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Civil Aviation
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**Supplement to CAP 413
RADIOTELEPHONY MANUAL**

**A REFERENCE GUIDE
TO UK PHRASEOLOGY**

FOR AERODROME DRIVERS





A Reference Guide to UK Phraseology for Aerodrome Drivers

A Supplement to CAP 413 Radiotelephony Manual

Introduction

Driving on an aerodrome in close proximity to aircraft requires training, concentration and regular practice. It also requires drivers to comply with rules and standards of conduct in areas designed for aircraft movement, not ground vehicle operations. In addition, drivers need to use what are often busy radio frequencies that are also used by pilots, Air Traffic Controllers (ATCOs), Flight Information Service Officers (FISOs) and Air/Ground Communication Service (AGCS) Operators. In order to do this, drivers need to understand and use the correct radiotelephony (RTF) phraseology and techniques.

The purpose of this booklet is to provide drivers with a reference guide to the phraseology most commonly used between vehicle drivers and controllers, FISOs or AGCS Operators (see page 6 for further information). It is designed to enhance RTF training for drivers of vehicles on aerodromes, but does not replace the need for local training.

The goal is to improve safety by raising RTF standards.

Standard RTF phraseology has been developed over time to be as clear and concise as possible. Ambiguous or non-standard phraseology can lead to misunderstanding and there are many examples, both in the UK and elsewhere, where misunderstanding has contributed to accidents and incidents.

In particular, the increasing number of runway incursion incidents represents a risk to the safety of aircraft and vehicle drivers. A runway incursion is the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft. In the UK 26% of runway incursion incidents reported in 2007 involved vehicles.

However, whilst standard phraseology is available to cover most routine situations, not every conceivable situation will be covered. Drivers should be prepared to use plain language where necessary and follow the principle of keeping transmissions clear, concise and to the point.

This guidance booklet also includes some phraseology associated with a number of specialised tasks on aerodromes, e.g. runway inspections, rescue and fire fighting and towing of aircraft, which may only be performed by qualified and competent personnel.

The aerodrome operator has overall responsibility for the safety of the aerodrome's operations. However, drivers have a personal responsibility to drive safely and follow the rules for the aerodrome. Procedures governing the movement of vehicles vary between aerodromes and this guide should be read together with local rules established by the appropriate aerodrome operator.




This booklet forms a supplement to CAP 413 Radiotelephony Manual. Changes to required RTF phraseology will be advised through amendments to CAP 413, which will be updated to reflect the content of this booklet in due course.




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Symbols used in RTF examples

-  Phraseology used by a vehicle driver
-  Phraseology used by a controller or FISO
-  Phraseology used by an AGCS Operator

Audio

 Listen to Audio Select this icon to listen to an audio of the RTF

1 Good RTF Practice and General Phraseology

▶ Good RTF Practice

▶ Before you transmit

Be aware of the radio failure procedures at your aerodrome.

Make sure that the volume and squelch controls on the radio are correctly set.

If you plan to work outside the vehicle and it is equipped with a fixed unit, ensure a handheld unit is also available. Be aware that high ambient noise levels, e.g. aircraft noise, may drown out transmissions.

At larger aerodromes, drivers may need to use more than one frequency or channel; make sure you have selected the correct one.

At aerodromes where drivers switch between 'domestic' and air traffic services frequencies, remember which one you are using and the rules that apply.

Many aerodrome frequencies are very busy. Listen before transmitting. Do not interrupt another transmission and allow time for any necessary reply from someone else.

Think about what you are going to say before you transmit. If you are in a position to do so, it may help to write it down in advance.

Press the transmit switch before you start to talk.

▶ When you transmit

Use a normal conversation tone. Do not talk too fast, speak clearly and at a steady pace. Keep the rhythm, speed, volume and pitch normal. Keep the microphone close to your lips but not touching them and don't turn your head away from the microphone while talking.

'Roger' means 'I have received all of your last transmission'. Do not say 'roger' if you have not received all of the transmission, but use 'say again' to ask for the message to be repeated.

Do not use 'roger' to acknowledge a message requiring a specific answer. The section on page 13 of this booklet called 'Acknowledging Instructions' gives further information.

