

Advisory Circular

AC91-9 & AC172-1

Revision 15

22 Dec 2022

Radiotelephony Manual

General

Civil Aviation Authority (CAA) advisory circulars (ACs) contain guidance and information about standards, practices, and procedures that the Director has found to be an **acceptable means of compliance** with the associated rules and legislation.

Consideration will be given to other methods of compliance that may be presented to the Director. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate AC.

Purpose

This AC describes an acceptable means of compliance with standard radiotelephony phraseology for use by pilots and air traffic services (ATS) and incorporates examples and guidance for managing ground vehicles. It is based on the following ICAO documents:

- ICAO Annex 10, Aeronautical Telecommunications Volume II (Communication Procedures including those with PANS status)
- ICAO Doc 4444 Procedures for Air Navigation Services Air Traffic Management
- ICAO Doc 9432 Manual of Radiotelephony contains examples, based on the above documents, which are intended to be representative of radio telephony in common use.

Civil Aviation Rules Part 172 *Air Traffic Service Organisations – Certification*, rule 172.105 *Radio and telephone procedures* lists the above order of precedence for these documents to be used in determining standard phraseology when communicating with pilots.

Related Rules

This AC relates to Civil Aviation Rule Parts 91 and 172 regarding communications requirements between pilots and ATS.

Change Notice

Revision 15 replaces Revision 14 which was published 1 June 2021. In Revision 15, the term "Essential Traffic" is reintroduced to sections 4.14.1 to 4.14.3 to reflect the wording in rule 172.3, *Definitions*, and in the New Zealand Aeronautical Information Publication (AIPNZ) ENR sections on *Essential Traffic*. We have also corrected some formatting errors,

Published by Civil Aviation Authority PO Box 3555 Wellington 6140 which has changed the page numbers of some sub-sections, by trying to keep tables on one page wherever feasible.

Version History

This revision history log contains a record of revisions made to this AC.

AC Revision No.	Effective Date	Summary of Changes	
AC91-9 & AC172- 1, Rev 0	1 Dec 2003	Initial issue of this AC.	
AC91-9 & AC172- 1, Rev 1	17 Dec 2003	Correction to distress message format.	
AC91-9 & AC172- 1, Rev 2	25 May 2004	Added pronunciation examples to the general procedures and phraseology.	
		 Changed conditional phrases to conditional clearances to reflect the content of this section. 	
		Removed references to Class E airspace.	
		 Modified some references to flight levels used in examples to reflect the change in transition level from flight level 130 to flight level 150. 	
		 Amended Position Reporting – IFR with the inclusion of position reporting procedures and distance information in position reporting along with an illustrated example. 	
		Added transponder.	
		Added wording to clearance to cross a runway or a grass strip.	
		 Added pilot reporting requirement for operating in Special VFR conditions. 	
		Added RVSM Operations.	
		Corrected the distress message to conform with ICAO wording requirement.	
AC91-9 & AC172- 1, Rev 3	11 Jan 2006	Iteration that a conditional clearance will relate to the first aircraft or vehicle to pass the affected aircraft.	
		 The inclusion of the runway designator in both take-off and landing clearances where there is a risk of confusion. 	
		The term runway holding position is changed to runway holding point.	

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	T	T
		 Inclusion of the read back of traffic information in the pilot transmission.
		 Introduction of traffic information into the take-off or landing clearance when reduced runway separation is being used.
AC91-9 & AC172-	23 Nov	Amended diagram under 'Clearance'.
1, Rev 4	2006	Amended readback requirements to denote when transmitted by voice.
		 Added new transmission example to diagram 2 under 'Position Reporting – IFR.
		 Inserted detail requirements for non RVSM aircraft operating in RVSM airspace.
		 Amended diagram under 'IFR Arrivals' to cater for new RNAV procedures.
		Amended traffic information broadcasts aircraft (TIBA) to AIPNZ ENR 1.15.
AC91-9 & AC172- 1, Rev 5	30 Jul 2009	Reflected amendments to ICAO Annex 10, ICAO Documents 4444 and 9432, and the AIPNZ.
AC91-9 & AC172- 1, Rev 6	3 Aug 2009	Amended the ACAS Resolution Advisory phraseology to reflect the latest amendment to ICAO Doc 4444.
AC91-9 & AC172- 1, Rev 7	3 Jun 2010	Amended the phraseology for take-off and landing clearances to include the runway designator in each case.
AC91-9 & AC172- 1, Rev 8	20 Sep 2011	 Amended the phraseology for the imposition of silence and amended the section on aerodrome flight information service.
AC91-9 & AC172-	3 May 2013	Amended:
1, Rev 9		o 'ETA' to 'estimate'
		o readback requirements regarding runway in use
		o term 'gate' to 'stand'
		 Avoided consecutive groups of numerals being transmitted
		Introduced text and phraseology for minimum fuel
AC91-9 & AC172-	14 Jun 2013	Corrected context for Position Reporting—IFR
1, Rev 10		Standardised alpha-numeric references for POB

		 Amended urgency messages to include full station call sign on first contact and acknowledgement of urgency.
AC91-9 & AC172- 1 Rev 11	2 Mar 2017	Updated the standard radiotelephone phraseologies' procedures to align with the requirement of rule 172.105(b).
AC91-9 & AC172- 1, Rev 11.5	2 Mar 2017	Incorporated the summary of changes made in previous revision.
AC91-9 & AC172- 1, Rev 12	10 Nov 2017	Generalised AIP references by using section instead of pagination.
AC91-9 & AC172- 1, Rev 13	18 Jul 2019	Included Amendment 91 to the Standards and Recommended Practices of ICAO Annex 10, Volume II, and other identified improvements.
		Made changes to the AIP:
		 Change notice updated
		 Version history inserted
		 New numbering system for diagrams applied
		 Paragraphs 1.3, 4.3.2, 4.7.4, 4.12.2(b), 4.13.2(a), 4.14.1, 4.14.2, 5.2.1, 5.2.2, 6.7.3.5, 6.7.3.7, 6.7.3.10, 6.7.3.10(a) amended
		 Paragraph 4.7.3 renumbered
		 New paragraphs 4.3.3, 4.3.4, 4.3.5, 4.7.2, 4.7.7, 4.14.3, 5.2.3, 5.5.4, 5.5.5 and 5.5.6 inserted
		 Figures 3.1a, 4.2.1a, 4.3.2a, 4.3.6a, 4.5.1a, 4.6.1.1a, 4.9.1a, 4.16.4a, 4.18.1a, 4.18.2a, 4.19.1a, 4.22.3a, 5.2.1a, 5.4.7a, 5.4.8a, 5.6.3a, 5.6.8a, 5.8.2a, 5.9.1a, 5.9.3a, 5.12.2a, 5.14.2a, 6.2.1a, 6.3.1a, 6.3.3a, 6.4a, 6.5.1a, 6.7.1a, 6.7.2a, 7.1.2a, 7.2.1a, 7.2.3a, 8.2.1a, 8.3.1a, 8.3.2a, 9.4a, 10.1.1a, 12.2a, 13.3.1a amended
		 New figures 4.3.3a, 4.3.4a, 4.3.5a, 4.7.7a, 5.2.3a, 5.5.6a inserted
		o Paragraphs 6.7.3.11(b) and 6.7.3.13(b) deleted
		Note: Revision 11 dated 2 March 2017 paragraph 4.14.2 removed the words "Essential Traffic" as these were not the ICAO phraseology, ICAO precedes traffic information with the words "Traffic is".
AC91-9 & AC172- 1, Rev 14	1 Jun 2021	Added section 5.15, Vehicles, covering rules for vehicles operating or intending to operate on the manoeuvring area, including a new section 5.15

		,	
		 Vehicles which explicitly refers to the requirements of rule 139.119, Ground vehicles. Expanded: 	
		 section 4.12.8, clarifying ground vehicle read back requirements 	
		 section 5.15.1, with figures 5.15.1a and 5.15.1b covering standard phraseology for ground vehicles. 	
		 Added more detailed examples to 9.2 VFR departures and 9.4 IFR departures. 	
		 Took out identifying city and town names in the flight communications example tables. 	
AC91-9 & AC172- 1, Revision 15	22 Dec 2022	Reintroduces term "Essential Traffic" to sections 4.14.1 to 4.14.3 to reflect the definition in rule 172.3, and in the New Zealand Aeronautical Information Publication (AIPNZ) ENR sections on Essential Traffic.	
		 Corrects some formatting errors and changes page breaks to keep tables on one page wherever feasible. 	

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1. INTRODUCTION

- 1.1 Radiotelephony (RTF) provides the means by which pilots and air traffic services personnel communicate with each other. Used properly, the information and instructions transmitted are of vital importance in assisting in the safe and expeditious operation of aircraft. However, the use of non-standard procedures and phraseology can cause misunderstanding. There have been incidents and accidents in which a contributing factor has been the misunderstanding caused by the use of non-standard phraseology. The importance of using correct and precise standard phraseology, therefore, cannot be over-emphasised.
- 1.2 The following phraseology has been established for the purpose of ensuring uniformity in RTF communications. Obviously, it is not practicable to detail phraseology examples suitable for every situation which may occur. However, if standard phrases are adhered to when composing a message, any possible ambiguity will be reduced to a minimum. Concise and unambiguous phraseology used at the correct time is vital to the safe and expeditious operation of air traffic.
- 1.3 Some abbreviations, which by common usage have become part of aviation terminology, may be spoken using their constituent letters rather than the phonetic alphabet: for example, ILS, QNH. Relevant abbreviations can be found in Civil Aviation Rules, Part 1 *Definitions and Abbreviations* and pronunciation of some abbreviations is included in AIPNZ GEN 2.2, *Abbreviations and Definitions used in AIS Publications*, section 1, at http://www.aip.net.nz/Home.aspx
- 1.4 The following words may be omitted from transmissions provided that no confusion or ambiguity will result:
 - (a) "SURFACE" in relation to surface wind direction and speed
 - (b) "DEGREES" in relation to radar headings
 - (c) "VISIBILITY", "CLOUD", and "HEIGHT" in MET reports
 - (d) "HECTOPASCALS" when giving pressure settings.
- 1.5 The use of courtesies should be avoided.
- 1.6 The word "IMMEDIATELY" should only be used when immediate action is required for safety reasons.

2. GLOSSARY

2.1 Relevant definitions and abbreviations can be found in Civil Aviation Rules, Part 1 *Definitions and Abbreviations.*

3. KEY

Figure 3.1a

Symbol	Meaning
*	AIRCRAFT (includes aeroplanes, helicopters, gliders, balloons, microlights) Guidance Material for remotely piloted aircraft, unmanned aircraft when using voice communications.
	AIR TRAFFIC SERVICES (air traffic control, flight information service, aerodrome flight information service)
	VEHICLES Cars and other vehicles which are operating or intending to operate on the manoeuvring area to perform specific tasks

- 3.1 In the examples, the aircraft or ground station transmitting is identified by the symbols shown above.
- 3.2 Aircraft in this AC may be further identified by the call sign examples: FASTAIR representing an airliner, PQR an IFR aircraft, and XYZ a VFR aircraft. It must be remembered that these are just examples and that the aircraft involved could be any of these.
- 3.3 In this AC the title of the ground station addressed is generally omitted, such as GARDENCITY Ground, GARDENCITY Tower, GARDENCITY Control, GARDENCITY Information etc.

4. GENERAL PROCEDURES AND PHRASEOLOGY

4.1 Transmitting technique

- 4.1.1 The following transmitting techniques will help ensure that transmitted speech is clearly and satisfactorily received:
 - (a) Before transmitting, check that the receiver volume is set at the optimum level and listen out on the frequency to be used to ensure that your transmission will not interfere with a transmission from another station.
 - (b) Be familiar with microphone operating techniques and do not turn your head away from the microphone whilst talking or vary the distance between it and your mouth. Severe distortion of speech may arise from talking too close to the microphone, touching the microphone with the lips, or holding on to the microphone or boom (of a combined headset/microphone system).
 - (c) Use a normal conversational tone, speak clearly and distinctly.
 - (d) Maintain an even rate of speech, slightly slower than conversational speed. If you know parts of the message will be written down by the recipient, speak at a slightly slower rate.
 - (e) Maintain the speaking volume at a constant level.
 - (f) Remember to do a slight pause before and after numbers to assist in making them easier to understand.

- (g) Avoid using hesitation sounds such as "er".
- (h) Depress the transmit switch fully before speaking and do not release it until the message is complete. This will ensure that the entire message is transmitted. However, do not depress the transmit switch until ready to speak.
- (i) Take care to speak slowly and clearly and use standard words and phrases as much as possible remember that English may be a second language for some.
- 4.1.2 One of the most irritating and potentially dangerous situations in radiotelephony is a 'stuck' microphone button. Always ensure the button is released after a transmission and the microphone is placed in an appropriate place to ensure it cannot inadvertently be activated.

4.2 Phonetic alphabet

4.2.1 The following table lists the phonetic alphabet for transmitting letters and the corresponding Morse Code identifier. Syllables to be emphasised are in UPPER CASE.

Figure 4.2.1a

A	ALFA	AL fah	•-	N	NOVEMBER	no VEM ber	-·
В	BRAVO	BRAH voh	-•••	0	OSCAR	OSS cah	
С	CHARLIE	CHAR lee or SHAR lee		Р	РАРА	pah PAH	••
D	DELTA	DELL tah	-••	Q	QUEBEC	keh BECK	•-
E	ЕСНО	ECK oh	•	R	ROMEO	ROW me oh	• - •
F	FOXTROT	FOKS trot	••-•	S	SIERRA	see AIR rah	
G	GOLF	GOLF	•	Т	TANGO	TANG go	-
н	HOTEL	ho TELL	••••	U	UNIFORM	YOU nee form or OO nee form	••-
ı	INDIA	IN dee ah	• •	v	VICTOR	VIK tah	•••-
J	JULIETT	JEW lee ETT	•	w	WHISKEY	WISS key	•
К	KILO	KEY loh	-•-	х	X-RAY	ECKS ray	-•
L	LIMA	LEE mah		Y	YANKEE	YANG key	-•
М	MIKE	MIKE		z	ZULU	ZOO loo	••
				<u> </u>			

4.3 Pronunciation of numbers

4.3.1 The following table lists the phonetic spelling of numbers and number terms, and the corresponding Morse Code identifier. Syllables to be emphasised are in UPPER CASE.

Figure 4.3.1a

0	ZE-RO		5	FIFE	• • • •
1	WUN	•	6	SIX	-•••
2	тоо	••	7	SEV-en	•••
3	TREE	•••	8	AIT	•
4	FOW-er	••••	9	NIN-er	•

Decimal	DAY-SEE-MAL	Hundred	HUN-dred
Thousand	TOU-SAND		

4.3.2. All numbers, except as prescribed in paragraphs 4.3.3 to 4.3.6 of this AC, must be transmitted by pronouncing each digit separately. The examples below show how to do this correctly.

Figure 4.3.2a

Application	Example	Transmitted as	Pronounced as
Aircraft call sign	QFA 355	Qantas three five	Qantas TREE FIFE FIFE
	RLK 238	Link two three eight	Link TOO TREE AIT
Headings	150	heading one five zero	heading WUN FIFE ZE-RO
	080	heading zero eight zero	heading ZERO AIT ZE-RO
	300	heading three zero zero	heading TREE ZE-RO ZE-RO
Wind direction and speed	020 degrees 70 knots	wind zero two zero degrees seven zero knots	wind ZE-RO TOO ZE-RO degrees SEVen ZE-RO knots
	100 degrees 18 knots	wind one zero zero degrees one eight knots	wind WUN ZE-RO ZE-RO degrees WUN AIT knots
	210 degrees 18 knots gusting 30 knots	wind two one zero degrees one eight knots gusting three zero knots	wind TOO WUN ZE-RO degrees WUN AIT knots gusting TREE ZE-RO knots
Runway	19	runway one nine	runway WUN NIN-er
designator	06	runway zero six	runway ZE-RO SIX
	23L	runway two three left	runway TOO TREE left
Mach number	0.84	Mach decimal eight four	Mach DAY SEE MAL AIT FOW- er
Frequencies	128.3 MHz	one two eight decimal three	WUN TOO AIT DAY SEE MAL TREE
	135.75 MHz	one three five decimal seven five	WUN TREE FIFE DAY SEE MAL SEV-en FIFE
	5643 kHz	five six four three	FIFE SIX FOW-er TREE

4.3.3 Flight levels are transmitted by pronouncing each digit separately, except for the case of flight levels in whole hundreds. These are transmitted by pronouncing the digit of the whole hundred followed by the word HUNDRED.

Figure 4.3.3a

Application	Example	Transmitted as	Pronounced as
Flight levels	FL 180	flight level one eight zero	flight level WUN AIT ZERO
	FL 200	flight level two hundred	flight level TOO HUN dred

4.3.4 The altimeter setting is transmitted by pronouncing each digit separately except for the case of a setting of 1000 hPa which is transmitted as ONE THOUSAND.

