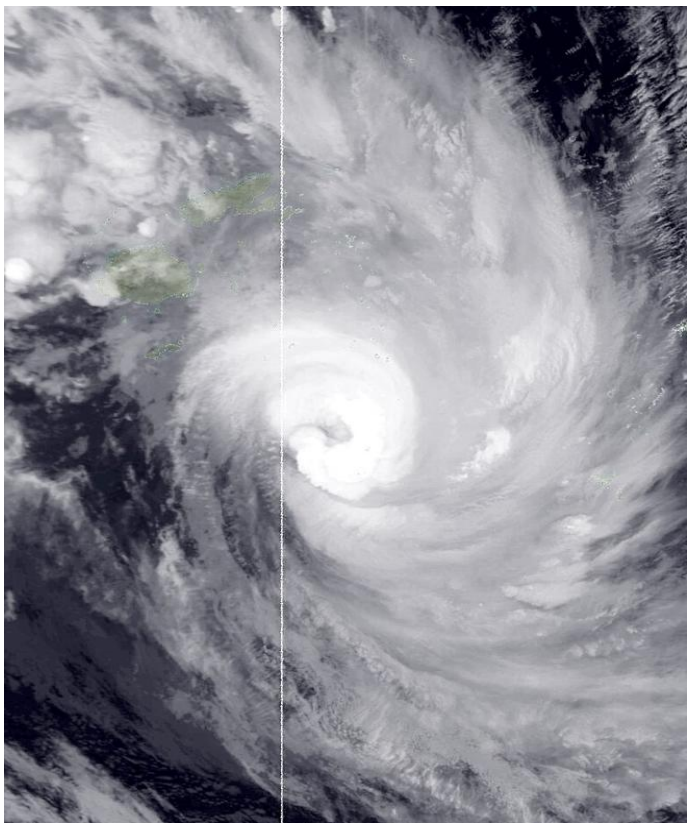
# REGIONAL SPECIALISED METEOROLOGICAL CENTRE
# NADI - TROPICAL CYCLONE CENTRE

# TROPICAL CYCLONE SEASONAL OUTLOOK: 2025-26

## TC OUTLOOK FOR PACIFIC ISLAND COUNTRIES



Severe Tropical Cyclone Rae: February 2025
Source: *https://en.wikipedia.org/wiki/Cyclone_Rae*

**Note: The outlooks are provided as guidance only.**

## Key Messages

1. ***Four to five Tropical Cyclones*** (TCs) are likely in the Regional Specialized Meteorological Centre Nadi-Tropical Cyclone Centre (RSMC Nadi-TCC) Area of Responsibility (AoR) between November 2024 to April 2025.
2. On average, around seven TCs affect the RSMC Nadi-TCC AoR a season. Thus, this season is predicted to have ***below average TC activity.***
3. Around four TCs per season on average affect west of the Dateline in the RSMC-Nadi TCC AoR and around four to the east. This season, ***two to three TCs are likely to affect west of the Dateline***, which means ***near average or below average TC risk***. To the ***east, two to three TCs*** are likely, which is a ***near average risk***.
4. Three severe TCs, that is, Category 3 or higher intensity, on average affect the RSMC Nadi-TCC AoR a season. This season is likely to have ***one to three severe TCs***, which is a ***near average or below average risk.***
5. ***One to two severe (1-2) TCs are likely to the west of Dateline*** (long-term average is 2), which is ***near average risk***. On the other hand, ***zero to one (0-1) severe TCs are likely to the east of Dateline*** (long-term average is 2), which is a ***below average risk***.
6. ***One to two tropical cyclones*** *(TCs) are likely to pass through* ***Fiji's Exclusive Economic Zone*** *during the 2025-26 TC season.*
7. *Of these,* ***one TC is likely to reach severe Category*** *(Category 3-5), with equal risk of TCs affecting any part of the Fiji Group.*

## Details

Tropical cyclone activities in the Pacific Island region are closely associated with the El Niño Southern Oscillation (ENSO), which is a fluctuation of oceanic and atmospheric conditions between the eastern and western tropical Pacific. The ENSO has two extreme phases, that is, El Niño and La Niña.

To generate outlook for the upcoming 2025/26 TC Season, previous seasons with comparable ENSO conditions were selected as analogue years. Initially, the analogue seasons were identified based on the status of the tropical Pacific during the months leading up to the TC season, specifically between May to September. The selected few were further refined using the ENSO outlooks from the global climate models. According to global climate model predictions, the TC season is likely to be influenced by a neutral ENSO state or a weak La Niña event.

Using the methodology outlined, eight analogue seasons were selected that show similar climate conditions to those currently observed and anticipated during this tropical cyclone season. The identified analogue seasons are 1980/81, 1983/84, 2000/01, 2001/02, 2003/04, 2005/06, 2012/13, and 2016/17 (see Table 1). It is important to note that the selection of these analogue seasons is confined to 1980-81 and later, due to the limited availability of high-quality and verified satellite data

Upon analysis of tropical cyclone counts in the analogue seasons, it is concluded that ***four to five tropical cyclones*** are likely to occur in the RSMC Nadi – TCC AoR during the 2025-26 tropical

cyclone season (Figure 1). On average, around seven tropical cyclones affect this region each season. Thus, the region has a ***reduced risk of tropical cyclone*** activities this season.