Always read back in full instructions relating to movement on the manoeuvring area. Do not replace a read back of these instructions with 'roger' or 'copied' or 'wilco'. Read backs are important because they help to make sure that you have received and understood all of the instructions transmitted to you. If you are in a position to do so, it may help to write down important parts of the instruction, such as a holding point.

If you do not understand instructions, ask for clarification and do not guess what it is you are being told to do.

If the instructions issued by the controller/FISO do not correspond precisely with the request, query them.

▶ After you transmit

Do not release the transmit switch until after you have finished speaking.

If you are using a handheld radio or microphone, make sure that it is not left in such a position where the transmit button is pressed in, as this will jam the frequency and mean that no one else will be heard if they transmit. A jammed frequency is not just irritating; it is potentially dangerous.

▶ Listening

Be aware that people can fall into the trap of hearing what they expect to hear, rather than what is actually said to them. Listen carefully to make sure you hear what is said to you.

Be aware that, at larger aerodromes, some transmissions from controllers may be clipped as a result of cross-linked channels, i.e. VHF to UHF.

At all times listen for your callsign and any new instructions or information. As the traffic situation changes, you may be given different instructions or new information.

Transmissions from pilots or other vehicle drivers also contain valuable information about their intentions that can help you maintain awareness of the other traffic around you. This is particularly important when driving on an aerodrome at night, in adverse weather, or during low visibility conditions.

► General Phraseology

► Callsigns

Vehicle callsigns are allocated by the aerodrome operator and normally reflect the vehicle's task, e.g. 'Leader', 'Fire' or 'Works'. When there is more than one vehicle assigned to a task, a number should be added to the callsign, e.g. 'Fire 3'. Drivers should ensure they always use the correct callsign.

Aircraft either use a company callsign followed by a number e.g. 'Blue Skies 347' for Blue Skies Airways, or their aircraft registration, e.g. 'G-ABCD'. Aircraft registered in some countries may use a combination of letters and numbers.

Aerodromes are identified by the name of the location followed by a suffix indicating whether the aerodrome provides Air Traffic Control (ATC), Flight Information Service (FIS) or Air/Ground Communication Service (AGCS). Examples of callsigns are 'METRO TOWER' or 'METRO GROUND' for ATC or 'WALDEN INFORMATION' for FIS or 'SEATON RADIO' for AGCS.

Air traffic controllers and FISOs transmit instructions to vehicles, with which drivers must comply. They also transmit information when appropriate. However, AGCS Operators are not permitted to transmit instructions. They may only transmit information to drivers and therefore use different phraseology. However, a 'message from the aerodrome operator', which is relayed by an AGCS Operator, should be treated as an instruction from the aerodrome authority.


Service	Callsign Suffix	Instructions or Information
Air Traffic Control (ATC)	'TOWER' or 'GROUND'	Controller transmits instructions to vehicle drivers, together with appropriate information See sections 2 – 5
Flight Information Service (FIS)	'INFORMATION'	FISO transmits instructions to vehicle drivers, together with appropriate information See sections 2 – 5
Air/Ground Communication Service (AGCS)	'RADIO'	AGCS Operator transmits information See section 6


► Establishing Communication

When first establishing communication, drivers should use the full callsigns of both stations, saying first **whom** they are calling (e.g. Walden Information), and then **who** they are (e.g. Fire 1).

The reply may include the phrase 'pass your message'. In the UK the expression 'pass your message' is used instead of 'go ahead' for safety reasons. This is to avoid using an expression that could be confused with the instruction to proceed, i.e. move on the aerodrome.

RTF Establishing Communication

 **Walden Information, Fire 1**

 **Fire 1, Walden Information, pass your message**




► Continuing Communication


Once satisfactory communication has been established, only the vehicle callsign is normally used. However, the placing of the vehicle callsign within the message is also important. When an exchange is initiated, the message is prefixed with the vehicle callsign, regardless of whether the vehicle driver or the controller/FISO/AGCS Operator initiates the exchange. This includes messages where the driver wishes to transmit new information or a request.


However, when the driver needs to read back an instruction or important information, the instruction or information is repeated first followed by the vehicle callsign. This makes it easier for the controller/FISO/AGCS Operator to be sure that the driver has received the instruction or information in full and correctly.




