

# Special Issue: The Impact of Upper Pleistocene Climatic and Environmental Change on Hominin Occupations and Landscape Use

## Supplement 1: Changing Tidal Dynamics and the Role of the Marine Environment in the Maritime Migration to Sahul

E. KIKI KUIJPER

*Faculty of Arts and Humanities, University of Southampton Avenue Campus, Highfield, Southampton SO17 1BF, UNITED KINGDOM;  
E.Kuijper@soton.ac.uk*

IVAN D. HAIGH

*Ocean and Earth Science, National Oceanography Centre Southampton, University of Southampton Waterfront Campus, European Way, Southampton SO14 3ZH, UNITED KINGDOM; I.D.Haigh@soton.ac.uk*

ROBERT MARSH

*Ocean and Earth Science, National Oceanography Centre Southampton, University of Southampton Waterfront Campus, European Way, Southampton SO14 3ZH, UNITED KINGDOM; robert.marsh@noc.soton.ac.uk*

R. HELEN FARR

*Faculty of Arts and Humanities, University of Southampton Avenue Campus, Highfield, Southampton SO17 1BF, UNITED KINGDOM;  
R.H.Farr@soton.ac.uk*

### SUPPLEMENT 1

This supplement contains a table and additional figures and references. Figures S1 to S4 give an impression of how tidal currents change over the course of one day in the 0m, -50m, -75m, and -100m sea level scenarios. The maps show current speeds in the Timor Sea during flood, high water, ebb, and low water at the location marked by a white cross.

**TABLE S1. THE EARLIEST AGE ESTIMATES FOR THE SITES IN FIGURE 1.**

	No.	Site	Location	Age Estimate	Source
Sunda	1	Lang Rongrien	Malay Peninsula, TH	>43 $^{14}\text{C}$ ka BP	Anderson (1997)
	2	Lida Ajer	Sumatra, ID	73–63 ka BP	Westaway et al. (2017)
	3	Niah	Borneo, MY	45–39 cal ka BP	Barker et al. (2007)
	4	Lubang Jeriji Saléh	Borneo, ID	52–40 ka BP	Aubert et al. (2018)
Wallacea	5	Tabon	Palawan, PH	>30 ka BP, <58 ka BP?	Détroit et al. (2004)
	6	Leang Barugayya 2	Sulawesi, ID	>36 ka BP	Aubert et al. (2014)
	7	Leang Jarie	Sulawesi, ID	>39 ka BP	Aubert et al. (2014)
	8	Leang Timpuseng	Sulawesi, ID	>40 ka BP	Aubert et al. (2014)
	9	Laili	Timor, TL	>43 cal ka BP	Hawkins et al. (2017)
	10	Asitau Kuru	Timor, TL	44 cal ka BP	Shipton et al. (2019)
	11	Lene Hara	Timor, TL	42 cal ka BP	O'Connor et al. (2010)
Sahul	12	Huon Peninsula	New Guinea, PG	61–47 ka BP	Chappell et al. (1996), Groube et al. (1986), Roberts (1997)
	13	Vilakuav, Ivane Valley	New Guinea, PG	49–43 cal ka BP	Summerhayes et al. (2010)
	14	Madjedbebe	Northern Territory, AU	ca. 65 ka BP (+ 3.7, 5.7)	Clarkson et al. (2017)
	15	Nauwalabila I	Northern Territory, AU	60.3–53.4 ka BP	Roberts et al. (1993)
	16	Nwarla Gabarnmang	Northern Territory, AU	45.6–52.2 cal ka BP	David et al. (2019)
	17	Minjiwarra	Northern Territory, AU	51.4–47.2 ka BP	Veth et al. (2019)
	18	Carpenter's Gap	Western Australia, AU	51–44 cal ka BP	Maloney et al. (2018)
	19	Riwi	Western Australia, AU	46.4–44.6 cal ka BP	Wood et al. (2016)
	20	Parnkupirti	Western Australia, AU	50–45 ka	Veth et al. (2009)
	21	Boodie Cave	Western Australia, AU	51–46 ka BP	Veth et al. (2017)
	22	Karnatukul (Serpent's Glen)	Western Australia, AU	>47.8 cal ka BP	McDonald et al. (2018)
	23	Devil's Lair	Western Australia, AU	48 cal ka BP	Turney et al. (2001)
	24	Lake Mungo	New South Wales, AU	50–46 ka BP	Bowler et al. (2003)
	25	Warratyi	South Australia, AU	49 ka BP	Hamm et al. (2016)

