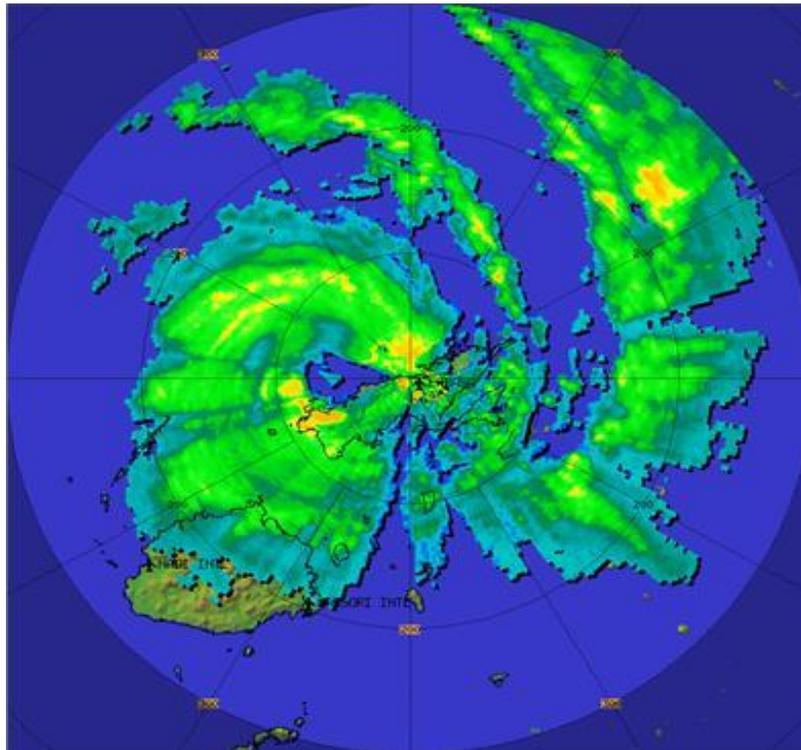


**2022/23 REGIONAL SPECIALIZED METEOROLOGICAL  
CENTRE –NADI TROPICAL CYCLONE SEASONAL  
OUTLOOK**

***FIVE TO SEVEN TROPICAL CYCLONES***



## Detailed Outlook

The 2022/23 Tropical Cyclone outlook is based upon the status of the El Niño Southern Oscillation (ENSO) over the May to September 2022 period. Neutral conditions were present for most of the period, with a La Niña event declared in September, with most of the global climate models favor the continuation of the event until the end of 2022. These further influenced the selection of analogue seasons.

Based on the above methodology, seven (7) analogue seasons were identified with similar climate conditions and back to back La Niña events, during this tropical cyclone season. The analogue seasons includes 1971-72, 1974-75, 1984-85, 2000-01, 2008-09, 2011-12 and 2017-18 seasons (Table 1 and Annex). Note that the selection of analogue seasons is limited due to availability of high-quality satellite data from the 1969-70 season. Enhanced high quality tropical cyclone best track data from the Southern Hemisphere Tropical Cyclone Portal were used for tropical cyclone analysis.

Once analysis of tropical cyclone counts in the analogue seasons are completed, it is concluded that **five to seven (5 – 7)** tropical cyclones are likely to occur in the Nadi- Regional Specialized Meteorological Centre (RSMC) Tropical Cyclone Centre (TCC) Area of Responsibility (AoR) (Figure 5). On average, around seven tropical cyclones affect Nadi- RSMC region a season. For this season, it is predicted to have an **average or below averages** tropical cyclone activity.

For severe tropical cyclone, on average around three severe tropical cyclone affect Nadi RSMC, each season. This season is likely to have an **average or below average** number of severe tropical cyclones, with **one to four (1 – 4)** severe tropical cyclones likely.

**Table 1: Tropical cyclone numbers in the Nadi-RSMC AoR in the seven analogue seasons**

Seasons	Total Number of Tropical Cyclones (Category 1 to 5)	Number of Severe Tropical Cyclones (Category 3 to 5)
1971-72	9	6
1974-75	5	3
1984-85	9	5
2000-01	5	1
2008-09	6	0
2011-12	3	1
2017-18	6	3
<b>Average (rounded-off)</b>	<b>6</b>	<b>3</b>

Average tropical cyclone activity is likely to the west of International Dateline in the RSMC Nadi-TCC AoR this season with around three to six (3 – 6) tropical cyclones likely to occur in this region. One to three are likely to be severe tropical cyclones, which is close to the normal number of severe tropical cyclones for this region.

On average around three tropical cyclones, occur east of International Dateline in the RSMC-Nadi TCC AoR every season. However, it is expected that this area will have *reduced tropical cyclone activity this season with two to four (2 - 4) tropical cyclones likely*. The risk of severe tropical cyclone is reduced to the east of Dateline too. One to two are likely to be severe tropical cyclones, which is close to the normal number of severe tropical cyclones for this region.

