



Advisory Circular AC91-9 & AC172-1

Radiotelephony Manual

Revision 10 14 June 2013

General

Civil Aviation Authority Advisory Circulars contain information about standards, practices, and procedures that the Director has found to be an Acceptable Means of Compliance (AMC) with the associated rule.

An AMC is not intended to be the only means of compliance with a rule, and 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 Advisory Circular.

An Advisory Circular may also include **Guidance Material** (**GM**) to facilitate compliance with the rule requirements. Guidance material must not be regarded as an acceptable means of compliance.

Purpose

This Advisory Circular provides examples of standard radiotelephony phraseology for use by pilots and Air Traffic Services (ATS) and is based on the following ICAO documents:

- Annex 10, Aeronautical Telecommunications Volume 2 (Communication Procedures including those with PANS status)
- Doc 4444 Procedures for Air Navigation Services Air Traffic Management
- Doc 9432-AN/925 *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.

Published by Civil Aviation Authority PO Box 3555 Wellington 6140

Authorised by Manager Policy and Regulatory Strategy

Related Rules

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

Change Notice

Revision 10:

- corrects context for paragraph 4.18.1
- standardises alpha-numeric references for POB
- amends paragraph 13.2 to include full station call sign on first contact and acknowledgement of urgency

The following paragraphs are affected by this revision:

Paragraph	Old wording	New wording	Comment
4.18.1	SET HEADING 180 PASSING 4000 FEET	SET HEADING AT 18 PASSING 4000 FEET	Corrects context of entry
4.19.1	2 POB	POB 2	Standardise alpha-numeric order with other POB references
4.20.2	POB ONE	POB 1	Standardise single digit numeric presentation with other POB entries
5.4.7	POB TWO	POB 2	As above
5.4.8	128 POB	POB 128	Standardise alpha-numeric order with other POB references
5.8.2	POB TWO	POB 2	Standardise single digit numeric presentation with other POB entries
-	POB FOUR	POB 4	As above
-	POB THREE	POB 3	As above
13.2	XYZ ROGER FOR	XYZ CHRISTCHURCH INFORMATION ROGER PAN	Reply with full station call sign on first contact; acknowledge urgency transmission [specified in ICAO Annex 10 Vol II, Chap 5 Aeronautical Mobile Service - Voice Communications, 5.3 Distress and urgency radio telephony procedures, para. 5.3.3.2.1 (a); as referenced in Part 172.105(b)(2)]
-	XYZ NUMBER 1	XYZ ROTORUA TOWER ROGER PAN, NUMBER 1	As above



Table of Contents

1.	INTRODUCTION					
2.	GLOSSARY5					
3.	КЕҮ6					
4.	GENER 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 4.10 4.11 4.12 4.13 4.14 4.15 4.16 4.17 4.18 4.19 4.20 4.21 4.22	RAL PROCEDURES AND PHRASEOLOGY Transmitting Technique Phonetic Alphabet Pronunciation of Numbers Transmission of Time Standard Words and Phrases Callsigns Establishment and Continuation of Communications Transfer of Communications Clearances Reclearance Conditional Clearances Readback Requirements Traffic Information Essential Traffic Radio Test Procedures Level Instructions Change from IFR to VFR flight rules Position Reporting — IFR. Position Reporting — VFR Transponder Reporting Runway Designator Minimum Fuel	$\begin{array}{c} \ 7\\ \ 8\\ \ 9\\ 12\\ 13\\ 15\\ 16\\ 17\\ 19\\ 20\\ 21\\ 22\\ 24\\ 25\\ 27\\ 27\\ 27\\ \end{array}$			
5.	AEROI 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 5.10 5.11 5.12 5.13 5.14	OROME CONTROL General. Departure Information and Engine Starting Procedures Pushback Taxi Instructions Pre-Departure Manoeuvring Takeoff Procedures VFR Departures VFR Arrivals Aerodrome Traffic Circuit Final Approach and Landing. Wind Shear. Wake Turbulence Go Around After Landing	29 29 30 32 33 37 38 39 41 43 43 43			
	5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 5.10 5.11 5.12 5.13 5.14	General. Departure Information and Engine Starting Procedures. Pushback Taxi Instructions Pre-Departure Manoeuvring. Takeoff Procedures VFR Departures VFR Arrivals Aerodrome Traffic Circuit Final Approach and Landing. Wind Shear. Wake Turbulence Go Around	29 29 30 32 33 37 38 39 41 43 43 43 44 45 45 46 47 48 49			
6.	5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 5.10 5.11 5.12 5.13 5.14 GENEF 6.1 6.2 6.3 6.4 6.5 6.6 6.7	General. Departure Information and Engine Starting Procedures. Pushback Taxi Instructions Pre-Departure Manoeuvring Takeoff Procedures VFR Departures VFR Arrivals Aerodrome Traffic Circuit Final Approach and Landing. Wind Shear. Wake Turbulence Go Around After Landing RAL RADAR PHRASEOLOGY Introduction Radar Identification Radar Vectoring Traffic Information and Avoiding Action Radar Vectors to Final Approach Radar Vectors to Final Approach Radar Assistance to Aircraft with Radio Communications Failure	29 30 30 32 33 37 38 39 41 43 43 44 45 45 46 47 48 49 50 52			

3

	8.1	General.	. 56
	8.2	Position Information	. 56
	8.3	Level Information	. 57
	8.4	Flights Entering Controlled Airspace	. 58
	8.5	Flights Leaving Controlled Airspace	. 59
	8.6	RVSM Operations	. 59
9.	AERO	DROME FLIGHT INFORMATION SERVICE	61
	9.2	VFR Departures	. 61
	9.3	VFR Arrivals	. 61
	9.4	IFR Departures	. 62
	9.5	IFR Arrivals	. 63
10		ATORY BROADCAST ZONES	64
10	10.1	Broadcast	
	10.1	High activity areas	
	10.3		
11	10.3	UNICOM	. 65
	10.3 .COMM	UNICOM ON FREQUENCY ZONES	. 65 . 66
	10.3 .COMM .UNAT1	UNICOM ON FREQUENCY ZONES	65 66 67
	10.3 .COMM .UNAT1 12.1	UNICOM ON FREQUENCY ZONES FENDED AERODROMES General.	65 66 67 67
	10.3 .COMM .UNAT1 12.1 12.2	UNICOM ON FREQUENCY ZONES FENDED AERODROMES General Arrival	65 66 67 67 67
	10.3 .COMM .UNAT1 12.1	UNICOM ON FREQUENCY ZONES FENDED AERODROMES General.	65 66 67 67 67
12	10.3 .COMM .UNATT 12.1 12.2 12.3	UNICOM ON FREQUENCY ZONES FENDED AERODROMES General Arrival	. 65 66 67 . 67 . 67 . 67
12	10.3 .COMM .UNATT 12.1 12.2 12.3	UNICOM ON FREQUENCY ZONES ENDED AERODROMES General Arrival Departure ESS AND URGENCY PHRASEOLOGY Distress Messages	. 65 66 67 . 67 . 67 . 67 . 67 . 67
12	10.3 .COMM .UNAT1 12.1 12.2 12.3 .DISTR	UNICOM ON FREQUENCY ZONES ENDED AERODROMES General Arrival Departure ESS AND URGENCY PHRASEOLOGY	. 65 66 67 . 67 . 67 . 67 . 67 . 67
12	10.3 .COMM 12.1 12.2 12.3 .DISTR 13.1 13.1.1 13.2	UNICOM ON FREQUENCY ZONES	. 65 66 . 67 . 67 . 67 . 67 . 67 . 68 . 68 . 68 . 68
12	10.3 .COMM .UNATT 12.1 12.2 12.3 .DISTR 13.1 13.1.1	UNICOM ON FREQUENCY ZONES General Arrival Departure ESS AND URGENCY PHRASEOLOGY Distress Messages Imposition of Silence When MAYDAY in Progress	. 65 66 . 67 . 67 . 67 . 67 . 67 . 68 . 68 . 68 . 68
12	10.3 .COMM 12.1 12.2 12.3 .DISTR 13.1 13.1.1 13.2	UNICOM ON FREQUENCY ZONES	. 65 66 67 . 67 . 67 . 67 . 67 . 67 . 67 . 6

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. Incidents and accidents have occurred 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 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 their common usage have become part of aviation terminology, may be spoken using their constituent letters rather than the phonetic alphabet, for example, ILS, QNH.

1.4 The following words may be omitted from transmissions provided that no confusion or ambiguity will result:

- "SURFACE" in relation to surface wind direction and speed
- "DEGREES" in relation to radar headings
- · "VISIBILITY", "CLOUD", and "HEIGHT" in MET reports
- "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

Symbol	Meaning
and a	AIRCRAFT (includes aeroplanes, helicopters, gliders, balloons, microlights)
	AIR TRAFFIC SERVICES (Air Traffic Control, Flight Information, AFIS)

3.1 In the examples, the aircraft or ground station transmitting is identified by the symbols shown above.

3.2 Aircraft in this Advisory Circular may be further identified by the callsign 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 in many cases the aircraft involved could be any of these.