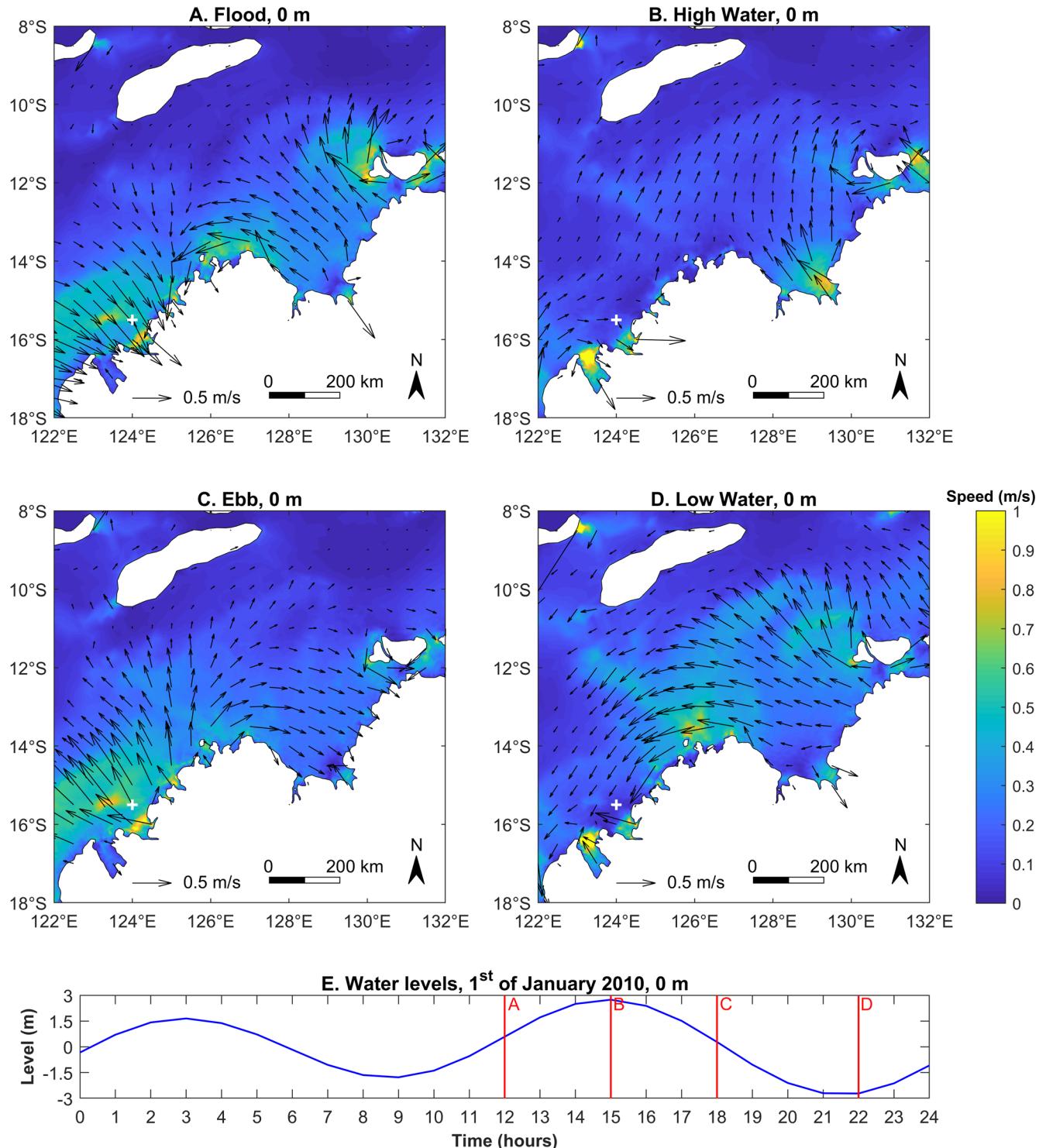


Figure S1. A-D: current speeds in the Timor Sea, for the 0m mean sea level scenario. The maps show flood, high water, ebb, and low water at 15.5°S, 124°E (white cross on the maps). E: water levels over the course of the day (1<sup>st</sup> of January 2010) at the same location.

