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MARINE RESEARCH

## **1998 Sydney to Hobart Current Information**



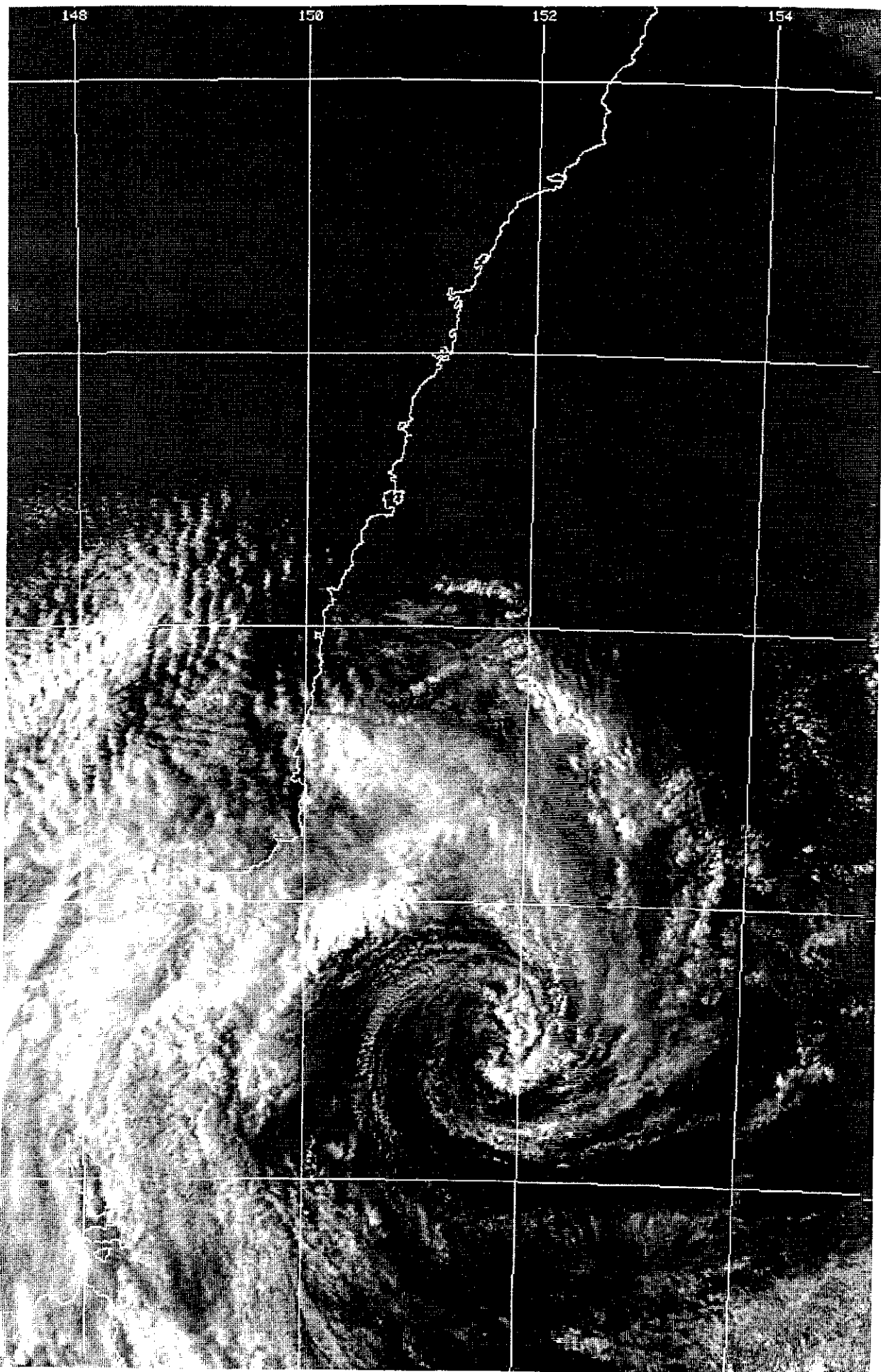
*Back to the main yacht race page*

[http://www.marine.csiro.au/yacht\\_races/](http://www.marine.csiro.au/yacht_races/)

### **Update on latest sea surface conditions**

Written by George Cresswell and Kim Badcock, December 1998  
CSIRO Marine Research

December 28, comments on 27 Dec 1998 0504Z image



27 DEC 1998 0504Z



NOAA14 albedo 27 Dec 1998 0504Z  
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NOAA AVHRR albedo image from satellite NOAA14 received and processed at Hobart on 1604 AEST December 27th 1998. This image clearly shows the spiralling clouds of the intense 984 mm that so devastated the race fleet. As in 1993, the combination of high winds and strong currents further steepened already huge seas.

