

■ ECMWF Report on ERS-2 SAR for April 2000 ■

Title: Report on ERS-2 SAR wave height data.

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Overview:

This month about 350 SAR wave mode spectra arrived at ECMWF every 6 hours of which 12.1% have not been used. Data coverage was good throughout the month.

Wave Height Comparison (bias):

ERS-2 global: 0.07 m

ERS-2 northern hemisphere: 0.10 m

ERS-2 tropics: 0.08 m

ERS-2 southern hemisphere: 0.05 m

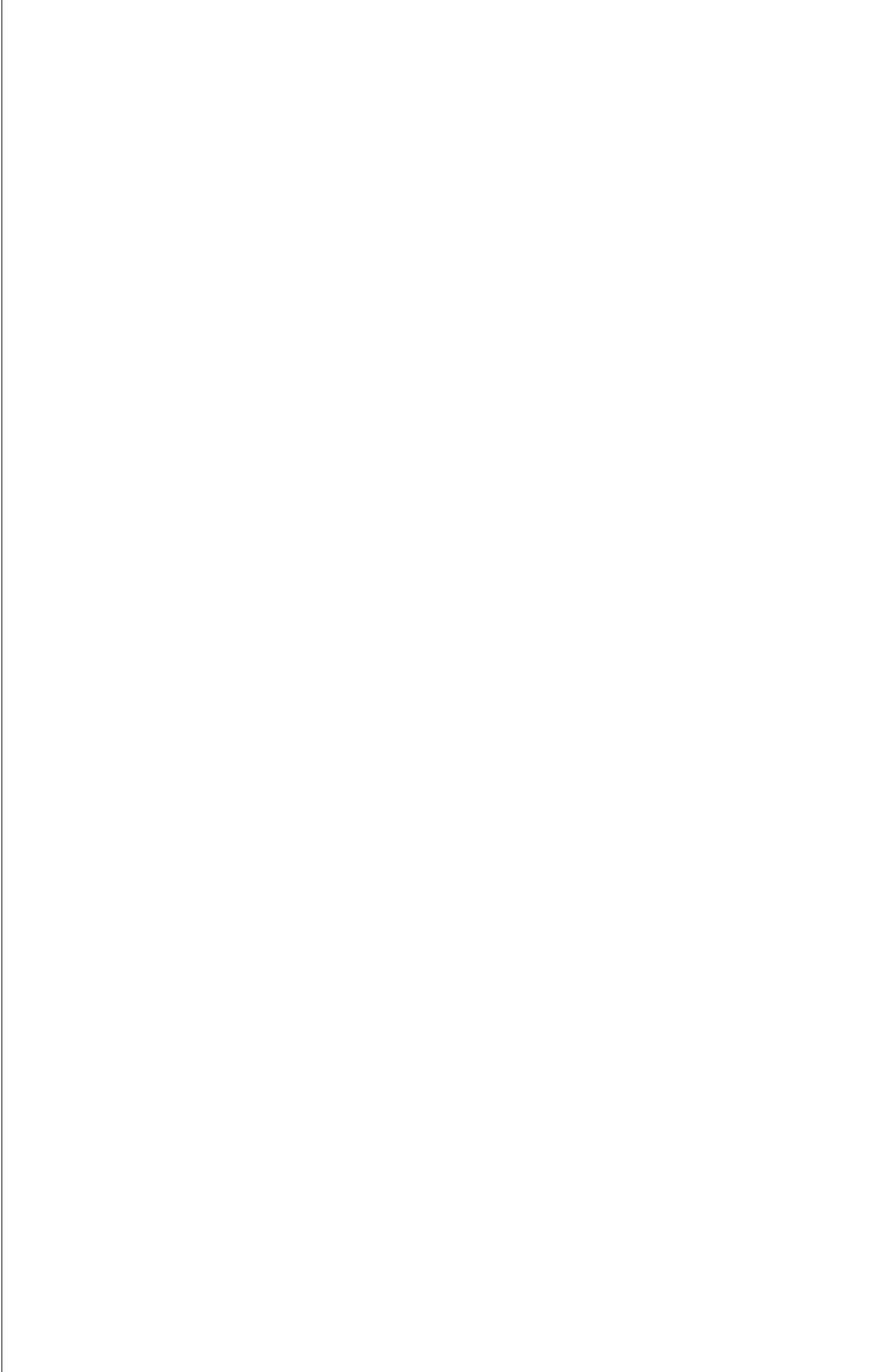
Remarks:

The SAR worked normally.

