clearance)
C: **ROGER** (or alternative instructions)
P: **CLEAR OF CONFLICT** (assigned clearance) **RESUMED**
C: **ROGER** (or alternative instructions)
P: **UNABLE, TCAS RA**
C: **ROGER**

11.8.2 RVSM phraseologies

C: **CONFIRM RVSM APPROVED**
P: **NEGATIVE RVSM STATE AIRCRAFT**
P: **NEGATIVE RVSM** *(status)*
C: **NEGATIVE RVSM**
C: **UNABLE ISSUE CLEARANCE INTO RVSM AIRSPACE MAINTAIN / DESCEND / CLIMB FLIGHT LEVEL** (number)
P: **UNABLE RVSM DUE** *TO* **TURBULENCE / EQUIPMENT**
P: **READY TO RESUME RVSM**
C: **REPORT WHEN ABLE TO RESUME RVSM**
C: **CONFIRM ABLE TO RESUME RVSM**

C: **NEGATIVE RVSM / NEGATIVE RVSM STATE AIRCRAFT**
C: **UNABLE RVSM DUE *TO* TURBULENCE / EQUIPMENT**

11.8.3 General ADS phraseologies

C: **ADS / AUTOMATIC DEPENDENT SURVEILLANCE OUT OF SERVICE** (appropriate information, as necessary)

11.8.4 ATFCM phraseologies

C: **SLOT** *IS* (time)
C: **REVISED SLOT** *IS* (time)
C: **SLOT CANCELLED** *REPORT READY*
C: **FLIGHT SUSPENDED UNTIL** (time) / **UNTIL FURTHER NOTICE/ DUE** *TO* (reason)
C: **SUSPENSION CANCELLED REPORT READY**
C: **UNABLE TO APPROVE START UP** *CLEARANCE* **DUE** *TO* **SLOT EXPIRED REQUEST A NEW SLOT**
C: **SLOT EXPIRES AT** (time)
C: **UNABLE TO APPROVE START UP** *CLEARANCE* **DUE** *TO* **SLOT** (time) **REQUEST START UP AT** (time)

11.8.5 CPDLC phraseologies

P: **CONFIRM CPDLC** (message)
C: *ALL STATIONS* **CPDLC FAILURE REVERT TO VOICE**
P: **CPDLC MESSAGE FAILURE**
C: **CPDLC MESSAGE FAILURE** *REVERT TO VOICE*
P: **DISREGARD CPDLC** (message type) **MESSAGE, BREAK** (correct information or request)
C: **DISREGARD CPDLC** (message type) **MESSAGE, BREAK** (correct clearance, instruction, information or request)
C: *ALL STATIONS* **STOP SENDING CPDLC REQUESTS** *UNTIL ADVISED (reason)*
C: *ALL STATIONS* **RESUME NORMAL CPDLC OPERATIONS**

12. FLIGHT INFORMATION SERVICE (FIS) (issues information and recommendations only)

12.1 Weather information
12.1.1 Information about special weather phenomena

C: **ATC RADAR SHOWS HEAVY PRECIPITATION AREA** (figures) **O'CLOCK** (distance) **MILES AREA** (figures) **MILES DEEP EXTENDING FROM** (direction) **TO** (direction) **FOR** (figures) MILES
C: (type of aircraft) **REPORTED** (description) **ICING** / **TURBULENCE** *IN CLOUD* (area) (time)
C: **TOWER OBSERVES** (weather information)
C: **PILOT REPORTS** (weather information)

12.1.2 Observation deviating from official weather report

C: **TOWER OBSERVATION VISIBILITY TO** (direction) (distance) **METRES**

12.2 Traffic information

C: *UNKNOWN* **TRAFFIC** (direction, distance and other information)
C: *UNKNOWN* **TRAFFIC** (figure) **O'CLOCK** (bearing by clock reference) (distance) **MILES** (direction of flight) (information)
C: (traffic) (significant point)
– **SLOW / FAST MOVING**
– **CLOSING**
– **OPPOSITE / SAME DIRECTION**
– **OVERTAKING**
– **CROSSING LEFT TO RIGHT / RIGHT TO LEFT**
If known:
– (type of aircraft)
– (level) / (relative level) (figures) * NOT CONFIRMED*
– **CLIMBING / DESCENDING**
P: **LOOKING OUT**
P: **TRAFFIC** / (type of aircraft) **IN SIGHT**
P: **NEGATIVE CONTACT**
P: **REQUEST AVOIDANCE ADVICE / VECTORS**
C: **SUGGEST** *LEFT / RIGHT TURN* **HEADING** (three figures)
C: **CLEAR OF TRAFFIC**
C: **NO REPORTED TRAFFIC**

