NSA Broadband Instrument Study: Update

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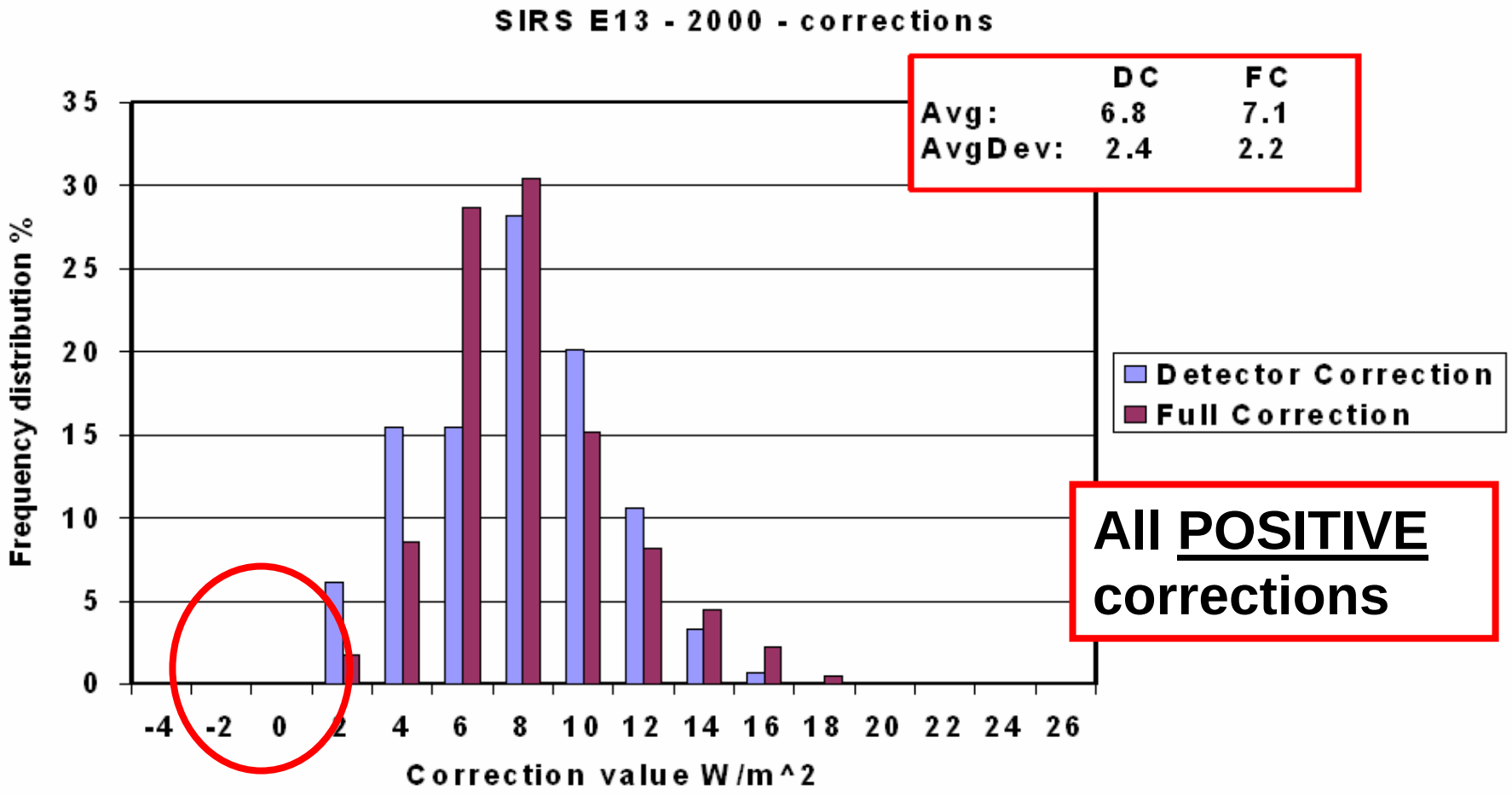
Jeff Zirzow…

