

Weather Card

UTC calculation table		
UTC	NZST	NZDT
0000	1200	1300
0100	1300	1400
0200	1400	1500
0300	1500	1600
0400	1600	1700
0500	1700	1800
0600	1800	1900
0700	1900	2000
0800	2000	2100
0900	2100	2200
1000	2200	2300
1100	2300	0000
1200	0000	0100
1300	0100	0200
1400	0200	0300
1500	0300	0400
1600	0400	0500
1700	0500	0600
1800	0600	0700
1900	0700	0800
2000	0800	0900
2100	0900	1000
2200	1000	1100
2300	1100	1200

GRAFOR		
Graphical Aviation Forecast Chart provides forecast weather information for low level flights (SFC to FL100). All times UTC.		
Issue times	1100 and 2100	
Valid Times	1100 issue – 1800, 0000 and 0600; 2100 issue – 0000, 0600 and 1200 Each chart is valid for +/- 3 hours of the stated valid time, e.g., a chart valid at 1800 is valid for use between 1500 and 2100	
No of charts	3 charts at each issue time	
Heights	Hundreds of feet AMSL	
Area	New Zealand with a 15NM envelope extending seaward from the coastline, and adjusted over the Southern Taranaki Bight. The 15NM envelope is marked on the charts	
Fronts	Cold, Warm, Occluded, Stationary	
Visibility	Metres (M) or Kilometres (KM)	
Phenomena	SH, TS, DZ, RA, GS, GR, SN, SG, BR, FG, HZ, FU, VA, DU, SA, SQ, PO, FC, SS, DS	
Deep convective cloud	Type	TCU, CB
	Coverage	ISOL, OCNL, FRQ, EMBD
Non deep convective cloud	Coverage	OVC, BKN, SCT, NSC
Freezing Level	Spot values depicted in a box. 0° means 0° C and three figures indicate the height in hundreds of feet AMSL, e.g., 085 = 8,500 ft; 115 = 11,500 ft 0° : 085	

AAW		
Aviation Area Winds. All times UTC.		
Issue times	1100 and 2100	
Validity	1200 to 0600 and 2100 to 1200. Each of these may be split into smaller periods within the overall validity	
Heights	Winds	1,000, 3,000, 5,000, 7,000 and 10,000 ft AMSL
	Temperatures	5,000, 7,000 and 10,000 ft AMSL
Wind	Speed	Knots
	Direction	Degrees true
Temperature	Degrees Celsius	
Areas	17 areas (the previous ARFOR areas)	

GNZSIGWX		
Graphical New Zealand Significant Weather Chart provides forecast information on the horizontal and vertical extent of turbulence, mountain waves, cumulonimbus clouds (CB), icing for flights within the New Zealand FIR (NZZC), and awareness information for volcanic ash and radioactive cloud. All times UTC.		
Issue times	0200, 1400 and 2000	
Validity	0300 to 1800, 1500 to 0600 and 2100 to 1200	
No of charts	3 SFC to FL100, SFC to FL250 and SFC to FL410	
Heights	Flight levels (FLs) unless otherwise specified	
Area	New Zealand FIR (NZZC)	
Phenomena	MOD ICE, MOD TURB, MTW, VA, RDOACT	
Cloud	Type	Cumulonimbus (CB), which also implies SEV ICE and SEV TURB
	Coverage	ISOL, OCNL, FRQ, EMBD

SIGMET (Textual)*	
SIGMETs provide information on observed or forecast hazardous weather conditions.	
Issue times	As required
Validity	Four hours (six hours for volcanic ash and tropical cyclones), reviewed after three hours or when further information available
Heights	Feet above mean sea level up to 10,000 feet, flight levels from FL100
Area	New Zealand FIR (NZZC) and Auckland Oceanic FIR (NZZO)

* A graphical depiction of SIGMETs (GSM – Graphical SIGMET Monitor) is also available.

