



WeatherWise

By Mike Griffin*

Understanding The Weather From June Into July

It's the coldest time of the year as the high pressure systems move over the land parts of Australia. The zonal westerlies with fronts come up from the south west Bight, causing showers and storms in W.A., some rain in S.A. and south eastern Australia.

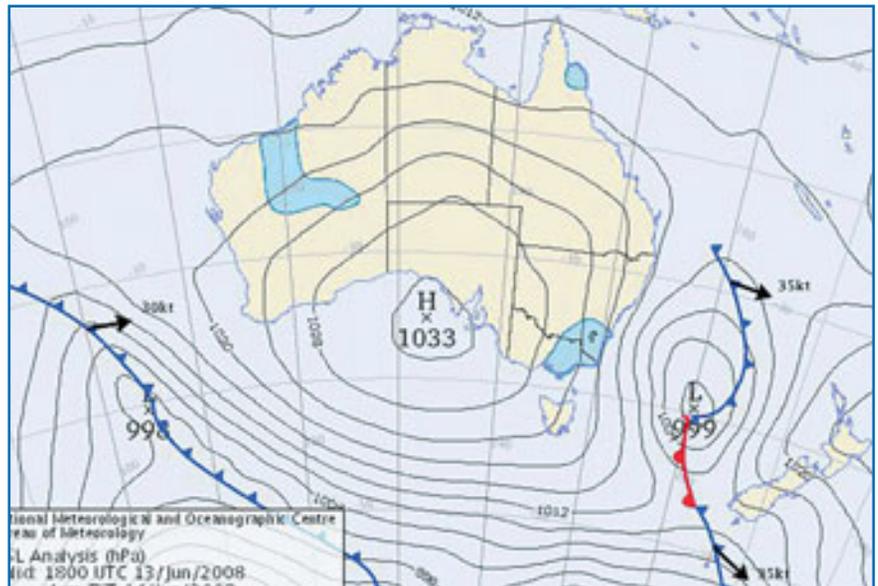
The cold winds from the south cause showers of sleet and snow in the eastern Bight and Bass Strait. The east coast lows in the Tasman Sea, which have kept a regular 7-10 day development period, have caused 2 - 3m seas and more.

There's more to come! The northern Tropics have had south east to easterly winds causing showers and rough seas in the north west Coral Sea, while the N.T. has been perfect but not for long. The higher moisture content this year has caused fogs from the Central Queensland through NSW and Victoria.

The largest fishing competition in Australia – The Boyne/Tannum Hookup asked me to do a forecast from 3rd June to the 10th June. The Hookup competition started on the 6th and finished on the 8th. The forecast was for calm conditions for the 6th and 7th with a fresh gusty southerly on the 8th. The organisers sent it off to 1900 people who had email. I did not know this at first but the weather followed the forecast. *Phew!* This meant most of the fishermen were able to fish on the first two days and relax on the third.

There were some big fish caught – 24.3 kg spanish mackerel and a 12.03 red emperor.

There was an equal live fish category where the fish were returned to their normal habitat. Bill Sawynok from Infish and the Gladstone Sport Fishing Club supervised the live category and tagged each fish for research and kept the fish in a special oxygenated tank before



being “properly” placed back into their correct environment. Apparently fish should be returned from where they are caught. If they were returned to the wrong habitat – even 100 –150 km away - it has a strong chance of passing on disease to other fish and visa versa. Bill told me the colder than normal winter of 2007 caused a lot of fish to die in Central Queensland waters - mainly in estuaries and dams.

So what is coming up for the Australian coastline for rest of June?

Western Australia

The regular seven day front has been hitting the south west coast around the weekends. Thunderstorms with severe squalls, heralded by that nasty north westerly, have been embedded with tornadoes being reported south of Perth.

Scary! To make things worse cold south to south westerlies followed, within 24-48 hours. And I'm sorry to say the pattern seems to be continuing. There is a chance it may tend to Monday and Tuesday at the end of the month. So there is hope for the weekend fisherman in the populous south.

Further north along the coast, storms have been reaching Geraldton, Onslow and Learmonth. The tropical north has been receiving the best weather with light to moderate winds. The warmer “winter” weather around Broome and Derby, makes it ideal to take the “tinny” out. During the fourth week watch for freshening easterlies.

South Australia

The zonal westerlies have been blasting Ceduna, Cape Borda and Neptune Island in the second week of June. Again the cold south westerlies have kicked up 2-3 metre seas and the chill-factor has made things very cold. The following high has brought frosts inland and calm conditions early with those disorientating fogs. The good thing is that this current high may last till the early part of the fourth week of June. That means light winds and almost calm seas. The next front, about the mid to the latter part of the fourth

TIP OF THE MONTH: FOGGY Days!

The Oxford dictionary defines fog as a thick cloud of tiny droplets suspended in the atmosphere at or near the earth's surface. The term also means a visibility of less than 1000 metres or 1km.