12.3 Navigational assistance

P: *POSITION UNKNOWN* **REQUEST NAVIGATIONAL ASSISTANCE** *TO (significant point)*
C: **TRANSMIT FOR DIRECTION FINDING**
C: **QDM / QDR** (three digits)
C: **SQUAWK** (code)
C: **IDENTIFIED** *(significant point)*
C: **RADAR CONTACT** *(significant point)*
C: **MAINTAIN VMC**
C: **OBSERVE MINIMUM SAFE HEIGHT / OBSTACLE CLEARANCE**
C: **SUGGEST** *LEFT / RIGHT TURN* **HEADING** (three digits)
C: **NAVIGATIONAL ASSISTANCE TERMINATED RESUME OWN NAVIGATION POSITION** (position or navigational information)

12.4 To instruct setting of transponder

C: **RESET SQUAWK** *(mode)* (code)
P: **RESETTING** (code)
C: **CONFIRM SQUAWK**
P: **SQUAWKING** (code)
C: **SQUAWK** (followed as necessary by)
– **IDENT**
– **CHARLIE**
– **STANDBY**
C: **STOP SQUAWK**

12.5 VFR Practice Approach

P: **REQUEST** (type of IFR approach) **PRACTICE APPROACH VFR**
C: (type of IFR approach) **PRACTICE APPROACH VFR APPROVED / NOT APPROVED**

13. FLIGHTS IN RADIO MANDATORY ZONES (RMZ)

13.1 Entering RMZ

P: (type of aircraft) (position) (flight rules) (figures) **FEET, WILL ENTER RMZ / WILL CROSS RMZ** (route)
(instrument approach procedure)
FOR LANDING
AT (aerodrome)

13.2 Leaving RMZ

P: **LEAVING RMZ** (position) (figures) **FEET**

Note: The radiotelephony reports shall also be made if the aeronautical ground station does not answer.

14. CANCELLING AND CLOSING OF FLIGHT PLAN

14.1 Cancelling

P: **CANCELLING MY FLIGHT PLAN**
C: **FLIGHT PLAN CANCELLED AT** (time)

Note: Flight plan is cancelled, report of arrival not necessary.

14.2 Cancelling the IFR part of the flight plan

P: **CANCELLING** *MY* **IFR** *FLIGHT*
C: **IFR** *FLIGHT* **CANCELLED AT** (time) *(instructions)*
C: **UNABLE TO ACCEPT CANCELLATION** *DUE TO (reason)*

Note: The IFR part of the flight plan is cancelled, the VFR part is still valid. Report of arrival required.

14.3 Closing of flight plan

P: *LANDING TIME (figures)* **REQUEST TO CLOSE MY FLIGHT PLAN**
C: **FLIGHT PLAN CLOSED AT** (figures)

Note: Instead of the report of arrival the flight plan may be closed by transmission of the estimated time of landing, provided the aircraft is already in the traffic circuit and a safe landing may be expected.

15. EMERGENCY PROCEDURES

15.1 Radio failure

C: **IF YOU READ ROCK YOUR WINGS / SHOW LANDING LIGHTS**
C: **IF YOU READ TURN LEFT / RIGHT HEADING** (three digits) **FOR** (maximum time 2 minutes) **MINUTE(S) / SECONDS**
C: (manoeuvre) / **SQUAWK OBSERVED** *POSITION (significant point)* **WILL CONTINUE RADAR CONTROL**
C: **IF RADIO CONTACT LOST (**instructions)
C: **IF NO TRANSMISSIONS RECEIVED FOR** (number) **MINUTES / SECONDS** (instructions)
C: **REPLY NOT RECEIVED** (instructions)
C: **IF YOU READ** (instructions)

15.1.1 Blind transmission

C: **TRANSMITTING BLIND** (instructions/information)

15.2 Emergency descent

P: **EMERGENCY DESCENT** (intentions/actions)
C: **ATTENTION ALL AIRCRAFT IN THE VICINITY OF / AT** (unit) I**N THE VICINITY OF / AT** (significant point or location) **EMERGENCY DESCENT IN PROGRESS FROM** (level) (followed as necessary by specific instructions, clearances, traffic information, etc.)

Note: In the event of an emergency descent, this message will be broadcast on control and, if necessary, on flight information frequency.

