

**AUSTRALIAN MARITIME SAFETY AUTHORITY
AUSTRALIAN SEARCH AND RESCUE**

Organisation :	NSW Water Police	From :	John Young
	Section		
Attention :	Senior Constable David		Analysis Officer
	Upston		
Phone :	02 96925411	Phone :	02-62795702
Fax :	02 96925427	Fax :	02-62795757
No of Pages :	5 (including this one)	Date :	23/02/99
Your Ref :		AMSA Ref :	20679

Please find attached the list of EPIRBs you requested.





Australian Search and Rescue
a division of the
Australian Maritime Safety Authority

AMSA Ref: 20679
Your Ref: Fax dated 16 February 1999

Senior Constable David Upston
NSW Water Police Section
Wharf 25 Harris Street
PYRMONT
NSW 2009

Detection of Emergency Beacons, 1998 Sydney-Hobart Yacht Race

This letter responds to your fax request for EPIRB detections from the Sydney-Hobart yachts. Please find attached a filtered listing of the detections made.

In general sequential detections occur with each satellite pass. We have shown all of the reliable detections although you may find that the first and last Resolved Alerts for each beacon are adequate for your purposes.

Please note that for 121.5 MHz alerts the "ELT ID" is a new number issued with the Initial Alert. Provided subsequent satellite passes meet certain criteria for beacon characteristics and position the system will assign the original ELT ID.

Correlation of the ELT ID with a particular yacht normally relies on identification of a radiating beacon by an aircraft with a homer. In the Sydney-Hobart operation, multiple beacons and multiple yachts all in a relatively small area frustrated the normal identification process. Hence the large number of "unknown 121.5 MHz beacon" assessments in the attachment.

The action officer for this matter is the AusSAR Analysis Officer, John Young. Please feel free to contact him on 02 62795702 to clarify any issues.
Yours Sincerely


David Baird
General Manager
Australian Search and Rescue

23 February 1999

Preliminary assessment of Cospas-Sarsat detections of 121.5 MHz and 406 MHz distress beacons associated with the Sydney-Hobart Yacht Race 1998

