

Assessing Environment and web pages

Accessing Web sites

Understanding

- low level flow
- upper level flow
- Steering patterns
- Ocean
- Humidity fields
- Wind shear



Australian Government

Bureau of Meteorology

Web sites

Severe Weather Forecasting and Disaster Risk Reduction Demonstration Project SWFDDP

<http://swfddp.metservice.com/>

MetConnect Pacific
SWFDDP

Global **RSMC** NMHS Satellite Observations Charts Links Archive Evaluation News Contact

RSMC Wellington RSMC Darwin RSMC Nadi

RSMC Wellington

– South Pacific Guidance

User Help

Guidelines for RSMC
Wellington Lead
Forecasters

Marine Warnings

THORPEX: Southern
Hemisphere

THORPEX: WMO

Introduction - RSMC

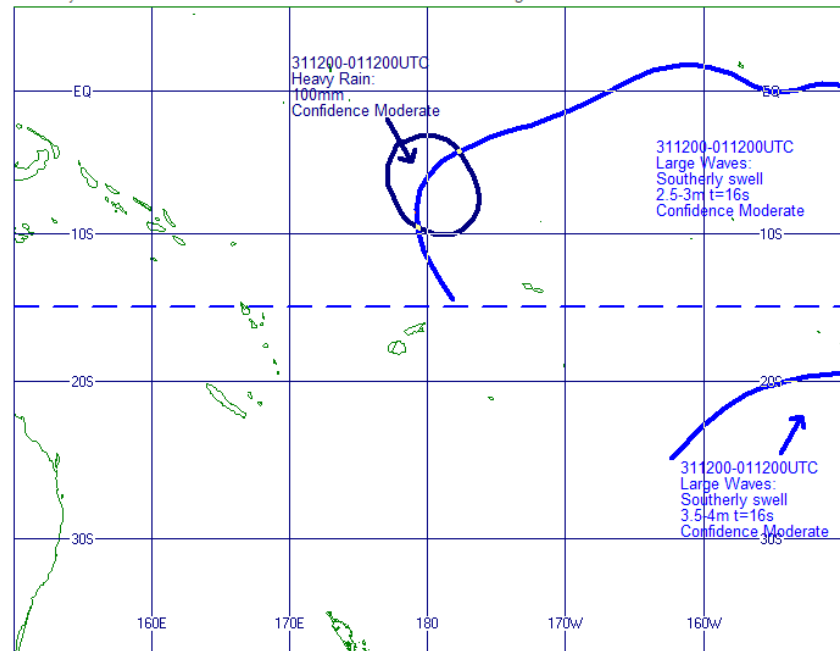
South Pacific Guidance

For Severe Weather Forecasting and Disaster Risk Reduction Demonstration Project (SWFDDP).

Issued at: 03:08 01 Sep 2015 UTC

Valid at: 12:00 31 Aug 2015 UTC

Easterly winds cover much of the Southwest Pacific. A weak trough extends from Tuvalu to the Cook Islands.





Australian Government

Bureau of Meteorology

Web sites: Fiji Met Service

<http://www.met.gov.fj/>



Fiji Meteorological Service

RSMC Nadi-Tropical Cyclone Centre

*Official Source of reliable "first-level" information on tropical cyclones occurring in the South-West Pacific Ocean. All products on this site are on Fiji Standard Time = (UTC + 12HRS)
Fiji Daylight Saving Time(DST) = (UTC + 13HRS)

ISO 9001:2008 certified provider of Aviation Meteorological Services

2:42:08 PM

SEARCH

Home | About Us | Services | Careers | Awareness & Education | Feedback

Current Warning

No Current Warnings

Fiji Weather Forecast

- Public
- Marine
- Town Centers 3-days Forecast
- 7 Day Outlook
- Rainfall Map

Regional Weather Bulletins

- Niue
- Tonga
- Kiribati
- Nauru
- Tokelau
- Tuvalu
- Cook Is

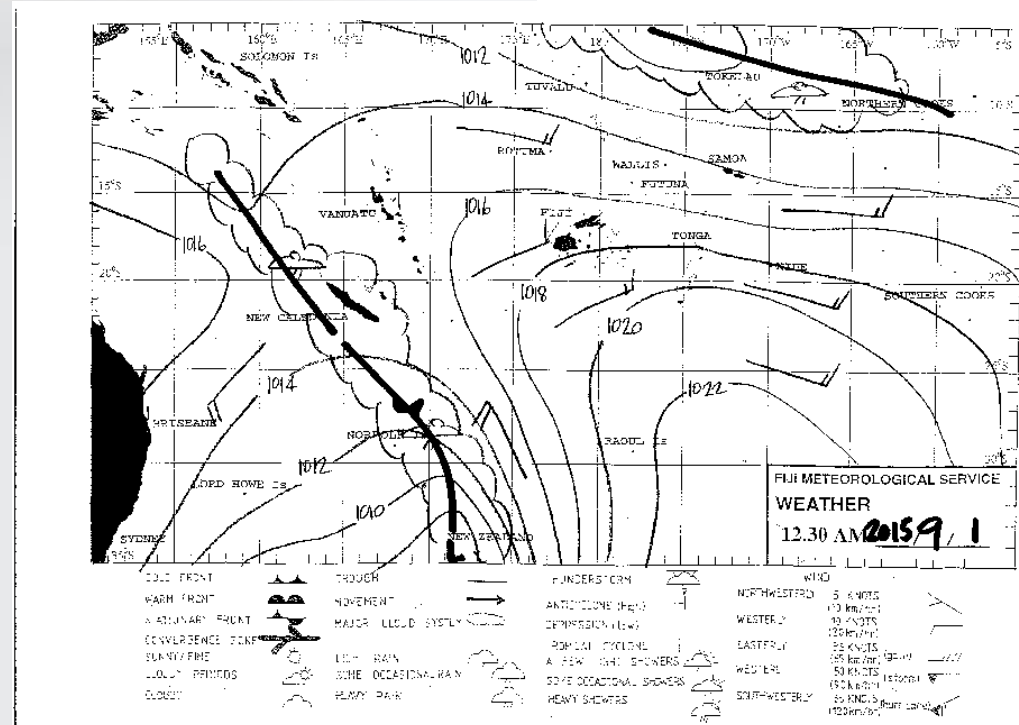
South West Pacific Marine
ZLM Broadcasts Time & Frequencies

Tropical Cyclone Services

- 2014/15 TC Season Outlook
- 2014_2015 TC Season Procedures for Fiji
- 3 Day TC Outlook

Tropical Cyclone Tracks

Threat Track Map | Forecast Track Map





Australian Government

Bureau of Meteorology

Web sites CIMSS

<http://tropic.ssec.wisc.edu/>

Cooperative Institute for Meteorological Satellite Studies
Space Science and Engineering Center / University of Wisconsin-Madison

Tropical Cyclones ...A Satellite Perspective
CIMSS TC Webpage Product Archive

DATA STATUS (as of 30 Jul 2015 / 12:10UTC) : All products currently available.

TC Image Gallery Who We Are Our Research Archive FAQ Links Contact Us Statistics KML

Current Time : 30 July 2015 / 12:18:55UTC

Storm Coverage (Information)

Mouse over and click on individual storm symbol(s) for specific "TCTrak" storm coverage product window

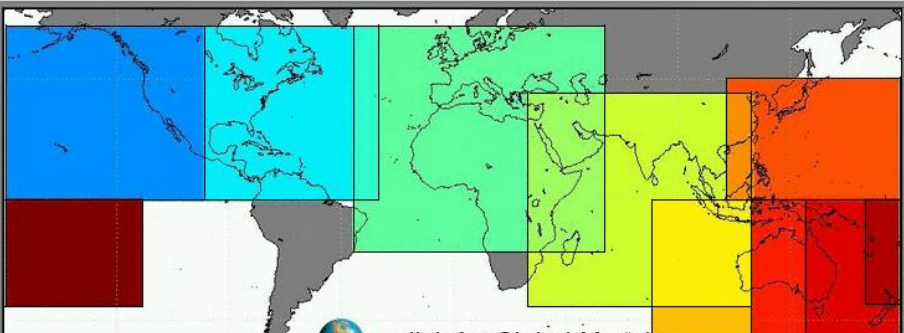


CIMSS TC Intensity and Structure Products "Quick Links": ADT AMSU SATCON MIMIC-TC MIMIC-TPW

Tropical Outlooks/Regional Websites: Atlantic East Pacific West Pacific Indian Ocean Australia/Fiji

Regional Real-Time Products

Mouse over specific ocean basin (colored regions) for menu of available products; click on desired products



-- click for Global Mosaics

+ TPW products



Australian Government

Bureau of Meteorology

Web sites: CIRA



http://rammb.cira.colostate.edu/products/tc_realtime/index.asp



NOAA Satellites and Information

National Environmental Satellite, Data, and Information Service



[Cooperative Research Program \(CoRP\)](#) | [Center for Satellite Applications and Research \(STAR\)](#)

IO022015 - Tropical Cyclone (<64 kt) TWO

View [model data products](#) for this storm.

New: View [wind speed probabilities products](#) for this storm

Forecast Track

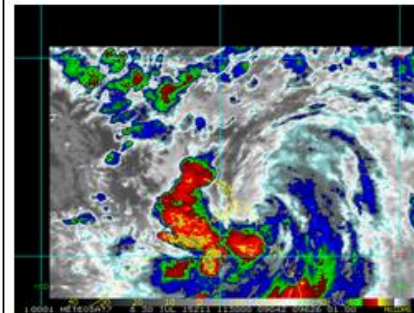
Time of Latest Forecast: 201507300600

Forecast Hour	Latitude	Longitude	Intensity
0	22.5	91.8	35
12	23.1	91.3	30
24	0	0	0
36	0	0	0
48	0	0	0
72	0	0	0
96	0	0	0
120	0	0	0

[Forecast Track Archive](#)

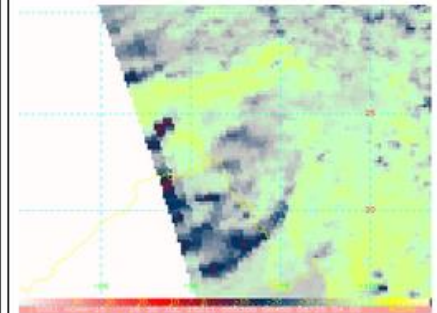
[About Forecast Track](#)

Enhanced Infrared (IR) Imagery (4 km Mercator)



[Loop](#) | [Latest Image](#) | [Archive](#) | [About](#)
Time of Latest Image: 201507301130

AMSU Microwave 89 GHz Imagery (4 km Mercator)



[Loop](#) | [Latest Image](#) | [Archive](#) | [About](#)
Time of Latest Image: 201507300853

IR/WV/Microwave RGB (IR [R], WV [G], MI89 [B])

Storm Relative 1 km Geostationary Visible Imagery

[Current Active Cyclones](#)

[Archive](#)

- [2016 Season](#)
- [2015 Season](#)
- [2014 Season](#)
- [2013 Season](#)
- [2012 Season](#)
- [2011 Season](#)
- [2010 Season](#)
- [2009 Season](#)
- [2008 Season](#)
- [2007 Season](#)
- [2006 Season](#)

[Additional Information](#)

[Additional Links](#)



