Sea ice concentration analysis – Disaster preparedness

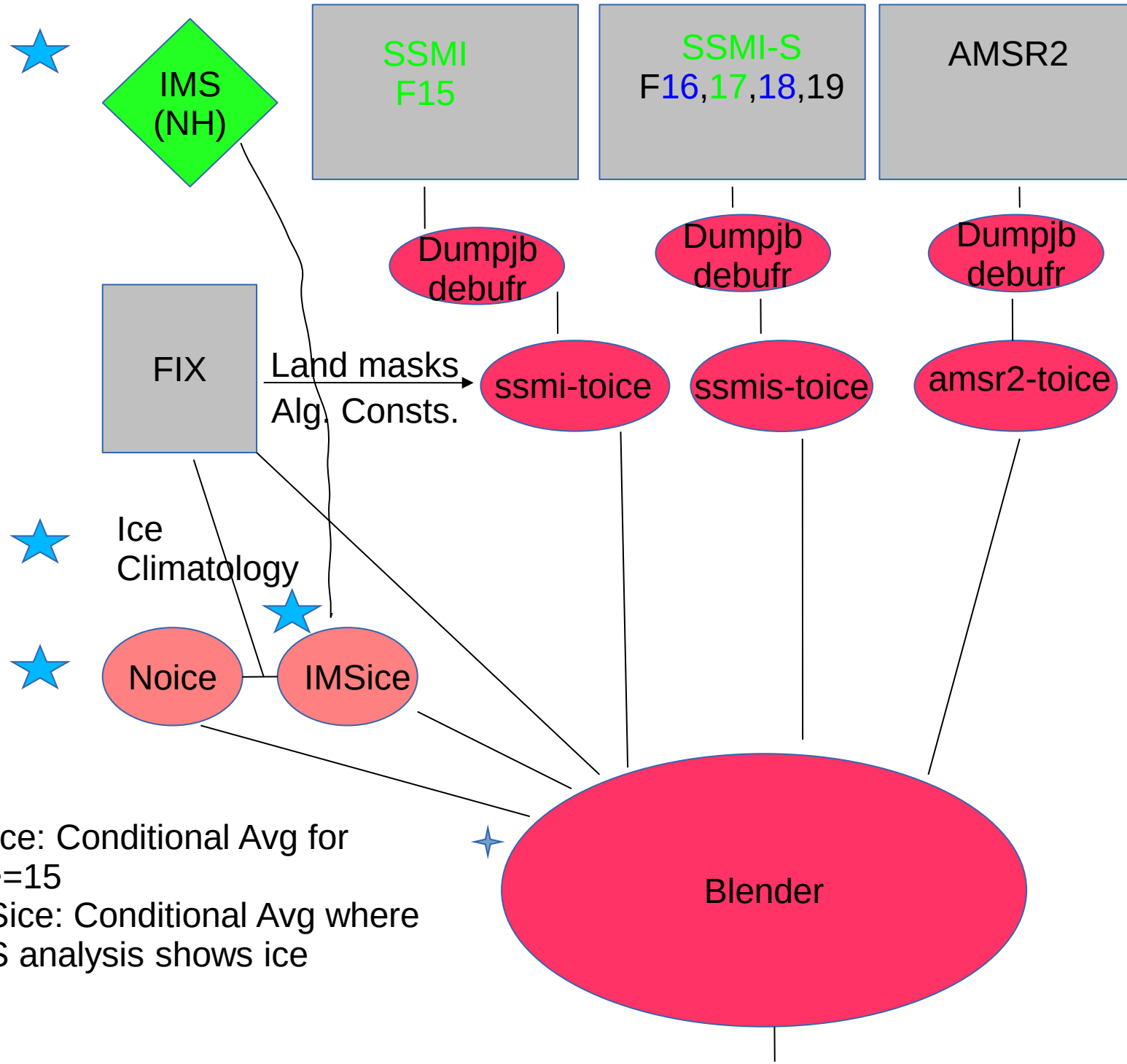
Robert Grumbine

Current Fleet

- DMSP F-15 SSMI (1999) in NWS operations
- DMSP F-16 SSMI-S (2003) in NWS operations
- DMSP F-17 SSMI-S (2006) in NWS operations
- DMSP F-18 SSMI-S (2009) in NWS operations
- DMSP F-19 SSMI-S (2014)
- AMSR2 (2012)

Additional Sources

- Sea Ice Conditional Climatology
- IMS – 4 km mask, NH only
- CIS North American lake analysis
- NIC Great Lakes concentration analysis



- Noice: Conditional Avg for N >=15
- IMSice: Conditional Avg where IMS analysis shows ice