3.3 In this Advisory Circular the title of the ground station addressed is generally omitted, such as Christchurch Ground, Christchurch Tower, Christchurch Control, Christchurch Information etc.

4. GENERAL PROCEDURES AND PHRASEOLOGY

4.1 Transmitting Technique

4.1.1 The following transmitting techniques will assist in ensuring 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 conversation tone, speak clearly and distinctly.
- d) Maintain an even rate of speech, slightly slower than conversational speed. When it is known that elements 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) A slight pause before and after numbers will 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) It is important 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.

Α	ALFA	AL fah		N	NOVEMBER	no VEM ber	
в	BRAVO	BRAH voh		ο	OSCAR	OSS cah	
с	CHARLIE	CHAR lee or SHAR lee		Ρ	ΡΑΡΑ	pah PAH	
D	DELTA	DELL tah		Q	QUEBEC	keh BECK	
E	ECHO	ECK ho	•	R	ROMEO	ROW meoh	
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	•••
I	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	

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.

0	ZE-RO	 5	FIFE	
1	WUN	 6	SIX	
2	тоо	 7	SEVen	
3	TREE	 8	AIT	
4	FOWer	 9	NINer	

Decimal	DAY SEE MAL	Hundred	HUN dred
Thousand	TOU SAND		

4.3.2. All numbers, except as prescribed in section 4.3.3 must be pronounced by transmitting each digit separately. The following examples indicate the application of this procedure.

Application	Example	Transmitted as	Pronounced as
Aircraft callsign	QFA 355	Qantas three five five	Qantas TREE FIFE FIFE
cansign	RLK 238	Link two three eight	Link TOO TREE AIT
Flight levels	FL 180	flight level one eight zero	flight level WUN AIT ZE-RO
	FL 200	flight level two zero zero	flight level TOO ZE-RO ZE-RO
	FL 70	flight level seven zero (Oceanic only)	flight level SEVen ZE-RO
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 NINer
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 FOWer
Altimeter setting	984 hPa	QNH nine eight four	QNH NINer AIT FOWer
setting	1027 hPa	QNH one zero two seven	QNH WUN ZE-RO TOO SEVen
	29.95 inches	QNH two nine decimal nine five	QNH TOO NINer DAY SEE MAL NINer FIFE
Time	1634	three four or one six three four	TREE FOWer or WUN SIX TREE FOWer
Frequencies	128.3 MHz	one two eight decimal three	WUN TOO AIT DAY SEE MAL TREE



Application Example		Transmitted as	Pronounced as	
	135.75 MHz	one three five decimal seven five	WUN TREE FIFE DAY SEE MAL SEVen FIFE	
	5643 kHz	five six four three	FIFE SIX FOWer TREE	

4.3.3 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, except 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.

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 FOWer 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	FOWer TOU SAND TREE HUN dred feet
Runway visual range	700 m	RVR seven hundred metres	RVR SEVen HUN dred metres
visuai ranye	1600 m	RVR one thousand six hundred metres	RVR WUN TOU SAND SIX HUN dred metres

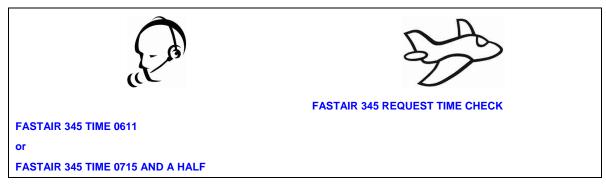
4.4 Transmission of Time

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.)

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 SEVen or TOO ZE-RO FIFE SEVen

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 and when used have the meaning given below.

Word/Phrase	Meaning
ACKNOWLEDGE	Let me know that you have received and understood this message
AFFIRM	Yes
APPROVED	Permission for proposed action granted
BREAK	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
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, eg. "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)
Ουτ	My transmission is ended and I expect no response from you (not normally used in VHF communication)



Revision 10

Word/Phrase	Meaning
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 READBACK 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
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 Callsigns

4.6.1 Ground Station Callsigns

4.6.1.1 Ground stations are identified by the name of the location followed by the service available as follows:

CONTROL	Area and annuagh control including area and annuagh rader
CONTROL	Area and approach control, including area and approach radar
APPROACH	Approach control where provided as a separate function
ARRIVAL	Approach control radar arrivals
DEPARTURE	Approach control radar departures
TOWER	Aerodrome control or aerodrome and approach/area control where these services are provided from an aerodrome control tower
GROUND	Surface movement control including clearance delivery
RADAR	Area or approach control radar on a discrete frequency
FLIGHT SERVICE	Aerodrome flight information service (AFIS)
INFORMATION	Area flight information service
DELIVERY	Clearance delivery
RADIO	Air–ground service
UNICOM	UNICOM service

4.6.1.2 The name of the location or the service may be omitted provided that satisfactory communication has been established.

4.6.2 Aircraft Callsigns

4.6.2.1 Information on aircraft callsigns for operations within New Zealand are contained in Rule Part 91.

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



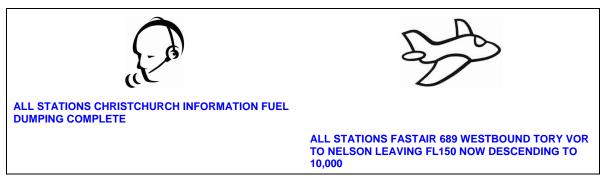
4.7 Establishment and Continuation of Communications

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 callsign 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 callsign and the receiving station's callsign is considered an invitation to proceed with the transmission, the phrase GO AHEAD is not to be used.



4.7.2 After contact has been established, continuous two-way communication is permitted without further identification or callsign until termination of the contact provided no mistake of identity is likely to occur.

4.7.3 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".



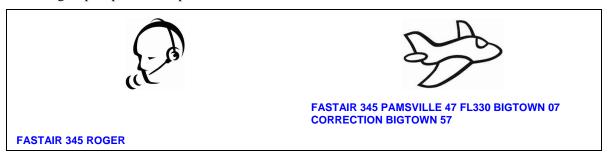
4.7.4 No reply is expected to such general calls unless individual stations are subsequently called upon to acknowledge receipt.

4.7.5 If there is doubt that a message has been correctly received, a repetition of the message should be requested in full or in part.

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

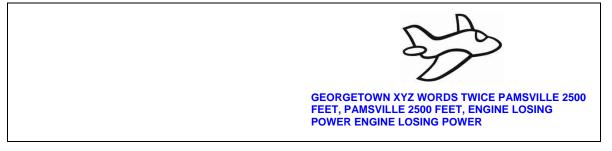


4.7.6 When an error is made in a transmission, the word "CORRECTION" is used. The last correct group or phrase is repeated and then the correct version transmitted.



4.7.7 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.

4.7.8 When it is considered that reception is likely to be difficult, important elements of the message should be spoken twice.



4.7.9 Aircraft for which a flight plan – flight rules \mathbf{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.



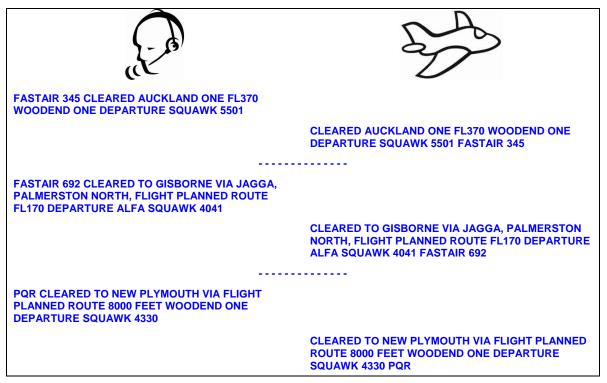
4.8 Transfer of Communications

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

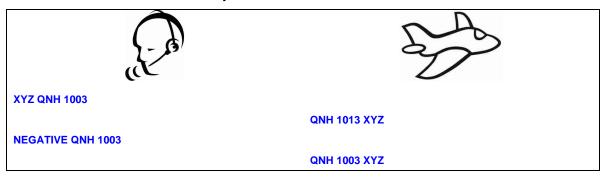


4.9 Clearances

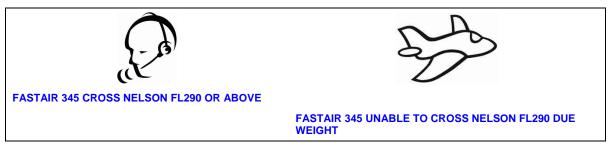
4.9.1 An ATC route clearance is not an instruction to take off or enter an active runway. The word "TAKEOFF" is used only when an aircraft is cleared for takeoff, or when cancelling a takeoff clearance. At other times the word "DEPARTURE" or "AIRBORNE" is used.



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



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.