ELT ID	DTG (Z)	Latitude	Longitude	Status	Assessment
<p>* Each 121.5 MHz beacon position to be surrounded by a 20 km ring indicating the normal operating accuracy of the Cospas-Sarsat system</p> <p>* The first detection of a 121.5 MHz signal causes an "Initial Alert" with two "mirrored" positions normally many hundreds of miles apart. Cospas-Sarsat cannot determine which is the real one until a second satellite pass resolves the ambiguity.</p> <p>* A "Resolved Alert" is a confirmed position normally achieved when a second satellite receives the signal. For simplicity, only Resolved Alerts are shown in this sheet if possible.</p> <p>* An Initial Alert not followed by a Resolved Alert indicates a 121.5 Mhz signal (which may or may not have been a beacon) was not re-detected on subsequent satellite passes.</p>					
8917	26 0628Z Dec	37 47.3 S	150 22.9 E	Resolved Alert	Believed to be 121.5 Mhz beacon from merchant vessel "Thor Sky", based on time the signal began - not confirmed to belong to Thor Sky
	26 0653Z Dec	37 45.7 S	150 26.2 E	Resolved Alert	
	26 0704Z Dec	37 45.4 S	150 27.1 E	Resolved Alert	
	26 0806Z Dec	37 43.0 S	150 29.1 E	Resolved Alert	
	26 0815Z Dec	37 42.8 S	150 29.7 E	Resolved Alert	
	26 0849Z Dec	37 41.7 S	150 37.7 E	Resolved Alert	
	26 0947Z Dec	37 42.9 S	150 38.8 E	Resolved Alert	
	26 1009Z Dec	37 40.3 S	150 45.4 E	Resolved Alert	
	26 1037Z Dec	37 41.4 S	150 48.2 E	Resolved Alert	
	26 1150Z Dec	37 36.6 S	150 57.5 E	Resolved Alert	
	26 1242Z Dec	37 38.5 S	150 59.9 E	Resolved Alert	
	26 1457Z Dec	37 37.0 S	150 55.5 E	Resolved Alert	
	26 1541Z Dec	37 31.6 S	150 49.3 E	Resolved Alert	
	26 1608Z Dec	37 31.6 S	150 48.8 E	Resolved Alert	
	26 1614Z Dec	37 32.0 S	150 48.1 E	Resolved Alert	
	26 1637Z Dec	37 30.5 S	150 48.7 E	Resolved Alert	
	26 1727Z Dec	37 30.2 S	150 48.4 E	Resolved Alert	
	26 1746Z Dec	37 28.6 S	150 48.6 E	Resolved Alert	
	26 1803Z Dec	37 28.6 S	150 48.7 E	Resolved Alert	
	26 1818Z Dec	37 28.7 S	150 48.5 E	Resolved Alert	
	26 1926Z Dec	37 26.1 S	150 47.8 E	Resolved Alert	
	26 1927Z Dec	37 24.5 S	150 49.8 E	Resolved Alert	
	26 1949Z Dec	37 25.6 S	150 50.7 E	Resolved Alert	
	26 2106Z Dec	37 26.9 S	150 49.2 E	Resolved Alert	
	26 2133Z Dec	37 28.6 S	150 47.2 E	Resolved Alert	
8939	26 0653Z Dec	38 12.5 S	150 35.1 E	Resolved Alert	Unknown 121.5 MHz
	26 0704Z Dec	38 12.7 S	150 35.5 E	Resolved Alert	
	26 0806Z Dec	38 04.4 S	150 38.4 E	Resolved Alert	
	26 0850Z Dec	37 59.6 S	150 35.6 E	Resolved Alert	
	26 1009Z Dec	38 06.3 S	150 34.9 E	Resolved Alert	
	26 1150Z Dec	38 10.3 S	150 38.4 E	Resolved Alert	
	26 1242Z Dec	38 13.5 S	150 39.4 E	Resolved Alert	
	26 1329Z Dec	38 06.4 S	150 45.0 E	Resolved Alert	
8951	26 0652Z Dec	38 21.9 S	151 42.6 E	Initial Alert	Unknown 121.5 MHz
8953	26 0806Z Dec	38 39.7 S	149 53.0 E	Resolved Alert	
9024	26 1009Z Dec	37 31.2 S	150 28.3 E	Resolved Alert	Believed Solo Globe Challenge 121.5 MHz Beacon
	27 0128Z Dec	37 14.0 S	151 60.0 E	Resolved Alert	
	27 0313Z Dec	37 12.3 S	152 04.2 E	Resolved Alert	

Preliminary assessment of Cospas -Sarsat detections of 121.5 MHz and 406 MHz distress beacons associated with the Sydney-Hobart Yacht Race 1998