Out of the predicted total number of tropical cyclones, ***one*** *to* ***three*** are likely to become ***severe tropical cyclones***, that is, Category 3 to 5 intensity (Figure 2). On average, around three severe tropical cyclones affect the RMSC Nadi-TCC AoR a season. Thus, this season is likely to have ***below average number of severe tropical cyclones.***

***Table 1: Tropical cyclone numbers in the RSMC Nadi – TCC AoR in the eight analogue seasons***

| Seasons | Total Number of Tropical Cyclones (Category 1 to 5) | Number of Severe Tropical Cyclones (Category 3 to 5) |
|---|---|---|
| 1980-81 | 12 | 4 |
| 1983-84 | 6 | 1 |
| 2000-01 | 5 | 1 |
| 2001-02 | 5 | 2 |
| 2003-04 | 3 | 2 |
| 2005-06 | 5 | 3 |
| 2012-13 | 5 | 4 |
| 2016-17 | 2 | 1 |
| **Average (rounded-off)** | **5** | **2** |

***Near normal to below normal tropical cyclone activity is likely to the west of International Dateline*** in the RSMC Nadi-TCC AoR this season with around ***two to three tropical cyclones,*** in contrast to the long-term average of four (Figure 1). Out of these, ***one to two are likely to be severe tropical cyclones,*** which is ***near average to below average*** number of severe tropical cyclones for this region (long-term average is two) (Figure 2).

On average, around four tropical cyclones occur east of International Dateline in the RSMC Nadi - TCC AoR every season. However, ***this area is likely to have reduced tropical cyclone activity*** with ***two to three tropical cyclones***. The ***risk of severe tropical cyclone to the east of the Dateline is also reduced. Zero to one tropical cyclone*** is likely to be severe in ***the eastern region***, in comparison to the long-term average of two.

Usually around two tropical cyclones affect Fiji per season. ***Near average to below average*** tropical cyclone activity for Fiji is likely this season, with ***one to two tropical cyclones*** likely to pass through Fiji's Exclusive Economic Zone (Figure 3). Out of these, ***zero to one*** is likely to be severe tropical cyclone (Figure 4).

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

| Seasons | Total Number of TropicalCyclones (Category 1 to 5) | Number of Severe TropicalCyclones (Category 3 to 5) |
|---|---|---|
| 1980-81 | 1 | 1 |
| 1983-84 | 4 | 0 |
| 2000-01 | 1 | 1 |
| 2001-02 | 0 | 0 |
| 2003-04 | 0 | 0 |
| 2005-06 | 1 | 0 |
| 2012-13 | 1 | 1 |
| 2016-17 | 1 | 0 |
| **Average (rounded-off)** | **1** | **0** |

The analysis of past tropical cyclone tracks in the analogue seasons indicate that there is equal risk of tropical cyclones affecting any part of the Fiji Group during the 2025-26 season (Figures 5a-5h)

The tropical cyclone season for the RSMC Nadi-TCC Area of Responsibility runs from November to April, with peak activity typically occurring between January and March. Nevertheless, there have been instances of tropical cyclones in this area during October and May, and infrequently in September and June. Therefore, the possibility of off-season tropical cyclones cannot be dismissed this season.

A direct strike or a major tropical cyclone isn't necessary to inflict significant damage or pose life-threatening conditions. Historically, tropical disturbances and depressions have wreaked havoc in the region. Consequently, Fiji, as well as the Pacific Island communities are urged to remain alert during the tropical cyclone season and pay attention to all weather alerts and warnings. For comprehensive national information, get in touch with the Fiji Meteorological Service, in Nadi or your national met service.

