

Annex II to ED Decision 2016/008/R
O. SUBJECT 091 — VFR COMMUNICATIONS

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter		IR
		ATPL	CPL	ATPL/IR	ATPL	
090 00 00 00	COMMUNICATIONS					
091 00 00 00	VFR COMMUNICATIONS					
091 01 00 00	DEFINITIONS					
091 01 01 00	Meanings and significance of associated terms					
	LO Stations.	X	X	X	X	X
	LO Communication methods.	X	X	X	X	X
091 01 02 00	Air Traffic Services abbreviations					
	LO Define commonly used Air Traffic Control abbreviations: — flight conditions; — airspace; — services; — time; — miscellaneous.	X	X	X	X	X
091 01 03 00	Q-code groups commonly used in RTF air-ground communications					
	LO Define Q-code groups commonly used in RTF air-to-ground communications: — pressure settings; — directions and bearings.	X	X	X	X	X
	LO State the procedure for obtaining bearing information in flight.	X	X	X	X	X
091 01 04 00	Categories of messages					
	LO List the categories of messages in order of priority.	X	X	X	X	X
	LO Identify the types of messages appropriate to each category.	X	X	X	X	X
	LO List the priority of a message (from given examples of messages to compare).	X	X	X	X	X
091 02 00 00	GENERAL OPERATING PROCEDURES					
091 02 01 00	Transmission of letters					
	LO State the phonetic alphabet used in radio-telephony.	X	X	X	X	X

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		ATPL	CPL	ATPL/IR	ATPL	CPL	
	LO Identify the occasions when words should be spelt.	x	x	x	x	x	
091 02 02 00	Transmission of numbers (including level information)						
	LO Describe the method of transmission of numbers: — pronunciation; — single digits, whole hundreds and whole thousands.	x	x	x	x	x	
091 02 03 00	Transmission of time						
	LO Describe the ways of transmitting time: — standard time reference (UTC); — minutes, minutes and hours, when required.	x	x	x	x	x	
091 02 04 00	Transmission technique						
	LO Explain the techniques used for making good R/T transmissions.	x	x	x	x	x	
091 02 05 00	Standard words and phrases (relevant RTF phraseology included)						
	LO Define the meaning of 'standard words and phrases'.	x	x	x	x	x	
	LO Use correct phraseology for each phase of VFR flight.	x	x	x	x	x	
	LO Aerodrome procedures: — departure information; — taxiing instructions; — aerodrome traffic and circuits; — final approach and landing; — after landing; — essential aerodrome information.	x	x	x	x	x	
	LO VFR departure.	x	x	x	x	x	
	LO VFR arrival.	x	x	x	x	x	
091 02 06 00	Radio-telephony call signs for aeronautical stations including use of abbreviated call signs						
	LO Name the two parts of the call sign of an aeronautical station.	x	x	x	x	x	

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter			IR
		ATPL	CPL	ATPL/IR	ATPL	CPL	
LO	Identify the call-sign suffixes for aeronautical stations.	X	X	X	X	X	
LO	Explain when the call sign may be omitted or abbreviated to the use of suffix only.	X	X	X	X	X	
091 02 07 00	Radio-telephony call signs for aircraft including use of abbreviated call signs						
LO	List the three different ways to compose an aircraft call sign.	X	X	X	X	X	
LO	Describe the abbreviated forms for aircraft call signs.	X	X	X	X	X	
LO	Explain when aircraft call signs may be abbreviated.	X	X	X	X	X	
091 02 08 00	Transfer of communication						
LO	Describe the procedure for transfer of communication: — by ground station; — by aircraft.	X	X	X	X	X	
091 02 09 00	Test procedures including readability scale						
LO	Explain how to test radio transmission and reception.	X	X	X	X	X	
LO	State the readability scale and explain its meaning.	X	X	X	X	X	
091 02 10 00	Read-back and acknowledgement requirements						
LO	State the requirement to read back ATC route clearances.	X	X	X	X	X	
LO	State the requirement to read back clearances related to the runway in use.	X	X	X	X	X	
LO	State the requirement to read back other clearances including conditional clearances.	X	X	X	X	X	
LO	State the requirement to read back other data such as runway, SSR codes, etc.	X	X	X	X	X	