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:

"MOUNT COOK 941, BEHIND BOEING 737 ON SHORT FINAL, LINE UP BEHIND"

"QANTAS 357, 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 Readback 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 readback followed by the aircraft callsign:*

- ATC route, approach and departure clearances including any amendment thereof;
- clearances to VFR flights to operate within controlled airspace, including entering or vacating the circuit;
- clearances (including conditional clearances) to operate on the manoeuvring area at a controlled aerodrome including:
 - o clearances to land on or take off from any runway;

- o clearances to enter, cross, taxi or backtrack on any runway;
- o instructions to remain on or hold clear of any runway;
- o taxi instructions including a taxi route and holding point where specified;
- runway-in-use;
- SSR codes;
- level instructions;
- heading and speed instructions;
- altimeter settings; and
- 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.)

- Aircraft waiting to cross a runway may acknowledge a clearance to cross with the phrase "CROSSING (callsign)"
- When a VFR aircraft is cleared by ATC to route via a published 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 callsign as an acknowledgment.

4.12.3 Where a route clearance is passed to another ATS unit or aircraft for relay, a readback must be made by the receiver to the originator of the clearance.

4.12.4 ATC, or a relaying aircraft or ATS unit, will acknowledge a correct readback of an ATC route clearance to IFR and VFR aircraft.

4.12.5 When instructions are received that do not require a full readback 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 readback must be acknowledged by the aircraft transmitting its callsign.

4.12.7 Where there is difficulty in reading a transmission a readback should be made or requested to verify the content.

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 (callsign)" or "TRAFFIC IN SIGHT (callsign)" 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:

 where "NO REPORTED TRAFFIC" is passed the pilot replies "NIL TRAFFIC (callsign)"

- where traffic information is passed the pilot replies "COPIED THE TRAFFIC (callsign)"
- 4.14 Essential Traffic

4.14.1 Essential traffic is that controlled traffic to which the provision of separation is applicable, but is not separated by the prescribed minima. Essential traffic includes flights which are maintaining own separation in VMC and flights affected as a result of an aircraft responding to a TCAS RA.

4.14.2 Essential traffic information of the aircraft concerned will include:

- a) the words "ESSENTIAL TRAFFIC"
- b) direction of flight
- c) type of aircraft
- d) altitude, and
- e) position information.

4.15 Radio Test Procedures

4.15.1 Test transmissions should take the following form:

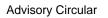
- a) The identification of the station being called;
- b) The aircraft callsign;
- c) The words RADIO CHECK;
- d) The frequency being used.

4.15.2 Replies to test transmissions should be as follows:

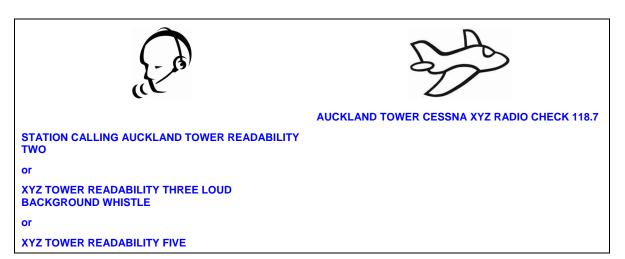
- a) The identification of the station calling;
- b) The identification of the station replying;
- c) Information regarding the readability of the transmission.

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

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







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 and must be composed of spoken numbers (ONE, TWO, THREE, etc) followed by the radio callsign 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 as a consequence 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.

AC91-9 & AC172-1

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

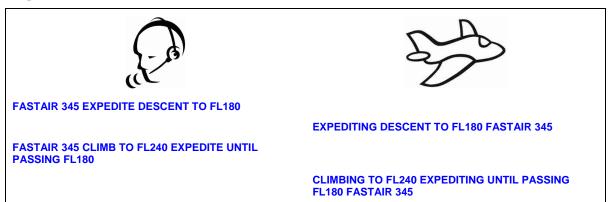


4.16.5 Once given an instruction to climb or descend, a further overriding instruction may be given to a pilot.



Advisory Circular

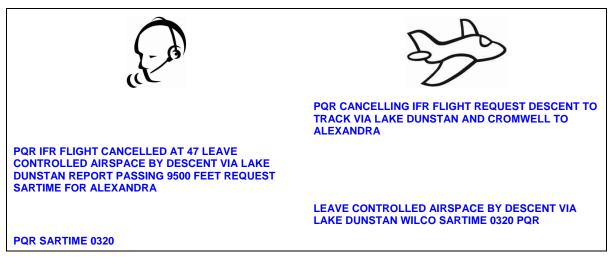
4.16.6 Occasionally, for traffic reasons, a higher than normal rate of climb or descent may be required.



4.17 Change from IFR to VFR flight rules

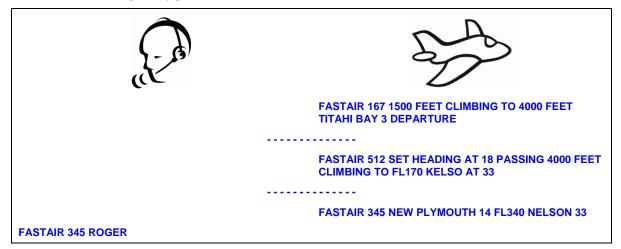
4.17.1 During a flight a pilot may change from IFR to VFR flight. Any changes to the flight plan are to be included in the message. Pilots are required to provide a SARTIME (in hours and minutes) for destination and aircraft registration if not already passed.

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



4.18 Position Reporting — IFR

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

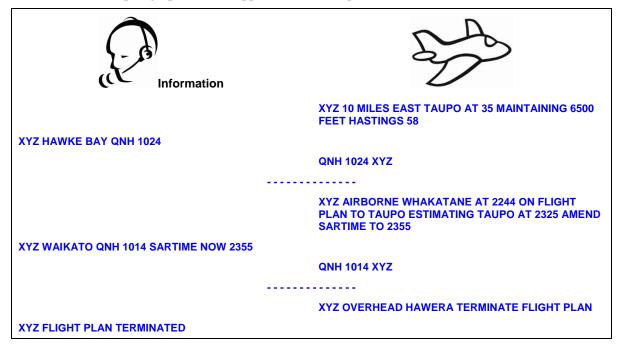


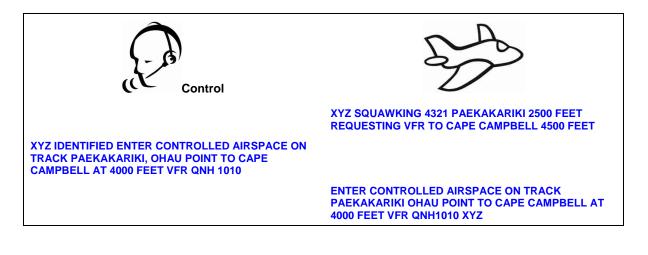
4.18.2 Where distance information is provided in a position report, the distance reference is to be included.

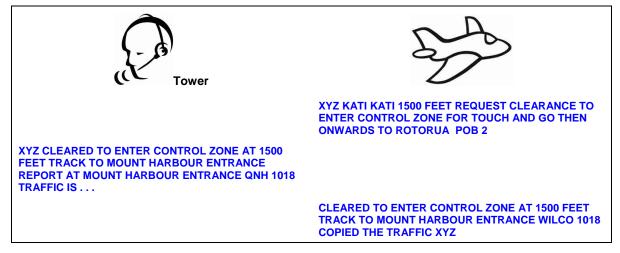
	s s
	FASTAIR 262 20 SLOPE HILL DME
	FASTAIR 394 31 GPS NAPIER VOR
	FASTAIR 991 3 MILES FROM APINU
	FASTAIR 549 12 MILES FROM TOUCHDOWN
	FASTAIR 387 3 MILES FROM FINAL APPROACH FIX
FASTAIR 345 ROGER	

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 paragraph 7.3.1 as applicable to the report:



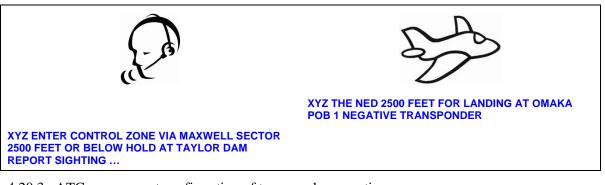




4.20 Transponder Reporting

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 Section 6.7 for transponder operating phrases.

4.20.2 When requesting an ATC authorisation to operate without a transponder pilots should append their request with "NEGATIVE TRANSPONDER".



4.20.3 ATC may request confirmation of transponder operation.

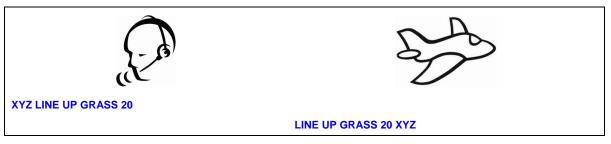


4.21 Runway Designator

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;

- The phraseology "GRASS (number)" will be used to describe the unpaved or partially paved runway, and either
- The phraseology "SEAL (number)" will be used to describe the paved runway; or
- The phraseology "RUNWAY (number)" is used to describe the paved runway if the aircraft in question is <u>not</u> capable of landing on the unpaved parallel runway.



