

**O. SUBJECT 091 — VFR COMMUNICATIONS**

Syllabus reference	Syllabus details and associated Learning Objectives	Aeroplane		Helicopter		IR
		ATPL	CPL	ATPL/IR	ATPL	
<b>090 00 00 00</b>	<b>COMMUNICATIONS</b>					
<b>091 00 00 00</b>	<b>VFR COMMUNICATIONS</b>					
<b>091 01 00 00</b>	<b>DEFINITIONS</b>					
<b>091 01 01 00</b>	<b>Meanings and significance of associated terms</b>					
	LO Stations.	X	X	X	X	X
	LO Communication methods.	X	X	X	X	X
<b>091 01 02 00</b>	<b>Air Traffic Services abbreviations</b>					
	LO Define commonly used Air Traffic Control abbreviations: — flight conditions; — airspace; — services; — time; — miscellaneous.	X	X	X	X	X
<b>091 01 03 00</b>	<b>Q-code groups commonly used in RTF air-ground communications</b>					
	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
<b>091 01 04 00</b>	<b>Categories of messages</b>					
	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
<b>091 02 00 00</b>	<b>GENERAL OPERATING PROCEDURES</b>					
<b>091 02 01 00</b>	<b>Transmission of letters</b>					
	LO State the phonetic alphabet used in radio-telephony.	X	X	X	X	X

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LO	Identify the occasions when words should be spelt.	x	x	x	x	x	
<b>091 02 02 00</b>	<b>Transmission of numbers (including level information)</b>						
LO	Describe the method of transmission of numbers: — pronunciation; — single digits, whole hundreds and whole thousands.	x	x	x	x	x	
<b>091 02 03 00</b>	<b>Transmission of time</b>						
LO	Describe the ways of transmitting time: — standard time reference (UTC); — minutes, minutes and hours, when required.	x	x	x	x	x	
<b>091 02 04 00</b>	<b>Transmission technique</b>						
LO	Explain the techniques used for making good R/T transmissions.	x	x	x	x	x	
<b>091 02 05 00</b>	<b>Standard words and phrases (relevant RTF phraseology included)</b>						
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	
<b>091 02 06 00</b>	<b>Radio-telephony call signs for aeronautical stations including use of abbreviated call signs</b>						
LO	Name the two parts of the call sign of an aeronautical station.	x	x	x	x	x	

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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
<b>091 02 07 00</b>	<b>Radio-telephony call signs for aircraft including use of abbreviated call signs</b>					
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
<b>091 02 08 00</b>	<b>Transfer of communication</b>					
LO	Describe the procedure for transfer of communication: — by ground station; — by aircraft.	x	x	x	x	x
<b>091 02 09 00</b>	<b>Test procedures including readability scale</b>					
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
<b>091 02 10 00</b>	<b>Read-back and acknowledgement requirements</b>					
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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<b>091 02 11 00</b>	<b>Radar procedural phraseology</b>					
LO	Use the correct phraseology for an aircraft receiving a radar service: <ul style="list-style-type: none"> <li>— radar identification;</li> <li>— radar vectoring;</li> <li>— traffic information and avoidance;</li> <li>— SSR procedures.</li> </ul>	x	x	x	x	x
<b>091 03 00 00</b>	<b>RELEVANT WEATHER INFORMATION TERMS (VFR)</b>					
<b>091 03 01 00</b>	<b>Aerodrome weather</b>					
LO	List the contents of aerodrome weather reports and state units of measurement used for each item: <ul style="list-style-type: none"> <li>— wind direction and speed;</li> <li>— variation of wind direction and speed;</li> <li>— visibility;</li> <li>— present weather;</li> <li>— cloud amount and type (including the meaning of CAVOK);</li> <li>— air temperature and dew point;</li> <li>— pressure values (QNH, QFE);</li> <li>— supplementary information (aerodrome warnings, landing runway, runway conditions, restrictions, obstructions, wind-shear warnings, etc.).</li> </ul>	x	x	x	x	x
<b>091 03 02 00</b>	<b>Weather broadcast</b>					
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
<b>091 04 00 00</b>	<b>ACTION REQUIRED TO BE TAKEN IN CASE OF COMMUNICATION FAILURE</b>					
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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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
<b>091 05 00 00</b>	<b>DISTRESS AND URGENCY PROCEDURES</b>					
<b>091 05 01 00</b>	<b>Distress (definition, frequencies, watch of distress frequencies, distress signal, distress message)</b>					
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
<b>091 05 02 00</b>	<b>Urgency (definition, frequencies, urgency signal, urgency message)</b>					
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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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	
<b>091 06 00 00</b>	<b>GENERAL PRINCIPLES OF VHF PROPAGATION AND ALLOCATION OF FREQUENCIES</b>						
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	