



GRAPHICAL NZ SIGWX

Graphical New Zealand Significant Weather Chart

USER GUIDE

GRAPHICAL NZ SIGWX

(Graphical New Zealand Significant Weather Chart)

1. Introduction

1.1 The GNZSIGWX Chart provides forecast information on the horizontal and vertical extent of turbulence, mountain waves, cumulonimbus clouds (CB) and icing for flights within the NZZC flight information region; and provides awareness information for hazardous phenomena such as volcanic ash and radioactive cloud within the NZZC flight information region.

2. Product Overview

2.1 The GNZSIGWX chart depicts the hazards to aviation listed above that are expected to impact the NZZC FIR over a 15-hour period. The validity of each chart is in a text box in the bottom right of each chart. The chart is issued 3 times a day at the following times:

Issue Time (in Local Time) NZST/NZDT	Validity (in Zulu)
2:00am / 3:00am	1500Z-0600Z
8:00am / 9:00am	2100Z-1200Z
2:00pm / 3:00pm	0300Z-1800Z

2.2 Three versions of the GNZSIGWX are available to users: SFC to FL100, SFC to FL250 and SFC to FL410. If there are no significant hazards within the airspace the chart is valid for, the chart will read “NIL SIGWX BELOW FLXXX” where XXX is the top of the chart in question.

2.3 The chart may be corrected if un-forecast hazards occur or if a forecasted hazard is no longer expected to occur within the validity of the chart. In this event, the corrected chart will have the same validity as the original chart but have “COR” in the bottom right text box.

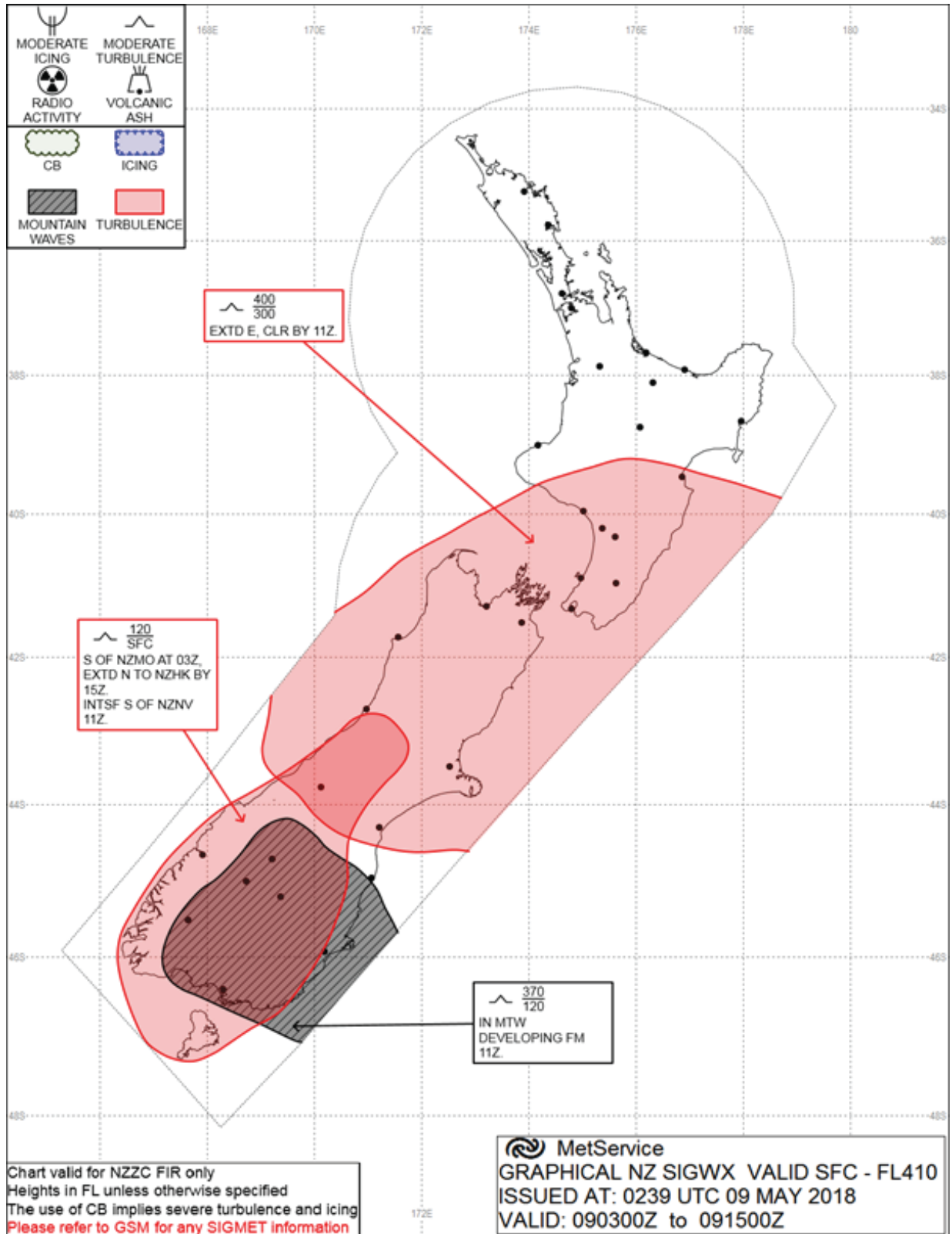
2.4 Each chart will include hazardous weather phenomena displayed in areas (polygons) using established meteorological symbols and ICAO abbreviations to describe the extent and evolution of each feature over the 15-hour period. To assist in decoding the symbols, there is a key included in the top left corner of each chart (see examples in Appendix 1). To assist in understanding the abbreviations used, a list of commonly used abbreviations is provided in Appendix 1.