Figure captions:

- Figure 1: Time series of data reception for ERS-2 Altimeter data for December 1996.
- Figure 2: Comparison of ECMWF wave height results with ERS-2 SAR wave height data for April 2000 (global).
- Figure 3: Comparison of ECMWF wave height results with ERS-2 SAR wave height data for April 2000 (northern hemisphere)
- Figure 4: Comparison of ECMWF wave height results with ERS-2 SAR wave height data for April 2000 (tropics)
- Figure 5: Comparison of ECMWF wave height results with ERS-2 SAR wave height data for April 2000 (southern hemisphere)
- Figure 6: ERS-2 SAR wave heights: Timeseries of bias (ERS-2 - model) and scatter index (SI)

■ ECMWF Report on ERS-2 SAR for April 2000 ■



ECMWF Report on ERS-2 SAR for April 2000

ERS-2 SAR Retrieving system

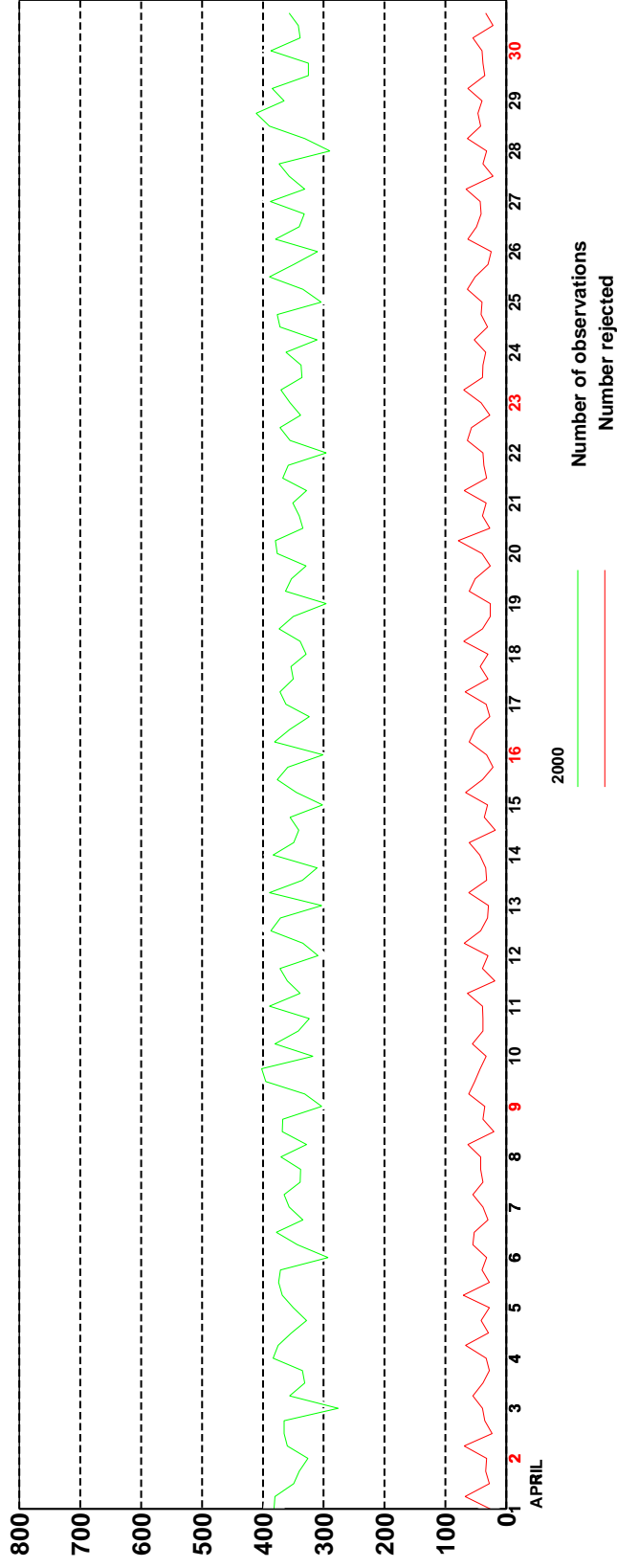
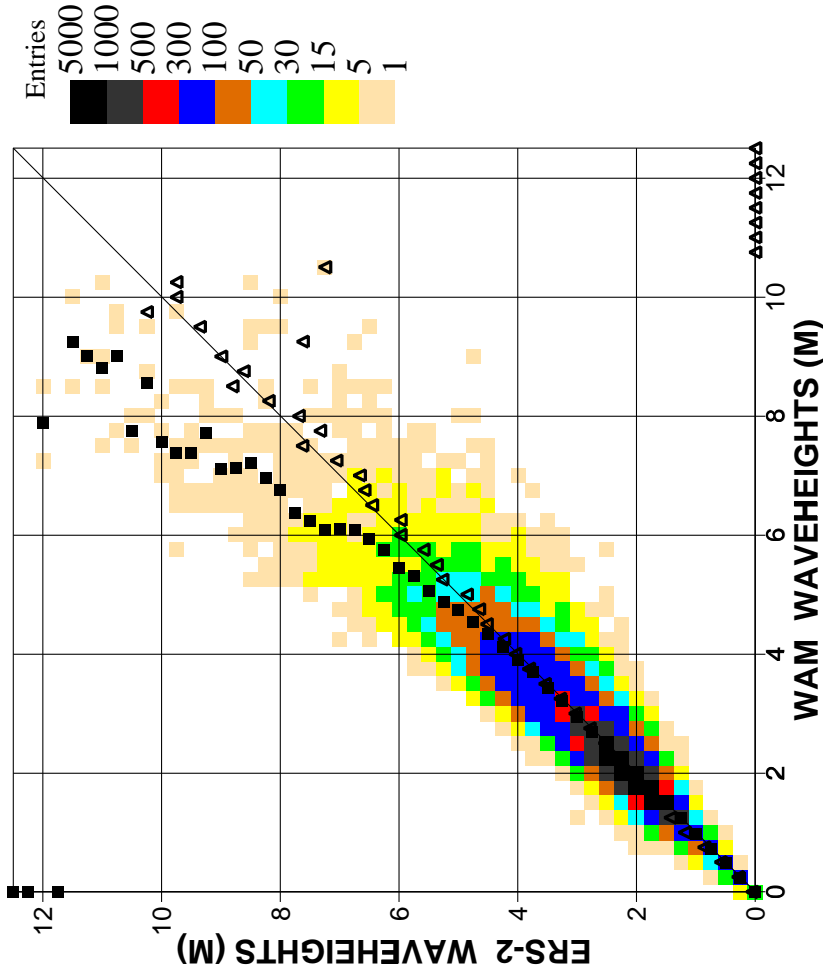


