



# 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 expected to impact the NZZC FIR over a 6-hour period. The validity of each chart is in a text box in the bottom right of each chart. The chart is issued 4 times a day at the following times:

New Issue Times	New Chart Validity Periods			
	2100 - 0300 UTC	0300 - 0900 UTC	0900 - 1500 UTC	1500 - 2100 UTC
2000 UTC	reissue	new issue		expiring
0200 UTC	expiring	reissue	new issue	
0800 UTC		expiring	reissue	new issue
1400 UTC	new issue		expiring	reissue

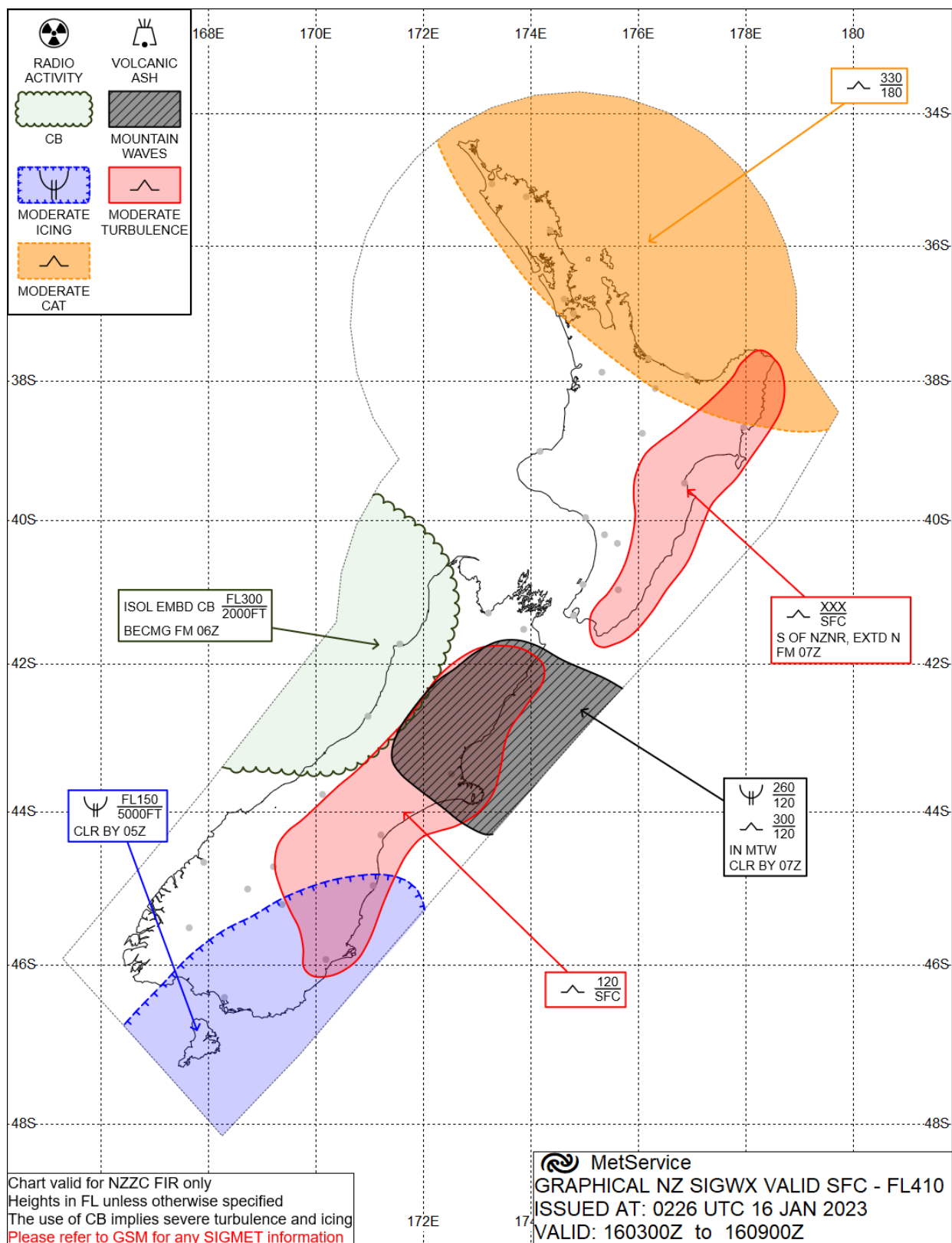
- 2.2 Three versions of the GNZSigWx are available to users: SFC to FL100, SFC to FL250 and SFC to FL410. If there are no significant hazards within the airspace the chart is valid for, the chart will read “Nil SigWx below FLXXX” where XXX is the top of the chart in question.