ELT ID	DTG (Z)	Latitude	Longitude	Status	Assessment
9024	26 1009Z Dec	37 31.2 S	150 28.3 E	Resolved Alert	Believed Solo Globe Challenge 121.5 MHz Beacon
	27 0128Z Dec	37 14.0 S	151 60.0 E	Resolved Alert	
	27 0313Z Dec	37 12.3 S	152 04.2 E	Resolved Alert	
	27 0320Z Dec	37 10.0 S	152 10.5 E	Resolved Alert	
	27 0502Z Dec	36 52.6 S	152 13.0 E	Resolved Alert	
	27 0510Z Dec	36 53.1 S	152 20.5 E	Resolved Alert	
	27 0548Z Dec	36 52.6 S	152 21.2 E	Resolved Alert	
	27 0604Z Dec	36 50.8 S	152 20.0 E	Resolved Alert	
	27 0642Z Dec	36 50.8 S	152 20.0 E	Resolved Alert	
	26 1126Z Dec	37 36.7 S	150 51.7 E	Resolved Alert	
	26 1150Z Dec	37 37.7 S	150 56.2 E	Resolved Alert	
	26 1242Z Dec	37 36.2 S	151 01.9 E	Resolved Alert	
	26 1329Z Dec	37 34.0 S	151 05.8 E	Resolved Alert	
	26 1427Z Dec	37 30.3 S	151 06.1 E	Resolved Alert	
	26 1457Z Dec	37 29.9 S	150 59.5 E	Resolved Alert	
	26 1541Z Dec	37 29.3 S	151 09.6 E	Resolved Alert	
	26 1614Z Dec	37 26.0 S	151 12.3 E	Resolved Alert	
	26 1637Z Dec	37 22.5 S	151 13.7 E	Resolved Alert	
	26 1727Z Dec	37 24.6 S	151 17.6 E	Resolved Alert	
	26 1746Z Dec	37 24.2 S	151 18.8 E	Resolved Alert	
	26 1803Z Dec	37 23.7 S	151 21.1 E	Resolved Alert	
	26 1818Z Dec	37 24.1 S	151 23.9 E	Resolved Alert	
	26 1819Z Dec	37 24.1 S	151 23.9 E	Resolved Alert	
	26 1926Z Dec	37 24.2 S	151 26.0 E	Resolved Alert	
	26 1927Z Dec	37 24.5 S	151 27.2 E	Resolved Alert	
	26 1949Z Dec	37 23.9 S	151 25.9 E	Resolved Alert	
	26 2106Z Dec	37 18.7 S	151 33.7 E	Resolved Alert	
	26 2133Z Dec	37 20.5 S	151 41.7 E	Resolved Alert	
26 2247Z Dec	37 22.4 S	151 46.9 E	Resolved Alert		
26 2314Z Dec	37 19.2 S	151 51.2 E	Resolved Alert		
26 2342Z Dec	37 20.2 S	151 55.5 E	Resolved Alert		
9052	26 1126Z Dec	37 16.5 S	150 11.2 E	Resolved Alert	Switched off overnight
	28 0013Z Dec	37 15.7 S	151 57.0 E	Resolved Alert	Believed Business Post Naiad 121.5 MHz Beacon
	27 0128Z Dec	37 19.0 S	150 45.5 E	Resolved Alert	
	28 0159Z Dec	37 17.1 S	152 02.2 E	Resolved Alert	
	27 0313Z Dec	37 17.0 S	150 43.8 E	Resolved Alert	
	27 0501Z Dec	37 14.6 S	150 47.2 E	Resolved Alert	
	27 0604Z Dec	37 14.0 S	150 48.5 E	Resolved Alert	
	27 0642Z Dec	37 14.0 S	150 52.7 E	Resolved Alert	
	27 0732Z Dec	37 14.6 S	150 52.4 E	Resolved Alert	
	27 0743Z Dec	37 12.6 S	150 54.7 E	Resolved Alert	
	27 0918Z Dec	37 11.7 S	150 56.9 E	Resolved Alert	
	27 0925Z Dec	37 13.1 S	150 56.7 E	Resolved Alert	
	27 0957Z Dec	37 13.5 S	150 58.2 E	Resolved Alert	
	27 1105Z Dec	37 13.5 S	150 59.1 E	Resolved Alert	
	27 1137Z Dec	37 14.0 S	151 03.4 E	Resolved Alert	
	26 1150Z Dec	37 13.9 S	150 10.8 E	Resolved Alert	
	26 1242Z Dec	37 18.5 S	150 11.2 E	Resolved Alert	
	27 1313Z Dec	37 14.6 S	151 07.6 E	Resolved Alert	
	27 1317Z Dec	37 13.7 S	151 09.8 E	Resolved Alert	
	26 1329Z Dec	37 19.4 S	150 14.5 E	Resolved Alert	
27 1446Z Dec	37 17.2 S	151 17.8 E	Resolved Alert		

Preliminary assessment of Cospas -Sarsat detections of 121.5 MHz and 406 MHz distress beacons associated with the Sydney-Hobart Yacht Race 1998

