ANNEX

Annex (Rules of the Air) to Commission Regulation (EU) No 923/2012 is amended as follows:

(1) In **SERA.2001, t**he last sentence of the provision is amended to read:

'This Regulation shall also apply to the Competent Authorities of the Member States, Air Navigation Service Providers (ANSP), aerodrome operators and the relevant ground personnel engaged in aircraft operations.'

(2) In In **SERA.3215,** point (a) is amended as follows:

(a) Point (a) (2) is amended to read:

'(2) except for balloons, navigation lights intended to indicate the relative path of the aircraft to an observer. Other lights shall not be displayed if they are likely to be mistaken for these lights.'

(b) Point (a) (3) is removed.

(4) In **SERA.5001**, Table S5-1, the last note to the table is amended to read:

(…)

***

(…)

'(b) HELICOPTERS may be permitted to operate *in less than* 1 500 m but not less than 800 m flight visibility, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.'

(5) **SERA.5005** is amended as follows:

(a) Points (c) (3) (ii) and (iii) are amended to read:

'(ii) the reduced flight visibility provisions specified in Table S5-1(a) and (b) shall not apply;

(iii) in airspace classes B, C, D, E, F and G, at and below 900 m (3 000 ft) above MSL or 300 m (1 000 ft) above terrain, whichever is the higher, the pilot shall maintain continuous sight of the surface; and'

(b) Point (c) (3) (iv) is removed.

(c) Point (v) is renumbered and amended to read:

'(iv) for mountainous area, higher VMC visibility and distance from cloud minima may be prescribed by the competent authority;'

(d) Point (c) (4) is removed.

(e) Point (c) (5) is renumbered.

(f) Point (d) is amended to read:

‘(d) VFR flights shall not be operated:

(1) at transonic and supersonic speeds unless authorised by the competent authority;

(2) above FL 195. Exceptions to this are:

(i) an airspace reservation established, where practical, by the Member States, in which VFR flights may be allowed; or

(ii) an airspace up to and including flight level 285, when authorised by the responsible Air Traffic Services (ATS) unit in accordance with the authorisation procedures established and published by the Member States in the relevant aeronautical information publication.’

(6) In SERA.5010, the first paragraph is amended as follows:

‘Special VFR flights may be authorised to operate within a control zone, subject to an ATC clearance. The following additional conditions shall be applied:’

(7) In SERA.5015, a new paragraph is added:

‘(c)
(…)

(3) Change from IFR flight to VFR flight shall only be acceptable when a message initiated by the pilot-in-command containing the specific expression ‘CANCELLING MY IFR FLIGHT’, together with the changes, if any, to be made to the current flight plan, is received by an ATS unit. No invitation to change from IFR flight to VFR flight shall be made by ATS either directly or by inference.’

(8) SERA.6001 is amended as follows:

(a) The numbering in the whole paragraph has been changed.

(b) A new point has been added at the end:

‘(b) The designation of the airspace classification shall be appropriate to the needs of the Member States, except that all airspace above FL 195 shall be classified as Class C Airspace.’

(9) A new provision, SERA.7002, is added:

‘(a) When an identified controlled flight is observed to be on a conflicting path with an unknown aircraft, deemed to constitute a collision hazard, the pilot of the controlled flight shall, whenever practicable:

(1) be informed of the unknown aircraft, and, if the pilot so requests or if the situation so warrants in the opinion of the controller, avoiding action shall be suggested; and

(2) be notified when the conflict no longer exists.’

(10) A new provision, SERA.8012, is added:

‘(a) Wake turbulence separation minima shall be applied to aircraft in the approach and departure phases of flight under the following circumstances:

(1) an aircraft is operating directly behind another aircraft at the same altitude or less than 300 m (1 000 ft) below; or

(2) both aircraft are using the same runway or parallel runways separated by less than 760 m (2 500 ft); or

(3) an aircraft is crossing behind another aircraft at the same altitude or less than 300 m (1 000 ft) below.’

(11) SERA.8015 is amended as follows:

(a) The following provisions have been added:

‘(a)…

(1) Clearances shall be issued solely for expediting and separating air traffic and are based on known traffic conditions which affect safety in aircraft operation. Such traffic conditions include not only aircraft in the air and on the manoeuvring area over which control is being exercised, but also any vehicular traffic or other obstructions not permanently installed on the manoeuvring area in use.

(2) ATC units shall issue such ATC clearances as necessary to prevent collisions and to expedite and maintain an orderly flow of air traffic.

(3) ATC clearances shall be issued early enough to ensure that they are transmitted to the aircraft in sufficient time for it to comply with them.’

(b) ‘(d)…

(3)…

(i) The route of flight shall be detailed in each clearance when deemed necessary, and

(ii) The phrase ‘cleared via flight planned route’ shall not be used when granting a re-clearance.’

(c) ‘(e) Changes in clearance regarding route or level:

(1) When issuing a clearance covering a requested change in route or level, the exact nature of the change shall be included in the clearance.

(2) When traffic conditions will not permit clearance of a requested change, the word 'UNABLE' shall be used. When warranted by circumstances, an alternative route or level shall be offered.'

(d) '(f) Clearance related to altimetry:

(1) For flights in areas where a transition altitude is established, the vertical position of the aircraft shall, except as provided for in (5) below, be expressed in terms of altitudes at or below the transition altitude and in terms of flight levels at or above the transition level. While passing through the transition layer, the vertical position shall be expressed in terms of flight levels when climbing and in terms of altitudes when descending.

(2) The flight crew shall be informed of the transition level in due time prior to reaching it during descent.

(3) A QNH altimeter setting shall be included in the descent clearance when first cleared at an altitude below the transition level, in approach clearances or clearances to enter the traffic circuit, and in taxi clearances for departing aircraft except when it is known that the aircraft has already received the information in a directed transmission.

(4) A QFE altimeter setting shall be provided to aircraft on request or on a regular basis in accordance with local arrangements.

(5) When an aircraft which has been given clearance to land is completing its approach using atmospheric pressure at aerodrome elevation (QFE), the vertical position of the aircraft shall be expressed in terms of height above aerodrome elevation during that portion of its flight for which QFE may be used except that it shall be expressed in terms of height above runway threshold elevation:

(i) for instrument runways if the threshold is 2 m (7 ft) or more below the aerodrome elevation; and

(ii) for precision approach runways.

(e) '(g) Conditional clearances:

Conditional phrases, such as 'behind landing aircraft' or 'after departing aircraft', shall not be used for movements affecting the active runway(s) except when the aircraft or vehicles concerned are seen by the appropriate controller and pilot. The aircraft or vehicle causing the condition in the clearance issued shall be the first aircraft/vehicle to pass in front of the other aircraft concerned. In all cases, a conditional clearance shall be given in the following order and consist of:

(1) a call sign;

(2) the condition;

(3) the clearance; and

(4) a brief reiteration of the condition.

(f) The rest of the paragraph has been renumbered.

