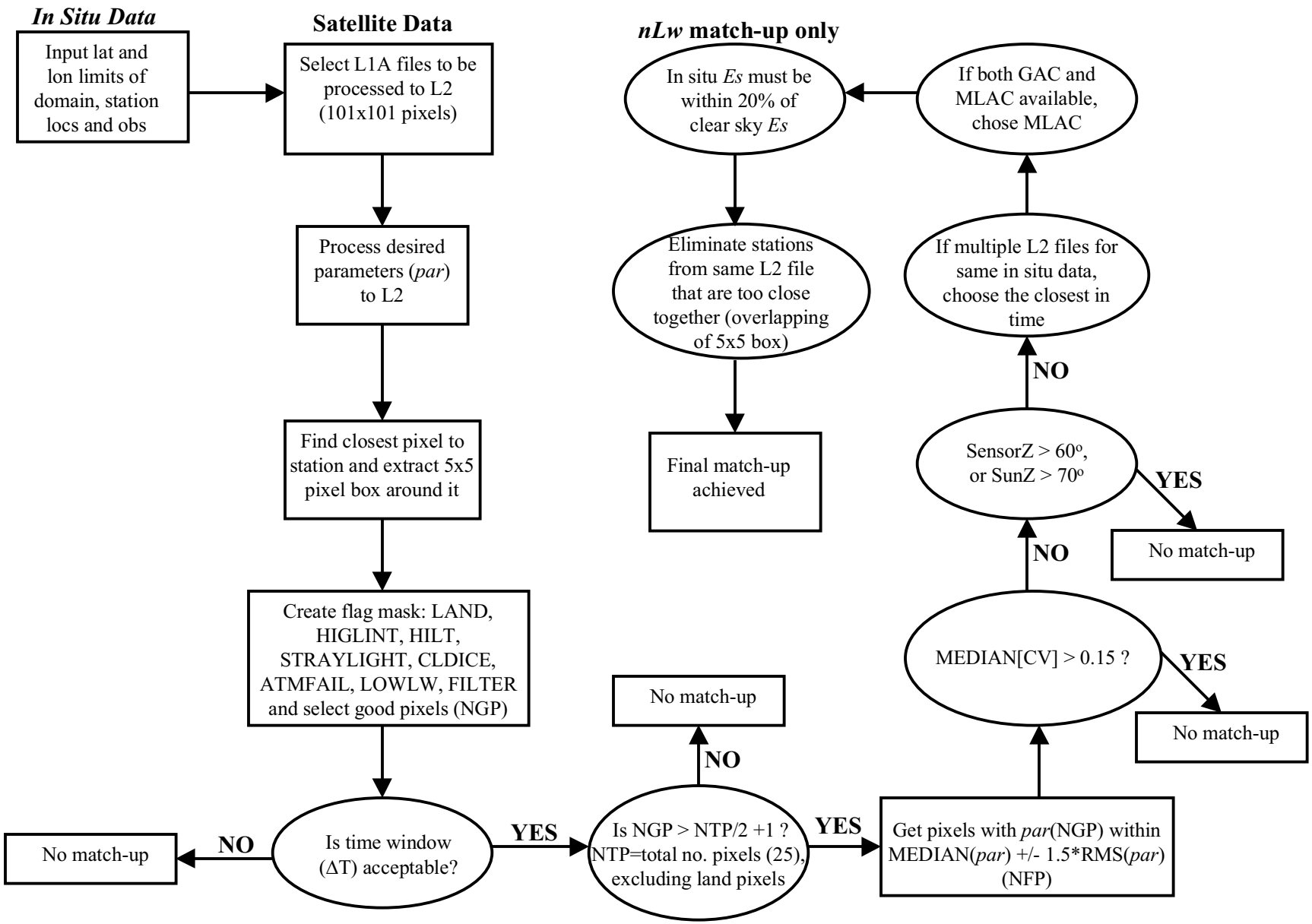
In Situ Data
Satellite Data
nLw match-up only
Input lat and lon limits of domain, station locs and obs
Select L1A files to be processed to L2 (101x101 pixels)
Process desired parameters (par) to L2
Find closest pixel to station and extract 5x5 pixel box around it
Create flag mask: LAND, HIGLINT, HILT, STRAYLIGHT, CLDICE, ATMFAIL, LOWLW, FILTER and select good pixels (NGP)
Is time window (ΔT) acceptable?
NO
No match-up
YES
Is NGP > NTP/2 +1 ? NTP=total no. pixels (25), excluding land pixels
NO
No match-up
YES
Get pixels with par(NGP) within MEDIAN(par) +/- 1.5*RMS(par) (NFP)
MEDIAN[CV] > 0.15 ?
YES
No match-up
NO
SensorZ > 60°, or SunZ > 70°
YES
No match-up
NO
If multiple L2 files for same in situ data, choose the closest in time
If both GAC and MLAC available, chose MLAC
In situ Es must be within 20% of clear sky Es
Eliminate stations from same L2 file that are too close together (overlapping of 5x5 box)
Final match-up achieved