

MERIS MAtchup In-situ Database



Few updates

Constant Mazeran¹, Christophe Lerebourg¹, Kathryn Barker², Olivier Sardou¹, Chris Kent², Philippe Goryl³

(1) ACRI-ST, 260 route du Pin Montard, Sophia Antipolis, 06600, France (2) ARGANS Limited Unit 3, Drake Building, Tamar Science Park, Plymouth, PL6 8BY, UK (3) ESA/ESRIN Via Galileo Galilei CP 64, Frascati, Roma, 00044, Italy











New datasets in MERMAID

- New datasets
- On-going processing

Reminder on data policy and condition of use

- Service Level Agreement
- Acknowledgement and citation
- Status on users

ODESA source code release

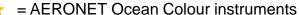




Status on the datasets

- 29 datasets ready for full access, including 4 new since last MVT in October 2011:
 - PortCoast (V. Brotas, Univ. Lisboa) Chl
 - ❖ MAREL (C. Belin, IFREMER) Chl
 - ❖ REPHY (C. Belin, IFREMER) Chl
 - Glorya (G. Zibordi, JRC) rhow
- 3 datasets restricted to the DQWG, upon PI request
- Bristol-Irish Sea dataset (David McKee) has been corrected from previous error in in situ data processing
- Bandshift correction for AAOT, GDT, HLT
- IOP/concentration inclusion
- New measurements/update for some sites:
 - **❖** BOUSSOLE
 - Bristol Irish Sea
 - ***** ...

			No. of the last of	
	In-situ dataset	Principle Investigator	Affiliation	Contact email
	AAOT	Giuseppe Zibordi	JRC	giuseppe.zibordi@jrc.it
_	AbuAlBukhoosh	Giuseppe Zibordi	JRC	giuseppe.zibordi@jrc.it
	Algarve	John Icely	University of Algarve	John.Icely@gmail.com
	BOUSSOLE	David Antoine	LOV	antoine@obs-vlfr.fr
	BristolIrishSea	David McKee	University of Strathclyde	david.mckee@strath.ac.uk
	CaliforniaCurrent	Mati Kahru	University of	mkahru@ucsd.edu
	CASES	Simon Belanger	Université du Québec	simon_belanger@uqar.ca
_	CoveSEAPRISM	Greg Schuster	NASA GSFC	gregory.l.schuster@nasa.gov
•	CoveSEAPRISM	Holben, Brent	NASA GSFC	Brent.N.Holben@nasa.gov
	EastEngChannel	Hubert Loisel	Universite du Littoral Cote d'Opale	hubert.loisel@univ-littoral.fr
	FrenchGuiana	Hubert Loisel	Universite du Littoral Cote d'Opale	hubert.loisel@univ-littoral.fr
	GustavDalenTower	Giuseppe Zibordi	JRC	giuseppe.zibordi@jrc.it
	Helgoland	Roland Doerffer	HZG	roland.doerffer@hzg.de
~	HelsinkiLighthouse	Giuseppe Zibordi	JRC	giuseppe.zibordi@jrc.it
	LISCO	Sam Ahmed	City college of New York	ahmed@ccny.cuny.edu
•	LISCO	Alex Gilerson	City college of New York	gilerson@ccny.cuny.edu
k	LJC0	Vittorio Brando	CSIRO, Australia	Vittorio.Brando@csiro.au
	MAREL	Catherine Belin	IFREMER	Catherine.Belin@ifremer.fr
	MOBY	Kenneth Voss	University of Miami	voss@physics.miami.edu
	MUMMTriOS	Kevin Ruddick	MUMM	k.ruddick@mumm.ac.be
L	MVCO	Hui Feng	University of	hui.feng@unh.edu
•	мусо	Heidi Sosik	Woods Hole	hsosik@whoi.edu
	NOMAD	Jeremy Werdell	NASA	jeremy.werdell@nasa.gov
	NWBalticSea	Susanne Kratzer	University of Stockholm	Susanne.kratzer@ecology.su.se
t	Palgrunden	Susanne Kratzer	University of Stockholm	Susanne.kratzer@ecology.su.se
Ì	PlumesAndBlooms	David Siegel	University of California, Santa Barbara	davey@eri.ucsb.edu
	PortCoast	Vanda Brotas	Universidade de Lisboa	vbrotas@fc.ul.pt
	REPHY	Catherine Belin	IFREMER	Catherine.Belin@ifremer.fr
	SIMBADA	Pierre-Yves Deschamps	LOA	pyd@loa.univ-lille1.fr
	WaddenSea	Annelies Hommersom	IVM	annelies.hommersom@gmail.com
	WaveCIS	Bill Gibson	Coastal Studies Inst. LSU , Louisiana - USA	bgibson@lsu.edu
	WaveCIS	Alan Weidemann	Naval Research Laboratory, NRLSSC	Alan.Weidemann@nrlssc.navy.m
		A EDONET Oss	C-I-	ir inatriimanta