RTF Continuing Communication

 **Fire 1, report your position**
Note: controller/FISO initiates exchange

 **Fire 1, by the maintenance hangar, request proceed to fire station**
Note: vehicle driver initiates exchange, so starts with vehicle callsign

 **Fire 1, proceed to fire station via taxiway Golf**

 **Proceed to fire station via taxiway Golf, Fire 1**
Note: driver reads back instruction, so ends with vehicle callsign




If for any reason either the controller/FISO/AGCS Operator or vehicle driver considers it appropriate to include the aerodrome callsign in a message after satisfactory communication has been established, then the aerodrome's callsign may be abbreviated by omitting either the location or the callsign suffix, provided that this will not be confusing. For example, 'TOWER' may be used for 'METRO TOWER' and 'GROUND' (short for Ground Movement Control or GMC) for 'METRO GROUND' or 'WALDEN' for 'WALDEN INFORMATION'.

► Broadcast Information

When a controller/FISO/AGCS Operator wishes to broadcast information to all aircraft and/or vehicles likely to receive it, the message will be prefaced by the phrase 'all stations'.

No reply is expected to such general calls, unless individual aircraft or vehicles are subsequently called upon to acknowledge receipt, or the recipient needs to query the information.

RTF Broadcast Information

 **All stations, Walden Information, distress traffic on final**



► Readability and Test Transmissions


It is important that all RTF transmissions are readable, i.e. clear enough and loud enough to be understood. Whilst radios need to be tested, test transmissions should only be as long as is necessary for the test and not longer than 10 seconds.


To make it clear that the transmission is a test, drivers should follow the format shown below, and include the frequency being used as part of their first transmission. The radio station will assess the transmission and advise the driver of the readability of the transmission using the following scale.


Readability Scale	Meaning
1	Unreadable
2	Readable now and then
3	Readable but with difficulty
4	Readable
5	Perfectly readable


Additional information may be added regarding any abnormality noted as shown in the examples below. Where the test transmission is unreadable, the radio station may not be able to identify the caller and may respond to 'station calling' also as shown below.


RTF Test Transmissions


 **Metro Ground, Fire 1, radio check 118.725**

 **Fire 1, Metro Ground, readability 5**

 **Walden Information, Fire 1, radio check 119.725**

 **Fire 1, Walden Information, readability 3, with a loud background whistle**

 **Metro Tower, Fire 1, radio check 120.725**

 **Station calling Metro Tower, readability 1**



► Common Phraseology

The use of standard words and phrases helps prevent misunderstandings, which can contribute to accidents. It also reduces the need for additional transmissions and reduces congestion on what are often busy frequencies. The following words and phrases used in RTF communications have the specific meanings given below.

Word/Phrase	Meaning
ACKNOWLEDGE	Let me know that you have received and understood this message
AFFIRM	Yes
APPROVED**	Permission for proposed action granted
BREAK	Indicates the separation between messages
BREAK BREAK	Indicates the separation between messages transmitted to different callsigns in a busy environment
CANCEL	Cancel the previously transmitted clearance
CHANGING TO	I intend to call ... (unit) on ... (frequency)
CHECK	Examine a system or procedure <i>(Not to be used in any other context. No answer is normally expected)</i>
CONFIRM	I request verification of (clearance, instruction, action, information)
CONTACT	Establish communications with (your details have been passed)
CORRECT	True or accurate
CORRECTION	An error has been made in this transmission (or message indicated). The correct version is ...
DISREGARD	Ignore
EXPEDITE**	Carry out an action at best rate/speed <i>Note: usually followed by the action to be taken</i>
HOLD POSITION**	Do not proceed until you have received permission

** Not used by Air/Ground Communication Service Operators (Callsign 'RADIO')

HOLD SHORT**	Stop before reaching the specified location <i>Note: used in limited circumstances where no defined point exists (e.g. where there is no suitably located holding point) or to reinforce a clearance limit</i>
HOW DO YOU READ	What is the readability of my transmission?
I SAY AGAIN	I repeat for clarity or emphasis
MONITOR	Listen out on (frequency)
NEGATIVE	No or Permission not granted or That is not correct or Not capable
PASS YOUR MESSAGE	Proceed with your message
READ BACK	Repeat all, or the specified part, of this message back to me exactly as received
REPORT**	Pass requested information
REQUEST	I should like to know or I wish to obtain ...
ROGER	I have received all your last transmission <i>Note: Under no circumstances to be used in reply to a question requiring a direct answer in the affirmative (AFFIRM) or negative (NEGATIVE)</i>

