

# telescience update

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# update

- education
  - prime 2010
- e-culture
  - Osaka Knowledge Capital City exhibition
  - Nara 1300th anniversary exhibition
- urban monitoring
- GLEON/CREON
- Joint working group between Telescience & Geoscience.

# Breakup

1.KLEON



# Trial 2010





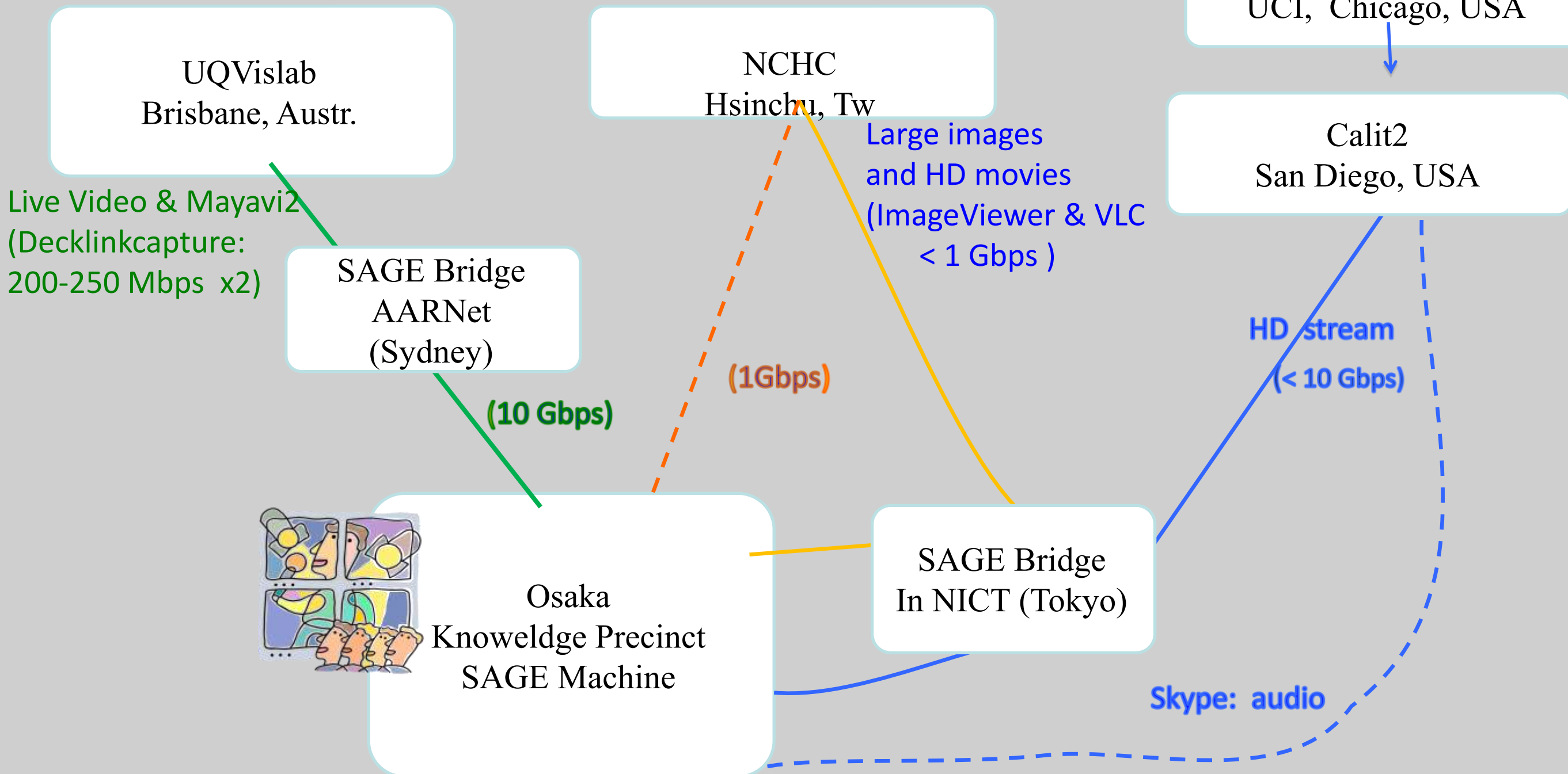
# OptIPortal & SAGE Bridge joint demo in Osaka

(June 10 -11, 2010 Shinji

Shimojo)