***Figure 1:*** *The likely number of TCs forecasted for the RSMC Nadi – TCC AoR during the 2025- 26 TC season.*

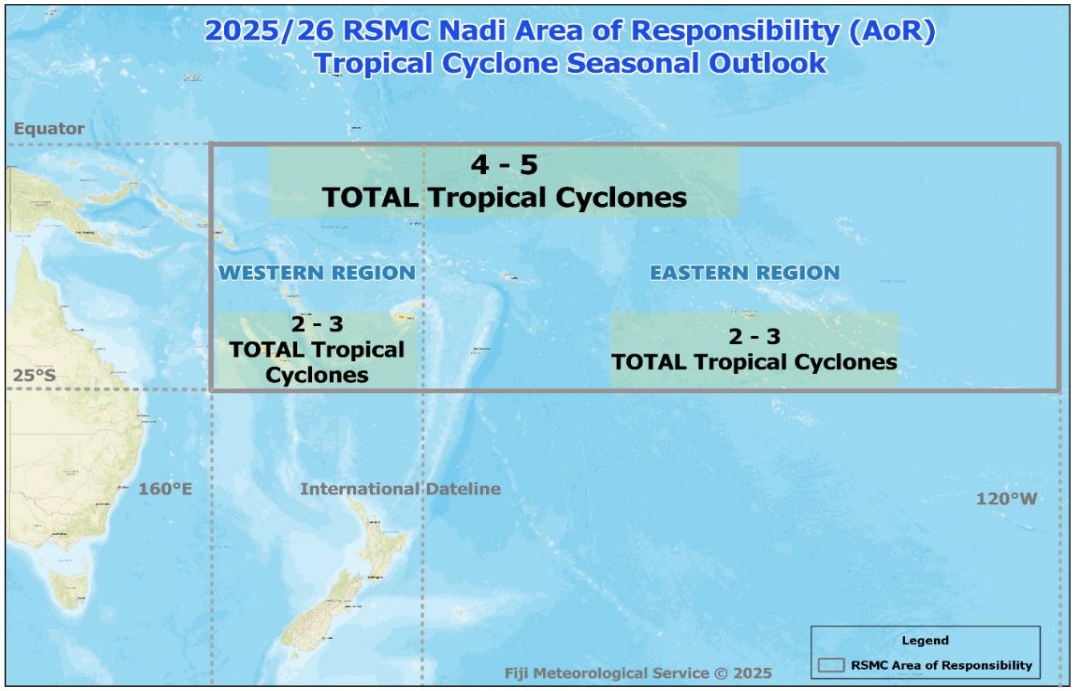



***Figure 2:*** *The likely number of severe TCs forecasted for the RSMC