Australian Government

Bureau of Meteorology

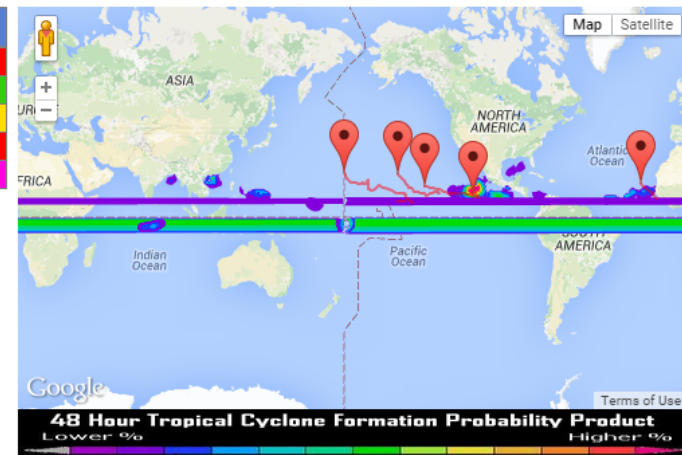
Web sites NESDIS page

<http://www.ssd.noaa.gov/PS/TROP/>

NESDIS Tropical Cyclone Products

Active Storms:

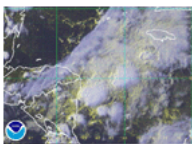
Storm Name	Storm ID	Dvorak Intensity	Last Classified	Basin
JIMENA	13E	T5.5/6.5	01/0000Z	East Pacific
Unnamed	14E	T1.5/1.5	01/0000Z	East Pacific
FRED	06L	T3.5/3.5	31/2345Z	Atlantic
KILO	03C	T4.5/5.5	31/2330Z	Central Pacific
IGNACIO	12E	T4.0/4.5	31/2330Z	Central Pacific



Atlantic | East Pacific | Central Pacific | West Pacific
North Indian | South Indian | South Pacific | South Atlantic
Mediterranean Sea

SPSD Tropical Program Products:

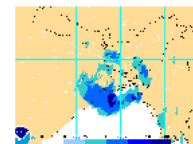
Satellite Imagery



Static and animated imagery of tropical disturbances, tropical cyclones and areas of interest. Users have the ability to overlay a variety of data on animated imagery loops of tropical storms.

[Tropical Cyclone Floaters](#)

eTRaP



The eTRaP is a simple ensemble that allows for the generation of probabilistic forecasts of rainfall in addition to deterministic rainfall totals.



Australian Government

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Web sites

NCAR RAL page

<http://www.ral.ucar.edu/hurricanes/realtime/current/>

NCAR Tropical Cyclone Guidance Project | RAL

[Home](#) | [Overview](#) | [Real-Time Guidance](#) | [Global Repository](#) | [Structure Data](#) | [Guide to Plots](#) | [Links](#)

[About real-time guidance](#) | [Current active storms](#)

Real-Time Guidance | Current Active Storms

OVERVIEW OF CURRENT ACTIVE STORMS

The real-time guidance system generates an individual page for each active storm in the North Atlantic, Northeast Pacific, North Central Pacific, Northwest Pacific, North Indian Ocean, South Indian Ocean, and South Pacific basins (this page may not provide any information on storms in the Mediterranean or South Atlantic basin). Each individual storm page features the latest plots of model guidance and intensity forecast aids for that storm, as well as other diagnostic and observational information.

For more information and about the real-time guidance system and the documentation for each section of the individual storm pages, [click here](#).

Storms active within the past 12 hours, valid for: 11 September 2017 0000 UTC

Last updated: 11 September 2017 0322 UTC

Click on a storm on the map to go to the individual page for that storm.

<u>NORTH INDIAN</u> No current storms	<u>NORTHWEST PACIFIC</u> INVEST (WP97) TALIM (WP20)	<u>NORTH ATLANTIC</u> MAJOR HURRICANE JOSE (AL12) HURRICANE IRMA (AL11)
	<u>CENTRAL PACIFIC</u> No current storms	<u>NORTHEAST PACIFIC</u> DISTURBANCE INVEST (EP95)
<u>SOUTHERN HEMISPHERE</u> INVEST (SH91)		<u>SOUTH ATLANTIC</u> No current storms



Australian Government
Bureau of Meteorology

NCAR: RAL site cont.

JTWC a-deck file 'ash...dat':
no password required

NCAR Tropical Cyclone Guidance Project | RAL

Home | Overview | **Real-Time Guidance** | Global Repository | Structure Data | Guide to Plots | Links

About real-time guidance | Current active storms

Real-Time Guidance | MAJOR HURRICANE IRMA (AL11)

REAL-TIME GUIDANCE FOR MAJOR HURRICANE IRMA (AL11)

This page provides plots and information for MAJOR HURRICANE IRMA (AL11). The left side of this page provides TCGP-generated plots of numerical guidance and other TCGP-curated data. The right side of this page provides external links to additional information and products. Most of the model guidance displayed in the plots come from modeling centers outside of NCAR, such as NOAA, other national numerical weather prediction centers, and universities. [Click here](#) for information about who contributes to TCGP. Your use of this page is governed by the [UCAR Terms of Service](#) and this site's disclaimer. To obtain help for any item on this page, click on the question mark beside that item.

Information as of the most recent model cycle ?

At 0600 UTC, 04 September 2017, MAJOR HURRICANE IRMA (AL11) was located in the North Atlantic basin at 17.0°N and 51.7°W. The current intensity was 100 kt and the center was moving at 12 kt at a bearing of 255 degrees. The minimum central pressure was 961 mb.

Reconnaissance Aircraft Data ?

Vortex Data Messages ? [Archive](#)

Plots of track guidance ?

Early cycle track guidance ? [Archive](#)
Late cycle track guidance ? [Archive](#)
GPS ensemble track guidance ? [Archive](#)
Experimental late cycle track guidance ? [Archive](#)

Plots from Ensemble Prediction Systems (EPS) ?

Late EPS track guidance plotted by model ? [Archive](#)
Extra late EPS track guidance plotted by model ? [Archive](#)

Boxplot Visualizations for EPS Track ?

Late cycle curve boxplot for GEFS track guidance ? [Archive](#)

Plots of intensity guidance ?

Early cycle intensity guidance ? [Archive](#)
Experimental late cycle intensity guidance ? [Archive](#)

ATCF data files ?

ash112017.dat ? [track and intensity forecasts \(a-deck\)](#)
bsh112017.dat ? [history file \(b-deck\)](#)
fsh112017.dat ? [fixes file \(f-deck\)](#)

Links to Official Warning Information

RSMC Miami - U.S. National Hurricane Center

Key Messages for IRMA
5-day Forecast with Uncertainty Cone
Surface Wind Field
Wind History
Probability of Tropical Storm-force Winds (34-kt)
Probability of Storm-force Winds (50-kt Winds)
Probability of Hurricane-force Winds (64-kt)
Earliest Reasonable Time of Approach of 34-kt Winds (Experimental)
Most Likely Time of Approach of 34-kt Winds (Experimental)

Environmental Diagnostics ?

SHIPS diagnostic message ? [Archive](#)

Links to External Satellite-based Products

NESDIS SAB Satellite Imagery for IRMA

[Visible Imagery Loop](#) [html5](#) [flash](#)
[Enhanced Infrared Loop](#) [html5](#) [flash](#)
[Water Vapor Loop](#) [html5](#) [flash](#)

CIRA TC Real-time Page for IRMA

Enhanced Infrared Imagery Loop (4 km Mercator)
Storm Relative Visible Imagery Loop (1 km Geostationary)
AMSU Microwave 89GHz Imagery (4 km Mercator)
Multiplatform Satellite Surface Winds Analysis (Operational)
Multiplatform Satellite Surface Winds Analysis (Development)

UW-CIMSS TC Satellite Products for IRMA

Satellite Consensus Intensity Estimates [More info](#) ?
Advanced Dvorak Technique (ADT) ?
ARCHER, Center-finding Technique ?
ARCHER, Eyeball Replacement Cycle Diagnostic and Prediction ?
Morphed Integrated Microwave Imagery at CIMSS (MIMIC-TC) ?

Observations near IRMA



Australian Government

Bureau of Meteorology

Web sites JTWC

<http://www.usno.navy.mil/JTWC/>



Joint Typhoon Warning Center (JTWC)



[Products and Services Notice](#)

[Warning Graphic Legend](#)

[Annual Tropical
Cyclone Reports](#)

[Best Track Archive](#)

[Frequently Asked Questions \(FAQ\)](#)

[2009 METSAT and TC Conference](#)

[2012 TC Conference](#)

[Global Tropical Hazards Outlook](#)
new

[Current Northwest Pacific/North Indian Ocean* Tropical Systems](#)

Tropical Cyclone 02B (Two) Warning #06 Final Warning
Issued at 30/0900Z

- [TC Warning Text](#)
- [TC Warning Graphic](#)
- [JMV 3.0 Data](#)
- [Google Earth Graphic Overlay](#) **KML**
- [Multispectral Satellite Imagery](#)
- [Satellite Fix Bulletin](#)

Tropical Depression 13W (Thirteen) Warning #01
Issued at 30/0900Z

- [TC Warning Text](#)
- [TC Warning Graphic](#)
- [Prognostic Reasoning](#)
- [JMV 3.0 Data](#)
- [Google Earth Graphic Overlay](#) **KML**
- [Multispectral Satellite Imagery](#)



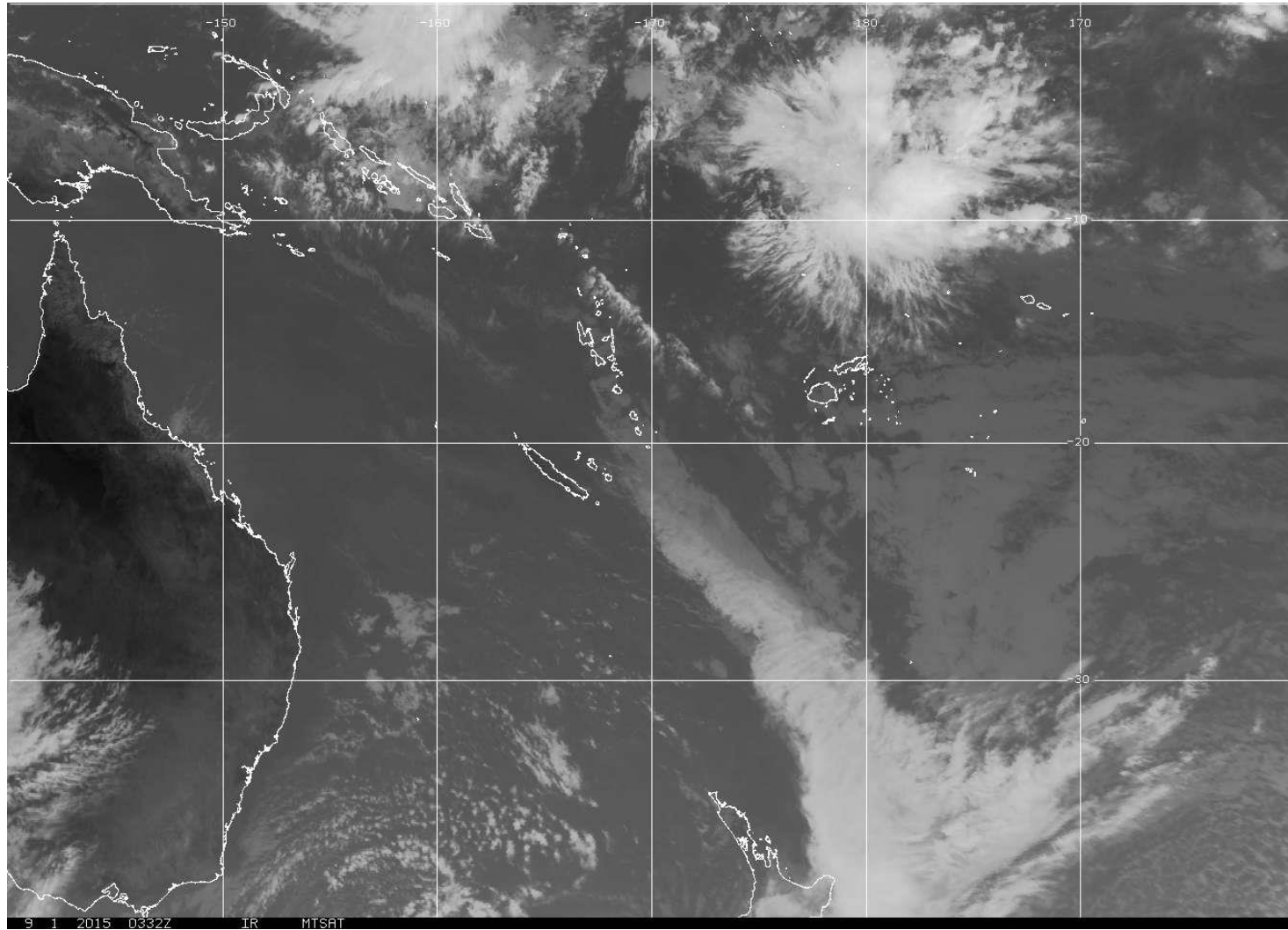
Australian Government

Bureau of Meteorology

Web sites: Other Satellite

Note: Metconnect very good for satellite

<http://www.goes.noaa.gov/shemi.html>





Australian Government

Bureau of Meteorology

Web sites: NRL

<http://www.nrlmry.navy.mil/TC.html>

[Privacy Policy](#)