**Goal is showing the interactivity of SAGE**

**Content flows via Sage bridges - from UQVislab, NCHC, Calit2: to Osaka**



slide provided by Bernard Pailthorpe

# NARA 1300th Anniversary



Prime 2010 in Japan  
Lex Lucson, "Interactivity with 3D Models"  
Velu Ganapathy, "Visualization of Cultural Heritage"  
Kevin Nguyen, "Interaction with Cultural Heritage using FTIR touch table"



# GLEON/CREON Update

- KLEON formed May, in Soyang, Korea
- GLEON 10, May in Torres
- GLEON SC Strategy Meeting, August in Sunapee
- GLEON 11, Oct in Nanjin.
- CREON 6, August in Lanyu
- CREON Tech Meeting Meeting, Dec in Brisban
- CREON 7, Mar (2011) in Moorea (avoid pragma HK)
- CREON 8, Jan (2012) in Phuket

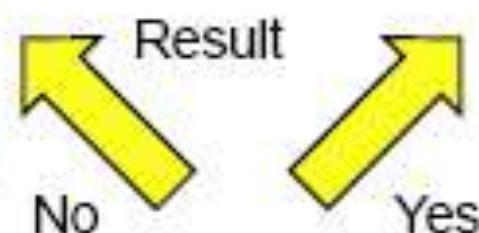
# GLEON 10 & SC Strategy Meeting

- AIST Geo-portal used by Lake Scientists
- “NSF CDI Type II: New Knowledge from GLEON”
  - Data Center migrate to NCHC for Operational issues
  - UCSD may introduce new Architecture for limnological simulation.
- Leverage science & policy engagement for future development.



# ASTER – FORMOSAT-2 Integrated Data Search

Get satellite imagery of a particular location from federated databases



Input Key:

Period  
Lat/Lon  
Cloud



Result

Date



Input Key

Period  
Lat/Lon  
Cloud  
etc



ImageOne









## CREON 6 (Global Coral Reef Environmental Observatory Network), 6-10, Sep 2010 @ Lanyu and Kenting.

- MCR, GBR, KT/LY, RACHA (35 people participated)
- Expanding the sites for new understanding
- New Proposal for working together on new site Racha Island, Thailand.
- Common CTD & Video streaming first.
- **Dec, 2010/2011 in Melbourne (tech), March 2011 in Moorea and Jan, Jan 2012 in Racha island.**