Figure 4.3.4a

Application	Example	Transmitted as	Pronounced as
Altimeter setting	984 hPa	QNH nine eight four	QNH NINer AIT FOW-er
	1000 hPa	QNH one thousand	QNH WUN TOU SAND
	1027 hPa	QNH one zero two seven	QNH WUN ZE-RO TOO SEV-en
	29.95 inches	QNH two nine decimal nine five	QNH TOO NIN-er DAY SEE MAL NIN-er FIFE

4.3.5 All numbers used in the transmission of transponder codes are transmitted by pronouncing each digit separately with one exception. The exception is that when the transponder codes contain whole thousands only, the information is transmitted by pronouncing the digit in the number of thousands followed by the word THOUSAND.

Figure 4.3.5a

Application	Example	Transmitted as	Pronounced as
Transponder codes	2400	Squawk two four zero zero	Squawk TOO FOW-er ZE-RO ZE-RO
	1000	Squawk one thousand	Squawk WUN TOU SAND
	3766	Squawk three seven six six	Squawk TREE SEV-en SIX SIX
	2000	Squawk two thousand	Squawk TOO TOU SAND

4.3.6 All numbers used in the transmission of altitude, visibility, cloud height, and runway visual range (RVR) information must be transmitted by pronouncing each digit separately, with a few exceptions. The exception is that those numbers which contain whole hundreds and/or whole thousands only must be transmitted by pronouncing each digit of the hundreds or thousands followed by the word HUNDRED or THOUSAND as appropriate. Combinations of whole hundreds and thousands must 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.

Figure 4.3.6a

Application	Example	Transmitted as	Pronounced as
Altitude	300 ft	three hundred feet	TREE HUN dred feet
	1145 ft	one one four five feet	WUN WUN FOW-er FIFE feet
	1500 ft	one thousand five hundred feet	WUN TOU SAND FIFE HUN dred feet
	10,500 ft	one zero thousand five hundred feet	WUN ZE-RO TOU SAND FIFE HUN dred feet
	13,000 ft	one three thousand feet	WUN TREE TOU SAND feet
Visibility	200 m	two hundred metres	TOO HUN dred metres
	1500 m	one thousand five hundred metres	WUN TOU SAND FIFE HUN dred metres
	3000 m	three thousand metres	TREE TOU SAND metres
	10 km	one zero kilometres	WUN ZE-RO kilometres
Cloud height	800 ft	eight hundred feet	AIT HUN dred feet
	2200 ft	two thousand two hundred feet	TOO TOU SAND TOO HUN dred feet
	4300 ft	four thousand three hundred feet	FOW-er TOU SAND TREE HUN dred feet
Runway visual range	700 m	RVR seven hundred metres	RVR SEV-en HUN dred metres
range	1600 m	RVR one thousand six hundred metres	RVR WUN TOU SAND SIX HUN dred metres

4.4 Transmission of time

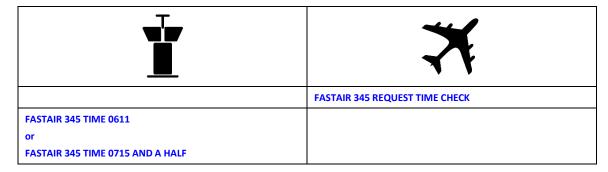
4.4.1 When transmitting time, each digit should be pronounced separately. Only the minutes of the hour are normally required. However, the hour should be included if there is any possibility of confusion. (For this reason, transmission of a SARTIME should always include the hour.)

Figure 4.4.1a

Time	Transmitted as	Pronounced as
0803	zero three or zero eight zero three	ZE-RO TREE or ZE-RO AIT ZE-RO TREE
1300	one three zero zero	WUN TREE ZE-RO ZE-RO
2057	five seven or two zero five seven	FIFE SEV-en or TOO ZE-RO FIFE SEV-en

Note: Co-ordinated universal time (UTC) must be used.

4.4.2 Pilots may check the time with the appropriate ATS unit. Time checks must be given to the nearest half minute.



4.5 Standard words and phrases

4.5.1 The following words and phrases must be used in radiotelephony communications as appropriate. When used, they have the meaning given below.

Figure 4.5.1a

Word/Phrase	Meaning
ACKNOWLEDGE	Let me know that you have received and understood this message
AFFIRM	Yes
APPROVED	Permission for proposed action granted
BREAK	I hereby indicate the separation between portions of the message (to be used where there is no clear distinction between the text and other portions of the message)
BREAK BREAK	I hereby indicate separation between messages transmitted to different aircraft in a very busy environment
CANCEL	Annul the previously transmitted clearance

Word/Phrase	Meaning
СНЕСК	Examine a system or procedure (not to be used in any other context – no answer is normally expected)
CLEARED	Authorised to proceed under the conditions specified
CONFIRM	I request verification of: (clearance, instruction, action, information)
CONTACT	Establish communications with
CORRECT	True or Accurate
CORRECTION	An error has been made in this transmission (or message indicated) the correct version is
DISREGARD	Ignore
HOW DO YOU READ	What is the readability of my transmission?
I SAY AGAIN	I repeat for clarity or emphasis
MAINTAIN	Continue in accordance with the condition(s) specified, or in its literal sense, e.g. "Maintain VFR"
MONITOR	Listen out on (frequency)
NEGATIVE	No or Permission is not granted or That is not correct or Not capable
OVER	My transmission is ended and I expect a response from you (not normally used in VHF communication)
оит	My transmission is ended and I expect no response from you (not normally used in VHF communication)
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 (under NO circumstances to be used in reply to a question requiring READ BACK or a direct answer in the affirmative or negative)
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

Word/Phrase	Meaning
UNABLE	I cannot comply with your request, instruction or clearance (normally followed by a reason)
WILCO	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 group of words in this message will be sent twice

4.6 Call sign

- 4.6.1 Ground station call signs
- 4.6.1.1 Ground stations are identified by the name of the location followed by the service available as follows:

Figure 4.6.1.1a

CONTROL	Area control (procedural or surveillance)
APPROACH	Approach control (procedural or surveillance)
ARRIVAL	Approach control radar arrivals (where provided as separate service)
DEPARTURE	Approach control radar departures (where provided as a separate service)
TOWER	Aerodrome control, or aerodrome/approach control where combined
GROUND	Surface movement control
RADAR	Area or approach surveillance service on a discrete frequency
FLIGHT SERVICE	Aerodrome flight information service (AFIS)
INFORMATION	Area flight information service
DELIVERY	Clearance delivery
RADIO	Aeronautical station (air-ground communications)
APRON	Apron management service
UNICOM	Universal Communications (air-ground communications if approved)

4.6.1.2 The name of the location or the service may be omitted after satisfactory communications have been established.

4.6.2 Aircraft call signs

4.6.2.1 Information on aircraft call signs for operations within New Zealand are contained in Part 91.

Relevant definitions and abbreviations can be found in Civil Aviation Rules, Part 1 *Definitions and Abbreviations*.

4.6.2.2 An aircraft call sign does not change during flight except for a temporary period on the instruction of ATC in the interests of safety.

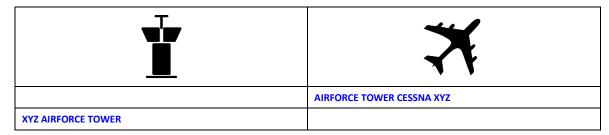
Figure 4.6.2.2a

	*
FASTAIR 345 CHANGE YOUR CALL SIGN TO FASTAIR ALFA TANGO MIKE	
	FASTAIR ALFA TANGO MIKE WILCO
FASTAIR ALFA TANGO MIKE REVERT TO YOUR FLIGHT PLAN CALL SIGN AT (TIME/REP)	
	FASTAIR ALFA TANGO MIKE WILCO

4.7 Establishment and continuation of communications

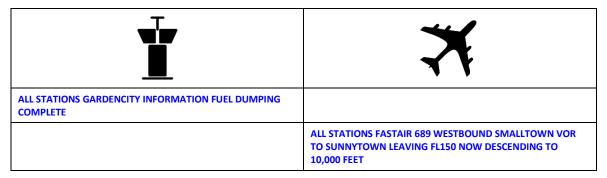
4.7.1 The responsibility of establishing communications rests with the station having traffic to transmit. When establishing communications, an aircraft should use the full call sign of both the aircraft and the aeronautical station. Use of the name of the manufacturer, or of the aircraft model or type, is optional. (Pilots can assess whether aircraft type could be helpful to the recipient for recognition or sequencing purposes.) The use of the calling station's call sign and the receiving station's call sign is considered an invitation to proceed with the transmission: the phrase GO AHEAD is not to be used.

Figure 4.7.1a



- 4.7.2 For aircraft in the heavy or super wake turbulence categories the word "Heavy" or "Super" respectively is included immediately after the aircraft call sign in the initial radiotelephony contact between such aircraft and ATS units.
- 4.7.3 After contact has been established, continuous two-way communication is permitted without further identification or call sign until termination of the contact, provided no mistake of identity is likely to occur.
- 4.7.4 When a ground station wishes to broadcast information, or an aircraft wishes to broadcast information to aircraft in its vicinity, the message should be prefaced by the call "ALL STATIONS" followed by the identification of the calling station.

Figure 4.7.4a



- 4.7.5 No reply is expected to such general calls unless individual stations are subsequently called upon to acknowledge receipt.
- 4.7.6 If there is doubt that a message has been correctly received, a repetition of the message should be requested in full or in part.

Figure 4.7.6a

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 SAY AGAIN ALL BETWEEN AND	Repeat part of message

4.7.7 When a station is called but is uncertain of the identity of the calling station, the calling station should be requested to repeat its call sign until the identity is established.

Figure 4.7.7a

	*
	GARDENCITY TOWER 345
STATION CALLING GARDENCITY TOWER SAY AGAIN YOUR CALLSIGN	
	GARDENCITY TOWER FASTAIR 345

4.7.8 When an error is made in a transmission, the word "CORRECTION" is used. The last correct group or phrase is repeated and then the correct version transmitted.

Figure 4.7.8a

	*
	FASTAIR 345 PAMSVILLE 47 FL330 BIGTOWN 07 CORRECTION BIGTOWN 57
FASTAIR 345 ROGER	

- 4.7.9 If a correction can best be made by repeating the entire message, the operator should use the phrase "CORRECTION I SAY AGAIN" before transmitting the message a second time.
- 4.7.10 When it is considered that reception is likely to be difficult, important elements of the message should be spoken twice.

Figure 4.7.10a



4.7.11 Aircraft for which a flight plan – flight rules **Z** – has been filed, departing from an unattended aerodrome, should call nearest ATS unit as soon as practical to confirm activation of flight plan, advise flight rules, and provide an estimate for the point where flight rules change.

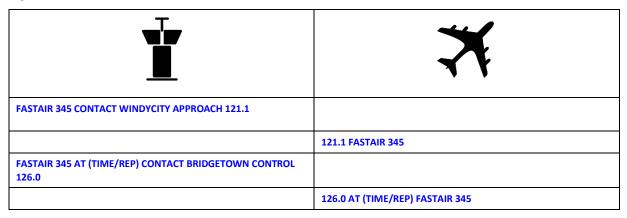
Figure 4.7.11a

	*
	PQR AIRBORNE BATTLETOWN 40 ON FLIGHT RULES Z FLIGHT PLAN ESTIMATE SMALLTOWN AT 52
PQR WINEREGION QNH 1028	win
	QNH 1028 PQR

4.8 Transfer of communications

4.8.1 When instructed, controlled flights must change frequency and contact the new ATS unit.

Figure 4.8.1a



4.9 Clearances

4.9.1 An ATC route clearance is not an instruction to take off or enter an active runway. The word "TAKE-OFF" is used only when an aircraft is cleared for take-off, or when cancelling a take-off clearance. At other times the word "DEPARTURE" or "AIRBORNE" is used.

Figure 4.9.1a

	×
FASTAIR 345 CLEARED BRIDGETOWN ONE FL370 POLAX TWO PAPA DEPARTURE RUSIL TRANSITION SQUAWK 5501	
	CLEARED BRIDGETOWN ONE FL370POLAX TWO PAPA DEPARTURE RUSIL TRANSITION SQUAWK 5501 FASTAIR 345
FASTAIR 692 CLEARED WNDYCITY TWO 11000 FEET LUSRA ONE QUEBEC DEPARTURE SQUAWK 4041	
	CLEARED WNDYCITY TWO 11000 FEET LUSRA ONE QUEBEC DEPARTURE SQUAWK 4041 FASTAIR 692
PQR CLEARED TO GASTOWN VIA FLIGHT PLANNED ROUTE 8000 FEET BAVEM TWO PAPA DEPARTURE SQUAWK 4330	
	CLEARED TO GASTOWN VIA FLIGHT PLANNED ROUTE 8000 FEET BAVEM TWO PAPA DEPARTURE SQUAWK 4330 PQR

4.9.2 If an aircraft read back of a clearance or instruction is incorrect, the controller will transmit the word "NEGATIVE" followed by the correct version.

Figure 4.9.2a

	×
XYZ QNH 1003	
	QNH 1013 XYZ
NEGATIVE QNH 1003	
	QNH 1003 XYZ

4.9.3 If at any time a pilot receives a clearance or instruction which cannot be complied with, the pilot should advise the controller using the word "UNABLE" and give the reasons.

Figure 4.9.3a

	*
FASTAIR 345 CROSS SUNNYTOWN FL290 OR ABOVE	
	FASTAIR 345 UNABLE TO CROSS SUNNYTOWN FL290 DUE WEIGHT

4.10 Reclearance

4.10.1 When an ATC route clearance is changed for ATC reasons or following an aircraft request, instructions will be passed in the form of a reclearance.

4.11 Conditional clearances

- 4.11.1 Conditional phrases, such as "BEHIND LANDING AIRCRAFT", or "AFTER DEPARTING AIRCRAFT" should not be used for movements affecting the active runway(s), except when the aircraft or vehicles concerned are seen by the controller and the pilot. The aircraft or vehicle causing the condition in the clearance should be the first aircraft/vehicle to pass in front of the aircraft receiving the conditional clearance.
- 4.11.2 In all cases a conditional clearance will be given in the following order and consist of:
 - (a) identification
 - (b) the condition
 - (c) the clearance
 - (d) brief reiteration of the condition.

For example:

"FASTAIR 345, BEHIND BOEING 737 ON SHORT FINAL, LINE UP BEHIND"

"PQR, AFTER DEPARTING AIRBUS, LINE UP BEHIND"

4.11.3 These require the aircraft receiving the conditional clearance to identify the aircraft or vehicle causing the condition and not accept the clearance until this is achieved.

4.12 Read back requirements

- 4.12.1 A pilot is required to acknowledge receipt of the following ATC clearances, information or instructions, which are transmitted by voice, by *a full read back followed by the aircraft call sign*:
 - (a) ATC route, approach and departure clearances including any amendment thereof
 - (b) clearances to VFR flights to operate within controlled airspace, including entering or vacating the circuit
 - (c) clearances (including conditional clearances) to operate on the manoeuvring area at a controlled aerodrome including:
 - (1) clearances to land on or take off from any runway
 - (2) clearances to enter, cross, taxi or backtrack on any runway
 - (3) instructions to remain on or hold clear of any runway
 - (4) taxi instructions including a taxi route and holding point where specified
 - (d) runway-in-use
 - (e) transponder-codes
 - (f) level instructions
 - (g) heading and speed instructions
 - (h) altimeter settings
 - (i) frequency, after frequency change instructions.
- 4.12.2 The following exceptions are permitted.

Note: In all cases conditional clearances must be read back in full.

- (a) Aircraft waiting to cross a runway may acknowledge a clearance to cross with the phrase "CROSSING (call sign)".
- (b) When a VFR aircraft is cleared by ATC to route via a published VFR arrival or departure procedure that is identical to that INITIALLY requested by the pilot, there is no requirement for the pilot to read back the clearance in full. The aircraft must transmit its call sign as an acknowledgment.
- 4.12.3 Where a route clearance is passed to another ATS unit or aircraft for relay, a read back must be made by the receiver to the originator of the clearance.
- 4.12.4 ATC will listen to the read back to ascertain that the clearance or instruction has been correctly acknowledged by the flight crew and will take immediate action to correct any discrepancies revealed by the read back.
- 4.12.5 When instructions are received that do not require a full read back, they must be acknowledged in a manner which clearly indicates that they have been understood and accepted. "WILCO" will generally suffice in this case.
- 4.12.6 Messages that do not require a read back must be acknowledged by the aircraft transmitting its call sign.
- 4.12.7 Where there is difficulty in reading a transmission a read back should be made or requested to verify the content.
- 4.12.8 Ground vehicle read back requirements are generally the same for safety-related parts of an ATC transmission. Refer to section *5.15*, *Vehicles*, in this AC for clarification.