- 2.5 This chart only covers phenomenon which are moderate in nature i.e. moderate turbulence, icing, mountain waves, etc. If a hazard is expected to become severe within the validity of the chart, the term “intensifying” (INTSF) will be added to the hazard’s description. If a SIGMET is already in effect for a given phenomenon there will be no mention of this on the GNZSIGWX chart and thus users **MUST ALSO REFER TO THE GSM** in conjunction with this chart.
- 2.6 The boundary of the NZZC FIR is indicated on the chart and the chart is only valid within this boundary.
- 2.7 Areas of CBs indicated on this chart imply severe icing and turbulence.
- 2.8 Outline colour of the description boxes on the chart match the colour of the phenomenon being referred to (e.g. turbulence areas are drawn in red, thus the corresponding box for the description will also be in red.)
- 2.9 If a volcano within the NZZC has its volcano alert level upgraded to level 2, this is denoted on the chart with the location of the volcano and a highlighted banner referring users to the relevant NOTAM for further information will be displayed.
- 2.10 If a volcanic ash SIGMET is in effect for the NZZC, the volcano will be indicated on that chart and a highlighted banner referring users to the GSM for further information will be displayed.
- 2.11 If a radiation SIGMET is affecting the NZZC, a highlighted banner referring users to the GSM for further information will be displayed.

Appendix 1 – Guidance and Interpretation Notes


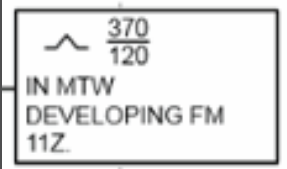
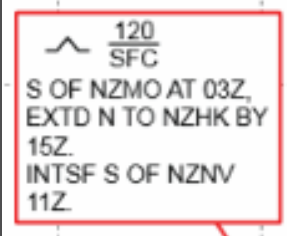
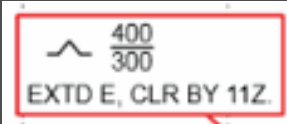
1. GNZSIGWX Example and decode

1.1 Standard issue example



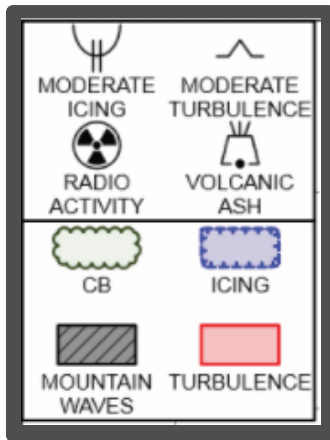
Contact

MetService
30 Salamanca Road
PO Box 722 Wellington 6140
New Zealand

Information or symbol	
 MetService GRAPHICAL NZ SIGWX VALID SFC - FL410 ISSUED AT: 0239 UTC 09 MAY 2018 VALID: 090300Z to 091500Z	Graphical New Zealand Significant Weather Chart Valid for heights of Surface to FL410 (41,000 feet). Issue Time and Date Validity
Chart valid for NZZC FIR only Heights in FL unless otherwise specified The use of CB implies severe turbulence and icing Please refer to GSM for any SIGMET information	Disclaimers and reference statements for proper use of the chart. This chart must always be used in conjunction with the GSM which will have all relevant information on severe phenomena.
 <p>IN MTW DEVELOPING FM 11Z.</p>	The region shaded black depicts an area of forecast moderate turbulence from FL120-FL370 in mountain waves, developing from 1100 Zulu time.
 <p>S OF NZMO AT 03Z, EXTD N TO NZHK BY 15Z. INTSF S OF NZNV 11Z.</p>	The region shaded red over the southern South Island depicts an area of forecast moderate turbulence from Surface to FL120. This turbulence is initially expected to be south of Manapouri aerodrome at 0300 Zulu time. The turbulence is then forecast to extend north to Hokitika aerodrome by 1500 Zulu time. The turbulence is expected to intensify south of Invercargill aerodrome at around 1100 Zulu time.
 <p>EXTD E, CLR BY 11Z.</p>	The region shaded red over central New Zealand depicts an area of moderate turbulence from FL300-FL400, extending east. The turbulence is expected to clear by 1100 Zulu time.

1.3 Legend

A legend with the weather symbols is included on each GNZSIGWX in the top left corner to assist in the interpretation of the graphic.



1.4 List of Commonly Used Abbreviations

ABT	About
ABV	Above
BECMG	Becoming
BLW	Below
CB	Cumulonimbus
CLR	Clear
E	East
EMBD	Embedded in a layer
EXTD	Extending
FM	From
FRQ	Frequent
IMPR	Improving
INTSF	Intensifying
ISOL	Isolated
MTW	Mountain Wave
N	North
NE	North-East
NSW	Nil Significant Weather
NW	North-West
OCNL	Occasional/occasionally
S	South
SE	South-East
SFC	Surface
SW	South-West
VCY	Vicinity
W	West
WKN	Weakening



MetService

MetService
30 Salamanca Road
PO Box 722 Wellington 6140
New Zealand