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 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 shall inform the pilot as soon as practicable of any anticipated delays or that no delays are expected. Any change to expected delays will be passed to the aircraft 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 then an emergency call in accordance with section 13 of the AC must be used.



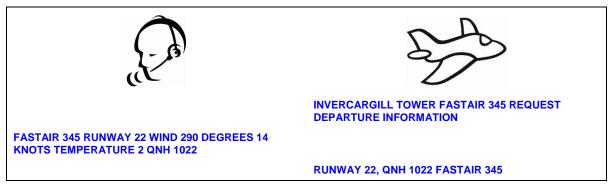
5. AERODROME CONTROL

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

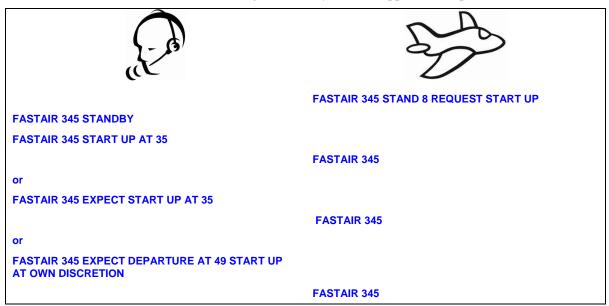
5.2.1 Where no ATIS is provided the pilot may ask for current aerodrome information before requesting start up.



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. The pilot must state, along with the request, the location of the aircraft and acknowledge receipt of the ATIS broadcast.

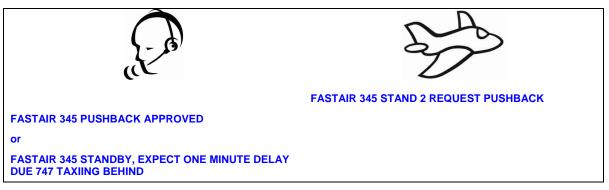


5.2.3 During busy periods the normal response to a start request is "standby". ATC internal coordination follows. Maintain a listening watch for your start approval or update.



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.



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 takeoff, 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.

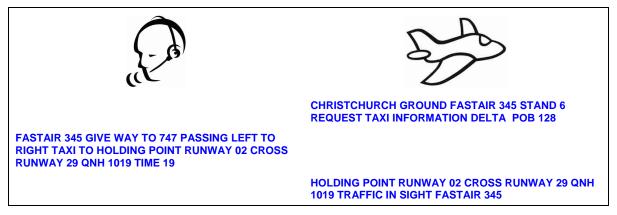
5.4.6 A clearance to cross must be requested if one has not been given.

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.



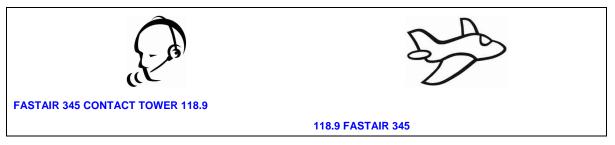


5.4.8 Where an aircraft acknowledges receipt of the ATIS broadcast or acknowledges receipt of conditions just recently broadcast to other aircraft, the controller does not need to pass departure information to the pilot when giving taxi instructions.



5.5 Pre-Departure Manoeuvring

5.5.1 At busy aerodromes with separate ground and tower functions, aircraft are usually transferred to the control tower at or approaching the runway holding point. Since misunderstandings in the granting and acknowledgement of takeoff clearances can result in serious consequences, meticulous care has been taken to ensure that the phraseology which is to be employed during the pre-departure manoeuvres cannot be interpreted as a takeoff clearance.



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

(FB)	s s
PQR REPORT WHEN READY FOR DEPARTURE	
	WILCO PQR
	PQR READY
PQR LINE UP	
	LINING UP PQR
PQR LINE UP AND WAIT	
	LINE UP AND WAIT PQR

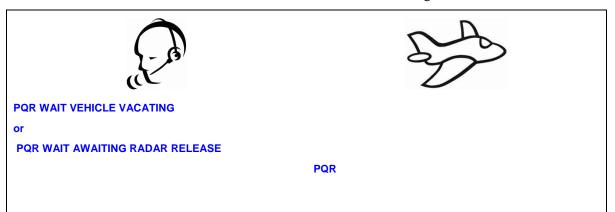


5.5.3 Conditional clearances affecting the active runway will only be used when both the pilot and the controller have the conflicting traffic in sight, and the traffic causing the conditional clearance is the first to pass the affected aircraft. When the conditional clearance involves a departing aircraft and an arriving aircraft or two departing aircraft, the clearance will be given as follows:

- callsign
- the condition
- the clearance
- a brief reiteration of the condition.

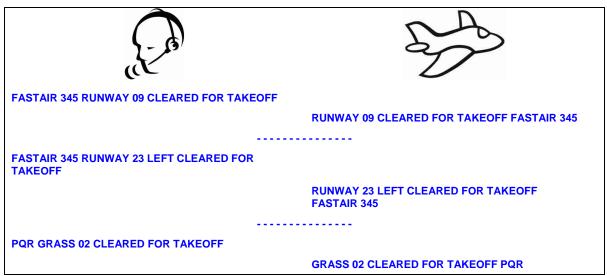


- 5.6 Takeoff Procedures
- 5.6.1 If ATC is unable to issue a takeoff clearance the reason will be given.





5.6.2 The takeoff clearance will include the runway designator.



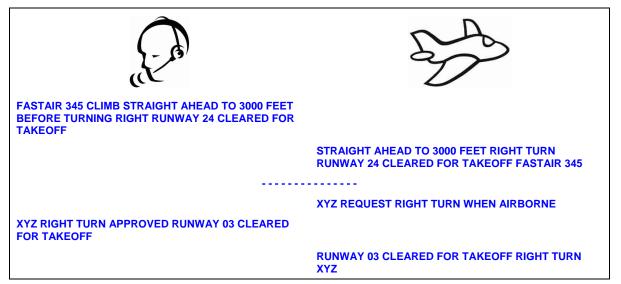
5.6.3 For traffic reasons it may be necessary for the aircraft to takeoff immediately after lining up.

	and a
FASTAIR 345 ARE YOU READY FOR IMMEDIATE DEPARTURE	
	FASTAIR 345 AFFIRM
FASTAIR 345 RUNWAY 27 CLEARED FOR IMMEDIATE TAKEOFF	
	RUNWAY 27 CLEARED FOR IMMEDIATE TAKEOFF FASTAIR 345
FASTAIR 345 LINE UP BE READY FOR IMMEDIATE DEPARTURE	
	LINING UP FASTAIR 345
FASTAIR 345 RUNWAY 18 CLEARED FOR IMMEDIATE TAKEOFF	
	RUNWAY 18 CLEARED FOR IMMEDIATE TAKEOFF FASTAIR 345

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



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





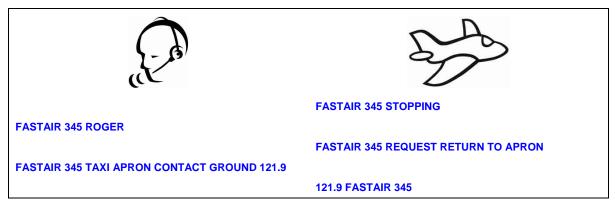
5.6.6 Due to unexpected traffic developments or a departing aircraft taking longer to take off than anticipated it is occasionally necessary to rescind the takeoff clearance or quickly free the runway for landing traffic. In this situation the pilot must acknowledge the instruction with callsign and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

ومرجم	and a
FASTAIR 345 TAKEOFF IMMEDIATELY OR HOLD SHORT OF RUNWAY	
	HOLDING SHORT FASTAIR 345
FASTAIR 345 TAKEOFF IMMEDIATELY OR VACATE RUNWAY	
	TAKING OFF FASTAIR 345
PQR HOLD POSITION	
	HOLDING PQR
PQR CANCEL TAKEOFF CLEARANCE EMERGENCY TRAFFIC	
	HOLDING PQR

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



5.6.8 When a pilot abandons the takeoff 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 takeoff, if applicable, and request further manoeuvring instructions.



