

Revised GOCl Processing

2012/12/14

Gain Difference

	412	443	490	555	660	680	745	865
Old	0.9857	0.9749	0.9484	0.9179	0.9299	0.9284	0.9502	1.0000
New	1.0233	1.0033	0.9869	0.9763	0.9909	0.9781	0.9950	1.0000

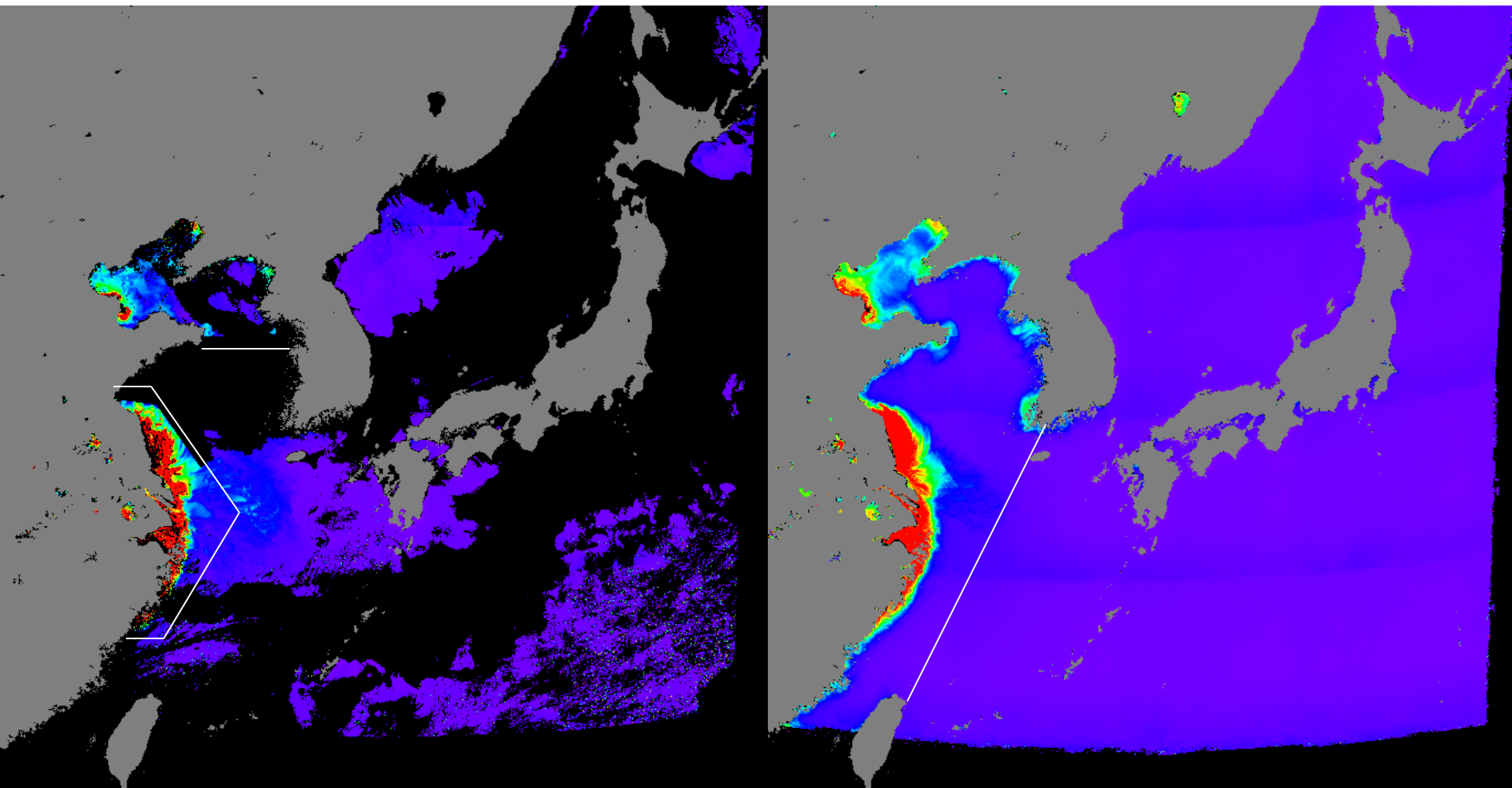
Both vicarious calibration processes were documented at:

1. http://www.star.nesdis.noaa.gov/sod/mecb/color/docs/doc_work_done/GOCI_Vicarious_Calibration.pdf
2. /net/orbit159l/home/pub/docs/doc_work_done/GOCI_Vicarious_Calibration.hdf

nLw(NIR) from K490 Difference

- Old:
- nLw(NIR) is a continuous function of K490 from 0~5
- New:
- nLw(NIR) forced to 0 when $K490 < 0.3$

Cloud Mask Difference



Results

nLw(443)

left:

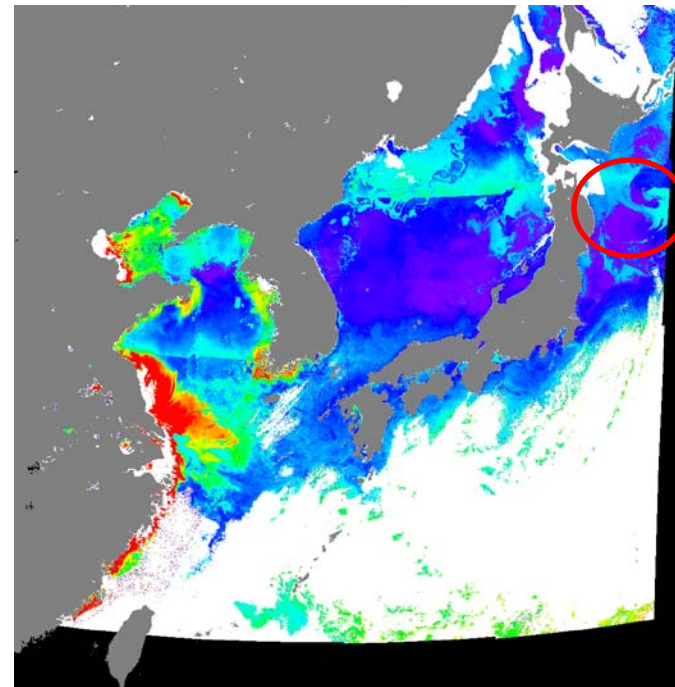
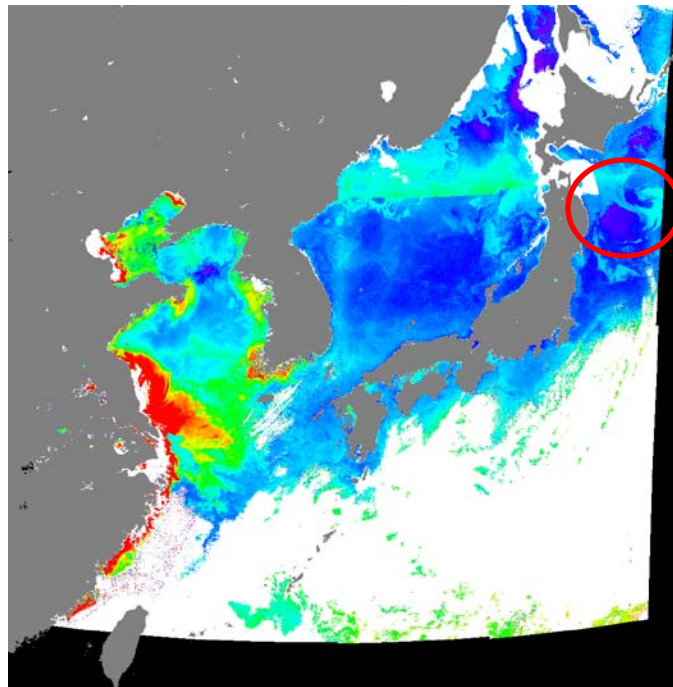
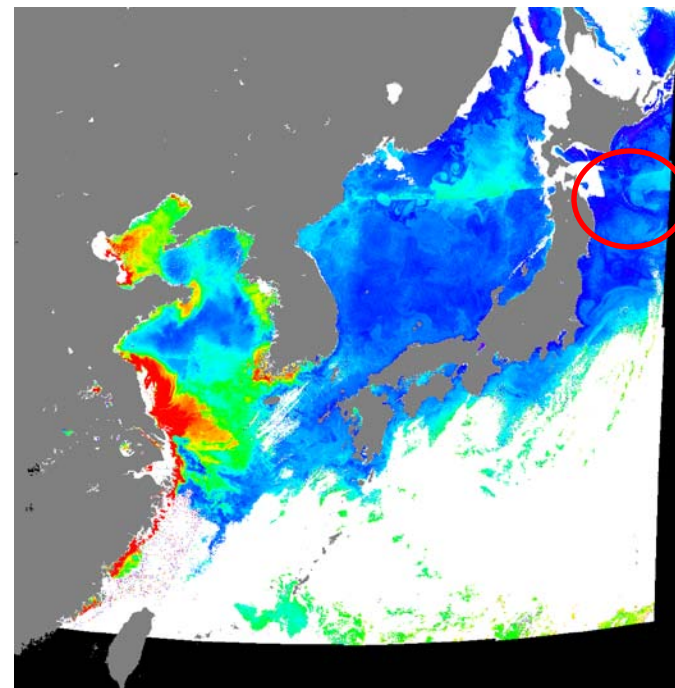
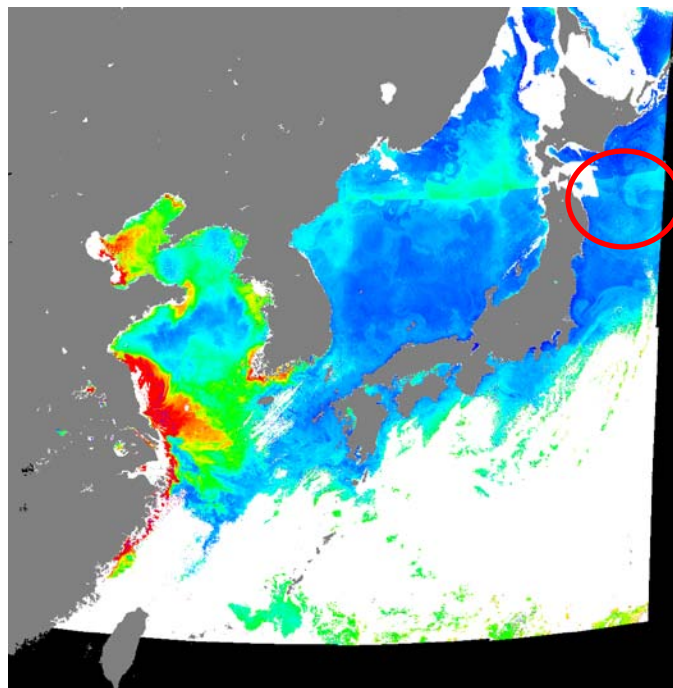
$kd > 0$