** Not used by Air/Ground Communication Service Operators (Callsign 'RADIO')



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 <i>Note: No onward clearance to be assumed. The caller would normally re-establish contact if the delay is lengthy. STANDBY is not an approval or denial</i>
UNABLE	I cannot comply with your request, instruction or clearance Unable is normally followed by a reason
WILCO	I understand your message and will comply with it (abbreviation for will comply)
WORDS TWICE	As a request: Communication is difficult. Please send every word twice As information: Since communication is difficult, every word in this message will be sent twice

*** If a driver has any doubt that a message has been correctly received, the driver should ask for the message to be repeated either in full or in part. The phraseology to be used is shown below.

Phrase	Meaning
Say again	Repeat entire message
Say again (item)	Repeat specific item
Say again all before (the first word satisfactorily received)	
Say again all after (the last word satisfactorily received)	
Say again (word before missing portion of transmission) to (word after missing portion)	



► Acknowledging Instructions


Vehicle drivers are required to read back in full all instructions relating to movement on the manoeuvring area. The manoeuvring area is the part of the aerodrome provided for the take-off and landing of aircraft and for the movement of aircraft on the surface, excluding the apron and any part of the aerodrome provided for the maintenance of aircraft. Examples of messages to be read back include movement or towing instructions, information on the runway in use and instructions to enter, cross or hold short of any runway. Because misunderstandings regarding these instructions could have serious safety consequences, drivers must read back in full the message they have received to confirm that there has been no misunderstanding. 'Read back' is an instruction to repeat all, or the specified part, of a message back to the speaker exactly as it has been received.


Drivers should note that the expression 'wilco', meaning 'I understand your message and will comply' is not a substitute for a full read back of a movement instruction. If a read back of a movement instruction is not received, the driver will be told to do so. Additionally, if the driver does not fully understand the instructions, they must request that they are repeated or clarified.





Some transmissions require a definite response from the driver and should be answered appropriately with the information requested, not with 'roger'. Other transmissions contain information and drivers should acknowledge by transmitting their callsign or the word 'roger' followed by their callsign. This means 'I have received all your last transmission'.


RTF Acknowledgements


 **Metro Ground, Works 3, stand 27, request proceed to work in progress taxiway Hotel**

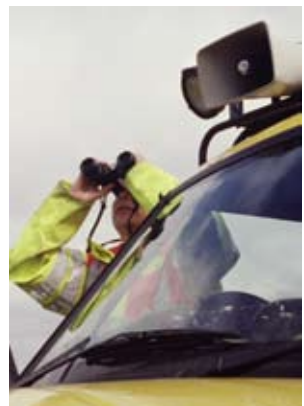
 **Works 3, proceed to taxiway Hotel via Kilo and Alpha**
Note: this is a movement instruction and must be read back

 **Proceed to taxiway Hotel via Kilo and Alpha, Works 3**

 **Checker 1, caution work in progress north side of taxiway Hotel**
Note: this is information

 **Roger, Checker 1**

 Listen to Audio



► **Transmission of Letters**

RTF transmissions containing letters should use the international radiotelephony alphabet. The system assigns code words to the letters of the English alphabet. This helps to ensure that critical combinations of letters and numbers can be pronounced and understood by those transmitting and receiving messages by radio and telephone regardless of their native language, especially where safety is essential.

The words in the table below should be used when individual letters are being transmitted. The syllables to be emphasised are underlined in the right hand column. There are, however, a small number of common expressions that do not use the spelling alphabet, such as ILS, RVR or ATC.

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

► Transmission of Numbers

Where RT transmissions contain numbers, these should be clearly pronounced.

Numbers are more easily understood by others if there is a slight pause before and after the number.

The pronunciation in the table below should be used when numbers are being transmitted. The syllables to be emphasised are underlined in the right hand column.