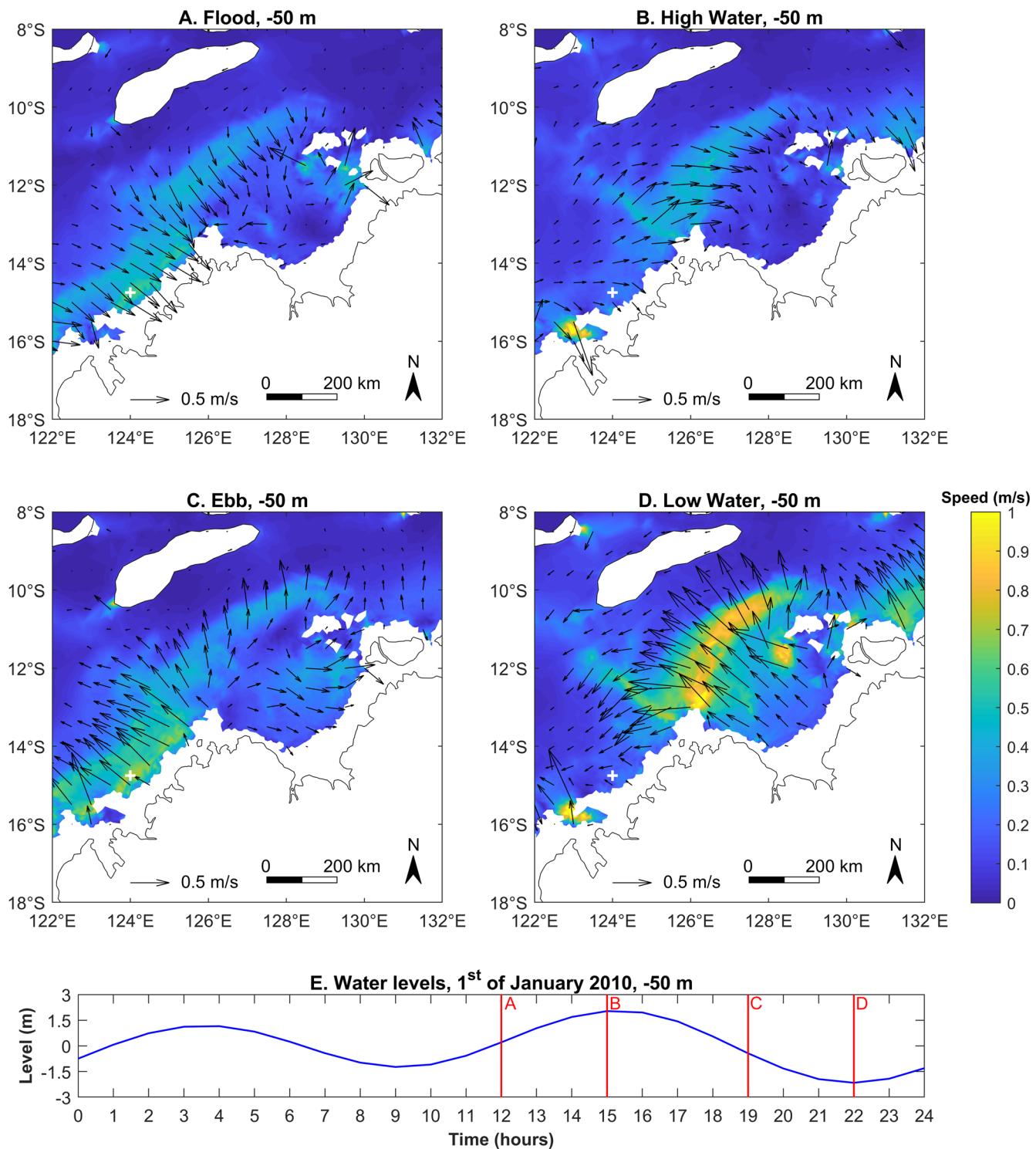


Figure S2. A-D: current speeds in the Timor Sea, for the -50m mean sea level scenario. The maps show flood, high water, ebb, and low water at 14.75°S, 124°E (white cross on the maps). E: water levels over the course of the day (1<sup>st</sup> of January 2010) at the same location.