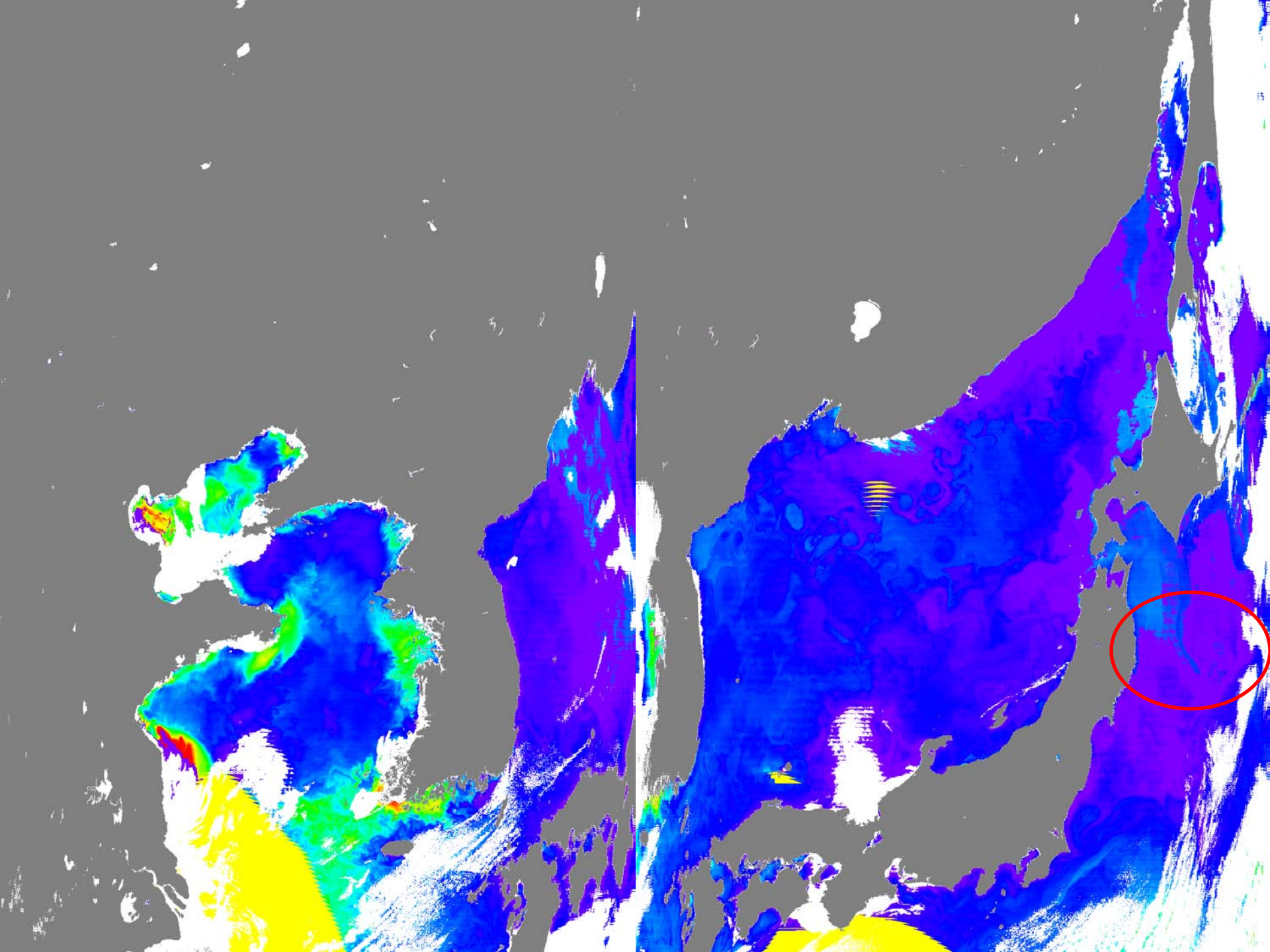
right:

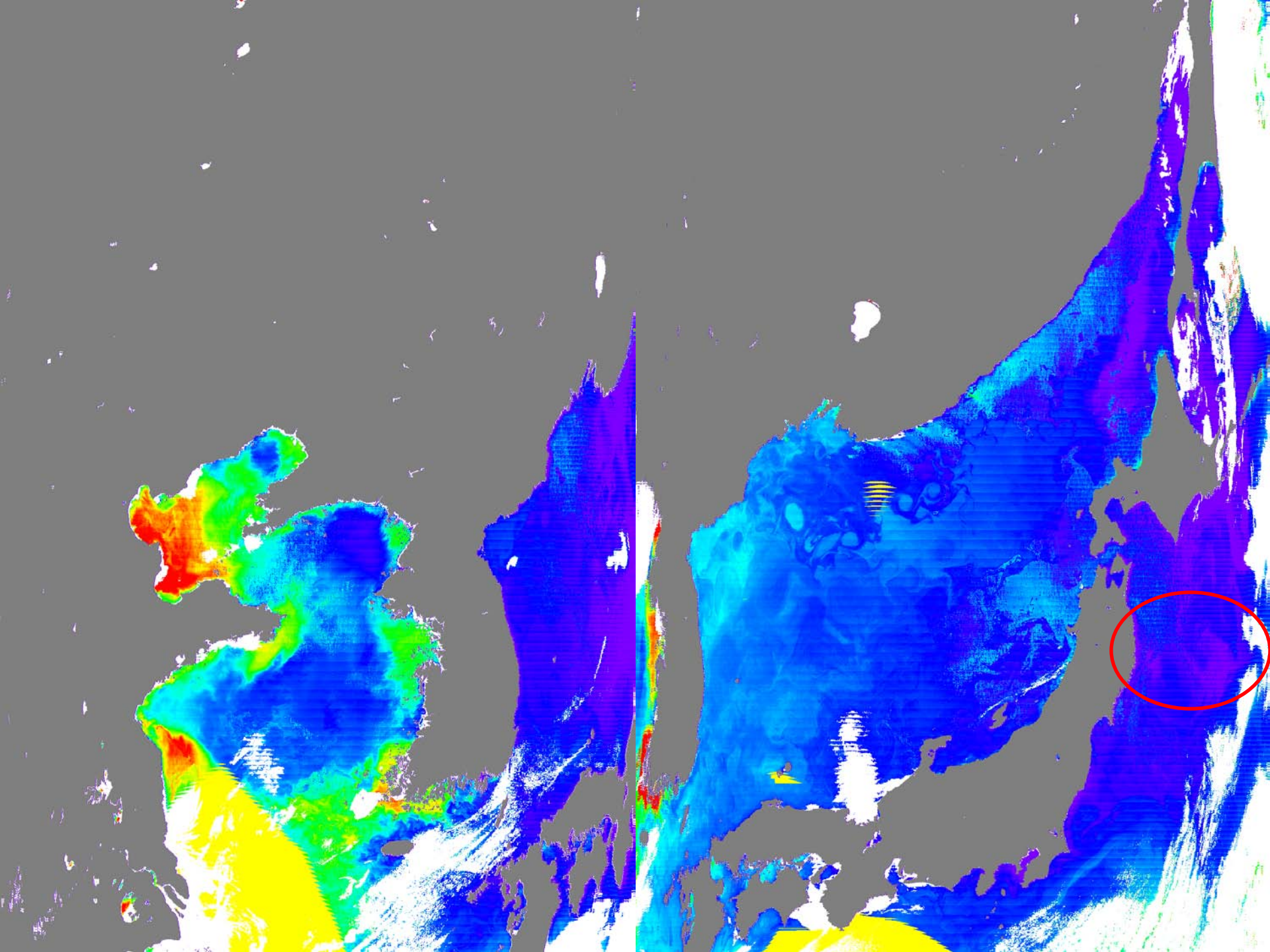
$kd > 0.3$

upper:
old gain

lower:
new gain







nLw(745)

left:

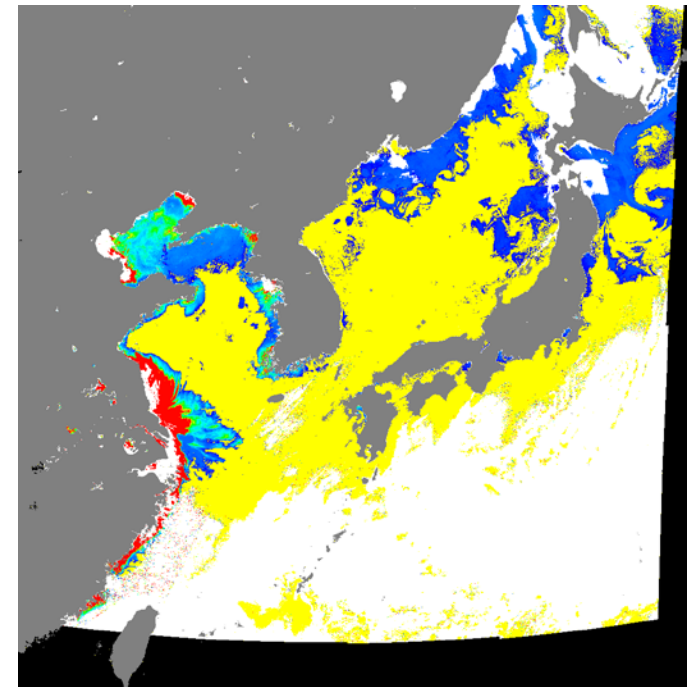
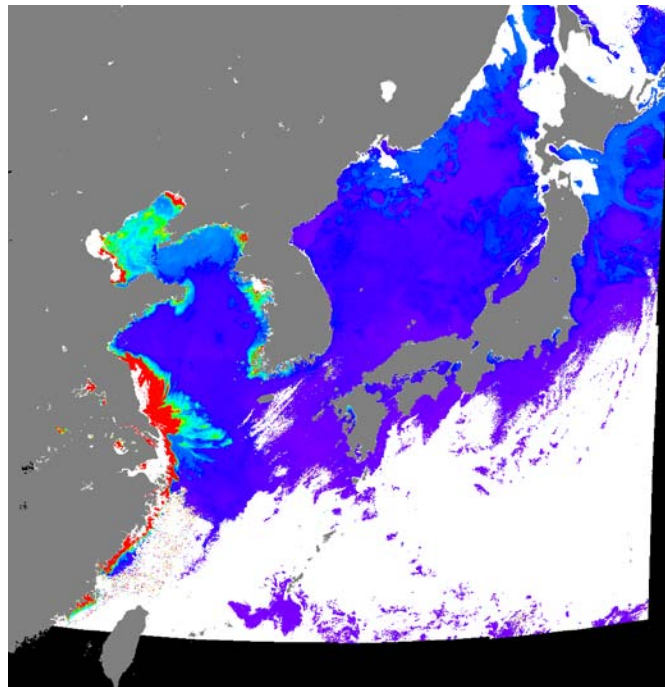
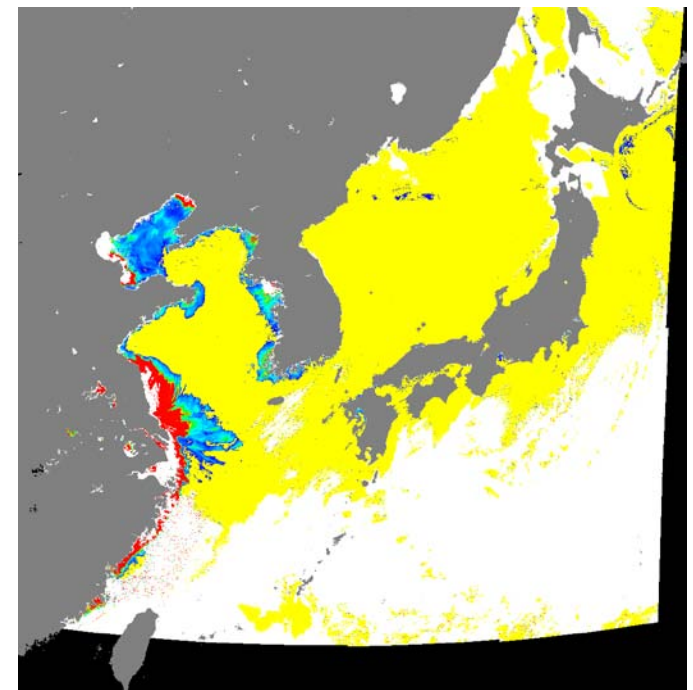
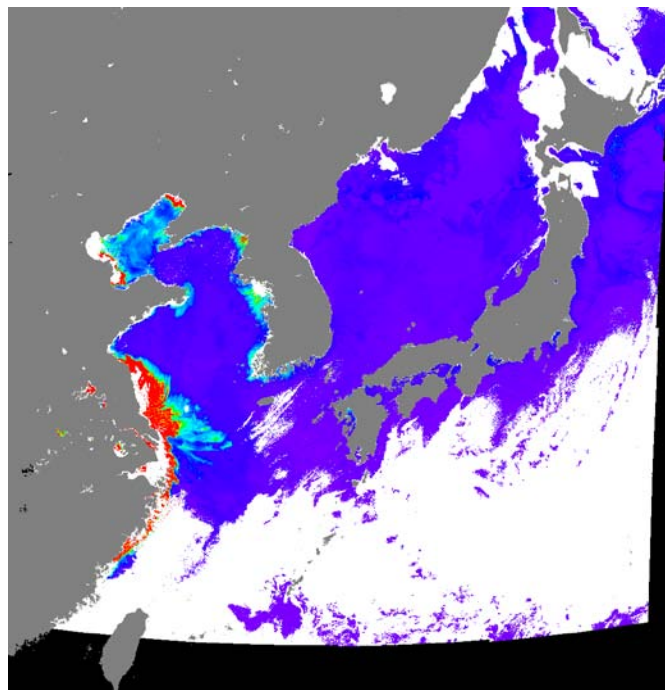
kd>0

right:

kd>0.3

upper:
old gain

lower:
new gain



Chlor-a

left:

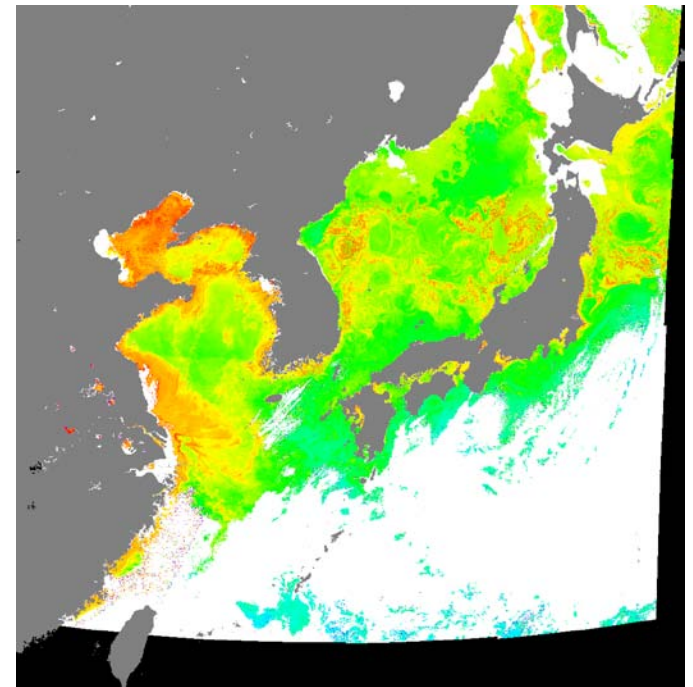
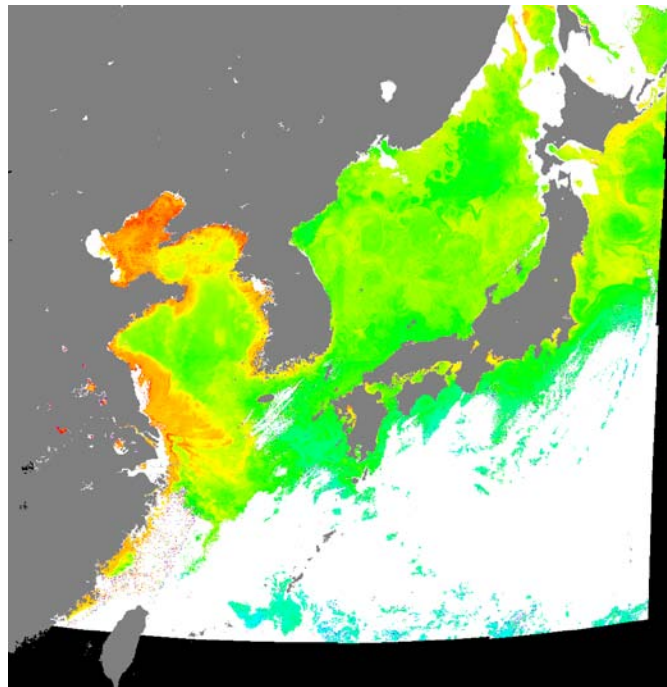
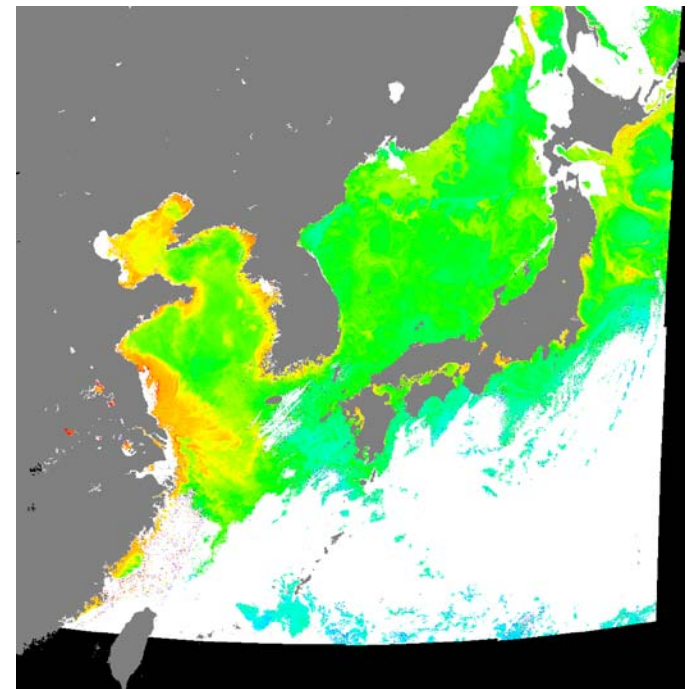
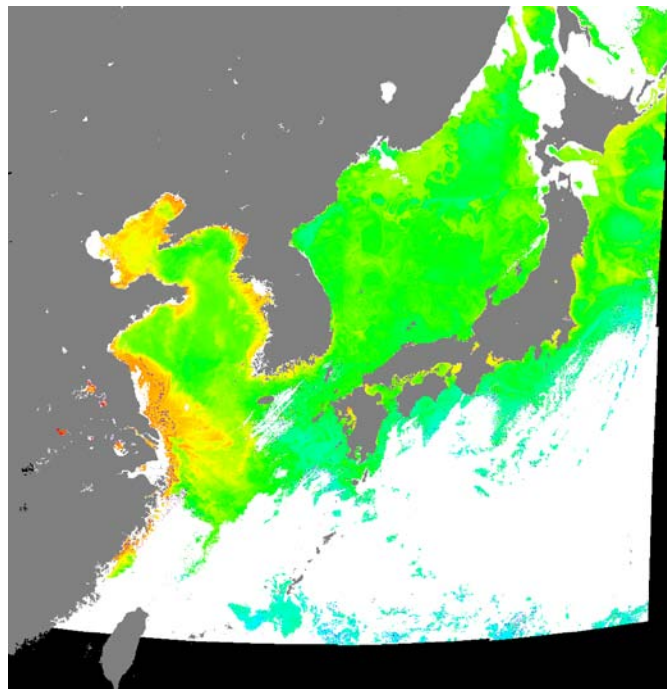
$kd > 0$

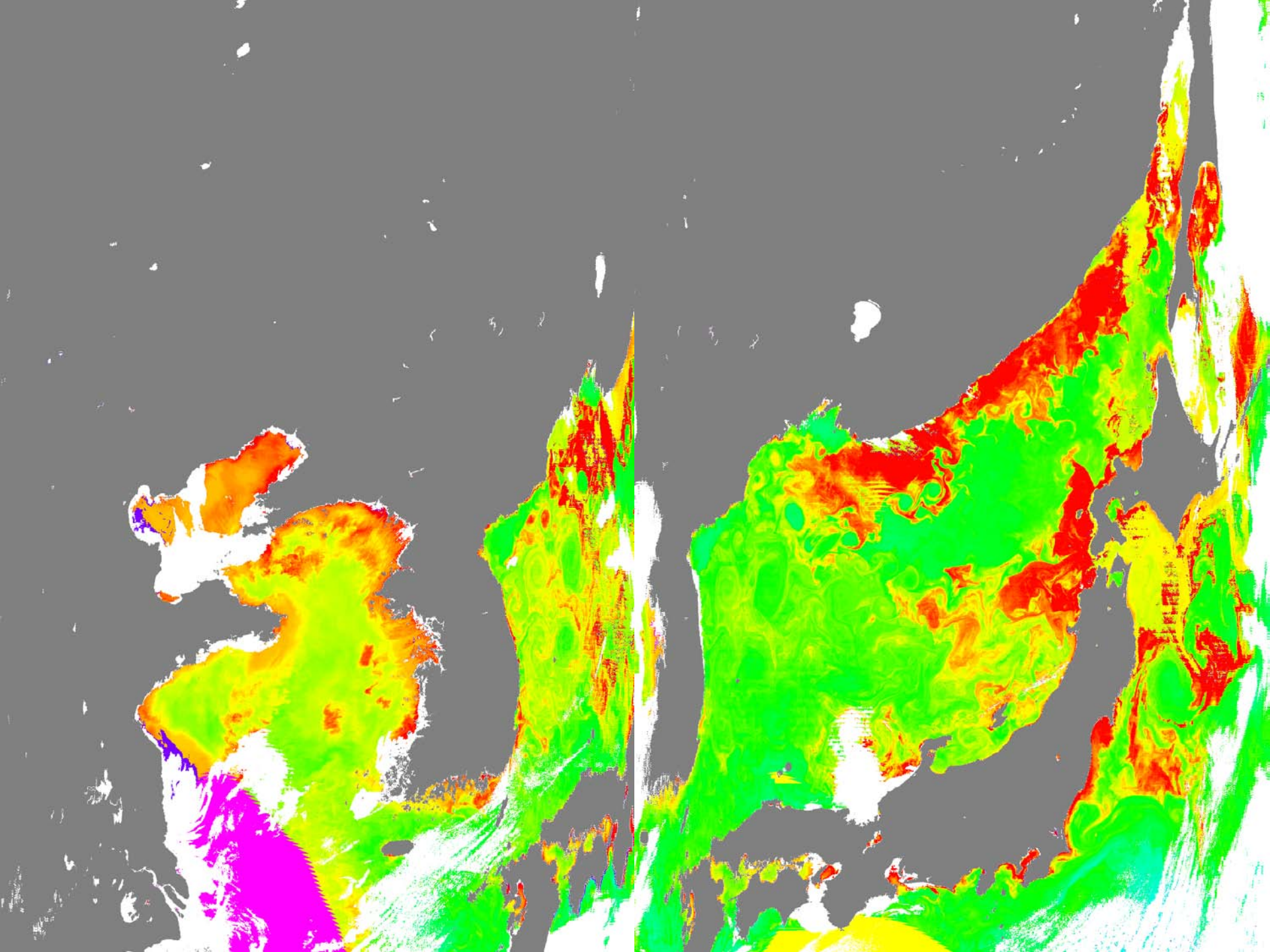
right:

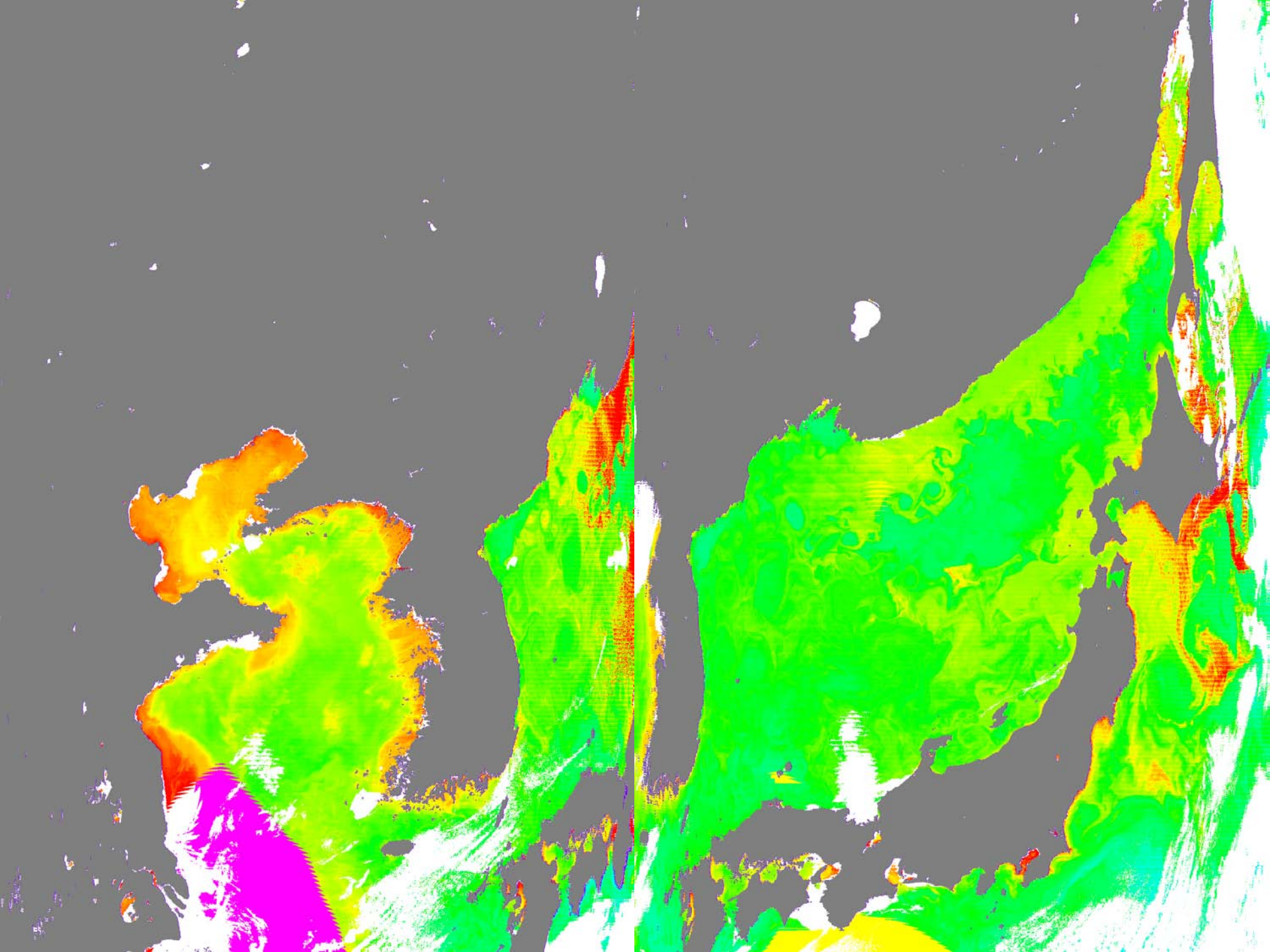
$kd > 0.3$

upper:
old gain

lower:
new gain





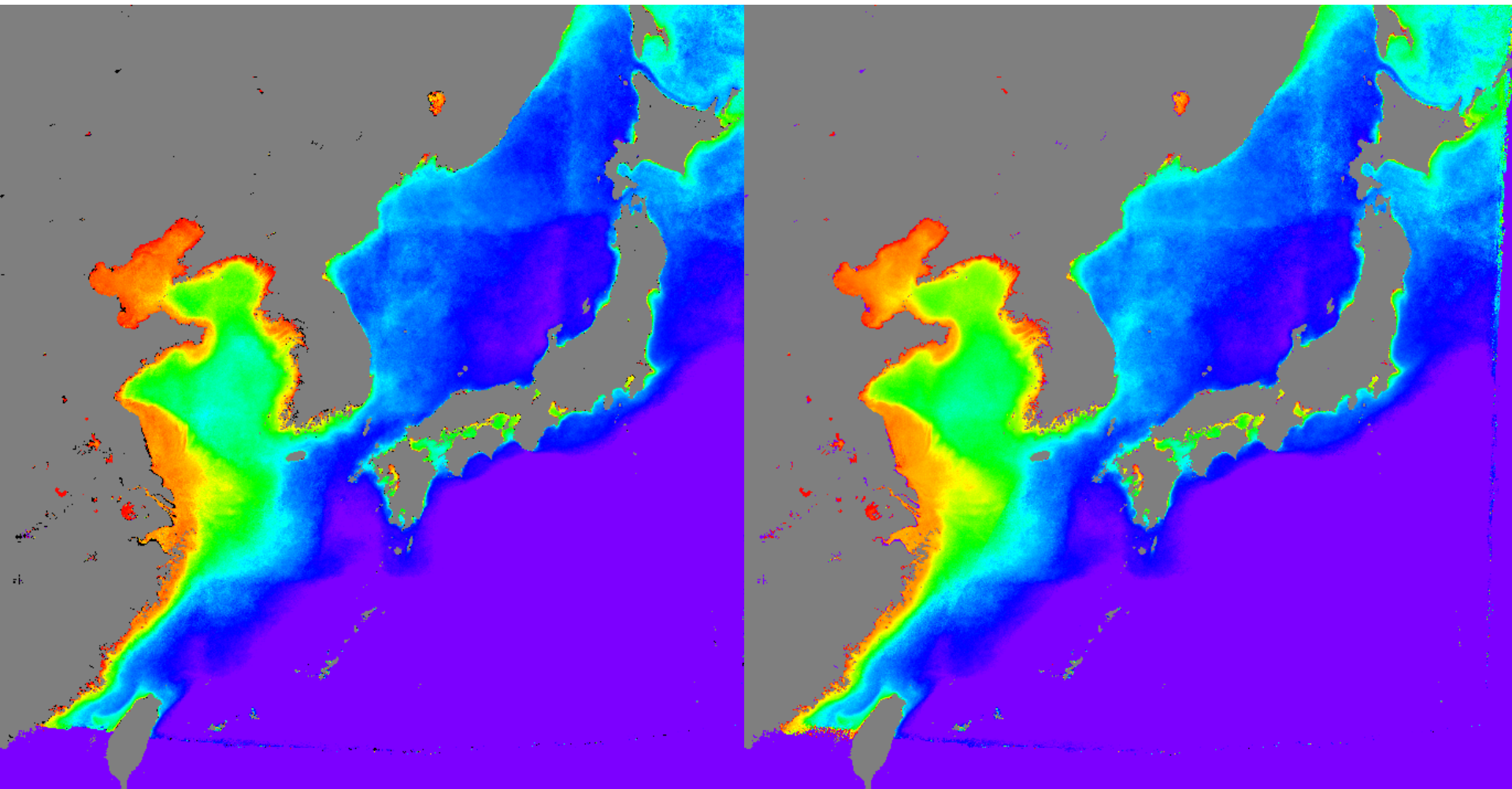


Composite Image Comparison

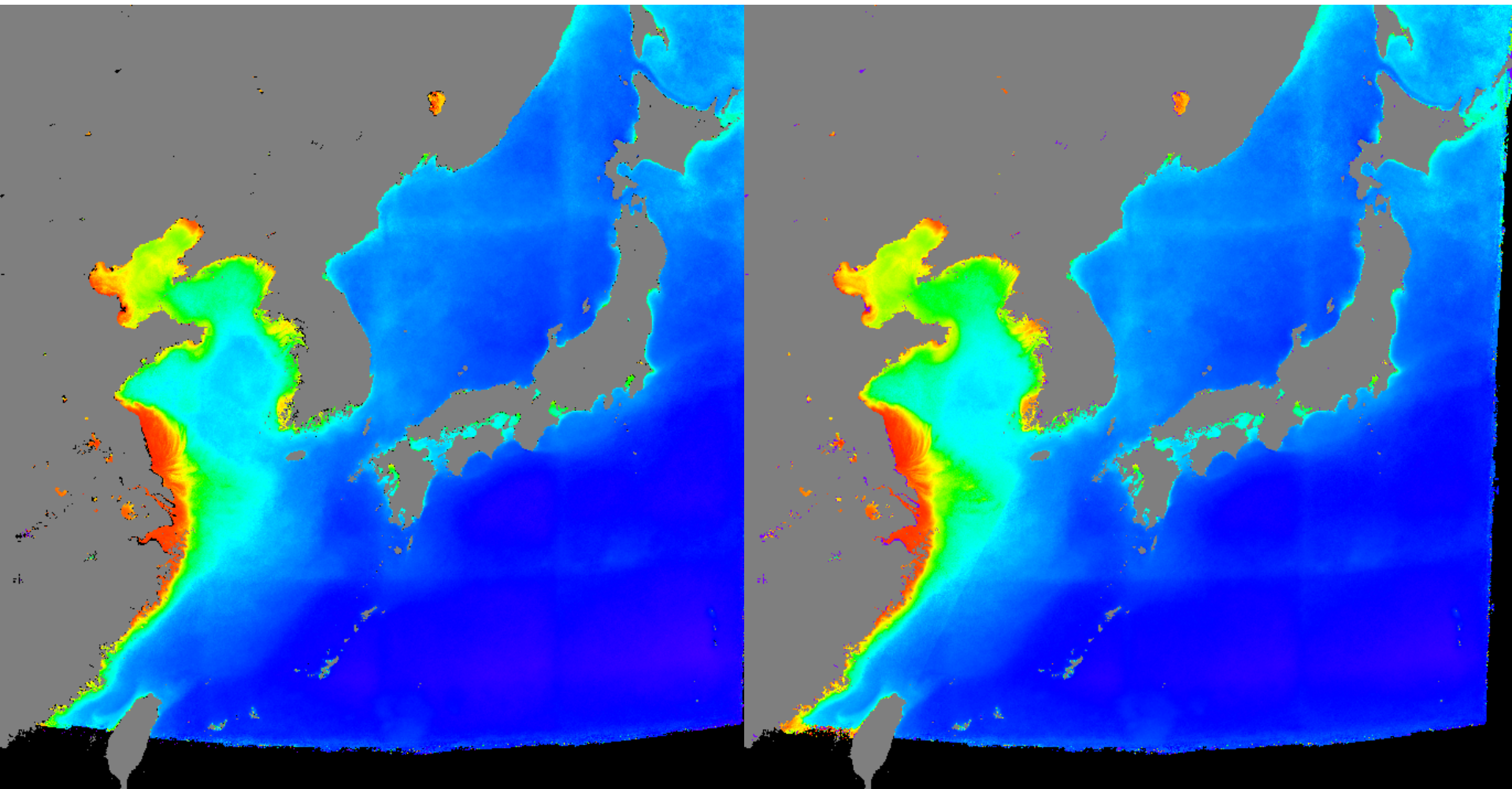
Old gain (K490>0) vs. New Gain (K490>0.3)