4.13 Traffic information

- 4.13.1 Within class C or D airspace, traffic information is to be acknowledged by the phrase "COPIED THE TRAFFIC (call sign)" or "TRAFFIC IN SIGHT (call sign)" as appropriate.
- 4.13.2 Traffic information passed to an IFR aircraft about another IFR aircraft in class G airspace is to be acknowledged as follows:
 - (a) where "NO REPORTED IFR TRAFFIC" is passed the pilot replies NIL TRAFFIC "(call sign)"
 - (b) where traffic information is passed the pilot replies "COPIED THE TRAFFIC (call sign)".

4.14 Essential traffic

- 4.14.1 Rule 172.3 defines Essential Traffic as "any controlled traffic that is not separated by the prescribed minima in relation to other controlled flights where separation is required". In this situation, there is a higher risk that aircraft could collide. Essential traffic includes flights which are maintaining own separation in VMC and flights affected by an aircraft responding to an ACAS RA.
- 4.14.2 Essential traffic information will include:
 - (a) The words: "ESSENTIAL TRAFFIC"
 - (b) direction of flight of aircraft concerned
 - (c) type and wake turbulence category (if relevant) of aircraft concerned
 - (d) cruising level of aircraft concerned, and
 - (1) estimated time over the reporting point nearest to where the level will be crossed, or
 - (2) relative bearing of the aircraft concerned in terms of the 12-hour clock as well as distance from the actual or estimated position of the aircraft concerned, or
 - (3) actual or estimated position of the aircraft concerned.
- 4.14.3 Messages containing essential traffic information to IFR flights outside controlled airspace is preceded by "TRAFFIC IS" or "ADDITIONAL TRAFFIC IS".
- 4.14.4 It is also recommended that pilots refer to the AIPNZ ENR, and air traffic controllers to the Manual of Air Traffic Services (MATS) RAC-5.

4.15 Radio test procedures

- 4.15.1 Test transmissions should take the following form:
 - (a) the identification of the station being called
 - (b) the aircraft call sign
 - (c) the words RADIO CHECK
 - (d) the frequency being used.
- 4.15.2 Replies to test transmissions should be as follows:
 - (a) the identification of the station calling
 - (b) the identification of the station replying
 - (c) information regarding the readability of the transmission.

4.15.3 The readability of the transmission should be classified in accordance with the following readability scale:

Figure 4.15.3a

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

Figure 4.15.3b

	*
	BRIDGETOWN TOWER CESSNA XYZ RADIO CHECK 118.7
STATION CALLING BRIDGETOWN TOWER READABILITY TWO	
or	
XYZ TOWER READABILITY THREE LOUD BACKGROUND WHISTLE	
or	
XYZ TOWER READABILITY FIVE	

4.15.4 When it is necessary for a ground station to make test signals, either for the adjustment of a transmitter before making a call or for the adjustment of a receiver, such signals must not continue for more than 10 seconds. They must be composed of spoken numbers (ONE, TWO, THREE, etc) followed by the radio call sign of the station transmitting the test signals.

4.16 Level instructions

- 4.16.1 Only basic level instructions are detailed in this chapter. More comprehensive phrases are contained in subsequent chapters, in the context in which they are most commonly used.
- 4.16.2 The precise phraseology used in the transmission and acknowledgement of climb and descent clearances will vary, depending upon the circumstances, traffic density, and nature of the flight operations. However, care must be taken to ensure that misunderstandings are not generated because of the phraseology employed during these phases of flight.
- 4.16.3 Level is a general term used when referring to altitude or flight level.

4.16.4 In the following examples, the operations of climbing and descending are interchangeable and examples of only one form are given.

Figure 4.16.4a

₹
PQR PASSING FL150 (or PQR MAINTAINING 8000 FEET)
REPORT PASSING FL180 PQR
PQR PASSING FL180
MAINTAINING 2500 FEET PQR
LEAVING 4000 FEET CLIMBING TO FL220 WILCO PQR
PQR REQUEST DESCENT
LEAVING FL190 DESCENDING TO FL160 PQR
AFTER RIVERCITY VOR DESCEND TO FL180 FASTAIR 345
CLIMB (/DESCEND) AT 500 FEET PER MINUTE MINIMUM (/MAXIMUM) FASTAIR 345

4.16.5 Once given an instruction to climb or descend, a further overriding instruction may be given to a pilot.

Figure 4.16.5a

	*
FASTAIR 345 STOP DESCENT AT FL150	
	STOPPING DESCENT AT FL150 FASTAIR 345
FASTAIR 345 CLIMB TO FL160	
	CLIMBING TO FL160 FASTAIR 345
FASTAIR 345 CONTINUE CLIMB TO FL200	
	CONTINUING CLIMB TO FL200 FASTAIR 345

4.16.6 Occasionally, for traffic reasons, a higher-than-normal rate of climb or descent may be required.

Figure 4.16.6a

	*
FASTAIR 345 EXPEDITE DESCENT TO FL180	
	EXPEDITING DESCENT TO FL180 FASTAIR 345
FASTAIR 345 CLIMB TO FL240 EXPEDITE UNTIL PASSING FL180	
	CLIMBING TO FL240 EXPEDITING UNTIL PASSING FL180 FASTAIR 345

4.17 Change from IFR to VFR flight rules

4.17.1 During a flight a pilot may change from IFR to VFR flight. Any changes to the flight plan are to be included in the message. Pilots are required to provide a SARTIME (in hours and minutes) for destination and aircraft registration if not already passed.

Note: This is not a termination of flight plan but merely a change of flight rules.

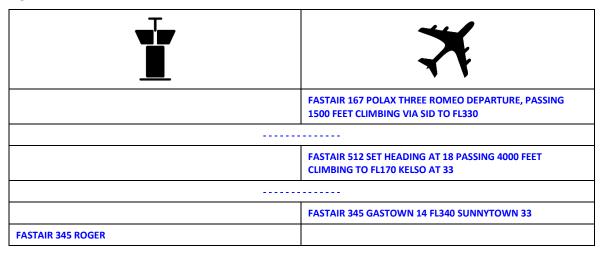
Figure 4.17.1a

	×
	PQR CANCELLING IFR FLIGHT REQUEST DESCENT TO TRACK VIA LAKE DAM AND DAMTOWN TO CENTRALTOWN
PQR IFR FLIGHT CANCELLED AT 47 LEAVE CONTROLLED AIRSPACE DESCENDING VIA LAKE DAM REPORT PASSING 9500 FEET REQUEST SARTIME FOR CENTRALTOWN	
	LEAVE CONTROLLED AIRSPACE DESCENDING VIA LAKE DAM WILCO SARTIME 0320 PQR
PQR SARTIME 0320	

4.18 Position reporting — IFR

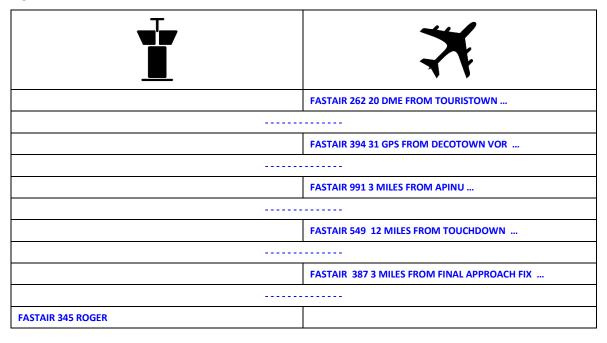
4.18.1 Position reporting procedures are set out in AIP New Zealand ENR 1.1, section 5.

Figure 4.18.1a



4.18.2 Where distance information is provided in a position report, the distance reference is to be included.

Figure 4.18.2a



4.19 Position reporting — VFR

4.19.1 Visual position reports should contain the appropriate elements of those listed in AIP New Zealand ENR 1.1 section 7 as applicable to the report.

Figure 4.19.1a

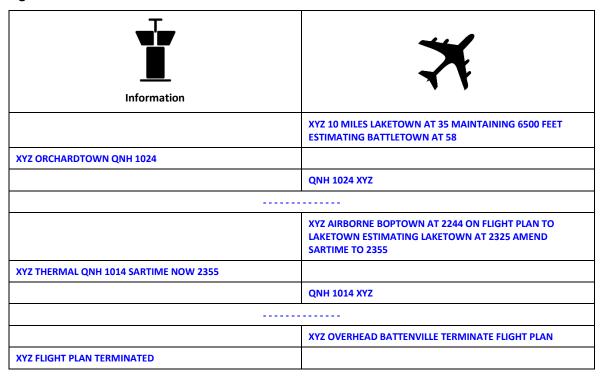


Figure 4.19.1b

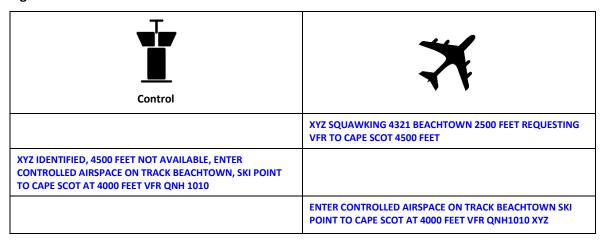


Figure 4.19.1c

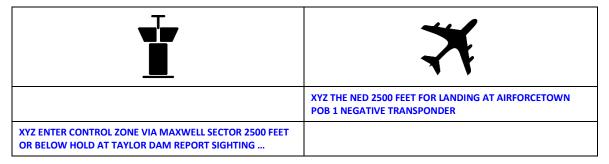
Tower	*
	XYZ POINTTOWN 1500 FEET REQUEST CLEARANCE TO ENTER CONTROL ZONE FOR TOUCH AND GO THEN ONWARDS TO LAKETOWN POB 2
XYZ ENTER CONTROL ZONE AT1500 FEET TRACK TO MOUNT HARBOUR ENTRANCE REPORT AT MOUNT HARBOUR ENTRANCE QNH 1018 TRAFFIC IS	
	ENTER CONTROL ZONE AT 1500 FEET TRACK TO MOUNT HARBOUR ENTRANCE WILCO 1018 COPIED THE TRAFFIC XYZ

4.20 Transponder reporting

4.20.1 Pilots are required to operate a transponder when in transponder-mandatory airspace (all controlled airspace in New Zealand and when designated in special use airspace) unless otherwise authorised by ATC. Refer to paragraph 6.7 of this AC, *Transponder operations*, for transponder operating phrases.

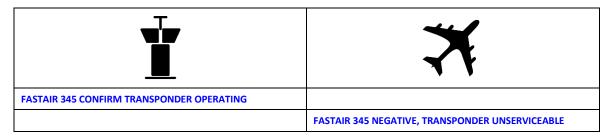
4.20.2 Pilots who wish to operate in transponder-mandatory controlled airspace without an operative transponder are expected to obtain specific ATC approval prior to commencing the <u>flight</u>. Following ATC approval pilots reiterate "NEGATIVE TRANSPONDER" when requesting a clearance to enter transponder mandatory controlled airspace. Refer to section 6.7 for transponder operating phrases.

Figure 4.20.2a



4.20.3 A pilot-in-command of an aircraft operating in transponder-mandatory airspace must immediately advise the ATC unit having jurisdiction over the relevant airspace of any failure or partial failure of the transponder equipment. ATC may request confirmation of transponder operation.

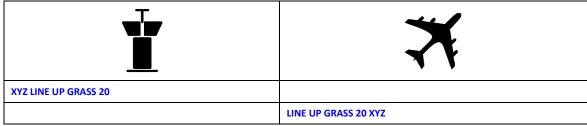
Figure 4.20.3a



4.21 Runway designator

- 4.21.1 At controlled aerodromes the phraseology "RUNWAY (number)" will be used.
- 4.21.2 Where there are two parallel runways with different surfaces (paved and unpaved) and the runway designators are the same:
 - (a) the phraseology "GRASS (number)" will be used to describe the unpaved or partially paved runway, and either
 - (b) the phraseology "SEAL (number)" will be used to describe the paved runway; or
 - (c) the phraseology "RUNWAY (number)" is used to describe the paved runway if the aircraft in question is **not** capable of landing on the unpaved parallel runway.

Figure 4.21.2a



4.22 Minimum fuel

- 4.22.1 A declaration from a pilot of "MINIMUM FUEL" informs ATC that all planned aerodrome options have been reduced to a specific aerodrome of intended landing and any change to the existing clearance may result in landing with less than planned final reserve fuel. This is not an emergency situation, but it is an indication that an emergency situation is possible should any delay occur.
- 4.22.2 When a pilot reports a state of minimum fuel, the controller must inform the pilot as soon as practicable of any anticipated delays or that no delays are expected. Pilots can expect ATC to tell them of any change to expected delays as soon as practicable.
- 4.22.3 No priority will be provided to aircraft that have declared minimum fuel. If there is a fuel situation that is an emergency, an emergency call in accordance with part 13 of the AC must be used.

Figure 4.22.3a

	*
	OYSTERTOWN TOWER FASTAIR 345 MINIMUM FUEL
FASTAIR 345 ROGER MINIMUM FUEL (NO DELAY EXPECTED or EXPECT delay information)"	

5. AERODROME CONTROL

5.1 General

5.1.1 Except for reasons of safety, controllers should not transmit to an aircraft in the process of taking off or in the final stages of an approach and landing.

5.2 Departure information and engine starting procedures

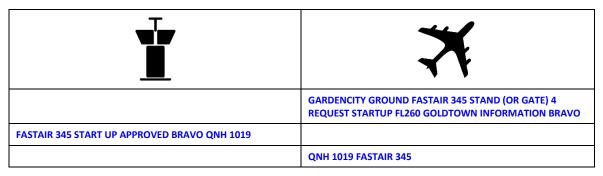
5.2.1 Where ATIS is not available the pilot may ask for current aerodrome information before requesting start up.

Figure 5.2.1a



5.2.2 Requests to start engines are normally made to facilitate ATC planning and to avoid fuel wastage by aircraft delayed on the ground. Along with the request, the pilot will state the location of the aircraft and acknowledges receipt of the ATIS broadcast.

Figure 5.2.2a



5.2.3 For efficiency, pilots will often include the readback of the QNH included in the ATIS broadcast at the same time they acknowledge receipt of the ATIS broadcast.

Figure 5.2.3a

	*
	GARDENCITY GROUND FASTAIR 345 STAND (OR GATE) 4 REQUEST STARTUP FL260 GOLDTOWN INFORMATION BRAVO QNH 1019
FASTAIR 345 START UP APPROVED	
	FASTAIR 345

5.2.4 During busy periods the normal response to a start request is "standby". ATC internal coordination follows. Pilots should maintain a listening watch for their start approval or update.

	*
	FASTAIR 345 STAND (OR GATE) 8 REQUEST START UP
FASTAIR 345 STANDBY	
FASTAIR 345 START UP AT 35	
	FASTAIR 345
or	
FASTAIR 345 EXPECT START UP AT 35	
	FASTAIR 345
or	
FASTAIR 345 EXPECT DEPARTURE AT 49 START UP AT OWN DISCRETION	
	FASTAIR 345

5.3 Pushback

5.3.1 At some aerodromes, aircraft are parked nose-in to the terminal and have to be pushed backwards by tugs before they can taxi for departure. Requests for pushback are to be made according to local procedures.

	*
	FASTAIR 345 STAND (OR GATE) 2 REQUEST PUSHBACK
FASTAIR 345 PUSHBACK APPROVED	
or	
FASTAIR 345 STANDBY, EXPECT ONE MINUTE DELAY DUE 747 TAXIING BEHIND	
or (in the case of uncontrolled apron, as per local procedure)	
FASTAIR 345 PUSHBACK AT YOUR DISCRETION	

5.4 Taxi instructions

- 5.4.1 In all cases, pilots of departing aircraft must state the location of the aircraft when requesting to either start engines, push back, or when requesting taxi clearance.
- 5.4.2 When an aircraft wishes to operate off a non-duty runway, IFR flights must make this request prior to starting, and VFR aircraft must include this in the request for taxi clearance.
- 5.4.3 When an aircraft requires a reduced length for take-off, or backtrack from a runway entry point, this request must be included in the request for taxi clearance, along with any other intentions of a pilot which are significant to ATC.
- 5.4.4 Taxi instructions issued by a controller will always contain a clearance limit, which is the point at which the aircraft must stop unless further permission to proceed is given. The clearance limit may not necessarily be a position from which an aircraft can enter the runway for departure, or enter the apron, but may be some other position on the aerodrome depending on prevailing circumstances. Taxi instructions may also include a taxi route.
- 5.4.5 A taxi clearance containing a limit beyond a runway will contain an explicit clearance to cross that runway or an instruction to hold short of that runway. This will include unlit runways at night and runways that are promulgated as closed or not available.
- 5.4.6 A clearance to cross must be requested if one has not been given.
- 5.4.7 When issuing clearances to aircraft to cross a runway ATC may require an aircraft to report when it has vacated and is clear of the runway.

