

Partnering with operational
met sites: Lauder's new
Invercargill-based data stream

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Background

- Lauder has weekly radiosonde+ECC soundings.
- MetService has twice-daily radiosonde-only soundings at 4 sites.
- In 2016, MetService upgraded their RS ground stations to MW41 in preparation for a switch from RS92 to RS41 (w/out pressure sensor).
- In 2016, an MOU was signed between NIWA and NZ MetService.
- A new GRUAN Data Stream was defined for Lauder to capture the Invercargill RS41 radiosondes as data associated with Lauder (Radiosonde Launch Site (Invercargill) (LAU-RS-02)).
- NIWA is now purchasing radiosondes at NZ MetService's bulk pricing.

- Lauder purchased an SHC for use at Invercargill and GRUAN MW41 license.
- Long-term loan of equipment.
- Trained their operators in its use. 3-minutes added to prep routine.
- No change to their launch protocol. Re-launch if doesn't reach 100 hPa.
- BUFR data are automatically put on the GTS by MetService.
- The operators upload the .MWX data file to Lauder.
- Lauder submits the data to GRUAN through a batch-mode variant of the RsLaunchClient.



From LC's Lauder Site Report:

GRUAN Station Report for Lauder (2016/17)

System LAU-RS-02

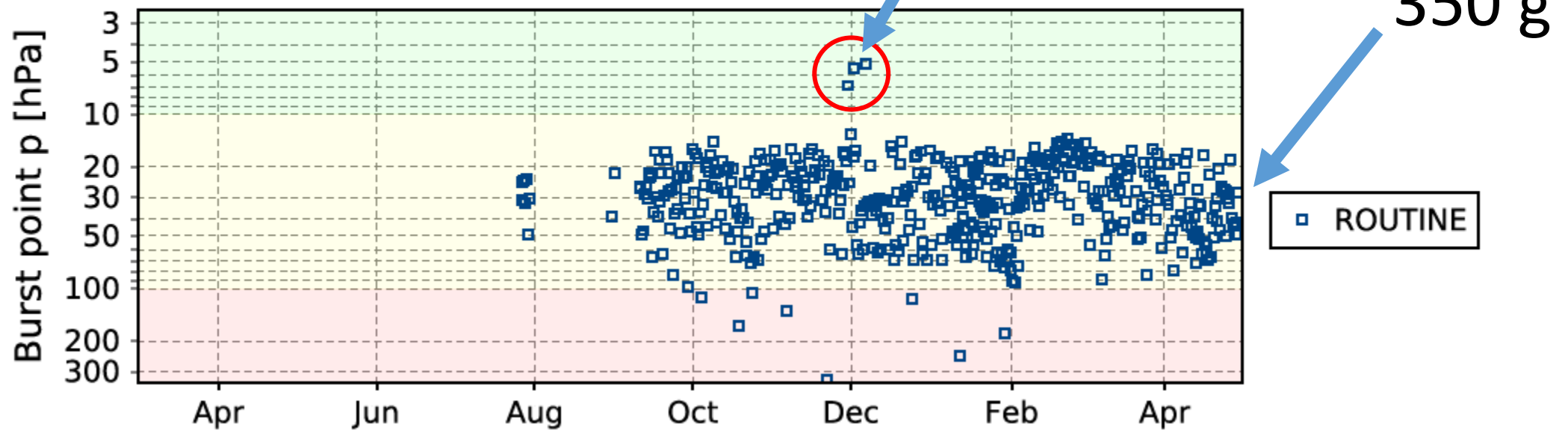
4 System: Radiosonde Launch Site (Invercargill) (LAU-RS-02)

Info	Value
System name	Radiosonde Launch Site (Invercargill)
Unique GRUAN ID	LAU-RS-02
System type	Sounding Site (RS - Radiosonde)
Geographical position	-46.4180 °S, 168.3305 °E, 2.0 m
Operated by	MET-SERVICE-NZ Meteorological Service of New Zealand Limited
Instrument contact	Querel, Richard
Started at	2016-07-01
Defined setups	1 (ROUTINE)
Possible streams	RS41

More data, but...

4.6 Measurement events

4.6.1 Stream: RS41



Next steps with Invercargill stream

- Results are needed to show added value of an Invercargill GRUAN data product and bigger balloons (Data denial NWP comparison? NPROVS+?)
- Co-location analysis: does the data improve the Lauder SASBEs?
- Encourage MetService to switch from 350 g to 600+ g balloons.
- Need to show MetService the added value from 5 k€ (7 € x 730).
- Potentially co-fund (some) additional balloons with Lauder support.
(We get 730 for 5 k€ as an add-on to their sondes vs. 140+ k€ new.)
- Letter from GRUAN supporting the balloon switch?

Other points to discuss:

- Should we pursue having the other 3 NZ MetService sites become Lauder-associated GRUAN-processed data streams?
- What is our goal with GUAN-GRUAN linkage? Co-location is no longer valid justification for the other NZ sites. GRUAN processing? Improved SOPs and ground-checks, i.e. universal SHC usage?

Thanks!