[Disclaimer](#)

NRL Tropical Cyclone Page

[Development Team](#)

NOTE: this page is short lived (10 m). Please **DO NOT** bookmark it or save it to Favorites; instead, bookmark <http://www.nrlmry.navy.mil/TC.html> thank you.

NOTE: TRMM sensors were permanently turned off on April 8

2015 Season Storms

[All](#)
[Active](#)
[Year](#)

Atlantic

[94L.INVEST](#)

East Pacific

[09E.GUILLERMO](#) [KML](#)
[08E.EIGHT](#) [KML](#)

Central Pacific

West Pacific

[94W.INVEST](#) [KML](#)
[13W.THIRTEEN](#) [KML](#)

Indian Ocean

[02B.TWO](#) [KML](#)

Southern Hem. Season: 16

[91P.INVEST](#) [KML](#)

[Latest](#)
[Pass_Mosaic](#)
[Text](#)
[Track](#)
[ATCF](#)
[Track+Image](#)
[WindVectors](#)

[Environment](#)
[TPW](#)
[TPW+NAVGEM_TPW](#)
[TPW+NAVGEM_850_Winds](#)
[Wind_Shear](#)
[COAMPS_TC](#)

Sensor	% Cov	VIS	IR	IR-BD	Multi Sens.	85GHz H	85GHz weak	85GHz PCT	Color	Rain	Wind	37GHz Color	37GHz V	37GHz H	SSM/I Vapor
SSM/I	32														
SSM/IS	90														
GMI	60														
AMS/R2	94														
WINDSAT	89														
AMSUB	70														

VIS

IR

Vapor

GAC:

GEO:

MODIS:

VIIRS:

OLS:

02B.TWO, TRACK_VIS, 30 JUL 2015 1114Z

11:59:22

UTC (Z)

Overview

Forecast and Graphic by: Naval Maritime Forecast Center/Joint Typhoon Warning Center

Latest ATCF Track: smio022015.15073000.jpg

Latest vis/geo/lkm_zoom/20150730.1114

Tutorials:

COMET



Australian Government

Bureau of Meteorology

Web sites: Scatterometry

<http://manati.star.nesdis.noaa.gov/datasets/ASCATData.php/>



STAR Center for Satellite
Application and Research
National Environmental Satellite, Data, and Information Service (NESDIS)

Ocean Surface Winds Team.

NOAA | NESDIS | STAR | SOCD

OSWT Home | Product Description | Data Products | Research | Contact US

▶ [OSWT Home >>](#)

▶ [Product Description](#)

▶ [Data Products](#)

▶ [Research](#)

▶ [Contact Us](#)

This web site is not supported on a 24x7 basis and should not be considered operational.

Enter search term(s)

☒ This site only ☐ All of NOAA

[Advanced Search](#)

Data from Satellite/Instruments: [Advanced Scatterometer \(ASCAT METOP-A\)](#)

Additional Products

NOAA wind vectors 10x15 (2! ▼)

Year

2015 ▼

Month

7 ▼

Day

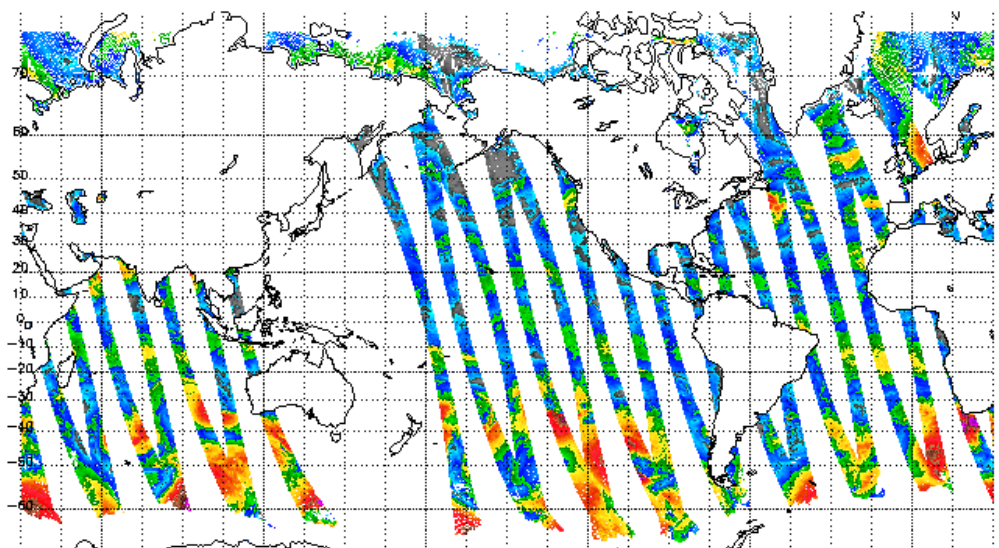
30 ▼

☐ Global(80N80S-180E180W)

Ascending Pass

ASCAT 25KM NOAA Winds Jul 30 12:02 UTC 2015 ascending

0 5 10 15 20 25 30 35 40 45 >50 knts



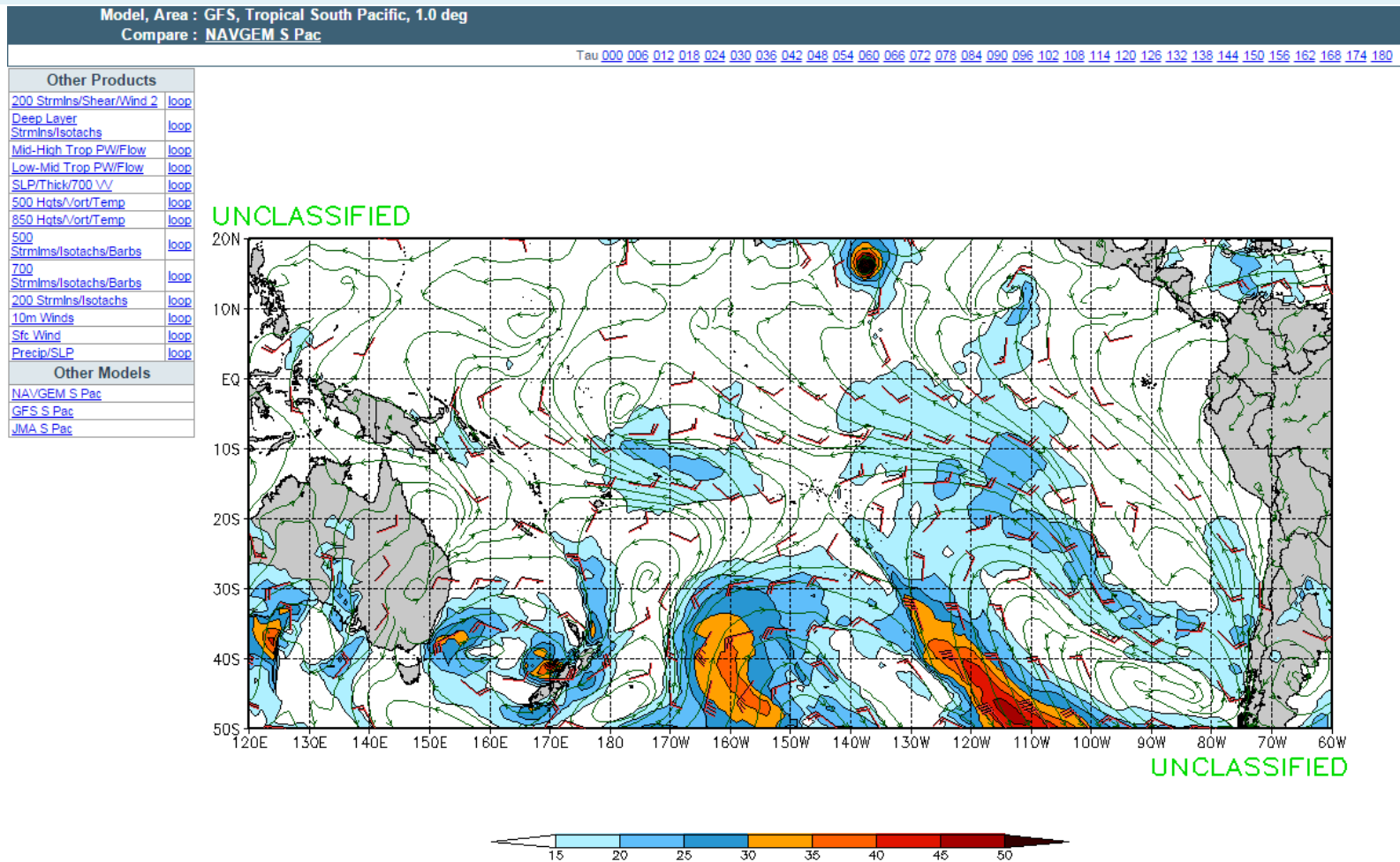


Australian Government

Bureau of Meteorology

Web sites: FNMOC models

https://www.fnmoc.navy.mil/wxmap_cgi/index.html



VT: Tue 00Z 01 SEP 15
NCEP_GFS (U): Surface (10m) Isotachs, Barbs, Streamlines [kts]
Run: 2015090100Z Tau: 0

Approved for public access. Distribution is unlimited.