Number	Appropriate Pronunciation
0	<u>Z</u> ERO
1	<u>W</u> UN
2	<u>T</u> OO
3	<u>T</u> REE
4	<u>F</u> OWER
5	<u>F</u> IFE
6	<u>S</u> IX
7	<u>S</u> EVEN
8	<u>A</u> IT
9	<u>N</u> INER
10	<u>W</u> UN <u>Z</u> ERO
Decimal	<u>D</u> AY <u>S</u> EEMAL
Hundred	<u>H</u> UN <u>D</u> RED
Thousand	<u>T</u> OU <u>S</u> AND

Numbers are normally transmitted by pronouncing each digit separately, as in the following examples.

Number	Transmitted as	Pronounced as
Works 21	Works Two One	WORKS TOO WUN
Stand 18	Stand One Eight	STAND WUN AIT
Blue Skies 246	Blue Skies Two Four Six	BLUE SKIES TOO FOWER SIX

2 Movement Instructions (ATC & FIS)

► Initial Call and Permission to Proceed

In their first call drivers should say:

- **whom** they are calling (e.g. Ground),
- **who** they are (e.g. Works 3),
- **where** they are (e.g. stand 27), and
- **where** they wish to go (e.g. taxiway Hotel).


Where the planned route includes crossing a runway this should be included in the initial call.


Drivers should make a careful note of the route instructions and the position to which they have been given permission to proceed. This is particularly important where the intended route is close to a runway, involves crossing a runway, or where the route they are given is not the one they had requested.


It is important that drivers of vehicles on the aerodrome maintain a continuous listening watch on the correct frequency. This not only means that drivers can react to further instructions or information from the controller/FISO, but also that they can be aware of the movements and intended movements of other traffic. This helps to reduce the risk of conflict in a constantly changing environment.

Where a driver is escorting other vehicles, the initial transmission should clearly identify the total number of vehicles, e.g. 'Leader 1 plus 2 vehicles'. The same vehicle will normally undertake all further communications for that group of vehicles.

RTF Initial Call combined with a Request

 **Metro Ground, Works 3, stand 27, request proceed to work in progress on taxiway Hotel, via runway 34**

 **Works 3, via Alpha 1 and Charlie 1 cross runway 34, proceed to taxiway Hotel**

 **Via Alpha 1 and Charlie 1 cross runway 34, proceed to taxiway Hotel, Works 3**






Note: All phraseology examples from this point onward assume that an initial call to establish satisfactory communications has been made previously. Therefore from here onward example transmissions from both the vehicle and the ground station illustrate only the use of the vehicle call sign. Please see the sections on 'Establishing Communication' and 'Continuing Communication' on pages 7 and 8 for more detailed information on the use of call signs.

► **'Hold Position' & Proceeding to a defined Point**

If a controller/FISO is particularly busy, the driver will be instructed to 'standby'. This means that the driver should wait until the controller/FISO calls back and then request permission for what (s)he wishes to do. The driver must not proceed until permission is given.

When there is conflicting traffic the controller/FISO may reply 'hold position'. This means that the driver shall not proceed until the controller/FISO calls back with permission.







RTF Instruction to Hold Position

-  **Tels 5, by the control tower, request proceed to hangar 3**
-  **Tels 5, hold position**
-  **Holding, Tels 5**



All other replies should contain a clearly defined point to which the driver may proceed. This may or may not be the intended destination. If it is not the intended destination, the driver must stop at this point and request permission to proceed further. For example, a vehicle may be instructed to proceed only as far as a specific holding point and then await permission to cross the runway and proceed further. The controller/FISO may include the instruction 'hold short' to reinforce the point beyond which the vehicle may not proceed and this is shown in the second example overleaf. Even where the instruction 'hold short' is not included, drivers should listen carefully and must not proceed beyond the named holding point.

RTF Movement Instruction to defined Point

-  **Tels 5, by the control tower, request proceed to hangar 3**
-  **Tels 5, proceed holding point Charlie 1, runway 14, via Alpha and Bravo**
-  **Proceed holding point Charlie 1, runway 14, via Alpha and Bravo, Tels 5**
-  **Tels 5, by the control tower request proceed to hangar 3**
-  **Tels 5, proceed holding point Charlie 1, hold short of runway 14**
-  **Proceed holding point Charlie 1, hold short of runway 14, Tels 5**



► **Conditional Permission to Proceed**

Permission to proceed may also include instructions to ensure safe operations. It is common for the driver to be permitted to proceed only after another action has taken place. Correct read back of a conditional permission to proceed is vital. The condition must be the first item read back, so that the controller/FISO is aware that the driver has heard the condition on which the permission is based.

