

# What Data Graphs Can Tell You About Your Mechanical Systems

**James M. Reilly**

University of Texas at Austin, School of Information, Austin, TX  
September 16-17, 2010



NATIONAL  
ENDOWMENT  
FOR THE  
HUMANITIES

# Some Examples

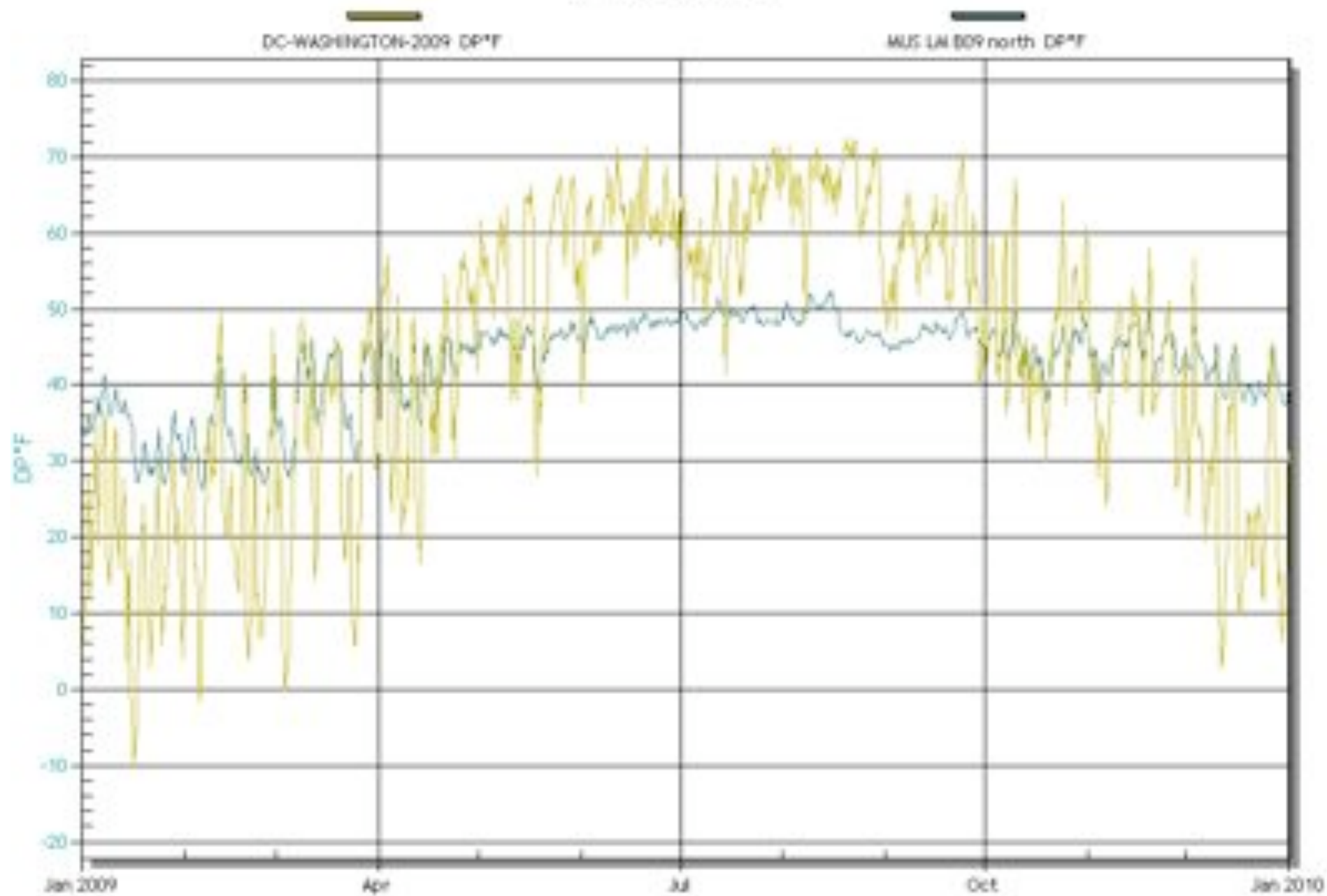
- Overlay indoor / outdoor dew points
- Which system serves my space?
- Are we using night setbacks / When do lights go on or off?
- Is our humidifier working?