Background

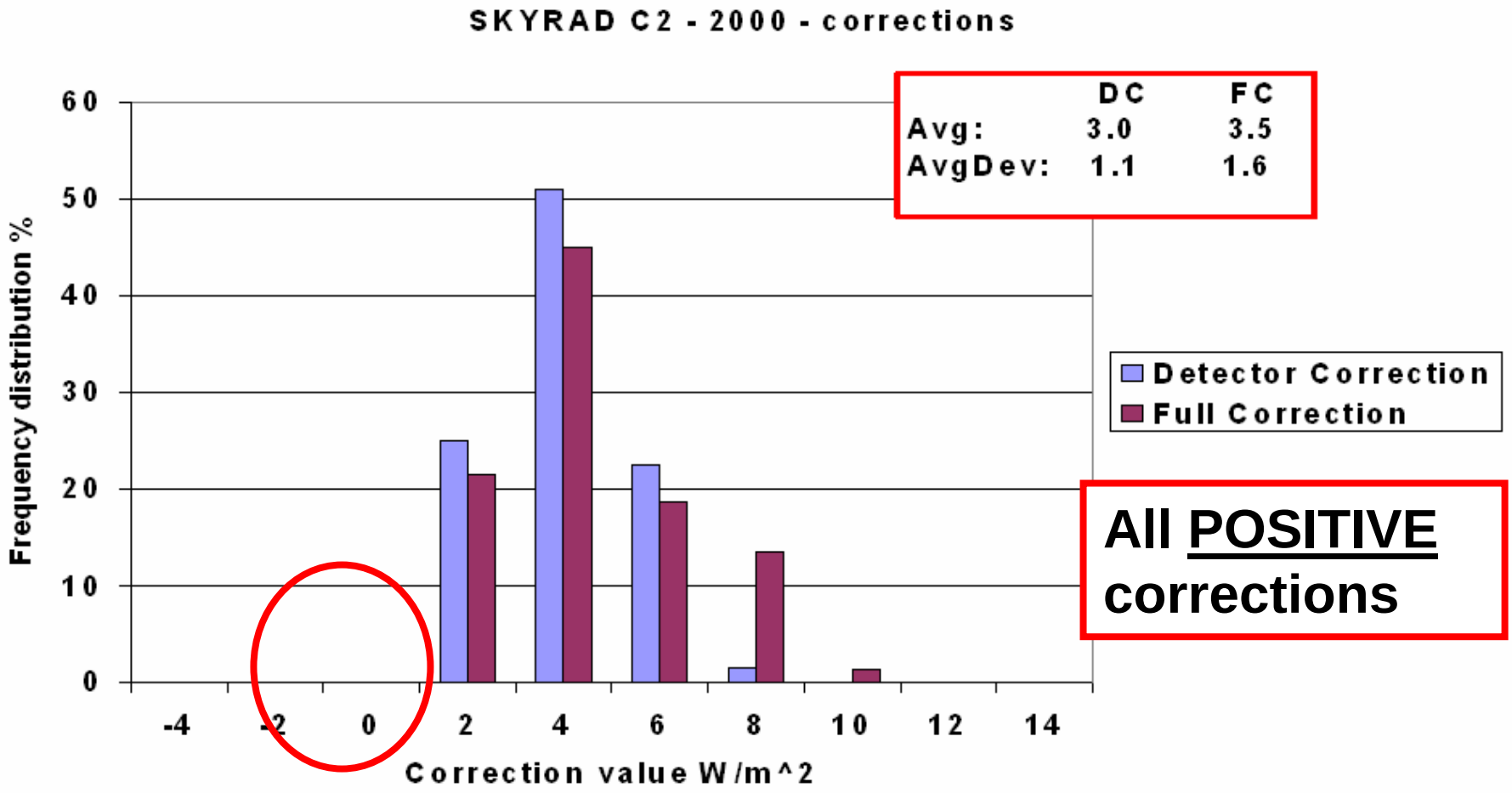
- NSA last site where Diffuse Correction VAP applied
- In analyses of results prior to release, an apparent problem surfaced…