TECHNICAL LIBRARY

AC91-9 & AC172-1

ABBOTTAEROSPACE.COM

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



5.7 VFR Departures

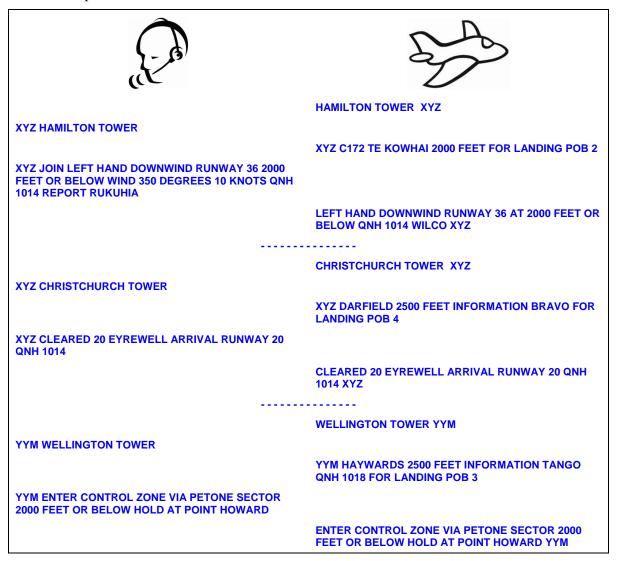
5.7.1 Departure clearances may include a CTR Sector, a VFR Departure Procedure or plain language instructions. Aircraft must, on leaving the aerodrome traffic circuit, enter and remain within the lateral limits of any sector in the clearance, or follow the assigned route specified in the VFR Departure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

	A A
XYZ LEAVE CONTROL ZONE VIA WANGANUI AT 1500 FEET VFR REPORT TURAKINA	
	LEAVE CONTROL ZONE VIA WANGANUI 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 prior to the aircraft reaching the CTR boundary. Pilots must advise if they are to operate in Special VFR conditions.

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 assigned route specified in the VFR Arrival Procedure or the clearance, and comply with circuit joining and reporting instructions. Altitude instructions are included in published VFR Arrival Procedures.

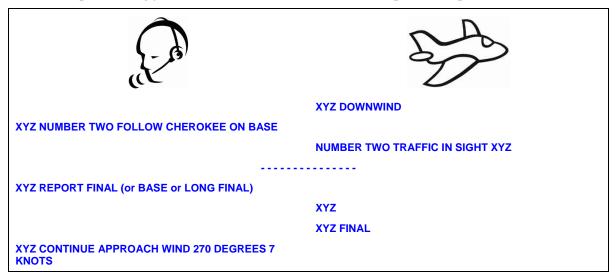


5.9 Aerodrome Traffic Circuit

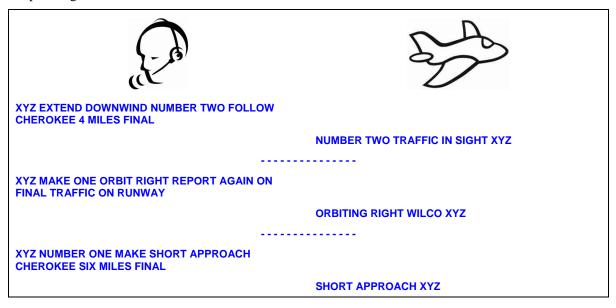
5.9.1 Circuit joining instructions will be issued early enough to allow a pilot to sight other aircraft and position in a safe and orderly manner into the circuit.

	5AS
nt i	
XYZ JOIN RIGHT HAND DOWNWIND RUNWAY 24 REPORT SIGHTING 737 DOWNWIND	
	RIGHT HAND RUNWAY 24 737 IN SIGHT XYZ
XYZ NUMBER TWO FOLLOW THE 737	
	NUMBER TWO WILCO XYZ
XYZ JOIN LEFT HAND DOWNWIND RUNWAY 09 NUMBER TWO FOLLOW 767 ON LEFT BASE	
	LEFT HAND RUNWAY 09 NUMBER TWO XYZ
	XYZ DOWNWIND 767 IN SIGHT
XYZ ROGER	
XYZ JOIN LEFT BASE RUNWAY 16 NUMBER TWO FOLLOW BANDEIRANTE THREE MILE FINAL REPORT SIGHTING	
	LEFT BASE RUNWAY 16 NUMBER TWO BANDEIRANTE IN SIGHT XYZ
XYZ ROGER	
XYZ CROSS OVERHEAD THEN JOIN RIGHT HAND DOWNWIND RUNWAY 25	
	CROSS OVERHEAD RIGHT HAND RUNWAY 25 XYZ
XYZ MAKE STANDARD OVERHEAD JOIN LEFT TRAFFIC CIRCUIT RUNWAY 03	
	STANDARD OVERHEAD JOIN LEFT HAND RUNWAY 03 XYZ

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



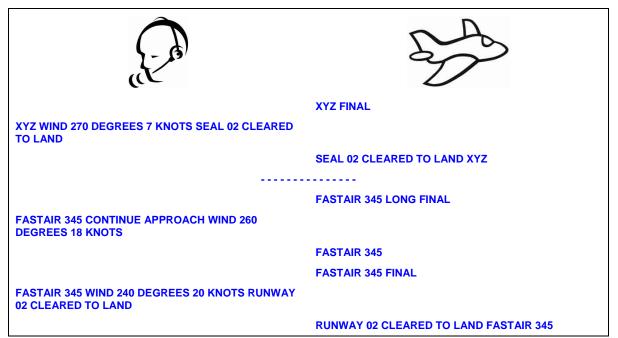
5.9.3 It may be necessary in order to co-ordinate traffic in the circuit to issue delaying or expediting instructions.



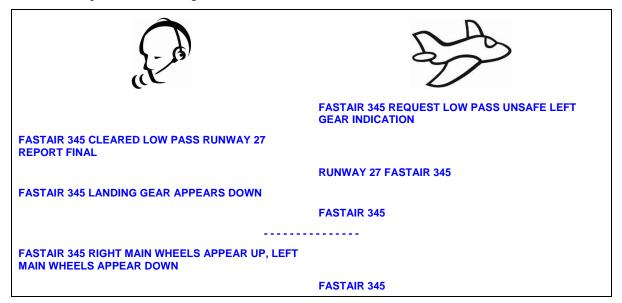
5.10 Final Approach and Landing

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.

The landing clearance will include the runway designator.



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



Advisory Circular



5.10.3 For training purposes, a pilot may request permission to fly along the runway centre line without landing.



5.10.4In order to save taxiing time when flying training in the traffic circuit pilots may request to carry out a "touch and go", i.e. the aircraft lands, continues rolling and takes off, without stopping.

The touch and go clearance will include the runway designator.

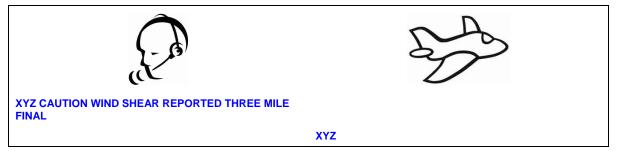


5.10.5 When reduced runway separation is being used, controllers will pass traffic information on the preceding aircraft.



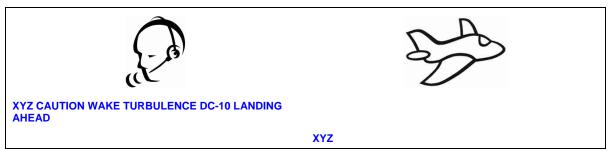
5.11 Wind Shear

5.11.1 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.



5.12 Wake Turbulence

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



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.



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



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.

	s s
FASTAIR 345 TAKE FIRST RIGHT	
	FIRST RIGHT FASTAIR 345
	GROUND FASTAIR 345 RUNWAY VACATED REQUEST TAXI TO STAND 7
FASTAIR 345 TAXI TO STAND 7 VIA TAXIWAY ALFA	
	TAXIWAY ALFA FASTAIR 345
XYZ CONTINUE TO THE END REPORT VACATING LEFT	
	ХҮХ
	XYZ RUNWAY VACATED
XYZ CONTINUE TO AERO CLUB	
	ХҮZ

6. GENERAL RADAR PHRASEOLOGY

6.1 Introduction

6.1.1 This section contains general radar phraseology which is commonly used in communications between aircraft and all types of radar units.

6.1.2 The phrase "UNDER RADAR CONTROL" is only used when a radar control service is being provided. Normally, however, the callsign suffix used by the radar unit is sufficient to indicate its function.

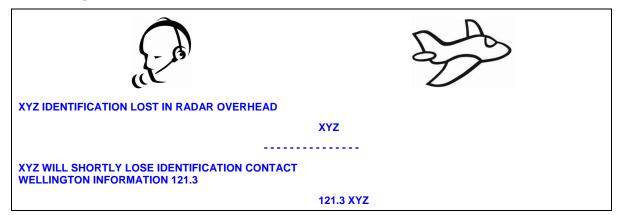
6.1.3 In a radar environment heading information given by the pilot and heading instructions given by controllers are in degrees magnetic.

6.2 Radar Identification

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



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



6.3 Radar Vectoring

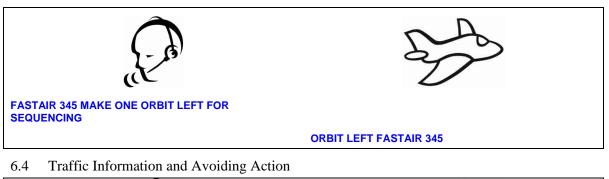
6.3.1 Aircraft may be given specific vectors to fly in order to establish lateral separation. Unless it is self-evident, pilots should be informed of the reason why radar vectors are necessary.