Nadi – TCC AoR during the 2025- 26 TC season.*

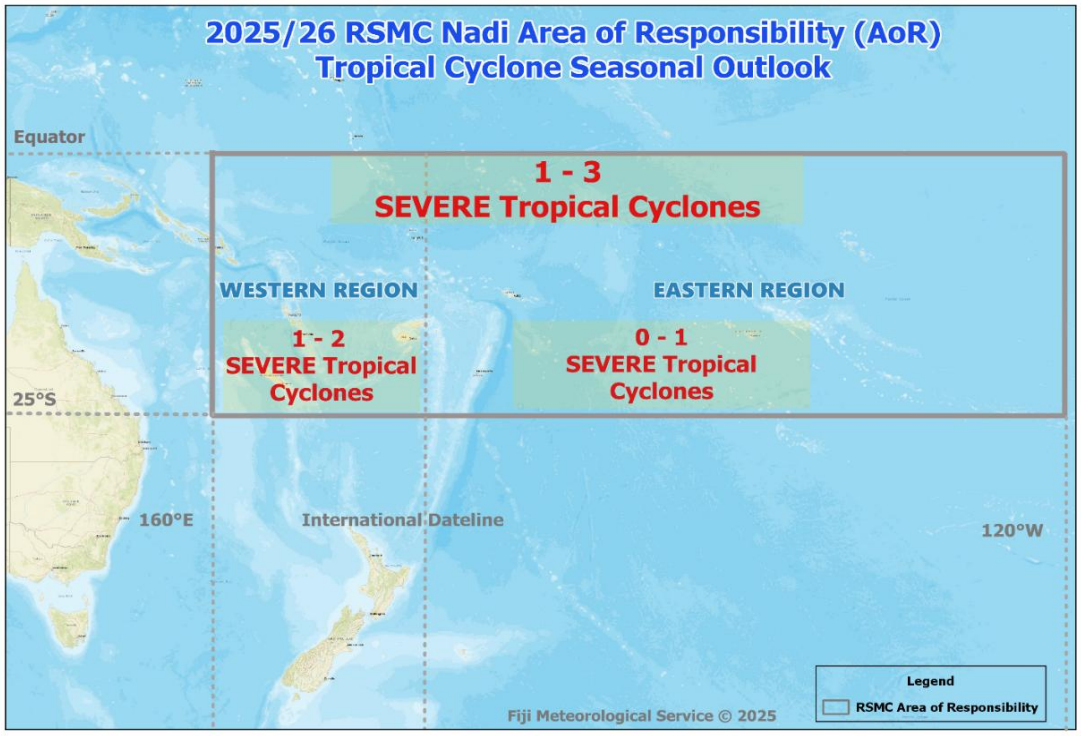


***Figure 3:*** *Total number of tropical cyclones forecasted for the Fiji region.*

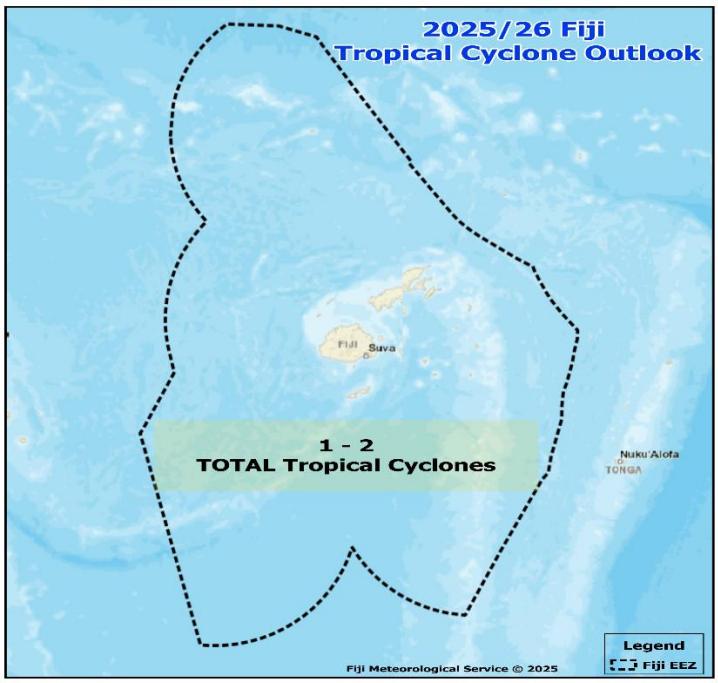



