

Table S1 | Geophysical correction and models applied in pre-processing for Malaysian seas.

MSS MODEL	Yahaya et al. (2016)	Zulkifle et al. (2019)	UTM20 MSS
ATMOSPHERIC CORRECTIONS	MODEL / SENSOR		
Ionosphere	Smoothed dual-frequency	Smoothed dual-frequency	Smoothed dual-frequency
Dry Troposphere	European Centre for Medium-Range Weather Forecasts (ECMWF)	European Centre for Medium-Range Weather Forecasts (ECMWF)	European Centre for Medium-Range Weather Forecasts (ECMWF)
Wet Troposphere	Radiometer	Radiometer	Radiometer
SIGNAL SURFACE INTERACTION	MODEL / SENSOR		
Sea State Bias	CLS non-parametric	CLS non-parametric	CLS non-parametric
GEOPHYSICAL CORRECTIONS	MODEL / SENSOR		
Inverse Barometer	2 Dimensions Gravity Waves Model (MoG2D)	2 Dimensions Gravity Waves Model (MoG2D)	2 Dimensions Gravity Waves Model (MoG2D)
Load Tides	Goddard Ocean Tide 4.8 (GOT 4.8)	Goddard Ocean Tide 4.10 (GOT 4.10)	Goddard Ocean Tide 4.10c (GOT 4.10c)
Solid Earth Tides	Applied	Applied	Applied
Pole Tides	Applied	Applied	Applied
Ocean Tides	Goddard Ocean Tide 4.8 (GOT 4.8)	Goddard Ocean Tide 4.10 (GOT 4.10)	Goddard Ocean Tide 4.10c (GOT 4.10c)
Engineering Flag	Applied	Applied	Applied
REFERENCES	MODEL / SENSOR		
Geodetic Datum	World Geodetic System (WGS84)	World Geodetic System (WGS84)	World Geodetic System (WGS84)
Vertical Reference	WGS84 Reference Ellipsoid	WGS84 Reference Ellipsoid	WGS84 Reference Ellipsoid