Drivers who have received a conditional permission, must also be particularly careful that they have identified the correct aircraft or vehicle specified in the condition. If there is any doubt the driver should query the instructions.

RTF Conditional Permission to Proceed


-  **Tug 5, stand 21, request proceed to stand 45**
-  **Tug 5, after the Blue Skies Boeing Triple-Seven on your right has passed, proceed to stand 45**
-  **After the Blue Skies Boeing Triple-Seven has passed, proceed to stand 45, Tug 5**




► Additional Movement Instructions

After a vehicle has received permission to move on the manoeuvring area, it may be necessary to inform the driver of a potentially dangerous situation and tell the vehicle to stop.

RTF Instruction to Stop


 **Works 3, stop immediately, aircraft crossing ahead**


 **Stopping, Works 3**

 Listen to Audio

Sometimes the controller/FISO may ask a driver to 'Report your position'. The driver should identify the vehicle's location on the aerodrome as precisely as possible using stand numbers, taxiway letters, holding point designators or other aerodrome information as appropriate. Before entering the manoeuvring area drivers should ensure they have an up to date aerodrome map.

RTF Instruction to Report Position

 **Fire 1, report your position**

 **Fire 1, Taxiway Bravo by the maintenance hangar**

 Listen to Audio




3 Entering and Crossing Runways (ATC & FIS)


► Permission to Enter a Runway


Vehicles sometimes need to enter a runway in order to carry out specialised tasks such as surface or lighting inspections.

Be especially careful whenever seeking approval to enter a runway. Check you are on the correct frequency and know what you wish to say. This will help to minimise confusion and reduce the risk of runway incursion.

RTF Entering a Runway

 **Checker 1, holding point Charlie 1, request enter runway 05 for surface inspection**

 **Checker 1, via holding point Charlie 1 enter runway 05, report vacated**

 **Via holding point Charlie 1 enter runway 05, wilco, Checker 1**

Note: the first instruction is to enter the runway and the driver reads this back in full. The second instruction is to report vacated and in this example the driver replaces the full read back with the abbreviation 'wilco'. Additional information on the use of 'wilco' is in the section 'Acknowledging Instructions' on page 13





 Listen to Audio



▶ Vacating a Runway

When a vehicle driver is instructed to vacate the runway, the driver must read back the instruction. A runway vacated report should not be made until the vehicle, and towed aircraft if there is one, or associated vehicles if there are any being escorted, are clear of the designated runway area. On a paved surface this will be once the appropriate runway holding point has been passed. On grass aerodromes this point is usually marked by a Runway Taxi-Holding Position Sign.

For safety reasons, use of the words 'clearance' and 'cleared' is restricted to a small number of messages permitting an aircraft to do certain things. To avoid misunderstanding, drivers must use the expression 'vacated' and **not** 'clear' or 'cleared'.

RTF	Vacating the Runway
	Checker 1, vacate runway 05 at Alpha 1, report vacated
	Vacate at Alpha 1, wilco, Checker 1
	Checker 1, runway 05 vacated
	Checker 1

 Listen to Audio



▶ Permission to Cross a Runway

At many larger aerodromes a journey that involves crossing a runway may involve changing frequency from 'GROUND' to 'TOWER', when instructed to do so. Some aerodromes also have procedures that allow vehicles to proceed to a holding point on the manoeuvring area and then request runway crossing instructions.

A driver must not under any circumstances cross or enter a runway unless a specific instruction has been issued and acknowledged.

Where the planned route involves crossing a runway a driver should include this information in the request.




Where a controller/FISO considers it appropriate, the phrase 'hold short' may be added to a movement instruction to emphasise the point beyond which the vehicle may not proceed. Drivers should always listen carefully and not move beyond the named holding point until specifically instructed to do so, even if the instruction 'hold short' is not included.