15.3 No gyro procedures

C: **THIS WILL BE A NO GYRO VECTOR FOR** (type of approach) **TO** (runway or other limit) **MAKE ALL TURNS RATE ONE / HALF**/ (number) **DEGREES PER SECOND START AND STOP ALL TURNS ON THE COMMAND NOW**
C: **TURN LEFT / RIGHT NOW**
C: **STOP TURN NOW**

15.3.1 When established on final

C: **MAKE ALL TURNS RATE HALF**

15.4 Transponder setting
15.4.1 To request emergency code

C: **SQUAWK MAYDAY / *CODE SEVEN SEVEN ZERO ZERO***

15.5 Fuel dumping below FL 130 (FL 160 in the alpine area)

C: **ALL STATIONS** (unit) **USE CAUTION FUEL DUMPING IN PROGRESS BY** (type of aircraft) **AT** (significant point) **ON COURSE** (direction) **FROM** (level) **AVOID FLIGHT WITHIN 10 MILES OF FUEL DUMPING AREA**
C: **ALL STATIONS** (unit) **FUEL DUMPING IN PROGRESS AT** (significant point) **FROM** (level) **AVOID THIS AREA UNTIL** (time)

15.6 Assistance for VFR flights encountering navigational difficulties

C: **LOSS OF POSITION REQUEST ASSISTANCE**
C: **REQUEST REMAINING FLIGHT TIME**
C: **ARE YOU ABLE TO CONTINUE VISUALLY**
C: **YOU MAY DESCEND** (figures) **FEET / FLIGHT LEVEL** (figures)
C: **SUGGEST TO TURN** (figures) **DEGREES TO THE LEFT / RIGHT**

15.7 Radar equipment degradation

C: **SECONDARY RADAR OUT OF SERVICE** (appropriate information as necessary)
C: **PRIMARY RADAR OUT OF SERVICE** (appropriate information as necessary)

15.8 Alerting phraseologies
15.8.1 Low level warning

C: **LOW ALTITUDE WARNING CHECK YOUR ALTITUDE IMMEDIATELY QNH** (number)
MINIMUM FLIGHT ALTITUDE IS (altitude)

15.8.2 Terrain alert

C: **TERRAIN ALERT** (suggested pilot action, if possible)

15.8.3 Collision alert

C: **COLLISION ALERT** (appropriate information or instructions, as necessary)

15.8.4 Minimum fuel warning

P: **MINIMUM FUEL**
C: **ROGER NO DELAY EXPECTED / EXPECT** (delay information)

15.9 Communicable disease

P: **REQUEST THE FOLLOWING INFORMATION ABOUT SUSPECTED CASE(S) OF COMMUNICABLE DISEASE ON BOARD THIS AIRCRAFT TO BE FORWARDED. ADVISE READY TO COPY**
C: **READY TO COPY**
P: **ADVISE** (destination aerodrome) **TOWER THAT** (call sign), **DEPARTURE AERODROME** (departure aerodrome) **ESTIMATING** (destination aerodrome) **AT** (estimated time of arrival) **PERSONS ON BOARD** (number) **REPORTING** (number) **CASE(S) OF COMMUNICABLE DISEASE ON BOARD**
C: **ROGER**

Appendix 1 Call Signs of Aeronautical Stations

The call sign of an aeronautical station consists of the location designation or the name of the aeronautical ground station and one of the function identifications listed below:

a) CONTROL area control service without radar

b) APPROACH arrival and departure control service without radar

c) RADAR air traffic control service with radar

d) DEPARTURE departure control service with radar

e) ARRIVAL arrival control service with radar

f) DIRECTOR control service on final approach with radar

g) PRECISION control service on final approach with precision radar

h) TOWER aerodrome control service

i) GROUND air traffic control on the manoeuvring area

j) DELIVERY transmission of en-route clearances

k) INFORMATION flight information service

l) APRON aircraft guidance on the apron by the airport operator

m) ZONE control service for non-IFR flights within CTR zones

n) INFORMATION Aerodrome flight information service at uncontrolled aerodromes with an AFIS provider

o) DISPATCH transmission of flight regularity messages of aircraft operating agencies

p) MONITOR TRA monitoring with radar

q) RESCUE operations by the fire brigade

r) COCKPIT aircraft in direct communication with RESCUE

Appendix 2 Call Signs of Aircraft Stations

(1) An aircraft radiotelephony call sign shall be one of the following types:

Type A: the characters of the registration mark of the aircraft; or

Type B: the telephony designator of the aircraft operator, followed by the last four characters of the registration mark of the aircraft;

Type C: the telephony designator of the aircraft operator, followed by the flight identification.