Figure 1: Time series of data reception for ERS-2 SAR wave mode spectra for April 2000

ECMWF Report on ERS-2 SAR for April 2000

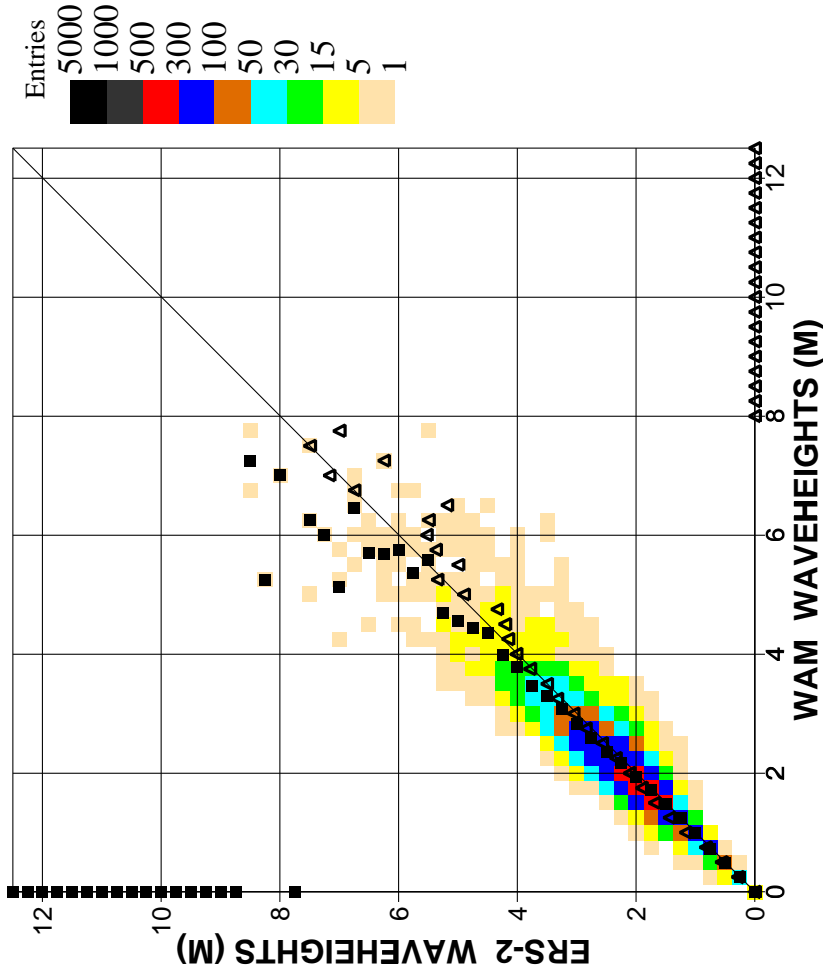


STATISTICS

ENTRIES	36865
MEAN WAM	2.5764
MEAN ERS-2	2.6478
BIAS (ERS-2 - WAM)	0.0714
STANDARD DEVIATION	0.4387
SCATTER INDEX	0.1703
CORRELATION	0.9265
SYMMETRIC SLOPE	1.0276(0.0021)
REGR. COEFFICIENT	0.9516(0.0020)
REGR. CONSTANT	0.1959(0.0057)

Figure 2: Comparison of ECMWF wave height results with ERS2 SAR wave height data for April 2000 (global)

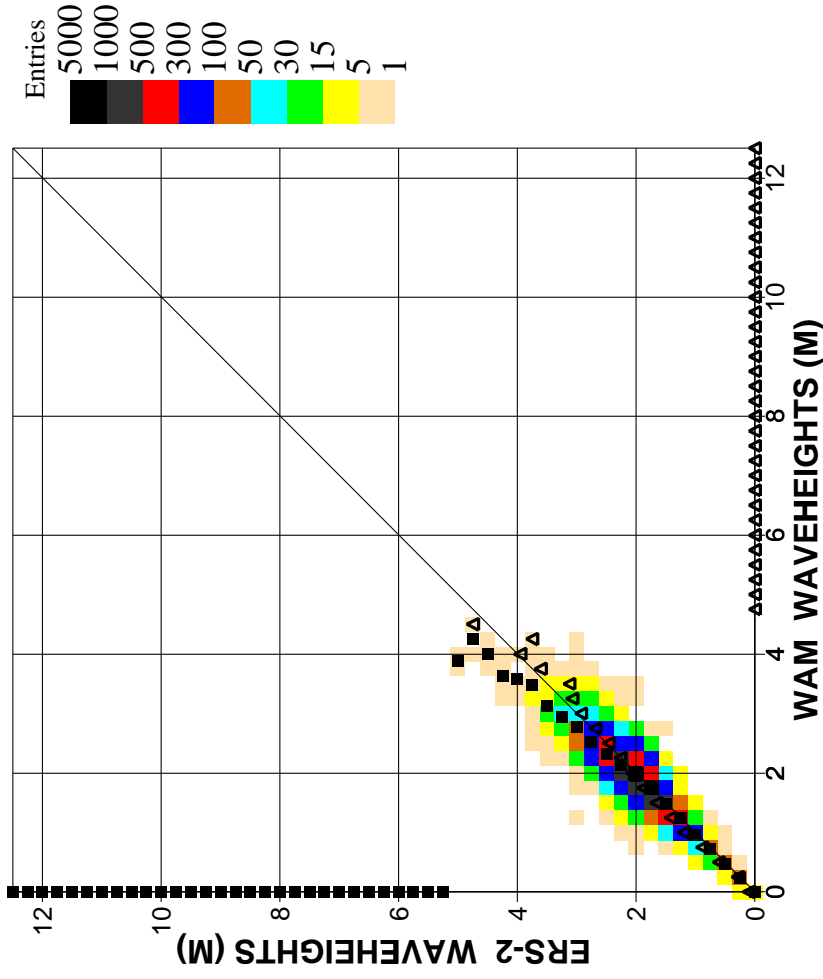
ECMWF Report on ERS-2 SAR for April 2000



