Table A-2: The navigation, L2R and L2W parameters, atmospheric, ancillary and flags products as provided in the MERIS match-up dataset (MERIS_5x5_Box). The "critical" flags listed in italic fonts are associated to pixels being rejected (if the flags are raised) in the post-processed MERIS match-up dataset. TOA refers to Top of Atmosphere and TOSA to Top of Standard Atmosphere. TOA and TOSA radiance reflectance is denoted by *Rtoa* and *Rtosa* respectively and water-leaving radiance reflectance is denoted by *RLw*.

Navigation	**Description**	**Units**
ProdID		-
CoordID	id of location	-
Name	Match-up name	-
Latitude, Longitude	Geographical coordinates	degrees
Date, Time		
lat_corr, lon_corr	Ortho-corrected latitude/longitude	degrees
dem_alt	DEM[(1)] model altitude	
dem_rough	Roughness at sight with intersection of line of WGS84[(2)] ellipsoid taken from DEM	degrees
sun_, view_zenith	Sun, view zenith angle	degrees
sun_, view_azimuth	Sun, view azimuth angle	degrees
pins		-
ground_control_points		-
detector_index	Index of MERIS pixel	-

L2R, L2W	**Description**	**Units**
reflec_x	*RLw* at λ (nm)	-
b_tsm	Scattering coefficient at 443 nm	m^{-1}
a_tot	Total absorption coefficient (443nm)	m^{-1}
Atmosphere	**Description**	**Units**
tau_nnn	Aerosol optical thickness at nnn (nm)	
ang_443_865	Aerosol Angström coefficient between 443 and and 865 nm	-
Ancillary	**Description**	**Units**
zonal_wind	ECMWF[(3)] zonal wind	$m\ s^{-1}$
merid_wind	ECMWF meridional wind	$m\ s^{-1}$
glint_ratio	Glint ratio	-
atm_press	ECMWF atmospheric pressure at mean sea level	hPa
ozone	ECMWF ozone concentration	DU
rel_hum	ECMWF relative humidity at 850 hPa	%

Flags	**Description**
land	Land pixel
water	Water pixel
cloud_ice	Very high *Rtoa* indicating cloud, ice or snow pixel
bright	Bright pixel
sunglint	Pixel affected by sun glint
glint_risk	Glint correction not reliable on the pixel
suspect	Suspect flag (from L1[(4)])
invalid	Pixel is invalid
solzen	High sun zenith angle
ancil	Unreasonable data for ozone or pressure
has_flint	If the atmospheric correction used the Flint processor
l1_flags	Level 1 classification and quality flag
l1p_flags	Pixel classification flag (e.g. cloud screening, land, water)
atc_oor	If *RLw* is out of the expected range (as set in the NN[(5)])
toa_oor	Input *Rtoa* is out of the NN training range
tosa_oor	Input *Rtosa* is out of the NN training range

Flags	**Description**
coastline	Pixel is part of a coastline
cosmetic	Cosmetic flag
duplicated	Pixel has been duplicated (filled in)
f_meglint	Pixel corrected for glint
f_loinld	Low inland water flag
f_island	Island flag
f_landcons	Land product available
f_ice	Ice pixel
f_cloud	IDEPIX[(6)] final cloud flag
f_bright	IDEPIX bright pixel
f_bright_rc	IDEPIX old bright pixel
f_low_p_pscatt	IDEPIX test on apparent scattering
f_low_p_p1	IDEPIX test on P1
f_slope_1	IDEPIX spectral slope test 1 flag
f_slope_2	IDEPIX spectral slope test 2 flag
f_bright_toa	IDEPIX second bright pixel test
f_high_mdsi	IDEPIX MDSI[(7)] above threshold
f_snow_ice	IDEPIX snow/ice flag
agc_flags	Flag specific to the atmospheric and flint correction
agc_land	Land pixel
agc_invalid	Pixel not considered for processing

(1) DEM designates the Digital Elevation Model of altitude

(2) WGS84 refers to the World Geodetic Standard 1984
(3) ECMWF is the European Centre for Medium range Weather Forecast
(4) L1 is MERIS Level 1 product
(5) NN is the atmosphere Neural Network algorithm
(6) IDEPIX is a generic pixel classification algorithm for optical Earth observation sensors
(7) MDSI is the MERIS Differential Snow Index