Usually around one to three tropical cyclones affect Fiji per season. *Average tropical cyclone activity for Fiji is likely this season, with two to three tropical cyclones likely to pass through Fiji’s Exclusive Economic Zone*. One to two severe tropical cyclone is likely to affect Fiji.

**Table 2: Tropical Cyclone numbers passing through Fiji’s EEZ in the seven analogue seasons**

<b>Seasons</b>	<b>Total Number of Tropical Cyclones (Category 1 to 5)</b>	<b>Number of Severe Tropical Cyclones (Category 3 to 5)</b>
1971-72	3	0
1974-75	3	2
1984-85	4	3
2000-01	1	1
2008-09	1	0
2011-12	2	0
2017-18	3	2
<b>Average (rounded-off)</b>	<b>2</b>	<b>1</b>

The analysis of past TC tracks shows that a greater number of tropical cyclones which affected Fiji in seasons similar to present, passed through Fiji’s Western and Northern Divisions. Hence, there is an elevated risk of tropical cyclone activity in the Western and Northern Division. Similarly, TCs also affected other parts of Fiji in seasons similar to present in the past. Therefore, all parts of Fiji should be equally prepared in the coming tropical cyclone season.

Upon verification on the 2021/22 TC season, the outlook was for four to six (4-6) cyclones, with one to three (1-3) cyclones likely to affect Fiji. This was verified as a hit, which is illustrated on the below attached map below.

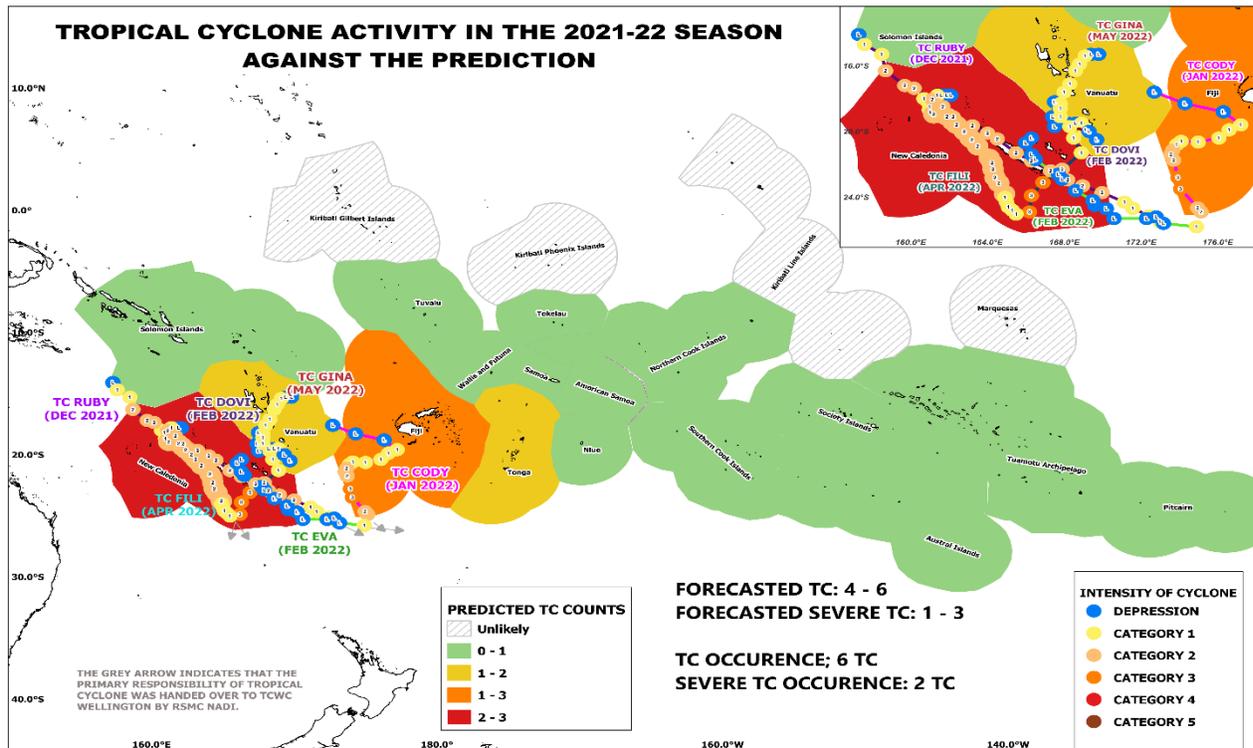


Figure 1: Map on the verification of previous TC Season.