Reduced visibility greater than this can be described as mist. Some quarters suggest a visibility of 1000 metres to 5000 metres should be called mist. Then visibilities from 5000 metres to 10,000 as haze. But isn't haze associated with dust and smoke? Confused? These definitions could be changed in the future.

This makes it a little obscure which the dictionary goes on to say disorientating and confusing. Just like "white-out" in the snowfield, disorientation reigns in fogs over the land and ocean.

Meteorologically, fog occurs when the specific air mass in question lowers its temperature to its dewpoint thereby causing total saturation. Over the ocean this can occur at 97% relative humidity. Conditions are usually calm but a light 2-4 knot wind could help the advection of moist air into drier air and visa versa.

Poor visibility can cause accidents which hold up transport. Recent fogs along the east coast have held up ferries in Sydney Harbour and grounded aircraft in Melbourne and Brisbane. During the June long weekend at the Boyne/Tannum Hookup fishermen found it hard to enter the Gladstone Harbour because they could not see the buoys marking the entrance. This was about 9 or 10 am in the morning.

Most fogs in Australia are winter phenomena and clear by

9 am. Only the very severe fogs clear around 11 am on the ocean. What causes this phenomena?

Continuing research gives four categories:

Radiation fog. Usually land based and associated with a high pressure system and clear nights. A surface inversion forms as the air near the ground is lowered to the dewpoint causing the moisture to condense out. Fogs can range from 1-2 metres (shallow fog), up to 3-5 metres in depth. It could join cloud and seem higher.

Advection fog. One that is transferred by a light wind into another area.

Mixing of unsaturated air masses. When a warm moist air mass mixes with a drier cooler surface or air mass.

Fog after rain. After the air is saturated by precipitation the cloud clears by late evening, allowing the cool night air to lower the surface temperature to the dewpoint.

Sea fog usually fits the third category – but can fit a hybrid of all four - where a warm moist air mass (sometimes with fine drizzle) moves over a relative cooler ocean temperature. Very thick sea fogs can have visibilities 500 metre to 50 metres. Salt can act as hygroscopic nuclei to form fog droplets at 97% relative humidity. If cold air is advected off the land over a warm ocean a steam or patchy fog can form here. This can fluctuate from mist to fog during the early hours of the morning.

Just like the different parts of Australia have a particular style of fog so do the different parts of the world. So much so they have given them names.

In the British Isles, most fogs occur in summer. In Scotland it is called the Haar and England the Fret.

Confused and disorientated – *grey areas* – but weatherwise!

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week may be short lived, before the next high arrives. Which means, early July may have S.A. under the influence of a high pressure – good for fishing!

Victoria/Tasmania

This is the coldest and it could be said one of the most treacherous parts of the year. Fronts move up from the southern ocean, "blast" through Tasmania and "sneak" into west Bass Strait. This should happen in the early to mid part of the third week of June before moving quickly into the Tasman. This gives a gap of 5-7 days before another front "sneaks" up from the south in the early part of the fourth week. Showers with squalls and sleet will accompany these features. This pattern will continue to early July. The wind-chill factor with increased wind, will make the body comfort factor feel less than 10 degrees.

New South Wales

The east coast lows have been a feature and will continue into July. Now let's see if we can get the timing right. The low of the 14th and 15th June should move over to New Zealand and cause a bit of havoc

with freshening winds and rain, by mid-week. The next one looks like – *you guessed it* – 22 and 23rd June. So the week days are looking better and by the end of the month most weekend fishermen will be getting desperate. So the best chance is the early part of July. Don't write off the 29th and 30th June.

Queensland

These weekend east coast lows – mentioned in the NSW section – should affect the southern portion of Queensland to the central coast. This means some good "ground" swell for the surfers south of Agnes Waters to the Gold Coast, but be wary of the rips in a fresh southerly. This means that some of the well known sand bars could be hard to navigate. The large high could ridge into Central Queensland at the beginning of the fourth week. This may make the weekend southerly burst short lived. Beware of the calm conditions inshore with the initial onset of the south west to southerly. It could be a good 20 knots out wide – trap for young players. In the tropical north (Townsville to Cape York) easterly winds will cause an early brief shower with light

to moderate winds and 0.8 - 1.0 metre seas – less than that inshore. Winds should increase early in the fourth week of June and raise seas up 1.5 - 2.0 metres with some good squally showers. These winds may affect the Gulf of Carpentaria.

Northern Territory

Ideal dry conditions can't last for ever. Again the fourth week in June should see increases in wind with showers for Gove and the adjacent islands, reaching the Wessel Island group. Even the Arafura Sea could be affected. These winds could last for a week before easing by early July.

Armed with this guidance always check the winds and forecast before going out – then you are weatherwise!

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* Mike Griffin is a veteran of 34 years with the Bureau of Meteorology, serving all over Australia in many places, including Darwin, Perth, Melbourne, Sydney, Canberra and Rockhampton - where he now lives. Son of a professional fisherman, Mike has enjoyed a life-long affinity with boats, the sea and fishing. Semi-retired now, he still broadcasts with the ABC in Central Qld, and works with the tourism industry, charter and professional fishes.