(12) In SERA.8020 the following change has been introduced:

‘(3) Change in time estimate: if the time estimate for the next applicable reporting point, flight information region boundary or destination aerodrome, whichever comes first, is found to be in error in excess of 2 minutes from that notified to ATS or such other period of time as prescribed by the competent authority, a revised estimated time shall be notified as soon as possible to the appropriate ATS unit.’

(13) In SERA.8025, the following text has been introduced:

‘(b) When a controlled flight has been exempted from the requirement to report at compulsory reporting points, pilots shall resume voice or CPDLC position reporting:

(i) when so instructed;

(ii) when advised that the ATS surveillance service has been terminated; or

(iii) when advised that the ATS surveillance identification is lost unless automated position reporting is in effect.

(c) The format of position reports shall be in accordance with Appendix 5.’

(14) In SERA.10001, the following is added:

‘(b) Unless otherwise prescribed by the competent authority, aircraft equipped with suitable two-way radio-communications shall report during the period twenty to forty minutes following the time of the last contact, whatever the purpose of such contact, merely to indicate that the flight is progressing according to plan, Such report shall comprise identification of the aircraft and the words ‘Operations normal’.

(c) The ‘Operations normal’ message shall be transmitted air-ground to an appropriate ATS unit.’

(15) SERA.11001 has been changed as follows:

(a) The title has been changed to read ‘General’.
(b) The provision has been changed to read:

‘(a) In the case of an aircraft known or believed to be in a state of emergency, including being subjected to unlawful interference, ATS units shall give the aircraft maximum consideration, assistance and priority over other aircraft as may be necessitated by the circumstances.

(b) Subsequent ATC actions will be based on the intentions of the pilot, the overall air traffic situation and the real-time dynamics of the contingency.’

(16) In SERA.11005, the following changes have been made:

(a) The title has been changed to ‘Unlawful interference’.
(b) Point (a) of the paragraph has been replaced by points (a) and (b):

‘(a) An aircraft which is being subjected to unlawful interference shall endeavour to set the transponder to Code 7500 and notify the appropriate ATS unit of any significant circumstances associated therewith and any deviation from the current flight plan necessitated by the circumstances in order to enable the ATS unit to give priority to the aircraft and to minimize conflict with other aircraft.

(b) If an aircraft is subjected to unlawful interference, the pilot-in-command shall attempt to land as soon as practicable at the nearest suitable aerodrome or at a dedicated aerodrome assigned by the competent authority unless considerations aboard the aircraft dictate otherwise.’

(c) The rest of the paragraph has been renumbered.

(17) In SERA.11010, the following changes have been made:

(a) The title has been changed to read: ‘Strayed or unidentified aircraft’
(b) In (a) (3) (i), the text has been amended:

‘(3) When the aircraft’s position is established, the air traffic services unit shall:

(i) advise the aircraft of its position and the corrective action to be taken. This advice shall be immediately provided when the ATS unit is aware that there is a possibility of interception or other hazard to the safety of the aircraft; and’

(18) A new provision, SERA.11012, has been introduced:

‘SERA.11012 Minimum Fuel and Fuel Emergency

(a) When a pilot reports a state of minimum fuel, the controller shall inform the pilot as soon as practicable of any anticipated delays or that no delays are expected.
(b) When the level of fuel renders declaring a situation of distress necessary, the pilot, in accordance with SERA.14095, shall indicate this by using the radiotelephony distress signal (MAYDAY), preferably spoken three times, followed by the nature of the distress condition (FUEL).'

(19) A new provision, SERA.11013, has been introduced:

SERA.11013 Degraded aircraft performance

(a) Whenever, as a result of failure or degradation of navigation, communications, altimetry, flight control or other systems, the aircraft performance is degraded below the level required for the airspace in which it is operating, the flight crew shall advise the ATC unit concerned without delay. Where the failure or degradation affects the separation minimum currently being employed, the controller shall take action to establish another appropriate type of separation or separation minimum.

(b) Degradation or failure of the RNAV system

When an aircraft cannot meet the specifications as required by the RNAV route or procedure, as a result of a failure or degradation of the RNAV system, a revised clearance shall be requested by the pilot.

(c) Loss of vertical navigation performance required for reduced vertical separation minima (RVSM) airspace

(1) The pilot shall inform ATC as soon as possible of any circumstances where the vertical navigation performance requirements for RVSM airspace cannot be maintained. In such cases, the pilot shall obtain a revised ATC clearance prior to initiating any deviation from the cleared route and/or flight level, whenever possible. When a revised ATC clearance cannot be obtained prior to such a deviation, the pilot shall obtain a revised clearance as soon as possible thereafter.

(2) During operations in or vertical transit through RVSM airspace with aircraft not approved for RVSM operations, pilots shall report non-approved status as follows:

(i) at initial call on any channel within RVSM airspace;

(ii) in all requests for level changes; and

(iii) in all read-backs of level clearances.

(3) Air traffic controllers shall explicitly acknowledge receipt of messages from aircraft reporting RVSM non-approved status.

(4) Degradation of aircraft equipment — pilot-reported:

(i) When informed by the pilot of an RVSM-approved aircraft operating in RVSM airspace that the aircraft's equipment no longer meets the RVSM requirements, ATC shall consider the aircraft as non-RVSM-approved.

(ii) ATC shall take action immediately to provide a minimum vertical separation of 600 m (2 000 ft) or an appropriate horizontal separation from all other aircraft concerned that are operating in RVSM airspace. An aircraft rendered non-RVSM-approved shall normally be cleared out of RVSM airspace by ATC when it is possible to do so.

(iii) Pilots shall inform ATC, as soon as practicable, of any restoration of the proper functioning of equipment required to meet the RVSM requirements.

(iv) The first ACC to become aware of a change in an aircraft's RVSM status shall coordinate with adjacent ACCs, as appropriate.

(5) Severe turbulence — not forecast:

(i) When an aircraft operating in RVSM airspace encounters severe turbulence due to weather or wake vortex that the pilot believes will impact the aircraft's capability to maintain its cleared flight level, the pilot shall inform ATC. ATC shall establish either an appropriate horizontal separation or an increased minimum vertical separation.

(ii) ATC shall, to the extent possible, accommodate pilot requests for flight level and/or route changes and shall pass on traffic information as required.

(iii) ATC shall solicit reports from other aircraft to determine whether RVSM shall be suspended entirely or within a specific flight level band and/or area.

(iv) The ACC suspending RVSM shall coordinate with adjacent ACCs such suspension(s) and any required adjustments to sector capacities, as appropriate, to ensure an orderly progression of the transfer of traffic.

(6) Severe turbulence — forecast:

(i) When a meteorological forecast predicts severe turbulence within RVSM airspace, ATC shall determine whether RVSM shall be suspended and, if so, for how long and for which specific flight level(s) and/or area.

(ii) In cases where RVSM will be suspended, the ACC suspending RVSM shall coordinate with adjacent ACCs with regard to the flight levels appropriate for the transfer of traffic unless a contingency flight level allocation scheme has been determined by letter of agreement. The ACC suspending RVSM shall also coordinate with adjacent ACCs applicable sector capacities, as appropriate.