Figure 5.4.7a

	*
	SUNNYTOWN TOWER C172 XYZ SOUTH SIDE OF HANGARS REQUEST TAXI 20 MINUTES CIRCUITS POB 2 INFORMATION BRAVO QNH 1010
XYZ TAXI TO HOLDING POINT ALFA FIVE TIME 16	
	XYZ REQUEST RUNWAY 24
XYZ BEHIND THE SENECA COMING FROM YOUR LEFT RECLEARED TO HOLDING POINT RUNWAY 24 CROSS RUNWAY 20	
	BEHIND THE SENECA TAXI TO HOLDING POINT RUNWAY 24 CROSS RUNWAY 20 XYZ
	FASTAIR 345 (STAND OR GATE) 2 REQUEST TAXI POB 25 INFORMATION CHARLIE QNH 1011
FASTAIR 345 TIME 23 TAXI TO HOLDING POINT GOLF ONE VIA ALFA HOLD SHORT OF RUNWAY 14	
	FASTAIR 345 REQUEST TAXIWAY BRAVO AND BACKTRACK
FASTAIR 345 ROGER TAXI VIA BRAVO BACKTRACK AND LINE UP RUNWAY 06	
	BRAVO BACKTRACK AND LINE UP RUNWAY 06 FASTAIR 345
PQR EXPEDITE TAXI TRAFFIC ON FINAL RUNWAY 14, REPORT RUNWAY 14 VACATED	
	EXPEDITING PQR
	PQR RUNWAY 14 VACATED
	BIGTOWN TOWER XYZ AT STAND (OR GATE) 9 REQUEST TAXI TO AERO CLUB
XYZ ROGER TAXI TO HOLDING POINT ALFA ONE VIA CHARLIE	
	HOLDING POINT ALFA ONE VIA CHARLIE XYZ
	XYZ APPROACHING HOLDING POINT ALFA ONE REQUEST CROSS RUNWAY 33
XYZ HOLD SHORT OF RUNWAY 33	
	HOLDING SHORT RUNWAY 33 XYZ
XYZ CROSS RUNWAY 33 REPORT VACATED CONTINUE TO AERO CLUB	
	CROSSING, WILCO XYZ
XYZ ROGER	
	XYZ RUNWAY VACATED

5.4.8 Where an aircraft acknowledges receipt of the ATIS broadcast or acknowledges receipt of conditions just recently broadcast to other aircraft, the controller does not need to pass departure information to the pilot when giving taxi instructions.

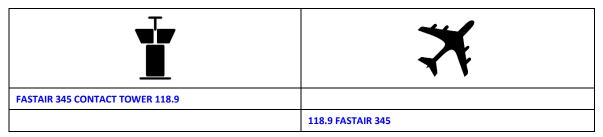
Figure 5.4.8a

	*
	GARDENCITY GROUND FASTAIR 345 STAND (OR GATE) 6 REQUEST TAXI INFORMATION DELTA QNH 1019 POB 128
FASTAIR 345 GIVE WAY TO 747 PASSING LEFT TO RIGHT TAXI TO HOLDING POINT ALFA ONE CROSS RUNWAY 29 TIME 19	
	HOLDING POINT ALFA ONE CROSS RUNWAY 29 TRAFFIC IN SIGHT FASTAIR 345

5.5 Pre-departure manoeuvring

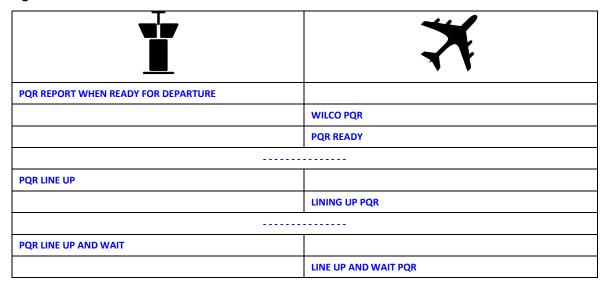
5.5.1 At busy aerodromes with separate surface movement control (GROUND) and aerodrome control (TOWER), aircraft are usually transferred to the aerodrome control at or approaching the runway holding point. Since misunderstandings in the granting and acknowledgement of take-off clearances can result in serious consequences, meticulous care has been taken to ensure that the phraseology to be employed during the pre-departure manoeuvres cannot be interpreted as a take-off clearance.

Figure 5.5.1a



5.5.2 Many types of aircraft carry out engine or other pre-take-off checks prior to departure and are not always ready for take-off when they reach the runway holding point.

Figure 5.5.2a



5.5.3 Conditional clearances affecting the active runway will only be used when both the pilot and the controller have the conflicting traffic in sight, and the traffic causing the conditional

clearance is the first to pass the affected aircraft. When the conditional clearance involves a departing aircraft and an arriving aircraft or two departing aircraft, the clearance will be given as follows:

- (a) call sign
- (b) the condition
- (c) the clearance
- (d) a brief reiteration of the condition.

Figure 5.5.3a

	*
FASTAIR 345 REPORT THE BLUE DASH 8 ON FINAL IN SIGHT	
	FASTAIR 345 BLUE DASH 8 IN SIGHT
FASTAIR 345 BEHIND THE LANDING DASH 8 ON SHORT FINAL LINE UP BEHIND	
	BEHIND THE LANDING DASH 8 LINE UP BEHIND FASTAIR 345
FASTAIR 345 AFTER DEPARTING 737 LINE UP BEHIND	
	AFTER DEPARTING 737 LINE UP BEHIND FASTAIR 345

- 5.5.4 **Multiple line up** clearances differ to conditional clearances.
- 5.5.5 Multiple line up clearances will only be used when the preceding aircraft concerned is seen by both the controller and the pilot of the succeeding aircraft.
- 5.5.6 The clearance will be given as follows:
 - (a) identification
 - (b) line up clearance
 - (c) runway
 - (d) runway entry point
 - (e) departure order number
 - (f) traffic information about other aircraft.

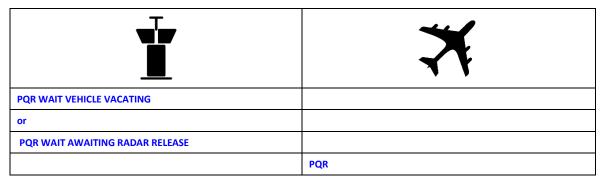
Figure 5.5.6a

	*
ANZ123 LINE UP RUNWAY 23L AT ALFA FOUR, NUMBER ONE FOR DEPARTURE AHEAD OF QANTAS B737 LINING UP AT ALFA ONE	
	LINING UP RUNWAY 23L AT ALFA FOUR, NUMBER ONE AHEAD OF QANTAS B737, ANZ123
QFA357, LINE UP AND WAIT RUNWAY 23L AT ALFA ONE, NUMBER TWO FOR DEPARTURE BEHIND AIR NEW ZEALAND A320 AT ALFA FOUR	
	LINING UP AND WAIT RUNWAY 23L AT ALFA ONE, NUMBER TWO BEHIND AIR NEW ZEALAND A320, QFA357

5.6 Take-off procedures

5.6.1 If ATC is unable to issue a take-off clearance the reason will be given, if needed (e.g. if it might not be clear to the pilot).

Figure 5.6.1a



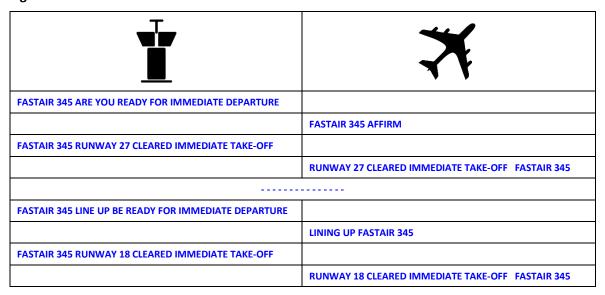
5.6.2 The take-off clearance will include the runway designator.

Figure 5.6.2a

	*
FASTAIR 345 RUNWAY 09 CLEARED FOR TAKE-OFF	
	RUNWAY 09 CLEARED FOR TAKE-OFF FASTAIR 345
FASTAIR 345 RUNWAY 23 LEFT CLEARED FOR TAKE-OFF	
	RUNWAY 23 LEFT CLEARED FOR TAKE-OFF FASTAIR 345
PQR GRASS 02 CLEARED FOR TAKE-OFF	
	GRASS 02 CLEARED FOR TAKE-OFF PQR

5.6.3 For traffic reasons it may be necessary for the aircraft to take-off immediately after lining up.

Figure 5.6.3a



5.6.4 In poor visibility the controller may request the pilot to report when airborne.

Figure 5.6.4a

	*
FASTAIR 345 RUNWAY 08 CLEARED FOR TAKE-OFF REPORT AIRBORNE	
	RUNWAY 08 CLEARED FOR TAKE-OFF WILCO FASTAIR 345
	FASTAIR 345 AIRBORNE 57
FASTAIR 345 CONTACT CONTROL 121.1	
	121.1 FASTAIR 345

5.6.5 Local departure instructions may be given with the take-off clearance. Such instructions are normally given to ensure separation between aircraft operating in the vicinity of the aerodrome.

Figure 5.6.5a



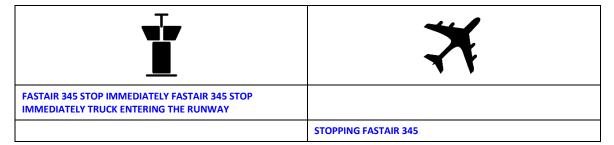
5.6.6 Due to unexpected traffic developments or a departing aircraft taking longer to take off than anticipated it is occasionally necessary to rescind the take-off clearance or quickly free the runway for landing traffic. In this situation the pilot must acknowledge the instruction with call sign and intentions.

Figure 5.6.6a

	*
FASTAIR 345 TAKE-OFF IMMEDIATELY OR HOLD SHORT OF RUNWAY	
	HOLDING SHORT FASTAIR 345
FASTAIR 345 TAKE-OFF IMMEDIATELY OR VACATE RUNWAY	
	TAKING OFF FASTAIR 345
PQR HOLD POSITION	
	HOLDING PQR
PQR HOLD POSITION, CANCEL TAKE-OFF I SAY AGAIN CANCEL TAKE-OFF (reasons)	
	HOLDING PQR

5.6.7 When a perilous situation develops after an aircraft has commenced the take-off roll the pilot may be instructed to abandon the take-off. This instruction will only be used in extreme circumstances when an aircraft is in imminent danger. (The decision to abandon take-off remains with the pilot).

Figure 5.6.7a



5.6.8 When a pilot abandons the take-off manoeuvre they should, as soon as practicable, inform the control tower they are doing so. Likewise, as soon as practicable, they should inform the control tower of the reasons for abandoning take-off, if applicable, and request further manoeuvring instructions.

Figure 5.6.8a

	*
	FASTAIR 345 STOPPING
FASTAIR 345 ROGER	
	FASTAIR 345 REQUEST RETURN TO APRON
FASTAIR 345 TAKE NEXT RIGHT RETURN TO APRON CONTACT GROUND 121.9	
	NEXT RIGHT RETURN TO APRON 121.9 FASTAIR 345

5.6.9 When reduced runway separation is being used, controllers will pass traffic information on the preceding aircraft.

Figure 5.6.9a



5.7 VFR departures

5.7.1 Departure clearances may include a CTR Sector, a VFR departure procedure or plain language instructions. Aircraft must, on leaving the aerodrome traffic circuit, enter and remain within the lateral limits of any sector in the clearance, or follow the assigned route specified in the VFR departure procedure or the clearance. Altitude instructions are included in published VFR departure procedures.

Figure 5.7.1a

	*
XYZ LEAVE CONTROL ZONE VIA RIVERTOWN AT 1500 FEET VFR REPORT TURAKINA	
	LEAVE CONTROL ZONE VIA RIVERTOWN AT-1500 FEET VFR WILCO XYZ
XYZ LEAVE CONTROL ZONE VIA SEAGROVE 2000 FEET OR BELOW REPORT SEAGROVE	
	LEAVE CONTROL ZONE VIA SEAGROVE 2000 FEET OR BELOW WILCO XYZ
XYZ LEAVE VIA SINCLAIR SECTOR SPECIAL VFR 1500 FEET OR BELOW	
	LEAVE VIA SINCLAIR SECTOR SPECIAL VFR 1500 FEET OR BELOW XYZ
XYZ CLEARED MANFEILD DEPARTURE	
	CLEARED MANFEILD DEPARTURE XYZ

5.8 VFR arrivals

- 5.8.1 The initial call to aerodrome control requesting clearance to enter a CTR must be made in sufficient time to allow the controller to assess the VFR and IFR traffic situation and issue a clearance before the aircraft reaches the CTR boundary. Pilots must request a Special VFR clearance when conditions are below VFR minima, and approval to operate in the CTR should not be assumed.
- 5.8.2 Arrival clearances may include a CTR Sector, a VFR arrival procedure, plain language instructions, or circuit joining instructions. Aircraft must remain within the lateral limits of any sector in the clearance, or follow the cleared VFR arrival procedure or route otherwise specified in the clearance, and comply with circuit joining and reporting instructions. Altitude instructions are included in published VFR arrival procedures.

Figure 5.8.2a

	~
	₹
	RIVERCITY TOWER XYZ
XYZ RIVERCITY TOWER	
	XYZ C172 TE KOWHAI 2000 FEET FOR LANDING POB 2 INFORMATION DELTA QNH 1012
XYZ JOIN LEFT HAND DOWNWIND RUNWAY 36 2000 FEET OR BELOW REPORT RUKUHIA	
	LEFT HAND DOWNWIND RUNWAY 36 AT 2000 FEET OR BELOW WILCO XYZ
	GARDENCITY TOWER XYZ
XYZ GARDENCITY TOWER	
	XYZ FARMTOWN 2500 FEET FOR LANDING INFORMATION BRAVO QNH 1014 POB 4
XYZ CLEARED 20 EYREWELL ARRIVAL RUNWAY 20	
	CLEARED 20 EYREWELL ARRIVAL RUNWAY 20 XYZ
	WINDYCITY TOWER YYM
YYM WINDYCITY TOWER	
	YYM HAYWARDS 2500 FEET FOR LANDING INFORMATION TANGO QNH 1018 POB 3
YYM ENTER CONTROL ZONE VIA JACKSONVILLE SECTOR 2000 FEET OR BELOW HOLD AT POINT HOWARD	
	ENTER CONTROL ZONE VIA JACKSONVILLE SECTOR 2000 FEET OR BELOW HOLD AT POINT HOWARD YYM

5.9 Aerodrome traffic circuit

5.9.1 Circuit joining instructions will be issued early enough to allow a pilot to sight other aircraft and position in a safe and orderly manner into the circuit.

Figure 5.9.1a

~
7.
~ ~ ~
•
RIGHT HAND RUNWAY 24 CESSNA 172 IN SIGHT XYZ
NUMBER TWO WILCO XYZ
LEFT HAND DOWNWIND RUNWAY 09 NUMBER TWO XYZ
XYZ DOWNWIND TECNAM IN SIGHT
LEFT BASE RUNWAY 16 NUMBER TWO DASH-8 IN SIGHT XYZ
CROSS OVERHEAD RIGHT HAND RUNWAY 25 XYZ

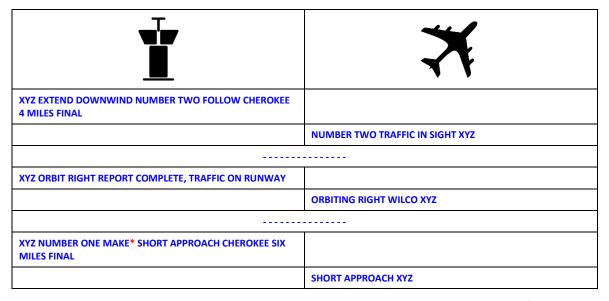
5.9.2 The pilot having joined the traffic circuit makes routine reports as required.

Figure 5.9.2a

	*	
	XYZ DOWNWIND	
XYZ NUMBER TWO FOLLOW CHEROKEE ON BASE		
	NUMBER TWO TRAFFIC IN SIGHT XYZ	
XYZ REPORT FINAL (or BASE or LONG FINAL)		
	XYZ WILCO	
	XYZ FINAL	
XYZ CONTINUE APPROACH WIND 270 DEGREES 7 KNOTS		
	XYZ	

5.9.3 It may be necessary to co-ordinate traffic in the circuit to issue delaying or expediting instructions.

Figure 5.9.3a



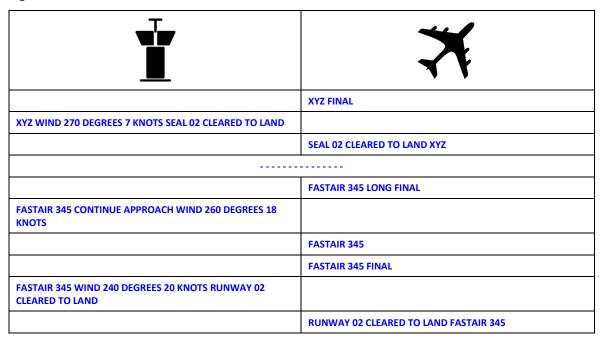
Note: A low time student pilot is likely unable to make a short approach. ATC might first need to query a pilot whether they are able to accept a short approach prior to issuing this instruction.