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Web sites: HWRF

http://www.emc.ncep.noaa.gov/gc_wmb/vxt/HWRF/index.php



NCEP Operational HWRF Forecast Guidance for Storm ASHOBAA01A

Zoom -

Zoom +

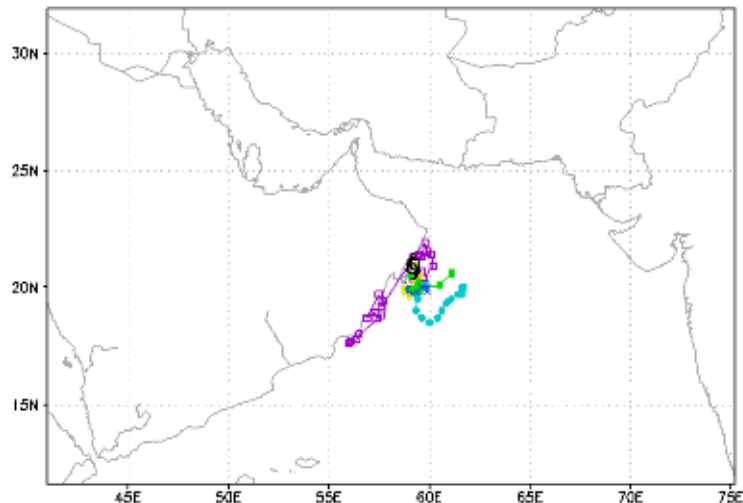
Zoom a

Zoom o

HWRF 2015 Real time: TC Tracks

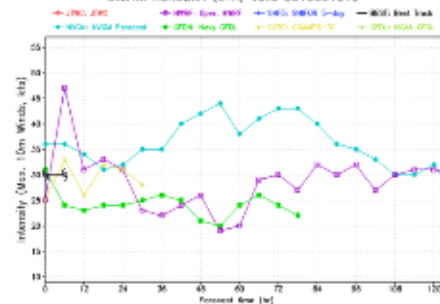
Storm: ASHOBAA (01A) valid 2015061212

-JTW: JTW Official -HWRF: Oper. HWRF -AVNO: Oper. GFS -BEST: Best Track
 -NVGM: NVGM Forecast -GFDL: Navy GFDL -COTC: COMPS-TC -GFDL: NOAA GFDL



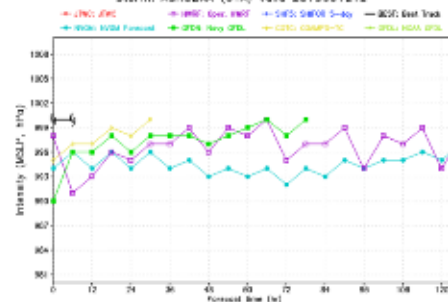
HWRF 2015 Real time: TC Intensity Vmax

Storm: ASHOBAA (01A) valid 2015061212



HWRF 2015 Real time: TC Intensity Pmin

Storm: ASHOBAA (01A) valid 2015061212



Cycles



ASHOBAA01A.2015061212



Forecast Products

Static Products

Track and Intensity

Track
 Intensity maxw
 Intensity mslp
 Wind swath
 Rain swath

Large-Scale

850hPa: streamline, isotach
 Deep layer mean: streamline, isotach
 Wind shear
 Mid-high trough
 500hPa vorticity
 Surface pressure
 Surface(p): mslp, wind
 850hPa(p): temp, hgt, wind with nests
 850hPa vort, 500hPa ght, 200hPa wind
 850hPa(p): vort, ght, wind
 700hPa(p): rh, ght, wind
 500hPa(p): vort, ght, wind
 200hPa(p): vort, ght, wind

Storm-Scale

Surface(n): mslp, wind



Australian Government

Bureau of Meteorology

Web sites ECMWF

<http://www.ecmwf.int/> Password protected!!!



About Forecasts Computing Research Learning Log In



Charts

Charts

Datasets

Quality of our forecasts

Software and tools

Documentation and support

Accessing forecasts

Select and view our charts - forecasts and associated verification

Our Integrated Forecasting System (IFS) provides forecasts for multiple time ranges.

We provide a range of forecast products to address different user requirements. These present key aspects of the forecast evolution and the associated uncertainty. Specific products designed to highlight potential severe weather events include the Extreme Forecast Index and tropical cyclone activity.

Click on the category title or the associated thumbnail below to access *all* charts for that category.

Help

To view all charts in a category, simply click on the category title or associated thumbnail.

Alternatively choose a link below:

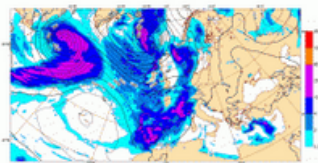
[Medium range](#)

[Extended range](#)

[Long range](#)

[All charts](#)

Medium range



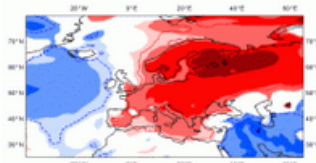
Up to 10/15 days ahead.

[Overview \(text\)](#)

[ENS meteograms](#)

[ENS meteograms for WMO](#)

Extended range



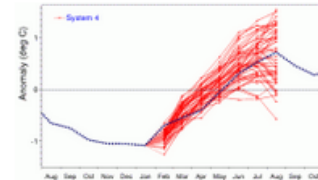
Up to 30 days ahead.

[Overview \(text\)](#)

[Plumes](#)

[Tropical cyclones](#)

Long range



Up to 13 months ahead.

[Overview \(text\)](#)

[Nino plumes](#)

[Tropical cyclones](#)



Australian Government

Bureau of Meteorology

Web sites for models tropicaltidbits.com

Tropical Tidbits

Home

Current Storms

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Forecast Models

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GFS

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Hurricane

Mesoscale

Climate

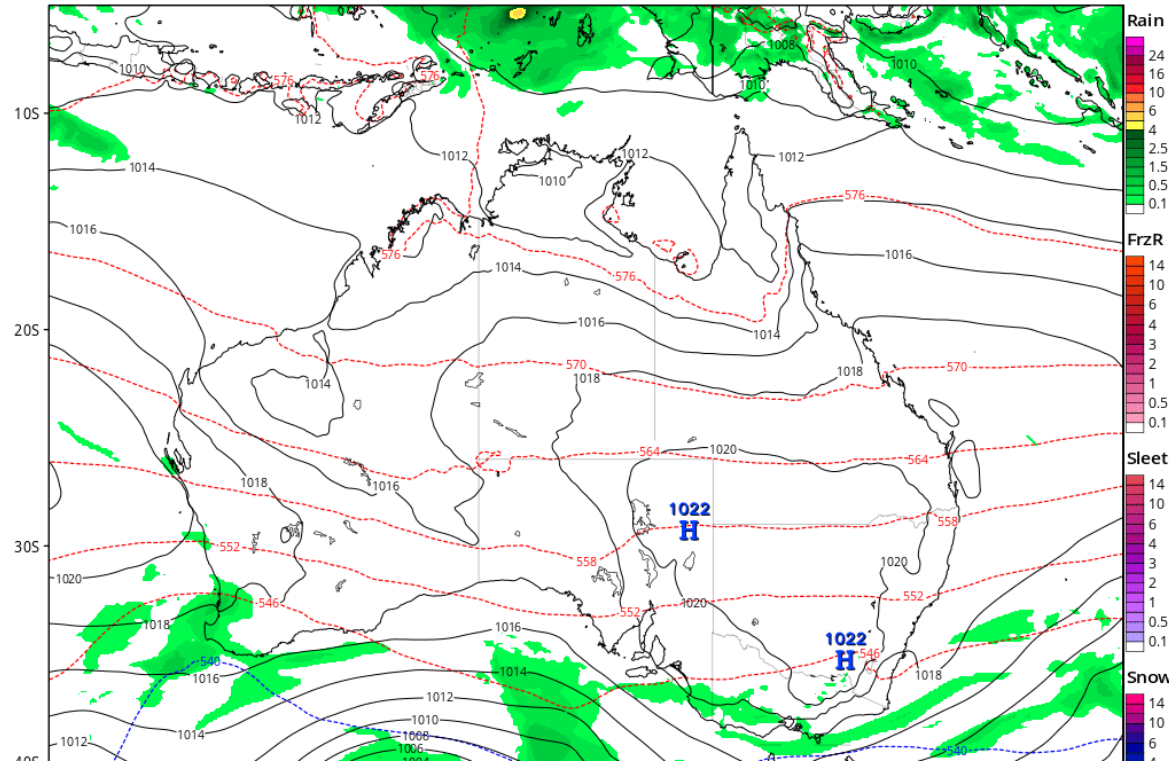


00z Monday, Jul 24

GFS 6-hour Averaged Precip Rate (mm/hr), MSLP (hPa), & 1000-500mb Thick (dam)

Init: 00z Jul 24 2017 Forecast Hour: [6] valid at 06z Mon, Jul 24 2017

TROPICALTIDBITS.COM



Forecast Hour: 6

006	012	018	024
030	036	042	048
054	060	066	072
078	084	090	096
102	108	114	120
126	132	138	144
150	156	162	168
174	180	186	192
198	204	210	216
222	228	234	240
252	264	276	288
300	312	324	336
348	360	372	384

