

Koninklijk Nederlands Meteorologisch Instituut Ministerie van Verkeer en Waterstaat

ERS2 "saturation" at low sigma0



scirocco

scatterometer instrument competence centre



Sigma0 equivalent to 1 count (ERS mid beam)

how much should be subtracted (from the sigma0) if there was 1 count of noise (mid beam)





Comparison ASCAT – ERS2

ERS2 products: ASPS





Comparison ASCAT – ERS2

ERS2 products: ASPS

-24dB to ERS (=1 count at near swath) (subtraction of a "small" offset)





Comparison ASCAT – ERS2

ERS2 products: ASPS

-20dB to ERS (subtraction of a "larger" offset) (too large)





Conclusion

Non-linearity correction in ERS2 Is based on the original non-linearity correction table Is essentially unmodified.

Current issue can be corrected using existing structures Requires a modification of the non-linearity correction table

Need for another assessment of the saturation effect at low sigma0