***Figure 4:*** *Number of severe tropical cyclones forecasted for the Fiji region*

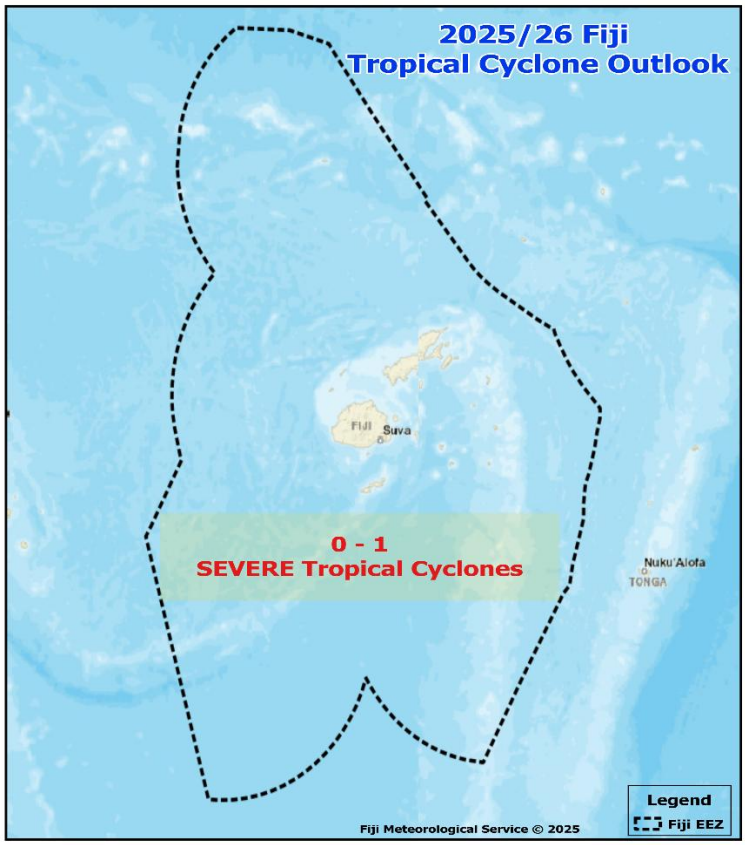


***Figure 5a:*** *Analogue season track map – 1980-81 season*

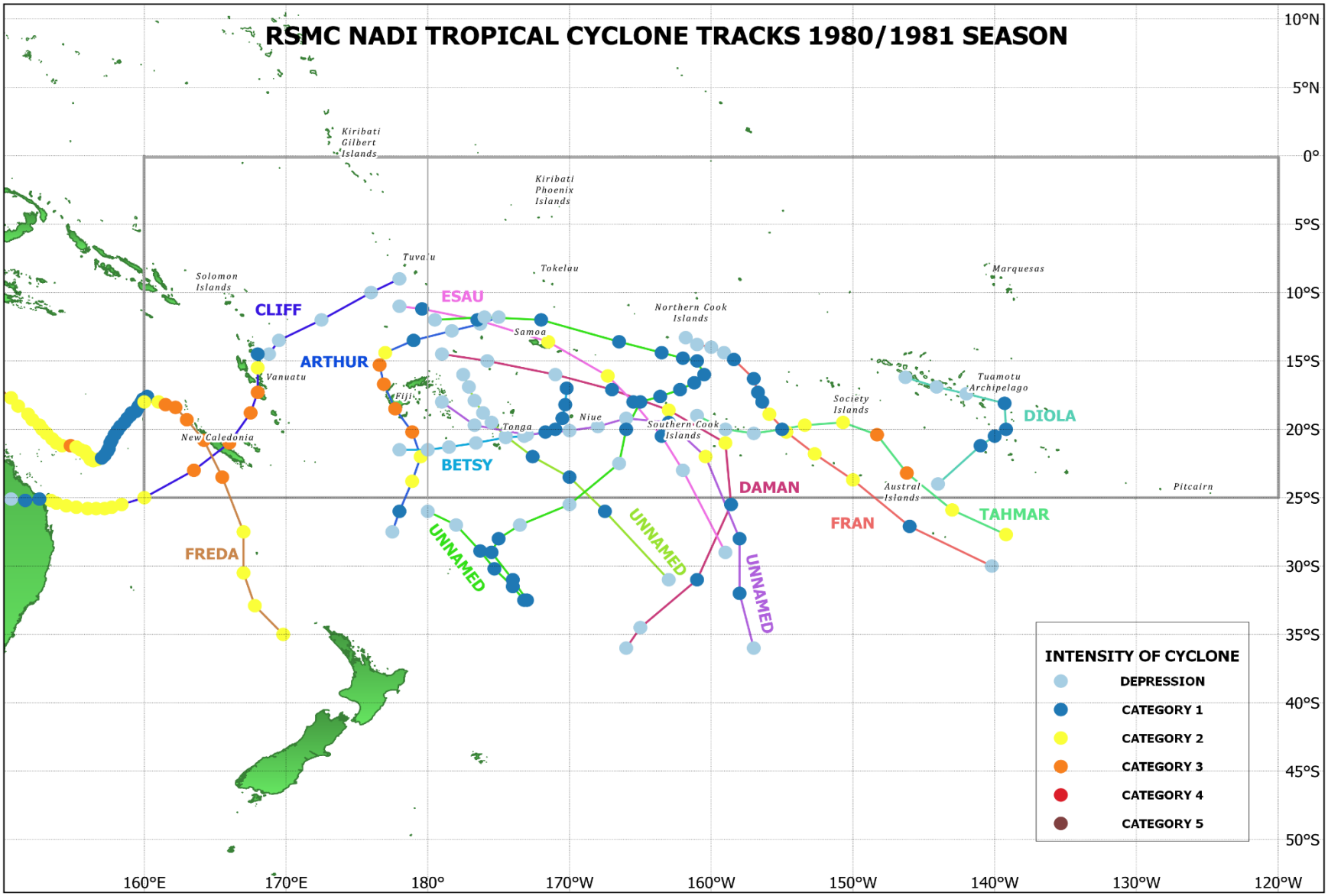