(2) Abbreviated call signs

The aircraft radiotelephony call signs shown in point (1), with the exception of Type c), may be abbreviated as prescribed as follows:

a) Abbreviated radiotelephony call signs, as prescribed in (3), shall be used only after satisfactory communication has been established and provided that no confusion is likely to arise. An aircraft shall use its abbreviated call sign only after it has been addressed in this manner by the aeronautical station.

b) When issuing ATC clearances and reading back such clearances, controllers and pilots shall always add the call sign of the aircraft to which the clearance applies. For other than those occasions, continuous two-way communication after contact has been established shall be permitted without further identification or call until termination of the contact.

(3) Abbreviated call signs shall be in the following form:

Type A: the first character of the registration and at least the last two characters of the call sign;

Type B: the radiotelephony designator of the aircraft operator, followed by at least the last two characters of the call sign;

Type C: no abbreviated form.

CALLSIGN	TYPE A	TYPE B	TYPE C
Complete	DETWG	CATHAY BKPT	CATHAY 666
Abbreviated	DWG or DTWG	CATHAY PT or CATHAY KPT	*No abbreviated form*

(4) An aircraft shall not change the type of its radiotelephony call sign during flight, except temporarily on the instruction of an ATC unit in the interests of safety.

(5) Notwithstanding the provisions in items (1) to (4), the pilot shall add the following immediately after the call sign when establishing radio contact with ATC and after every frequency change:

a) For aircraft in the wake turbulence category HEAVY the word HEAVY, as well as Airbus A380 (A388) type aircraft the word SUPER;
b) For aircraft without the prescribed RNAV equipment the phrase NON RNAV;
c) Pilots of a formation the word FORMATION or FLIGHT.

Appendix 3 Transmission of Letters

(1) Use the following spelling table whenever call signs, words or abbreviations must be spelt:

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

(2) The following designations shall be used to differentiate between the RWYs:

L: LEFT
R: RIGHT
C: CENTER

(3) Use of ATS route designators in communications

In voice communications, the basic letter of a designator shall be spoken in accordance with the phonetic alphabet as defined in item (1). Where the prefixes K, U or S are used, they shall, in voice communications, be spoken as follows in the English language:

K: KOPTER K: KOPTER
U: UPPER U: UPPER
S: SUPERSONIC S: SUPERSONIC

Normally the plain language name for significant points marked by the site of a radio navigation aid, or the unique five-letter pronounceable "name-code" for significant points not marked by the site of a radio navigation aid, shall be used to refer to the significant point in voice communications. If the plain language name for the site of a radio navigation aid is not used, it shall be replaced by the coded designator which, in voice communications, shall be spoken in accordance with the phonetic alphabet. The plain language designator for standard instrument departure or arrival routes shall be used in voice communications.

Appendix 4 Transmission of Figures and Marks

(1) Transmit figures or marks as follows:

Figure or Mark	Pronounciation
0	ZE-RO
1	WUN
2	TOO
3	TREE
4	FOW-ER
5	FIFE
6	SIX
7	SEV-EN
8	AIT
9	NIN-ER
.	DAY-SEE-MAL
00	HUN-DRED
000	TOU-SAND

(2) All numbers used in the transmission of aircraft call sign, headings, runway, wind direction and speed shall be transmitted by pronouncing each digit separately.

(3) Flight levels shall be transmitted by pronouncing each digit separately except for the case of flight levels in whole hundreds.

(4) The altimeter setting shall be transmitted by pronouncing each digit separately except for the case of a setting of 1,000 hPa which shall be transmitted as ONE THOUSAND.

(5) All numbers used in the transmission of transponder codes shall be transmitted by pronouncing each digit separately except that, when the transponder codes contain whole thousands only, the information shall be transmitted by pronouncing the digit in the number of thousands followed by the word THOUSAND.

(6) All numbers used for the transmission of other information than described in items (2) to (5) shall be transmitted by pronouncing each digit separately, except that all numbers containing 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 THOUSAND, as appropriate. Combinations of thousands and whole hundreds shall be transmitted by pronouncing each figure in the number of thousands followed by the word THOUSAND followed by the number of hundreds followed by the word HUNDRED.

EXAMPLES:

300	THREE HUNDRED
4000	FOUR THOUSAND
13 600	ONE THREE THOUSAND SIX HUNDRED
4 300	FOUR THOUSAND THREE HUNDRED

(7) In cases where there is a need to clarify the number transmitted as whole thousands and/or whole hundreds, the number shall be transmitted by pronouncing each digit separately.

(8) When providing information regarding relative bearing to an object or to conflicting traffic in terms of the 12-hour clock, the information shall be given pronouncing the digits together such as TEN O'CLOCK or ELEVEN O'CLOCK.

(9) Instructions to fly a 360° turn expressed as **MAKE A** (LEFT / RIGHT) **THREESIXTY**.