# Overlaying Dew Points

- What to Notice:
  - Outdoor DP in Yellow
  - Indoor in Blue
  - Major outdoor dips and rises are echoed indoors
  - Winter require humidification
  - Summer requires dehumidification
  - Transitions require neither

# DP°F of DC-WASHINGTON-2009 et al.

2008-12-31 - 2009-12-31

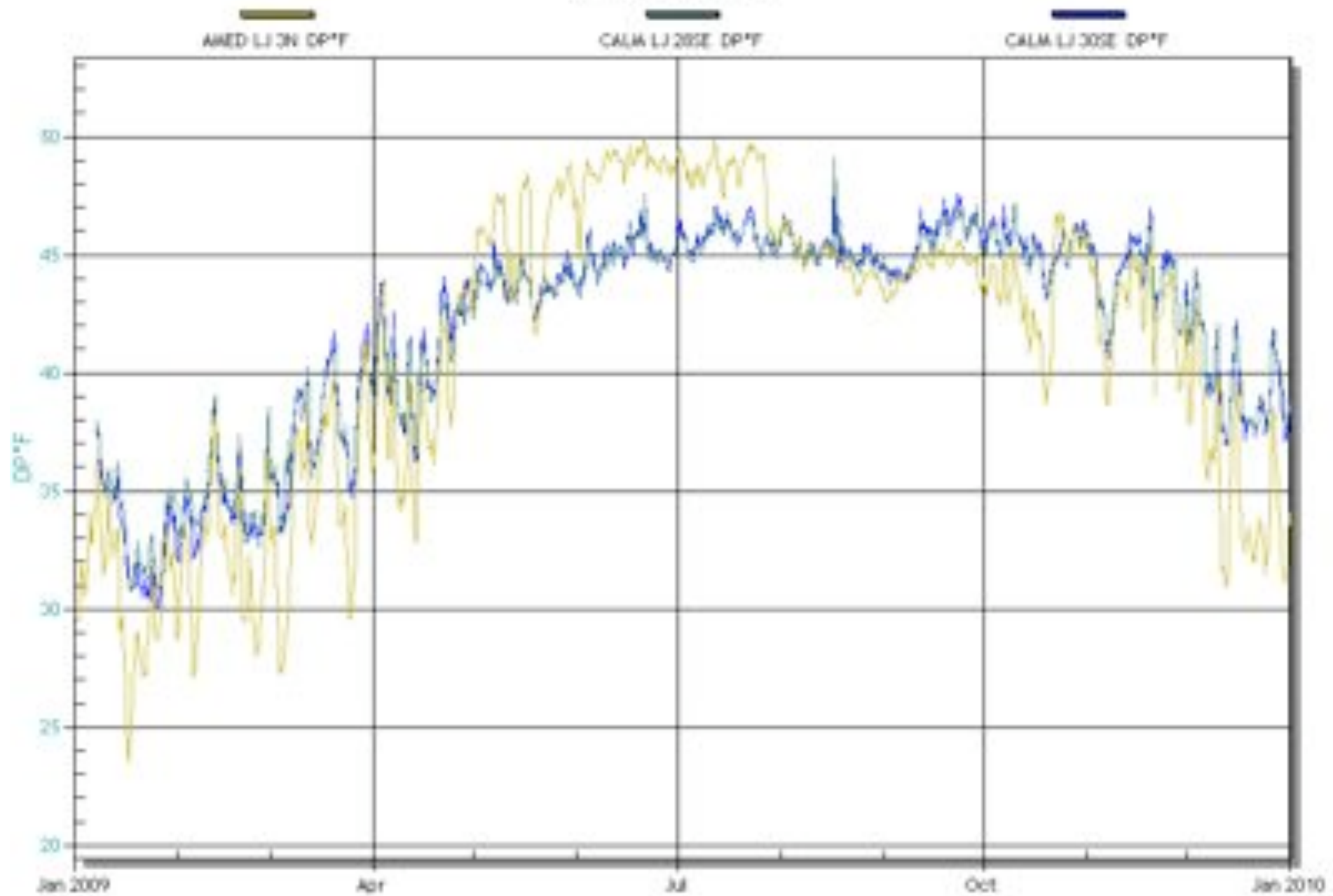


# Which System Serves My Space?

- Overlay DPs from adjacent rooms
- What to Notice
  - AHUs tend to have a DP ‘signature’
  - When same system serves two rooms, DP curves will be nearly identical

