



Tonga Meteorological Service – Ministry of Civil Aviation

A report on
TROPICAL CYCLONE “VAIANU”

11 – 15 February 2006

INTRODUCTION

Tropical cyclone “VAIANU” developed from tropical low which had its origin in an intense and active area of convergence which stretched from the Solomon’s to just east of Tonga.

At 111100UTC February 2005, Tropical Depression (12F) was named Tropical cyclone “VAIANU” when it was located just southeast of Niufo’ou moving southwest at about 5knots. It continued to track in a south-southwest track mostly over the ocean area to the west of the Tonga group at a very slow rate. It later tracked southeast but only after it had passed to the southwest of Tongatapu.

Torrential rain associated with “VAIANU” and gale force winds caused damages to mostly vegetation and plantations in Tongatapu and ‘Eua. Mostly affected were fruit bearing trees such as breadfruit, banana and mangoes tree.

The rest of the Tonga group were affected by strong wind, thunderstorms, heavy swells and very rough seas but no substantial damages were reported..

WARNING

A total of 30 Special Weather Bulletins were issued for Tonga on Tropical Cyclone “VAIANU” by the Tonga Meteorological Service.

TROPICAL CYCLONE WARNING SYSTEM

The Meteorological service experienced power failure (mains) at 122200UTC. The standby power could not be restored therefore operations were shifted to the National Emergency Operations Centre (backup) in Nuku’alofa for the remainder of the cyclone operations although Fua’amotu continued to operate on a mobile generator. Communications remained satisfactory although some difficulties were experienced during the power outages at Fua’amotu.

EFFECTS

Observations recorded at Fua'amotu Station.

Station Name /WMO number	Direction/Maximum Sustained Winds (knots)/Time (UTC ¹)	Maximum Gusts (knots)	Lowest Pressure Recorded (hPa)/Time (UTC)	Rain over 24 hours
Fua'amotu Aerodrome/	050/35KT/ 130700	54KT	995/131400	97.7mm recorded at 132100UTC

DAMAGES

According to reports from the National Disaster Office damages were mostly inflicted on fruit bearing trees. 70% the banana and breadfruit crop was wiped out. Structural damage was mainly to power lines. It took 1 week to restore all power to outer villages and nearby islands. Although sea water intruded in-land about 100m at the northwestern side of Tongatapu, little damage to property was reported. There were no reports of any major damage to accommodation and housing.

CONCLUSION

Tropical cyclone "VAIANU" had estimated maximum sustained winds over Tonga at 35knots gusting to 55knots. Although it intensified to near 80knots near centre 90 miles west of Tongatapu its position and direction of movement meant that the system did not inflict any further structural damage to Tongatapu and Eua as it tracked southeast. Tropical cyclone "VAIANU" caused Government to shut down for 2 days (13 and 14).

¹ UTC – Co-coordinated Universal Time (same as Greenwich Mean Time), Local time is 13hrs ahead of UTC.

TRACK OF TROPICAL CYCLONE "VAIANU"