TAF and TREND		
A TAF is an aerodrome forecast provided for a specific aerodrome presented in code. A TREND is a forecast, valid for two hours, attached to the end of a METAR or SPECI (NZWP, NZOH only) and METAR AUTO (NZAA, NZWN, NZCH only), stating any significant changes from those described. While the TREND is valid it supersedes the aerodrome TAF.		
Issue times	NZAA, NZWN, and NZCH: 0515, 1115, 1715 and 2315 UTC All other aerodromes except NZWP, NZHN, and NZQN: 1115, 2315 UTC NZWP: 1725, 2330 UTC. NZHN: 0500, 1100, 1700, 2300 UTC. NZQN: 1130, 1730 UTC	
Validity	1921/2012 = valid from 2100 UTC on the 19th to 1200 UTC on the 20th	
Heights	Feet above aerodrome level	
Area	Within 8KM of the aerodrome reference point, but within 16KM for cloud	
Wind	Speed	Knots
	Direction	Degrees true
Visibility	Up to 9999 metres – in metres, eg 7000 Above 9999 metres – in kilometres, eg 20KM CAVOK and 9999 used at Auckland, Wellington and Christchurch only	
Cloud	Type	CB, TCU
	Amount	NSC, SKC, FEW, SCT, BKN, OVC

METAR, METAR AUTO and SPECI		
A METAR is a routine meteorological report, compiled manually, provided for a specific aerodrome, and presented in code. A METAR AUTO is a routine meteorological report provided by an automatic weather station (AWS) for a specific aerodrome, also presented in code. A SPECI is a METAR issued outside of the routine issue time of a METAR (NZWP, NZOH and NZMF only).		
Issue times	METARs issued hourly, on the hour METAR AUTOs issued every half hour, 24 hours a day SPECIs issued when required and will have issue time other than on the hour SPECIs not issued at METAR AUTO aerodrome	
Heights	Feet above aerodrome level	
Area	Within 8KM of the aerodrome reference point When the term VC is used this applies to the area between 8 and 16KM from the aerodrome reference point	
	Speed	Knots
Wind	Direction	Degrees true. When direction varies by 60 degrees or more, the extreme directions are given, separated by the letter V, e.g. 260V330
	Up to 9999 metres – in metres, eg 7000 Above 9999 metres – in kilometres, eg 20KM Visibility variation shown by adding the direction, eg 2000SW – visibility variation not reported in METAR AUTO CAVOK and 9999 (10KM or more) used at Auckland, Wellington and Christchurch only	
Cloud	Type	CB, TCU
	Amount	NSC, SKC, FEW, SCT, BKN, OVC
Temperature/ Dew Point	Degrees Celsius	
Pressure (QNH)	Hectopascals (hPa)	

ATIS		
The ATIS is a continuous plain language broadcast of the current conditions at an aerodrome, on a discrete frequency.		
Issue times	Irregularly, when conditions change or deteriorate	
Heights	Feet above aerodrome level	
Wind	Speed	Knots
	Direction	Degrees magnetic
Visibility	Less than 5000 metres – in metres, eg 3000 5000 metres or more – in kilometres, eg 5KM	
Cloud	Type	CB, TCU
	Amount	SKC, FEW, SCT, BKN, OVC
Temperature/ Dew Point	Degrees Celsius	
Pressure (QNH for ATIS only)	Hectopascals (hPa)	

When Cumulonimbus cloud (CB) is included in meteorological information this implies that there may be associated thunderstorms and the occurrence of severe icing, turbulence and hail.

Met Abbreviations

// ¹	Weather not detected due sensor temporarily inoperative
/// ¹	Cloud is detected (unable to determine TCU/CB)
//// ¹	Visibility not reported due faulty sensor
/////	Cloud not reported due faulty sensor
-	Light
(blank space)	Moderate (when included before a weather phenomenon)
+	Heavy
9999	Visibility 10 km or more
AAW	Aviation Area Winds
ABT	About
ABV	Above
AC	Altostratus
AD QNH	Aerodrome QNH forecast
AFT	After
AGL	Above ground level
AIP	Aeronautical Information Publication
AIREP	Routine air report from aircraft in flight
AIREP SPECIAL	Special (non-routine) air report from aircraft in flight
AMD	Amended
AMSL	Above mean sea level
APRX	Approximate
AS	Altostratus
AT	At
ATIS	Automatic terminal information service
ATS	Air traffic services
AWIB	Aerodrome and weather information broadcast
AWS	Automatic weather station (produces METAR AUTO)
BASE	Cloud base