# DP°F of AMED LJ 3N et al.

2008-12-31 - 2009-12-31

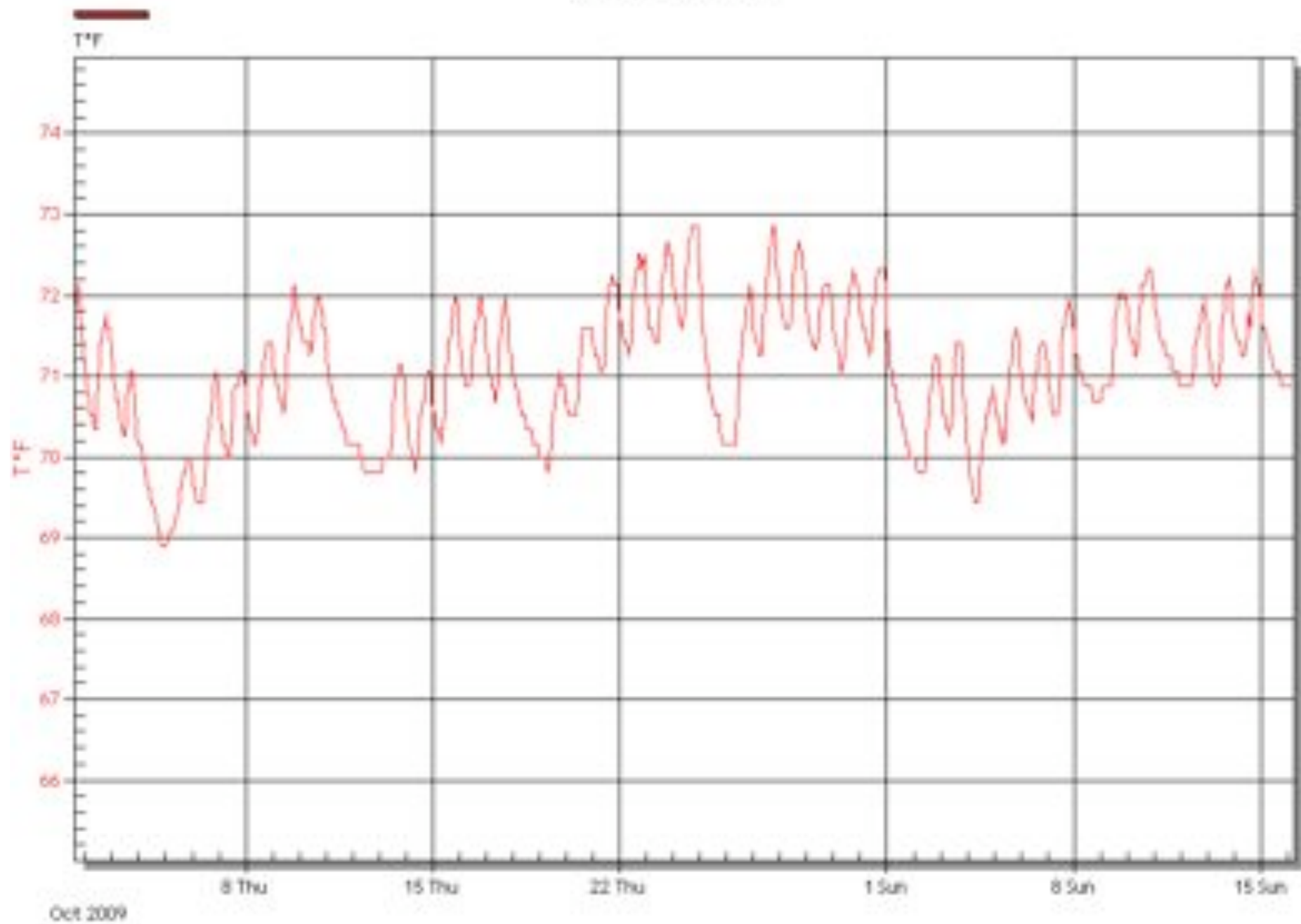


# Setbacks / Lights Off?

- Temperature Graphs
- What to notice
  - Sawtooth patterns
  - Note days of week

# T°F of MSS Stack 109M

2009-10-01 - 2009-11-16





# Humidifier Not Working?

- Use DP Graph
- What to Notice
  - Compare last year to this year

# DP°F of Deck C east end

2008-11-20 - 2010-09-11