(10) The transmission of call signs of aircraft stations of TYPE C (see Appendix 2) and aircraft types, which consist of identical numbers, may be simplified with the words DOUBLE or TRIPLE (e.g. CPA 444 as CATHAY TRIPLE FOUR, B777 as BOEING TRIPLE SEVEN).

(11) Wherever **VHF communication has 25 kHz or 8.33 kHz channel spacing, three figures after the decimal point** should be used. If the second and third digits after the decimal point are zeros, it is sufficient to say the first digit after the decimal point.

Examples:

118.000	ONE ONE EIGHT DECIMAL ZERO
118.025	ONE ONE EIGHT DECIMAL ZERO TWO FIVE
118.005	ONE ONE EIGHT DECIMAL ZERO ZERO FIVE
118.010	ONE ONE EIGHT DECIMAL ZERO ONE ZERO

(12) Numbers containing a decimal point shall be transmitted separately with the decimal point in appropriate sequence indicated by the word DECIMAL.

Appendix 5 Transmission of Visibility Values

The values for flight visibility, ground visibility and runway visual range shall be transmitted as follows:

1. in **metres** if the visibility is less than 5 km;
2. in **kilometres** if the visibility is 5 km or more but less than 10 km;
3. as a **visibility of 10 kilometres** if the visibility is 10 km or more.

Appendix 6 Assigning / Reporting of Levels and Speeds

Levels and airspeeds shall be assigned/reported as follows:

(1) For altitudes and heights above ground, the word FEET shall follow the indication.

(2) For flight levels, the level indication shall be preceded by the term FLIGHT LEVEL.

(3) In lower airspace airspeeds shall be expressed as indicated airspeed (IAS) using, normally, units of 10 knots or multiples thereof. In upper airspace, the airspeed shall normally be expressed in terms of Mach.

(4) In the English language, the words TO and FOR shall not be used in connection with assigning/reporting levels (altitude, height above ground level or flight level).

Appendix 7 Phrases

Use the following phrases in radio and telephone communications:

Phrase	Meaning
ACKNOWLEDGE	„Let me know that you have received and understood this message“
AFFIRM	„Yes“
APPROVED	„Permission for proposed action granted“
BREAK	„I hereby indicate the separation between portions of the message. (To be used where there is no clear distinction between the text and other portions of the message.)“
CHECK	„Examine a system or procedure (Not to be used in any other context. No answer is normally expected.)“
CLEARED	„Authorised to proceed under the conditions specified“
CONFIRM	„I request verification of (clearance, instruction, action, information)“
CONTACT	„Establish communications with . . .“
CORRECT	„True“ or „Accurate“
CORRECTION	„An error has been made in this transmission (or message indicated). The correct version is . . .“
DISREGARD	„Ignore“
HOW DO YOU READ	„What is the readability of my transmission (see point 14.)“
I SAY AGAIN	„I repeat for clarity or emphasis“
MAINTAIN	„Continue in accordance with the condition(s) specified or in its literal sense“
MONITOR	„Listen out on (frequency / channel)“
NEGATIVE	„No / Permission not granted / That is not correct/ Not capable“

NON RNAV	„Announcement of missing RNAV equipment“
OVER	„My transmission is ended and I expect a response from you“

Note: Not normally used in VHF communications

OUT	„This exchange of transmission is ended and no response is expected“

Note: Not normally used in VHF communications.

READ BACK	„Repeat all, or the specified part, of this message back to me exactly as received
RECLEARED	„A change has been made to your last clearance and this new clearance supersedes your previous clearance or part thereof“
REPORT	„Pass me the following information“
REQUEST	„I would like to know/I wish to obtain“
ROGER	„I have received all of your last transmission“

Note: Under no circumstances to be used in reply to a question requiring **READ BACK** or a direct answer in the affirmative (**AFFIRM**) or negative sense (**NEGATIVE**).

SAY AGAIN	„Repeat all, or the following part, of your last transmission“
SPEAK SLOWER	„Reduce your rate of speech“
SQUAWK	„Switch transponder to the following setting“
STANDBY	„Wait and I will call you“

Note: The caller would normally re-establish contact if the delay is lengthy. STANDBY is not an approval or denial.

UNABLE	„I cannot comply with your request, instruction or clearance“

Note: UNABLE is normally followed by a reason.

WILCO	„I understand your message and will comply with it.“
WORDS TWICE	„**Request**: Communication is difficult. Please send every word, or group of words, twice. **Information**: Since communication is difficult, every word, or group of words, in this message will be sent twice.“

RECORD OF REVISION

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