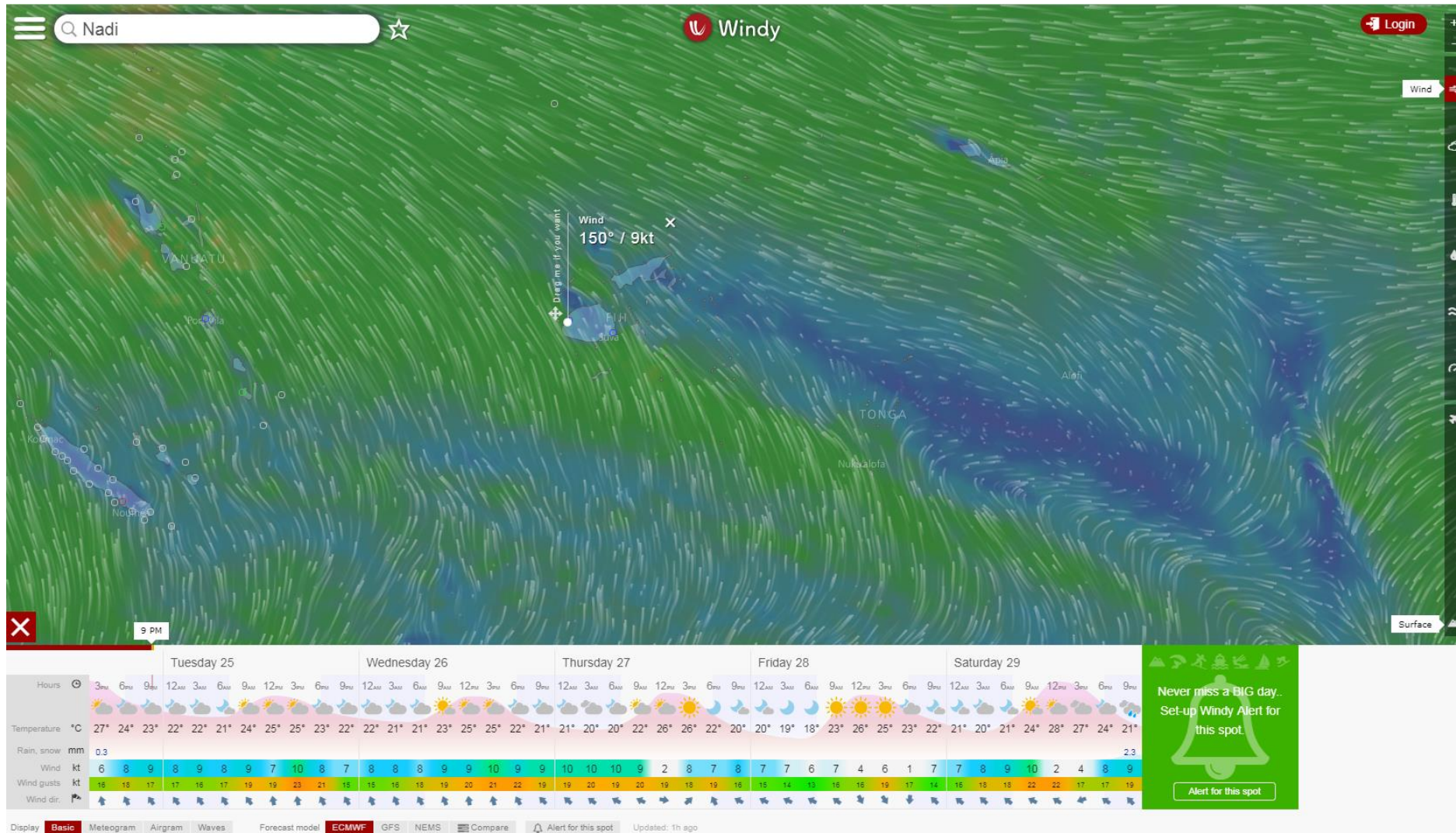


Australian Government
Bureau of Meteorology

Web sites for models

windytv.com

also earth.nullschool.net





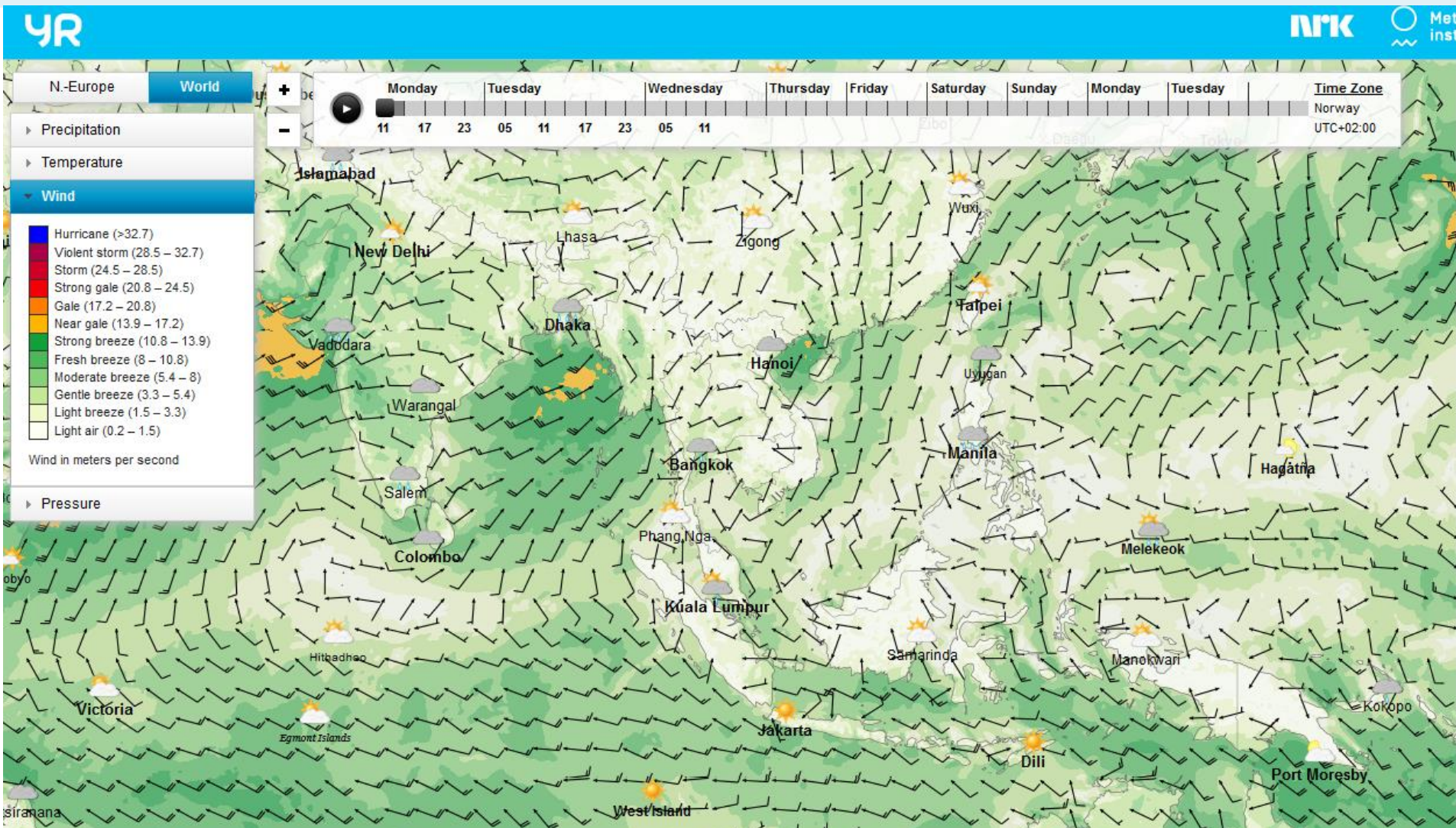
Australian Government

Bureau of Meteorology

Web sites

Norwegian for ECMWF wind, rain

<http://www.yr.no/kart/>





Australian Government

Bureau of Meteorology

Web sites

BoM

<http://www.bom.gov.au/australia/charts/>

Australian Government
Bureau of Meteorology

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[Bureau Home](#) > [Australia](#) > **Weather Maps**

Weather Maps

Numerical Weather and Ocean Prediction Maps

- [Interactive Weather and Wave Forecast Maps](#)
- [Numerical Weather Prediction \(NWP\) Products](#)

Australian Region

- [Mean Sea Level Pressure \(MSLP\) map](#)
- [Short-term forecast](#)
- [Forecast map for next 4 days](#)
- [UV Forecast](#)

Tropical Region

Mean Sea Level Pressure (MSLP)

- [Asia MSLP Analysis 00 UTC](#)

Gradient Level Wind (GLW)

- Gradient Level Wind Analysis: [00 UTC](#) or [12 UTC](#)
- Pacific Ocean GLW (A): [00 UTC](#) or [12 UTC](#)
- Indian Ocean GLW (B): [00 UTC](#) or [12 UTC](#)



Australian Government

Bureau of Meteorology

Web sites

NOAA/AOML Ocean page

<http://www.aoml.noaa.gov/phod/cyclone/data/sp.html>




NOAA/AOML TCHP

NOAA AOML PhOD **TCHP**

Quick Search Go Popular topics.. ▼

Introduction

Seven Basins

Methodology

Examples

Hurricane Katrina

Hurricane Rita (NYTimes)

Daily Maps

Global

Gulf of Mexico

Caribbean

Atlantic

Northeast Pacific

Tropical Pacific

Southwest Pacific

Northwest Pacific

Southwest Indian

Southeast Indian

North Indian

South Atlantic

Additional Resources

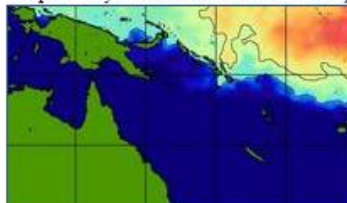
Publications

References

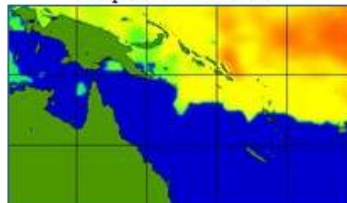
Australian/Southwest Pacific Fields

Date: Aug 27 2015

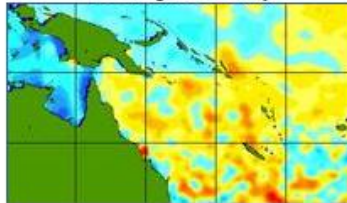
Tropical Cyclone Heat Potential Loop



Depth 26.C Isotherm



Sea Height Anomaly



Sea Surface Temperature Loop



Select other date below:

Month Day Year



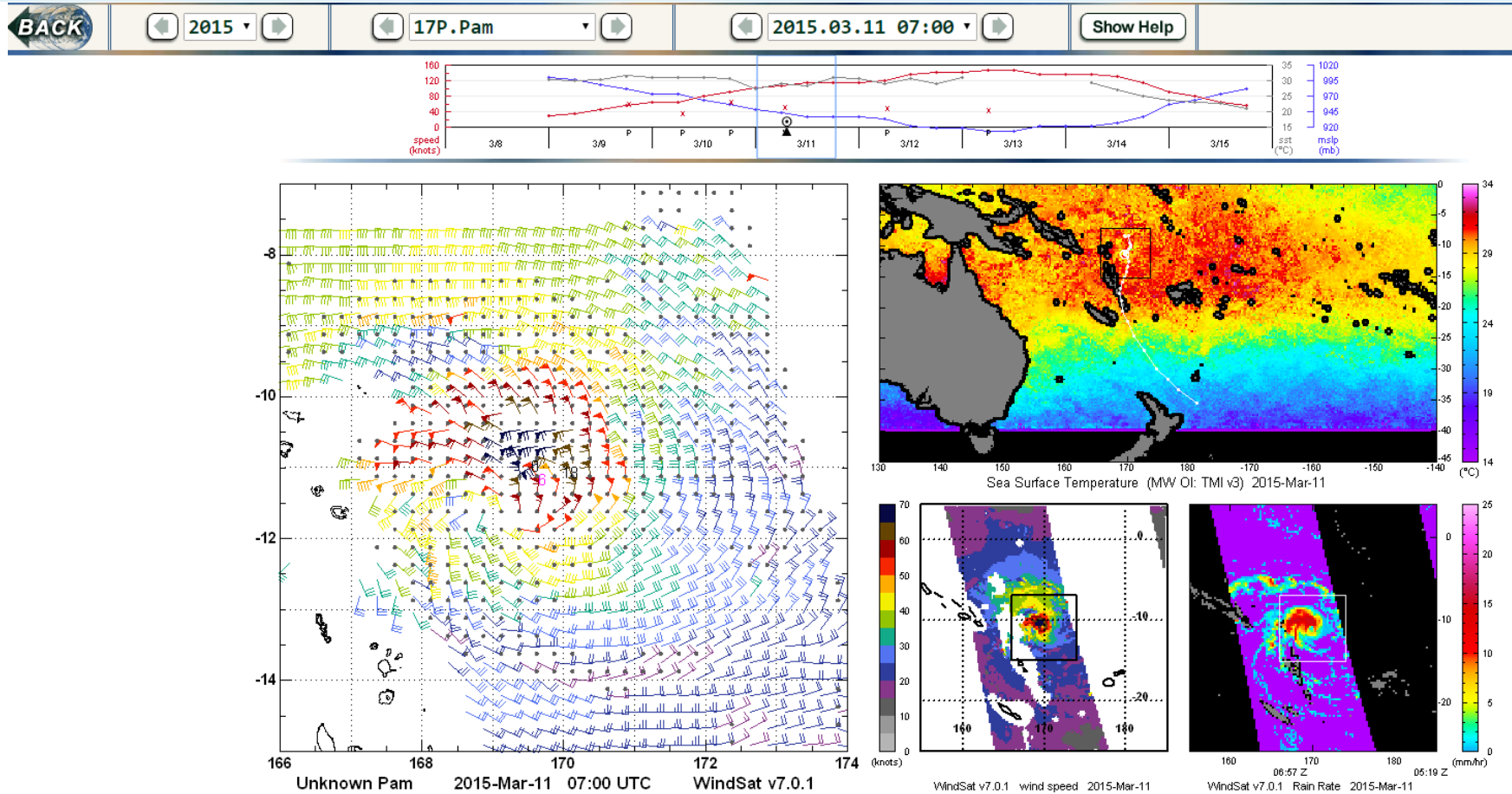
Australian Government

Bureau of Meteorology

Web sites

RSS Storm watch

<http://www.remss.com/storm-watch>



Last updated: 2005.06.07, 01:06, Coordinated Universal Time <> support@remss.com

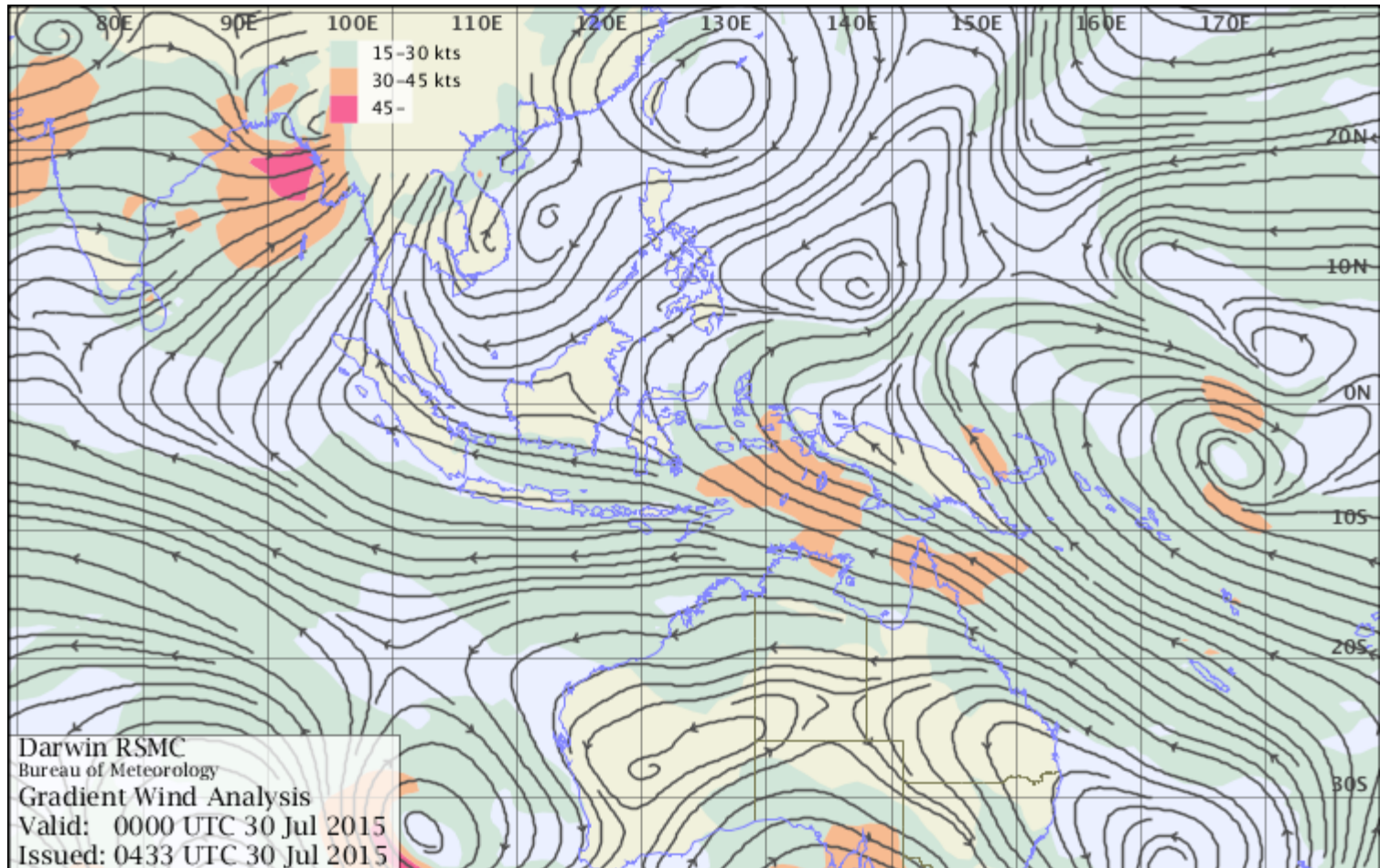


Australian Government

Bureau of Meteorology

Understanding Low level flow

Convergence, synoptic features MT

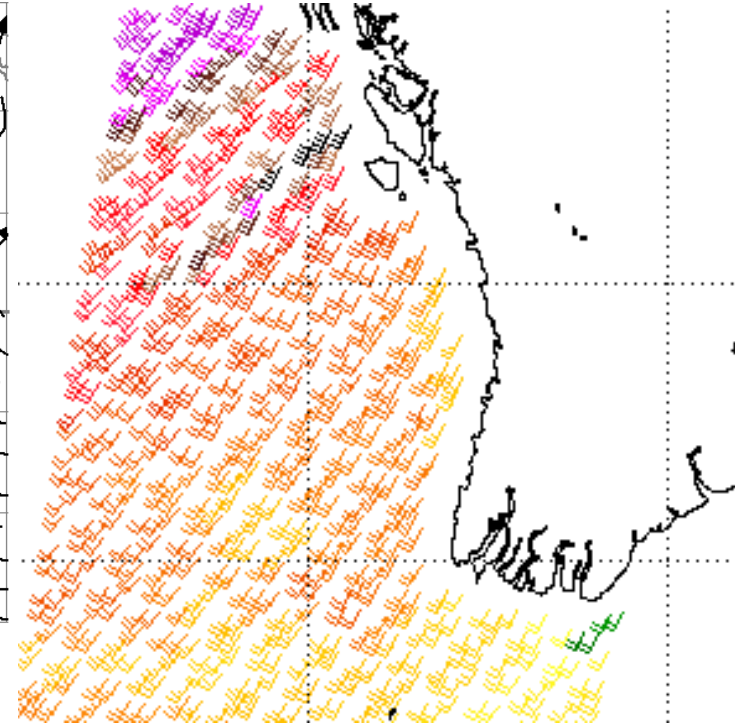
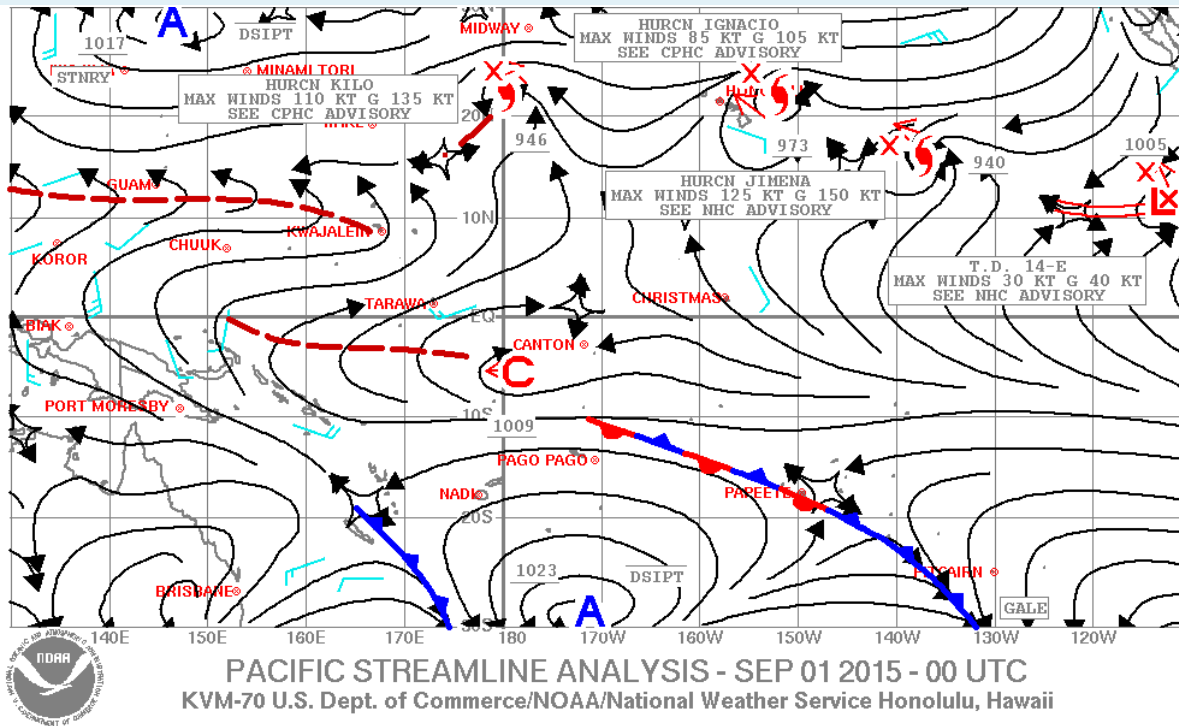




Australian Government
Bureau of Meteorology

Understanding Low level flow

Observations/analyses/scatterometry

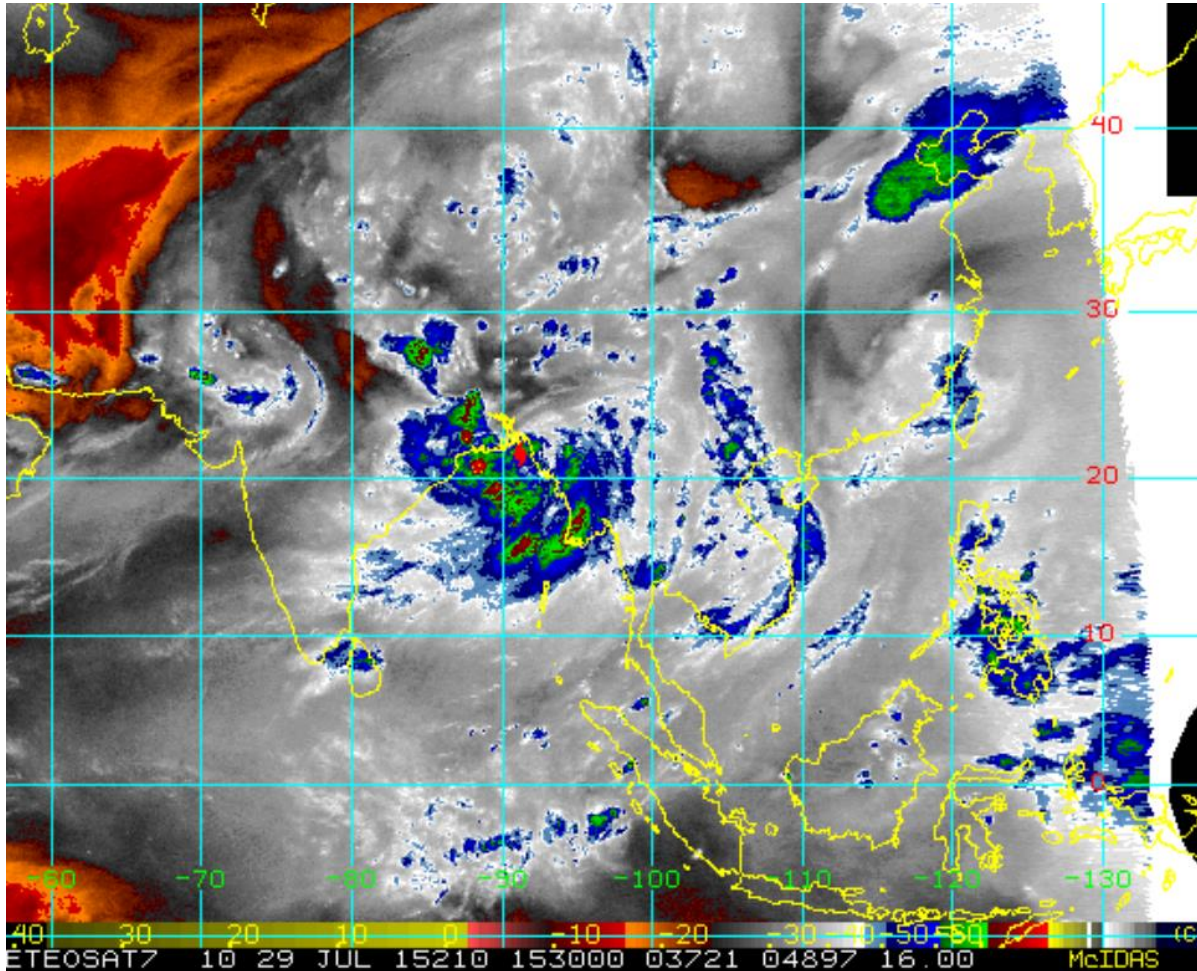


<http://www.prh.noaa.gov/hnl/graphics/stream.gif>

<http://manati.star.nesdis.noaa.gov/datasets/ASCATData.php/>

Bureau of Meteorology

WV loop (CIRA)



http://rammb.cira.colostate.edu/products/tc_realtime/loop.asp?product=16kmgwvp&storm identifier=IO022015&starting image=2015IO02 16KMGWVP 201507290330.GIF