5.10 Final approach and landing

5.10.1 If requested, a "final" report is made when an aircraft turns onto final approach. If the turn onto final is made at a distance greater than four miles from touchdown, a "long final" report is made.

5.10.2 The landing clearance will include the runway designator.

Figure 5.10.2a



5.10.3 A pilot may request to fly past the control tower or other observation point for the purpose of visual inspection from the ground.

Figure 5.10.3a

	*
	FASTAIR 345 REQUEST LOW PASS UNSAFE LEFT GEAR INDICATION
FASTAIR 345 CLEARED LOW PASS RUNWAY 27 REPORT FINAL	
	RUNWAY 27 FASTAIR 345
FASTAIR 345 LANDING GEAR APPEARS DOWN	
	FASTAIR 345
FASTAIR 345 RIGHT MAIN WHEELS APPEAR UP, LEFT MAIN WHEELS APPEAR DOWN	
	FASTAIR 345

5.10.4 For training purposes, a pilot may request permission to fly along the runway centre line without landing. However, this is not approval for a stunt at low level and high speed.

Figure 5.10.4a

	*
	PQR REQUEST LOW APPROACH RUNWAY 09 FOR TRAINING
PQR CLEARED LOW APPROACH RUNWAY 09 REPORT FINAL	
	RUNWAY 09 FASTAIR 345

5.11 Simulated emergency and training manoeuvres

- 5.11.1 Simulated abandoned take-off:
 - (a) "(RUNWAY or GRASS or SEAL as appropriate) (number) EXERCISE APPROVED [REPORT COMPLETE]", or
 - (b) "NOT AVAILABLE [reason]".

Note: The controller should consider the possibility that the aircraft may inadvertently get airborne and apply judgement when approving abandoned take-offs.

- 5.11.2 Simulated engine failure after take-off:
 - (a) "EXERCISE APPROVED REPORT COMPLETE [take-off clearance]", or
 - (b) "NOT AVAILABLE [reason] [take-off clearance]".
- 5.11.3 Pilots may request to carry out a "touch and go", in which the aircraft lands, continues rolling and takes-off, without stopping.
- 5.11.4 The touch and go clearance will include the runway designator.

Figure 5.11.4a

	*
	XYZ REQUEST TOUCH AND GO
XYZ GRASS 02 CLEARED TOUCH AND GO	
	GRASS 02 CLEARED TOUCH AND GO XYZ
or	
XYZ UNABLE TO APPROVE DUE TRAFFIC MAKE FULL STOP GRASS 02 CLEARED TO LAND	
	GRASS 02 CLEARED TO LAND FOR FULL STOP XYZ

5.11.5 When reduced runway separation is being used, controllers will pass traffic information on the preceding aircraft.

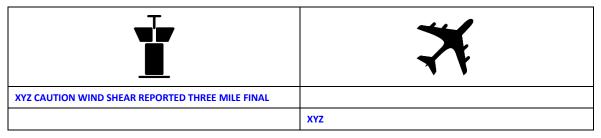
Figure 5.11.5a

	*
XYZ (TRAFFIC INFORMATION) RUNWAY 07 CLEARED TO LAND	
	RUNWAY 07 (traffic) CLEARED TO LAND XYZ

5.12 Wind shear and wake turbulence

5.12.1 When wind shear is forecast or is reported by aircraft, ATC will warn other aircraft until such time as aircraft report the phenomenon no longer exists.

Figure 5.12.1a



5.12.2 When wake turbulence is suspected or known to exist ATC will warn aircraft as appropriate.

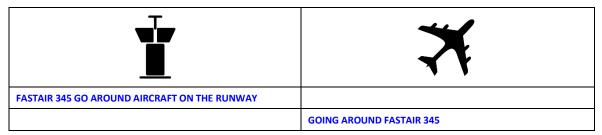
Figure 5.12.2a

	*
XYZ CAUTION WAKE TURBULENCE A320 LANDING AHEAD	
	XYZ

5.13 Go around

5.13.1 If the runway is not available for landing, or to ensure ATC separation, or to avert an unsafe situation, this instruction will be given. Any transmissions to aircraft should be brief and kept to a minimum.

Figure 5.13.1a



5.13.2 In the event that this procedure is initiated by the pilot, the phrase "going around" will be used.

Figure 5.13.2a

	*
	FASTAIR 345 GOING AROUND
FASTAIR 345 ROGER	

5.14 After landing

- 5.14.1 Except where normal operations for the aircraft type will necessitate a backtrack, arriving aircraft wishing to backtrack on the runway-in-use after landing should make that request to tower while on final approach. After landing, pilots must advise intended location on the aerodrome, and obtain a taxi clearance.
- 5.14.2 Remain on aerodrome control frequency until clear of the runway-in-use, then, unless otherwise instructed, contact surface movement control on the appropriate frequency for taxi instructions.

Figure 5.14.2a

	*
FASTAIR 345 TAKE FIRST RIGHT	
	FIRST RIGHT FASTAIR 345
	GROUND FASTAIR 345 RUNWAY VACATED REQUEST TAXI TO STAND (OR GATE) 7
FASTAIR 345 TAXI TO STAND 7 VIA TAXIWAY ALFA	
	STAND 7 VIA TAXIWAY ALFA FASTAIR 345
XYZ CONTINUE TO THE END REPORT VACATING LEFT	
	XYZ
	XYZ RUNWAY VACATED
XYZ TAXI TO AERO CLUB VIA BRAVO	
	AERO CLUB VIA BRAVO XYZ

5.15 Vehicles

- 5.15.1 In preparing for vehicles operating, or intending to operate, on the operational area, the aerodrome operator must meet requirements under rule Part 139.119 to ensure only ground vehicles that need to be in an operational area are there.
- 5.15.2 The aerodrome operator also needs to put in place measures to ensure the safe and orderly access to the operational area for ground vehicles, and to require each ground vehicle operating on the manoeuvring area of the aerodrome to be controlled by:
- (i) two-way radio communications between the vehicle and the aerodrome control service, or
- (ii) if the vehicle does not have radio communications, an accompanying escort vehicle that has two-way radio communications with the aerodrome control service, or
- (iii) if it is not practical to have two-way radio communications or an escort vehicle, adequate measures such as signs, signals, or guards for controlling the vehicle, for example, an ATS signal lamp. Note that cellphones are not listed as an acceptable method of communications under CAR 139.119.
- 5.15.3 At all times, vehicles must comply with ATC instructions and requirements while in the manoeuvring area. Ground movement instructions for vehicles issued by ATC will use the word "PROCEED". Note that the word "TAXI" is only to be used for the surface movement of aircraft.
- 5.15.4 Vehicle drivers operating or intending to operate on the manoeuvring area must read back to the air traffic controller safety-related parts of instructions which are transmitted by voice, e.g. instructions to enter, hold short of, cross and operate on any runway or taxiway. Examples are given in Figure 5.15.1a.

Figure 5.15.4a

	WINDYCITY TOWER AIRPORT1 AT HOLDING POINT BRAVO REQUEST CROSS RUNWAY 34
AIRPORT1 CROSS RUNWAY 34	
	CROSS RUNWAY 34 AIRPORT1
	AIRPORT1 RUNWAY VACATED REQUEST PROCEED TO STAND 7
AIRPORT1 PROCEED TO STAND 7 VIA TAXIWAY ALFA	
	STAND 7 VIA TAXIWAY ALFA AIRPORT1
AIRPORT1 PROCEED TO AERO CLUB VIA BRAVO	
	AERO CLUB VIA BRAVO AIRPORT1

5.15.5 In some cases, the Air Traffic Controller may issue a holding instruction, or a clearance only to a point along the requested route. In such a case, an additional clearance is required to proceed further – see examples in Figure 5.15.5.

Figure 5.15.5

	WINDYCITY TOWER AIRPORT1 AT HOLDING POINT BRAVO REQUEST CROSS RUNWAY 34
AIRPORT1 HOLD POSITION	
	HOLDING AIRPORT1
AIRPORT1 CROSS RUNWAY 34	
	CROSS 34 AIRPORT1
	WINDYCITY TOWER AIRPORT1 AT HOLDING POINT BRAVO REQUEST PROCEED TO WESTERN HANGAR
AIRPORT1 PROCEED TO HOLDING POINT BRAVO, HOLD SHORT OF RUNWAY 34	
	PROCEED TO HOLDING POINT BRAVO, HOLD SHORT OF RUNWAY 34 AIRPORT1

5.15.6 The controller shall listen to the read-back to ascertain that the instruction has been correctly acknowledged by the vehicle driver and shall take immediate action to correct any discrepancies revealed by the read back.

6. GENERAL SURVEILLANCE PHRASEOLOGY

6.1 Introduction

- 6.1.1 This section contains general surveillance phraseology which is commonly used in communications between aircraft and all types of radar units.
- 6.1.2 Normally the call sign suffix used by the radar unit is sufficient to indicate its function.
- 6.1.3 In an ATS surveillance service environment heading information given by the pilot and heading instructions given by controllers are in degrees magnetic.

6.2 Surveillance identification

6.2.1 Occasionally aircraft will be required to make a turn for identification purposes.

Figure 6.2.1a

	*
PQR REPORT HEADING AND LEVEL	
	PQR HEADING 110 AT 6000 FEET
PQR FOR IDENTIFICATION TURN LEFT HEADING 080	
	LEFT HEADING 080 PQR
PQR IDENTIFIED 20 MILES NORTH WEST OF WHANGANUI CONTINUE HEADING 080 VECTORING FOR ILS/DME APPROACH 34	
	PQR
PQR NOT IDENTIFIED RESUME OWN NAVIGATION	
TO GULUT	
	ROGER, RESUMING OWN NAVIGATION TO GULUT PQR

6.2.2 The pilot should be warned if identification is lost, or about to be lost.

Figure 6.2.2a

	*
XYZ IDENTIFICATION LOST IN RADAR OVERHEAD	
	XYZ
XYZ WILL SHORTLY LOSE IDENTIFICATION CONTACT GARDENCITY INFORMATION 121.3	
	121.3 XYZ

6.3 Surveillance vectoring

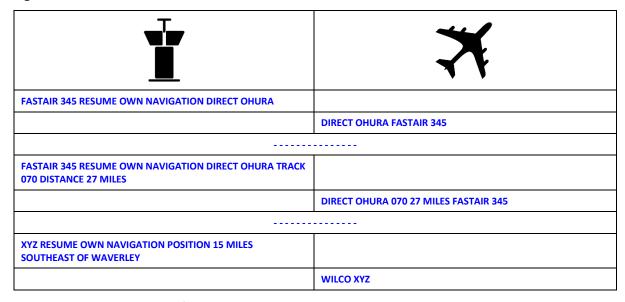
6.3.1 Aircraft may be given specific vectors to fly to establish lateral separation. Unless it is self-evident, pilots should be informed of the reason why vectors are necessary.

Figure 6.3.1a

	*	
FASTAIR 345 TURN LEFT HEADING 050 FOR SEPARATION		
	LEFT HEADING 050 FASTAIR 345	
FASTAIR 345 FLY HEADING 050		
	HEADING 050 FASTAIR 345	
FASTAIR 345 CONTINUE PRESENT HEADING		
	WILCO FASTAIR 345	
FASTAIR 345 TURN LEFT 10 DEGREES REPORT NEW HEADING		
	NEW HEADING 350 DEGREES FASTAIR 345	
FASTAIR 345 REPORT YOUR HEADING		
	FASTAIR 345 HEADING 050	
FASTAIR 345 ROGER CONTINUE HEADING 050		
	WILCO FASTAIR 345	

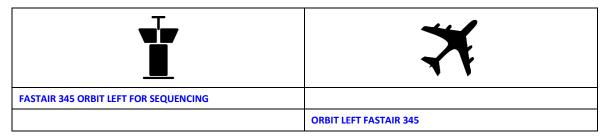
6.3.2 When vectoring is completed, pilots will be instructed to resume their own navigation and given position information and appropriate instructions as necessary.

Figure 6.3.2a



6.3.3 Occasionally an aircraft may be instructed to make a complete turn through 360 degrees for delaying purposes or to achieve a required spacing behind preceding traffic.

Figure 6.3.3a



6.4 Traffic information and avoiding action

Figure 6.4a

T	
	~
	7 7
FASTAIR 345 UNKNOWN TRAFFIC 10 O'CLOCK 11 MILES CROSSING LEFT TO RIGHT FAST MOVING	
CROSSING LEFT TO RIGHT FAST MIDVING	
	FASTAIR 345 NEGATIVE CONTACT REQUEST VECTORS
FASTAIR 345 TURN LEFT HEADING 050	
	LEFT HEADING 050 FASTAIR 345
FASTAIR 345 CLEAR OF TRAFFIC RESUME OWN NAVIGATION DIRECT LAKETOWN VOR	
	DIRECT LAKETOWN VOR FASTAIR 345
PQR TRAFFIC 2 O'CLOCK 5 MILES NORTHBOUND CHEROKEE AT 2000 FEET	
	PQR LOOKING
PQR IF NO SIGHTING SUGGEST TURN LEFT 60 DEGREES	
	PQR TRAFFIC IN SIGHT
PQR ROGER	
FASTAIR 345 UNKNOWN TRAFFIC 1 O'CLOCK 3 MILES OPPOSITE DIRECTION FAST MOVING	
	FASTAIR 345 LOOKING FASTAIR 345 TRAFFIC IN SIGHT NOW PASSED CLEARED
FASTAIR 345 ROGER	
FASTAIR 345 TURN RIGHT IMMEDIATELY HEADING 110 TO	
AVOID TRAFFIC 12 O'CLOCK 4 MILES	
	RIGHT HEADING 110 FASTAIR 345
FASTAIR 345 NOW CLEAR OF TRAFFIC RESUME OWN NAVIGATION DIRECT LAKETOWN VOR	
	DIRECT LAKETOWN VOR FASTAIR 345

6.5 Vectors to final approach

6.5.1 Vectors are given to arriving flights to position them onto a pilot-interpreted final approach aid, or to a point from which a radar-assisted approach can be made. In the following example an identified aircraft is given vectors to the ILS/DME approach.

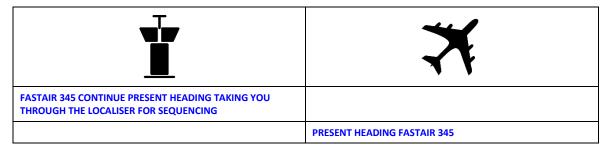
Figure 6.5.1a

	~
	7
	7 7
	WINDYGOTY ADDROACH FACTAID 245 CAADOV 20 DASSING 51400
	WINDYCITY APPROACH FASTAIR 345 OMDOX 28 PASSING FL180 DESCENDING TO 7000 FEET AVKEX 32 INFORMATION CHARLIE QNH 1014
FASTAIR 345 WINDYCITY APPROACH EXPECT VECTORING FOR ILS/DME APPROACH RUNWAY 16 NO DELAY	
	ILS/DME RUNWAY 16 FASTAIR 345
FASTAIR 345 LEAVE AVKEX HEADING 050	
	LEAVE AVKEX HEADING 050 FASTAIR 345
FASTAIR 345 REPORT SPEED	
	FASTAIR 345 SPEED 250 KNOTS
FASTAIR 345 REDUCE SPEED TO 210 KNOTS	
	REDUCING TO 210 KNOTS FASTAIR 345
FASTAIR 345 DESCEND TO 4000 FEET NUMBER FOUR IN TRAFFIC	
	LEAVING FL150 DESCENDING TO 4000 FEET FASTAIR 345
FASTAIR 345 POSITION 20 MILES WEST OF WINDYCITY	
	FASTAIR 345
FASTAIR 345 TURN RIGHT HEADING 080 BASE LEG NO [ATC]SPEED RESTRICTIONS	
	HEADING 080 FASTAIR 345
FASTAIR 345 12 MILES FROM TOUCHDOWN TURN RIGHT HEADING 130 CLEARED FOR ILS/DME APPROACH RUNWAY 16	
	HEADING 130 ILS/DME RUNWAY 16 FASTAIR 345
	FASTAIR 345 ESTABLISHED LOCALISER
FASTAIR 345 CONTACT WINDYCITY TOWER 118.1	
	118.1 FASTAIR 345

Note: The surveillance controller should advise the aircraft of its position at least once prior to turning onto final approach.