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter			IR
		ATPL	CPL	ATPL/IR	ATPL	CPL	
091 02 11 00	Radar procedural phraseology						
LO	Use the correct phraseology for an aircraft receiving a radar service: <ul style="list-style-type: none"> — radar identification; — radar vectoring; — traffic information and avoidance; — SSR procedures. 	x	x	x	x	x	
091 03 00 00	RELEVANT WEATHER INFORMATION TERMS (VFR)						
091 03 01 00	Aerodrome weather						
LO	List the contents of aerodrome weather reports and state units of measurement used for each item: <ul style="list-style-type: none"> — wind direction and speed; — variation of wind direction and speed; — visibility; — present weather; — cloud amount and type (including the meaning of CAVOK); — air temperature and dew point; — pressure values (QNH, QFE); — supplementary information (aerodrome warnings, landing runway, runway conditions, restrictions, obstructions, wind-shear warnings, etc.). 	x	x	x	x	x	
091 03 02 00	Weather broadcast						
LO	List the sources of weather information available for aircraft in flight.	x	x	x	x	x	
LO	Explain the meaning of the acronyms 'ATIS', 'VOLMET'.	x	x	x	x	x	
091 04 00 00	ACTION REQUIRED TO BE TAKEN IN CASE OF COMMUNICATION FAILURE						
LO	State the action to be taken in case of communication failure on a controlled VFR flight.	x	x	x	x	x	
LO	Identify the frequencies to be used in an attempt to establish communication.	x	x	x	x	x	

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter			IR
		ATPL	CPL	ATPL/IR	ATPL	CPL	
LO	State the additional information that should be transmitted in the event of receiver failure.	x	x	x	x	x	
LO	Identify the SSR code that may be used to indicate communication failure.	x	x	x	x	x	
LO	Explain the action to be taken by a pilot with communication failure in the aerodrome traffic pattern at controlled aerodromes.	x	x	x	x	x	
091 05 00 00	DISTRESS AND URGENCY PROCEDURES						
091 05 01 00	Distress (definition, frequencies, watch of distress frequencies, distress signal, distress message)						
LO	State the DISTRESS procedures.	x	x	x	x	x	
LO	Define DISTRESS.	x	x	x	x	x	
LO	Identify the frequencies that should be used by aircraft in DISTRESS.	x	x	x	x	x	
LO	Specify the emergency SSR codes that may be used by aircraft, and the meaning of the codes.	x	x	x	x	x	
LO	Describe the action to be taken by the station which receives a DISTRESS message.	x	x	x	x	x	
LO	Describe the action to be taken by all other stations when a DISTRESS procedure is in progress.	x	x	x	x	x	
LO	List the content of a DISTRESS signal/message in the correct sequence.	x	x	x	x	x	
091 05 02 00	Urgency (definition, frequencies, urgency signal, urgency message)						
LO	State the URGENCY procedures.	x	x	x	x	x	
LO	Define URGENCY.	x	x	x	x	x	
LO	Identify the frequencies that should be used by aircraft in URGENCY.	x	x	x	x	x	

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter			IR
		ATPL	CPL	ATPL/IR	ATPL	CPL	
LO	Describe the action to be taken by the station which receives an URGENCY message.	x	x	x	x	x	
LO	Describe the action to be taken by all other stations when an URGENCY procedure is in progress.	x	x	x	x	x	
LO	List the content of an URGENCY signal/message in the correct sequence.	x	x	x	x	x	
091 06 00 00	GENERAL PRINCIPLES OF VHF PROPAGATION AND ALLOCATION OF FREQUENCIES						
LO	Describe the radio-frequency spectrum with particular reference to VHF.	x	x	x	x	x	
LO	Describe the radio-frequency spectrum of the bands into which the radio-frequency spectrum is divided.	x	x	x	x	x	
LO	Identify the frequency range of the VHF band.	x	x	x	x	x	
LO	Name the band normally used for Aeronautical Mobile Service voice communication.	x	x	x	x	x	
LO	State the frequency separation allocated between consecutive VHF frequencies.	x	x	x	x	x	
LO	Describe the propagation characteristics of radio transmissions in the VHF band.	x	x	x	x	x	
LO	Describe the factors which reduce the effective range and quality of radio transmissions.	x	x	x	x	x	
LO	State which of these factors apply to the VHF band.	x	x	x	x	x	
LO	Calculate the effective range of VHF transmissions assuming no attenuating factors.	x	x	x	x	x	

