

ERA-CLIM2 2nd General Assembly Looking ahead

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Next meetings: plan for 2016-2017

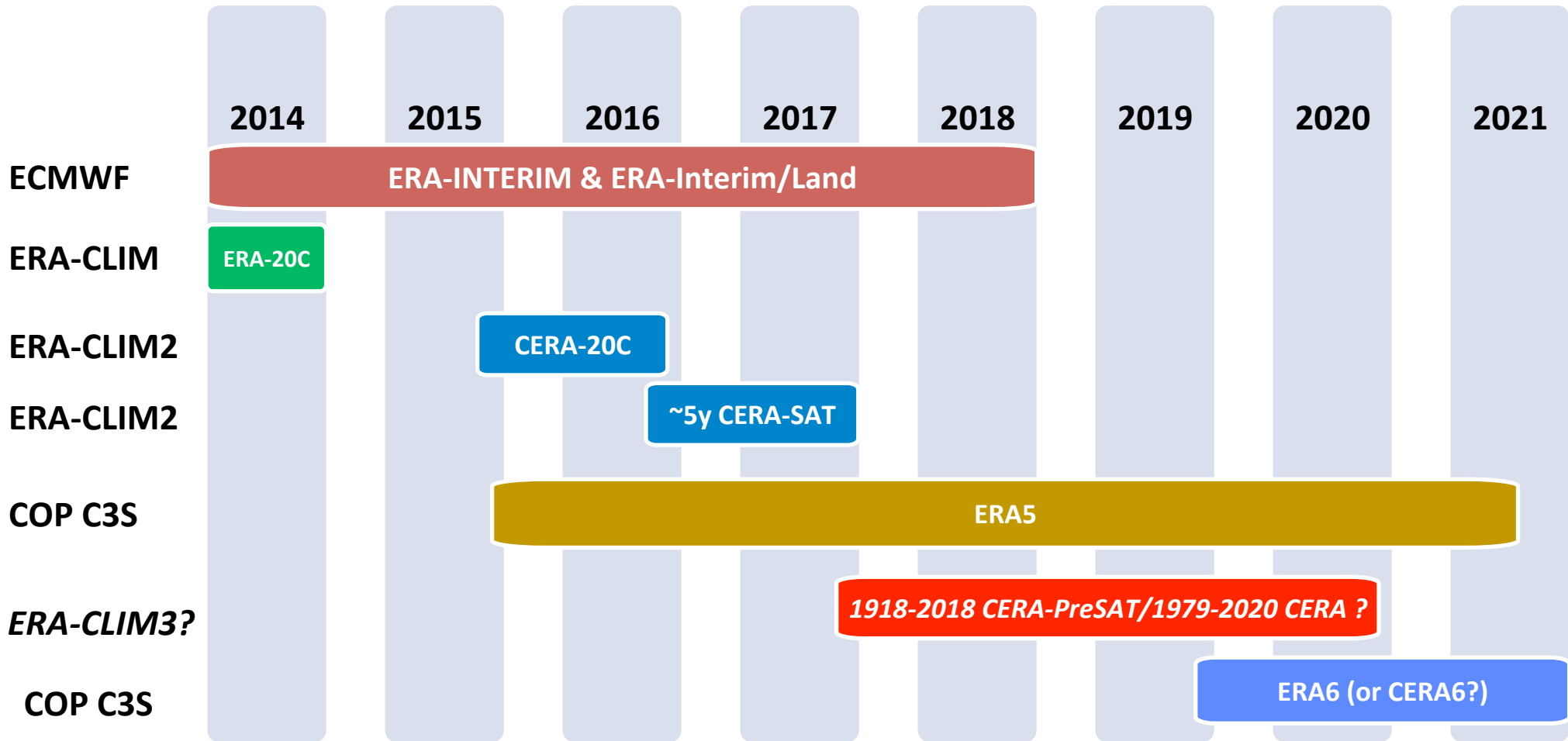


ERA-CLIM2 WSs and GAs:

- Progress meeting (1-day, WP1-3-4) and ERA-CLIM3 Review Meeting –@ECMWF, 25-26-27 April 2016 (Coordinator, WP Leaders) (or 21-22-23 March 2016)
- User WS on observations for reanalysis (2016 – D5.5, M30) – Leo H, Stefan B to discuss with Dick D and Jean-Noel T to co-organize it with Copernicus C3S (by end of Q2-2016, where TBD)
- WP2 Progress Meeting – Q2-2016, outside Europe? TDB

- ERA-CLIM2 3rd General Assembly (2016 - M36) – 16-20 or 23-27 Jan 2017, Wien; Leo H to organize it
- WS on Coupled Data-Assimilation (2017 - M48) – Could be joint WS with WMO/DAOS in 2016, or joint with ECMWF WS in 2017, TDB
- ERA-CLIM2 4th General Assembly (2017 – M48) – Q4-2017 (close to the WCRP/WWRP 5th International Reanalysis Conference)? At ECMWF

Looking ahead in reanalysis production: is there a scope for ERA-CLIM3?



ERA-CLIM3 (Earth System Reanalysis): possible R&D scope



ERA-CLIM3 will still be an R&D project involving:

1. More data rescue: e.g. sea-level data from tide gauges; Atmospheric Motion Vectors from Nimbus satellite instrument THIR going back to early '70s, or addressing radiance records from older microwave instruments (NEMS and SCAMS) also covering early 1970s, ...
2. The addition of more existing data (e.g. for the ocean/sea-ice CRYOSAT, SMOS, Altimeter, ..)
3. The assimilation of new data (e.g. from SENTINELS, deep ARGO, ..)
4. The development and testing of new/better ways of assimilating sea-surface data:
 - a) Assimilation of high-frequency satellite data
 - b) Assimilation of historical and sparse data (sea level and sea-surface temperature)

ERA-CLIM3 (Earth System Reanalysis): possible R&D scope



5. The testing of existing assimilation methods and of new ones:
 - a) Assessment/development of more fully coupled DA methods
 - b) R&D of hybrid methods (flow dependent background error stats) in the ocean (e.g. from the EDA)
 - c) R&D of 4D-Var methods in the ocean (including sea-ice)
 - d) R&D of weak-constraint, multi-temporal-scales methods
 - e) Development of more scalable/flexible methods (e.g. OOPS)
 - f) Better handling/simulation of observation errors
6. Better integration of carbon, bio-chemistry and aerosols:
 - a) observational constraints on fluxes in these subsystems
 - b) still above average improvement can be expected in remote sensing of these constituents/subsystems
7. Higher-quality, higher-frequency output data (if asked for)

R&D in these areas should deliver improvements to be included in COP-C3S first coupled re-analysis (CERA6?) and will advance our knowledge for the future (higher-quality) systems.