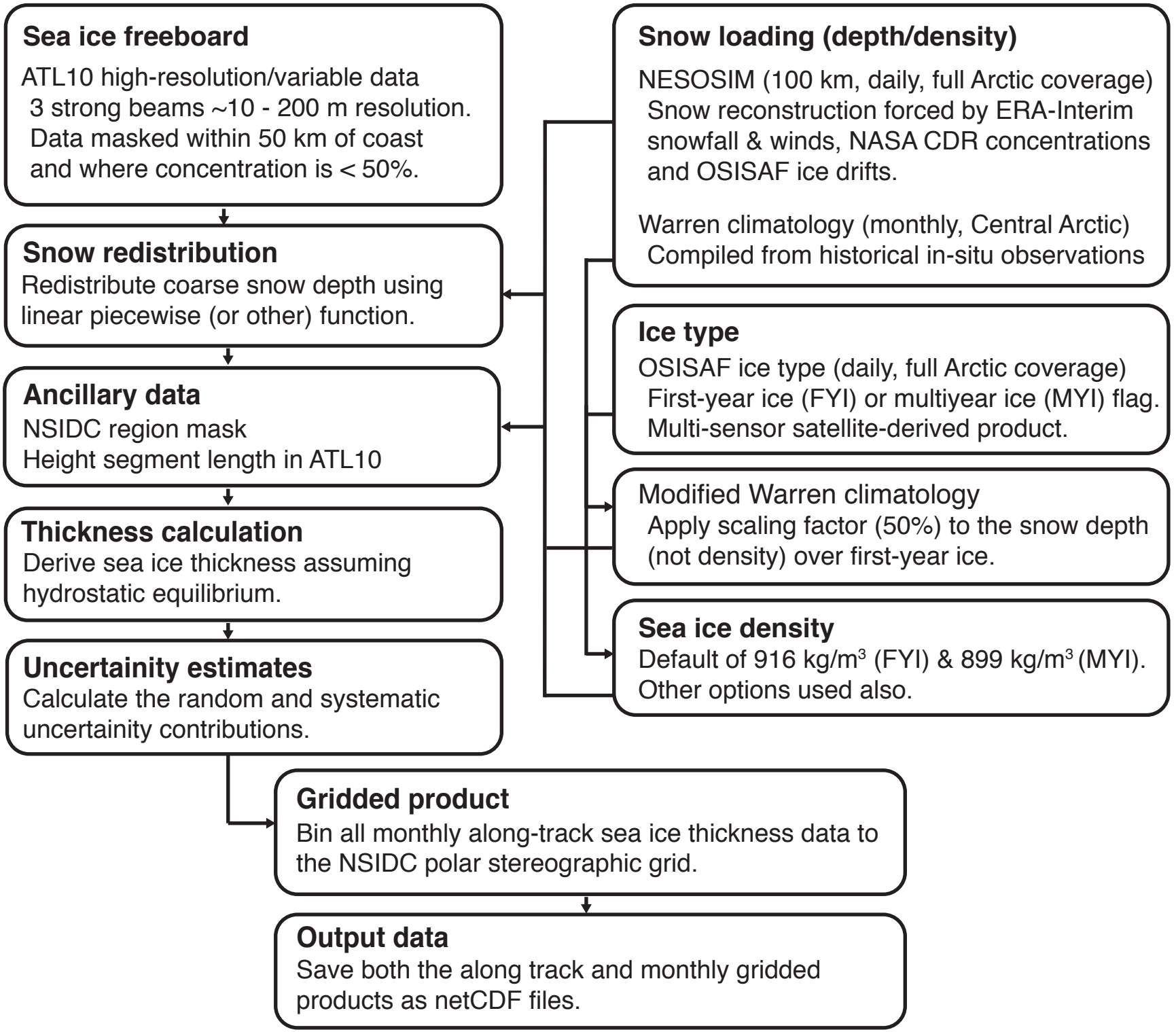
Sea ice freeboard
ATL10 high-resolution/variable data
3 strong beams ~10 - 200 m resolution.
Data masked within 50 km of coast
and where concentration is < 50%.
Snow redistribution
Redistribute coarse snow depth using
linear piecewise (or other) function.
Ancillary data
NSIDC region mask
Height segment length in ATL10
Thickness calculation
Derive sea ice thickness assuming
hydrostatic equilibrium.
Uncertainity estimates
Calculate the random and systematic
uncertainity contributions.
Snow loading (depth/density)
NESOSIM (100 km, daily, full Arctic coverage)
Snow reconstruction forced by ERA-Interim
snowfall & winds, NASA CDR concentrations
and OSISAF ice drifts.
Warren climatology (monthly, Central Arctic)
Compiled from historical in-situ observations
Ice type
OSISAF ice type (daily, full Arctic coverage)
First-year ice (FYI) or multiyear ice (MYI) flag.
Multi-sensor satellite-derived product.
Modified Warren climatology
Apply scaling factor (50%) to the snow depth
(not density) over first-year ice.
Sea ice density
Default of 916 kg/m3 (FYI) & 899 kg/m3 (MYI).
Other options used also.
Gridded product
Bin all monthly along-track sea ice thickness data to
the NSIDC polar stereographic grid.
Output data
Save both the along track and monthly gridded
products as netCDF files.