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter			IR
		ATPL	CPL	ATPL/IR	ATPL	CPL	
090 00 00 00	COMMUNICATIONS						
092 00 00 00	IFR COMMUNICATIONS						
092 01 00 00	DEFINITIONS						
092 01 01 00	Meanings and significance of associated terms						
	LO Stations.	x		x			x
	LO Communication methods.	x		x			x
	LO The terms used in conjunction with the approach and holding procedures.	x		x			x
092 01 02 00	Air Traffic Control abbreviations						
	LO Define commonly used Air Traffic Control abbreviations: — flight conditions; — airspace; — services; — time; — miscellaneous.	x		x			x
	LO The additional IFR-related terms.	x		x			x
092 01 03 00	Q-code groups commonly used in RTF air-ground communications						
	LO Define Q-code groups commonly used in RTF air-to-ground communications: — pressure settings; — directions and bearings.	x		x			x
	LO State the procedure for obtaining a bearing information in flight.	x		x			x
092 01 04 00	Categories of messages						
	LO List the categories of messages in order of priority.	x		x			x
	LO Identify the types of messages appropriate to each category.	x		x			x
	LO List the priority of a message (given examples of messages to compare).	x		x			x

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter		IR
		ATPL	CPL	ATPL/IR	ATPL	
092 02 00 00	GENERAL OPERATING PROCEDURES					
092 02 01 00	Transmission of letters					
LO	State the phonetic alphabet used in radio-telephony.	x		x		x
LO	Identify the occasions when words should be spelt.	x		x		x
092 02 02 00	Transmission of numbers (including level information)					
LO	Describe the method of transmitting numbers: — pronunciation; — single digits, whole hundreds and whole thousands.	x		x		x
092 02 03 00	Transmission of time					
LO	Describe the ways of transmitting time: — standard time reference (UTC); — minutes, minutes and hours, when required.	x		x		x
092 02 04 00	Transmission technique					
LO	Explain the techniques used for making good R/T transmissions.	x		x		x
092 02 05 00	Standard words and phrases (relevant RTF phraseology included)					
LO	Define the meaning of 'standard words and phrases'.	x		x		x
LO	Use correct standard phraseology for each phase of IFR flight: — pushback; — IFR departure; — airways clearances; — position reporting; — approach procedures; — IFR arrivals.	x		x		x
092 02 06 00	Radio-telephony call signs for aeronautical stations including use of abbreviated call signs					

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter		IR	
		ATPL	CPL	ATPL/IR	ATPL		CPL
LO	Name the two parts of the call sign of an aeronautical station.	x		x			x
LO	Identify the call-sign suffixes for aeronautical stations.	x		x			x
LO	Explain when the call sign may be omitted or abbreviated to the use of suffix only.	x		x			x
LO	Name the two parts of the call sign of an aeronautical station.	x		x			x
LO	Identify the call-sign suffixes for aeronautical stations.	x		x			x
LO	Explain when the call sign may be abbreviated to the use of suffix only.	x		x			x
092 02 07 00	Radio-telephony call signs for aircraft including use of abbreviated call signs						
LO	List the three different ways to compose an aircraft call sign.	x		x			x
LO	Describe the abbreviated forms for aircraft call signs.	x		x			x
LO	Explain when aircraft call signs may be abbreviated.	x		x			x
LO	Explain when the suffix 'HEAVY' should be used with an aircraft call sign.	x		x			x
LO	Explain the use of the phrase 'Change your call sign to...'	x		x			x
LO	Explain the use of the phrase 'Revert to flight plan call sign'.	x		x			x
092 02 08 00	Transfer of communication						
LO	Describe the procedure for transfer of communication: — by ground station; — by aircraft.	x		x			x
092 02 09 00	Test procedures including readability scale; establishment of RTF communication						

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter		IR	
		ATPL	CPL	ATPL/IR	ATPL		CPL
LO	Explain how to test radio transmission and reception.	x		x			x
LO	State the readability scale and explain its meaning.	x		x			x
092 02 10 00	Read-back and acknowledgement requirements						
LO	State the requirement to read back ATC route clearances.	x		x			x
LO	State the requirement to read back clearances related to runway in use.	x		x			x
LO	State the requirement to read back other clearances including conditional clearances.	x		x			x
LO	State the requirement to read back data such as runway, SSR codes, etc.	x		x			x
092 02 11 00	Radar procedural phraseology						
LO	Use the correct phraseology for an aircraft receiving a radar service: — radar identification; — radar vectoring; — traffic information and avoidance; — SSR procedures.	x		x			x
092 02 12 00	Level changes and reports						
LO	Use the correct term to describe vertical position: — in relation to flight level (standard pressure setting); — in relation to altitude (metres/feet on QNH); — in relation to height (metres/feet on QFE).	x		x			x
092 03 00 00	ACTION REQUIRED TO BE TAKEN IN CASE OF COMMUNICATION FAILURE						
LO	Describe the action to be taken in communication failure on an IFR flight.	x		x			x
LO	Describe the action to be taken in case of communication failure on an IFR flight when flying in VMC and the flight will be terminated in VMC.	x		x			x

