



MINISTRY OF INFRASTRUCTURE AND METEOROLOGICAL SERVICES

DEPARTMENT OF METEOROLOGICAL SERVICES

JOB DESCRIPTION: Principal Scientific Officer (Forecasting)

CORPORATE INFORMATION

1. **Position Level:** Salary Band J
2. **Salary Range:** \$ 51,132.98 - \$65,555.10
3. **Duty Station:** Nadi
4. **Reporting Responsibilities:**
 - a) **Reports To:** Director, Fiji Meteorological Service
 - b) **Liaises with:** All officer at NFWC, All division in FMS, stakeholders and the general public
 - c) **Subordinates:** Senior Scientific Officer x 2, Scientific Officer x 9, Senior Technical Officer x 2, Technical Officer I x 7, Technical Officer II x 7, Technical Assistant x 7

POSITION PURPOSE

The primary role of the position is to supervise daily operation of forecasting operations of the NWFC; ensuring timely, efficient, effective and quality forecast, warning and advisory services for Fiji and the Southwest Pacific region, including analyzing weather charts at all levels, diagnosing and forecasting weather patterns and trends in the synoptic and day to day scale; providing guidance to the other meteorologists on duty, thereby ensuring spatial and temporal continuity and consistency. Furthermore, identify and ensure implementation of improvements to professional staff work, on operational aspects.

KEY RESPONSIBILITIES/KEY RESULTS AREA (KRAs)

The position will achieve its purpose through the following key duties:

- 1 Lead the functions of the RSMC-TCC Nadi, in particular pre-season preparations and briefings, during season functioning and post-season responsibilities according to RSMC Nadi TC Directive and the WMO RAV Tropical Cyclone Operational Plan for the Southwest Pacific. This entails monitoring of tropical cyclones development/activity, issuing of Tropical Disturbance Advisories, Tropical Disturbance Summaries, International Maritime Warnings, Special Weather Bulletins for Fiji and other Southwest Pacific countries in RSMC Nadi's area of responsibility, Aviation Warnings for the Nadi FIR.
- 2 Review individual tropical cyclone reports and submit to DMet for recommendation and approval.
- 3 Write the Tropical Cyclone Seasonal Summary. This entails a through verification of individual tropical cyclone analysis when verified against the post event best track analysis.
- 4 Review and update the Tropical Cyclone Directive ensuring that it is up to date with RAV Tropical Cyclone Operational Plan.

- 5 Liaise with other Meteorological Centers in the region on tropical cyclone issues.
- 6 Prepare competency assessment tools for operational forecasters. This includes drafting the overall assessment program and the individual modes of assessments. Mark the individual assessment tools and carryout flow-up and corrective measures. Assist the training division in Follow-up action for forecasters who do not perform well on the competency assessment.
- 7 Prepare reports on significant weather events that have an impact on peoples' lives and properties.
- 8 Participate actively on the verification of products and report back on ways to improve the disseminated forecasts in compliances with international quality standards as stipulated by WMO and ICAO.
- 9 Prepare written examination for graduate meteorologist before they work solo on the forecasting bench. This is normally carried out after 3 months OJT with a senior forecaster.

KEY PERFORMANCE INDICATORS

Performance will be measured through the following indicators:

1. Timely generation and issuance of alerts, warnings and advisories in Special Weather Bulletin (SWB) and forecast for public, aviation and marine sector.
2. Ability to correctly analyze satellite images, apply Dvorak technique and derive the Current Intensity Number (CI #) and Forecast T-number (FT #) for tropical cyclones and subsequently technical bulletins such as Tropical Disturbance Advisories and Tropical Cyclone Advisories.
3. Ability to independently product scientific writes ups such as Tropical Cyclone reports and Tropical Cyclone Seasonal Summaries at the end of the season.
4. Ability to work while under enormous pressure while on the severe weather bench.
5. Ability to offer expert advice to the office of the Director on meteorological phenomenon.

PERSON SPECIFICATION

In addition to Bachelor of Science degree (Maths/Physics) from a recognized university. Successful completion of a WMO Basic Instruction Package for Meteorologist (BIP-M) from a WMO recognized and designated regional training centre, Successful completion of at least 3 months on-the-job training, under strict supervision of the Scientific and Senior Scientific Officers plus one-year probation on the operational forecasting bench.

Knowledge and Experience

- 1 At least 3 years' experience as a senior forecaster/Lead Meteorologist at a well-established Meteorological Service with good reports.
- 2 Specialized computing skills to be able to use Fiji Integrated Meteorological System (FIMS), IBL and peripheral/dedicated operational applications and programmes including sufficient skills in computer-related problem solving.
- 3 Thorough knowledge on the functionality and operational utilisation of TC Module to generate graphical products for tropical depression/cyclones.

- 4 Thorough knowledge of the internationally recognized Dvorak technique critical for tropical cyclone intensity estimation.
- 5 Thorough knowledge and understanding of the 4 manual of procedures (public, aviation, marine and the tropical cyclone directive).
- 6 Expertise in the interpretation of satellite imagery (Infra-red, visible, water vapor, near infra-red) and other specialized satellite products such as AMSU, TRMM, SSMI, and Scatter-meter winds, etc.
- 7 Knowledge of mesoscale and microscale meteorology, For example, use of stability indices, prediction of onset and termination of sea breezes, squall lines, severe thunderstorms, etc.
- 8 Well based knowledge on the criteria's outline by WMO and ICAO for the development of Competency standards for Aviation, Marine and public weather forecasting
- 9 Thorough knowledge, understanding and commitment to the policies of Government

Skills and Abilities

1. Ability to write alerts, warning, bulletins and advisories (Special Weather Bulletin) in the WMO recommended format.
2. Ability to interpret various types of meteorological observations and identify trend forecasts.
3. Ability to sift through a prodigious amount of meteorological information to reach a scientifically sound conclusion
4. Exceptional social and people's skills in order to aptly and sensitively handle public and media enquiries via phone, newspapers and television.
5. Excellent scientific writing ability including compiling and preparing Media Release's for severe weather events.
6. Ability to work with integrity while under pressure and meeting deadlines all the time.
7. Good team player, easily interacting with work colleagues and the public.
8. Attention to detail and high level of accuracy.

Personal Character and Eligibility

Applicants for employment in the Ministry of Infrastructure and Meteorological Services must be Fijian Citizens, under Age 55, in sound health, with a clear police record. The successful applicant will be required to provide a medical certificate and police clearance as a condition of employment.

The Ministry of Infrastructure and Meteorological Services is an Equal Employment Opportunity Employer. Applicants are encouraged from all eligible, qualified applicants. Only the specific knowledge, experience, skills and abilities required for the job will be considered in assessing the relative suitability