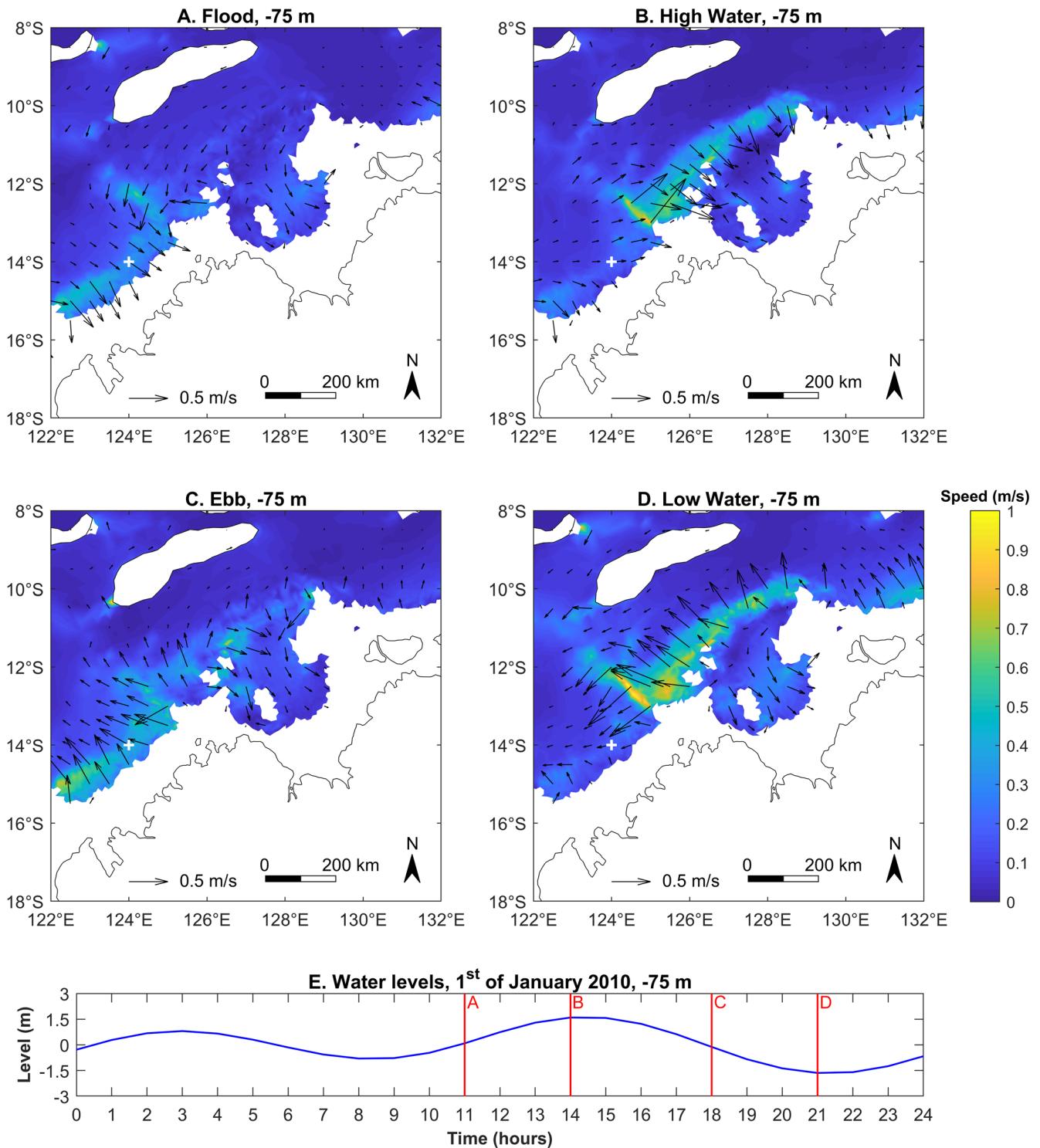


Figure S3. A-D: current speeds in the Timor Sea, for the -75m mean sea level scenario. The maps show flood, high water, ebb, and low water at 14°S, 124°E (white cross on the maps). E: water levels over the course of the day (1<sup>st</sup> of January 2010) at the same location.