6.5.2 Pilots will be advised when a controller intends to vector an aircraft through the final approach track and of the reason for the track extension.

Figure 6.5.2a



6.6 Surveillance assistance to aircraft with radio communications failure

6.6.1 When a controller suspects that an aircraft can receive but not transmit messages, the ATS surveillance system may be used to confirm that the pilot has received instructions.

Figure 6.6.1a



XYZ REPLY NOT RECEIVED IF YOU READ TURN LEFT HEADING 040

XYZ TURN OBSERVED POSITION FIVE MILES SOUTH OF SUNNYTOWN VOR WILL CONTINUE TO PASS INSTRUCTIONS

[...If loss of communications suspected] FASTAIR 345 REPLY NOT RECEIVED IF YOU READ [manoeuvre instructions or SQUAWK (code or SQUAWK IDENT

FASTAIR 345 SQUAWK (manoeuvre, SQUAWK or IDENT) OBSERVED. POSITION (position of aircraft). [(instructions)]

6.7 Transponder operations

6.7.1 The following phrases together with their meanings are instructions which may be given by controllers to pilots regarding the operation of transponders.

Figure 6.7.1a

Phrase	Meaning
SQUAWK (code)	Set code as instructed
CONFIRM SQUAWK (code)	Confirm the code set on the transponder
RESET SQUAWK (mode) (code)	Reselect assigned mode and/or code
SQUAWK (code and) IDENT	Operate the 'ident' feature
SQUAWK NORMAL	Return to normal transponder operation
STOP SQUAWK	Terminate transponder operation
SQUAWK MAYDAY	Operate on code 7700
SQUAWK STANDBY	Suspend transponder operation (Select the standby feature)
SQUAWK CHARLIE	Select pressure altitude transmission feature
CHECK ALTIMETER SETTING AND CONFIRM (level)	Check altimeter pressure setting and confirm present level (to nearest 100ft)
STOP SQUAWK CHARLIE WRONG INDICATION	Deselect pressure altitude feature because of faulty operation
CONFIRM ¹ (level)	Check and confirm present level (to nearest 100ft)

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¹ Used to verify the accuracy of the Mode C derived level information displayed to the controller.

6.7.2 The pilot reply to transponder instructions is usually either an acknowledgement or read back.

Figure 6.7.2a

	*
FASTAIR 345 SQUAWK 6411	
	6411 FASTAIR 345
FASTAIR 345 CONFIRM SQUAWK 6411	
	SQUAWKING 6411 FASTAIR 345
FASTAIR 345 RESET ALFA 6411	
	RESETTING ALFA 6411 FASTAIR 345
FASTAIR 345 CHECK ALTIMETER SETTING AND CONFIRM LEVEL	
	ALTIMETER 1026 8000 FEET FASTAIR 345
FASTAIR 345 CONFIRM TRANSPONDER OPERATING	
	FASTAIR 345 NEGATIVE TRANSPONDER UNSERVICEABLE
FASTAIR 345 REPLY NOT RECEIVED IF YOU READ SQUAWK IDENT	
FASTAIR 345 SQUAWK OBSERVED WILL CONTINUE TO PASS INSTRUCTIONS	

- 6.7.3 Transponder phraseologies
- 6.7.3.1 To request the capability of the equipment:
 - (a) ADVISE TRANSPONDER CAPABILITY
 - (b) TRANSPONDER (as shown in the flight plan)²
 - (c) NEGATIVE TRANSPONDER
- 6.7.3.2 To request the capability of the ADS-B equipment:
 - (a) ADVISE ADS-B CAPABILITY
 - (b) ADS-B TRANSMITTER (data link)²
 - (c) ADS-B RECEIVER (data link)²
 - (d) NEGATIVE ADS-B².
- 6.7.3.3 To instruct setting of the transponder:
 - (a) FOR DEPARTURE SQUAWK (code)
 - (b) SQUAWK (code).
- 6.7.3.4 To request the pilot to reselect the assigned mode and code:

² Denotes pilot transmission

- (a) RESET SQUAWK [(mode)] (code)
- (b) RESETTING (mode) (code) 2 .
- 6.7.3.5 To request reselection of the aircraft identification:

RE-ENTER FLIGHT IDENTIFICATION.

- 6.7.3.6 To request the pilot to confirm the code selected on the aircraft's transponder:
 - (a) CONFIRM SQUAWK (code);
 - (b) SQUAWKING (code)².
- 6.7.3.7 To request the operation of the Mode S or ADS-B ident feature:
 - (a) SQUAWK [(code)] [AND] IDENT
 - (b) SQUAWK LOW
 - (c) SQUAWK NORMAL
- 6.7.3.8 To request the temporary suspension of transponder operation:

SQUAWK STANDBY.

6.7.3.9 To request emergency code:

SQUAWK MAYDAY [CODE SEVEN-SEVEN-ZERO-ZERO].

- 6.7.3.10 To request aircraft switching to other transponder or termination of ADS-B transmitter operation:
 - (a) SWITCH TO OTHER TRANSPONDER

Note: In many cases the ADS-B transmitter cannot be operated independently of the transponder and switching off the ADS-B transmission would also switch off the transponder operation.

- 6.7.3.11 To request transmission of pressure-altitude:
 - (a) SQUAWK CHARLIE
- 6.7.3.12 To request setting check and confirmation of level:

CHECK ALTIMETER SETTING AND CONFIRM (level).

6.7.3.13 To request termination of pressure-altitude transmission because of faulty operation: STOP SQUAWK CHARLIE WRONG INDICATION

Note: See Note to paragraph 6.7.3.10

6.7.3.14 To request level check

CONFIRM (level).

7. APPROACH CONTROL

7.1 IFR departures

- 7.1.1 At many airports both arrivals and departures are handled by a single controller on a single frequency. At busier airports arrivals and departures may be handled by separate controllers on separate frequencies.
- 7.1.2 In addition to the ATC route clearance, instructions for separation purposes may be issued prior to or after take-off.

Figure 7.1.2a

	*
FASTAIR 345 CLEARED TO NADI VIA AVKEX OHURA FLIGHT PLANNED ROUTE FL290 TOURISTOWN SOUTH ONE DEPARTURE CROSS TORY FL150 OR ABOVE	
	CLEARED TO NADI VIA AVKEX OHURA FLIGHT PLANNED ROUTE FL290 TOURISTOWN SOUTH ONE DEPARTURE CROSS TORY FL150 OR ABOVE FASTAIR 345
	FASTAIR 345 PASSING 300 FEET CLIMBING TO 4000 FEET
FASTAIR 345 CLIMB TO FL220 ON RADIAL 180 GARDENCITY VOR UNTIL PASSING 9000 FEET THEN DIRECT STONYTOWN	
	CLIMBING TO FL220 180 RADIAL GARDENCITY VOR UNTIL 9000 FEET THEN DIRECT STONYTOWN FASTAIR 345
	PQR SET HEADING AT13 PASSING 2000 FEET CLIMBING TO 6000 FEET TORY AT 27
PQR AT (or AFTER) 25 DME SUNNYTOWN CLIMB TO 9000 FEET	
	AT (or AFTER) 25 DME MILES SUNNYTOWN CLIMB TO 9000 FEET PQR

- 7.1.3 Clearances on a standard instrument departure (SID)
- 7.1.3.1 Clearances to aircraft on a SID with published level and/or speed restrictions must indicate if such restrictions are to be followed or are cancelled.

Note: Level and/or speed restrictions for air traffic management are published in SID procedures along with level and/or speed constraints inherent in the design of SID procedures. Controllers may amend or cancel only published ATC level and/or speed restrictions.

- 7.1.3.2 The phraseologies below have the following meaning.
 - (a) CLIMB VIA SID TO (level):
 - (1) climb to the cleared level and comply with published level restrictions
 - (2) follow the lateral profile of the SID
 - (3) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
 - (b) CLIMB VIA SID TO (level), CANCEL LEVEL RESTRICTION(S):
 - (1) climb to the cleared level, published level restrictions are cancelled
 - (2) follow the lateral profile of the SID
 - (3) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
 - (c) CLIMB VIA SID TO (level), CANCEL LEVEL RESTRICTION(S) AT (point(s)):

- (1) climb to the cleared level, published level restriction(s) at the specified point(s) are cancelled
- (2) follow the lateral profile of the SID
- (3) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
- (d) CLIMB VIA SID TO (level), CANCEL SPEED RESTRICTION(S):
 - (1) climb to the cleared level and comply with published level restrictions
 - (2) follow the lateral profile of the SID
 - (3) published speed restrictions and ATC-issued speed control instructions are cancelled.
- (e) CLIMB VIA SID TO (level), CANCEL SPEED RESTRICTION(S) AT (point(s)):
 - (1) climb to the cleared level and comply with published level restrictions
 - (2) follow the lateral profile of the SID
 - (3) published speed restrictions are cancelled at the specified point(s).
- (f) CLIMB UNRESTRICTED TO (level) or CLIMB TO (level), CANCEL LEVEL AND SPEED RESTRICTION(S):
 - (1) climb to the cleared level, published level restrictions are cancelled
 - (2) follow the lateral profile of the SID
 - (3) published speed restrictions and ATC-issued speed control instructions are cancelled.
- 7.1.3.3 When a departing aircraft is cleared to proceed direct to a published waypoint on the SID, the speed and level restrictions associated with the bypassed waypoints are cancelled. All remaining published speed and level restrictions remain applicable:
 - CLEARED DIRECT (waypoint), CLIMB VIA SID TO (level)
- 7.1.3.4 When a departing aircraft is vectored or cleared to proceed direct to a waypoint not on the SID and advance notification to expect future instruction to re-join the SID is issued, the speed and level restrictions associated with the bypassed waypoints are cancelled. All remaining published speed and level restriction remain applicable:
 - (a) TURN RIGHT (or LEFT) HEADING (three digits) DUE (reason), CLIMB TO (level), EXPECT TO REJOIN SID [(SID designator)] [AT (waypoint)] then
 - REJOIN SID [(SID designator)] [AT (waypoint)], CLIMB VIA SID TO (level)
 - (b) CLEARED DIRECT (waypoint), CLIMB TO (level), EXPECT TO REJOIN SID [(SID designator)] [AT (waypoint)] then REJOIN SID [(SID designator)] [AT (waypoint)], CLIMB VIA SID TO (level)
- **Note 1:** Reiteration of SID designator is optional.
- **Note 2:** The pilot will retain the SID in the FMS for future re-join instructions.
- 7.1.3.5 When a departing aircraft is vectored or cleared to proceed direct to a waypoint not on the SID and no advance notification to expect future instruction to re-join the SID is issued, all published speed and level restrictions associated with the SID are cancelled.

- (a) TURN RIGHT (or LEFT) HEADING (three digits) DUE (reason), CLIMB TO (level) then REJOIN SID (SID designator) AT (waypoint)], CLIMB VIA SID TO (level)
- (b) CLEARED DIRECT (waypoint), CLIMB TO (level) REJOIN SID (SID designator) AT (waypoint)], CLIMB VIA SID TO (level).

Note: The pilot may not retain the SID in the FMS for future rejoin instructions.

7.2 IFR arrivals

7.2.1 Approach control will normally advise on initial contact the type of approach to be expected.

Figure 7.2.1a

	_
	*
	OYSTERTOWN TOWER FASTAIR 345 WEYDON 25 MAINTAINING 8000 FEET OYSTERTOWN VOR 43 POB 36 INFORMATION BRAVO QNH 999
FASTAIR 345 OYSTERTOWN TOWER ENTER CONTROLLED AIRSPACE ON TRACK OYSTERTOWN VOR AT 8000 FEET EXPECT VOR APPROACH RUNWAY 22	
	ENTER CONTROLLED AIRSPACE ON TRACK OYSTERTOWN VOR AT 8000 FEET EXPECT VOR APPROACH RUNWAY 22 FASTAIR 345
FASTAIR 345 REVISED EXPECTED APPROACH TIME 47	
	ROGER FASTAIR 345
	FASTAIR 345 OYSTERTOWN 42 MAINTAINING 8000 FEET HOLDING
FASTAIR 345 DESCEND TO 4000 FEET	
	LEAVING 8000 DESCENDING TO 4000 FEET FASTAIR 345
FASTAIR 345 DESCEND TO 2000 FEET CLEARED VOR APPROACH RUNWAY 22	
	DESCENDING TO 2000 FEET CLEARED VOR APPROACH RUNWAY 22 FASTAIR 345
	FASTAIR 345 VOR OUTBOUND
FASTAIR 345	
	FASTAIR 345 COMMENCING BASE TURN
FASTAIR 345	
	FASTAIR 345 INBOUND
FASTAIR 345	
	FASTAIR 345 VISUAL 800 FEET
FASTAIR 345 RUNWAY 22 CLEARED TO LAND WIND 260 DEGREES 20 KNOTS	
	RUNWAY 22 CLEARED TO LAND FASTAIR 345
PQR DESCEND DISTANCE (or VORSEC/VORTAC CHART) STEPS TO 5000 FEET EXPECT ILS/DME APPROACH RUNWAY 25 NO DELAY	
	DESCENDING DISTANCE (or VORSEC/VORTAC CHART) STEPS TO 5000 FEET RUNWAY 25 PQR
PQR CLEARED VOR APPROACH RUNWAY 18 JOIN DME ARC	
	CLEARED VOR APPROACH RUNWAY 18 JOIN DME ARC PQR

- 7.2.2 Clearances on a standard instrument arrival (STAR)
- 7.2.2.1 Clearances to aircraft on a STAR with published level and/or speed restrictions must indicate if such restrictions are to be followed or are cancelled.

Note: Level and/or speed restrictions for air traffic management are published in STAR procedures along with level and/or speed constraints inherent in the design of STAR procedures. Controllers may amend or cancel only published ATC level and/or speed restrictions.

- 7.2.2.2 The phraseologies below have the following meaning.
 - (a) DESCEND VIA STAR TO (level):
 - (1) descend to the cleared level and comply with published level restrictions
 - (2) follow the lateral profile of the STAR
 - (3) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
 - (b) DESCEND VIA STAR TO (level), CANCEL LEVEL RESTRICTION(S):
 - (1) descend to the cleared level, published level restrictions are cancelled
 - (2) follow the lateral profile of the STAR
 - (3) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
 - (c) DESCEND VIA STAR TO (level), CANCEL LEVEL RESTRICTION(S) AT (point(s)):
 - (1) descend to the cleared level, published level restriction(s) at the specified point(s) are cancelled
 - (2) follow the lateral profile of the STAR
 - (3) comply with published speed restrictions or ATC-issued speed control instructions as applicable.
 - (d) DESCEND VIA STAR TO (level), CANCEL SPEED RESTRICTION(S):
 - (1) descend to the cleared level and comply with published level restrictions
 - (2) follow the lateral profile of the STAR
 - (3) published speed restrictions and ATC-issued speed control instructions are cancelled.
 - (e) DESCEND VIA STAR TO (level), CANCEL SPEED RESTRICTION(S) AT (point(s)):
 - (1) descend to the cleared level and comply with published level restrictions
 - (2) follow the lateral profile of the STAR
 - (3) published speed restrictions are cancelled at the specified point(s).
 - (f) DESCEND UNRESTRICTED TO (level) or DESCEND TO (level), CANCEL LEVEL AND SPEED RESTRICTION(S):
 - (1) descend to the cleared level, published level restrictions are cancelled
 - (2) follow the lateral profile of the STAR

- (3) published speed restrictions and ATC-issued speed control instructions are cancelled.
- 7.2.2.3 When an arriving aircraft is cleared to proceed direct to a published waypoint on the STAR, the speed and level restrictions associated with the bypassed waypoints are cancelled. All remaining published speed and level restrictions remain applicable:

CLEARED DIRECT (waypoint), DESCEND VIA STAR TO (level)

- 7.2.2.4 When an arriving aircraft is vectored or cleared to proceed direct to a waypoint not on the STAR and advance notification to expect future instruction to re-join the STAR is issued, all published speed and level restrictions associated with the bypassed waypoints are cancelled. All remaining published speed and level restrictions remain applicable.
 - (a) TURN RIGHT (or LEFT) HEADING (three digits) DUE (reason), DESCEND TO (level), EXPECT TO REJOIN STAR [(STAR designator)] AT (waypoint) then

 REJOIN STAR [(STAR designator)] [AT (waypoint)], DESCEND VIA STAR TO (level)
 - (b) CLEARED DIRECT (waypoint), CLIMB TO (level), EXPECT TO REJOIN STAR [(STAR designator)] [AT (waypoint)] then REJOIN STAR [(STAR designator)] [AT (waypoint)], DESCEND VIA STAR TO (level)
- **Note 1:** Reiteration of STAR designator is optional.
- **Note 2:** The pilot will retain the STAR in the FMS for future re-join instructions.
- 7.2.2.5 When an arriving aircraft is vectored or cleared to proceed direct to a waypoint not on the STAR and no advance notification to expect future instruction to re-join the STAR is issued, all published speed and level restrictions associated with the STAR are cancelled.
 - (a) TURN RIGHT (or LEFT) HEADING (three digits) DUE (reason), DESCEND TO (level) then
 REJOIN STAR (STAR designator) AT (waypoint)], DESCEND VIA STAR TO (level)
 - (b) CLEARED DIRECT (waypoint), DESCEND TO (level) then

 REJOIN STAR (STAR designator) AT (waypoint)], DESCEND VIA STAR TO (level).