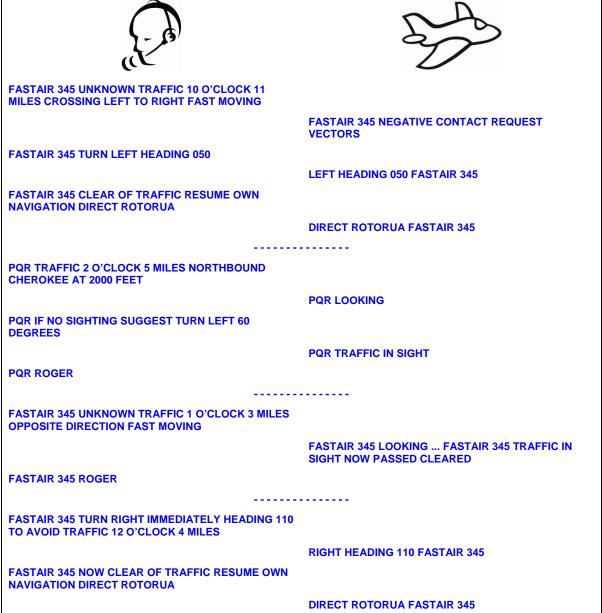
	5 A
FASTAIR 345 TURN LEFT HEADING 050 FOR SEPARATION	
	LEFT 050 FASTAIR 345
FASTAIR 345 FLY HEADING 050	
	HEADING 050 FASTAIR 345
FASTAIR 345 CONTINUE PRESENT HEADING	
	WILCO FASTAIR 345
FASTAIR 345 TURN LEFT 10 DEGREES REPORT NEW HEADING	
	NEW HEADING 350 DEGREES FASTAIR 345
FASTAIR 345 REPORT YOUR 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.

	s s
FASTAIR 345 RESUME OWN NAVIGATION DIRECT OHURA	
	DIRECT OHURA FASTAIR 345
FASTAIR 345 RESUME OWN NAVIGATION DIRECT OHURA TRACK 070 DISTANCE 27 MILES	
	DIRECT OHURA 070 27 MILES FASTAIR 345
XYZ RESUME OWN NAVIGATION POSITION 15 MILES SOUTHEAST OF WAVERLEY	
	WILCO XYZ

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.





6.5 Radar Vectors to Final Approach

6.5.1 Radar 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 radar vectors to the ILS/DME approach.



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

Advisory Circular

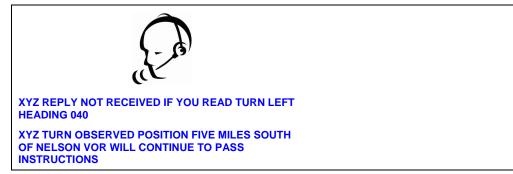


6.5.2 Pilots will be advised when a controller intends to vector an aircraft through the final approach track and of the reason for the track extension.



6.6 Radar Assistance to Aircraft with Radio Communications Failure

6.6.1 When a controller suspects that an aircraft is able to receive but not transmit messages, the radar may be used to confirm that the pilot has received instructions.



6.7 Secondary Surveillance Radar

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

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 special position identification 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 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 (level)	Check and confirm present level (to nearest 100ft)

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



6.7.2 The pilot reply to SSR instructions is usually either an acknowledgement or readback.

	and a
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 8000 FEET	
	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	

7. APPROACH CONTROL

7.1 IFR Departures

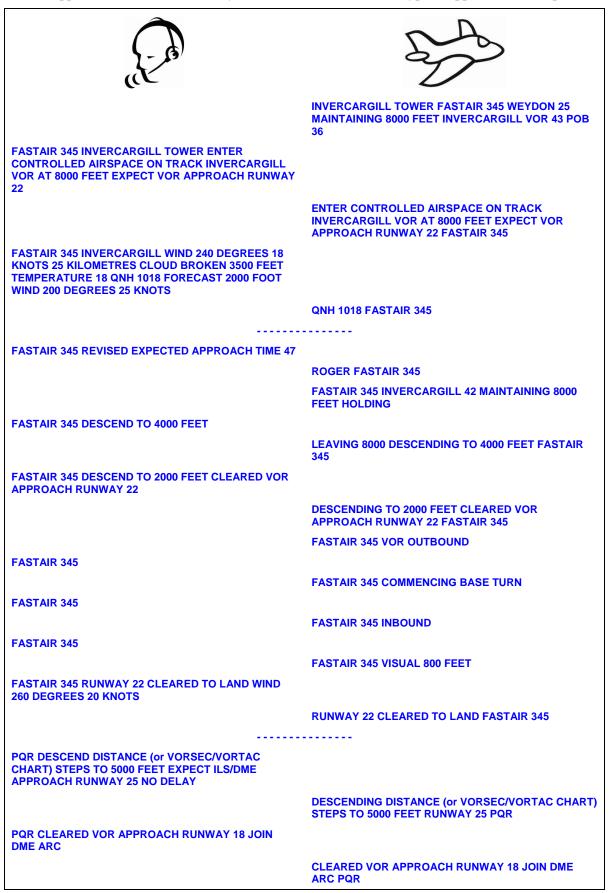
7.1.1 At many airports both arrivals and departures are handled by a single controller on a single frequency. At busier airports arrivals and departures may be handled by separate controllers on separate frequencies.

7.1.2 In addition to the ATC route clearance, instructions for separation purposes may be issued prior to or after takeoff.



7.2 IFR Arrivals

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





7.2.2 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.

	na
	a de la come de la com
	PQR VOR OUTBOUND LEAVING 3500 FEET
PQR ROGER	
	PQR REQUEST VISUAL APPROACH
PQR CLEARED VISUAL APPROACH MAINTAIN 2000 FEET REPORT SIGHTING METRO 4 MILES FINAL	
	CLEARED VISUAL APPROACH MAINTAINING 2000 FEET WILCO PQR
	PQR METRO IN SIGHT
PQR NUMBER TWO FOLLOW THE METRO DESCENT UNRESTRICTED	
	NUMBER 2 DESCENDING UNRESTRICTED PQR
	PQR MAINTAINING 2000 FEET REQUEST VISUAL APPROACH
PQR CLEARED VISUAL APPROACH	
	CLEARED VISUAL APPROACH PQR
PQR CONTACT WELLINGTON TOWER 118.8	
	118.8 PQR
	PQR DESCENDING TO 5000 FEET REQUEST VISUAL APPROACH
PQR NEGATIVE NUMBER FIVE IN TRAFFIC	
	PQR

Advisory Circular



7.2.3 Details of joining and holding procedures are contained in AIP New Zealand ENR 1.5.

7.2.5 Details of Johning and Holding procedures a	
	s s
FASTAIR 345 HOLD AT POKOM FL150 EXPECTED FURTHER CLEARANCE AT 24	
FASTAIR 345 HOLD AT GISBORNE ENTER THE RWY 32 HOLD	HOLD AT POKOM FL150 FASTAIR 345
	HOLD AT GISBORNE ENTER THE RWY 32 HOLD FASTAIR 345
XYZ HOLD AT WOODBOURNE ENTER THE ENROUTE HOLDING PATTERN	
	HOLD AT WOODBOURNE ENTER THE ENROUTE HOLDING PATTERN XYZ
ORION 69 HOLD AT THE OHAKEA INITIAL APPROACH FIX RWY 27 HOLD	
	HOLD AT THE OHAKEA INITIAL APPROACH FIX RWY 27 HOLD ORION 69
BOEING 7781 HOLD ON THE WHENUAPAI 080 RADIAL BETWEEN 35 AND 40 WP FL150 LEFT HAND PATTERN EXPECT FURTHER CLEARANCE AT 05	
	HOLD ON THE WHENUAPAI 080 RADIAL BETWEEN 35 AND 40 WP FL150 LEFT HAND PATTERN BOEING 7781
XYZ HOLD AT ROTORUA ENTER THE ALFA HOLD 4000 FEET EXPECTED APPROACH TIME 17	
	HOLD AT ROTORUA ENTER THE ALFA HOLD 4000 FEET XYZ
FASTAIR 345 DESCEND TO 13000 FEET HOLD AT WARDS EXPECT FURTHER CLEARANCE AT 52	
	DESCENDING TO 13000 FEET HOLD AT WARDS FASTAIR 345
FASTAIR 345 CANCEL HOLD WARDS	
	CANCEL HOLD WARDS FASTAIR 345
	XYZ REQUEST CLEARANCE LEFT(/RIGHT) OF TRACK TO ESTABLISH 230 DEGREES INBOUND TO ROTORUA FOR THE VOR/DME ALFA APPROACH
XYZ CLEARED AS REQUESTED, REPORT COMMENCING VOR/DME ALFA APPROACH	
or XYZ NEGATIVE, HOLD AT ROTORUA VOR EXPECT APPROACH AT 17	

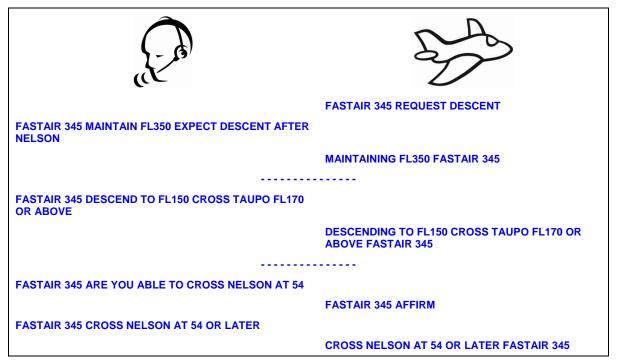
APPROACH AT 17

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 in order 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.