STATISTICS	
ENTRIES	7504
MEAN WAM	2.1886
MEAN ERS-2	2.2914
BIAS (ERS-2 - WAM)	0.1028
STANDARD DEVIATION	0.3666
SCATTER INDEX	0.1675
CORRELATION	0.9185
SYMMETRIC SLOPE	1.0415 (0.0048)
REGR. COEFFICIENT	0.9265 (0.0046)
REGR. CONSTANT	0.2637 (0.0109)

Figure 3: Comparison of ECMWF wave height results with ERS2 SAR wave height data for April 2000 (n.hem.)

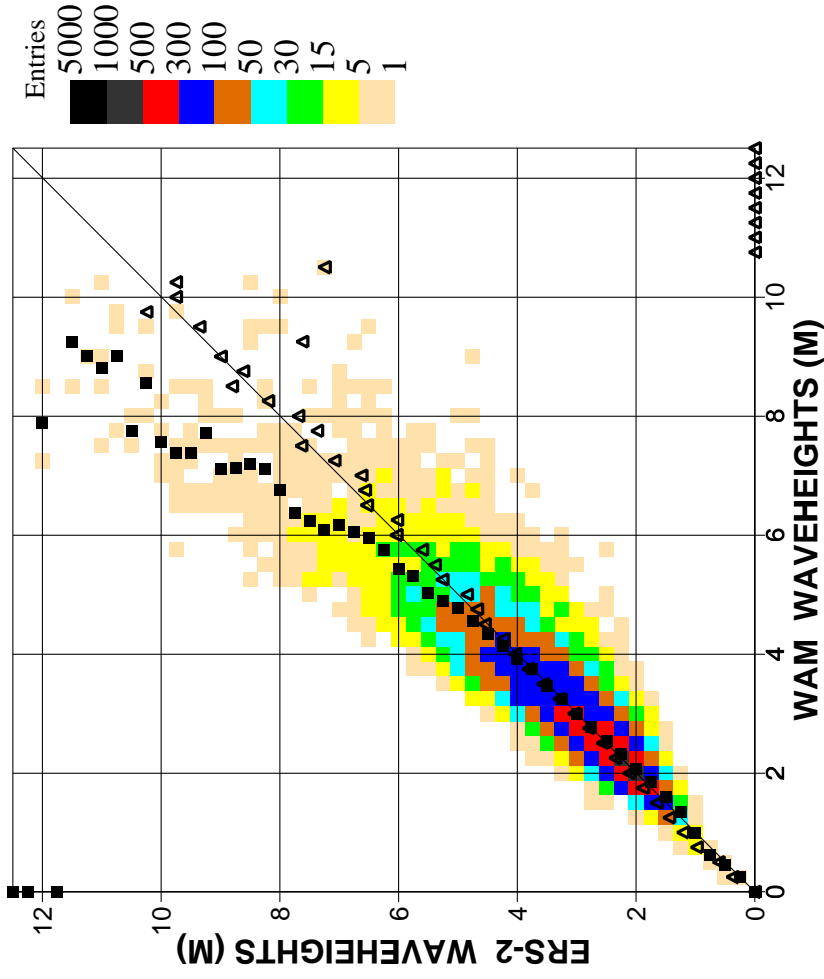
ECMWF Report on ERS-2 SAR for April 2000



STATISTICS	
ENTRIES	12007
MEAN WAM	1.9061
MEAN ERS-2	1.9827
BIAS (ERS-2 - WAM)	0.0767
STANDARD DEVIATION	0.2454
SCATTER INDEX	0.1287
CORRELATION	0.8811
SYMMETRIC SLOPE	1.0375 (0.0045)
REGR. COEFFICIENT	0.8786 (0.0043)
REGR. CONSTANT	0.3081 (0.0085)

Figure 4: Comparison of ECMWF wave height results with ERS2 SAR wave height data for April 2000 (tropics)

ECMWF Report on ERS-2 SAR for April 2000



STATISTICS

ENTRIES	17600
MEAN WAM	3.1922
MEAN ERS-2	3.2463
BIAS (ERS-2 - WAM)	0.0541
STANDARD DEVIATION	0.5526
SCATTER INDEX	0.1731
CORRELATION	0.8985
SYMMETRIC SLOPE	1.0224(0.0036)
REGR. COEFFICIENT	0.9539(0.0035)
REGR. CONSTANT	0.2014(0.0120)

Figure 5: Comparison of ECMWF wave height results with ERS2 SAR wave height data for April 2000 (s.hem.)