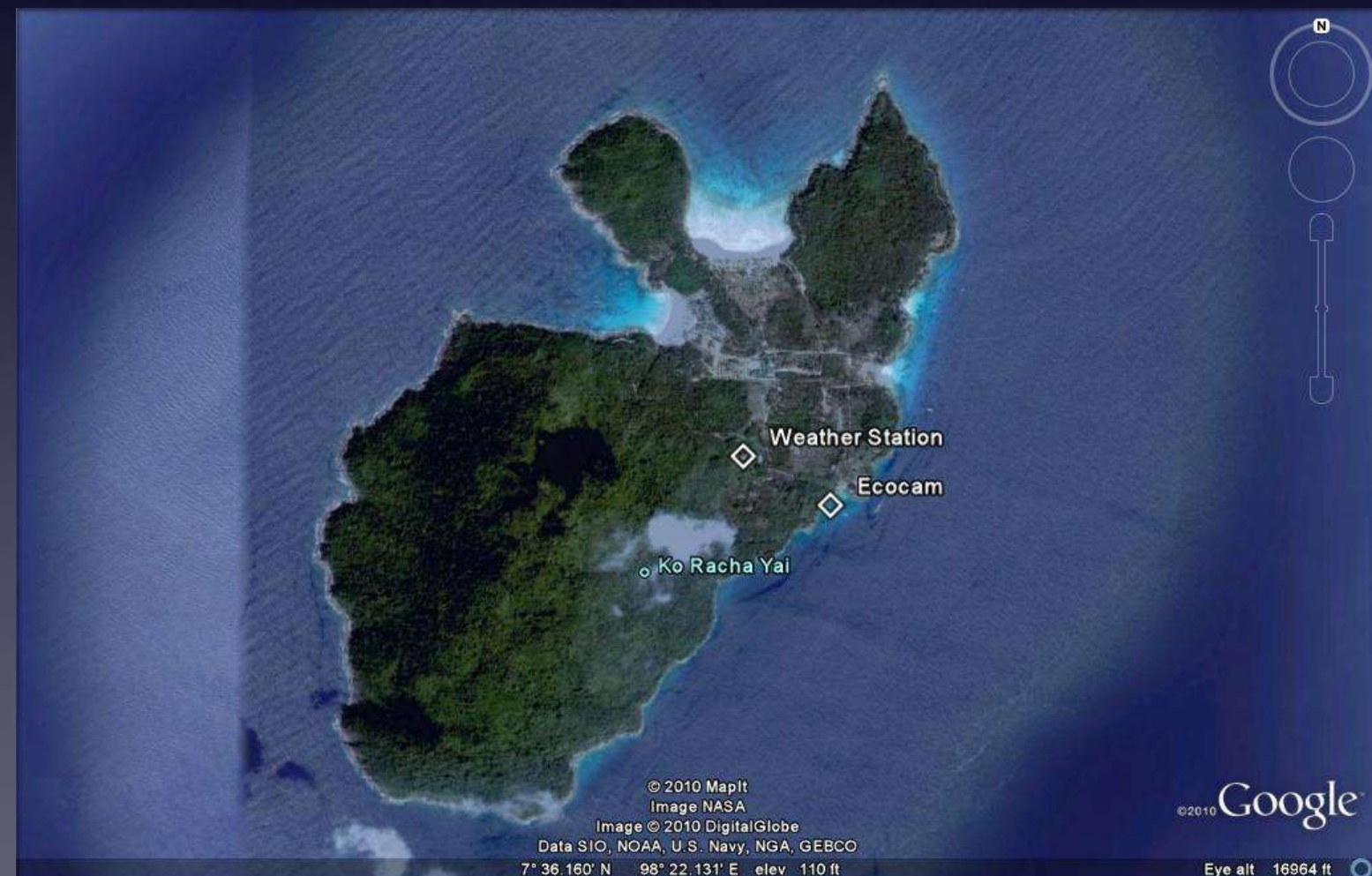






# Site Location

- Racha Island, Thailand is located at latitude  $7.61528^{\circ}$  N and longitude  $98.37125^{\circ}$  E .



