

**Agenda for Hawaii RaDyO Symposium**  
**August 18-19, 2009**  
**DRAFT 3**

**Location:** The Hawaii RaDyO Symposim will be held at the Hilton Hawaiian Village Beach Resort and Spa, 2005 Kalia Road, Honolulu (tel. 808 949-4321).

**Dates:** August 18 and 19, 2009 (Tuesday and Wednesday)

**Objectives:**

August 18 and morning August 19– Plenary sessions. Review results from Santa Barbara Channel RaDyO experiments. A representative of each group (see Table below for group identification and let Tommy know of needed changes) will highlight discoveries and achievements to date (answer the question “What has our group learned thus far?”), discuss what complementary data are needed, and describe papers in preparation and planned.

Afternoon August 19 – Plenary session. Review plans for the Hawaii experiment. Elly Speicher will join us for this portion of the meeting to update us on Kilo Moana aspects and to confer with us on our needs.

**Pre-Meeting Homework:**

1. By August 11, provide Tommy a title for your group’s presentation describing science results.
2. Review the RaDyO website (<http://www.opl.ucsb.edu/radyo/>) especially the planning documents for the Hawaii experiment (under ‘News & Notes’ and ‘Field Experiments – High Sea State Conditions’). This will save some time at the meeting and enable you to give us advice on improving the site.
3. Group leaders review SBC Overview paper and Master Table of Measurements and provide input to Tommy on relevant sections and entries, especially methodologies for observationalists and modeling thrusts for modelers. Please provide Tommy general figures that you feel can contribute to the paper to develop the General Results Section.

**Important- Please email pdf powerpoints to Tommy for website before meeting or as soon as possible thereafter for posting on the RaDyO website.**

**Tuesday August 18, 2009**

- 0830 Welcome, introductions, logistics, agenda, for the meeting - Dickey  
0845 RaDyO management updates and questions - Ackleson  
0900 Group 1 – Dickey et al. “Three physical forcing regimes and responses during the SBC RaDyO Experiment”  
0920 Group 2 – Twardowski et al. “Inherent Optical Property Measurements and Inversion for RADYO”

0940 Group 3 – Lewis et al.  
1000 Coffee Break [Informal discussions of data and papers]  
1030 Group 4 – Farmer et al.  
1050 Group 7 – Vagle et al.  
1110 Group 6 – Banner et al.  
1140 Group 5 – Pegau, Wijesekera et al.

Noon Lunch Break [Informal discussions of data and papers]

1350 Group 9 – Stramski et al.  
1410 Group 10 – Meville, Lenain, et al.  
1430 Group 11 – Voss et al. “Polarized sky and in-water radiance distribution measurements during the SBC experiment”  
1450 Coffee Break [Informal discussions of data and papers]  
1510 Group 15 – Kattawar et al.  
1530 Group 16 – Yue, Shen, et al. “A Direct Simulation Based Study of Radiance in a Dynamic Ocean”  
1550 Plenary discussion of scientific results and plans for SBC Experiment  
1700 Break for Dinner [Informal discussions of data and papers]

### **Wednesday August 19, 2009**

0830 Discuss agenda for the day  
0850 Group 12 – Jaffe et al. (proxy)  
0910 Group 13 – Holt et al. (proxy)  
0930 Group 14 – Washburn et al. (proxy)  
0950 Group 17 – Carvalho et al. (proxy)  
1010 Group 18 – Chao et al. (proxy)  
1040 Focus group discussions coordinating data and paper planning for SBC  
1100 Break [Informal discussions of data and papers]  
1115 Plenary discussions on data and papers for SBC

Noon-1330 Lunch

1330 Plenary Kilo Moana planning discussions – Led by Lewis in Plenary  
Videos - Czerski (10 min)  
Location of the experiment and orienting of KM wrt FLIP  
Elly Speicher – Input from UH Tech Group  
Communications plans  
Morison – new lidar deployment plans - Morison  
AUV and small boat logistics – Moline, Pegau  
Surfactant sampling with small boat - Vagle  
Timelines for measurements - All  
Other??  
1500 Break  
1530 Plenary FLIP planning – Led by Melville and Lenain in Plenary  
Location of the experiment and orienting of KM wrt FLIP

New FLIP facilities and capabilities etc.  
 Boom allocations  
 Timelines for measurements - All  
 Other??