Runway incursions pose a safety risk to both aircraft and vehicles. When a controller/FISO issues an instruction to cross a runway, the appropriate holding point designators should be included in the instruction. If the instruction identifies a holding point designator or taxiway that is inconsistent with the location of the vehicle, or the driver's request, the driver must query the instruction before proceeding onto the runway. In this case the driver should state the vehicle's actual location and request a repeat of the instructions.

When a controller/FISO gives permission to cross a runway in use, (s)he will normally instruct the driver to report runway vacated. However, this instruction may be omitted when the controller/FISO has continuous sight of the vehicle.







RTF Permission to Cross a Runway


-  Ops 1, on the Southern Apron request proceed to Northern Apron, via runway 27
-  Ops 1, via holding point Alpha 2 and Bravo 2 cross runway 27, proceed to Northern Apron
-  Via Alpha 2 and Bravo 2 cross runway 27, proceed to Northern Apron, Ops 1

▶ Listen to Audio

RTF Proceeding to a Holding Point and Requesting Permission to Cross a Runway

-  Ops 1, on the Southern Apron, request proceed to Northern Apron, via runway 27
-  Ops 1, proceed holding point Alpha 2 via Alpha and Bravo (hold short of runway 27)
-  Proceed holding point Alpha 2 via Alpha and Bravo (hold short of runway 27), Ops 1


-  Ops 1, holding point Alpha 2 runway 27, request cross

-  Ops 1, via Alpha 2 and Charlie 2 cross runway 27, report vacated

-  Via Alpha 2 and Charlie 2 cross runway 27, wilco, Ops 1

-  Ops 1, runway 27 vacated




-  Ops 1, proceed to Northern Apron

-  Proceed to Northern Apron, Ops 1

▶ Listen to Audio

Sometimes it may not be possible for the controller/FISO to give permission to cross the runway. The driver may be instructed to take a different route from that requested.

RTF Refusal of Permission to Cross a Runway

-  Ops 1, on the Southern Apron, request proceed to Northern Apron, via runway 27
-  Ops 1, negative, proceed to Northern Apron via Perimeter Road
-  Proceed to Northern Apron via Perimeter Road, Ops 1

▶ Listen to Audio






4 Towing an Aircraft (ATC & FIS)

► Permission to Tow an Aircraft

Controllers/FISOs may not always know in advance that an aircraft is to be towed. Ground vehicles are less manoeuvrable when towing an aircraft and this needs to be taken into account when issuing instructions to these vehicles. To avoid confusion and help the controller/FISO to identify the correct aircraft to be towed, drivers should state the aircraft type, e.g. Boeing 737, Airbus 321 and, where appropriate, the company operating the aircraft, e.g. 'Blue Skies', as part of the first call.

It is sometimes necessary for a tug to push an aircraft back from a parking stand before towing and, in these circumstances, drivers should request permission to push back and tow as shown below.

RTF	Permission to Tow an Aircraft
	Tug 9, request tow Blue Skies Airbus 321 from stand 25 to maintenance hangar
	Tug 9, tow from stand 25 to maintenance hangar via taxiway Echo
	Tow from stand 25 to maintenance hangar via taxiway Echo, Tug 9
RTF	Permission to Pushback and Tow
	Tug 9, request pushback and tow Blue Skies Boeing 737 from stand 25 to maintenance hangar

▶ Listen to Audio

▶ Listen to Audio

Tug drivers should always bear in mind that, even where permission is given by the controller/FISO, it is the responsibility of the person in charge of the vehicle towing the aircraft to ensure that any routes given by the controller/FISO can accommodate the size of aircraft being towed.



5 Adverse Weather


► Low Visibility Procedures

Aerodrome operations during periods of reduced visibility or low cloud conditions present additional hazards to aircraft and other aerodrome users. In these conditions it is easy for pilots and drivers to become disorientated and unsure of their location.

Aerodromes that continue to operate in these weather conditions have specific rules for driving in poor visibility, known as Low Visibility Procedures (LVPs), which normally involve restrictions on the movement of vehicles. Drivers must always follow the rules for their aerodrome and, where they are permitted on the manoeuvring area whilst LVPs are in force, drivers should exercise particular care.

Procedures for notifying LVPs vary between aerodromes and drivers should check whether LVPs are in force before they enter the manoeuvring area. Some aerodromes advise drivers that LVPs are in force by means of the Automatic Terminal Information Service (ATIS) and/or signs at entrances to the manoeuvring area. At other aerodromes the controller will make a broadcast, as shown below.