Note: The pilot may not retain the STAR in the FMS for future re-join instructions.

7.2.3 On occasions IFR aircraft do not complete the instrument approach procedure but request permission to make a visual approach. When the specific requirements for a visual approach have been met the pilot may make the request using the phrase "request visual approach". Air traffic control will grant the request when traffic permits. When cleared by ATC for a visual approach further descent is unrestricted, except when a specific restriction is included with the clearance for a visual approach or a specific restriction is included in a subsequent clearance.

Figure 7.2.3a

	*
	PQR VOR OUTBOUND LEAVING 3500 FEET
PQR ROGER	
	PQR REQUEST VISUAL APPROACH
PQR CLEARED VISUAL APPROACH MAINTAIN 2000 FEET REPORT SIGHTING ATR 4 MILE FINAL	
	CLEARED VISUAL APPROACH MAINTAINING 2000 FEET WILCO PQR
	PQR ATR IN SIGHT
PQR NUMBER TWO FOLLOW THE ATR DESCENT UNRESTRICTED, CAUTION WAKE TURBULENCE	
	NUMBER 2 DESCENDING UNRESTRICTED PQR
	PQR MAINTAINING 2000 FEET REQUEST VISUAL APPROACH
PQR CLEARED VISUAL APPROACH	
	CLEARED VISUAL APPROACH PQR
PQR CONTACT WINDYCITY TOWER 118.8	
	118.8 PQR
	PQR DESCENDING TO 5000 FEET REQUEST VISUAL APPROACH
PQR NEGATIVE NUMBER FIVE IN TRAFFIC	
	PQR

- 7.2.4 Details of joining and holding procedures are contained in AIP New Zealand ENR 1.5 section 3. If there is more than one holding pattern over the significant point or NAVAID, the pattern must be identified by specifying either the runway or the instrument approach procedure identifier, or, for en route holding patterns, the term *ENROUTE*, for example:
 - "HOLD AT SUNRISETOWN. ENTER THE RUNWAY 32 HOLDING PATTERN..."
 - "HOLD AT LAKETOWN. ENTER THE VOR DME ALFA HOLDING PATTERN..."
 - "HOLD AT SMALLTOWN. ENTER THE ENROUTE HOLDING PATTERN..."

Figure 7.2.4a

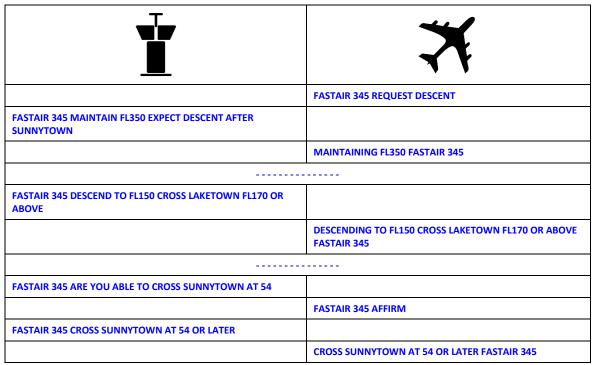
Т	~4.4
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	7 7
—	, ,
FASTAIR 345 HOLD AT POKOM FL150 EXPECT FURTHER CLEARANCE AT 24	
	HOLD AT POKOM FL150 FASTAIR 345
FASTAIR 345 HOLD AT SUNRISETOWN ENTER THE	
(procedure, position or name of pattern) HOLDING PATTERN	
	HOLD AT SUNRISETOWN ENTER THE (procedure, position or
	name of pattern) HOLDING PATTERN FASTAIR 345
XYZ HOLD AT SMALLTOWN ENTER THE LUTKA INITIAL	
APPROACH FIX HOLDING PATTERN	
	HOLD AT SMALLTOWN ENTER THE LUTKA INITIAL APPROACH
	FIX HOLDING PATTERN XYZ
ORION 69 HOLD AT AIRFORCETOWN ILS/DME RWY 09 INITIAL	
APPROACH FIX	
	HOLD AT AIDCORGETOWN HIS (DAME DWIN ON INITIAL ADDROAGH
	HOLD AT AIRFORCETOWN ILS/DME RWY 09 INITIAL APPROACH FIX ORION 69
	TIX ORION 65
BOEING 7781 HOLD ON THE AIRFORCETOWN 080 RADIAL	
BETWEEN 35 AND 40 MILES WP FL150 LEFT HAND PATTERN	
EXPECT FURTHER CLEARANCE AT 05	
	HOLD ON THE AIRFORCETOWN 080 RADIAL BETWEEN 35 AND
	40 MILES WP FL150 LEFT HAND PATTERN BOEING 7781
XYZ HOLD AT LAKETOWN ENTER THE ALFA HOLDING PATTERN	
4000 FEET EXPECTED APPROACH TIME 17	
	HOLD AT LAKETOWN ENTER THE ALFA HOLD 4000 FEET XYZ
FASTAIR 345 DESCEND TO 13,000 FEET HOLD AT WARDS	
EXPECT FURTHER CLEARANCE AT 52	
	DESCENDING TO 13,000 FEET HOLD AT WARDS FASTAIR 345
	DESCRIBING TO 15,000 FEET HOLD AT WARDS PASTAIN 343
FASTAIR 345 CANCEL HOLD AT WARDS	
	CANCEL HOLD AT WARDS FASTAIR 345
	T
	XYZ REQUEST CLEARANCE LEFT(/RIGHT) OF TRACK TO ESTABLISH 230 DEGREES INBOUND TO LAKETOWN FOR THE
	VOR/DME ALFA APPROACH
XYZ CLEARED AS REQUESTED, REPORT COMMENCING VOR/DME ALFA APPROACH	
or	
XYZ NEGATIVE, HOLD AT LAKETOWN VOR EXPECT APPROACH	
AT 17	
	•

8. AREA CONTROL

8.1 General

- 8.1.1 Much of the phraseology used in area control is of a general nature. However, many instructions used in area control (particularly where radar is not available) are related to specific conditions to maintain aircraft separation.
- 8.1.2 The following examples provide a cross-section of phraseology used in area control. They may be varied, or added to, by combining their component parts according to the requirements of the prevailing traffic situation.

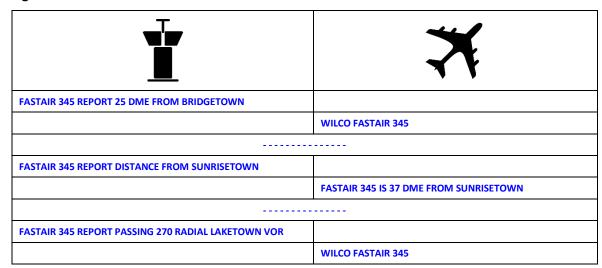
Figure 8.1.2a



8.2 Position information

8.2.1 To assist in establishing separation, pilots may be instructed to provide additional position report information as well as routing reports.

Figure 8.2.1a



8.3 Level information

8.3.1 Level information consists of climb and descent clearances or instructions and reports of leaving, reaching and passing levels (as detailed in section 4.1.6 of this AC, *Level instructions*). Unless advice is received to the contrary, the aircraft is expected to vacate the level as soon as practicable. Under exceptional circumstances if instant descent is required the word "immediately" is used.

Figure 8.3.1a

	*
FASTAIR 345 WHEN READY DESCEND TO FL180	
	WHEN READY DESCEND TO FL180 FASTAIR 345
	FASTAIR 345 LEAVING FL350
FASTAIR 345 DESCEND TO FL180 REPORT PASSING EVEN LEVELS	
	LEAVING FL350 FOR FL180 WILCO FASTAIR 345
FASTAIR 345 DESCEND IMMEDIATELY TO FL200 DUE TRAFFIC	
	LEAVING FL220 FOR FL200 FASTAIR 345
	FASTAIR 345 REQUEST BLOCK LEVEL FL160 TO FL180
FASTAIR 345 MAINTAIN BLOCK FL160 TO FL180	
	MAINTAIN BLOCK FL160 TO FL180 FASTAIR 345
FASTAIR 345 REPORT YOUR LEVEL	
	FASTAIR 345 FL160
FASTAIR 345 CANCEL BLOCK CLEARANCE CLIMB TO (/DESCEND TO/MAINTAIN) ALTITUDE/ (FLIGHT LEVEL)	
	CLIMBING TO (/DESCENDING TO/ MAINTAINING) FASTAIR 345

8.3.2 An aircraft may request a clearance to climb or descend maintaining own separation while in VMC (available in class D airspace only). The clearance will include information on essential traffic.

Figure 8.3.2a

	*
	FASTAIR 345 REQUEST MAINTAIN OWN SEPARATION AND VMC
FASTAIR 345 DESCEND TO 6000 FEET MAINTAIN OWN SEPARATION AND VMC FROMTO TRAFFIC IS (position and altitude)	
	LEAVING FOR 6000 FEET MAINTAIN OWN SEPARATION AND VMCTO TRAFFIC AT [position and altitude] FASTAIR 345

8.3.3 ATC providing a surveillance service will receive an alert when the selected level entered into the mode control panel/flight control unit of an enhanced surveillance (EHS) Mode-S equipped aircraft does not match the cleared level issued by the controller or intermediate level contained in the standard route clearance. ATC will advise the aircraft of the discrepancy by:

"FASTAIR 345 CHECK SELECTED LEVEL, CLEARED LEVEL IS 10,000 FEET"

8.4 Flights entering controlled airspace

8.4.1 IFR or VFR aircraft requiring to enter controlled airspace should make their request to the appropriate ATS unit in sufficient time to allow ATC to assess the traffic situation and issue a clearance prior to the aircraft reaching controlled airspace.

Figure 8.4.1a

	*
	GARDENCITY CONTROL PQR
PQR GARDENCITY CONTROL	
	PQR ESTIMATING MALCOLMTOWN 45 MAINTAINING 9000 FEET REQUEST CLEARANCE
PQR ENTER CONTROL AREA AT MALCOLMTOWN CLEARED TO RIVERTOWN VIA GARDENCITY VOR AND FLIGHT PLANNED ROUTE 9000 FEET SQUAWK 5472 QNH 1014	
	ENTER CONTROL AREA AT MALCOLMTOWN CLEARED TO RIVERTOWN VIA GARDENCITY VOR AND FLIGHT PLANNED ROUTE 9000 FEET SQUAWK 5472 QNH 1014 PQR
	OHAKEA CONTROL XYZ
XYZ OHAKEA CONTROL	
	XYZ HUNTERVILLE 4500 FEET REQUEST CLEARANCE TO ENTER CONTROLLED AIRSPACE ON TRACK BEACHTOWN
XYZ ENTER CONTROLLED AIRSPACE VIA HUNTERVILLE ON TRACK BEACHTOWN AT 4000 FEET VFR QNH 997	
	ENTER CONTROLLED AIRSPACE VIA HUNTERVILLE ON TRACK BEACHTOWN AT 4000 FEET VFR QNH 997 XYZ

8.4.2 It may be that because of the prevailing traffic situation a clearance cannot be issued immediately. A transponder (squawk) code may be issued to assist ATC in assessing the traffic situation. This does not constitute a clearance to enter controlled airspace.

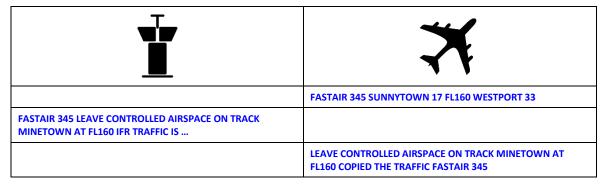
Figure 8.4.2a

	*
PQR REMAIN OUTSIDE CONTROLLED AIRSPACE EXPECT CLEARANCE AT 55	
	REMAINING OUTSIDE PQR
XYZ REMAIN OUTSIDE CONTROLLED AIRSPACE REMAIN THIS FREQUENCY SQUAWK 4503	
	REMAINING OUTSIDE SQUAWK 4503 WILCO XYZ

8.5 Flights leaving controlled airspace

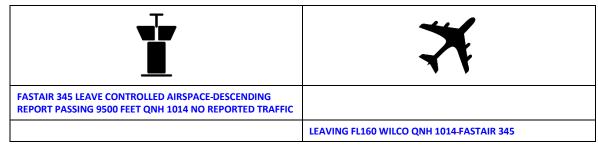
8.5.1 Flights leaving controlled airspace will normally be given a track or specific point by which to leave, together with any other relevant instructions necessary to ensure separation.

Figure 8.5.1a



8.5.2 An aircraft may be cleared to leave controlled airspace on descent.

Figure 8.5.2a

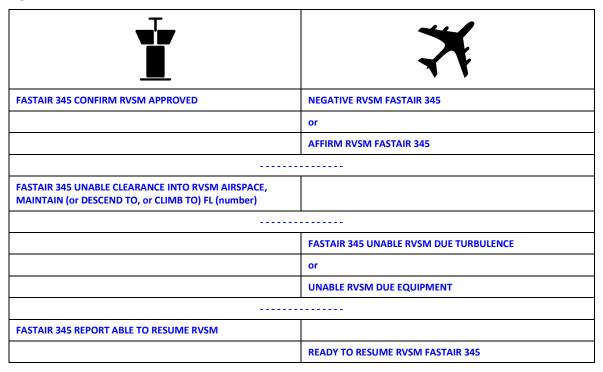


Note: In the above example the base of controlled airspace is 9500 feet.

8.6 RVSM operations

8.6.1 The following phraseologies should be used for controller-pilot communications.

Figure 8.6.1a



- 8.6.2 During operations in or vertical transit through RVSM airspace within the New Zealand FIR, pilots of <u>all</u> NON-RVSM approved aircraft are to insert the phrase "NEGATIVE RVSM" into radio calls when:
 - (a) requesting a level that is within or above RVSM airspace
 - (b) requesting a level change where that level is within or requires transit through RVSM airspace
 - (c) in read-backs of level clearances, and/or
 - (d) as part of the initial call when changing frequency.

9. AERODROME FLIGHT INFORMATION SERVICE

9.1 AFIS in New Zealand

9.1.1 Aerodrome flight information service in New Zealand is provided at nominated aerodromes as approved by the Director. The examples given are indicative of the phraseology at an AFIS aerodrome.

9.2 VFR departures

- 9.2.1 For VFR departures, the aircraft will communicate with AFIS once they have started up, advising their intentions. AFIS will then pass weather conditions and traffic information. The aircraft will then read back the required information and then advise their taxi intentions. Refer to section 4.12.1, *Read back requirements*, in this AC for required information.
- 9.2.2 Note also that if an ATIS service is provided at the AFIS aerodrome it will not be necessary for AFIS to pass information already contained in the ATIS broadcast.
- 9.2.3 If an aircraft is intending to remain in the circuit or vicinity of the aerodrome after take-off, the pilot should advise AFIS and other traffic of their intentions for the awareness of both AFIS and other airspace users.

Figure 9.2.3.a

	*
	TOURISTOWN FLIGHT SERVICE, ELA
ELA, TOURISTOWN FLIGHT SERVICE	
	ELA, AERO CLUB APRON, TAXIING TO DEPART NORTH TO BATTENVILLE FOR TRAINING, 2 POB
ELA, PREFERRED RUNWAY 34, WIND 340 DEGREES, FIVE KNOTS, QNH 1013, TRAFFIC, 5 AIRCRAFT OPERATING NORTH OF AERODROME AND CESSNA 152 LEFT BASE RUNWAY 34 TOUCH AND GO, REMAINING IN THE CIRCUIT	
	ELA, COPIED THE TRAFFIC, QNH 1013, TAXIING VIA TAXIWAYS DELTA AND ALPHA FOR HOLDING POINT ALPHA 1
ELA	
	ELA ENTERING, BACK-TRACKING, LINING UP RUNWAY 34
ELA	
	ELA ROLLING RUNWAY 34, CLIMBING 3000 FEET TRACKING BATTENVILLE
	TOURISTOWN TRAFFIC, ELA OPERATING BATTENVILLE AREA 30 MINUTES 3000 FEET.