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		ATPL	CPL	ATPL/IR	ATPL		CPL
	LO Describe the action to be taken in case of communication failure on an IFR flight when flying in IMC.	x		x			x
092 04 00 00	DISTRESS AND URGENCY PROCEDURES						
092 04 01 00	PAN MEDICAL						
	LO Describe the type of flights to which PAN MEDICAL applies.	x		x			x
	LO List the content of a PAN MEDICAL message in correct sequence.	x		x			x
092 04 02 00	Distress (definition, frequencies, watch of distress frequencies, distress signal, distress message)						
	LO State the DISTRESS procedures.	x		x			x
	LO Define DISTRESS.	x		x			x
	LO Identify the frequencies that should be used by aircraft in DISTRESS.	x		x			x
	LO Specify the emergency SSR codes that may be used by aircraft, and the meaning of the codes.	x		x			x
	LO Describe the action to be taken by the station which receives a DISTRESS message.	x		x			x
	LO Describe the action to be taken by all other stations when a DISTRESS procedure is in progress.	x		x			x
	LO List the content of a DISTRESS message.	x		x			x
092 04 03 00	Urgency (definition, frequencies, urgency signal, urgency message)						
	LO State the URGENCY procedures.	x		x			x
	LO Define URGENCY.	x		x			x
	LO Identify the frequencies that should be used by aircraft in URGENCY.	x		x			x
	LO Describe the action to be taken by the station which receives an URGENCY message.	x		x			x

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter			IR
		ATPL	CPL	ATPL/IR	ATPL	CPL	
LO	Describe the action to be taken by all other stations when a DISTRESS procedure is in progress.	x		x			x
LO	List the content of an URGENCY signal/message in the correct sequence.	x		x			x
092 05 00 00	RELEVANT WEATHER INFORMATION TERM						
092 05 01 00	Aerodrome weather						
LO	List the contents of aerodrome weather reports and state units of measurement used for each item: — wind direction and speed; — variation of wind direction and speed; — visibility; — present weather; — cloud amount and type (including the meaning of CAVOK); — air temperature and dew point; — pressure values (QNH, QFE); — supplementary information (aerodrome warnings, landing runway, runway conditions, restrictions, obstructions, wind-shear warnings, etc.).	x		x			x
LO	State units for measurement used for runway visual range.	x		x			x
LO	State units of measurement used for braking action (friction coefficient).	x		x			x
092 05 02 00	Weather broadcast						
LO	List the sources of weather information available for aircraft in flight.	x		x			x
LO	Explain the meaning of the acronyms 'ATIS', 'VOLMET'.	x		x			x
LO	Explain when aircraft routine meteorological observations should be made.	x		x			x
LO	Explain when aircraft special meteorological observations should be made.	x		x			x

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Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter			IR
		ATPL	CPL	ATPL/IR	ATPL	CPL	
092 06 00 00	GENERAL PRINCIPLES OF VHF PROPAGATION AND ALLOCATION OF FREQUENCIES						
LO	Describe the radio-frequency spectrum with particular reference to VHF.	x		x			x
LO	State the names of the bands into which the radio-frequency spectrum is divided.	x		x			x
LO	Identify the frequency range of the VHF band.	x		x			x
LO	Name the band normally used for Aeronautical Mobile Service voice communications.	x		x			x
LO	State the frequency separation allocated between consecutive VHF frequencies.	x		x			x
LO	Describe the propagation characteristics of radio transmissions in the VHF band.	x		x			x
LO	Describe the factors which reduce the effective range and quality of radio transmissions.	x		x			x
LO	State which of these factors apply to the VHF band.	x		x			x
LO	Calculate the effective range of VHF transmissions assuming no attenuating factors.	x		x			x
092 07 00 00	MORSE CODE						
LO	Identify radio-navigation aids (VOR, DME, NDB, ILS) from their Morse-code identifiers.	x	x	x	x	x	x
LO	SELCAL, TCAS, ACARS phraseology and procedures.	x	x	x	x	x	x

(b) Airship

SYLLABUS OF THEORETICAL KNOWLEDGE FOR CPL AND IR

The applicable items for each licence or rating are marked with 'x'. An 'x' on the main title of a subject means that all the subdivisions are applicable.'