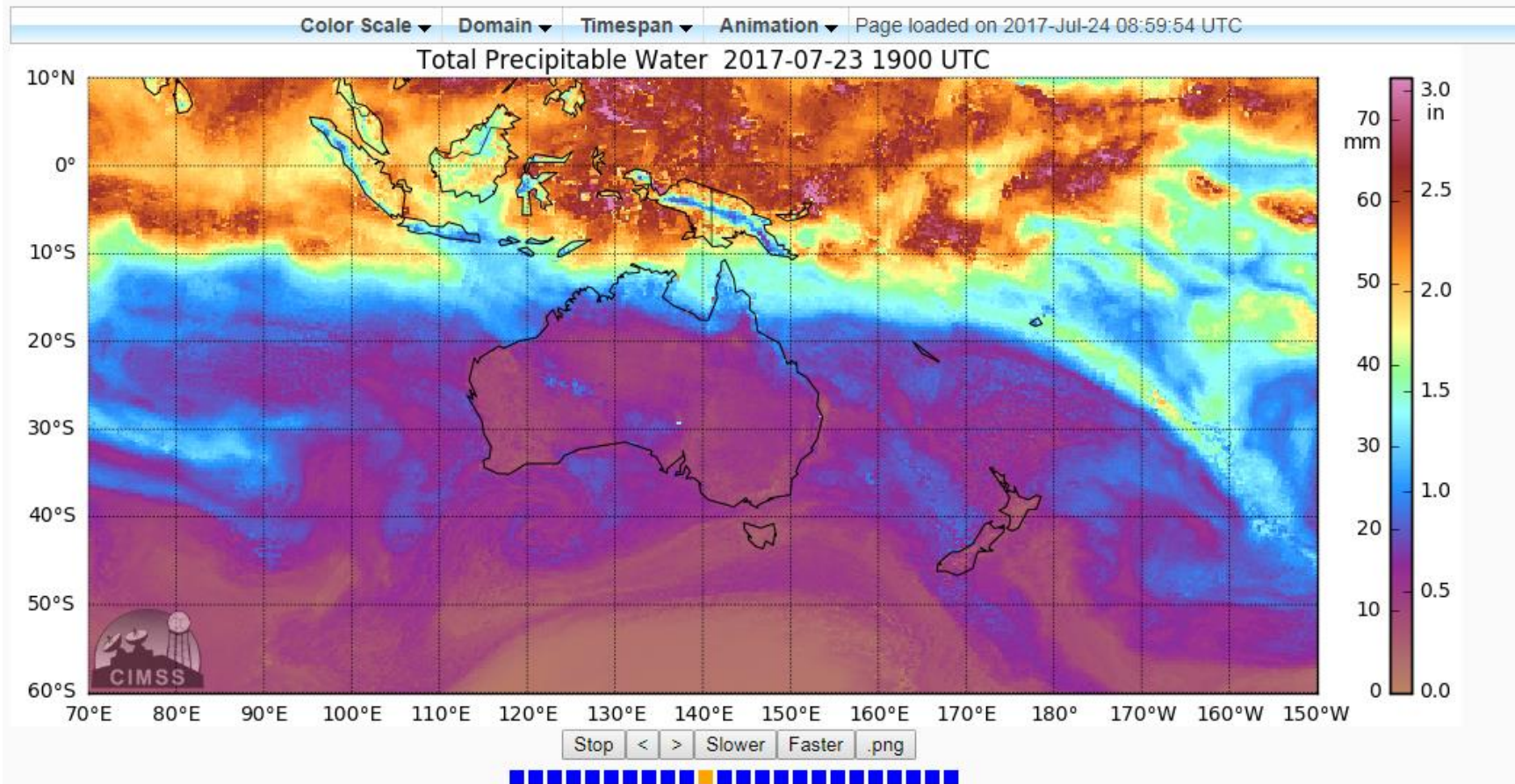
Australian Government

Bureau of Meteorology

Understanding moisture & synoptic systems

Total precipitable water loop

Real-time Product View



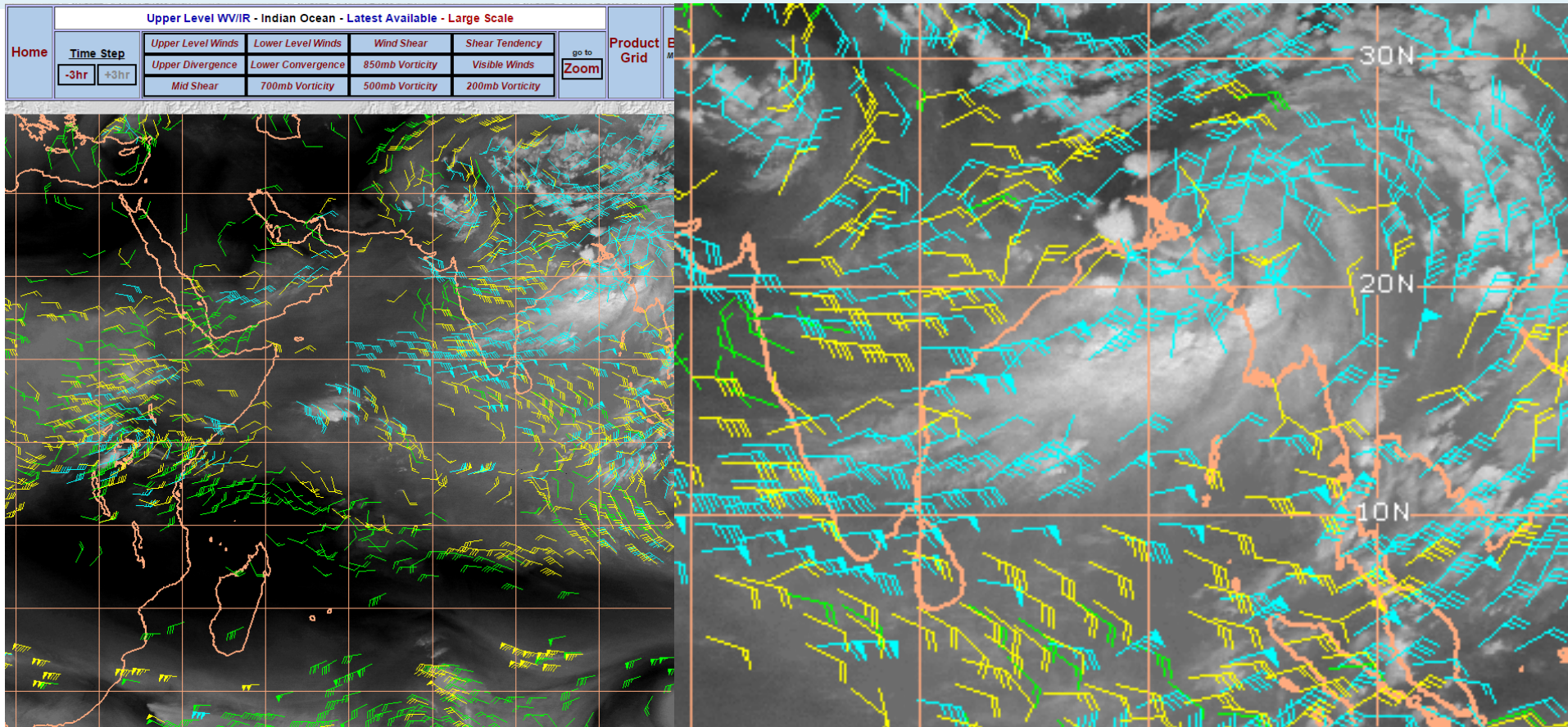
http://tropic.ssec.wisc.edu/real-time/mtpw2/product.php?color_type=tpw_nrl_colors&prod=ausf×pan=24hrs&anim=html5



Australian Government
Bureau of Meteorology

Understanding upper level flow

Divergence, upper ridge axis, ML trough



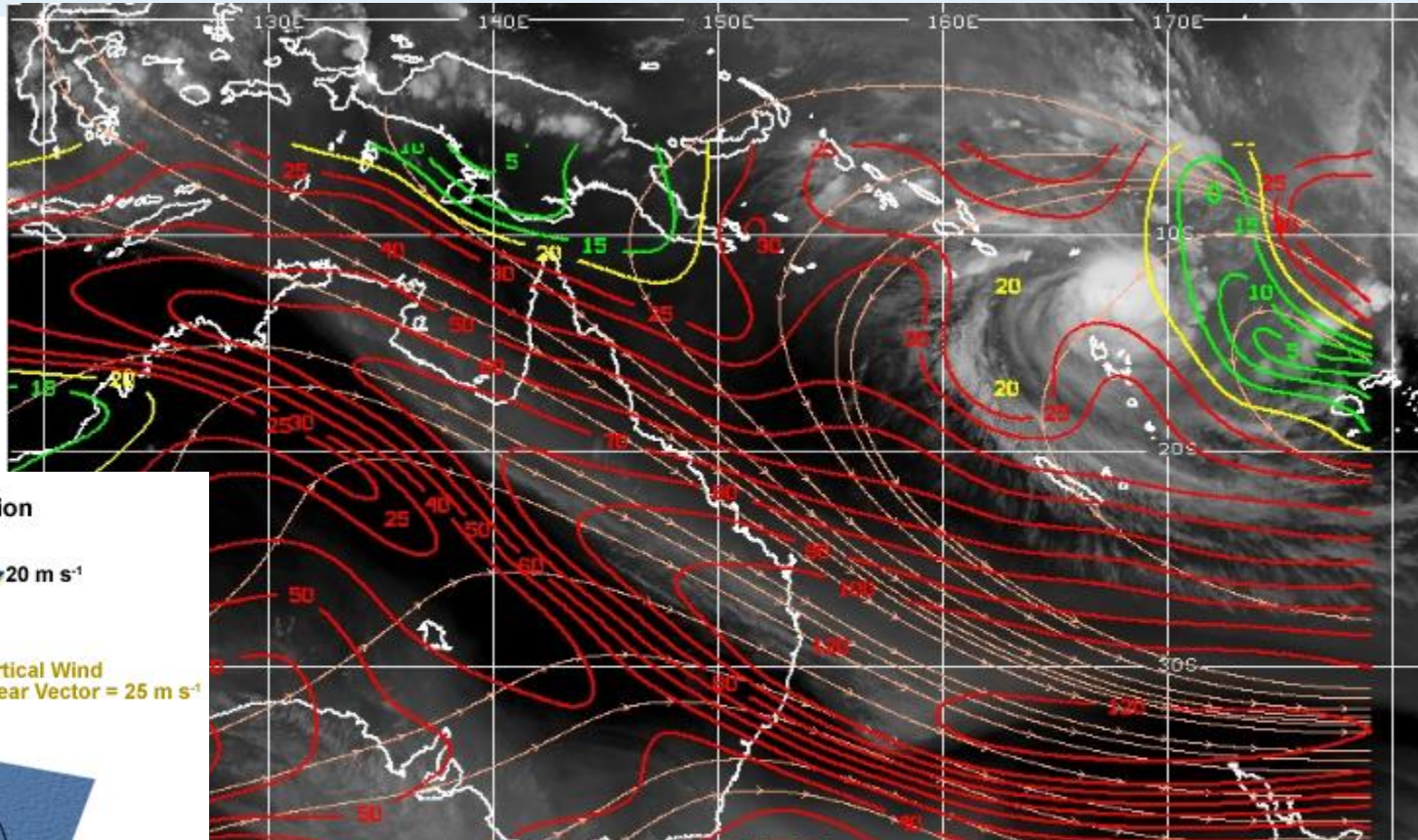
<http://tropic.ssec.wisc.edu/real-time/windmain.php?&basin=indian&sat=wm5&prod=wwir&zoom=&time=>