BC	Patches
BDRY	Boundary
BECMG	Becoming
BFR	Before
BKN	Broken (5–7 oktas)
BL	Blowing
BLDG	Building
BLW	Below
BR	Mist (1000–5000 m vis)
BTN	Between
BWR	Basic weather report
CAT	Clear air turbulence
CAVOK ²	Cloud and visibility OK
CB	Cumulonimbus
CLD	Cloud
CLR	Clear
CNL	Cancel
CONS	Continuous
COR	Corrected
COT	At the coast
CU	Cumulus
DP	Dew point temperature
DR	Low drifting
DS	Dust storm
DTG	Date time group
DTRT	Deteriorating/deteriorate
DU	Dust
DZ	Drizzle
EMBD	Embedded
EST	Estimated
EXC	Except
EXTD	Extended or extending
FC	Funnel cloud
FCST	Forecast
FEW	Few (1–2 oktas)

FG	Fog (visibility less than 1000 m)
FIR	Flight information region
FISB	Flight information service broadcast
FL	Flight level
FM	From
FRQ	Frequent
FU	Smoke
FZ	Freezing
FZL	Freezing level
G	Gusts
GNZSIGWX	Graphical NZ significant weather
GR	Hail (5 mm or more)
GRAFOR	Graphical aviation forecast
GS	Small hail (smaller than 5 mm)
GSM	Graphical SIGMET Monitor
HVY	Heavy
HZ	Haze (visibility less than 5000 m)
ICAO	International Civil Aviation Organization
ICE	Icing
IFR	Instrument flight rules
IMC	Instrument meteorological conditions
IMPR	Improving
INTSF	Intensifying
ISOL	Isolated
KM	Kilometres
KT	Knots
LAN	Inland
LCA	Local/locally/location/located
LYR	Layer
M	Metres

MAX	Maximum
METAR	Aerodrome routine meteorological report
METAR AUTO	Automatic aerodrome routine meteorological report
MI	Shallow
MOD	Moderate
MOV	Moving
MS	Minus
MT	Mountain
MTW	Mountain waves
NC	No change
NCD ¹	No cloud detected below 10,000 ft
NM	Nautical miles
NOSIG	No significant change
NOTAM	Notice to airmen
NS	Nimbostratus
NSC ²	No significant cloud
NSW	Nil significant weather
NXT	Next
NZZC	New Zealand FIR
NZZO	Auckland Oceanic FIR
OBS	Observed
OBSC	Obscured
OCNL	Occasional
OPMET	Operational meteorological information
OVC	Overcast (8 oktas)
PIREP	Pilot report (AIREP)
PL	Ice pellets
PO	Dust/sand whirls
PR	Partial
PROB	Probability
PS	Plus
PSN	Position
Q	QNH

QNH	Altimeter sub-scale setting
R	Runway
RA	Rain
RDOACT	Radioactive
RDOACT CLD	Radioactive cloud
RE	Recent
RMK	Remark
ROFOR	Route forecast
RVR	Runway visual range
SA	Sand
SC	Stratocumulus
SCT	Scattered (3–4 oktas)
SECT	Sector
SEV	Severe
SFC	Surface
SG	Snow grains
SH	Shower
SIG	Significant
SIGMET	Significant meteorological information
SIGWX	Significant weather forecast
SKC ³	Sky clear (no cloud at all)
SN	Snow
SPECI	Aerodrome special meteorological report
SQ	Squall
SQL	Squall line
SS	Sandstorm
ST	Stratus
STNR	Stationary
T	Temperature, in degrees Celcius
TAF	Aerodrome forecast
TC	Tropical cyclone
TCU	Towering cumulus
TEMPO	Temporarily

TL	Till
TREND	Trend forecast
TS	Thunderstorm
TURB	Turbulence
UP	Unidentified precipitation
UTC	Coordinated Universal Time
V	Variations from mean wind direction
VA	Volcanic ash
VAA	Volcanic Ash Advisory
VAAC	Volcanic Ash Advisory Centre
VAG	Volcanic Ash Graphic
VAL	In valleys
VC	Vicinity of the aerodrome
VCY	Vicinity
VFR	Visual flight rules
VIS	Visibility
VMC	Visual meteorological conditions
VRB	Variable
VV	Vertical visibility
WI	Within
WKN	Weakening
WDSPR	Widespread
WS	Windshear
WX	Weather
Z	Coordinated Universal Time

1	used in METAR AUTO only
2	only used in TREND/TAF for NZAA, NZWN, NZCH
3	not used in METAR AUTO or TAF/TREND for NZAA, NZWN, NZCH