The TC season of the RSMC Nadi-TCC AoR extends from November to April, with the peak TC activity normally experienced from January to February. However, TCs have occasionally occurred in this region during October and May, and rarely in September and June. It should be noted that the information provided are only to be used as guidance and the given range of TC numbers is indicative only. It is expected that the total number of TCs could be in the vicinity of the listed values, and not necessarily within the given range. The values are the most likely number of TCs based on statistical and scientific evidence, including the influences by regional and global weather and climate variability drivers and indices.

All communities should remain alert and prepared throughout the 2022-23 TC season. The public should take heed of TC alerts, warnings and advisories whenever it is issued to reduce the loss of life and damage to property. It should be also noted that this outlook is for the RSMC Nadi-TCC AoR and it does not cover whole of the southwest Pacific. Nonetheless, most of the TCs in the southwest Pacific tend to occur in the RSMC Nadi-TCC AoR.

During La Niña events, Fiji usually experiences elevated rainfall activity. The climate models are also favoring for above normal rainfall over majority of the Fiji during the coming wet season.

Figure 1: Analogue season track map, 1971/ 72

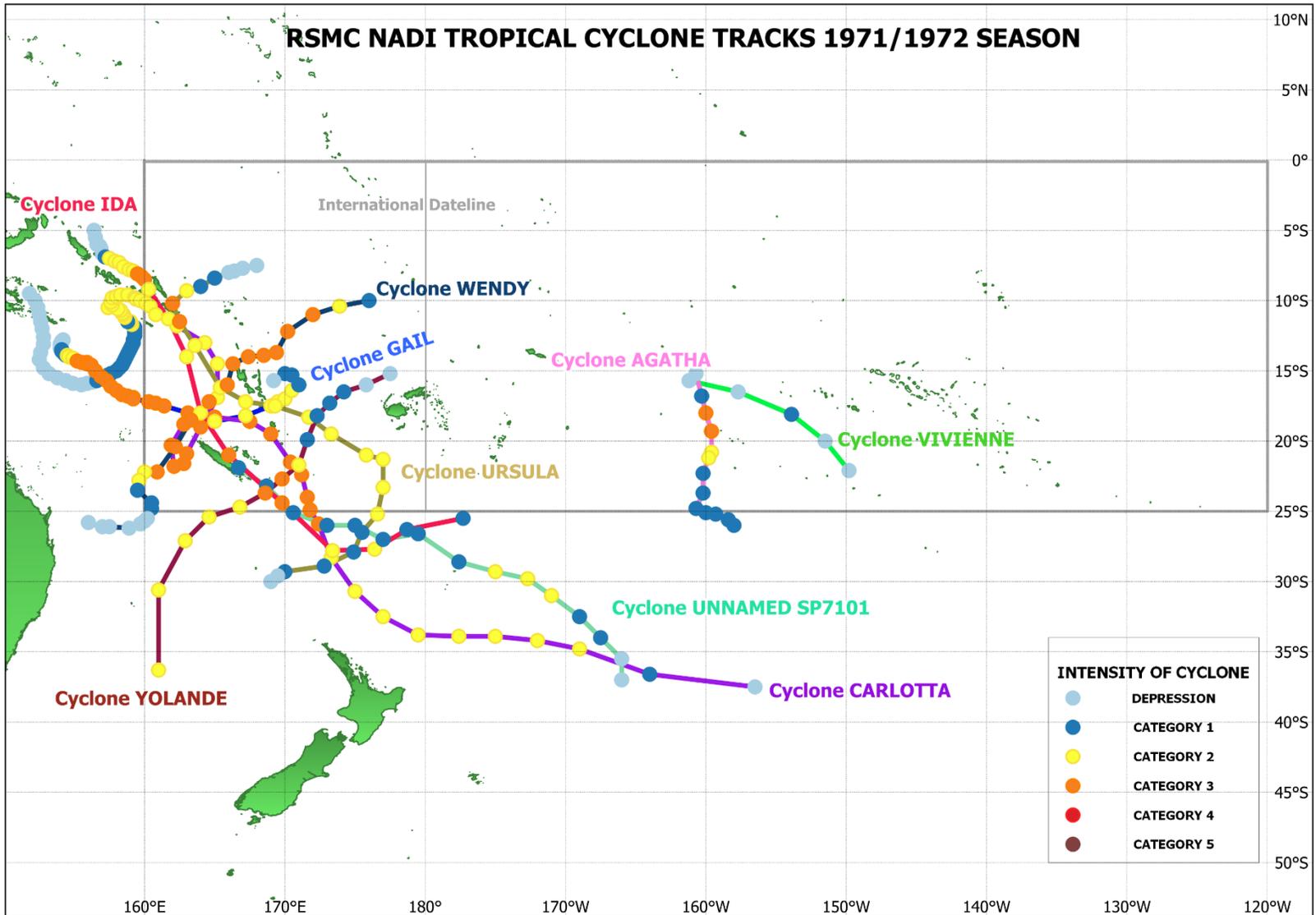


Figure 2: 1974/ 75 TC Season

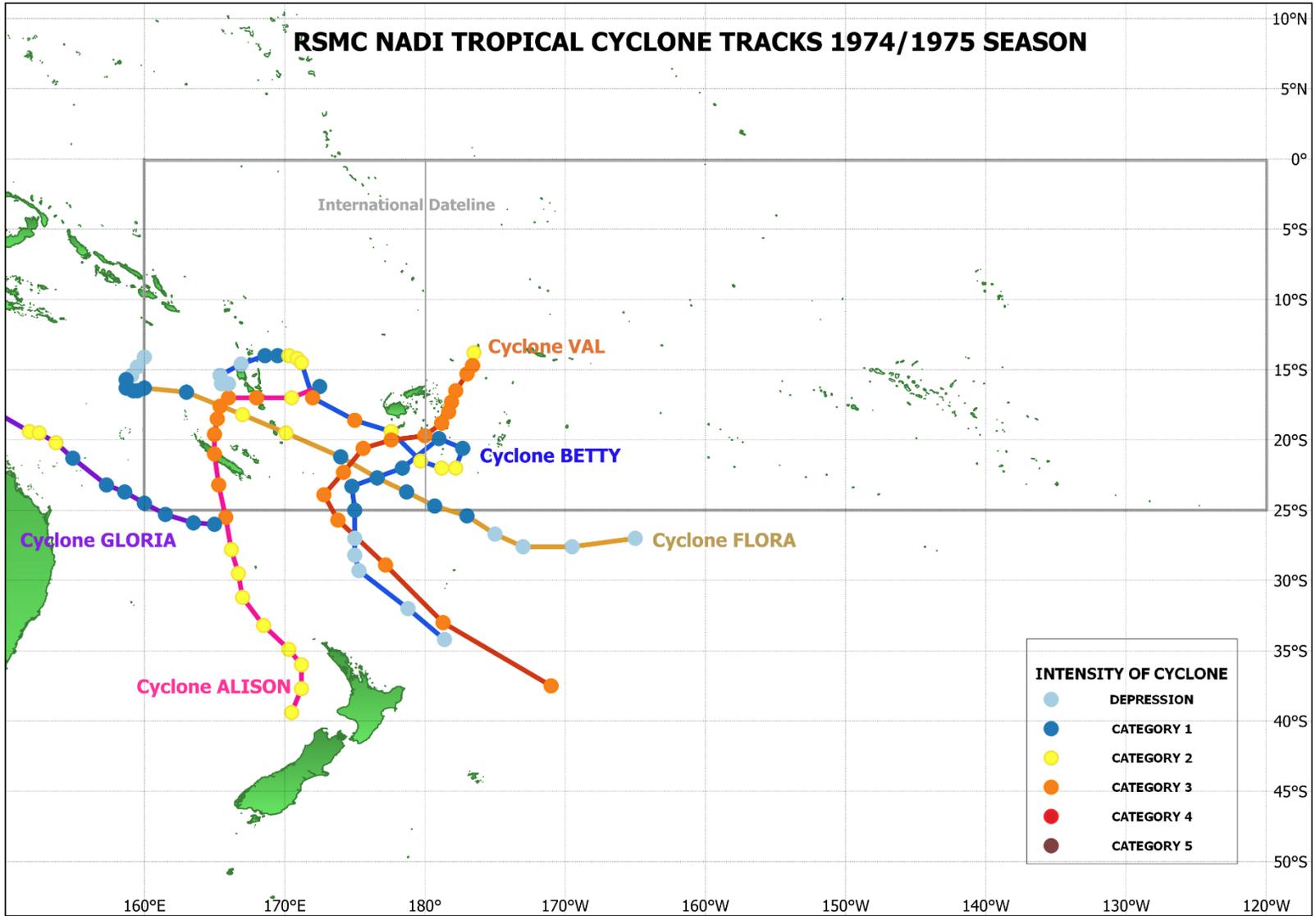


Figure 3: 1984/85 season track map

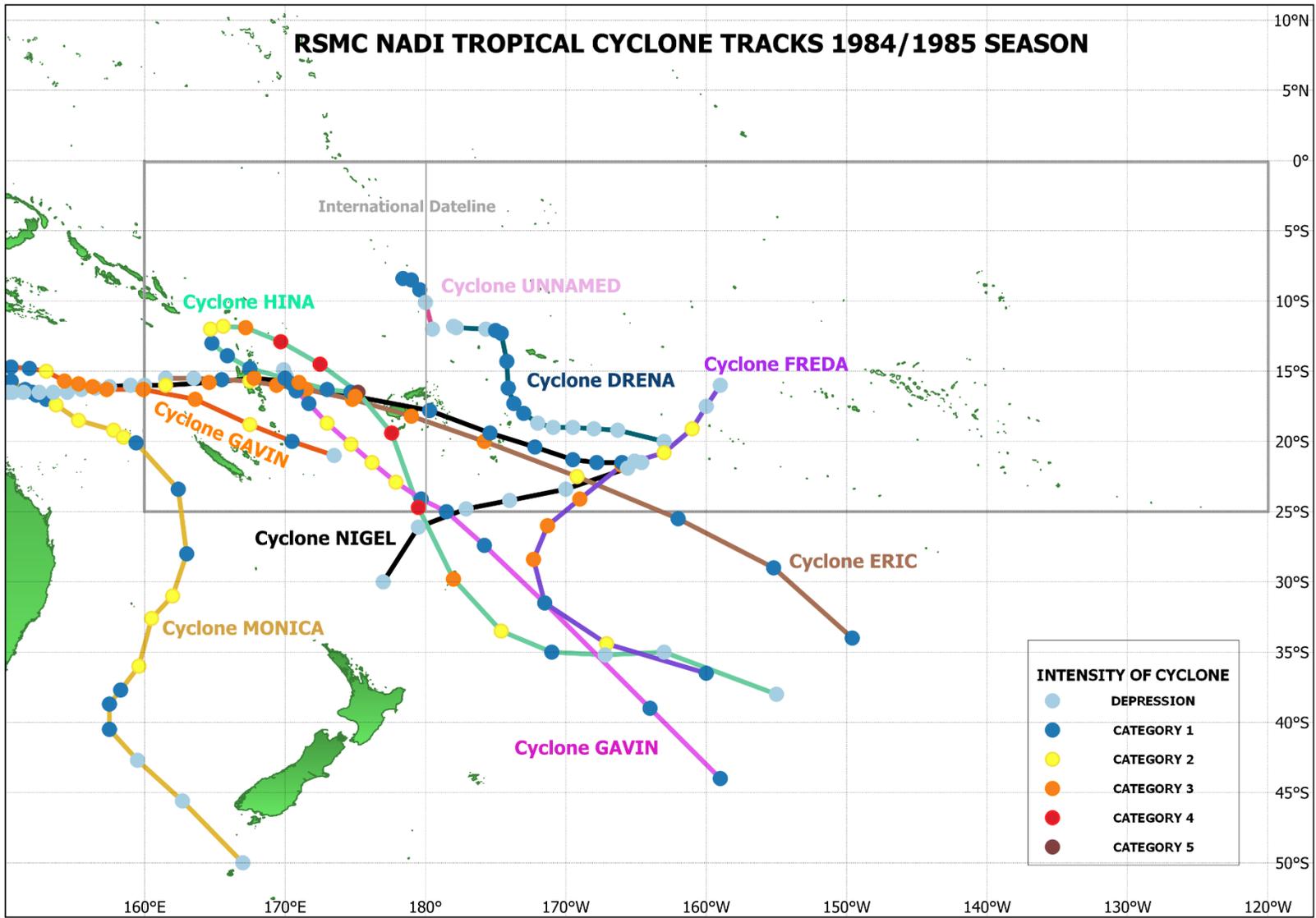