(20) SERA.11014 has been added:

SERA.11014 ACAS resolution advisory (RA)

(a) ACAS II shall be used during flight, except as provided in the minimum equipment list specified in Regulations (EU) Nos 965/2012, 800/2013 and 379/2014 in a mode that enables RA indications to be produced for the flight crew when undue proximity to another aircraft is detected unless inhibition of RA indication mode (using TA indication only or equivalent) is called for by an abnormal procedure or due to performance-limiting conditions.

(b) In the event of an RA, pilots shall:

(1) respond immediately by following the RA, as indicated, unless doing so would jeopardize the safety of the aircraft;

(2) follow the RA even if there is a conflict between the RA and an ATC instruction to manoeuvre;

(3) not manoeuvre in the opposite sense to an RA;

(4) as soon as permitted by flight crew workload, notify the appropriate ATC unit of any RA which requires a deviation from the current ATC instruction or clearance;

(5) promptly comply with any modified RAs;

(6) limit the alterations of the flight path to the minimum extent necessary to comply with the RAs;

(7) promptly return to the terms of the ATC instruction or clearance when the conflict is resolved; and

(8) notify ATC when returning to the current clearance.

(c) When a pilot reports an ACAS RA, the controller shall not attempt to modify the aircraft flight path until the pilot reports ‘CLEAR OF CONFLICT’.

(d) Once an aircraft departs from its ATC clearance or instruction in compliance with an RA, or a pilot reports an RA, the controller ceases to be responsible for providing separation between that aircraft and any other aircraft affected as a direct consequence

of the manoeuvre induced by the RA. The controller shall resume responsibility for providing separation to all the affected aircraft when:

(1) he/she acknowledges a report from the flight crew that the aircraft has resumed the current clearance, or

(2) he/she acknowledges a report from the flight crew that the aircraft is resuming the current clearance and issues an alternative clearance which is acknowledged by the flight crew.

(21) In SERA.12005, the following has been added:

‘(c) Flight crews shall compile the reports using forms based on the model AIREP SPECIAL form in Appendix 5. The detailed instructions for reporting, as provided in Appendix 5, shall be complied with.

(1) The detailed instructions, including the formats of messages and the phraseologies provided in Appendix 5, shall be used by flight crews when transmitting air-reports and by ATS units when retransmitting such reports.

(2) Special air-reports containing observations of volcanic activity shall be recorded on the special air-report of volcanic activity form. Forms based on the model form for special air-reports of volcanic activity in Appendix 5 shall be provided for flight crews operating on routes which could be affected by volcanic ash clouds.’

(22) SERA.12020 has been changed:

‘(a)…

(2) the associated meteorological watch office (MWO) in accordance with Appendix 5; and’

(23) A new Section 13 has been introduced:

‘SERA.13005 SSR transponder Mode A code setting

(a) To indicate that it is in a specific contingency situation, the pilot of an aircraft equipped with SSR shall:

(1) select Code 7700 to indicate a state of emergency unless ATC has previously directed the pilot to operate the transponder on a specified code. In the latter case, a pilot may nevertheless select Code 7700 whenever there is a specific reason to believe that this would be the best course of action;

(2) select Code 7600 to indicate a state of radio-communication failure;

(3) attempt to select Code 7500 to indicate a state of unlawful interference. If circumstances so warrant, Code 7700 shall be used instead.

(b) Except in cases described in (a) above, the pilot shall:

(1) select codes as instructed by the ATS unit; or

(2) in absence of ATS instructions related to code setting, select code 2000 or other code as prescribed by the competent authority; or

(3) when not receiving air traffic service, select code 7000 in order to improve the detection of suitably equipped aircraft unless otherwise prescribed by the competent authority.

(c) When it is observed that the code shown on the situation display is different from what has been assigned to the aircraft:

(1) the pilot shall be requested to confirm the code selected and, if the situation warrants, to reselect the correct code; and

(2) if the discrepancy between assigned and displayed codes still persists, the pilot may be requested to stop the operation of the aircraft's transponder. The next control position and any other affected unit using SSR in the provision of ATS shall be informed accordingly.

SERA.13010 Pressure-altitude-derived information

(a) When the aircraft carries serviceable Mode C equipment, the pilot shall continuously operate this mode unless otherwise dictated by ATC.

(b) Unless otherwise prescribed by the competent authority, verification of the pressure-altitude-derived level information displayed to the controller shall be effected at least once by each suitably equipped ATC unit on initial contact with the aircraft concerned or, if this is not feasible, as soon as possible thereafter.

SERA.13015 SSR transponder Mode S aircraft identification setting

(a) Aircraft equipped with Mode S having an aircraft identification feature shall transmit the aircraft identification as specified in Item 7 of the ICAO flight plan or, when no flight plan has been filed, the aircraft registration.

(b) Whenever it is observed on the situation display that the aircraft identification transmitted by a Mode S-equipped aircraft is different from that expected from the aircraft, the pilot shall be requested to confirm and, if necessary, re-enter the correct aircraft identification.

(c) If, following confirmation by the pilot that the correct aircraft identification has been set on the Mode S identification feature, the discrepancy continues to exist, the controller shall take the following actions:

(1) inform the pilot of the persistent discrepancy;

(2) where possible, correct the label showing the aircraft identification on the situation display; and

(3) notify the next control position and any other unit concerned using Mode S for identification purposes that the aircraft identification transmitted by the aircraft is erroneous.

SERA.13020 SSR transponder failure when the carriage of a functioning transponder is mandatory

(a) In case of a transponder failure after departure, ATC units shall attempt to provide for continuation of the flight to the destination aerodrome in accordance with the flight plan. Pilots may, however, be expected to comply with specific restrictions.

(b) In the case of a transponder which has failed and cannot be restored before departure, pilots shall:

(1) inform ATS as soon as possible, preferably before submission of a flight plan;

(2) insert in Item 10 of the ICAO flight plan form under SSR the character 'N' for complete unserviceability of the transponder or, in case of partial transponder failure, insert the character corresponding to the remaining transponder capability; and

(3) comply with any published procedures requesting an exemption from the requirements to carry a functioning SSR transponder.'

(24) A new Section 14 has been introduced:

'Section 14 Voice communication procedures

SERA.14001 General

Standardised phraseology shall be used in all situations for which it has been specified. Only when standardised phraseology cannot serve an intended transmission, plain language shall be used.

SERA.14005 Categories of messages

(a) The categories of messages handled by the aeronautical mobile service, and the order of priority in the establishment of communications and the transmission of messages shall be in accordance with Table S14-1.

Table S14-1

Message category and radiotelephony order of priority signal	*Radiotelephony signal*
(a) Distress calls, distress messages and distress traffic	**MAYDAY**
(b) Urgency messages, including messages preceded by the medical transports signal	**PAN PAN** *or* **PAN PAN MEDICAL**
(c) Communications relating to direction finding	—
(d) Flight safety messages	—
(e) Meteorological messages	—
(f) Flight regularity messages	—

(b) *Distress messages* and *distress traffic* shall be handled in accordance with the provisions of SERA.14095.

(c) *Urgency messages* and *urgency traffic*, including messages preceded by the medical transports signal, shall be handled in accordance with the provisions of SERA.14095.