Status on the datasets

IFREMER



LISCO



MUMMTriOS



- → Most of the matchups in MERMAID are now near the coast
- → A new information, distance to coast, is now provided in the extraction (1km resolution). It gives a clue for processing or not with ICOL





Data policy and condition of use

MERMAID is a validation facility open to any users with respect of the proprietary rights & acknowledgement of all contributors :

- PIs and associated institutions which provide in situ measurements
- ACRI-ST, ARGANS and ESA (funding, development and maintenance)

Since the beginning (2007), a strong effort has been put on ensuring a perfect respect of PIs' expectations

Note: PIs can ask to restrict the access to QWG

When MERMAID extractions are used in publications the PI must be contacted to

- 1. Give approval
- 2. Be offered co-authorship
- 3. Be acknowledged.

A Service Level Agreement must now be signed for MERMAID use in projects outside the initial QWG's maintenance framework

©es	sa A	CRI		
Liability Neither ACRI-ST, or ARGANS or ESA, nor any in situ data PI shall be held liable for any damage, loss whether direct, indirect or consequential resulting from the User's use of MERMAID.				
Intellectual property rights All Intellectual Property Rights in MERMAID database belong, and will continue to belong, to their original owners, in particular: the ownership of raw in situ data archived in MERMAID remains with the Principal Investigators; ENVISAT MERIS raw data remains with ESA and advanced extraction products remain with ACRI-5T.				
The MERMAID Administrator reserves the right to: - monitor accounts, IP addresses and passwords; - implement new security measures as necessary;				
Access to MERMAID is granted only after having signed this protocol. Any violation of this protocol can result in termination of access to the MERMAID database.				
For any enquiry related to MERMAID, contact: mermaid@acri.fr				
The undersigned agrees to the conditions of this protocol (print clearly)				
Family name:				
Given name:				
Affiliation:				
E-mail:				
Address:				
Date:				
Signature:				
Please return to: ACRI-ST MERMAID Service 260 route du Pin Montard - BP 234 – F-06904 Sophia Antipolis Cedex , France Phone: +33 (0)4 92 96 29 15 - Fax: +33 (0)4 92 96 71 17 - E-mail: mermaid@acri.fr				
MERMAID data :	access protocol - Version 1.0 dated 15.05.2011			





esa Data policy and condition of use

PIs' contacts (name, affiliation, email) and an acknowledgement template are explicitly displayed before each download

If you intend to use MERMAID extractions in a publication or a report, please:

- Consult the PI(s) via e-mail to get approval of in situ data use, inform him/her/them of his/her /their data use and offer co-authorship.
- Acknowledge the PIs and associated projects, e.g.: We thank (the Project/PI) for the (cruise/experiment) data.
- Acknowledge the MERMAID facility and services, e.g.: We thank ACRI-ST, ARGANS and ESA for access to the MERMAID system. (http://hermes.acri.fr/mermaid)

In-situ dataset	Principle Investigator	Affiliation	Contact email
AAOT	Giuseppe Zibordi	JRC	giuseppe.zibordi@jrc.it
AbuAlBukhoosh	Giuseppe Zibordi	JRC	giuseppe.zibordi@jrc.it
Alganyo		University of	

User must accept the data policy to launch the download

If you intend to use their data please consult with them via e-mail. If you accept the above conditions, please check the following box Go on...





QWG	PI+CI	SLA	TOTAL
27	56	16	99

Institution	Country	SLA Nb	PROJECT
PML	UK	5	OC CCI
Hygeos	France	1	OC CCI
HZG	Germany	2	OC CCI
VITO	Belgium	1	SIMEC
Politecnico di Bari	Italy	1	
LOCEAN	France	1	
ARGANS	UK	1	IDEAS/SPPA
Takuvik	Canada	1	
Strathclyde Uni.	UK	2	
FIO	China	1	

Action foreseen in 2012: a survey will be conducted on the use of data downloaded in order to give feedback to PIs









Management of transects

MERMAID now deals with three in situ acquisition modes:

- Fixed buoys (e.g. BOUSSOLE, AERONET-OC towers, etc.)
- Cruises with scattered stations (e.g. NOMAD, SIMBAD, MUMMTriOS...)
- Transects (e.g. Helgoland, NIVATriOS)