ELT ID	DTG (Z)	Latitude	Longitude	Status	Assessment
	26 1457Z Dec	37 17.7 S	150 12.2 E	Resolved Alert	
	27 1459Z Dec	37 15.6 S	151 19.6 E	Resolved Alert	
	26 1541Z Dec	37 07.6 S	150 06.7 E	Resolved Alert	
	27 1610Z Dec	37 15.5 S	151 23.7 E	Resolved Alert	
	27 1626Z Dec	37 13.7 S	151 22.8 E	Resolved Alert	
	26 1637Z Dec	37 08.5 S	150 07.2 E	Resolved Alert	
	27 1722Z Dec	37 16.5 S	151 25.7 E	Resolved Alert	
	27 1755Z Dec	37 16.5 S	151 26.1 E	Resolved Alert	
	26 1803Z Dec	37 16.3 S	150 16.2 E	Resolved Alert	
	27 1807Z Dec	37 15.8 S	151 26.7 E	Resolved Alert	
	27 1832Z Dec	37 15.0 S	151 30.5 E	Resolved Alert	
	27 1902Z Dec	37 14.9 S	151 34.4 E	Resolved Alert	
	27 1905Z Dec	37 16.1 S	151 36.8 E	Resolved Alert	
	26 1926Z Dec	37 22.8 S	150 22.0 E	Resolved Alert	
	26 1927Z Dec	37 19.4 S	150 23.8 E	Resolved Alert	
	27 2017Z Dec	37 17.6 S	151 39.1 E	Resolved Alert	
	27 2044Z Dec	37 15.4 S	151 40.2 E	Resolved Alert	
	26 2106Z Dec	37 17.8 S	150 31.3 E	Resolved Alert	
	27 2121Z Dec	37 15.4 S	151 45.4 E	Resolved Alert	
	26 2133Z Dec	37 21.9 S	150 39.4 E	Resolved Alert	
	27 2224Z Dec	37 15.7 S	151 47.5 E	Resolved Alert	
	27 2225Z Dec	37 16.5 S	151 48.5 E	Resolved Alert	
	26 2247Z Dec	37 22.6 S	150 42.8 E	Resolved Alert	
	27 2301Z Dec	37 13.7 S	151 52.3 E	Resolved Alert	
	26 2314Z Dec	37 21.9 S	150 43.4 E	Resolved Alert	
	26 2342Z Dec	37 20.2 S	150 44.6 E	Resolved Alert	
9133	26 1427Z Dec	38 02.4 S	139 22.9 E	Initial Alert	Unknown 121.5 MHz Beacon
9164	26 1607Z Dec	36 27.3 S	151 46.7 E	Initial Alert	Unknown 121.5 MHz Beacon
9605	27 2018Z Dec	36 26.7 S	152 05.1 E	Resolved Alert	Believed Solo Globe Challenge 121.5 MHz Beacon (re-activated)
	27 2044Z Dec	36 24.4 S	152 03.1 E	Resolved Alert	
	27 2121Z Dec	36 24.2 S	152 02.0 E	Resolved Alert	
* End of 121.5 MHz Beacon detections					
406 MHz Beacon identified as B52. Plot it with a 5 km ring to indicate normal accuracy of 406 MHz system. It app					
B52	26 0806Z Dec	38 26.2 S	150 35.2 E	Initial Alert	(406 Mhz Beacon)
	26 0850Z Dec	38 23.3 S	150 33.1 E	Resolved Alert	
	26 0947Z Dec	38 22.1 S	150 33.4 E	Resolved Alert	
	26 1009Z Dec	38 21.4 S	150 33.9 E	Resolved Alert	
	26 1126Z Dec	38 21.9 S	150 32.7 E	Resolved Alert	
	26 1150Z Dec	38 21.0 S	150 32.9 E	Resolved Alert	
	26 1242Z Dec	38 13.5 S	150 37.0 E	Resolved Alert	
	26 1427Z Dec	38 07.8 S	150 36.6 E	Resolved Alert	
	26 1457Z Dec	38 01.5 S	150 36.2 E	Resolved Alert	
	26 1637Z Dec	37 55.1 S	150 38.0 E	Resolved Alert	
	26 1746Z Dec	37 53.1 S	150 38.2 E	Resolved Alert	
	26 1927Z Dec	37 54.0 S	150 39.3 E	Resolved Alert	
	26 2133Z Dec	37 26.3 S	150 21.1 E	Resolved Alert	
	26 2247Z Dec	37 27.6 S	150 21.4 E	Resolved Alert	
	26 2314Z Dec	37 25.4 S	150 19.5 E	Resolved Alert	
* End of 406 MHz Beacon detections					