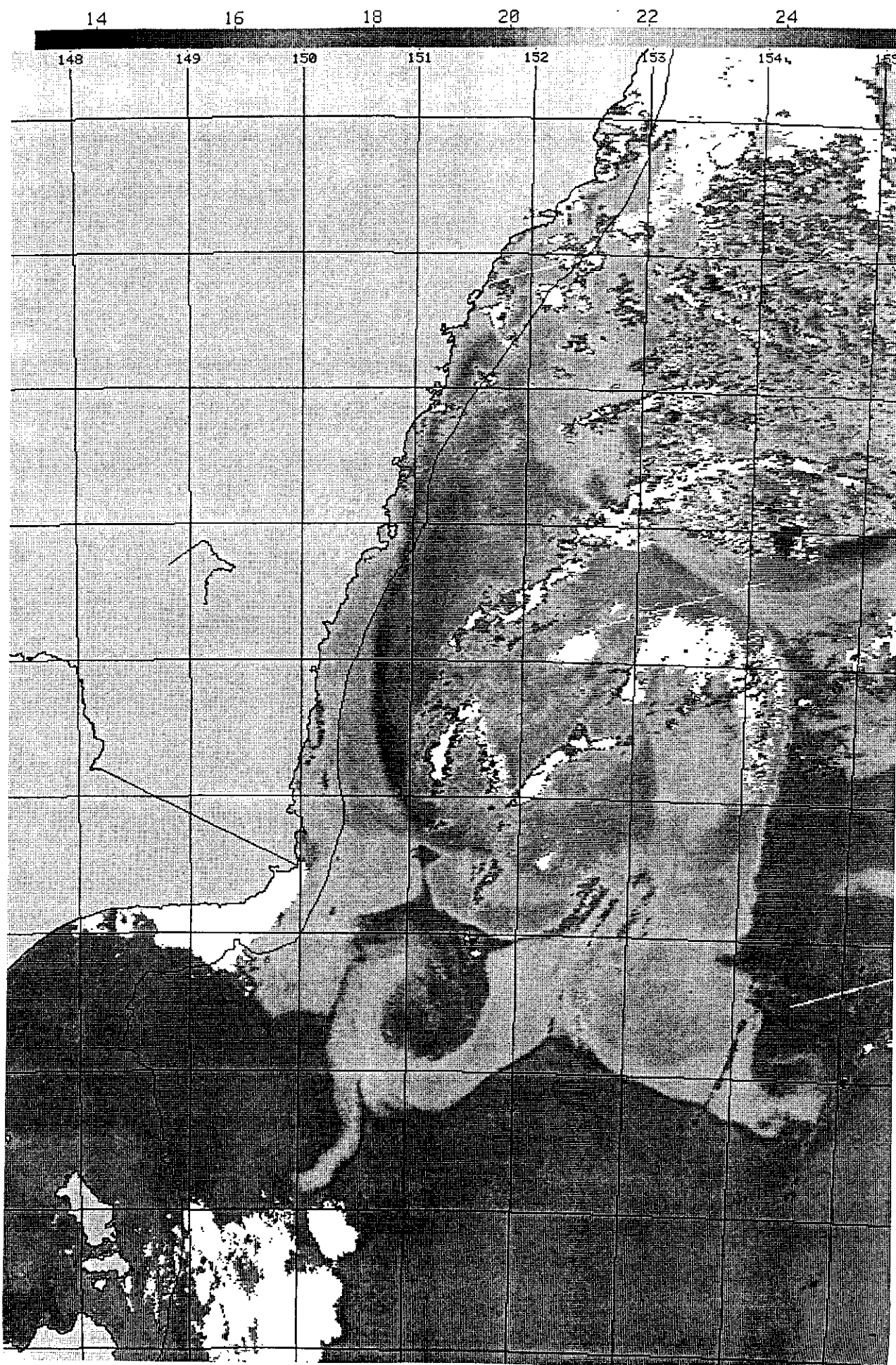
Like everybody else, we are shocked and saddened by the tragic loss of life and can only hope that other competitors and rescue personnel return safely.

