

Satellite aids reef research

By **JOHN ANDERSEN and AAP**

A SATELLITE to be launched in the United States on Friday will help scientists from the Australian Institute of Marine Science (AIMS) better understand the Great Barrier Reef.

The US/French Jason 1 satellite will measure ocean levels with unprecedented accuracy, AIMS experimental scientist Craig Steinberg said yesterday.

Mr Steinberg said the AIMS team, along with scientists from James Cook University, would use the satellite to study sea level variations and map them over the entire Coral Sea.

"This allows us to work out which way the major currents flow," he said.

Mr Steinberg said the southern equatorial current, which flowed from the east, split into northward and southward-flowing sections when it hit the Great Barrier Reef.

He said the southern flowing current, called the east Australian current, was of interest to the scientific community.

He said having a better understanding of Coral Sea currents gave scientists a better understanding of how marine life moved around the reef.

"Water flow is an important factor in determining where things go on the reef," he said.

Mr Steinberg said information gleaned by the satellite would also be used to determine local weather patterns.

The satellite will orbit the Earth at a height of 3336km and will measure the oceans to an accuracy of two centimetres.

CSIRO Marine Research spokesman John Church heads a team of Hobart-based oceanographers and climatologists, who will also use data from the satellite for climate change studies and other research in southern Australian waters.

Mr Church said the satellite would detect ocean surface elevations, indicating the presence of currents and eddies and helping measure the depth of warm water layers that influence rain.

Dr Church said the data could be put to many more uses, and include information on ocean currents valuable to the navy and rescue authorities.

It would be particularly valuable to fishermen.

CSIRO oceanographer David Griffin said advances in satellite technology and computer modelling were enabling scientists to link fluctuations in fishery yields to changing conditions.

Changes in currents, temperature and salinity affected the breeding, distribution and abundance of all fish.

One of Dr Griffin's projects is to study how western rock lobster larvae are carried out to sea and back again a year later, research that will enable good and bad seasons to be predicted.