SNG BURST HEIGHT RECORDS

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SNG Setup

**System:**
Radiosonde – Vaisala RS41-SG (main); Graw DFM09 (backup)
Balloon – Totex TX1000 & TX1500
Ozonesonde – ECC SPC-6A
GNSS – Trimble Alloy receiver, Zephyr 3 antenna

**Scheduling:**
Twice daily radiosonde releases
Monthly ozonesonde releases
Hourly GNSS with meteo-files transmission (1Hz obs)
20.8% cases of early burst
8.6% cases of early burst (Day)
33.0% cases of early burst (Night)
Quick look at data

Day BE cases:  **8.6%**
Night BE cases:  **33.0%**

Mean 100hPA temperatures for BE cases:  **-80.6°C**
Mean 100hPA temperatures for the rest:  **-80.1°C**

*Low clouds are observed (≥ 2 Oktas):
Day BE cases:  **13.3%**
Night BE cases:  **41.1%**

*Smaller datasets (314)
Way Ahead

- Launch dual layer balloons during presence of significant low cloud cover
- Scientific evidence of efficacies of dual-layer balloons?
- Examine possible effects of IPWV over Singapore on premature bursts
- Suggestions?