SERA.14010 Flight safety messages

Flight safety messages shall comprise the following:

(a) movement and control messages;

(b) messages originated by an aircraft operator 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.

SERA.14015 Language to be used in air-ground communication

(a) The air-ground radiotelephony communications shall be conducted in the English language or in the language normally used by the station on the ground.

(b) The English language shall be available, at the request of any aircraft, at all stations on the ground serving designated aerodromes and routes used by international air services. Unless otherwise prescribed by the competent authority for specific cases, the English language shall be used at aerodromes with more than 50 000 international IFR movements per year.

(c) The languages available at a given station on the ground shall form part of the Aeronautical Information Publications and other published aeronautical information concerning such facilities.

SERA.14020 Word spelling in radiotelephony.

When proper names, service abbreviations and words of which the spelling is doubtful are spelled out in radiotelephony, the alphabet in Table S14-2 shall be used.

Table S14-2

The Radiotelephony Spelling Alphabet

Letter	*Word*	*Approximate pronunciation* *(Latin alphabet representation)*
A	**Alfa**	AL FAH
B	**Bravo**	BRAH VOH
C	**Charlie**	CHAR LEE *or* SHAR 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 *or* OO NEE FORM
V	**Victor**	VIK TAH
W	**Whiskey**	WISS KEY
X	**X-ray**	ECKS RAY
Y	**Yankee**	YANG KEY
Z	**Zulu**	ZOO LOO

In the approximate representation using the Latin alphabet, syllables to be emphasized are underlined.

SERA.14025 Principles governing the identification of ATS routes other than standard departure and arrival routes

(a) Use of ATS route designators in communications

(1) In voice communications, the basic letter of a designator shall be spoken in accordance with the spelling alphabet as defined in Table S14-2.

(2) Where the prefixes K, U or S are used, they shall, in voice communications, be spoken as follows:

(i) K — KOPTER
(ii) U — UPPER
(iii)S — SUPERSONIC

(b) The word ‘kopter’ shall be pronounced as in the word ‘helicopter’ and the words ‘upper’ and ‘supersonic’ as in the English language.

SERA.14030 Use of designators for standard instrument departure and arrival routes

The plain language designator for standard instrument departure or arrival routes shall be used in voice communications.

SERA.14035 Transmission of numbers in radiotelephony

(a) Transmission of numbers

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

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

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

(iii) 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'.

(2) All numbers used in transmission of other information than those described in (a)(1) 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 digit in the number of thousands followed by the word 'THOUSAND' followed by the number of hundreds followed by the word 'HUNDRED'.

(3) 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.

(4) When providing information regarding the 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'.

(5) Numbers containing a decimal point shall be transmitted as prescribed in (a)(1) with the decimal point, indicated by the word DECIMAL in appropriate sequence.

(6) All six digits of the numerical designator shall be used to identify the transmitting channel in VHF radiotelephony communications, except in the case of both the fifth and sixth digits being zeros, in which case only the first four digits shall be used.

SERA.14040 Pronunciation of numbers

When the language used for communication is English, numbers shall be transmitted using the pronunciation shown in Table S14-3:

Table S14-3

Numeral or numeral element	*Pronunciation*
0	ZE-RO
1	WUN
2	TOO
3	TREE
4	FOW-er
5	FIFE
6	SIX
7	SEV-en
8	AIT
9	NIN-er
Decimal	DAY-SEE-MAL
Hundred	HUN-dred
Thousand	TOU-SAND

SERA.14045 Transmitting technique

(a) Transmissions shall be conducted concisely in a normal conversational tone.

(b) The following words and phrases shall be used in radiotelephony communications, as appropriate, and shall have the meaning ascribed in Table S14-4:

Table S14-4

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.’

BREAK BREAK	'I hereby indicate the separation between messages transmitted to different aircraft in a very busy environment.'
CANCEL	'Annul the previously transmitted clearance.'
CHECK	'Examine a system or procedure.'
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 SERA.14070(c))
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).'
NEGATIVE	'No' *or* 'Permission not granted' *or* 'That is not correct' *or* 'Not capable'.
OVER	'My transmission is ended, and I expect a response from you.'
OUT	'This exchange of transmissions is ended and no response is expected.'
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 should like to know...' *or* 'I wish to obtain...'
ROGER	'I have received all of your last transmission.'
SAY AGAIN	'Repeat all, or the following part, of your last transmission.'
SPEAK SLOWER	'Reduce your rate of speech.'
STANDBY	'Wait and I will call you.'
UNABLE	'I cannot comply with your request, instruction, or clearance.'
WILCO	*(Abbreviation for 'will comply')* 'I understand your message and will comply with it.'
WORDS TWICE	a) *As a request:* 'Communication is difficult. Please send every word, or group of words, twice.' b) *As information:* 'Since communication is difficult, every word, or group of words, in this message will be sent twice.'

SERA.14050 Radiotelephony call signs for aircraft

(a) Full call signs

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

(1) Type a) — the characters corresponding to the registration marking of the aircraft; or

(2) Type b) — the telephony designator of the aircraft operator, followed by the last four characters of the registration marking of the aircraft;or

(3) Type c) — the telephony designator of the aircraft operator, followed by the flight identification.

(b) Abbreviated call signs

The aircraft radiotelephony call signs shown in (a), with the exception of Type c), may be abbreviated under the circumstances prescribed in SERA.14065(d)(1). Abbreviated call signs shall be in the following form:

(1) Type a) — the first character of the registration and at least the last two characters of the call sign;

(2) Type b) — the telephony designator of the aircraft operator, followed by at least the last two characters of the call sign;

(3) Type c) — no abbreviated form.

SERA.14055 Radiotelephony procedures

(a) An aircraft shall not change the type of its radiotelephony call sign during flight except temporarily at the instruction of an ATC unit in the interest of safety. Except for reasons of safety, no transmission shall be directed to an aircraft during take-off, during the last part of the final approach or during the landing roll.

(b) Establishment of radiotelephony communications

(1) Full radiotelephony call signs shall always be used when establishing communication, the aircraft shall start their call by the designation of the station called, followed by the designation of the station calling.

(2) In the reply to the above calls, the call sign of the station calling shall be used, followed by the call sign of the station answering, which shall be considered an invitation to proceed with transmission by the station calling.

(3) Communications shall commence with a call and a reply when it is desired to establish contact, except that, when it is certain that the station called will receive the call, the calling station may transmit the message without waiting for a reply from the station called.

(c) Subsequent radiotelephony communications

(1) Abbreviated radiotelephony call signs, as prescribed in SERA.14050 (b), 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.

(2) 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.

SERA.14060 Transfer of VHF communications

(a) An aircraft shall be advised by the appropriate ATS unit to transfer from one radio frequency to another in accordance with agreed procedures. In the absence of such advice, the aircraft shall notify the ATS unit before such a transfer takes place.

(b) When establishing initial contact on, or when leaving, a VHF frequency, an aircraft shall transmit such information as may be prescribed by the ANSP responsible for the provisions of services and approved by the competent authority.

