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Shallow ice core recovery supported by South Korean icebreaker RV ARAON: RAICA Canisteo Peninsula, West Antarctica

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In January 2024, an international team successfully collected two 150 meter long ice cores on either side of the ice divide of Canisteo Peninsula ice rise, 130 km north of Pine Island Glacier, Amundsen Sea, West Antarctica. Supported by the South Korean icebreaker RV ARAON and two AS-350 helicopters, the camp of 8 people spent 13 days at the site in mid-January 2024. 280 km of radar lines were traversed by two snow mobiles, observing ice thickness, internal structure, and shallow surface mass balance variability. One core was collected 500 meters northeast of the Canisteo Peninsula ice divide, using the US IDP Foro 400 drill; a matching core was collected 500 meters southwest of the divide, using a Japanese-manufactured KOPRI ice coring drill. We describe this successful mode of logistics for recovering ice cores in a remote region of Antarctica otherwise supported only by long fixed-wing logistical chains originating from the Antarctic Peninsula or Ross Sea regions.

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