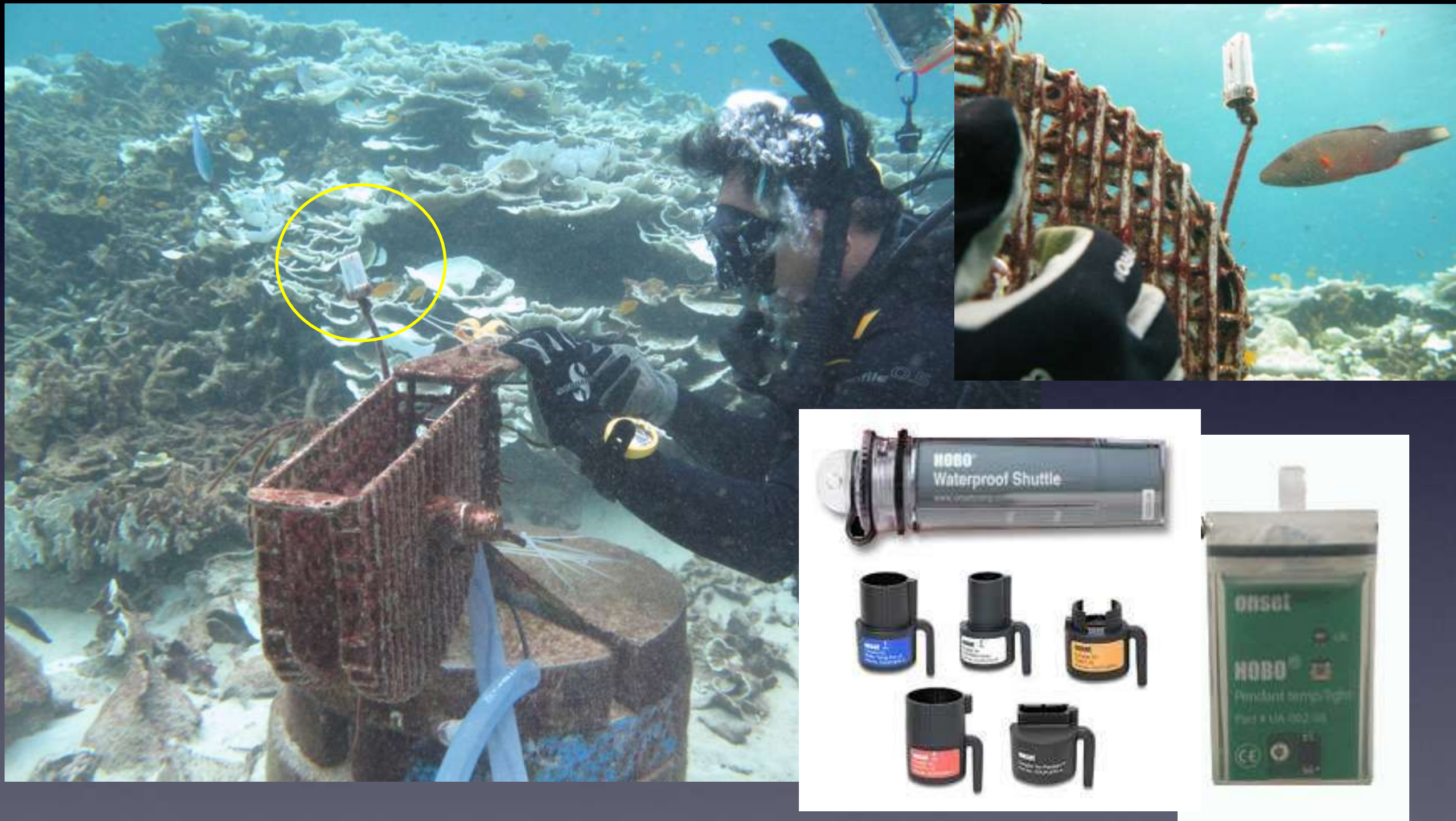


# Racha Island's coral diversity





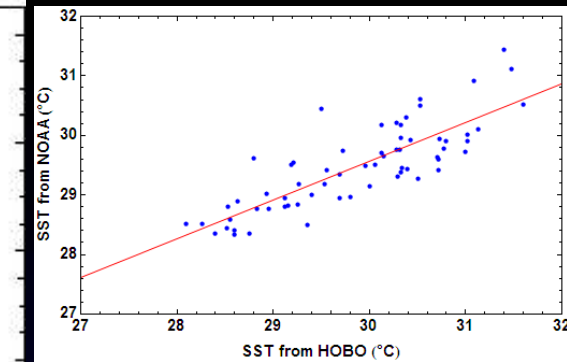
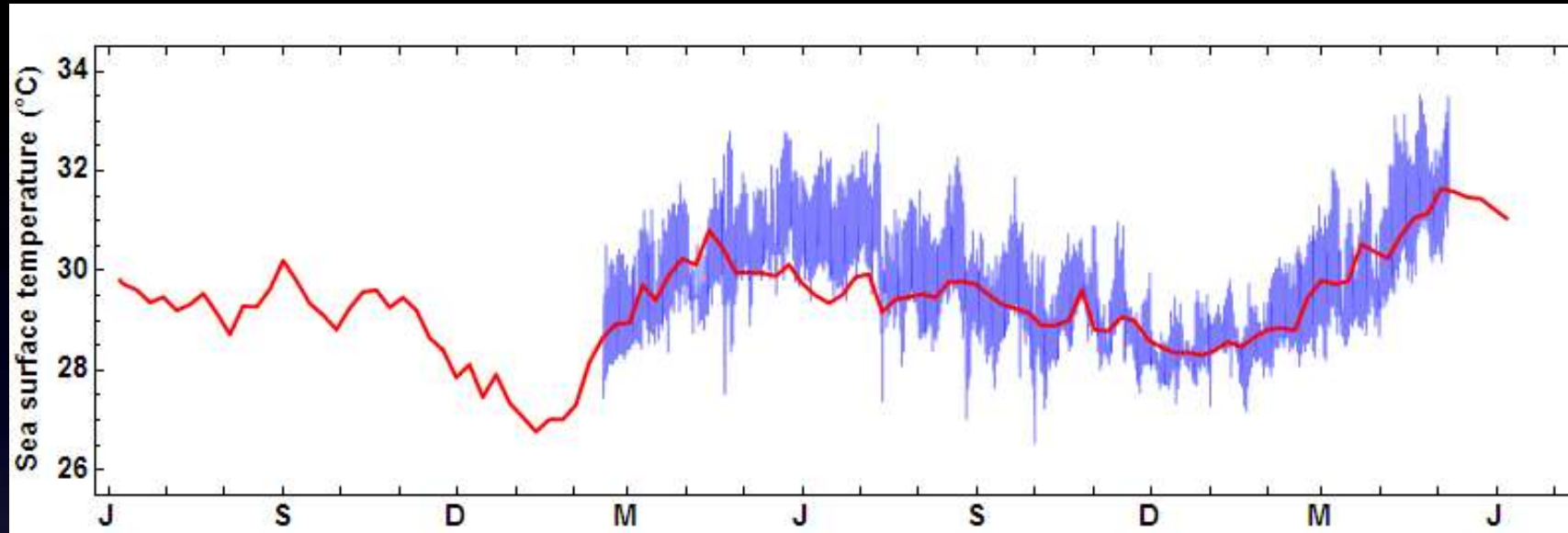
# Deploying Temperature Sensor