SERA.14065 Radiotelephony procedures for air-ground voice communication channel changeover

(a) Unless otherwise prescribed by the ANSP responsible for the provisions of services and approved by the competent authority, the initial call to an ATS unit after a change of air-ground voice communication channel shall contain the following elements:

(1) designation of the ATS unit being called;

(2) call sign and, for aircraft in the heavy wake turbulence category, the word 'Heavy' or 'Super' if that aircraft has been so identified by the competent authority;

(3) level, including passing and cleared levels, if not maintaining the cleared one;

(4) speed, if assigned by ATC; and

(5) additional elements, as required by the ANSP responsible for the provisions of services and approved by the competent authority.

(b) Pilots shall provide level information at the nearest full 30 m or 100 ft, as indicated on the pilot's altimeter.

(c) Initial call to aerodrome control tower

For aircraft being provided with aerodrome control service, the initial call shall contain:

(1) designation of the ATS unit being called;

(2) call sign and, for aircraft in the heavy wake turbulence category, the word 'Heavy' or 'Super' if that aircraft has been so identified by the competent authority;

(3) position; and

(4) additional elements, as required by the ANSP responsible for the provision of services and approved by the competent authority.

SERA.14070 Test procedures

(a) The form of test transmissions shall be as follows:

(1) the identification of the station being called;

(2) the identification of the station calling;

(3) the words 'RADIO CHECK';

(4) the frequency being used.

(b) The reply to a test transmission shall be as follows:

(1) the identification of the station requesting the test;

(2) the identification of the station replying;

(3) information regarding the readability of the station requesting the test transmission.

(c) When the tests have been performed, the following readability scale shall be used:

Readability Scale

(1) 1 Unreadable

(2) 2 Readable now and then

(3) 3 Readable but with difficulty

(4) 4 Readable

(5) 5 Perfectly readable

SERA.14075 Exchange of communications

(a) Communications shall be concise and unambiguous, using standard phraseology whenever available.

(1) When transmitted by an aircraft, the acknowledgement of receipt of a message shall comprise the call sign of that aircraft.

(2) When acknowledgement of receipt is transmitted by an ATS unit to an aircraft, it shall comprise the call sign of the aircraft, followed, if considered necessary, by the call sign of the ATS unit.

(b) End of conversation.

A radiotelephone conversation shall be terminated by the receiving ATS unit or the aircraft using its own call sign.

(c) Corrections and repetitions

(1) When an error has been made in transmission, the word ‘CORRECTION’ shall be spoken, the last correct group or phrase repeated, and then the correct version transmitted.

(2) If a correction can best be made by repeating the entire message, the phrase ‘CORRECTION, I SAY AGAIN’ shall be used before the message is transmitted a second time.

(3) If the receiving station is in doubt as to the correctness of the message received, a repetition either in full or in part shall be requested.

(4) If repetition of an entire message is required, the words ‘SAY AGAIN’ shall be spoken. If repetition of a portion of a message is required, the phrase: ‘SAY AGAIN ALL BEFORE... (first word satisfactorily received)’ shall be used; or ‘SAY AGAIN...(word before missing portion) TO...(word after missing portion)’; or ‘SAY AGAIN ALL AFTER...(last word satisfactorily received).

(d) If, when checking the correctness of a read-back, incorrect items are noticed, the words ‘NEGATIVE I SAY AGAIN’ shall be transmitted at the conclusion of the read-back, followed by the correct version of the items concerned.

SERA.14080 Communications watch/Hours of service

(a) During flight, aircraft shall maintain watch as required by the competent authority and shall not cease watch, except for reasons of safety, without informing the ATS unit concerned.

(1) Aircraft on long over-water flights or on flights over designated areas over which the carriage of an emergency locator transmitter (ELT) is required, shall continuously guard the VHF emergency frequency 121.5 MHz, except for those periods when aircraft carry out communications on other VHF channels or when airborne equipment limitations or cockpit duties do not permit simultaneous guarding of two channels.

(2) Aircraft shall continuously guard the VHF emergency frequency 121.5 MHz over areas or on routes where the possibility of interception of aircraft or other hazardous situations exists, and a requirement has been established by the competent authority.

(b) Aeronautical stations shall maintain a continuous listening watch on VHF emergency channel 121.5 MHz during the hours of service of the units at which it is installed.

(c) When it is necessary for an aircraft station or ATS unit to suspend operation for any reason, it shall, if possible, so inform other stations concerned, indicating the time at which it is expected that operation will be resumed. When operation is resumed, other stations concerned shall be so informed. When it is necessary to suspend operation beyond the time specified in the original notice, a revised time of resumption of operation shall, if possible, be transmitted at or near the time first specified.

SERA.14085 Use of Blind Transmission

(a) When an aircraft fails to establish contact on the designated channel, on the previous channel used or on another channel appropriate to the route and fails to establish communication with the appropriate ATS unit, other ATS unit or other aircraft using all available means, the aircraft shall transmit its message twice on the designated channel(s), preceded by the phrase ‘TRANSMITTING BLIND’ and, if necessary, include the addressee(s) for which the message is intended.

(b) When an aircraft is unable to establish communication due to receiver failure, it shall transmit reports at the scheduled times, or positions, on the channel in use preceded by the phrase 'TRANSMITTING BLIND DUE TO RECEIVER FAILURE'. The aircraft shall:

(1) transmit the intended message, following this by a complete repetition;

(2) advise the time of its next intended transmission; and

(3) when provided with ATS, transmit information regarding the intention of the pilot-in-command with respect to the continuation of the flight.

SERA.14087 Use of relay communication technique

(a) When an ATS unit has been unable to establish contact with an aircraft after calls on the frequencies on which the aircraft is believed to be listening, it shall:

(1) request other ATS units to render assistance by calling the aircraft and relaying traffic, if necessary; and

(2) request aircraft on the route to attempt to establish communication with the aircraft and relay traffic, if necessary.

(b) The provisions of (a) shall also be applied:

(1) at request of the ATS unit concerned; and

(2) when an expected communication from an aircraft has not been received within a time period such that the occurrence of a communication failure is suspected.

SERA.14090 Specific communication procedures

(a) Movement of vehicles

Phraseologies for the movement of vehicles, other than tow-tractors, on the manoeuvring area shall be the same as those used for the movement of aircraft, with the exception of taxi instructions, in which case the word 'PROCEED' shall be substituted with the word 'TAXI' when communicating with vehicles.

(b) Air traffic advisory service

The air traffic advisory service does not deliver 'clearances' but only 'advisory information; it shall use the word 'advise' or 'suggest' when a course of action is proposed to an aircraft.

(c) Indication of heavy wake turbulence category

(1) For aircraft in the heavy wake turbulence category, the word 'Heavy' shall be included immediately after the aircraft call sign in the initial radiotelephony contact between such aircraft and ATS units.

(2) For specific aircraft in the heavy wake turbulence category, as identified by the competent authority, the word ‘Super’ shall be included immediately after the aircraft call sign in the initial radiotelephony contact between such aircraft and ATS units.