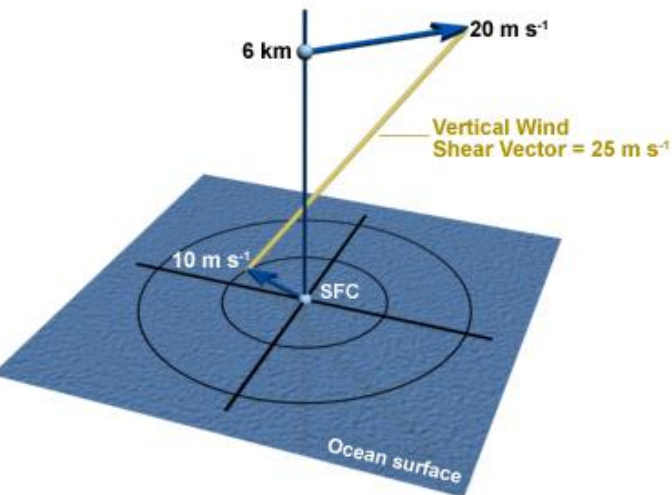
Australian Government
Bureau of Meteorology

Understanding wind shear

Low – mod – high ?



Vertical Wind Shear Calculation



<http://tropic.ssec.wisc.edu/real-time/windmain.php?&basin=austeast&sat=wgms&prod=shr&zoom=&time=>

CLONE FORMATION/INTENSIFICATION IS GENERALLY: FAVORABLE/NEUTRAL/UNFAVORABLE
HITMAWST MTND SHEAR (KTS) 11:00 UTC 04MAY12 UN-CTSS



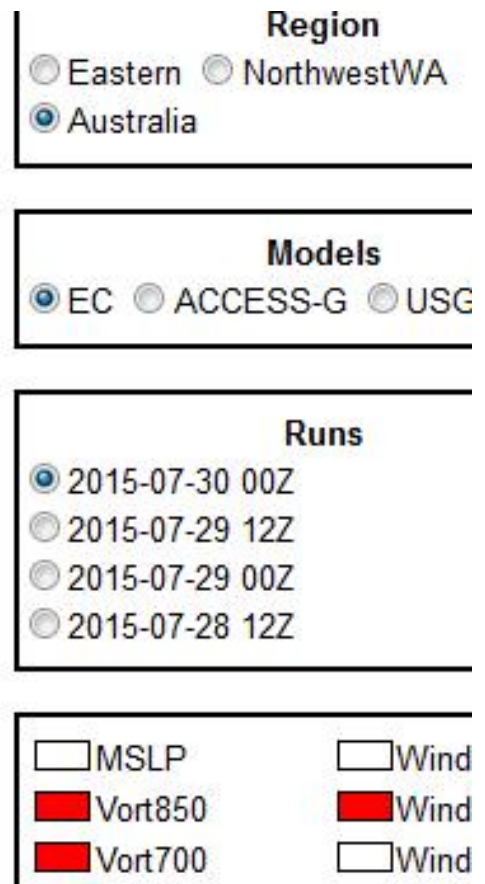
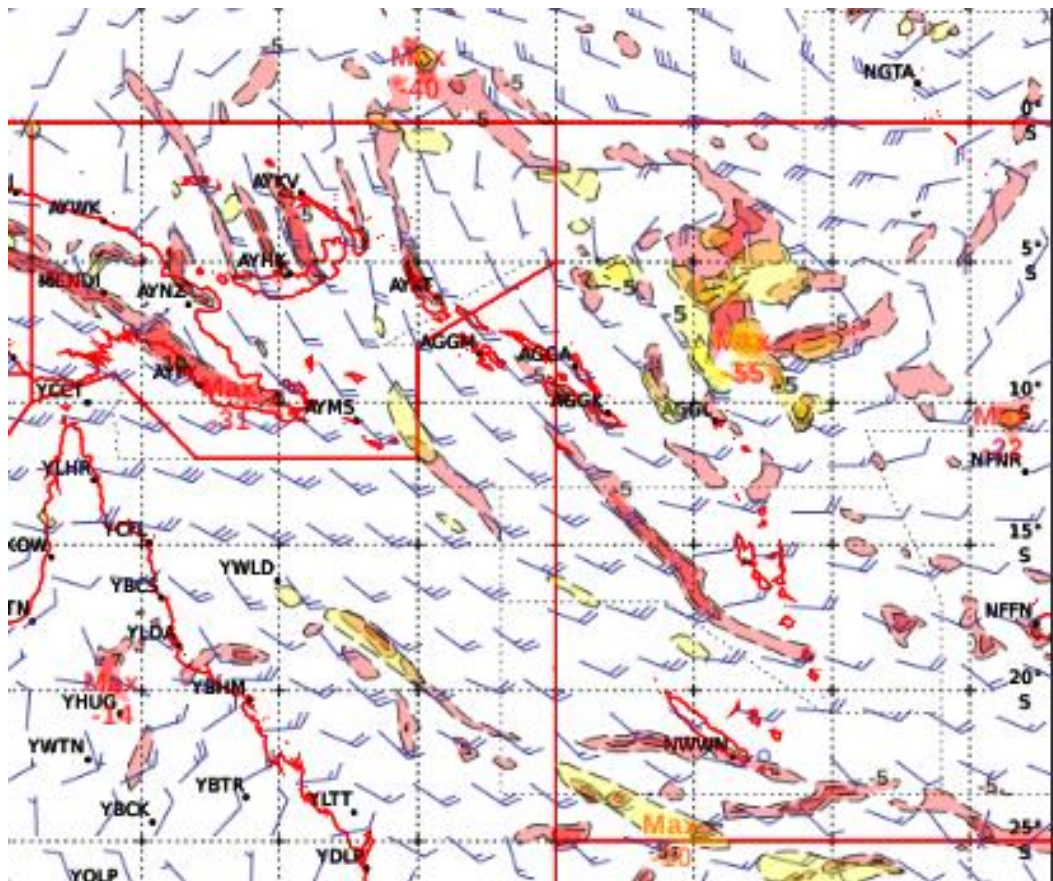
Australian Government

Bureau of Meteorology

Understanding shear

Vorticity 850-700-500 hPa

Need a good display ???

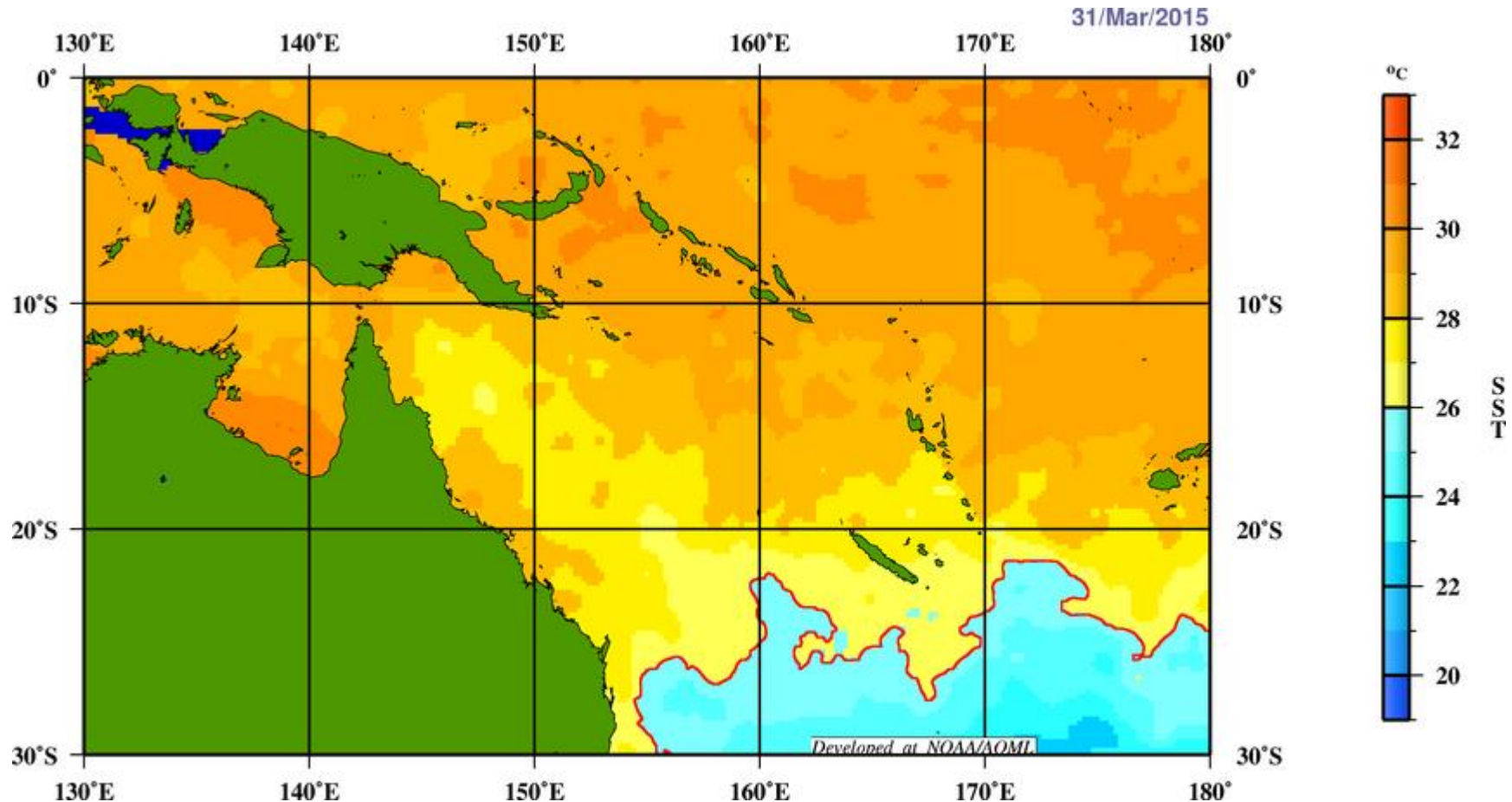




Australian Government
Bureau of Meteorology

Understanding ocean temperatures

SST and OHC



<http://www.aoml.noaa.gov/phod/cyclone/data/ni.html>

Exercise

Using web pages diagnose the current synoptic environment:

Identify synoptic systems,
Low, mid, upper level flow,
Low-mid level moisture,
Wind shear,
Ocean temperatures;

What does this say about the cyclone or potential cyclone?