Cloud-masking changed as well

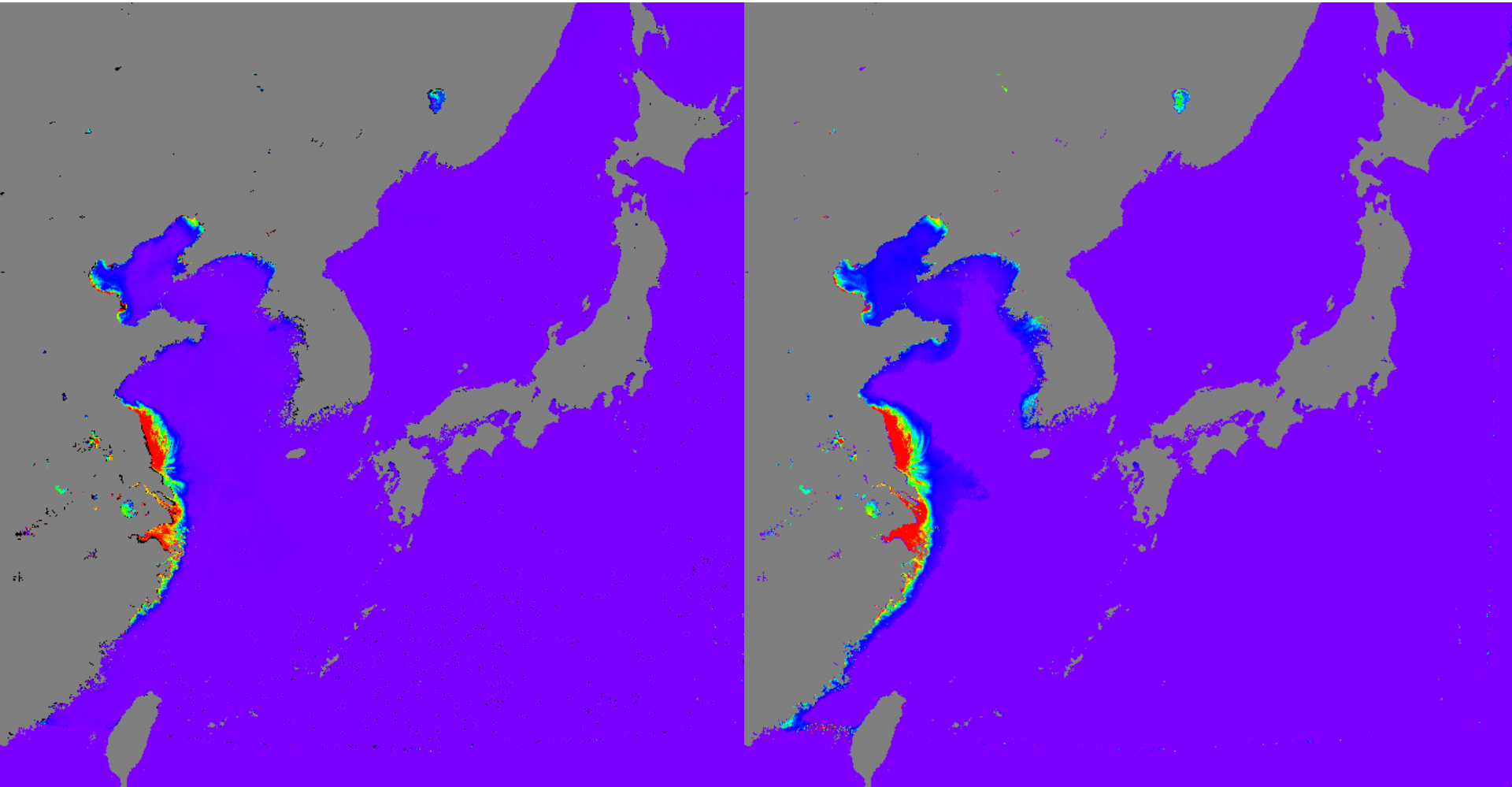
Chlorophyll-a



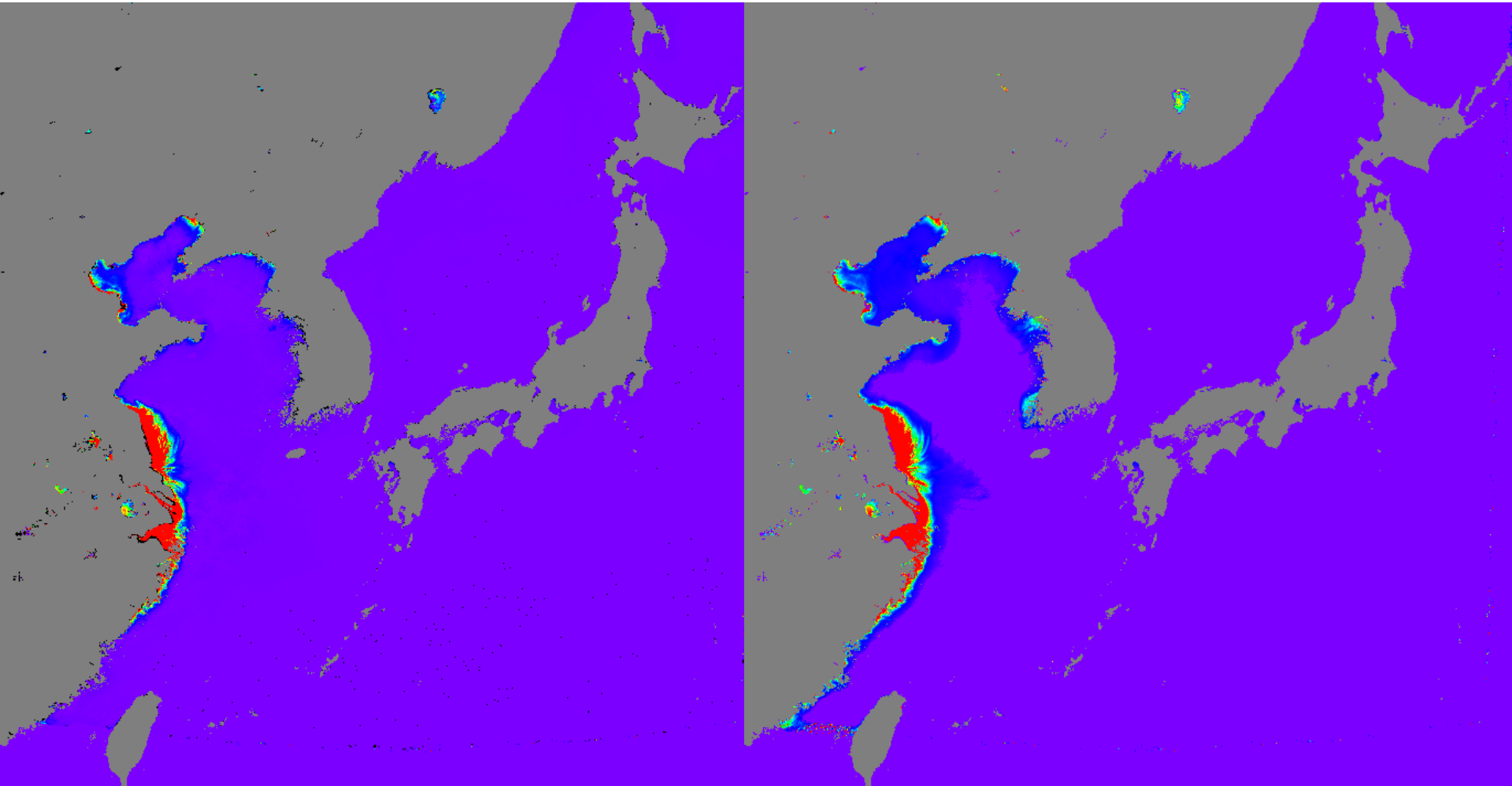
Kd(490)