RTF Low Visibility Procedures

 All stations, Metro Tower, low visibility procedures in force

 Listen to Audio











6 Vehicle Phraseology (AGCS)

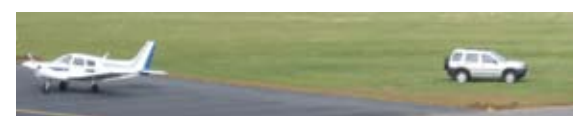
► Information Transmitted by AGCS Operators

AGCS Operators are not permitted to transmit instructions. They use different phraseology and may only transmit **information** to aircraft and drivers. Local procedures vary from aerodrome to aerodrome and it is only possible to give a limited number of examples below.

Aircraft pilots and vehicle drivers are responsible for operating safely by keeping a good look out, listening out on the frequency and using the information provided. Drivers should also be aware that, in some cases, the AGCS operator may not be able to see the entire movement area.

RTF	AGCS Vehicle Phraseology
	Fire 1, at maintenance hangar, proceeding to clubhouse via taxiway Alpha
	Fire 1, no reported traffic
	Roger, Fire 1
	Fire 1, ready to cross runway 15
	Fire 1, traffic is a Cherokee reported final
	Holding position, Fire 1

 Listen to Audio



7 Additional Messages


► Additional Messages used by Vehicle Drivers


Drivers on aerodromes sometimes see things that could affect safety and need to transmit this information to the controller/FISO/AGCS Operator. The examples shown below are not exhaustive. Drivers may need to use plain language and should be as clear and concise as possible.

► Messages relating to the Safety of an Aircraft

Information regarding the safety of a specific aircraft should be transmitted to the controller/FISO/AGCS Operator who will then pass the information to the aircraft pilot.

RTF Messages regarding Safety of an Aircraft


 Ops 1, open ventilation panel starboard side of Blue Skies Boeing Triple-7 passing on taxiway Delta

 Ops 1, roger

▶ Listen to Audio

If the driver has noticed something which may be significant, but is told to 'standby' they should not assume that the controller/FISO/AGCS Operator has seen the same thing, but should emphasise the urgency of their message.

RTF Urgent Messages regarding Safety

 Ops 1, urgent message


▶ Listen to Audio




► Messages regarding Wildlife

Wildlife such as birds and animals are a potential hazard to aircraft. One bird can destroy a jet engine and a flock could cause an aircraft accident. Individual aerodromes have different rules and drivers should follow the rules for their aerodrome and report sightings of wildlife either to the controller/FISO/AGCS Operator or to the local airside operations team, as appropriate.

RTF Messages regarding Wildlife

 Fire 3, large flock of birds on grass north of taxiway Bravo

 Fire 3, roger


▶ Listen to Audio





► Driver unsure of Position

It is easy to get disorientated on an aerodrome, particularly at night or in poor visibility. If a driver is lost, or unsure of his/her location, (s)he should inform the controller/FISO/AGCS Operator immediately and follow instructions.

RTF Driver unsure of Position

 Tug 8, unsure of position

 Tug 8, hold position, I will call for assistance

 Holding, Tug 8

▶ Listen to Audio

► Broken Down Vehicle

If a vehicle breaks down, the driver should inform the controller/FISO/AGCS Operator immediately, including precise information regarding the vehicle's location, and follow the aerodrome's procedures for broken down vehicles.

RTF Broken Down Vehicle

Leader 2, holding point Charlie 1 broken down unable to move, contacting engineers

Leader 2, roger



► Radio Failure

In the event of a radio failure, drivers should follow the procedures for their aerodrome. The controller/FISO/AGCS Operator may use the following signals to communicate with vehicles. Drivers should keep a look out for and understand these signals, which have the following meanings.

<i>Characteristic and colour of light beam or pyrotechnic</i>	Meaning when directed from an aerodrome to a vehicle <small>Note: some signals have a different meaning when directed to an aircraft</small>
Continuous red light	Stop
Red flashes	Move clear of the landing area
Green flashes	You may move on the manoeuvring area
White flashes	Return to starting point on the aerodrome

Enquiries regarding the content of this publication should be addressed to:

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