(d) Procedures related to weather deviation

When the pilot initiates communications with ATC, a rapid response may be obtained by stating ‘WEATHER DEVIATION REQUIRED’ to indicate that priority is desired on the frequency for ATC response. When necessary, the pilot shall initiate communication using the urgency call ‘PAN PAN’ (preferably spoken three times).

SERA.14095 Distress and urgency radiotelephony communication procedures

(a) General

(1) Distress and urgency traffic shall comprise all radiotelephony messages relative to the distress and urgency conditions respectively. Distress and urgency conditions are defined as:

(i) *Distress*: a condition of being threatened by serious and/or imminent danger and of requiring immediate assistance.

(ii) *Urgency*: 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.

(2) The radiotelephony distress signal ‘MAYDAY’ and the radiotelephony urgency signal ‘PAN PAN’ shall be used at the commencement of the first distress and urgency communication respectively. At the commencement of any subsequent communication in distress and urgency traffic, it shall be permissible to use the radiotelephony distress and urgency signals.

(3) The originator of messages addressed to an aircraft in distress or urgency condition shall restrict to the minimum the number, volume and content of such messages as required by the condition.

(4) If no acknowledgement of the distress or urgency message is made by the ATS unit addressed by the aircraft, other ATS units shall render assistance as prescribed in (b)(2) and (b)(3) respectively.

(5) Distress and urgency traffic shall normally be maintained on the frequency on which such traffic was initiated until it is considered that better assistance can be provided by transferring that traffic to another frequency.

(6) In cases of distress and urgency communications, in general, the radiotelephony transmissions shall be made slowly and distinctly, each word being clearly pronounced to facilitate transcription.

(b) Radiotelephony distress communications

(1) Action by the aircraft in distress

In addition to being preceded by the radiotelephony distress signal ‘MAYDAY’ in accordance with (a)(2), preferably spoken three times, the distress message to be sent by an aircraft in distress shall:

(i) be on the air-ground frequency in use at the time;

(ii) consist of as many as possible of the following elements spoken distinctly and, if possible, in the following order:

(A) the name of the ATS unit addressed (time and circumstances permitting);

(B) the identification of the aircraft;

(C) the nature of the distress condition;

(D) the intention of the pilot-in-command; and

(E) the present position, level and heading.

(2) Action by the ATS unit addressed or first ATS unit acknowledging the distress message

The ATS unit addressed by an aircraft in distress, or first ATS unit acknowledging the distress message, shall:

(i) immediately acknowledge the distress message;

(ii) take control of the communications or specifically and clearly transfer that responsibility, advising the aircraft if a transfer has been made; and

(iii) take immediate action to ensure that all necessary information is made available, as soon as possible, to:

(A) the ATS unit concerned; and

(B) the aircraft operator concerned or its representative in accordance with pre-established arrangements;

(iv) warn other ATS units, as appropriate, in order to prevent the transfer of traffic to the frequency of the distress communication.

(3) Imposition of silence

(i) The aircraft in distress, or the ATS unit in control of distress traffic, shall be permitted to impose silence either on all stations of the mobile service in the area or on any station which interferes with the distress traffic. It shall address these

instructions ‘to all stations’ or to one station only, according to the circumstances. In either case, it shall use:

(A) ‘STOP TRANSMITTING’; and

(B) the radiotelephony distress signal ‘MAYDAY’.

(ii) The use of the signals specified in (b)(3)(i) shall be reserved for the aircraft in distress and for the ATS unit controlling the distress traffic.

(4) Action by all other ATS units/aircraft

(i) The distress communications have absolute priority over all other communications, and ATS units/aircraft aware of them shall not transmit on the frequency concerned unless:

(A) the distress is cancelled or the distress traffic is terminated;

(B) all distress traffic has been transferred to other frequencies;

(C) the ATS unit controlling communications gives permission;

(D) it has itself to render assistance.

(ii) Any ATS unit/aircraft which has knowledge of distress traffic and which cannot itself assist the aircraft in distress shall nevertheless continue listening to such traffic until it is evident that assistance is being provided.

(5) Termination of distress communications and of silence

(i) When an aircraft is no longer in distress, it shall transmit a message cancelling the distress condition.

(ii) When the ATS unit which has controlled the distress communication traffic becomes aware that the distress condition is ended, it shall take immediate action to ensure that this information is made available, as soon as possible, to:

(A) the ATS unit concerned; and

(B) the aircraft operator concerned or its representative in accordance with pre-established arrangements.

(iii) The distress communication and silence conditions shall be terminated by transmitting a message, including the words ‘DISTRESS TRAFFIC ENDED’, on the frequency or frequencies being used for the distress traffic. This message shall be originated only by the ATS unit controlling the communications when, after the reception of the message prescribed in (b)(5)(i), it is authorised to do so by the competent authority.

(c) Radiotelephony urgency communications

(1) Action by the aircraft reporting an urgency condition except as indicated in (c)(4)

In addition to being preceded by the radiotelephony urgency signal 'PAN PAN' in accordance with (a)(2), preferably spoken three times and each word of the group pronounced as the French word 'panne', the urgency message to be sent by an aircraft reporting an urgency condition shall:

(i) be on the air-ground frequency in use at the time; and

(ii) consist of as many as required of the following elements spoken distinctly and, if possible, in the following order:

(A) the name of the ATS unit addressed;

(B) the identification of the aircraft;

(C) the nature of the urgency condition;

(D) the intention of the pilot-in-command;

(E) the present position, level and heading; and

(F) any other useful information.

(2) Action by the ATS unit addressed or first ATS unit acknowledging the urgency message

The ATS unit addressed by an aircraft reporting an urgency condition or the first ATS unit acknowledging the urgency message shall:

(i) acknowledge the urgency message; and

(ii) take immediate action to ensure that all necessary information is made available, as soon as possible, to:

(A) the ATS unit concerned; and

(B) the aircraft operator concerned or its representative in accordance with pre-established arrangements;

(iii) if necessary, exercise control of communications.

(3) Action by all other ATS units/aircraft

The urgency communications have priority over all other communications except distress, and all ATS units/aircraft shall take care not to interfere with the transmission of urgency traffic.

(4) Action by an aircraft used for medical transports

(i) The use of the signal described in (c)(4)(ii) shall indicate that the message which follows concerns a protected medical transport pursuant to the 1949 Geneva Conventions and Additional Protocols.

(ii) For the purpose of announcing and identifying aircraft used for medical transports, a transmission of the radiotelephony urgency signal 'PAN PAN', preferably spoken three times, and each word of the group pronounced as the French word 'panne', shall be followed by the radiotelephony signal for medical transports 'MAY-DEE-CAL', pronounced as in French 'médical'. 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:

(A) the call sign or other recognised means of identification of the medical transports;

(B) the position of the medical transports;

(C) the number and type of the medical transports;

(D) the intended route;

(E) the estimated time en route and of departure and arrival, as appropriate; and

(F) any other information such as flight altitude, radio frequencies guarded, languages used and secondary surveillance radar modes and codes.

(5) Action by the ATS units addressed, or by other stations receiving a medical transports message

The provisions of (c)(2) and (c)(3) shall apply as appropriate to ATS units receiving a medical transports message.'