9.3 VFR arrivals

Figure 9.3a

	×
	TOURISTOWN FLIGHT SERVICE XYZ 10 MILES NORTH 2000 FEET ESTIMATING BATTENVILLE 42 POB 4
XYZ TOURISTOWN FLIGHT SERVICE, PREFERRED RUNWAY 29 WIND 270 DEGREES 20 KNOTS QNH 1014 CHEROKEE DEPARTING NORTH ALONG THE COAST REPORT WAVETOWN	
	XYZ ROGER RUNWAY 29 (or as pilot selects) QNH 1014
	XYZ WAVETOWN
XYZ SKIPPER ON FINAL, TWO CHEROKEES DOWNWIND IN THE CIRCUIT	
	XYZ WILL JOIN OVERHEAD FOR RIGHT CIRCUIT
хүх	
	XYZ JOINING OVERHEAD
XYZ ONE CHEROKEE ON BASE, ONE ON FINAL	
	XYZ TRAFFIC IN SIGHT
	XYZ DOWNWIND
хүх	
	XYZ BASE
XYZ	
	XYZ FINAL
XYZ WIND GUSTING 30 KNOTS	
	XYZ ROGER
	XYZ VACATING RUNWAY NEXT LEFT
XYZ	

9.4 IFR departures

- 9.4.1 For IFR departures at AFIS aerodrome see the following example. The pilot should also consult section 7.1 for further information on IFR departures with an Approach Service.
- 9.4.2 Note also that if an ATIS service is provided at the AFIS aerodrome it will not be necessary for AFIS to pass to the weather conditions.

Figure 9.4a

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* •
TOURISTOWN FLIGHT SERVICE, FASTAIR 861
FASTAIR 861 REQUEST AIRWAYS TO BRIDGETOWN, FL210 WITH NIL ALTERNATE, AGAXA2 DEPARTURE, KAPTI TRANSITION
READY TO COPY, FASTAIR 861
WINDYCITY APPROACH CLEAR US BRIDGETOWN 3, FL210, AGAXA2, KAPTI TRANSITION, SQUAWK 5310, FASTAIR 861
UNDERSTOOD, WILCO, FASTAIR 861
LINK 861 APPROACHING HOLDING POINT BRAVO, READY
*
CLEARANCE VALID, PASSING 2000 FEET CONTACT WINDYCITY APPROACH, 122.3,
FASTAIR 861 BACK-TRACKING AND LINING UP RUNWAY 16, CLIMBING SOUTH-WEST TO 3000 FEET INITIALLY
FASTAIR 861 ROLLING RUNWAY 16, CLIMBING 3000 FEET TO THE SOUTH-WEST THEN VACATING NORTH BRIDGETOWN

9.5 IFR arrivals

Figure 9.5a

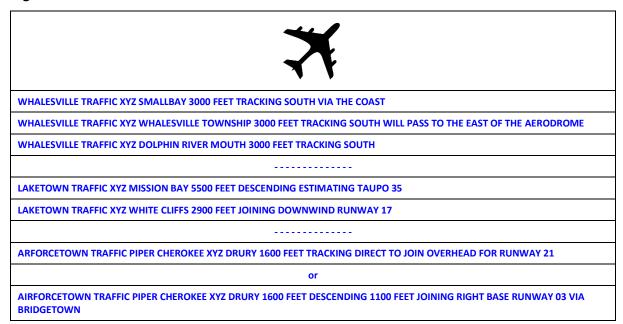
	*
	TOURISTOWN FLIGHT SERVICE PQR
PQR TOURISTOWN FLIGHT SERVICE	
	PQR PASSING 8000 DESCENDING TO 3500 FEET TOURISTOWN 42 POB 21
PQR PREFERRED RUNWAY 18 WIND 210 DEGREES 20 KNOTS 15 KMS CLOUD BROKEN 2000 TEMPERATURE 18 QNH 1014 1 CHEROKEE IN THE CIRCUIT	
	PQR QNH 1014 WILL REPORT ESTABLISHED OUTBOUND FOR VOR/DME APPROACH RUNWAY 18 (or as pilot selects)
PQR	
	PQR ESTABLISHED OUTBOUND LEAVING 5000 FEET
PQR	
	PQR COMMENCING BASE TURN
	PQR INBOUND
PQR CHEROKEE ON BASE	
	PQR COPIED THE TRAFFIC
	PQR VISUAL JOINING DOWNWIND RIGHTHAND TRAFFIC IN SIGHT
PQR	
	PQR BASE
PQR	
	PQR VACATING RUNWAY
	PQR GOING AROUND
PQR	

10. MANDATORY BROADCAST ZONES

10.1 Broadcast

10.1.1 Position, altitude and intentions should be broadcast on entry and at regular intervals (time interval is indicated on charts). An AWIB service is available at some aerodromes providing weather and operational conditions.

Figure 10.1.1a



10.2 High activity areas

10.2.1 In busy areas, such as those with high tourist scenic aircraft activity (eg, Southern Alps MBZ, Tarawera MBZ) keep position reports brief (position, altitude and direction of travel i.e. intentions).

Figure 10.2.1a



10.3 Universal communications (UNICOM)

10.3.1 Where a UNICOM station is present and on watch (operators often have other duties and may not be listening all the time), it may pass on limited information on request. For instance, a pilot may ask for surface wind conditions to ascertain a preferred runway – UNICOM operators will not designate the runway-in-use. (Information on meteorological and operational conditions may also be obtained from the AWIB.)

Figure 10.3a

UNICOM	*
	LAKETOWN UNICOM XYZ REQUEST SURFACE WIND CONDITIONS
XYZ LAKETOWN UNICOM SURFACE WIND 360 DEGREES 15 KNOTS	
	хүх

10.3.2 On request UNICOM may relay information on the general location of aircraft known to it. However, it must not interpret that information. UNICOM is not an air traffic service and may not provide traffic information – the information given is not traffic information but known aircraft.

Figure 10.3.2a

UNICOM

REPORTED TRAFFIC IS XRAY YANKEE ZULU WHO AT 1105 REPORTED 10 MILES SOUTH AT 1500 FT JOINING

A LIGHT AIRCRAFT IS OBSERVED APPROXIMATELY 3 MILES NORTH AT LOW LEVEL

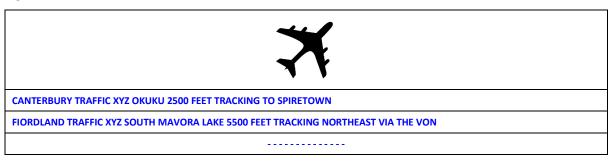
A TOPDRESSER IS REPORTED TO BE OPERATING LOW LEVEL 8 MILES TO THE EAST

11. COMMON FREQUENCY ZONES

11.1 General

11.1.1 Although not mandatory, pilots are encouraged to establish communications in these areas. Keep radio calls concise and use standard phraseology as much as possible. Avoid verbose accounts of your intentions as these will only cause frequency congestion. In many parts of the country there may be several adjacent areas and aerodromes using the same frequency.

Figure 11.1.1a



11.2 Aircraft training

11.2.1 Aircraft carrying out training may wish to indicate their operating range by altitude and by type of exercise.

Figure 11.2.1a



CANTERBURY TRAFFIC XYZ 4 MILES SOUTHWEST OF SPIRETOWN OPERATING BETWEEN 3000 AND 4000 FEET

CANTERBURY TRAFFIC XYZ 5 MILES NORTHWEST OF FARMTOWN 3500 FEET FORCED LANDING EXERCISE

12. UNATTENDED AERODROMES

12.1 General

12.1.1 Keep radio calls concise and use standard phraseology. Avoid verbose accounts of your intentions.

12.2 Arrival

Figure 12.2a



NORTHCANTVILLE TRAFFIC XYZ 8 MILES SOUTHWEST 1700 FEET JOINING OVERHEAD

Note. Do not ask "Any traffic?" NORDO aircraft cannot reply, others may not or, if several aircraft present, may all try to speak at once.

On the other hand, for those already in the circuit, it is good practice to report position when you hear an aircraft joining – this gives awareness of runway in use and potential traffic.

NORTHCANTVILLE TRAFFIC XYZ OVERHEAD JOINING FOR RUNWAY 07

Note. It is not necessary to say "letting down on the non-traffic side" as this is part of the standard procedure.

NORTHCANTVILLE TRAFFIC XYZ TURNING DOWNWIND RUNWAY 07

Note. A further call on base or final may be advisable depending on other traffic.

PEARSETOWN TRAFFIC FASTAIR 345 10 MILES NORTH PASSING 5000 DESCENDING 3000 PEARSETOWN 42 POB 10

PEARSETOWN TRAFFIC FASTAIR 345 BEACON OUTBOUND FOR VOR/DME APPROACH RWY 02

PEARSETOWN TRAFFIC FASTAIR 345 COMMENCING BASE TURN

PEARSETOWN TRAFFIC FASTAIR 345 ESTABLISHED FINAL APPROACH RUNWAY 02

PEARSETOWN TRAFFIC FASTAIR 345 VISUAL TRAFFIC IN SIGHT

PEARSETOWN TRAFFIC FASTAIR 345 VACATING RUNWAY

12.3 Departure

Figure 12.3a



NORTHCANTVILLE TRAFFIC XYZ TAXIING FOR RUNWAY 07

NORTHCANTVILLE TRAFFIC XYZ LINING UP RUNWAY 07

NORTHCANTVILLE TRAFFIC XYZ ROLLING RUNWAY 07 DEPARTING TO THE NORTH

or

DEPARTING OVERHEAD TO THE SOUTH

Note. In the second case another call vacating overhead, may be appropriate.

PEARSETOWN TRAFFIC FASTAIR 345 TAXIING FOR RUNWAY 02 MOANA ONE DEPARTURE

PEARSETOWN TRAFFIC FASTAIR 345 LINING UP RUNWAY 02

PEARSETOWN TRAFFIC FASTAIR 345 PASSING 4800 TO THE NORTH CHANGING CONTROL ...

Advisory Circular AC91-9 & AC172-1 Revision 15

13. DISTRESS AND URGENCY PHRASEOLOGY

Emergency procedures are contained in AIP New Zealand, ENR 1.15, sections 1 and 2 for these messages.

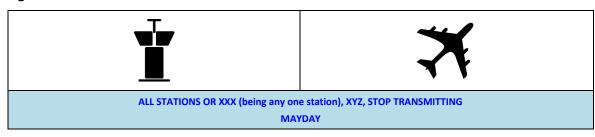
13.1 Distress messages

Figure 13.1a

	*
	MAYDAY MAYDAY MAYDAY XYZ ENGINE ON FIRE UNABLE TO MAINTAIN HEIGHT MAKING FORCED LANDING POSITION 20 MILES SOUTH OF STONYTOWN PASSING 3000 FEET HEADING 360
XYZ GOLDTOWN TOWER ROGER MAYDAY	
-	
	MAYDAY MAYDAY MAYDAY SUNRISETOWN TOWER XYZ ENGINE FAILED WILL ATTEMPT TO LAND AT SUNRISETOWN, POSITION 10 MILES NORTH OF SUNRISETOWN AT 8000 FEET HEADING 180
XYZ SUNRISETOWN TOWER ROGER MAYDAY CLEARED STRAIGHT-IN RUNWAY 14 WIND 150 DEGREES 10 KNOTS QNH 1008 YOU ARE NUMBER ONE	
	CLEARED STRAIGHT-IN RUNWAY 14 QNH 1008 XYZ

- 13.1.1 Imposition of silence when MAYDAY in progress.
- 13.1.1.1 The station in distress is permitted to impose silence, either to all stations or any station which interferes with the distress traffic.

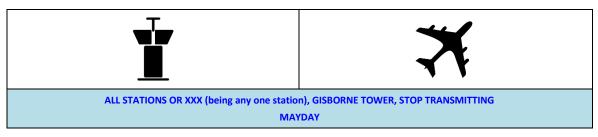
Figure 13.1.1.1a



Or:

13.1.1.2 The station in control of distress traffic is permitted to impose silence, either to all stations or any station which interferes with the distress traffic.

Figure 13.1.1.2a

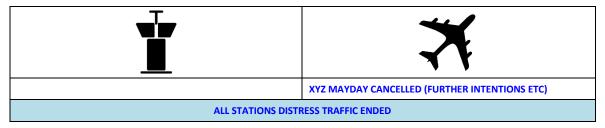


- 13.1.1.3 Radio silence should be observed by other stations until:
 - (a) distress traffic is transferred to another frequency, or
 - (b) controlling station gives permission, or

- (c) it has itself to render assistance, or
- (d) the distress is cancelled/terminated.

13.1.1.4 When the PIC of the distress aircraft considers the emergency complete s/he will cancel the distress; the controlling station will then transmit a message on the frequency used for the distress traffic.

Figure 13.1.1.4a



13.2 Urgency messages

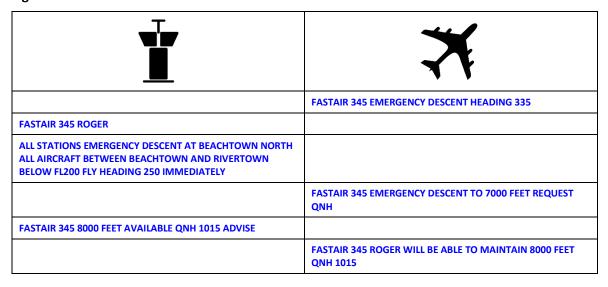
Figure 13.2a

	*
	PAN PAN – PAN PAN – PAN PAN GARDENCITY INFORMATION XYZ HAVING DIFFICULTY MAINTAINING VMC REQUEST ASSISTANCE FOR LANDING AT WINDYCITY POSITION 15 MILES WEST OF WINDYCITY 2000 FEET HEADING 180
XYZ GARDENCITY INFORMATION ROGER PAN FOR RADAR ASSISTANCE CONTACT WINDYCITY APPROACH 121.1 SQUAWK 7700	
	121.1 XYZ
	PAN PAN – PAN PAN – PAN PAN LAKETOWN TOWER XYZ PASSENGER WITH SUSPECTED HEART ATTACK REQUEST PRIORITY LANDING POSITION FIVE MILES EAST OF LAKETOWN HEADING 270 LEAVING 3000 FEET
XYZ LAKETOWN TOWER ROGER PAN, NUMBER ONE JOIN LEFT BASE RUNWAY 18 WIND 180 DEGREES 10 KNOTS QNH 1008	
	RUNWAY 18 QNH 1008 XYZ

13.3 Emergency descent

13.3.1 When an aircraft announces that it is making an emergency descent, the controller will take all possible action to safeguard other aircraft.

Figure 13.3.1a



13.4 Airborne collision avoidance system (ACAS)

Note: Refer to AIP ENR 1.6 Section 3 and AD 1.5 Section 9

13.4.1 When operating within, or entering a controlled aerodrome traffic circuit, pilots are advised to operate an ACAS (such as TCAS) on *Traffic Advisory (TA)* mode. This is to avoid unnecessary *Resolution Advisory (RA)* manoeuvres using appropriate displacement not considered by an ACAS where parameters are set for en-route airspace rather than aerodrome operation. This advice also applies when operating in proximity to uncontrolled aerodromes.

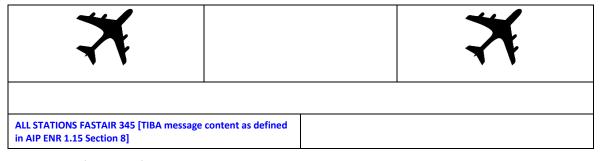
Figure 13.4.1a

	*
	{After commencing a deviation from an ATC clearance or instruction in order to comply with an ACAS RA}
	FASTAIR 345 TCAS RA
FASTAIR 345 ROGER	
{Note: this new phraseology may limit awareness of the direction of movement of the aircraft responding to the RA}	
	{After completing the response to an ACAS RA and initiating a return to the ATC clearance or instruction.}
	FASTAIR 345 CLEAR OF CONFLICT RETURNING TO (assigned clearance)
FASTAIR 345 ROGER (or alternative instructions)	
	{After completing the response to an ACAS RA and resuming the assigned ATC clearance or instruction.}
	FASTAIR 345 CLEAR OF CONFLICT (assigned clearance) RESUMED
FASTAIR 345 ROGER (or alternative instructions)	
	{After receiving an ATC clearance or instruction contradictory to the ACAS RA; the pilot will follow the RA and inform ATC directly.}
	FASTAIR 345 UNABLE TCAS RA
FASTAIR 345 ROGER	

13.5 Traffic information broadcasts by aircraft (TIBA)

13.5.1 TIBA are reports and information transmitted by pilots for the information of pilots of other aircraft in the vicinity following a significant disruption to air traffic or aeronautical telecommunications services. Transmissions under TIBA procedures are to be prefixed with "ALL STATIONS" and callsign

Figure 13.5.1.a



13.5.2 For further information and phraseology examples see AIP New Zealand, ENR 1.15 Sections 4, 5 and 8.