	POE-E	POE-F
Gravity model	EIGEN-GRGS.RL03-v2.MEAN-FIELD Non-tidal TVG: one annual, one semi-annual, one bias and one drift terms for each year up to deg/ord 80; C21/S21 modeled according to IERS2010 conventions Solid Earth tides: from IERS2003 conventions Ocean tides: FES2012 Oceanic/atmospheric gravity: 6hr NCEP pressure fields (70x70) + tides from Biancale-Bode model Pole tide: solid Earth and ocean from IERS2010 conventions Third bodies: Sun, Moon, Venus, Mars and Jupiter	**EIGEN-GRGS.RL04-v1.MEAN-FIELD** Non-tidal TVG: one annual, one semi-annual, one bias and one drift terms for each year **up to deg/ord 90; C21/S21 non modified** Unchanged Ocean tides: **FES2014** Oceanic/atmospheric gravity: **3hr dealiasing products from GFZ AOD1B RL06** Unchanged Unchanged
Surface forces	Radiation pressure model: calibrated semi-empirical solar radiation pressure model Earth radiation: Knocke-Ries albedo and IR satellite model Atmospheric density model: DTM-13 for Jason satellites, HY-2A, and MSIS-86 for other satellites	Unchanged Unchanged Atmospheric density model: DTM-13 for Jason satellites, HY-2A, and **MSIS-00 for other satellites**
Estimated dynamical parameters	Stochastic solutions	Unchanged
Satellite reference	Mass and center of gravity: post-launch values + variations generated by Control Center Attitude model: For Jason satellites: quaternions and solar panel orientation from control center, completed by nominal yaw steering law when necessary Other satellites: nominal attitude law	Unchanged **Refined nominal attitude laws**
Displacement of reference points	Earth tides: IERS2003 conventions Ocean loading: FES2012 Pole tide: solid earth pole tides and ocean pole tides (Desai, 2002), cubic+linear mean pole model from IERS2010 S1-S2 atmospheric pressure loading, implementation of Ray & Ponte (2003) by van Dam	Unchanged Ocean loading: **FES2014** Pole tide: solid earth pole tides and ocean pole tides (Desai, 2002), **new linear mean pole model** Unchanged

	Reference GPS constellation: JPL solution - fully consistent with IGS08	Reference GPS constellation: **GRG solution - fully consistent with IGS14**
Geocenter variations	Tidal: ocean loading and S1-S2 atmospheric pressure loading Non-tidal: seasonal model from J. Ries, applied to DORIS/SLR stations	Unchanged Non-tidal: **full non-tidal model (semi-annual, annual, inter-annual) derived from DORIS data and the OSTM/Jason-2 satellite, applied to DORIS/SLR stations and GPS satellites**
Terrestrial Reference Frame	Extended ITRF2008 (SLRF/ITRF2008, DPOD2008, IGS08)	**Extended ITRF2014 (SLRF/ITRF2014, DPOD2014, IGS14)**
Earth orientation	Consistent with IERS2010 conventions and ITRF2008	Consistent with IERS2010 conventions and **ITRF2014**
Propagations delays	SLR troposphere correction: Mendes-Pavlis SLR range correction: constant 5.0 cm range correction for Envisat, elevation dependent range correction for Jason DORIS troposphere correction: GPT/GMF model DORIS beacons phase center correction GPS PCO/PCV (emitter and receiver) consistent with constellation orbits and clocks (IGS08 ANTEX), pre-launch GPS receiver phase map GPS: phase wind-up correction	Unchanged SLR range correction: **geometrical models for all satellites** DORIS troposphere correction: **GPT2/VMF1 model** Unchanged GPS PCO/PCV (emitter and receiver) consistent with constellation orbits and clocks **(IGS14 ANTEX), in-flight adjusted GPS receiver phase map** Unchanged
Estimated measurement parameters	DORIS: one frequency bias per pass, one troposphere zenith bias per pass SLR: Reference used to evaluate orbit precision and stability GPS: floating ambiguity per pass, receiver clock adjusted per epoch	DORIS: one frequency bias **and drift (for "SAA stations")** per pass, one troposphere zenith bias per pass, **horizontal tropospheric gradients per arc** Unchanged GPS: **fixed ambiguity (when possible)** per pass, receiver clock adjusted per epoch
Tracking Data corrections	Jason-1 Doris data: updated South Atlantic Anomaly model (J.-M. Lemoine et al.) applied before and after DORIS instrument change DORIS time-tagging bias for Envisat and Jason aligned with SLR before and after instrument change	Unchanged Unchanged
Doris Weight	1.5 mm/s (1.5 cm over 10 sec)	**Process data down to as low elevation angles as possible (from 10° to 5° elevation cut-off angle) with a consistent down-weighting law**

	For Jason-1, SAA DORIS beacons weight is divided by 10 before DORIS instrument change	Unchanged
SLR Weight	15 cm Reference used to evaluate orbit precision and stability	Unchanged
GPS Weight	2 cm (phase) / 2 m (code)	Unchanged