(25) The following changes have been made to Appendix 1:

(a) The text in 1.1.2 has been changed:

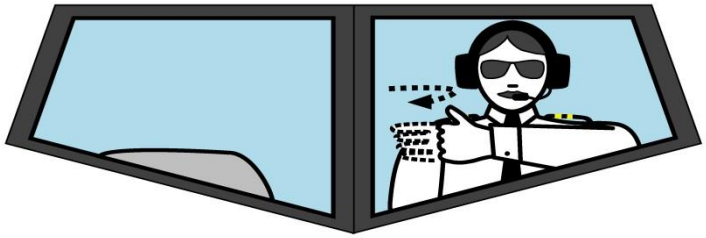
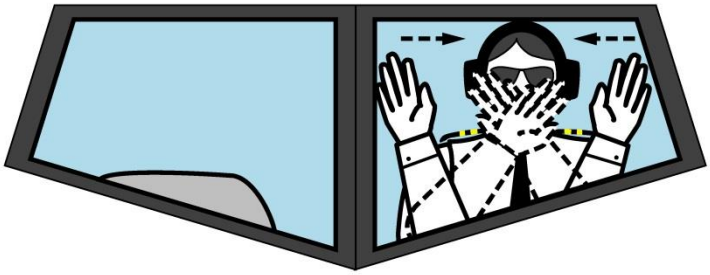
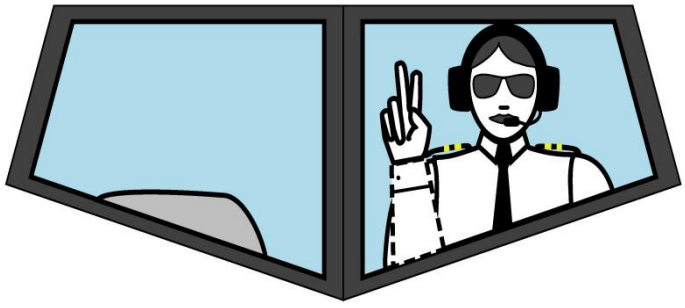
'1.1.2. The telecommunication transmission procedures for the distress and urgency signals shall be in accordance with Section 14.'

(b) The text in 3.2.4.1 has been changed:

'3.2.4.1. Crosses of a single contrasting colour, white on runways and yellow on taxiways (Figure A1-6), displayed horizontally on runways and taxiways or parts thereof indicate an area unfit for movement of aircraft.'

(c) Paragraphs 4.2.1.1, 4.2.1.2 and 4.2.1.3 have been removed.

(d) The following illustration has been introduced:

	(a) Brakes engaged: raise arm and hand, with fingers extended, horizontally in front of face, then clench fist.
	(b) Brakes released: raise arm, with fist clenched, horizontally in front of face, then extend fingers.
	(c) Insert chocks: arms extended, palms outwards, move hands inwards to cross in front of face.
	(d) Remove chocks: hands crossed in front of face, palms outwards, move arms outwards.
	(e) Raise the appropriate number of fingers on one hand indicating the number of the engine to be started.

(26) In the table in Appendix 4, the following changes have been made:

(a) In column ‘service provided’ for airspace class C, point 2) has been changed to read: ‘2) Air traffic control service, VFR/VFR traffic information (and traffic avoidance advice on request).’

(b) In column ‘service provided’ for airspace class D, IFR from IFR, the text has been changed to read: ‘Air traffic control service, traffic information about VFR flights (and traffic avoidance advice on request).’

(c) In column ‘service provided’ for airspace class D, Nil, the text has been changed to read: ‘Air traffic control service, IFR/VFR and VFR/VFR traffic information (and traffic avoidance advice on request).’

(27) Appendix 5 has been changed as follows:

(a) The title has been changed to: ‘Technical specifications related to aircraft observations and reports by voice communications’.

(b) The following section has been introduced: ‘A. Reporting instructions’ together with a model form for ‘Airep special’.

(c) 1.1 has been amended to read: ‘Position reports and special air-reports’.

(d) The previous paragraph 1.1.1 has been deleted.

(e) A new paragraph 1.1.1 has been introduced: ‘Section 1 is obligatory for position reports and special air-reports, although Items 5 and 6 thereof may be omitted. Section 2 shall be added, in whole or in part, only when so requested by the operator or its designated representative, or when deemed necessary by the pilot-in-command. Section 3 shall be included in special air-reports.’

(f) New provisions have been introduced as follows:

‘1.1.2 Condition prompting the submission of a special air-report, to be selected from the list presented in SERA.12005 (a).

1.1.3 In the case of special air-reports containing information on volcanic activity, a post-flight report shall be submitted using the volcanic activity reporting form (Model VAR). All elements which are observed shall be recorded and indicated respectively in the appropriate places on the form Model VAR.

1.1.4 Special air-reports shall be submitted as soon as practicable after a phenomenon calling for a special air-report has been observed.

1.1.5 If a phenomenon warranting the submission of a special air-report is observed at or near the time or place where a routine air-report is to be submitted, a special air-report shall be submitted instead.

2. Detailed reporting instructions

2.1 Items of an air-report shall be reported in the order in which they are listed in the model AIREP SPECIAL form.

— MESSAGE TYPE DESIGNATOR. Report ‘SPECIAL’ for a special air-report.

Section 1

Item 1 — AIRCRAFT IDENTIFICATION. Report the aircraft radiotelephony call sign as prescribed in SERA.14050.

Item 2 — POSITION. Report position in latitude (degrees as 2 numerics or degrees and minutes as 4 numerics followed by 'North' or 'South') and longitude (degrees as 3 numerics or degrees and minutes as 5 numerics followed by 'East or 'West'), or as a significant point identified by a coded designator (2 to 5 characters), or as a significant point followed by magnetic bearing (3 numerics) and distance from the point in nautical miles. Precede significant point with 'ABEAM', if applicable.

Item 3 — TIME. Report time in hours and minutes UTC (4 numerics) unless reporting time in minutes past the hour (2 numerics) is prescribed on the basis of regional air navigation agreements. The time reported must be the actual time of the aircraft at the position and not the time of origination or transmission of the report. Time shall always be reported in hours and minutes UTC when submitting a special air-report.

Item 4 — FLIGHT LEVEL OR ALTITUDE. Report flight level by 3 numerics when on standard pressure altimeter setting. Report altitude in metres followed by 'METRES' or in feet followed by 'FEET' when on QNH. Report 'CLIMBING' (followed by the level) when climbing, or 'DESCENDING' (followed by the level) when descending to a new level after passing the significant point.

Item 5 — NEXT POSITION AND ESTIMATED TIME OVER. Report the next reporting point and the estimated time over such reporting point, or report the estimated position that will be reached one hour later according to the position reporting procedures in force. Use the data conventions for position specified in Item 2. Report the estimated time over this position. Report time in hours and minutes UTC (4 numerics) unless reporting time in minutes past the hour (2 numerics) as prescribed by regional air navigation agreements.

Item 6 — ENSUING SIGNIFICANT POINT. Report the ensuing significant point following the 'next position and estimated time over'.