Figure ***5b:*** *Analogue season track map – 1983-84 season*

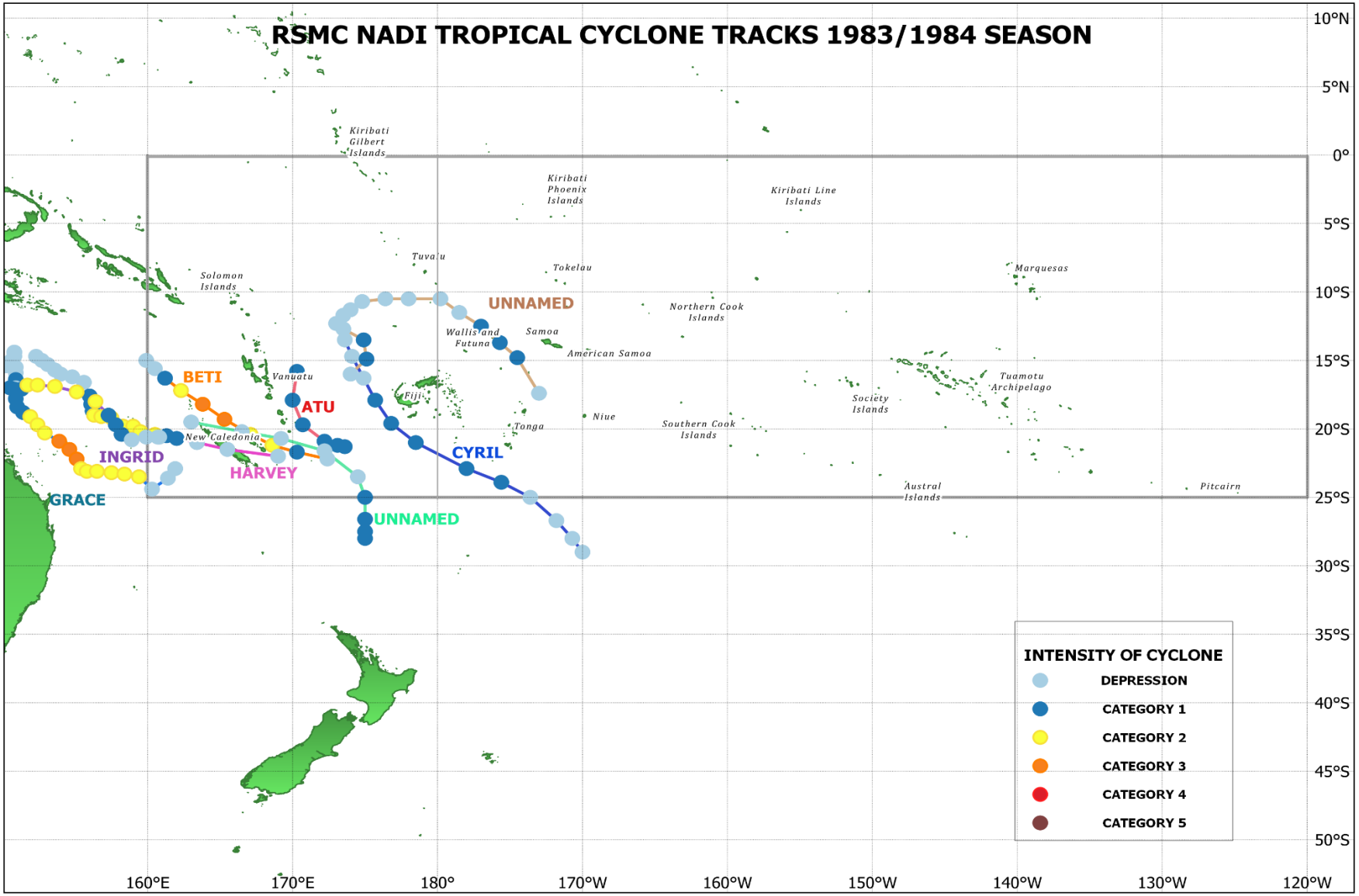


***Figure 5c:*** *Analogue season track map – 2000-01 season*

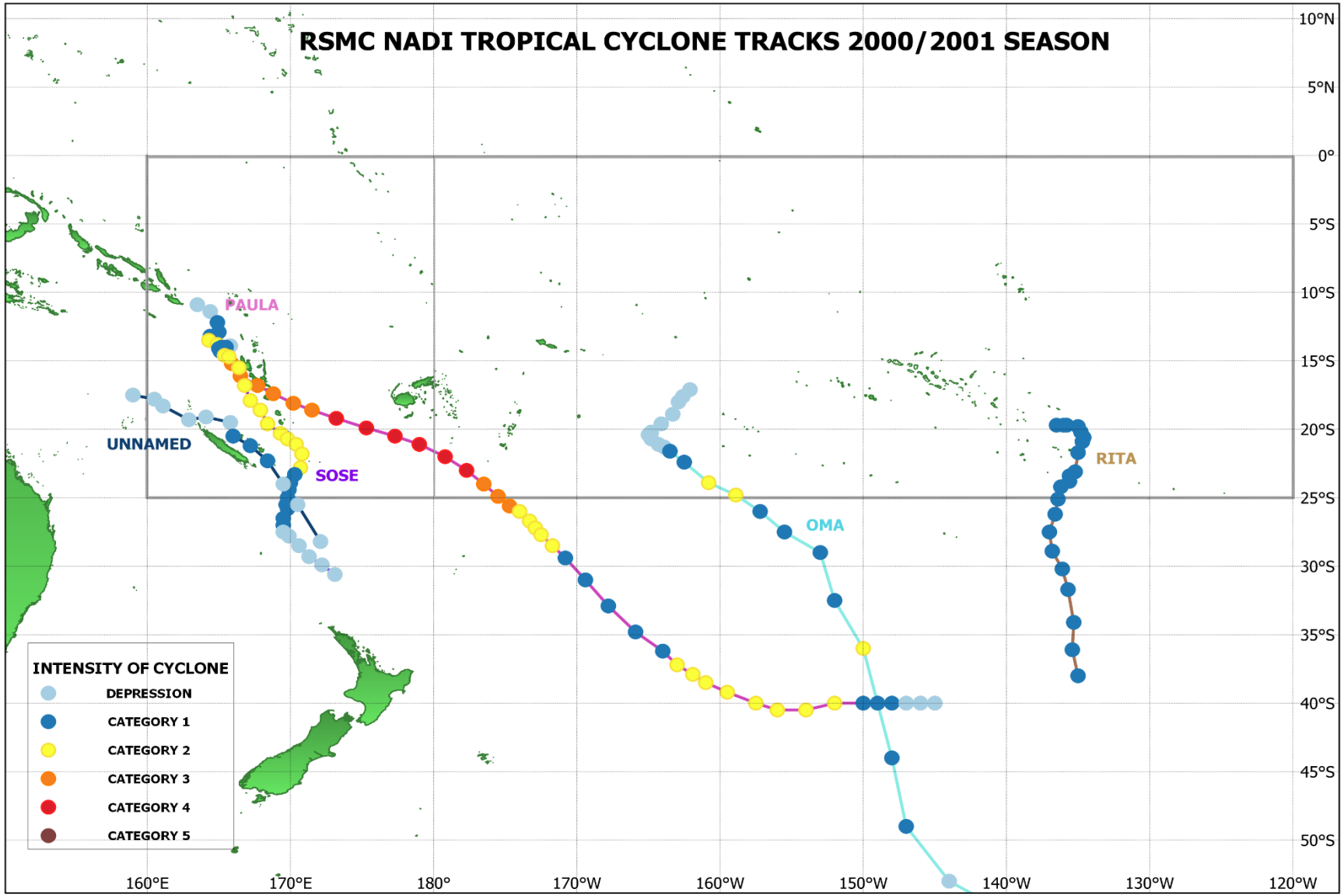


