<table>
<thead>
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<th>Time</th>
<th>Topic</th>
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<tr>
<td>1:00 – 1:15 pm</td>
<td>Welcome and Introduction  <em>(Susan Saupe, CIRCAC)</em></td>
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<td>1:15 – 1:35</td>
<td>ShoreZone Partnerships, coordination and outreach  <em>(Mandy Lindeberg, NOAA)</em></td>
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<td>1:35 – 1:50</td>
<td>ShoreZone progress report: ShoreZone updates and a look ahead <em>(Carl Schoch, CORI)</em></td>
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<td>1:50 – 2:00</td>
<td>Q&amp;A</td>
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<td>2:00 – 2:15</td>
<td>Break</td>
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2:15 – 3:15
What’s new in ShoreZone: a deeper look
2:15 ShoreZone offline viewer (Andy Lanier, Oregon Coastal Management Program)
2:30 Norton Sound imaging summary (Kalen Morrow, CORI)
2:40 New ShoreZone modules and mapping protocols (Kalen Morrow, CORI)
2:50 New bioband mapping protocols (Sarah Cook, CORI)
3:00 Alaska Peninsula and YK Delta mapping summary (Sarah Cook, CORI)

3:15 – 3:30
Planning for and funding future ShoreZone work (Cindy Hartmann Moore, NMFS)

3:30 – 5:00
ShoreZone applications, integration and uses
3:30 Structure from motion (Nicole Kinsman, NOAA)
3:45 Mapping blue carbon (Sarah Cook, CORI)
4:00 Integration of ShoreZone into the AOOS Alaska portal (Stacey Buckelew, Axiom)
4:15 Geomorphology and sustainable traditional gathering patterns (Adelaide Johnson, USFS)
4:30 Coastal and Marine Ecological Classification Standard, CMECS (Mark Finkbeiner, NOAA)
4:45 Lower Cook Inlet nearshore habitat assessment, an NPS-led study (NPS)
4:55 The utility of Lidar for ShoreZone mapping (Carl Schoch, CORI)

Stick Around!
“...lack of data on Cook Inlet’s shoreline and nearshore areas...”

“...the focus of our proposed program is to develop a geographically referenced database that includes detailed information on habitats – including geological, biological and physical features...”

“...expand our efforts...”

“...all of the data and imagery...accessible and searchable database that would be made available to any user through internet access...”

“As has been shown for the Washington and British Columbia databases...integral to numerous state and federal agency needs...”

“...provisions for funding programs related to Coastal Conservation and Impact Assistance...We anticipate the need for an initial match of $750,000 with subsequent annual matching contributions...”
What Habitat Mapping is Being Done? What Approaches or Ideas Are On the Table?

Presentations were made on the following approaches to habitat mapping which could be used to contribute to the GEM nearshore monitoring program.

- **Shoreline Inventory Mapping System**  
  *Susan Sauge, CIRCAC*

  The Cook Inlet Regional Citizens Advisory Council (CIRCAC) has conducted shorezone video imaging at low tide, with simultaneous narration about intertidal geomorphology and biology, for portions of Cook Inlet and Kachemak Bay. Shorezone video mapping characterizes the general geomorphology (substrates) and biological features of the intertidal zone. Information is input into a digital geographic information system (GIS). The project has filmed, interpreted and analyzed approximately 1,500 km of coastline, at a cost of approximately $600,000. The principal contractor for the CIRCAC project was John Harper, Coastal and Ocean Resources Inc. In 2002, CIRCAC will continue aerial video imaging in Kamishak, Bayside, and on the outer coast of the Kenai peninsula (cost approx. $58,000).

- **Applications of ShoreZone Mapping in BC and Washington – a Biophysical Subtidal Mapping and Classification System**  
  *John Harper, Coastal and Oceans Resources, Inc.*

  ShoreZone aerial video imaging (with narration regarding geomorphology and biological features) has been completed for the entire intertidal coastline of the state of Washington State and British Columbia. The mapping data is available online via the Internet and is being used regularly by regulators and community groups to answer questions related to shoreline management. The data can be queried for questions such as: “What is the distribution and abundance of eelgrass?” “What areas of shorelines have been modified?” “Where are high probability sites for nutrient and nutrient sources?”

For subtidal areas, a seabed imaging and mapping system (SIMS) using an acoustic sounding imaging principle to photograph, classify and record subtidal features. Two video cameras are towed from a marine vessel, while video images about geomorphology and biology are recorded. SIMS data is also input into a digital GIS. SIMS can be tied in with side-scan sonar information to broaden its applicability.

**Recommendations**

1. **Begin low resolution aerial video imaging in selected regions in the Gulf of Alaska.**

   Aerial video imaging is a known technology that has been used successfully in the Gulf of Alaska (CIRCAC mapping in Cook Inlet/Kachemak Bay), and in Washington and British Columbia (ShoreZone). Aerial video is taken of the intertidal zone at low tide from a height of approximately 300-500 feet, with simultaneous narration about geomorphological and biological features. Images and data are stored in a digital GIS, which can be readily accessed and queried.

   Priority areas for aerial video imaging in the coming year or two include:
   - Prince William Sound – see if existing aerial video imagery taken following oil spill can be found and is useful. If not, need to map this area.
   - Kodiak-Shelikof Straits (northeast section)
   - Kenai Fjords/Seward

   Information documented with aerial video imaging must include:
   - **Substrate**
     - In enough detail to know how mobile and subject to change the substrate is
     - Sediment texture
   - **Other physical features**
     - Exposure/aspect
     - Hydrology – freshwater inputs
   - **Biological information**
     - Kelp and eelgrass distribution
     - Species assemblages in major “biobands”
Integration of SZ Data and Imagery (e.g. AOOS, ERMA)

**AK ShoreZone Partnership** (>40 organizations)

2005-present

**GEM-Area ShoreZone** (CIRCAC, KPB, USF&WS, EVOS, NPS, CIAP)

2002-2004

**NOAA Web Served Data and Imagery**

**Proposals/Funding, Partnerships, Outreach, Training, Data Management, Shore Stations, Verification, Technology Updates, Re-surveys, Exhibits, Art**

**Cross-boundary Integration**

**BC ShoreZone** (Provincial Government)

1980s-90s

**WA ShoreZone** (State Government)

1990s

**Cook Inlet ShoreZone** (CIRCAC)

2001

**Web-based Data and Imagery - Pilot Project**

**Offline Data CD Released to Public**

**Current**

**Off-line Tools**

2011

**Integration of SZ Data and Imagery (e.g. AOOS, ERMA)**
Wednesday, October 14
ShoreZone working meetings

8:00 – 8:30 am  Data management discussion
8:30 – 9:45   Outreach and education
9:45 – 11:00  ShoreZone coordination and funding
11:00 – 12:00 Planning and funding additional ShoreZone work