Typical Corrections: SGP



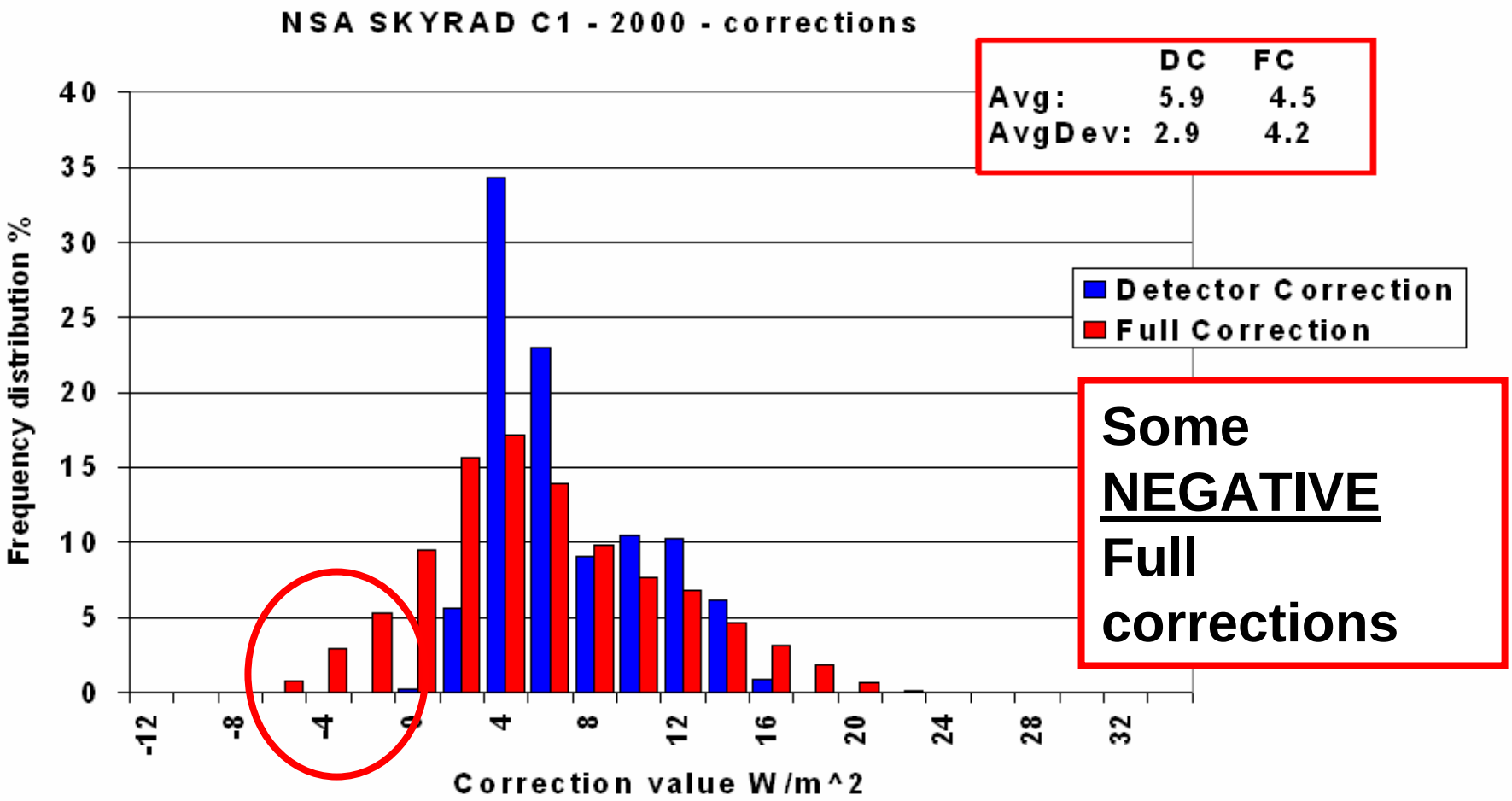
All <u>POSITIVE</u> corrections

Typical Corrections: TWP



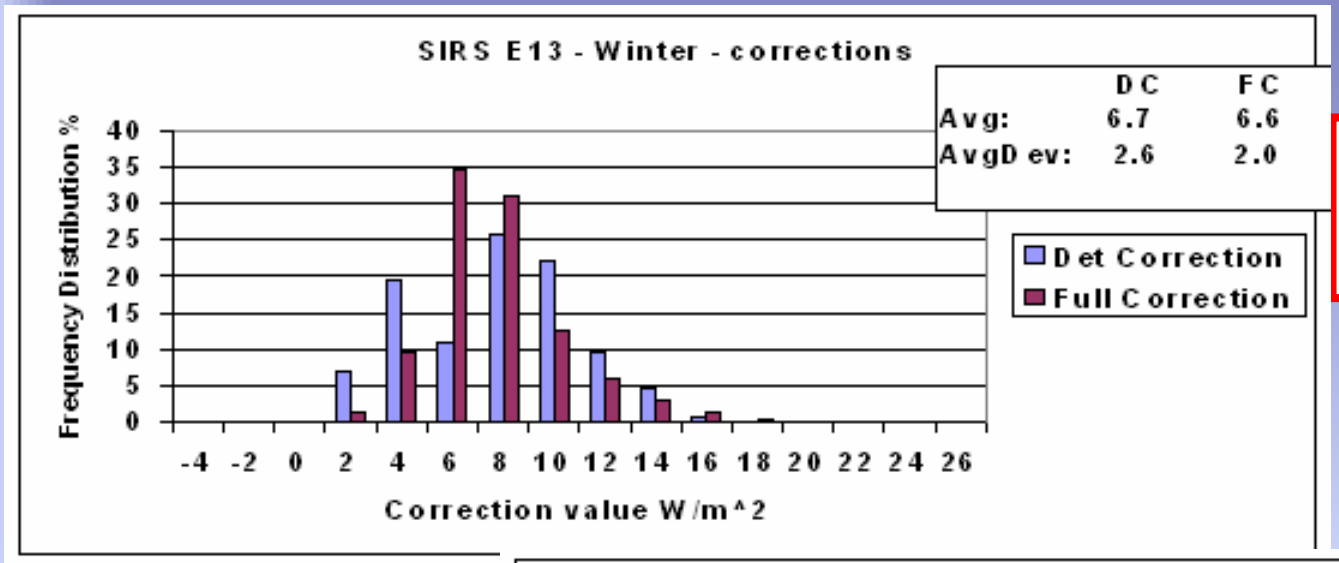
All <u>POSITIVE</u> corrections

NSA Corrections

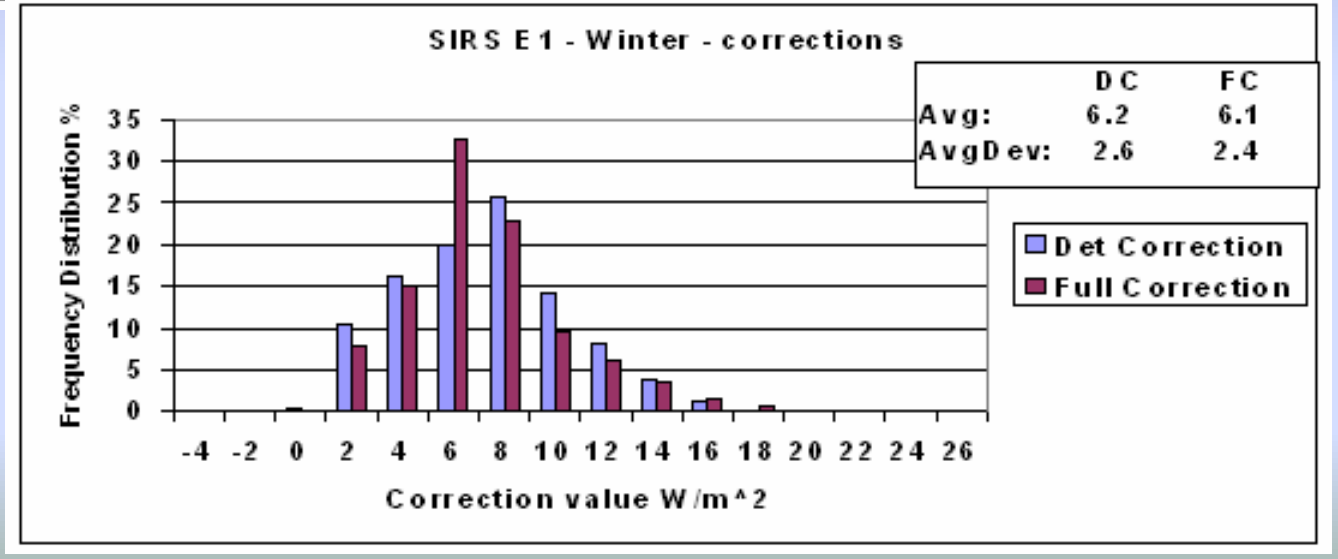


Some **NEGATIVE** Full corrections

SGP Winter Corrections



All <u>POSITIVE</u> corrections



NSA Broadband Operations

- **NSA is the only site that uses heaters in the ventilators…with good reason!**

NSA BB Radiometer Study

- Initially proposed to collect collocated shaded PSP, PIR, and B&W data
  - Investigate/refine IR loss correction methodology
  - Are “positive corrections” real (inversions)?
- Added general study of effect of heaters on measurements
  - Possible better heater/control design?
  - Increased ventilation?

Approved by ACRF Board

- 1-year experiment period
- Delayed start until this summer when the new Guest Instrument Facility is completed
  - (permanent power and comms)
- Breakout discussion Wednesday
  - Refine operations plan
  - Instrument availability/status update

LOTS of radiometers…

- In addition to the existing standard SkyRad equipment:
  - 8 extended range PSPs
  - 2 extended range B&Ws
  - 1 extended range NIP
  - 1 extended range PIR
  - Ventilators for all above
  - Assortment of heaters, fans 12 & 120V), etc.

Thanks…