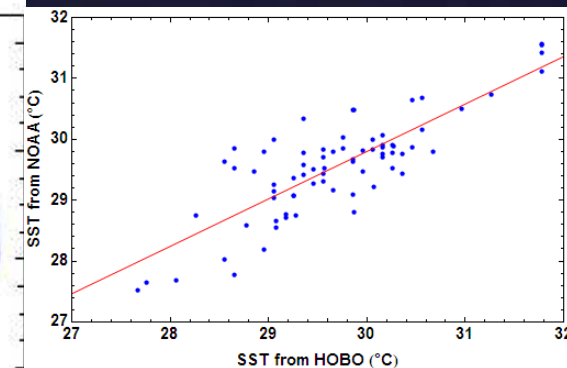
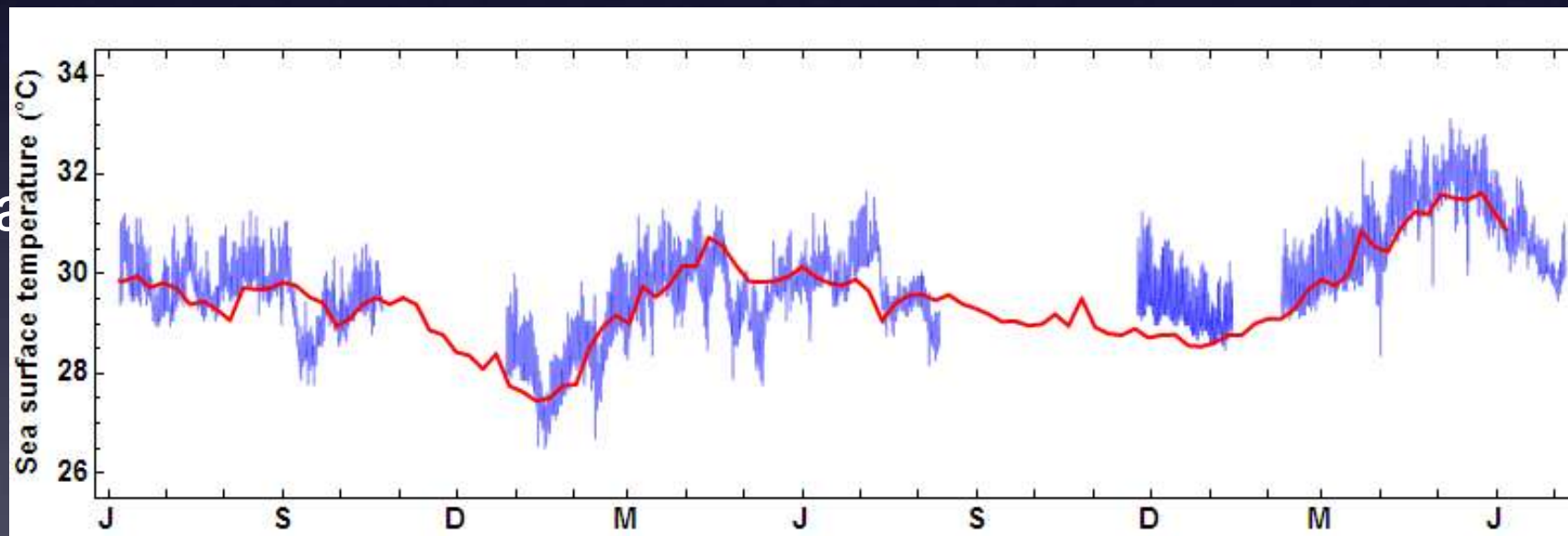


# Comparison between sensor data and NOAA data

Koh Tan



Koh Rachan



*SST from HOBO (blue line) and NOAA (red line): Tan Island in the Gulf of Thailand (16 Feb 2009-7 May 2010) and Racha Island in the Andaman Sea (7 June 2008-7 July 2010),*