Figure 4: 2000/ 01 season track map

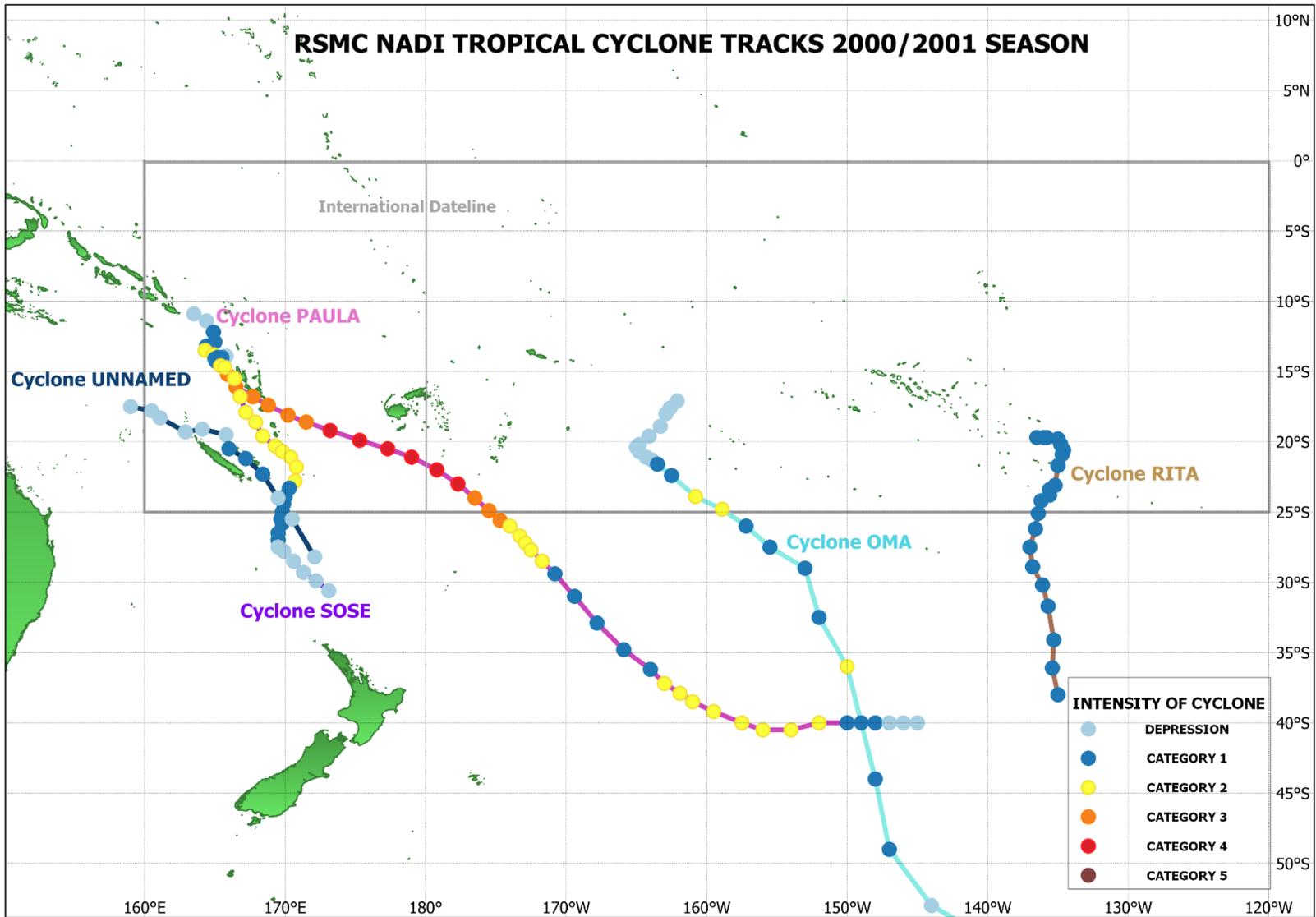


Figure 5: 2008/09 season track map

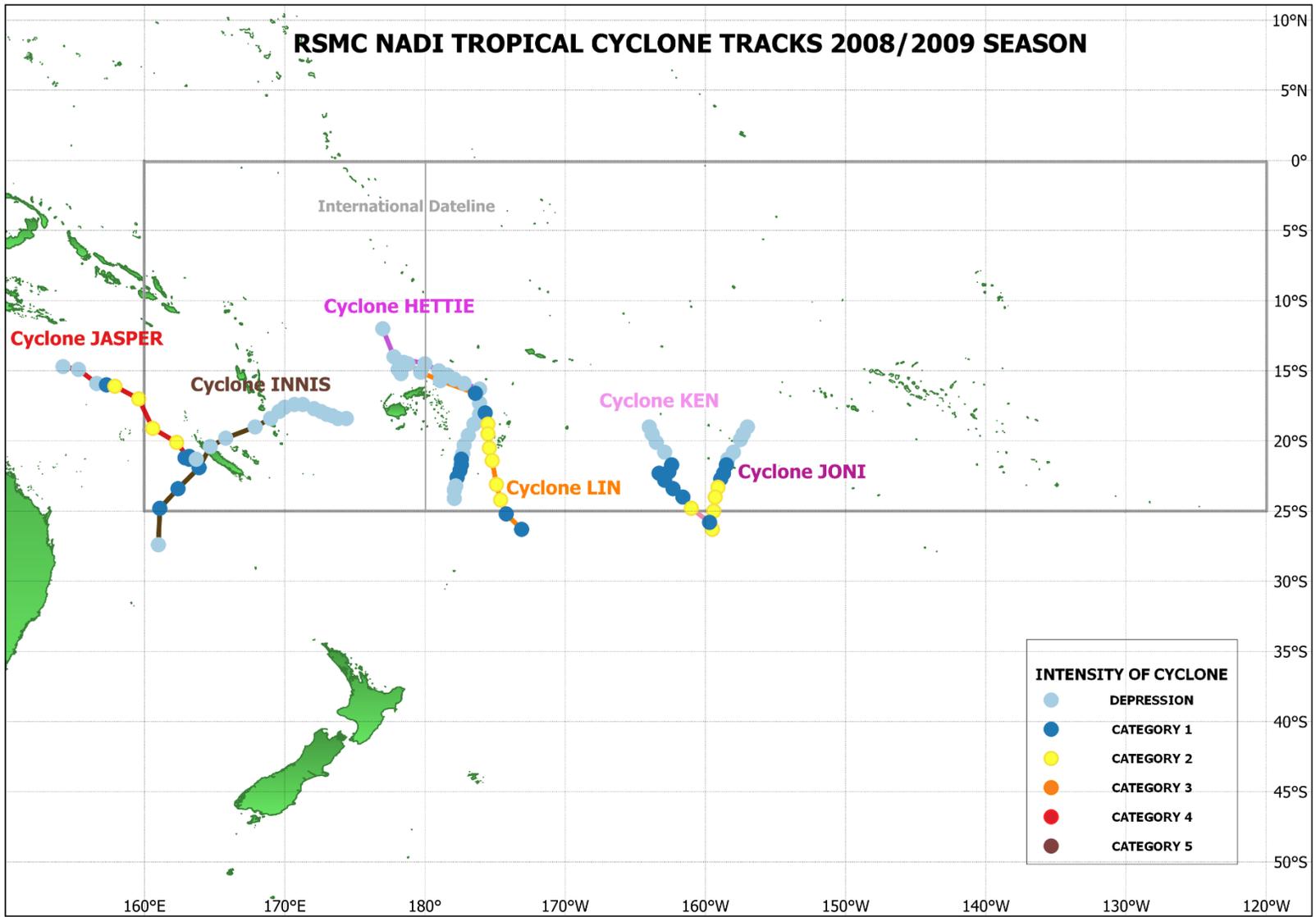


Figure 6: 2011/12 season track map

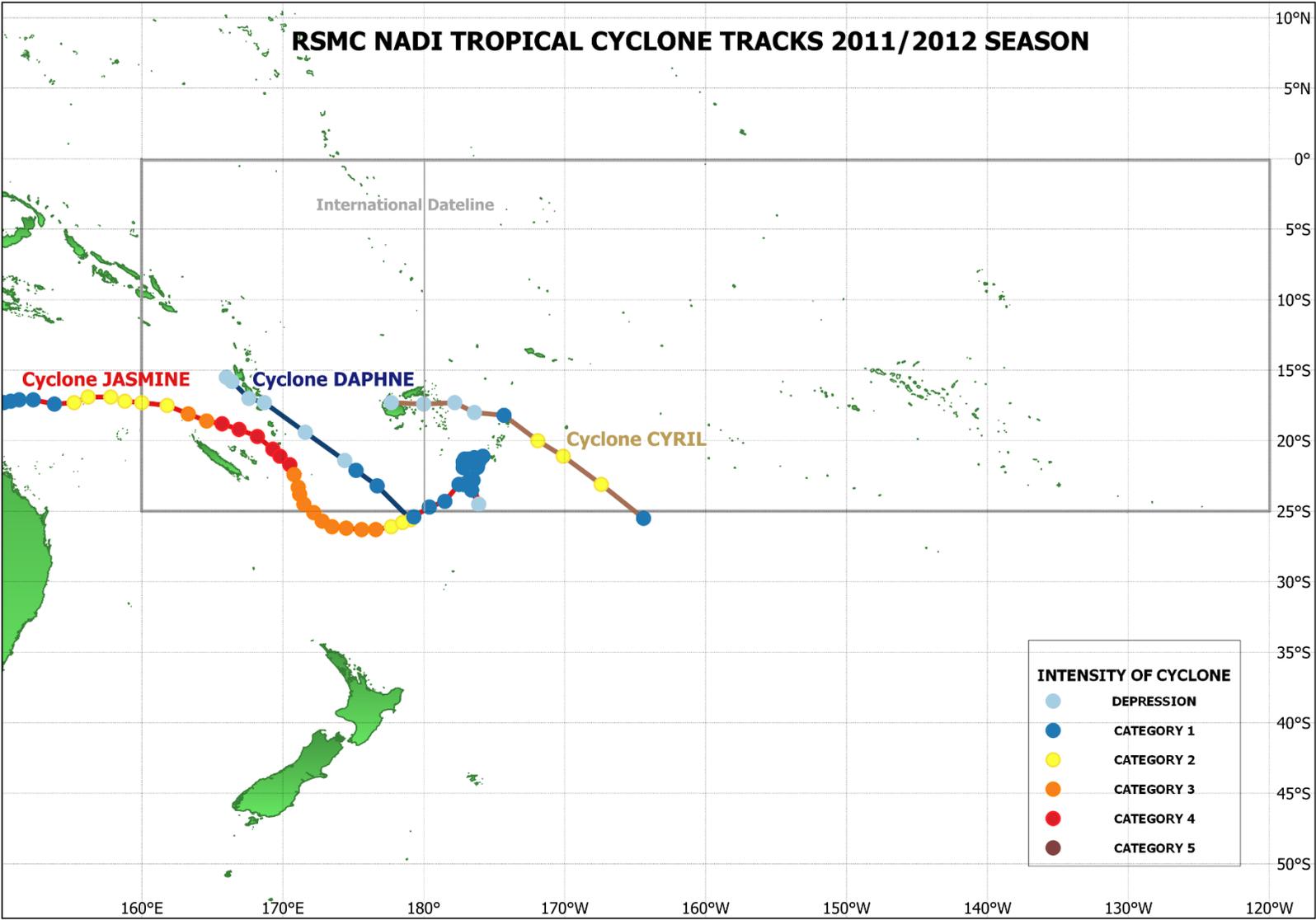
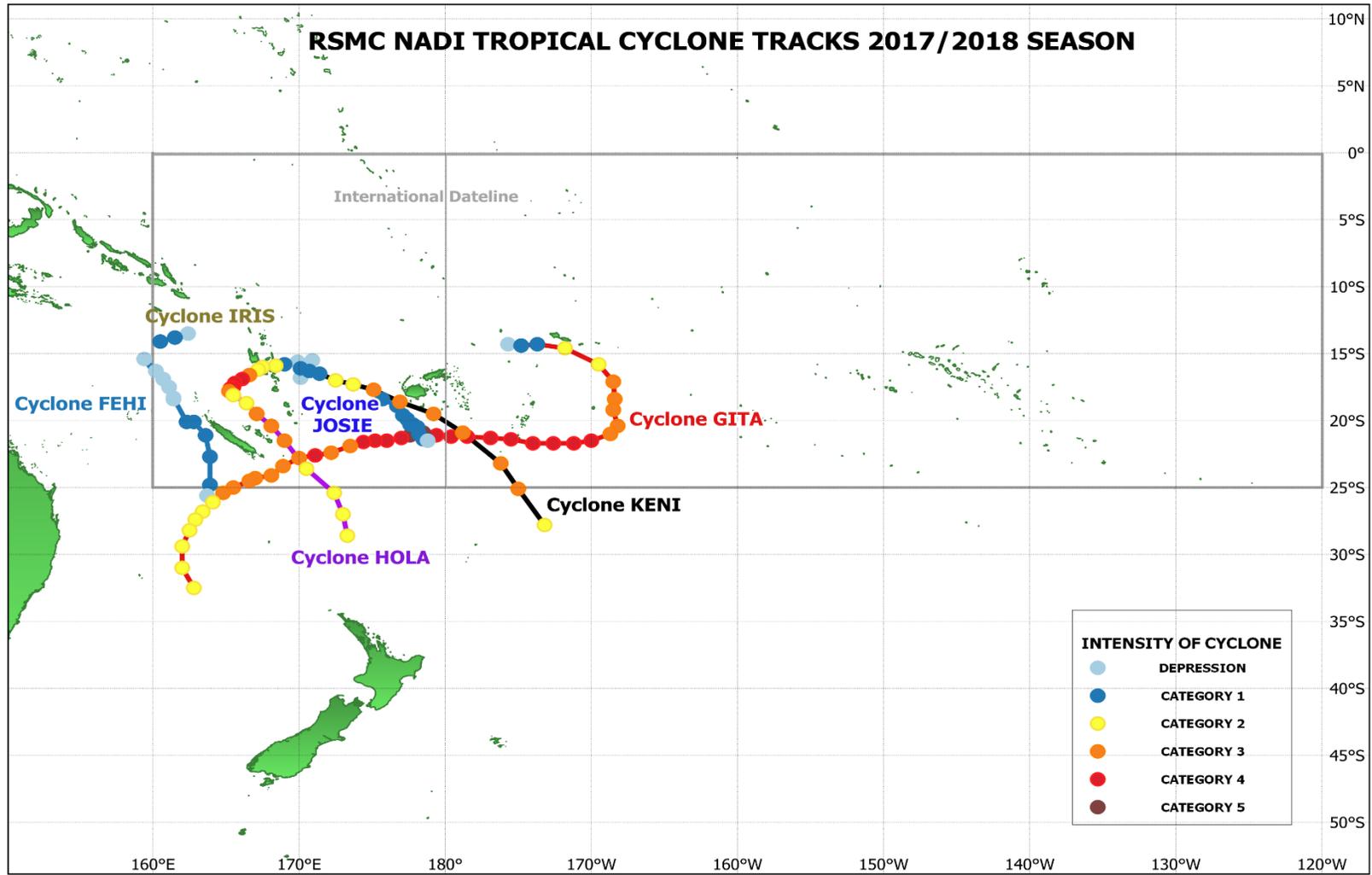


Figure 7: 2017/18 season track map



End...