- 2.3 The chart may be amended 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 amended chart will have the same validity as the original chart but have “AMD” in the bottom right text box. Any amended charts will include a comment specifying what has been changed.
- 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 6-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 Turbulence is broken into two categories: Clear Air Turbulence (CAT) and Turbulence (referring to Low Level Turbulence (LLT)). CAT is often a higher-level phenomenon associated with wind changes and shear, nearly always above FL160, and often above FL240. LLT is associated with low level winds interacting with the orography and is therefore nearly always confined below FL120. These phenomena can both occur in similar areas at the same time, therefore we differentiate between these on the 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.

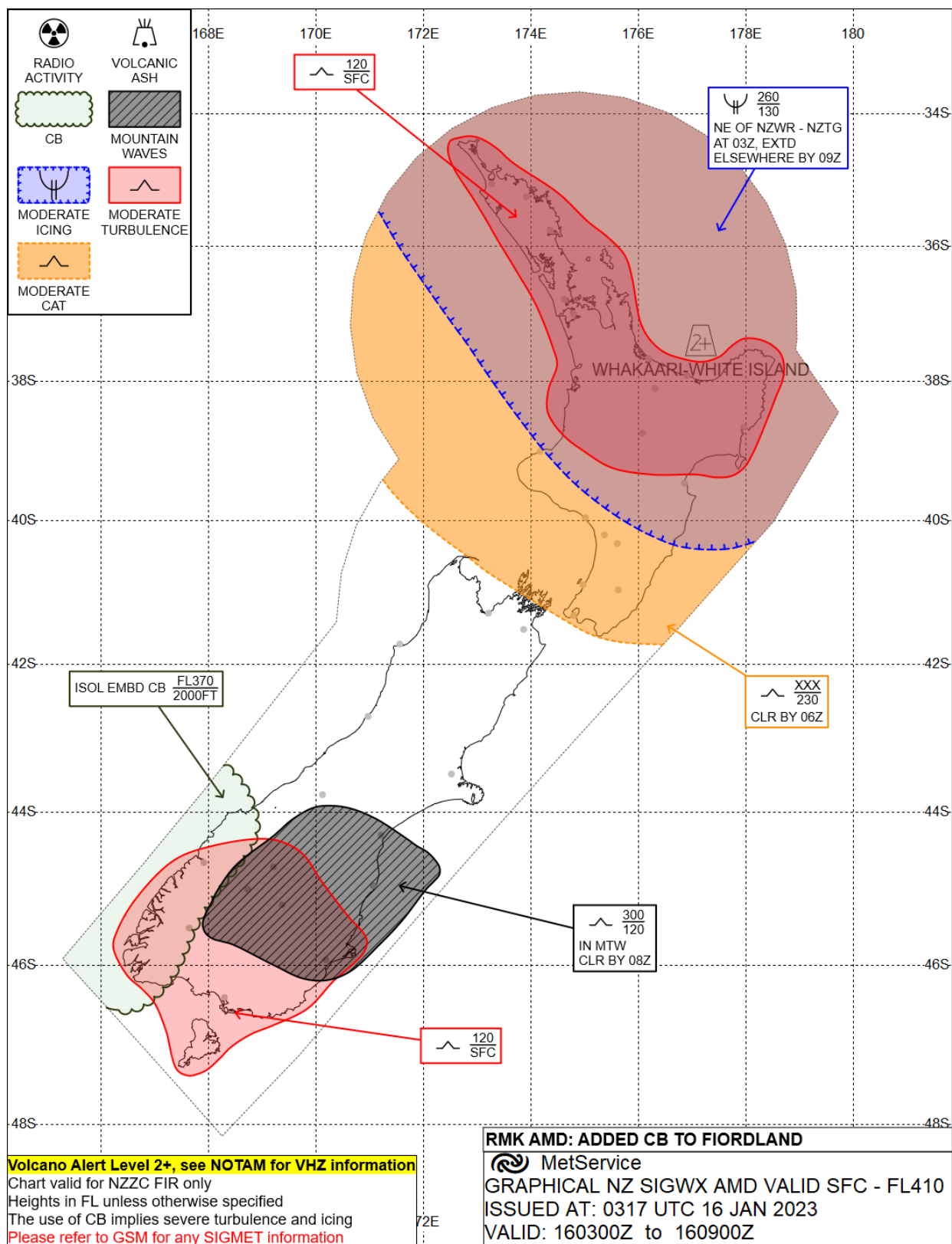
## Appendix 1 – Guidance and Interpretation Notes

### 1. GNZSIGWX Example and decode

#### 1.1 Standard issue example

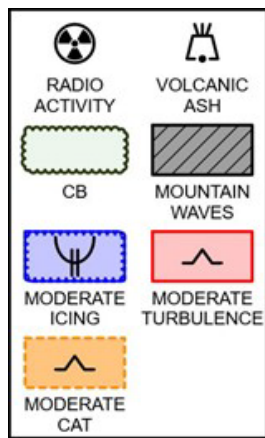


## 1.2 Amendment example



### 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



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