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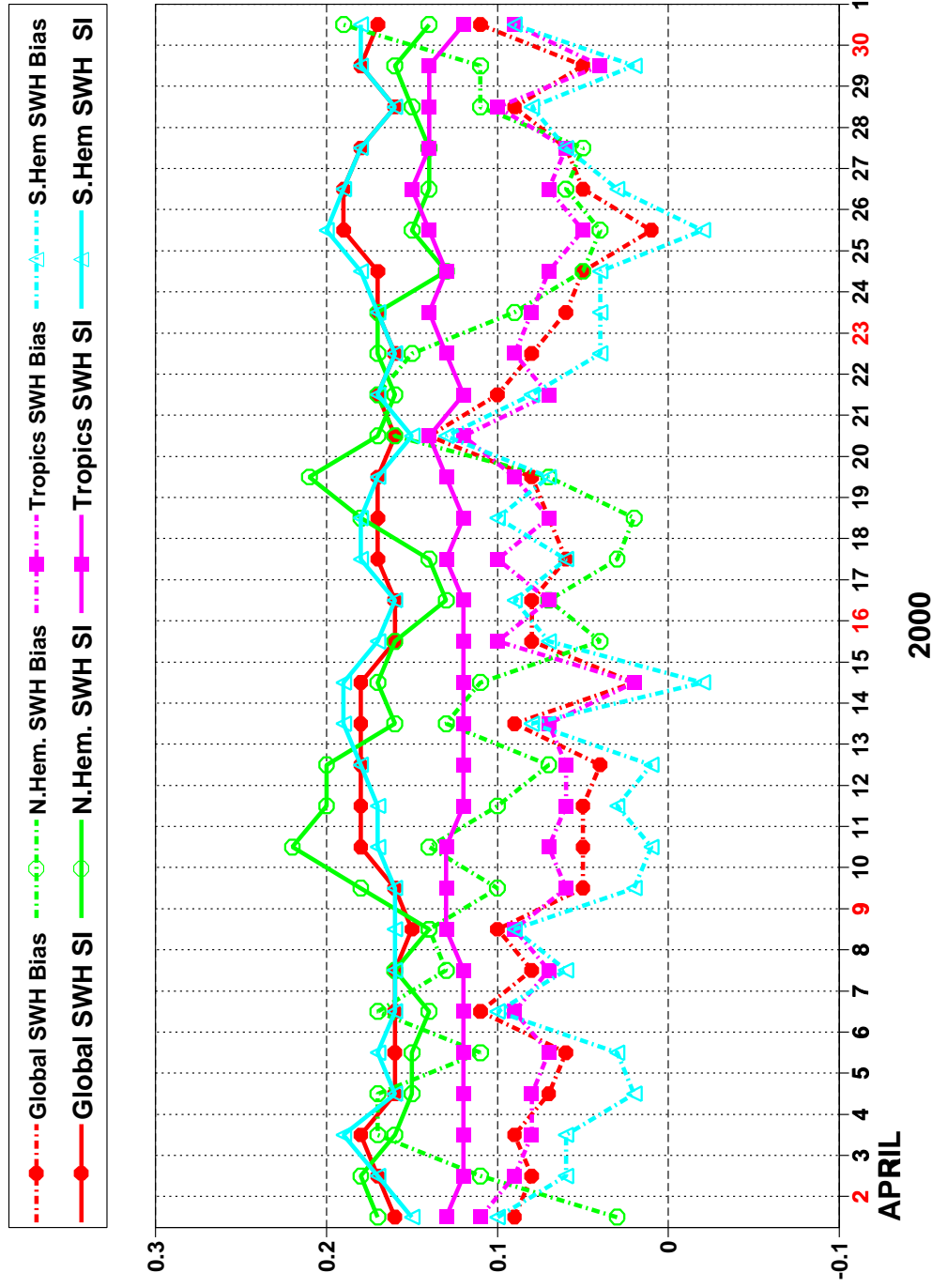


Figure 6: ERS-2 SAR wave heights: Timeseries of bias (ERS-2 - model) and scatter index (SI)