

Composite data

Workshop IPEE/CLS - 3-FEB-2010



ARMOR3D and SURCOUF

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In situ data













88 BA 1553 PF 21 XB 559 TE 272 MO 9 CT 708 TS



→ Surface currents From surface drifters







Satellites data



➔ Radar Altimetry

measurement = Sea Surface Height derived product : Geostrophic sea surface curren





→ Optical / micro-wave Radiometry measurement = Sea Surface Temperature





➔ Micro-wave scatterometer

measurement = Surface Wind Fields
(and/or outputs from weather forecast)





ARMOR3D

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http://www.cls.f



ARMOR3D – Method

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vertical projection of satellite data (SLA, SST)

combination of synthetic and in-situ profiles





ARMOR3D – T field at 50 m

SLA





ARMOR3D / Levitus

<image>

ARMOR-3D



14/09/2005

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ww.cls.fr



ARMOR3D – T section at 35°N









SURCOUF



3D global thermohaline fields (ARMOR3D) Page 10

Surface currents (SURCOUF)

http://www.cls.fr



http://www.cls.fr



SURCOUF - Example





January





ge 13

http://www.cls.

.s



February





1 cm/s _____

http://www.cls.



March





1 cm/s _____

http://www.cls.



April





ge 16

http://www.cls.fr

CLS



May





age 17

http://www.cls.f

CLS



June





1 cm/s _____

http://www.cls.



July





1 cm/s _____

http://www.cls.fr



August





ie 20

.s









1 cm/s _____

http://www.cls.f



October





1 cm/s _____

http://www.cls.f



November





1 cm/s _____

ie 23



December





1 cm/s _____



Conclusion

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ARMOR3D and SURCOUF observed products

- Complementary to model outputs
- Provide us with ocean state estimates

SURCOUF3D

 Under development – using currents deduced from Argo floats trajectories at their parking depth