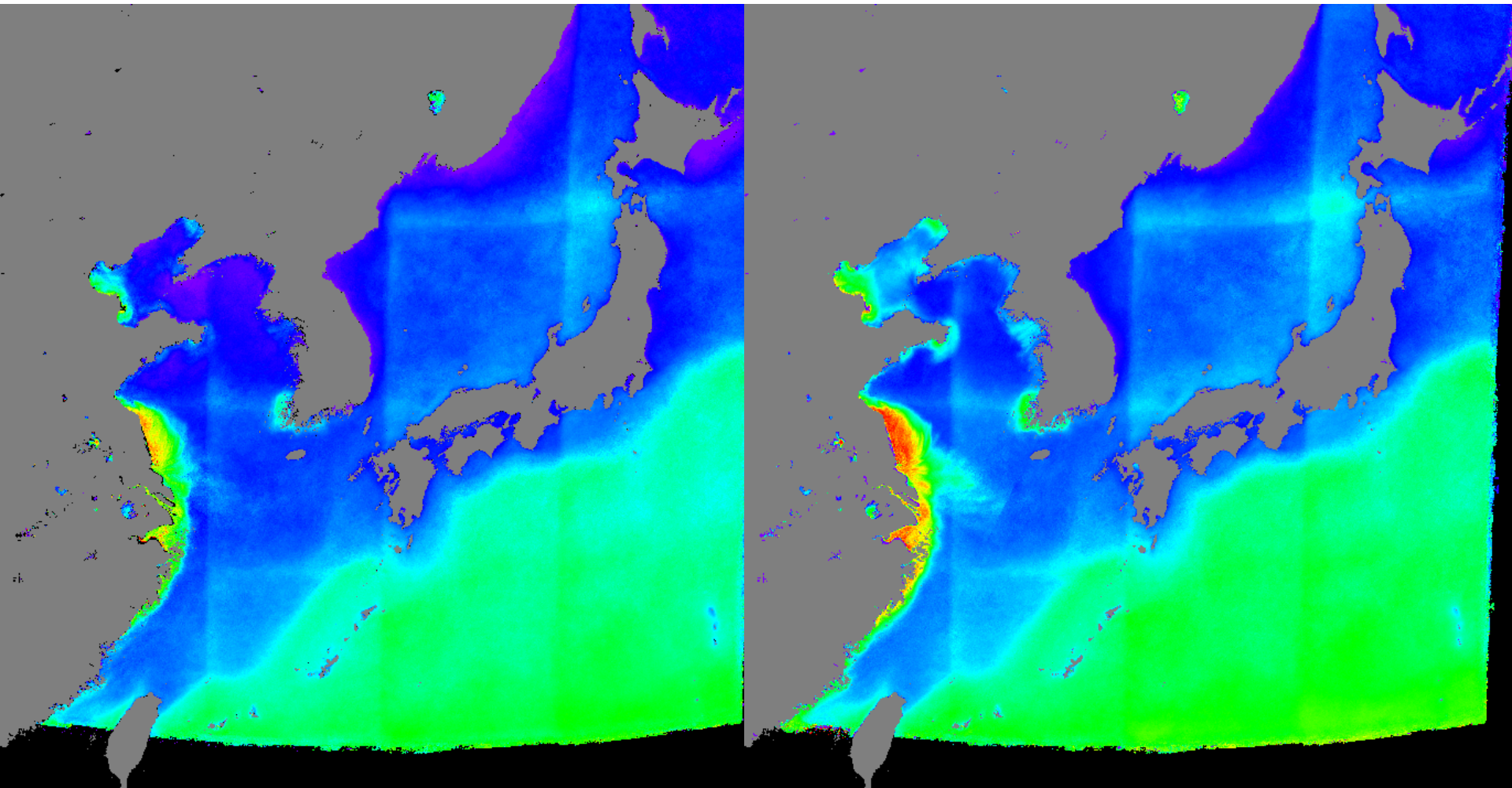
nLw(745)



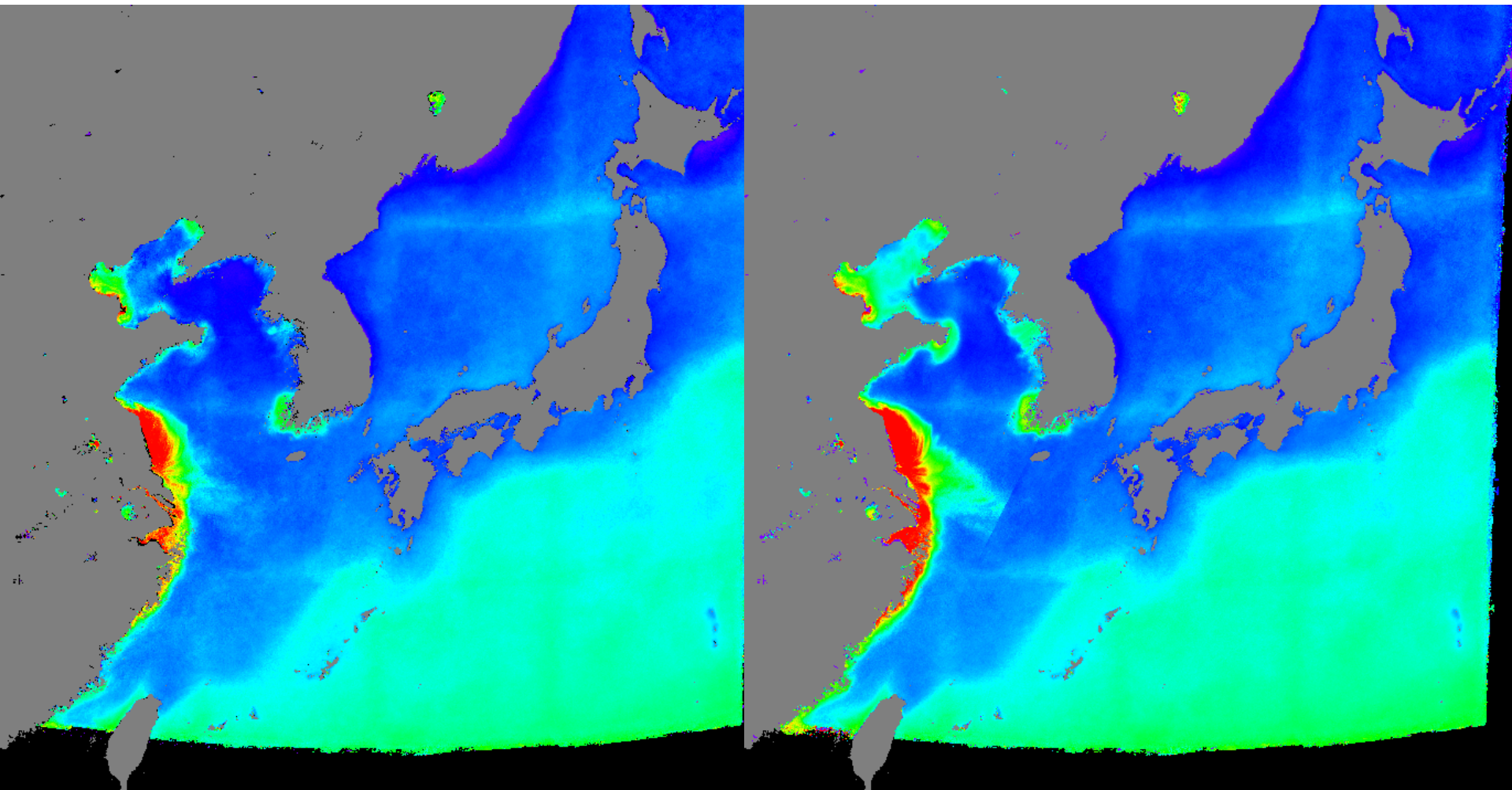
nLw(865)



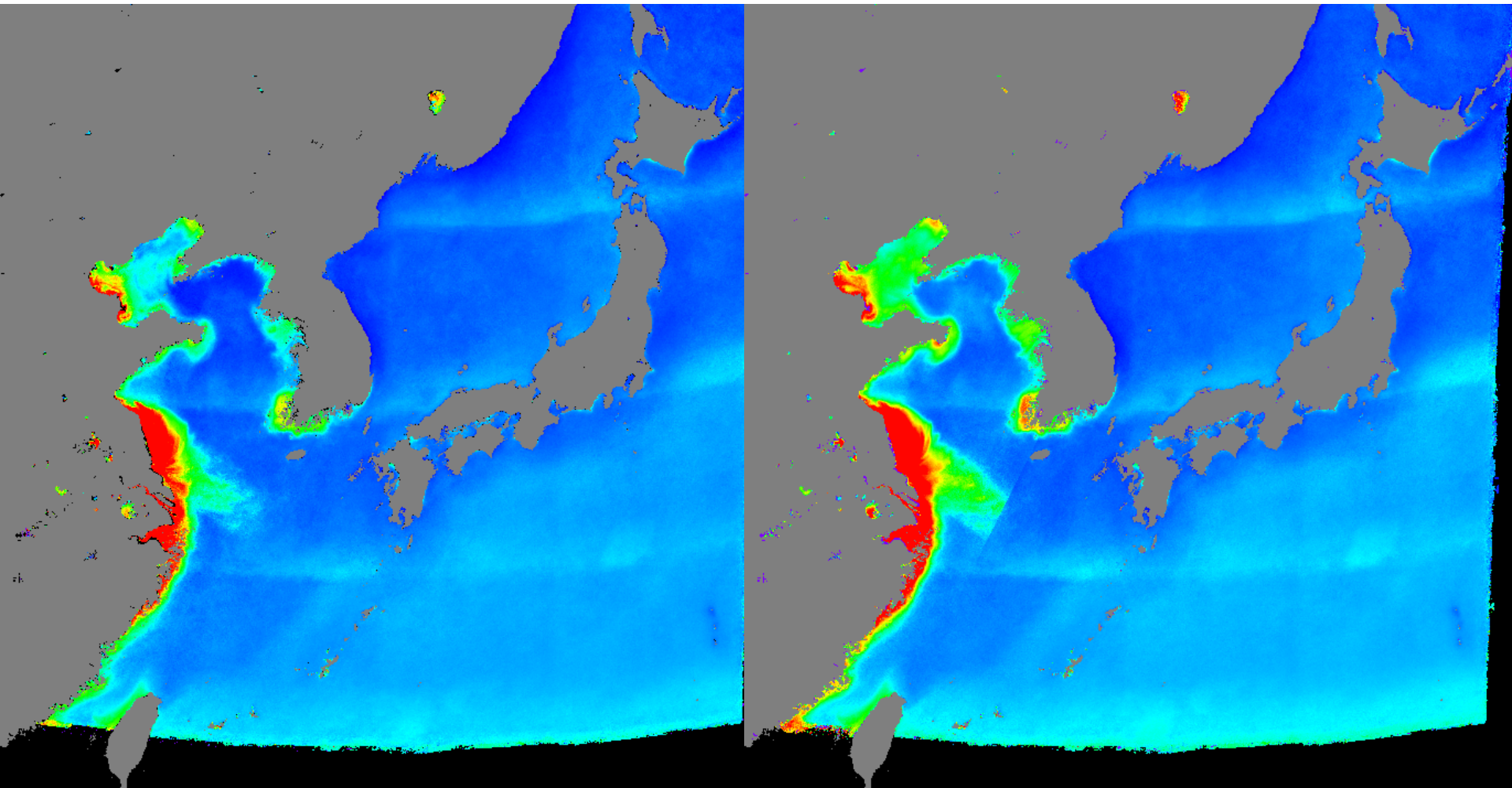
nLw(412)



