



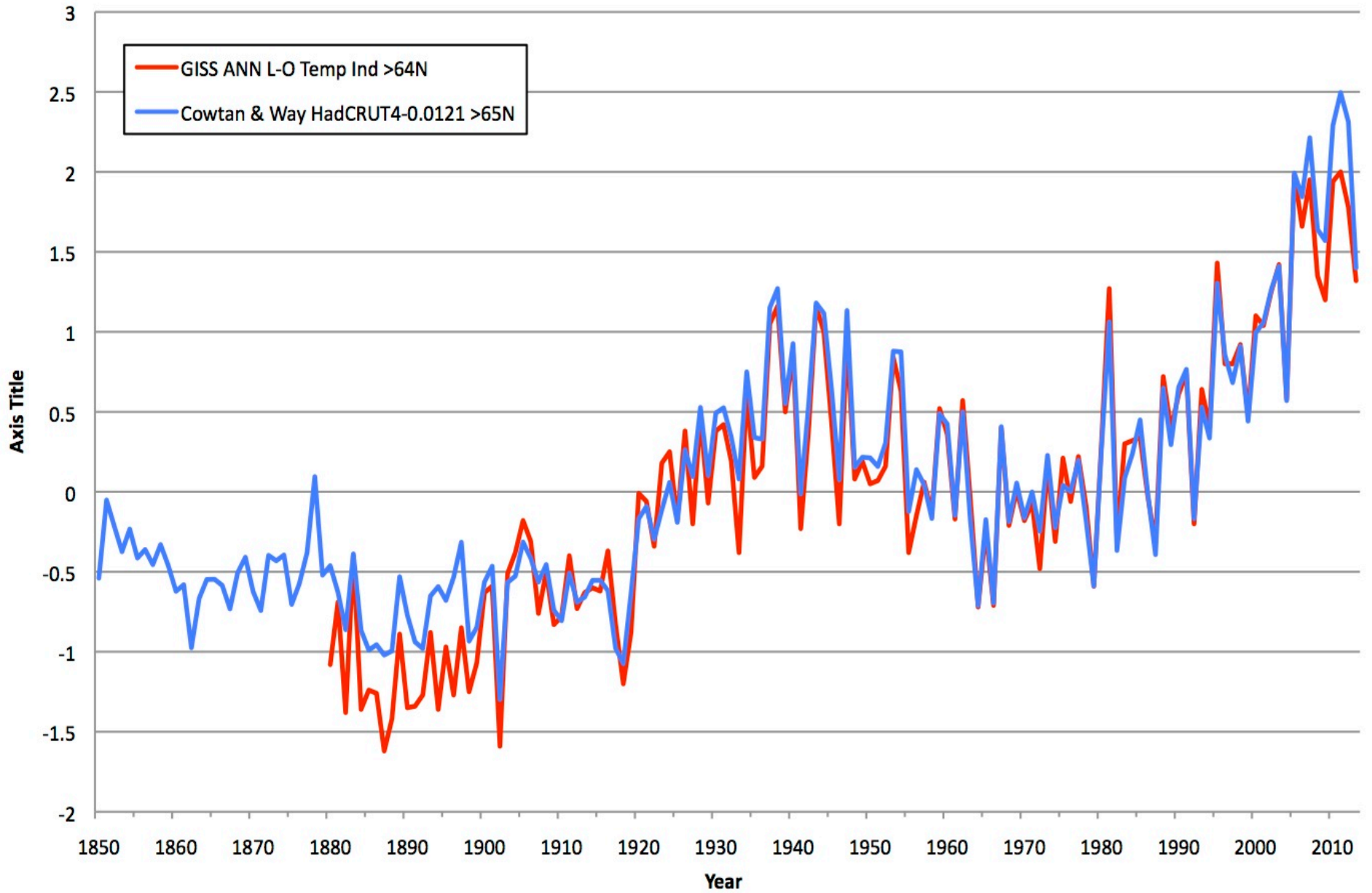
Cryosphere as a Lens for Paris: Science-based Urgency and Ambition

*Growing Irreversible Feedbacks from the Poles to Mt. Everest:
Reaching Thresholds Where Only a New Ice Age Reverses Impacts*

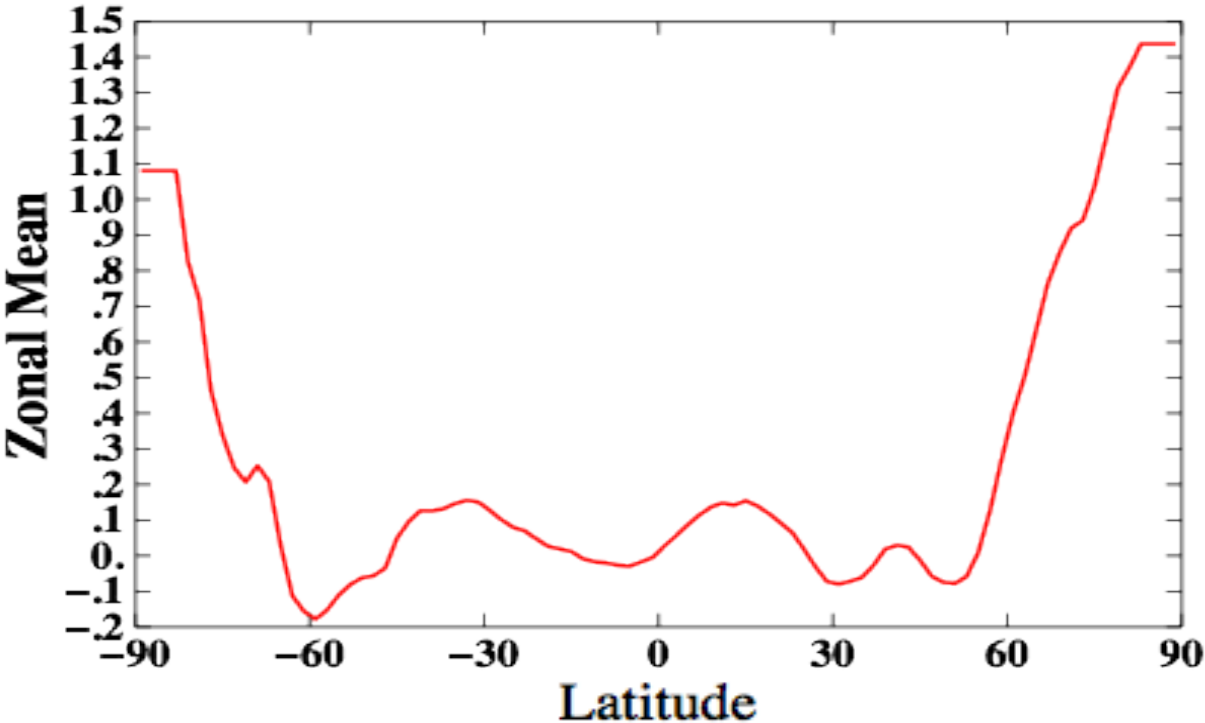
Pam Pearson, Director, ICCI

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Rough Arctic Surface Temperature Timeseries vs. 1951-1980 base



Temperature Increase by Latitude Band, 1998-2013



Irreversible* Cryosphere Feedbacks

- [Arctic sea ice]
- Permafrost
- West Antarctic Ice Sheet (WAIS) and Antarctic Peninsula
- Seabed methane hydrates
- Greenland melt
- East Antarctic “Hot Spots”
- Southern and Arctic/North Atlantic Ocean Acidification

*Short of temperatures well below pre-industrial