- 1700 Final Plenary discussions – future meetings, journal selections, action items,  
 Powerpoints to Tommy, etc.  
 1730 Adjourn for dinner

<b>Group Number</b>	<b>Group Members</b>	<b>Platforms and Measurements</b>	<b>Study Topics</b>
<b>1</b>	<b>Dickey</b> , Chang, Firing, Hummon, Jiang, Manov, Nencioli, Spada	R/V Kilo Moana underway, CTD, and ADCP measurements; R/P FLIP time series and profiling measurements; NDBC buoy analyses; satellite imagery for winds, SST, and color	Physical and optical vertical and temporal variability and meteorological observations and general physical and optical context for the experiment.
<b>2</b>	<b>Twardowski</b> , Freeman, Slivkoff, Sokolski, Zaneveld	R/V Kilo Moana optical and physical profiling, imaging, and bubble measurements	Inherent optical properties and their physical context and bubble effects (with Group 4) on optics and radiance distributions and imagery (with Group 3).
<b>3</b>	<b>Lewis</b> , Van Dommelen, McLean, Wei	R/V Kilo Moana radiance imagery, radiance and irradiance profiling	Radiance distributions using a radiance camera (Rad Cam); vertical structure of irradiance and radiance fields and the physical context for these observations.
<b>4</b>	<b>Farmer</b> , Vagle, Czterski	R/V Kilo Moana and R/P FLIP were used for bubble measurements using acoustic resonator systems and physical context data	Measurement of bubble distributions and physics in the upper layer and their effects on optical properties (with Groups 2 and 3).
<b>5</b>	<b>Pegau</b> , Boyd, Wijesekera	Bluefin AUV deployed from R/V Kilo Moana for spatial	Spatial light field distributions in the surface layer and the physical conditions for these.

		<p>measurements of optical properties and light distributions and physical context for these; also vertical profile</p> <p>measurements of optical and physical properties including microstructure</p>	
<b>6</b>	<b>Banner,</b> Gemrich, Morison, Schultz, Zappa	R/V Kilo Moana observations of wave field using scanning lidar; R/P FLIP measurements of wave field, meteorology, and surface imagery	Characterization of the wave field on scales of millimeters to meters and the concurrent meteorological and physical conditions. Also, video and IR imagery of the sea surface as affected by physical conditions including breaking waves, foam, whitecaps, and bubbles.
<b>7</b>	<b>Vagle,</b> Shinki, Wurl	R/V Kilo Moana was used to launch a skimmer (Lil KM) and small boat for surfactant observations along with optical and physical measurements in the upper 1.8 m	Measurements of small scale, near surface physical, chemical, and optical variables. Biological and optical measurements were also done in collaboration with Group 9.
<b>8</b>	<b>Moline,</b> Cimono, Robbins	REMUS AUV deployed from shore for spatial measurements of optical properties and light distributions and physical context for these	Spatial light field distributions in the surface layer and the physical conditions for these.
<b>9</b>	<b>Stramski,</b> Darecki, Roettgers, Yildiz,	R/V Kilo Moana CTD bottle data used for optical and biological analyses; R/P FLIP was used for measurements of	Discrete water samples (some collected by Group 7) were used to characterize particles and their optical properties.
<b>10</b>	<b>Melville,</b> Lenain,	R/P FLIP	Characterization of the wave field

	Hall-Patch, Statom,	measurements of wave field, meteorology, and surface and subsurface imagery; altimetric (lidar) spatial data were collected from a small aircraft	on scales of millimeters to meters and the concurrent meteorological and physical conditions. Also, video and IR imagery of the sea surface and at depth as affected by physical conditions including breaking waves, foam, whitecaps, and bubbles. Larger scale wave fields were documented using aircraft lidar lidar imagery.
<b>11</b>	<b>Voss, Bhandari, L. Logan</b>	R/P FLIP measurements of the underwater and sky polarized radiance (upward and downward)	Determining polarized radiance distributions of incident and within the upper ocean using cameras
<b>12</b>	<b>Jaffe, others?</b>	R/V Kilo Moana PLEASE FILL IN HERE, JULES	PLEASE FILL IN HERE, Jules
<b>13</b>	<b>Holt, others?</b>	SAR imagery	PLEASE FILL IN HERE, Ben
<b>14</b>	<b>Washburn, others?</b>	Shore-based HF-based measurements of surface currents	PLEASE FILL IN HERE, Libe
<b>15</b>	<b>Kattawar, Yu, others?</b>	Wave and optical modeling	PLEASE FILL IN HERE, George
<b>16</b>	<b>Yue, Shen, Liu, Hendrickson, others?</b>	Wave and optical modeling	PLEASE FILL IN HERE, Dick
<b>17</b>	<b>Carvalho, Jones, Gandu, Chao, Jiang, Dickey, other data contributors</b>	Atmospheric modeling	PLEASE FILL IN HERE, Leila
<b>18</b>	<b>Chao, Washburn, Jiang, Dickey, other data contributors</b>	Ocean circulation modeling	PLEASE FILL IN HERE, Leila

Table 1. Groups of investigators with their observational and modeling study topics.