8.2 Position Information

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

	s s
FASTAIR 345 REPORT 25 MILES AUCKLAND DME	
	FASTAIR 345
FASTAIR 345 REPORT DISTANCE FROM GISBORNE DME	
	FASTAIR 345 37 GISBORNE DME
FASTAIR 345 REPORT PASSING 270 RADIAL ROTORUA VOR	
	FASTAIR 345

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 the Level Instructions paragraphs in the General Procedures and Phraseology section. 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.

ومرجم	and a start
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	
PASTAIR 343 REPORT TOUR LEVEL	FASTAIR 345 FL160
FASTAIR 345 CANCEL BLOCK 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.

	and a
	FASTAIR 345 REQUEST MAINTAIN OWN SEPARATION IN VMC
FASTAIR 345 DESCEND TO 6000 FEET MAINTAIN OWN SEPARATION IN VMC FROMTO TRAFFIC IS (position and altitude)	
	LEAVING FOR 6000 FEET MAINTAIN OWN SEPARATION IN VMCTO TRAFFIC AT (position and altitude) FASTAIR 345

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.

	and a
	CHRISTCHURCH CONTROL PQR
PQR CHRISTCHURCH CONTROL	
	PQR ESTIMATING ASHBURTON 45 MAINTAINING 9000 FEET REQUEST CLEARANCE
PQR CLEARED TO WANGANUI VIA CHRISTCHURCH VOR AND FLIGHT PLANNED ROUTE 9000 FEET ENTER CONTROL AREA AT ASHBURTON SQUAWK 5472 QNH 1014	
	CLEARED TO WANGANUI VIA CHRISTCHURCH VOR AND FLIGHT PLANNED ROUTE 9000 FEET ENTER CONTROL AREA AT ASHBURTON SQUAWK 5472 QNH 1014 PQR
PQR READBACK CORRECT	
	OHAKEA CONTROL XYZ
XYZ OHAKEA CONTROL	
	XYZ HUNTERVILLE 4500 FEET REQUEST CLEARANCE TO ENTER CONTROLLED AIRSPACE ON TRACK PARAPARAUMU
XYZ CLEARED TO ENTER CONTROLLED AIRSPACE VIA HUNTERVILLE ON TRACK PARAPARAUMU AT 4000 FEET VFR QNH 997	
	CLEARED TO ENTER CONTROLLED AIRSPACE VIA HUNTERVILLE ON TRACK PARAPARAUMU AT 4000 FEET VFR QNH 997 XYZ

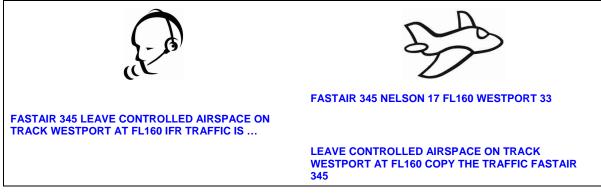
XYZ READBACK CORRECT

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.

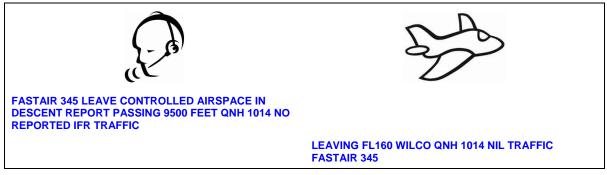
	s s
PQR REMAIN OUTSIDE CONTROLLED AIRSPACE EXPECT CLEARANCE AT 55	
	REMAINING OUTSIDE PQR
XYZ REMAIN OUTSIDE CONTROLLED AIRSPACE REMAIN THIS FREQUENCY SQUAWK 4503	
	REMAINING OUTSIDE SQUAWK 4503 WILCO XYZ

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.



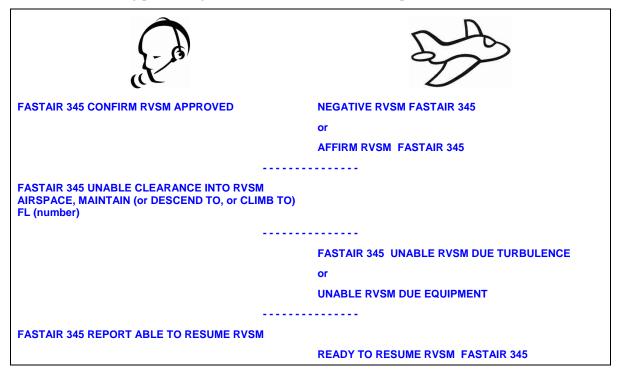
8.5.2 An aircraft may be cleared to leave controlled airspace by descent.

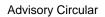


NOTE: In the above example the base of controlled airspace is 9500 feet.

8.6 **RVSM** Operations

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







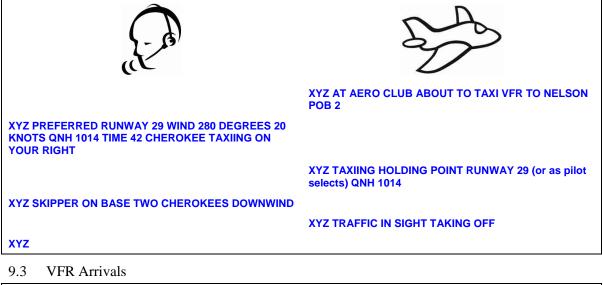
8.6.2 During operations in or vertical transit through RVSM airspace within the New Zealand FIR, pilots of <u>all</u> NON-RVSM approved aircraft are to insert the phrase "NEGATIVE RVSM" into radio calls when:

- requesting a level that is within or above RVSM airspace
- requesting a level change where that level is within or requires transit through RVSM airspace
- in read-backs of level clearances
- as part of the initial call when changing frequency.

9. AERODROME FLIGHT INFORMATION SERVICE

9.1 At the time of publication, aerodrome flight information service in New Zealand is provided at Milford Sound and Paraparaumu. The examples given are indicative of the phraseology at an AFIS aerodrome.

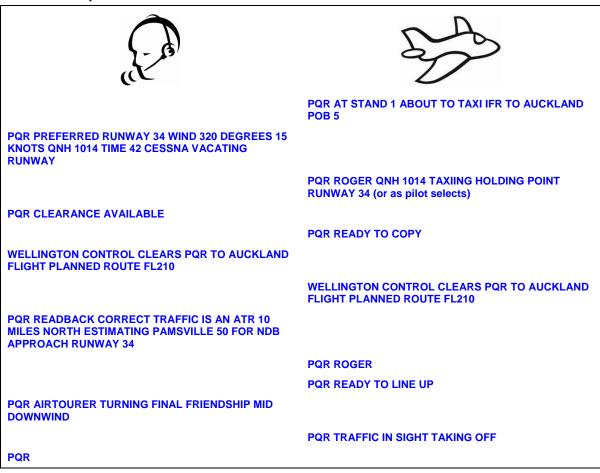
9.2 VFR Departures





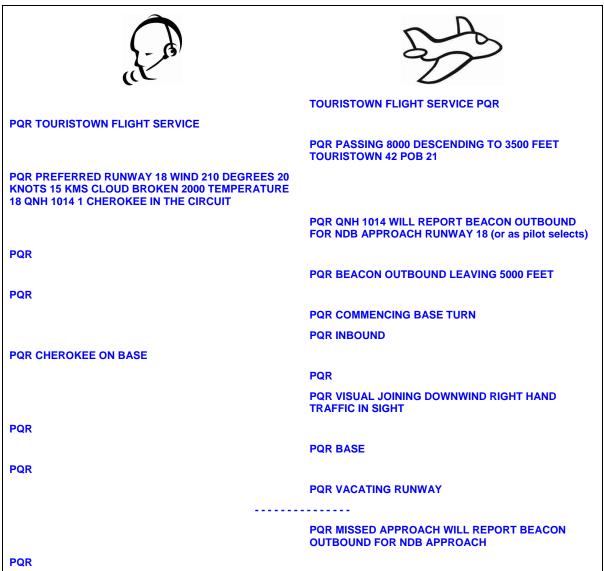


9.4 IFR Departures





9.5 IFR Arrivals



10. MANDATORY BROADCAST ZONES

10.1 Broadcast

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.

