Abstract.

Substantial improvements are required in the current suite of numerical models

rine biogeochemic l cycles re t the he rt of series of pressing environment l issues—oce nic response to cli te ch nge [*Denman et al.,* 1996] nd co st l eutrophic tion [*Nixon*, 1995] mong the most cruci l— nd the scientific community will incre singly be sked to produce predictive models of demonstr ted skill. The current suite of numeric l modelstis not

bulk properties (chlorophyll, pri■ ry productivity, nd nutrient fields) t single or h ndful of st tions (Figure

export [*Carlson et al.*, 1994 *Hansell and Carlson*, 1998], nd the p rtitioning of org nic
■■ tter export between d

***Mesoscale space and time v**

even higher resolution may be needed for some biological processes such as upwelling

nd flo ts), nd developing work on direct eddy cov ri nce [redacted]e sure[redacted]ents [redacted] y resolve [redacted] ny of the linger unknowns reg rding g s exch nge kinetics [per. co[redacted]. W. c ill

nd few r tes, such s pri■ ry production [*Be renfeld and Falkowsk*

limited [e.g. Reid et al., 1998], but their utility is almost invaluable. Despite the promise

References

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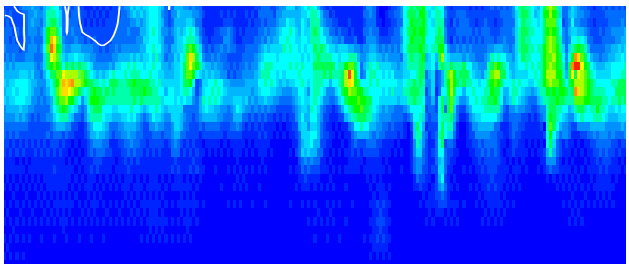
S▮▮ith, S.V.



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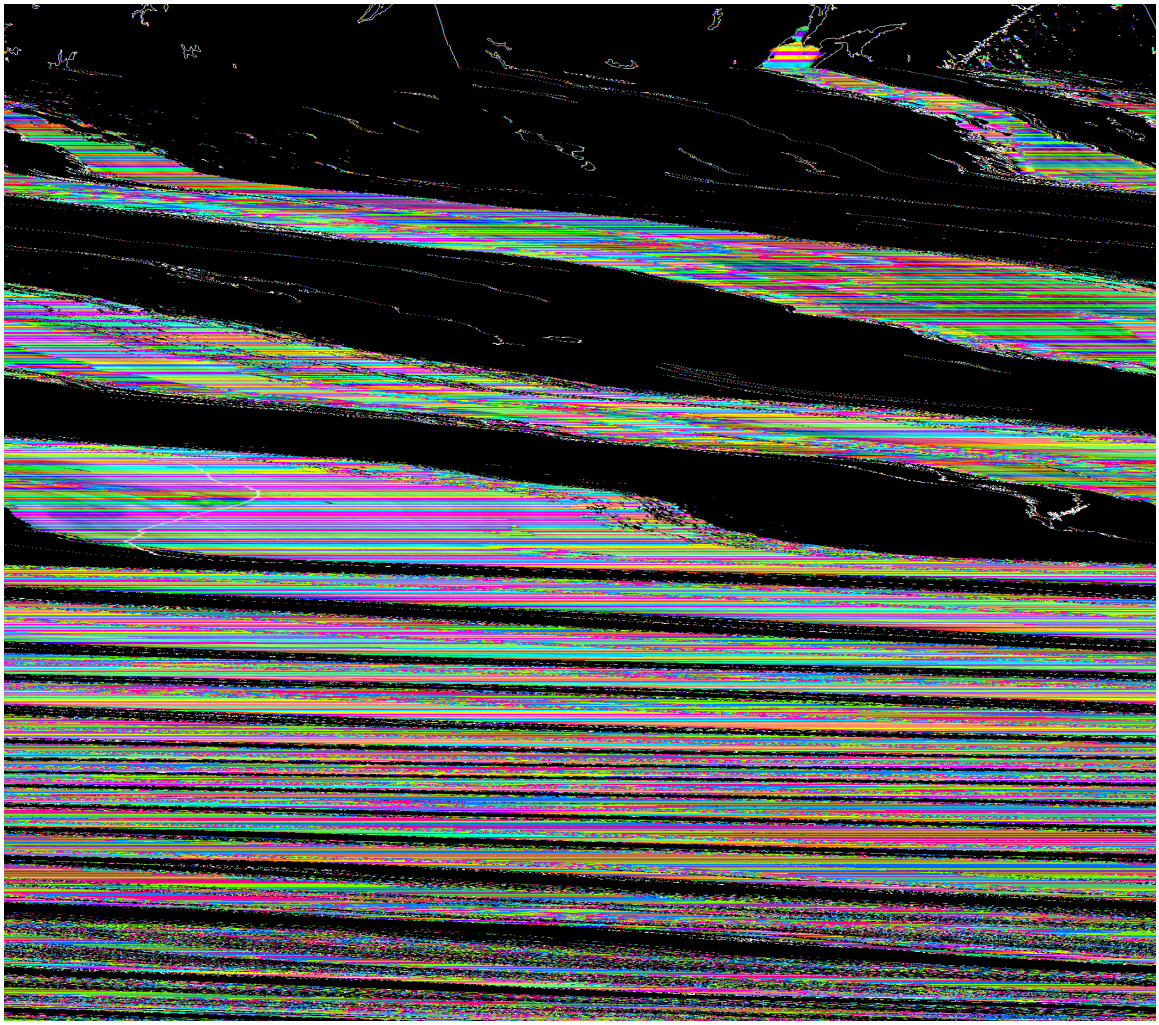

Figure 3. Satellite surf