



SED COLAB
US Coastal Research Program

What is SEDCOLAB?

The SEDiment Transport COLlaborative LABoratory Experiment (SEDCOLAB) is a multi-academic collaborative laboratory experiment hosted at the U.S. Army Engineer Research and Development Center (ERDC) Coastal and Hydraulics (CHL) laboratory facility investigating sediment transport processes and morphologic response to coastal processes under highly controlled conditions. The multi-phase experiment began in Summer 2024 when [USCRP projects](#) met in Vicksburg, Mississippi to coordinate project planning and logistics with CHL staff. This was followed by a Student Training & Professional Development week in October 2024. The main experiments are taking place May-September 2025. **SEDCOLAB aims to increase understanding of fundamental sediment transport** processes by leveraging and coordinating laboratory efforts from multiple groups.

Background The nearshore coastal community identified three primary research themes, as documented in The Future of Nearshore Processes Research report (2015), including understanding long-term coastal evolution due to natural and anthropogenic processes. SEDCOLAB aims to address this challenge by collecting data to result in an improved ability to simulate coastal morphologic change due to environmental forcing conditions.

The experiments will run from May - September 2025, with individual research groups visiting at overlapping time periods to collaborate in their data collection efforts. These research projects benefit from the previous project visit to CHL and monthly PI meetings to coordinate logistics, timing, experiment parameters, and instrumentation.

SEDCOLAB Goals

1. Increase understanding of fundamental processes of sediment transport
2. Improve numerical modeling of sediment transport
3. Improve instrumentation and advances in experimental techniques

The U.S. Coastal Research Program (USCRP) Support

The USCRP is helping organize and facilitate the execution of SEDCOLAB through a variety of activities including:

- Coordinating the Student Training and Professional Development Week to further the career development of U.S coastal researchers.
- Providing forums for information, project planning, and collaborative discussions
- Coordinating project logistical support, facility enhancement, planning, and project execution at the ERDC-CHL facility.
- Compiling lessons learned through a post experiment overview paper.



More SEDCOLAB details are available online on the USCRP website:

www.uscoastalresearch.org/SEDCOLAB. You can also email contact.uscrp@gmail.com for more information.