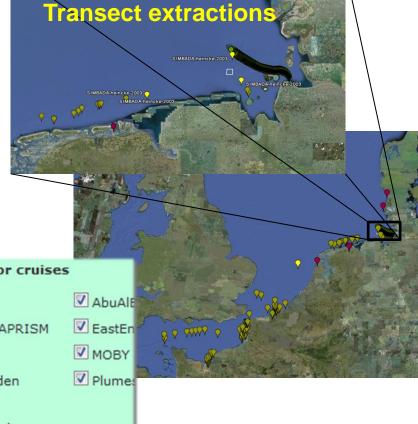


Moorings or cruises **V** AAOT

- ▼ CoveSEAPRISM
- ✓ ⊓CO
- ▼ Palgrunden

Transect

Helgoland

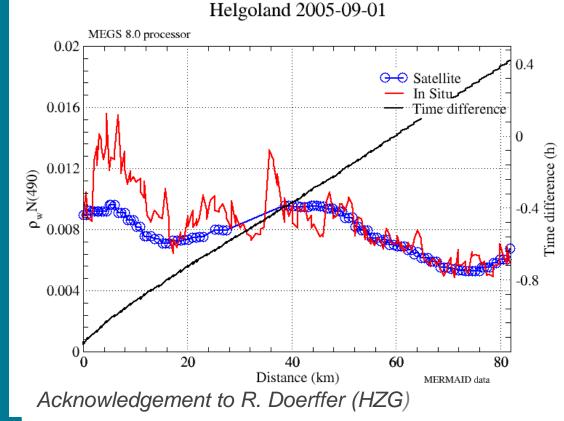






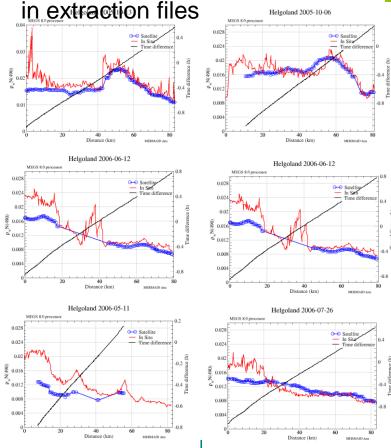
Management of transects

- Extraction of NxN pixels along the transect remains identical to buoys (text file)
- Can be processed in ODESA
- New transect plots, as function of the distance to starting point



Flags rejected as specified by the user

Due to large number of pixels, transects are provided separately







Management of transects

Keep usual ouputs to allow comparison with other datasets

Level 1b RGB image Helgoland MEGS 8.0 processor MEGS 8.0 processor BOUSSOLE s: 1.039 MOBY s: 1.018 Helgoland int: -0.003 r : 0.916 r2: 0.904 0.05 ρ_w N_{satellite} (443) 00 00 099 0.04 Z_№ 0.03 0.02 0.01 0.01 0.02 0.03 0.01 0.02 0.03 0.04 0.05 0.06 0.07 $\rho_w N_{in \, situ}(443)$ $\rho_{\rm w}N_{in\,situ}(560)$ MERMAID data MERMAID data SYKE Stacked histogram RPD 510 Stacked histogram RPD 560 MEGS 8.0 processor MEGS 8.0 processor 160 160 of Matchups <-100 -80 -60 -40 -20 0 20 <-100 -80 -60 -40 -20 0 20 40 60 80 >100 Relative Error (%) Relative Error (%) MERMAID data MERMAID data



Thanks to all contributing PIs to MERMAID:

- G. Zibordi (AAOT, Abu Al Bukhoosh, GustavDalenTower, HelsinkiLighthouse), J. Icely (Algarve), D. Antoine (BOUSSOLE),
- D. McKee (BristolIrishSea), M. Kahru (California Current),
- S. Bélanger (CASES), G. Schuster & B. Holben (CoveSEAPRISM),
- H. Loisel (EastEngChannel, FrenchGuyana), R. Doerffer (Helgoland),
- S. Ahmed & A. Gilerson (LISCO), V. Brando (LJCO),
- C. Belin (MAREL, REPHY), K. Voss (MOBY), K. Ruddick (MUMMTriOS),
- H. Feng & H. Sosik (MVCO), J. Werdell & NOMAD's PIs,
- S. Kratzer (NWBalticSea, Palgrunden), D. Siegel (PlumesAndBlooms),
- V. Brotas (PortCoast), P-Y Deschamps (SIMBADA),
- A. Hommerson (WaddenSea), B. Gibson & A. Weidemann (WaveCIS)