***Figure 5d:*** *Analogue season track map – 2001-02 season*

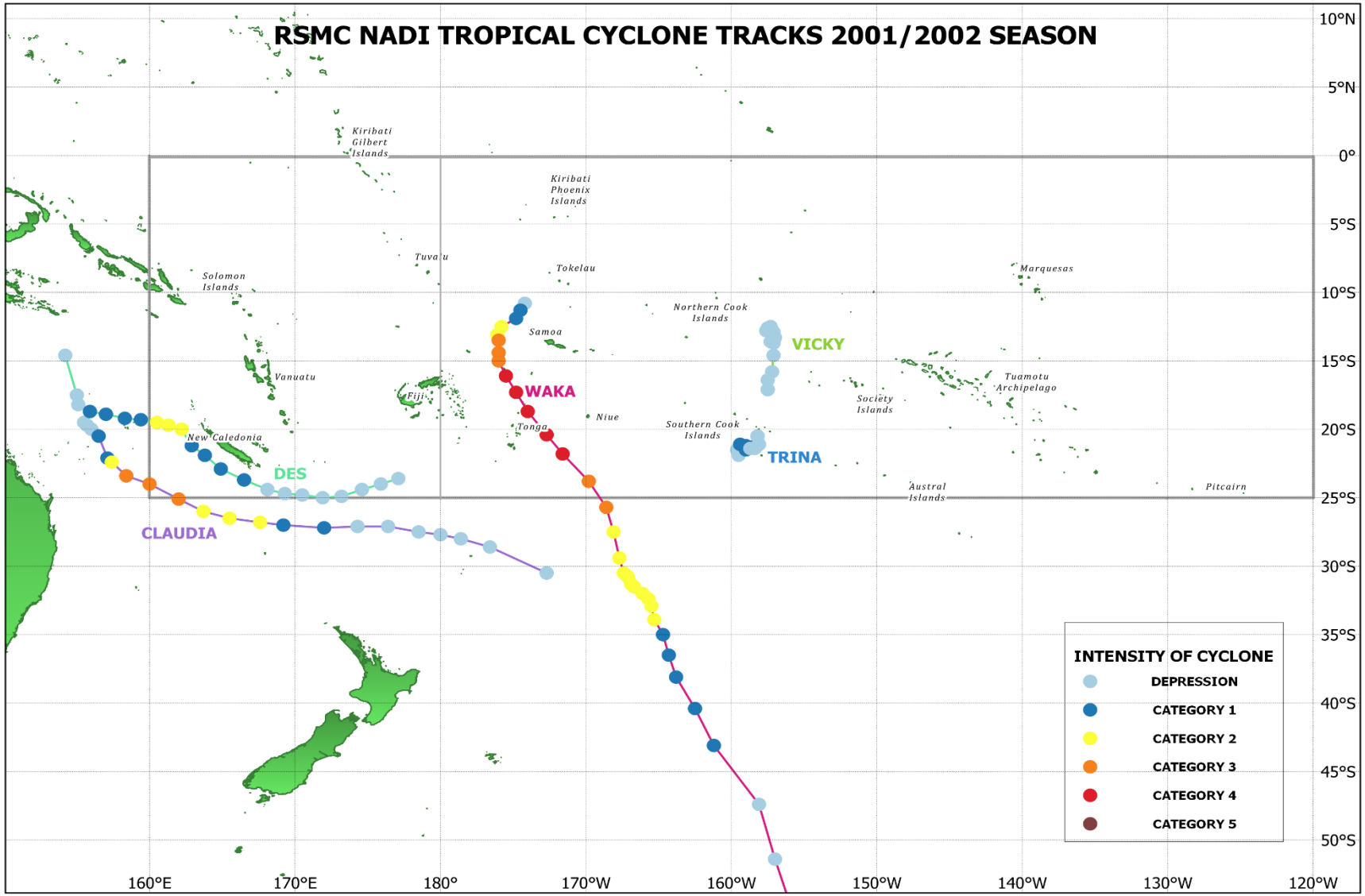


***Figure 5e:*** *Analogue season track map – 2003-04 season*

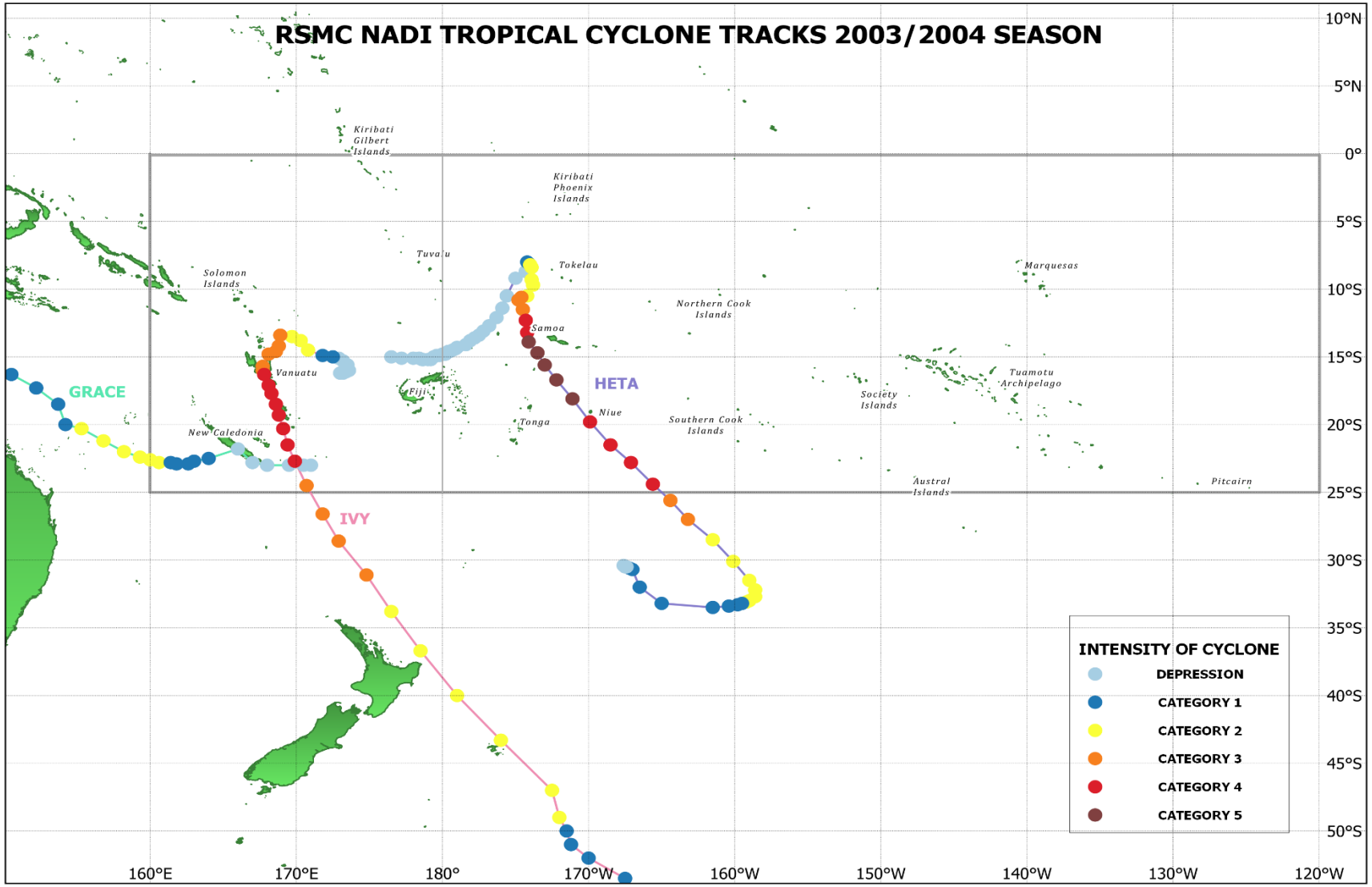


***Figure 5f:*** *Analogue season track map – 2005-06 season*

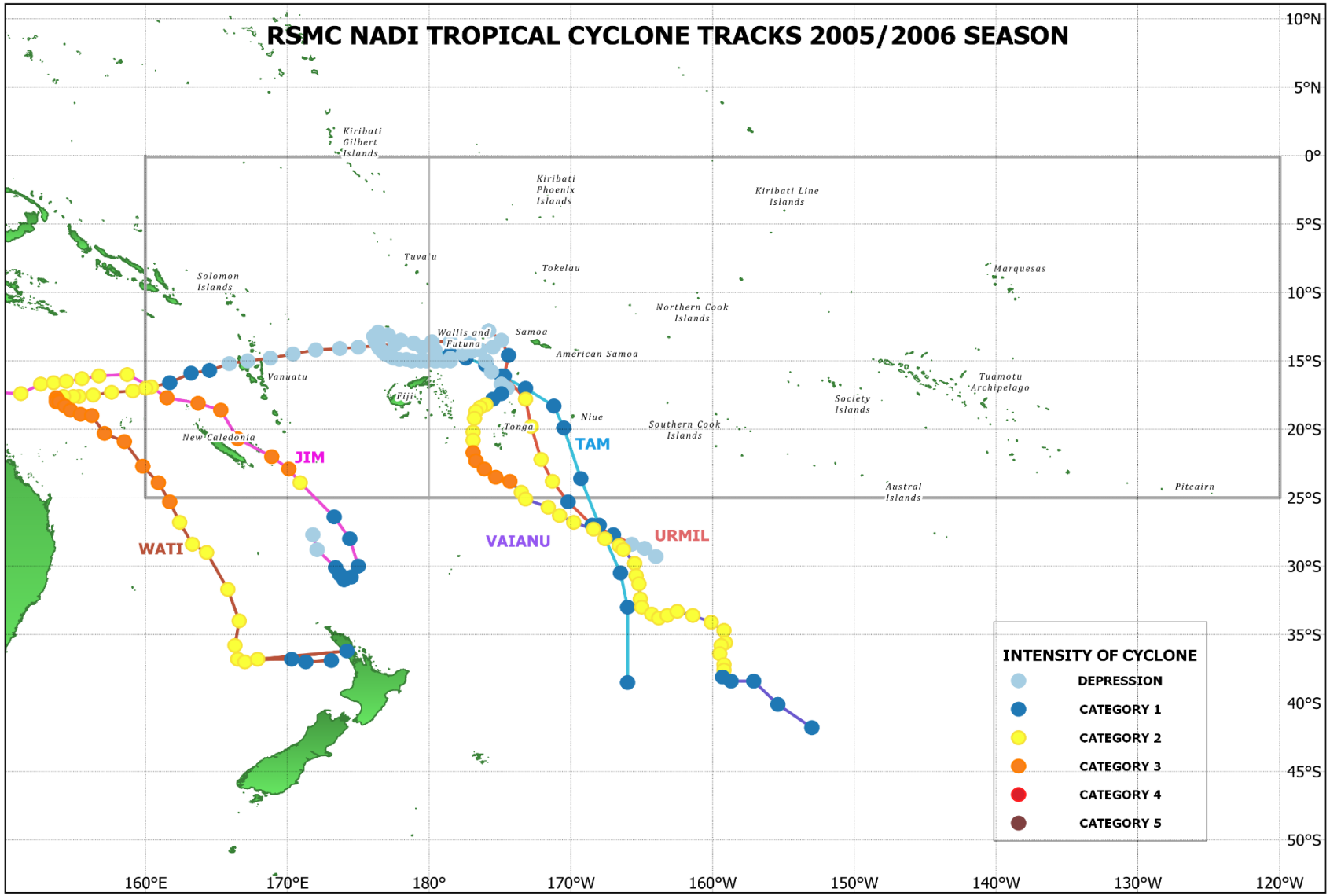


***Figure 5g:*** *Analogue season track map – 2012-13 season*

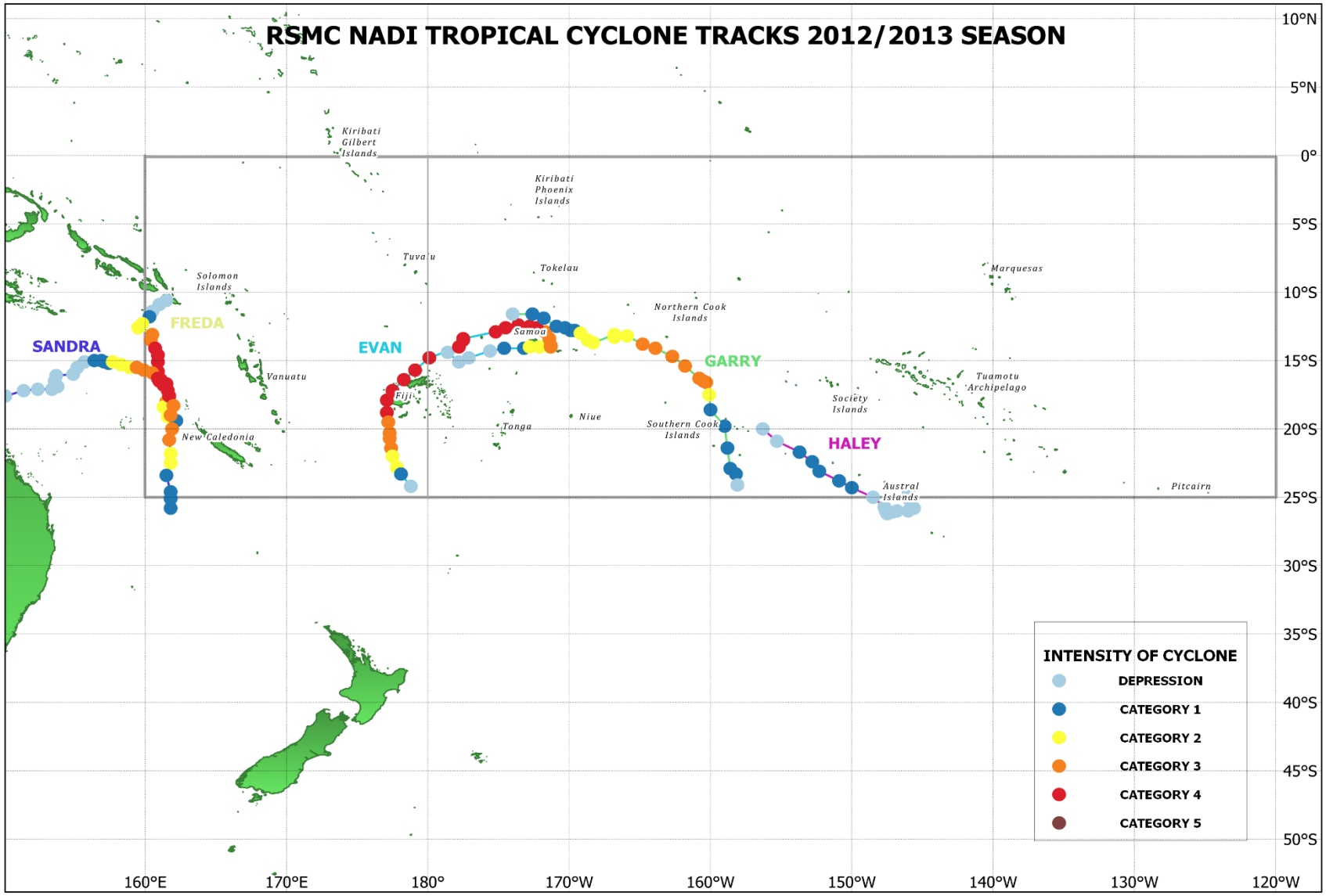


Figure ***5h:*** *Analogue season track map – 2016-17 season*