s s
KAIKOURA TRAFFIC XYZ HAPUKU 3000 FEET TRACKING SOUTH VIA THE COAST
KAIKOURA TRAFFIC XYZ KAIKOURA TOWNSHIP 3000 FEET TRACKING SOUTH WILL PASS TO THE EAST OF THE AIRFIELD
KAIKOURA TRAFFIC XYZ CONWAY RIVER MOUTH 3000 FEET TRACKING SOUTH
TAUPO TRAFFIC XYZ MISSION BAY 5500 FEET DESCENDING ETA TAUPO 35
TAUPO TRAFFIC XYZ WHITE CLIFFS 2900 FEET WILL JOIN DOWNWIND FOR RUNWAY 17
ARDMORE TRAFFIC PIPER CHEROKEE XYZ DRURY 1600 FEET TRACKING DIRECT TO JOIN OVERHEAD FOR RUNWAY 21
or
ARDMORE TRAFFIC PIPER CHEROKEE XYZ DRURY 1500 FEET DESCENDING TO 1100 FEET VIA PAPAKURA TO JOIN RIGHT BASE RUNWAY 03

10.2 High activity areas

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).

5 A
XYZ HEAD OF THE TASMAN 9500 FEET WESTBOUND
or
XYZ OVER THE UPPER FRANZ GLACIER 9500 FEET ORBITING LEFT THEN HEADING SOUTH

10.3 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), they may pass on limited information on request. For instance, a pilot may ask for surface wind conditions to ascertain a preferred runway – UNICOM service operators will not designate the runway-in-use. (Information on meteorological and operational conditions may also be obtained from the AWIB).

UNICOM	and a
	TAUPO UNICOM XYZ REQUEST SURFACE WIND CONDITIONS
XYZ TAUPO UNICOM SURFACE WIND 360 DEGREES FIFTEEN KNOTS	
	XYZ

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

UNICOM

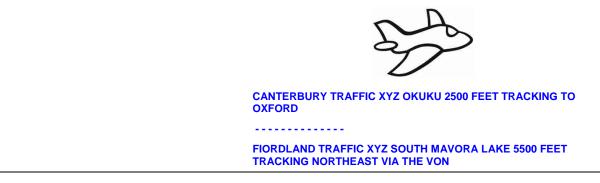
REPORTED TRAFFIC IS XRAY YANKEE ZULU WHO AT 1105 REPORTED 10 NM SOUTH AT 1500 FT JOINING

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

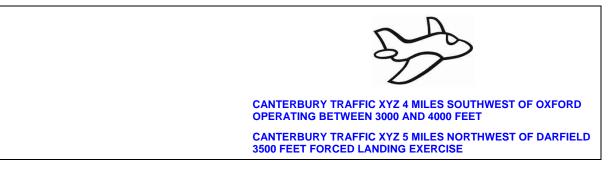
A TOPDRESSER IS REPORTED TO BE OPERATING LOW LEVEL 8 NM TO THE EAST

11. COMMON FREQUENCY ZONES

11.1 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.



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

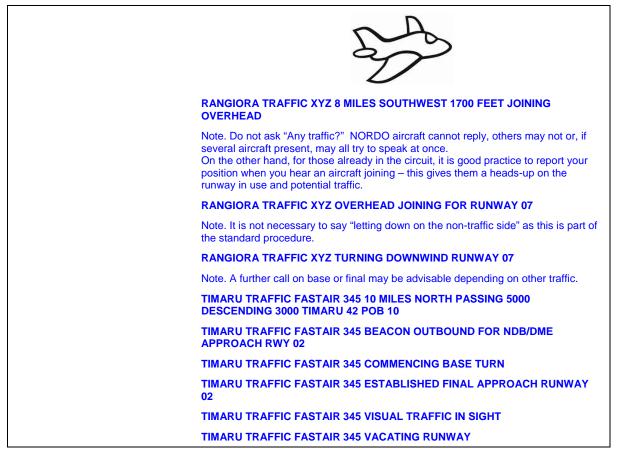


12. UNATTENDED AERODROMES

12.1 General

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

12.2 Arrival



12.3 Departure

s s
RANGIORA TRAFFIC XYZ TAXIING FOR RUNWAY 07
RANGIORA TRAFFIC XYZ LINING UP RUNWAY 07
RANGIORA 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.
TIMARU TRAFFIC FASTAIR 345 TAXIING FOR RUNWAY 02 MOANA ONE DEPARTURE
TIMARU TRAFFIC FASTAIR 345 LINING UP RUNWAY 02
TIMARU TRAFFIC FASTAIR 345 PASSING 4800 TO THE NORTH CHANGING CONTROL

13. DISTRESS AND URGENCY PHRASEOLOGY

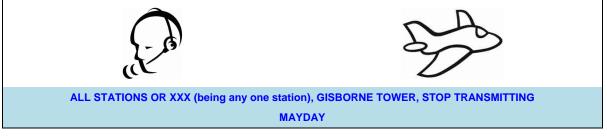
Emergency procedures are contained in AIP New Zealand, ENR 1.15.

13.1 Distress Messages

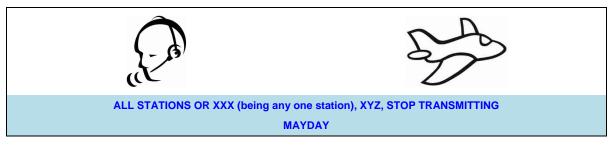
	5-AS
	MAYDAY MAYDAY MAYDAY XYZ ENGINE ON FIRE UNABLE TO MAINTAIN HEIGHT MAKING FORCED LANDING POSITION 20 MILES SOUTH OF OAMARU PASSING 3000 FEET HEADING 360
XYZ DUNEDIN TOWER ROGER MAYDAY	
	MAYDAY MAYDAY MAYDAY GISBORNE TOWER XYZ ENGINE FAILED WILL ATTEMPT TO LAND AT YOUR FIELD POSITION 10 MILES NORTH OF GISBORNE AT 8000 FEET HEADING 180
XYZ GISBORNE 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.

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



Or; 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.



Radio silence should be observed by other stations until:

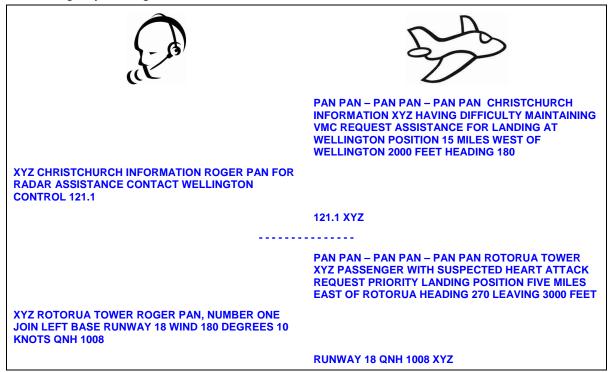
Distress traffic is transferred to another frequency, or

- · Controlling station gives permission, or
- It has itself to render assistance, or
- The distress is cancelled/terminated.

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

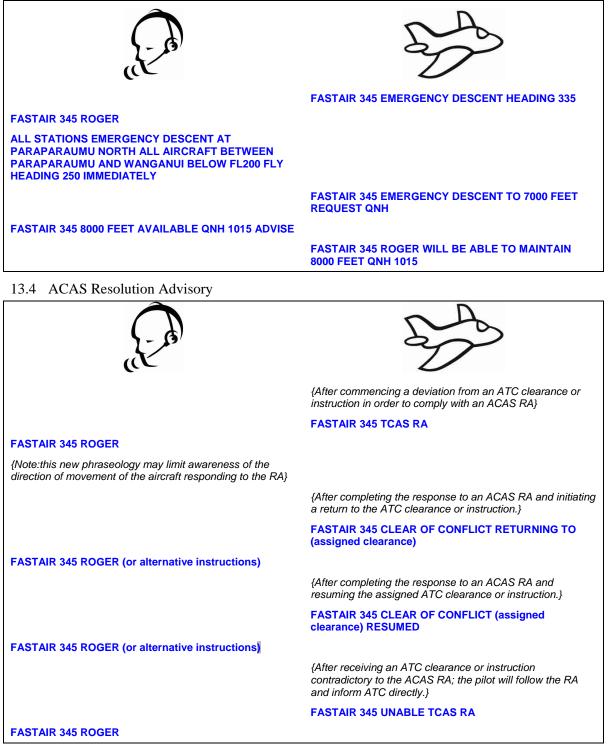


13.2 Urgency Messages



13.3 Emergency Descent

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



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 telecommunication services. For further information and phraseology examples see AIP New Zealand, ENR 1.15.