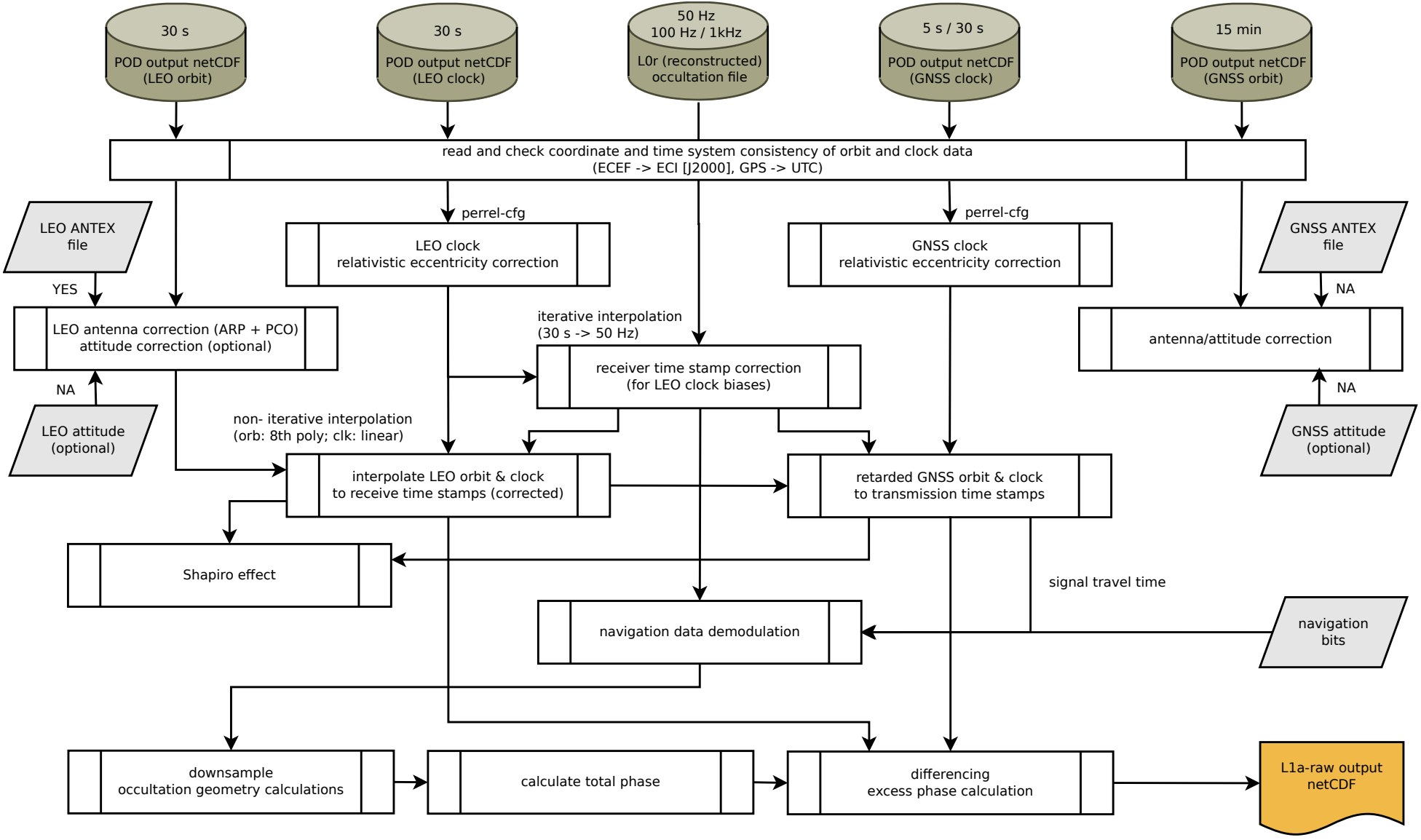
30 s
POD output netCDF
(LEO orbit)
30 s
POD output netCDF
(LEO clock)
50 Hz
100 Hz / 1kHz
L0r (reconstructed)
occultation file
5 s / 30 s
POD output netCDF
(GNSS clock)
15 min
POD output netCDF
(GNSS orbit)
read and check coordinate and time system consistency of orbit and clock data
(ECEF -> ECI [J2000], GPS -> UTC)
LEO ANTEX
file
perrel-cfg
LEO clock
relativistic eccentricity correction
perrel-cfg
GNSS clock
relativistic eccentricity correction
GNSS ANTEX
file
YES
LEO antenna correction (ARP + PCO)
attitude correction (optional)
iterative interpolation
(30 s -> 50 Hz)
receiver time stamp correction
(for LEO clock biases)
NA
antenna/attitude correction
NA
LEO attitude
(optional)
non- iterative interpolation
(orb: 8th poly; clk: linear)
interpolate LEO orbit & clock
to receive time stamps (corrected)
retarded GNSS orbit & clock
to transmission time stamps
NA
GNSS attitude
(optional)
Shapiro effect
signal travel time
navigation data demodulation
navigation
bits
downsample
occultation geometry calculations
calculate total phase
differencing
excess phase calculation
L1a-raw output
netCDF