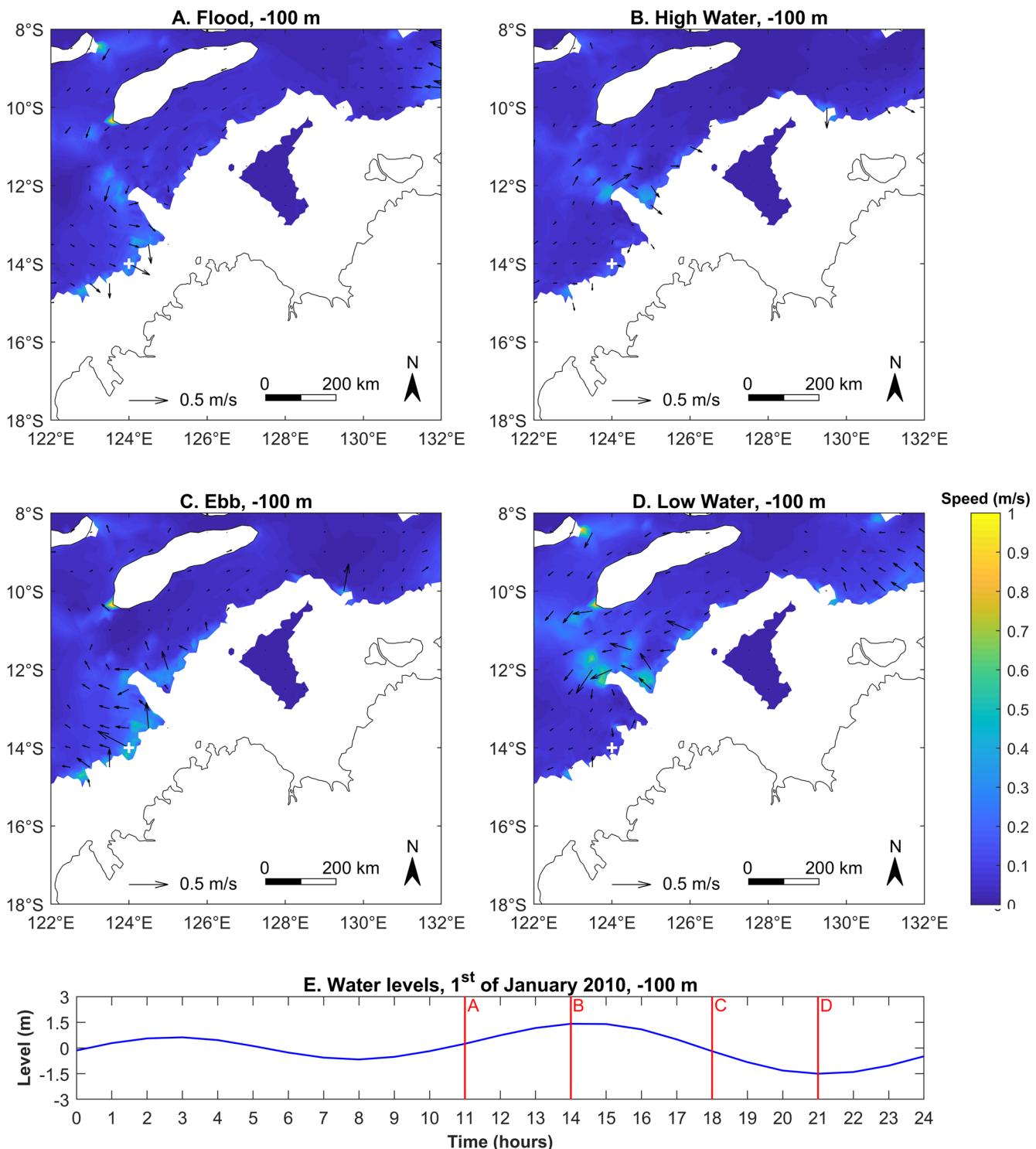


Figure S4. A-D: current speeds in the Timor Sea, for the -100m mean sea level scenario. The maps show flood, high water, ebb, and low water at 14°S, 124°E (white cross on the maps). E: water levels over the course of the day (1st of January 2010) at the same location.

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