# Additions to Existing Sensor Network

## New Streaming Data Sensor Platform

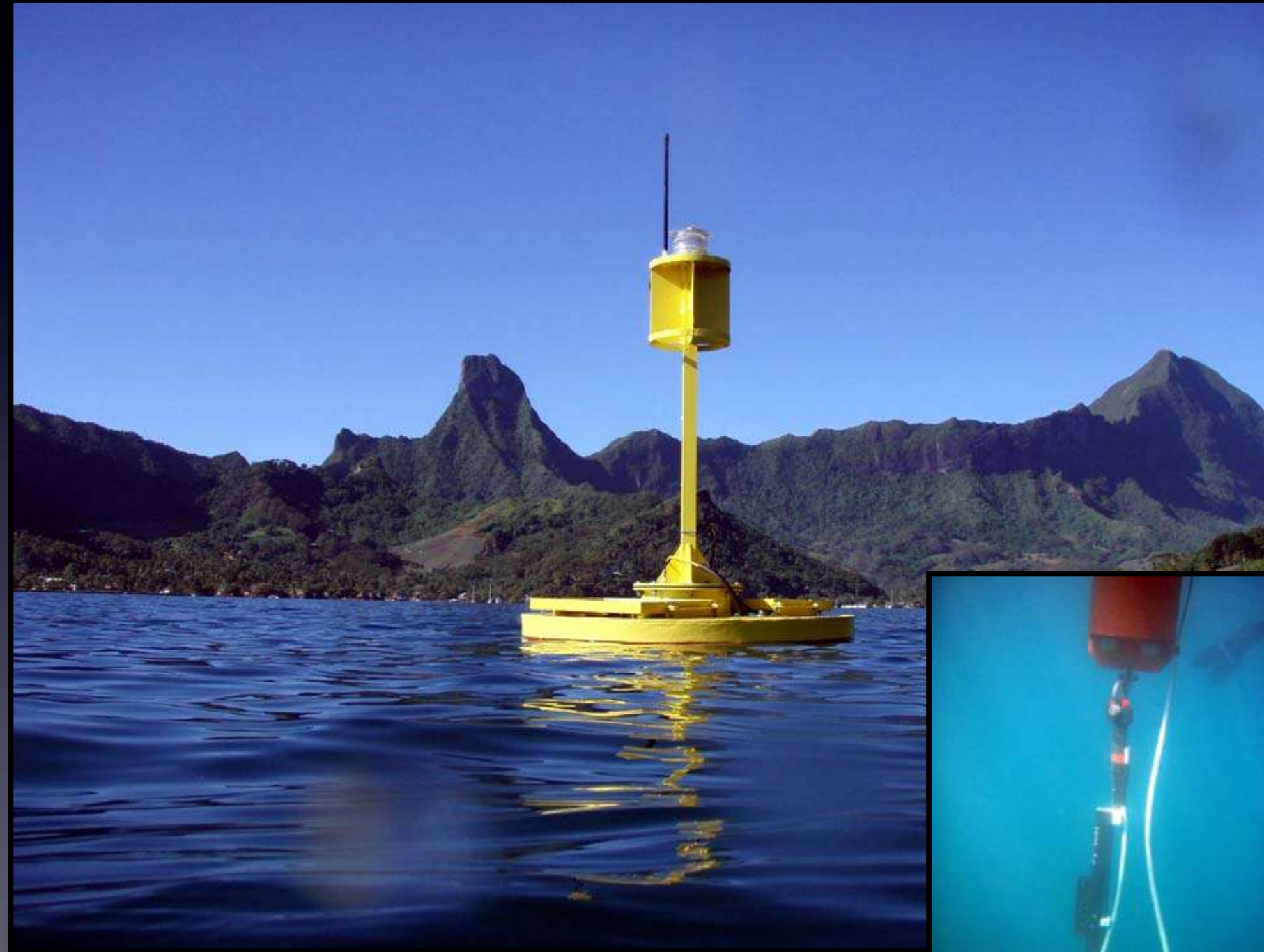
### Broadcasting Oceanographic Buoy

Utilizes Seabird  
Inductive Modem  
Technology  
Communication via  
802.11G wireless

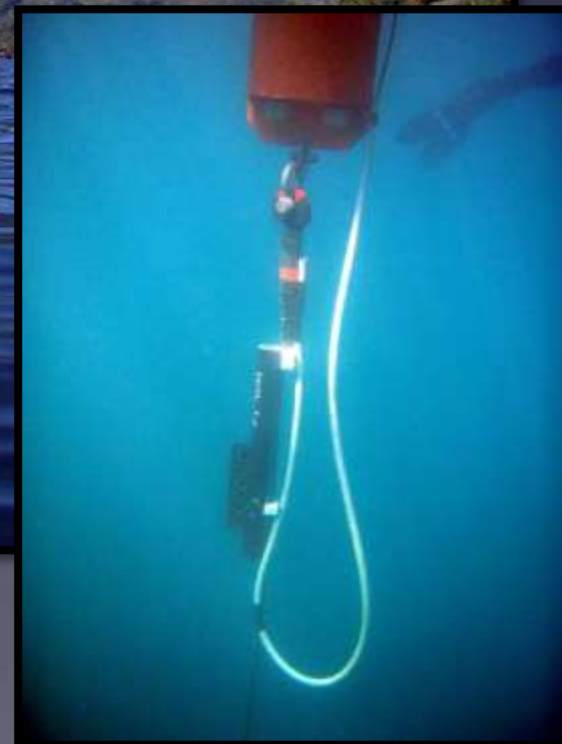
Sensor Suite includes:

CTDs (2) – SBE37IM  
Thermistors (5) –  
SBE39IM

Wave/Tide – SBE26+IM  
ADCP – RDI w/Nemo

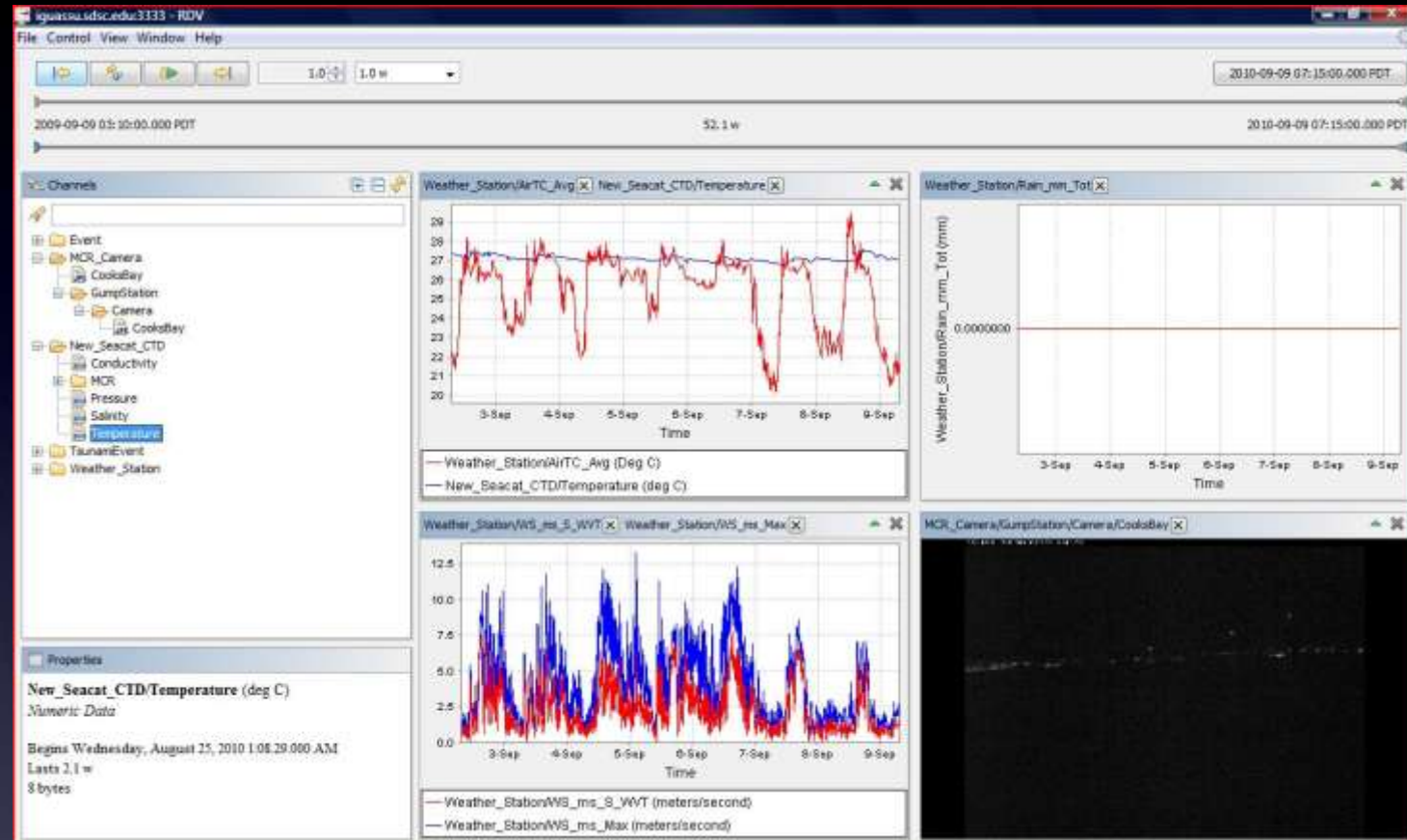
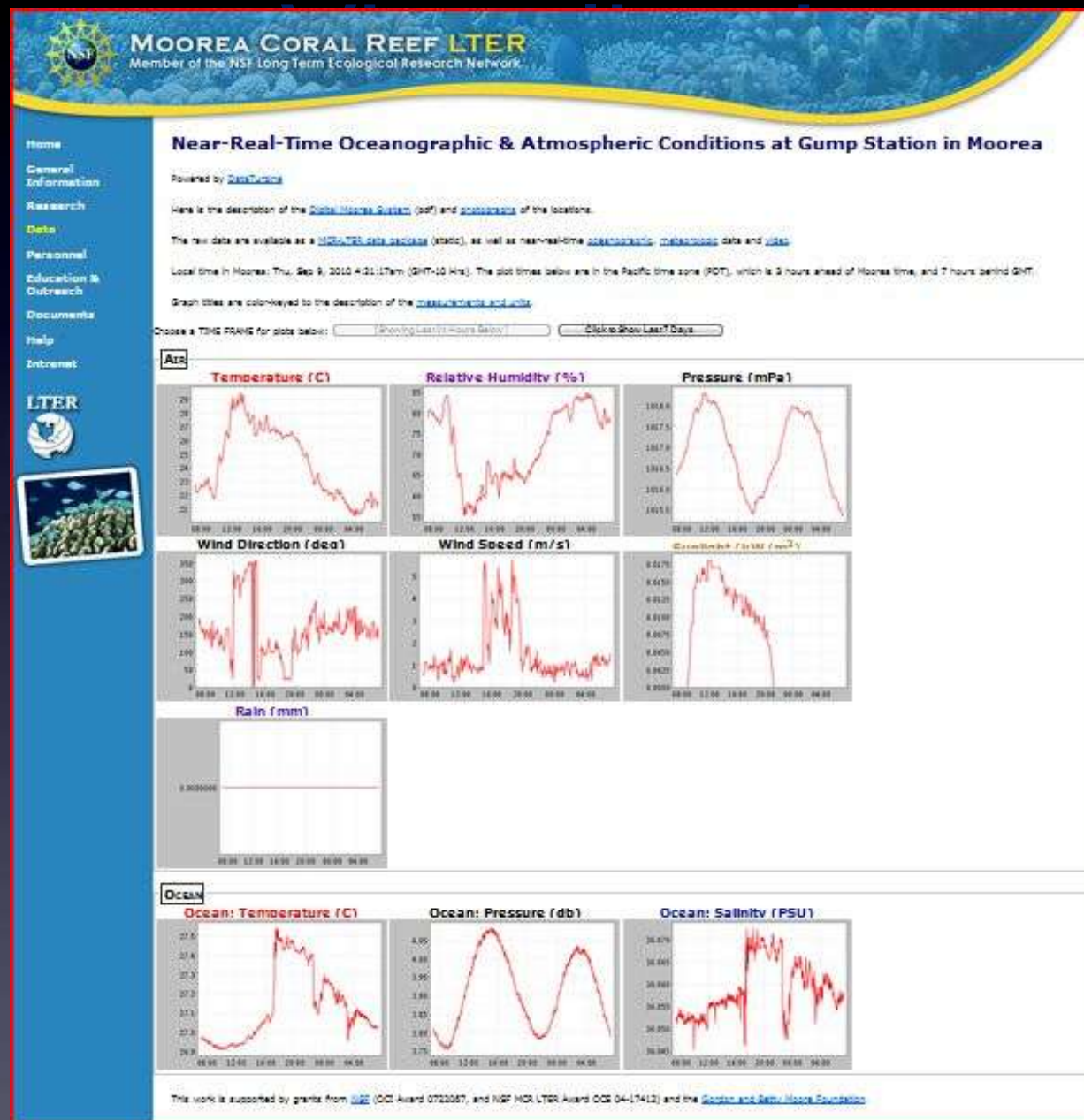


Moorea Coral Reef  
LTER





# Additions to Existing Sensor Data Network



DataTurbine Real-Time Data  
Viewer

MCR LTER  
Website

Moorea Coral Reef  
LTER



# MCR LTER Site Science

Resilience in a coral reef ecosystem: Initiation of a long-term experiment to examine the effects of multiple disturbances



Beginning in 2006, Moorea has experienced a large scale outbreak of the Crown-of-Thorns seastars (*Acanthaster planci*)



# New Observatory in Lanyu

TORI/NCHC



台東大學

TELECOM  
E1

Education

Cable

Video Capture  
蘭嶼國中

UnderWater Camera

- Depth (11m)
- Resolution (752x582)

水下攝影機