**December, 26th 1998, no new image.**

As so often happens this time of year, the clouds have won the day. We will keep checking during race. Our apologies to everyone who had difficulties accessing the site on Christmas Eve. Spectacular electrical storms caused power interruptions which in turn threw our computers into disarray.

Have a fantastic race and a safe journey. We look forward to seeing all of you in Hobart.

**Comments on 23 Dec 1998 0655Z-1016Z image**





NOAA12 SST mosaic 23 Dec 1998 0655Z-1016Z  
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There are similarities between the present eddy centred at about 36 S, 152 E and the one shown in 1989 image and current measurements in my discussion The Anticlockwise Eddies off SE Australia suggest using that as a guide. I'd expect currents to accelerate southward with 4 knots being possible the warm band from 35 30'S to 37 S. I see that the EAC meander and the eddy are starting to graze another at about 35 20'S, 153 30'E. My feeling is that this could lead to some rapid changes in the position and shape of the eddy.

There is a clockwise eddy - max speed about 1 knot - centred at 38 30'S, 151 E.

Off the continental shelf of E Tas there is (still) a warm feature that will be rotating anticlockwise maybe 1 knot. I expect that the currents on the shelf will not be as favourable - and possibly unfavourable.

We hope that your preparations for a truly exciting but safe race are well underway.

## Previous updates on sea surface conditions

### Comments on 22 Dec 1998 0716Z-0857Z image



**Click on the small image to view the full resolution image.**

The situation with the EAC meander and the large eddy centred at about 36 S, 152 E is largely unchanged. The eddy may slide southward by up to 100 km during the next week. There is a noticeable band of warm water that peels off the EAC meander near Sugarloaf Point and runs southward on the shelf all the way to Jervis Bay, where it feeds into the eddy. We've seen bands like this before, but haven't surveyed them adequately.

In Nov 1989 we stemmed one between Jervis Bay and Sydney. We encountered it just north of Jervis Bay when the sounder read 125 m. The current was 2.2 knots southward and the warm EAC water extended all the way to the bottom. Even at the 75 m isobath off Pt Kembla (we'd come in closer) the current was 1.5 knots. There is a cold plume heading northward on the E Tas shelf past Flinders Is probably about 1/2 knot. Out to sea from E Tas appears to be a warm eddy as was hinted in the write-up yesterday.

### Comments on the image from 21 Dec 1998 1724Z-1901Z.



Click on the small image to view the full resolution image.

The pattern of the EAC system has evolved quite quickly since 19 Dec. The branch of the EAC that flowed in towards Pittwater has been cut off. All the EAC flow now follows the meander out to sea 3+ knots.

The anticlockwise eddy extends from Wollongong to Bass Str and from the shelf edge off Naroom about 350 km out to sea. It is big. A large amount of warm water peels off the eastern edge of the eddy and reaches southward. Near Green Cape more water from the eddy follows the shelf edge to the south. Perhaps an eddy will form or become more obvious to the east of Bass Str.

There is upwelling of 15 deg C water at the Gippsland coast. The eastern Tas region is partly cloud free and shows cold 14 deg C water nearshore, possibly the result of forcing by northerly winds. There is warmer 16 deg C water off the shelf and it is there that the currents are likely to be favourable (southward), but only to the extent of maybe 1 knot.

#### Comments on the image from 19 Dec 1998 0316Z-0634Z.



Click on the small image to view the full resolution image.

It appears that the EAC system off SE Australia is starting to fold into a recognisable pattern: A branch of 26 deg C water that has edged in near Smoky Cape shoots southward to 34 30'S. A branch spreads westward towards Pittwater and then splits, with most running southward to Eden. It then turns seaward and loops around a large anticlockwise eddy, closing back on itself off Jervis Bay.

The eddy is about 200 km north-south and 350 km east-west. These eddies usually precess anticlockwise - we can look at the images over the next few days to see if this does happen. We have seen in the past that the pressing of an eddy against the continental shelf edge seems to increase the slope of the sea surface, leading to enhanced southward currents on its western side. (Take a look at the current measurements across the eddy in [The Anticlockwise Eddies off South East Australia](#))

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