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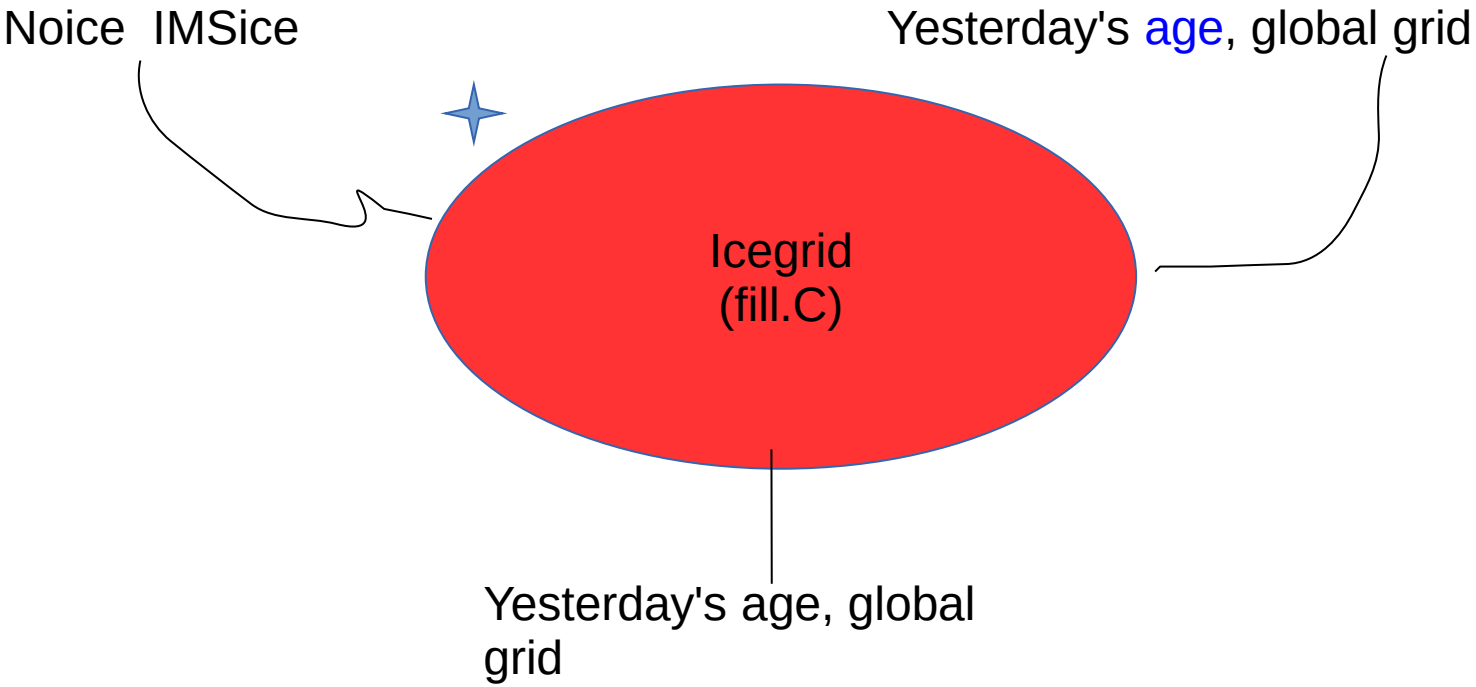
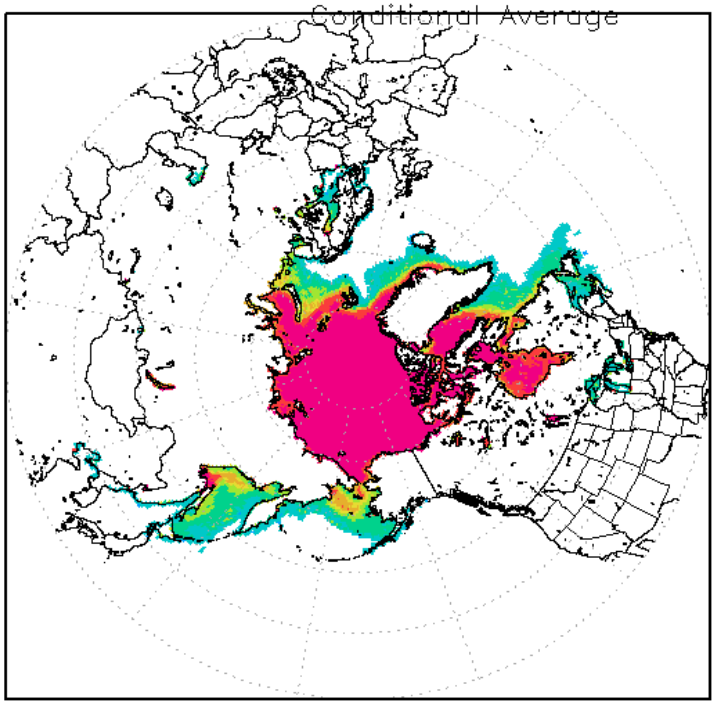
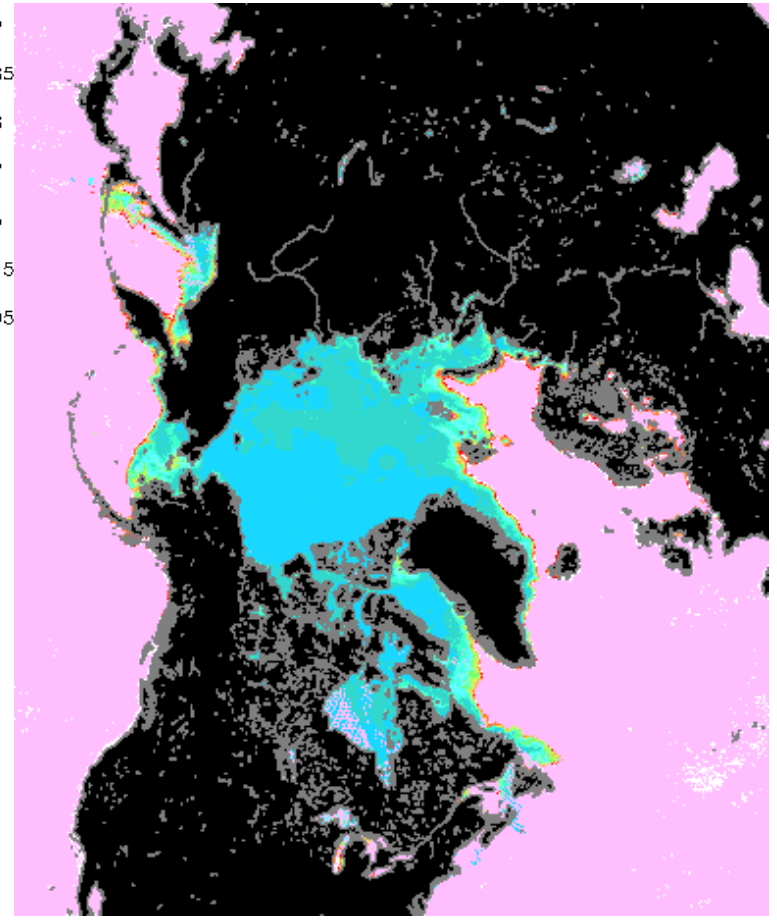
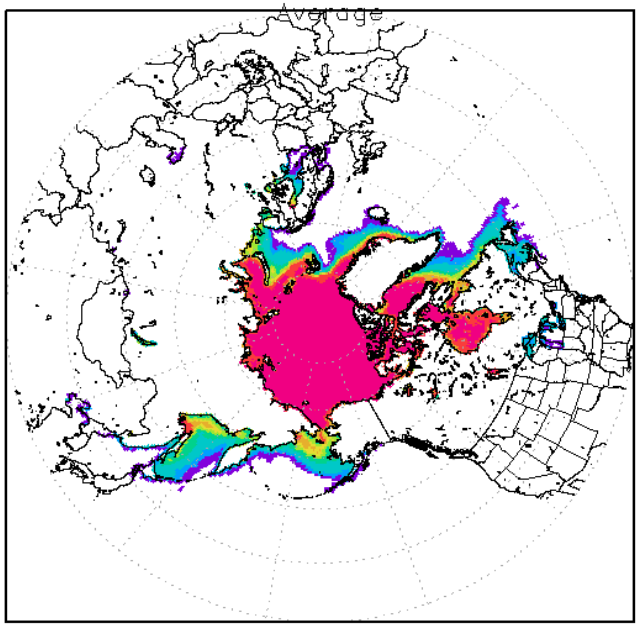


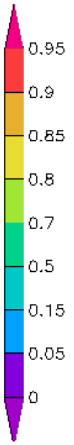
- In current system, if a point hasn't been observed cleanly in 16 days, its concentration is set to zero
- In new system, it drops to derived IMSice if available, Noice (climatology) if not


Conditional Average

0.95
0.9
0.85
0.8
0.7
0.5
0.15
0.05
0




Average


0.95
0.9
0.85
0.8
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0.5
0.15
0.05
0

Operational Considerations

- No new data flow
- No change in product outputs – not names, sizes, formats, or numbers of them
- Run time change is below run time variability
- Adds ~0.3 Gb fixed files
- Utility for Great Lakes wave model to have concentrations (vs. 2013-14 winter)