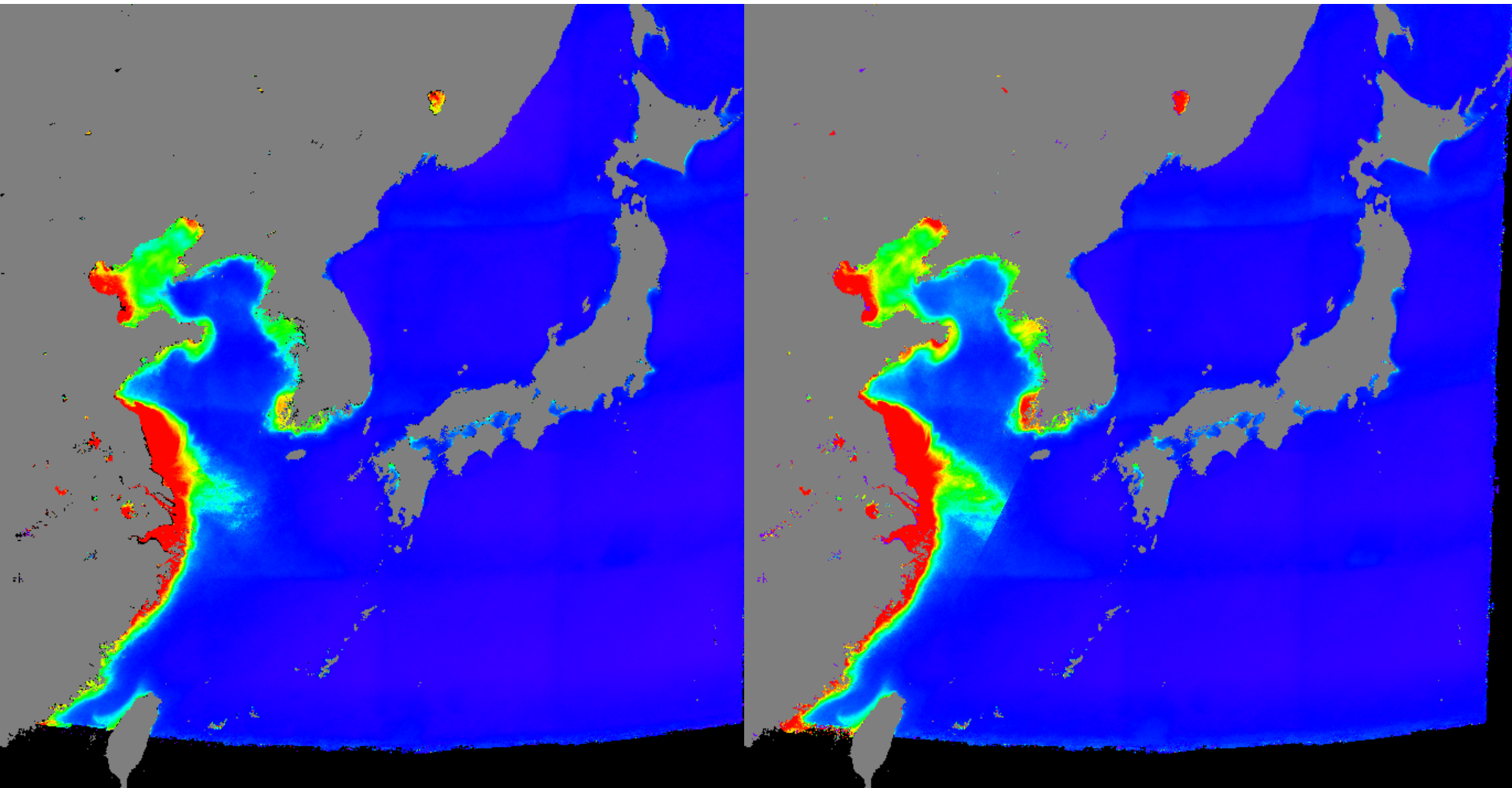
nLw(443)



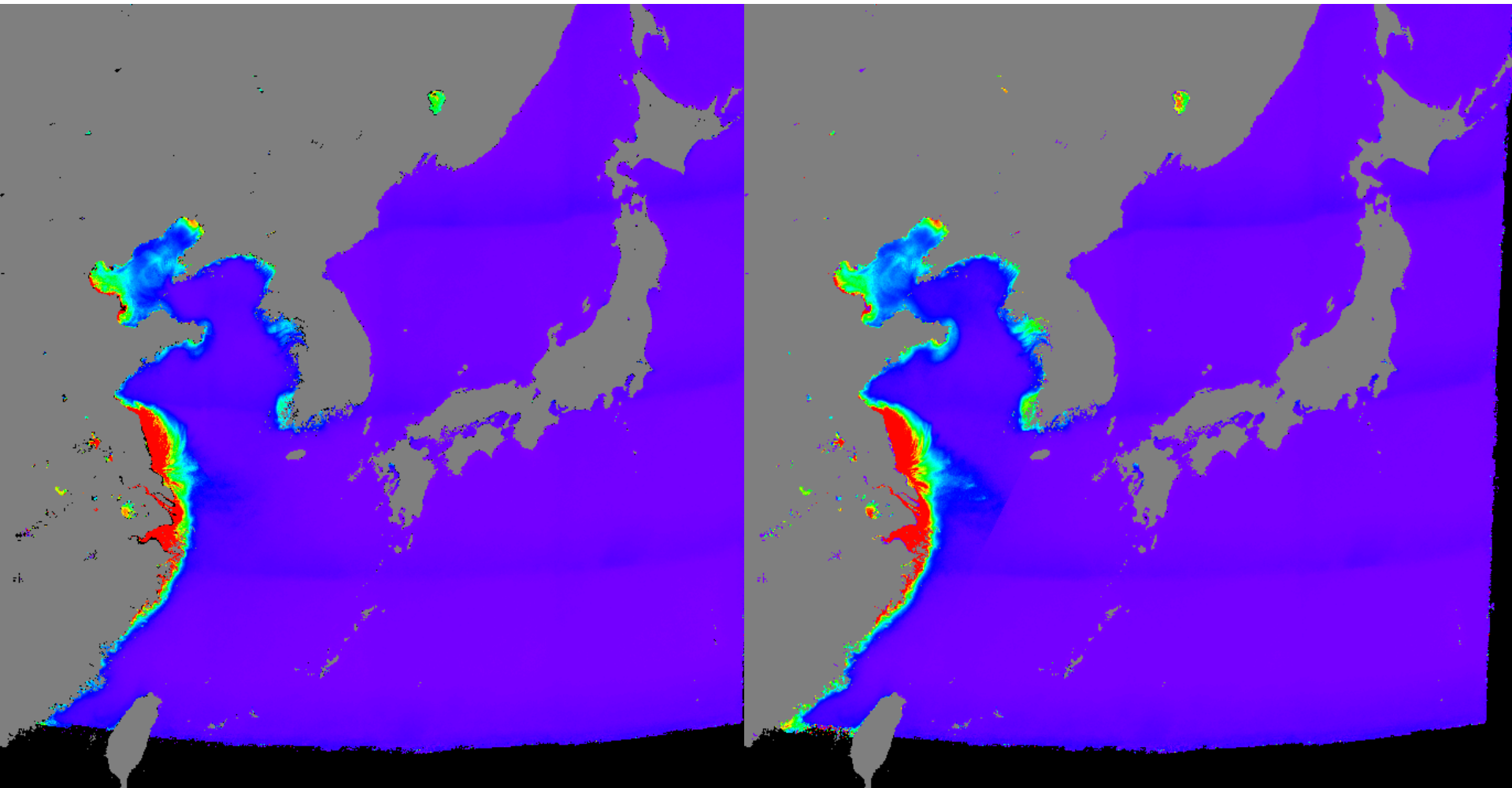
nLw(490)



nLw(555)



nLw(660)



nLw(680)