Section 2

Item 7 — ESTIMATED TIME OF ARRIVAL. Report the name of the aerodrome for the first intended landing, followed by the estimated time of arrival at this aerodrome in hours and minutes UTC (4 numerics).

Item 8 — ENDURANCE. Report 'ENDURANCE' followed by fuel endurance in hours and minutes (4 numerics).

Section 3

Item 9 — PHENOMENON PROMPTING A SPECIAL AIR-REPORT. Report one of the following phenomena encountered or observed:

— moderate turbulence as ‘TURBULENCE MODERATE’; and
— severe turbulence as ‘TURBULENCE SEVERE’.

The following specifications apply:

- Moderate — Conditions in which moderate changes in aircraft attitude and/or altitude may occur but the aircraft remains in positive control at all times. Usually, small variations in airspeed. Changes in accelerometer readings of 0.5 g to 1.0 g at the aircraft’s centre of gravity. Difficulty in walking. Occupants feel strained against seat belts. Loose objects move about.
- Severe — Conditions in which abrupt changes in aircraft attitude and/or altitude occur; aircraft may be out of control for short periods. Usually, large variations in airspeed. Changes in accelerometer readings greater than 1 0 g at the aircraft’s centre of gravity. Occupants are forced violently against seat belts. Loose objects are tossed about.

— moderate icing as ‘ICING MODERATE’, severe icing as ‘ICING SEVERE’;

The following specifications apply:

- Moderate — Conditions in which change of heading and/or altitude may be considered desirable.
- Severe — Conditions in which immediate change of heading and/or altitude is considered essential.

— Severe mountain wave as ‘MOUNTAIN WAVE SEVERE’;

The following specification applies:

Severe — Conditions in which the accompanying downdraft is 3.0 m/s (600 ft/min) or more and/or severe turbulence is encountered.

— Thunderstorm without hail as ‘THUNDERSTORM’, thunderstorm with hail as ‘THUNDERSTORM WITH HAIL’;

The following specification applies:

Only report those thunderstorms which are:

- obscured in haze; or
- embedded in cloud; or
- widespread; or
- forming a squall-line.

— Heavy dust storm or sandstorm as ‘DUSTSTORM HEAVY’ or ‘SANDSTORM HEAVY’ respectively;
— Volcanic ash cloud as ‘VOLCANIC ASH CLOUD’;

— Pre-eruption volcanic activity or a volcanic eruption as ‘PRE-ERUPTION VOLCANIC ACTIVITY’ or ‘VOLCANIC ERUPTION’ respectively;

The following specification applies:

Pre-eruption volcanic activity in this context means unusual and/or increasing volcanic activity which could presage a volcanic eruption.

2.2 Information recorded on the volcanic activity reporting form (Model VAR) is not for transmission by RTF but, on arrival at an aerodrome, is to be delivered, without delay by the operator or a flight crew member to the aerodrome meteorological office. If such an office is not easily accessible, the completed form shall be delivered in accordance with local arrangements agreed upon between MET and ATS providers and the aircraft operator.

3. Forwarding of meteorological information received by voice communications

3.1 When receiving special air-reports, ATS units shall forward these air-reports without delay to the associated meteorological watch office (MWO). In order to ensure assimilation of air-reports in ground-based automated systems, the elements of such reports shall be transmitted using the data conventions specified below and in the order prescribed.

— ADDRESSEE. Record the station called and, when necessary, the relay required.

— MESSAGE TYPE DESIGNATOR. Record ‘ARS’ for a special air-report.

— AIRCRAFT IDENTIFICATION. Record the aircraft identification using the data convention specified for Item 7 of the flight plan, without a space between the operator’s designator and the aircraft registration or flight identification, if used.

Section 1

Item 0 — POSITION. Record position in latitude (degrees as 2 numerics or degrees and minutes as 4 numerics, followed, without a space, by N or S) and longitude (degrees as 3 numerics or degrees and minutes as 5 numerics, followed without a space by E or W), or as a significant point identified by a coded designator (2 to 5 characters), or as a significant point followed by magnetic bearing (3 numerics) and distance from the point in nautical miles (3 numerics). Precede significant point with ‘ABEAM’ , if applicable.

Item 1 — TIME. Record time in hours and minutes UTC (4 numerics).

Item 2 — FLIGHT LEVEL OR ALTITUDE. Record ‘F’ followed by 3 numerics (e.g. ‘F310’) when a flight level is reported. Record altitude in metres followed by ‘M’ or in feet followed by ‘FT’ when an altitude is reported. Record ‘ASC’ (level) when climbing, or ‘DES’ (level) when descending.

Section 3

Item 9 — PHENOMENON PROMPTING A SPECIAL AIR-REPORT. Record the phenomenon reported as follows:

moderate turbulence as ‘TURB MOD’;

severe turbulence as ‘TURB SEV’;

moderate icing as ‘ICE MOD’;

severe icing as ‘ICE SEV’;

severe mountain wave as ‘MTW SEV’;

thunderstorm without hail as ‘TS’;

thunderstorm with hail as ‘TSGR’;

heavy dust storm or sandstorm as ‘HVY SS’;

volcanic ash cloud as ‘VA CLD’;

pre-eruption volcanic activity or a volcanic eruption as ‘VA’;

hail as ‘GR’; and

cumulonimbus clouds as ‘CB’.

TIME TRANSMITTED. Record only when Section 3 is transmitted.

(g) The previous Chapter 2 ‘Specific provisions related to reporting wind shear and volcanic ash’ has been renumbered.

(h) In the new Chapter 2.1, the text has been changed as follows:

‘On arrival of a flight at an aerodrome, the completed report of volcanic activity shall be delivered by the aircraft operator or a flight crew member, without delay, to the aerodrome meteorological office, or if such office is not easily accessible to arriving flight crew members, the completed form shall be dealt with in accordance with local arrangements agreed upon between MET and ATS providers and the aircraft operator.’

(i) A new Section B, ‘Special air-report of volcanic activity form (Model VAR)’ has been introduced together with a model form.

(26) The supplement to the Annex has been changed as follows:

(a) In Difference A2-04, the last sentence referring to Difference A2-06 has been deleted.

(b) Difference A2-06 has been deleted.

(c) A new Difference A10-01 has been introduced:

‘ICAO Annex 10, Volume II, Chapter 5.2.1.4.1 is transposed in SERA.14035 with some differences. The differences between this ICAO Standard and this EU Regulation are as follows:

SERA.14035 Transmission of numbers in radiotelephony

(a) Transmission of numbers

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

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

(ii) 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’.

(iii) 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’.

(2) All numbers used in transmission of other information than those described in (a)(1) 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 digit in the number of thousands followed by the word ‘THOUSAND’, followed by the number of hundreds, followed by the word ‘HUNDRED’.

(3) 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.

(4) 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’.

(5) Numbers containing a decimal point shall be transmitted as prescribed in (a)(1) with the decimal point indicated by the word ‘DECIMAL’ in appropriate sequence.

(6) All six digits of the numerical designator shall be used to identify the transmitting channel in VHF radiotelephony communications except in the case of both the fifth and sixth digits being zeros, in which case only the first four digits shall be used.’