

## International Space Science Institute Hallerstrasse 6 CH-3012 Bern Switzerland

## **International Teams in Space Science**

## **Generation of Climate Data Records of Sea-Surface Temperature from current and future satellite radiometers**

Team Leader:

Peter J Minnett, PhD. (pminnett@rsmas.miami.edu)

Co-Team Leader:

Gary K. Corlett, PhD. (gkc1@leicester.ac.uk)

## First Workshop 26-30 March 2012

Revised Draft Agenda

20 March 2012

## Monday, 26 March, 2012

#### 1 Welcome

- 1.1 Local Arrangements Maurizio Falanga
- 1.2 Introduction of Participants All
- 1.3 Objectives of the Workshop Peter Minnett
- 1.4 Discuss & modify agenda All

#### 2 Background – satellite radiometers

- 2.1 Requirements of Sea-Surface Temperature Climate Data Records Peter Minnett, Theo Theocharous
- 2.2 Approaches to generating SST CDRs Peter Minnett
- 2.3 Characteristics of past, current and future radiometers that can contribute to the SST CDR Gary Corlett, Peter Minnett
- 2.4 Summary of ESRIN Sentinel-3 Cal/Val Team Meeting, 20-22 March, 2012 Peter Minnett, Gary Corlett

#### 3 Background – shipboard radiometers

- 3.1 Characteristics of shipboard radiometers Peter Minnett, Werenfrid Wimmer, Tim Nightingale
- 3.2 Calibration requirements Peter Minnett, Theo Theocharous
- 3.3 Summaries of RSMAS and CEOS workshops Peter Minnett, Theo Theocharous
- 3.4 Calibration histories of radiometers Peter Minnett, Werenfrid Wimmer, Tim Nightingale
- 3.5 Deployment past and future plans Peter Minnett, Werenfrid Wimmer, Tim Nightingale

#### **4** Background – in situ measurements

- 4.1 Characteristics of in situ temperature measurements Anne O'Carroll, Gary Corlett
- 4.2 Deployments of in situ temperature measurements, past and future, Gary Corlett

## Tuesday, 27 March, 2012

#### 5 Discussion of SST CDRs

- 5.1 Can we justify calling satellite SST fields a CDR? Peter Minnett, Gary Corlett
- 5.2 Does the identification of satellite uncertainties using ship-board radiometers constitute a CDR? Peter Minnett
- 5.3 How can the satellite-derived SST CDR be extended back before the deployments of ship-board radiometers? Gary Wick
- 5.4 How can satellite SST CDRs be merged with in situ SST time series? Anne O'Carroll
- 5.5 Alignment with QA4EO. Gary Corlett, Theo Theocharous

# 6 Definition of Breakout Groups – Ship-board radiometry, in situ measurements and ....

Each group to consider:

- 6.1 Minimum and optimal accuracy requirements and how these can be achieved and demonstrated
- 6.2 Contents of "Best Practices Handbooks" for measurements to be used to validate satellite-derived SSTs
- 6.3 Identify Research areas that need urgent attention.

## Wednesday, 28 March, 2012

#### 7 Reports of Breakout Groups

#### 8 Data Archiving and distribution

- 8.1 Define the user requirements for a data archive Peter Minnett et al
- 8.2 Define minimum requirements of data sets, including metadata for archival data -Tim Nightingale et al

## Thursday, 29 March, 2012

#### 9 Breakouts - All

- 9.1 Write sections for Best Practices Report
- 9.2 Write sections for Workshop Report
- 9.3 Develop content for Web Pages

### Friday, 30 March, 2012

#### **10** Future plans

- 10.1 Identify problems to be addressed, gaps to be filled Peter Minnett, Gary Corlett
- 10.2 Requirements of future calibration workshops Peter Minnett, Gary Corlett
- 10.3 Opportunities for coordinated ship radiometer deployments Peter Minnett et al.
- 10.4 Outline of peer-reviewed publications arising from this ISSI Study Project All
- 10.5 "Homework" assignments- All
- 10.6 Dates for next ISSI Workshop -All

## **Study Group Participants**

Dr Peter Minnett (Team Leader) Dr Gary Corlett (Co-leader) Dr Sandra Castro Dr Craig Donlon Dr Bob Evans Dr Nigel Fox Dr Chelle Gentemann Dr Lei Guan Dr Simon Hook Dr Andrew Jessup Dr Tim Nightingale Mrs Anne O'Carroll Dr Gary Wick Mr Werenfrid Wimmer Dr Chris Wilson University of Miami, USA University of Leicester, UK University of Colorado, USA ESA-ESTEC, NL University of Miami, USA National Physical Laboratory, UK Remote Sensing Systems, USA Ocean University of China, CN NASA Jet Propulsion Laboratory, USA University of Washington, USA Rutherford Appleton Laboratory, UK EUMETSAT, DE NOAA Earth System Research Laboratory, USA University of Southampton, UK NASA Jet Propulsion Laboratory, USA