

# Ocean Colour Climate Change Initiative (OC\_CCI) - Phase Two CCN

#2



Climate Research Data Package (CRDP)

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## SIGNATURES AND COPYRIGHT

**Project** : **Ocean Colour Climate Change Initiative (OC\_CCI) - Phase Two CCN #2**


**Document Title:** **Climate Research Data Package (CRDP)**

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:   
[Dr Shubha Sathyendranath – PML]

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**Reviewed** :   
[John Swinton – VEGA]

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:  
[Dr Craig Donlon – ESA]

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**Address** : Plymouth Marine Laboratory (PML)  
Prospect Place  
The Hoe  
Plymouth PL1 2DH

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## Document Change Log

Issue/ Revision	Date	Comment
1.0	13 <sup>th</sup> April 2018	First Draft
1.1	31 <sup>st</sup> May 2018	Minor typographical updates

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## 1. INTRODUCTION

Within ESA's Climate Change Initiative (CCI), the Ocean Colour CCI (OC\_CCI) project has produced several versions of a climate-quality merged ocean-colour time series for use in climate change studies. This short Technical Note on the Climate Research Data Package (CRDP) of OC\_CCI briefly summarises the all versions produced, and the products contained within.



## 2. OC\_CCI CRDP DATASETS (AS OF MAY 2018)

### *Product Contents*

The OC\_CCI dataset includes remote-sensing reflectance in the visible domain, and derived chlorophyll concentration, in addition to a number of other optical properties computed from the radiances, such as various inherent optical properties and the diffuse attenuation coefficient for downwelling irradiance (see **Table 1**). The time-series utilises data from several satellite missions that include ESA's MERIS, NASA's SeaWiFS and Aqua-MODIS, and the NOAA/NASA VIIRS instrument added from v3 onwards.

<b>Spatial coverage:</b> Global level 3 binned multi-sensor merged data as sinusoidal and geographic products at 4km resolution	
<b>Temporal resolution:</b> Daily, 8-Day and Monthly	
<b>Temporal coverage:</b> 1997-2016 (v3-1), 1997-2015 (v3), 1997-2013 (v2) & 1997-2012 (v1)	
Product	What's included
Phytoplankton Chlorophyll-a concentration (chlor_a) [ $\text{mg m}^{-3}$ ] GCOS Climate Variable	The main OC products. Uncertainty layers are included.
Remote-sensing reflectance (Rrs) at six wavelengths [ $\text{sr}^{-1}$ ] GCOS Climate Variable	
Total absorption (atot) and backscattering coefficients (bbp) [ $\text{m}^{-1}$ ] at six wavelengths	No uncertainty layers as tot is a combined product and there is insufficient data for bbp.
Phytoplankton absorption coefficient (aph) [ $\text{m}^{-1}$ ] and absorption coefficient for dissolved and detrital material (adg) [ $\text{m}^{-1}$ ]	Uncertainty layers are included.
Diffuse attenuation coefficient for downwelling irradiance (kd_490) [ $\text{m}^{-1}$ ]	

**Table 1: Ocean Colour CCI dataset products, including temporal coverage for each release.**

There is a Frequently Asked Questions (FAQ) section on the project's website at <http://esa-oceancolour-cci.org/?q=faq>

If you need further information, then the best document to start with is the Product User Guide (PUG) [http://www.esa-oceancolour-cci.org/?q=webfm\\_send/684](http://www.esa-oceancolour-cci.org/?q=webfm_send/684) and you can also email [help@esa-oceancolour-cci.org](mailto:help@esa-oceancolour-cci.org) for support.

### **Data Access**

The datasets are accessible via the following routes:

- The project's ocean colour portal <http://www.oceancolour.org> that includes a Composite Browser, Web GIS Portal and OPeNDAP access details.
- ESA's CCI Open Data Portal: <http://cci.esa.int/>

In addition, the 2015 compilation of the in situ data (Valente *et al.* 2016, <https://doi.org/10.5194/essd-8-235-2016> ) is available from:

- <https://doi.pangaea.de/10.1594/PANGAEA.854832>

### **Dataset Citation**

The OC\_CCI datasets should be cited using the information provided at the following locations:

- Version 1-0:  
<http://catalogue.ceda.ac.uk/uuid/f1a4a1d1208244c682603502d554bc12>
- Version 2-0:  
<http://catalogue.ceda.ac.uk/uuid/58268d53f02942fd9951bee50360b893>
- Version 3-1:  
<http://catalogue.ceda.ac.uk/uuid/9c334fbe6d424a708cf3c4cf0c6a53f5>

We would also like to be notified so that we can list publications within the project website at <http://www.esa-oceancolour-cci.org/?q=publications>

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