

NCAR / NSF GV operations

DEEPWAVE project

Christchurch, NZ

June 5 – July 20, 2014

Access to Jeffco (RMMA)

- Investigators will receive an invitation from RAF PM to watch an online video
- Provide jpeg photo to RAF PM
- UCAR will issue photo ID access cards
- Personnel with UCAR access cards need to watch the RAF access video. Once done, RAF access privilege will be added to their UCAR card

GV Payload

DEEPWAVE GV payload

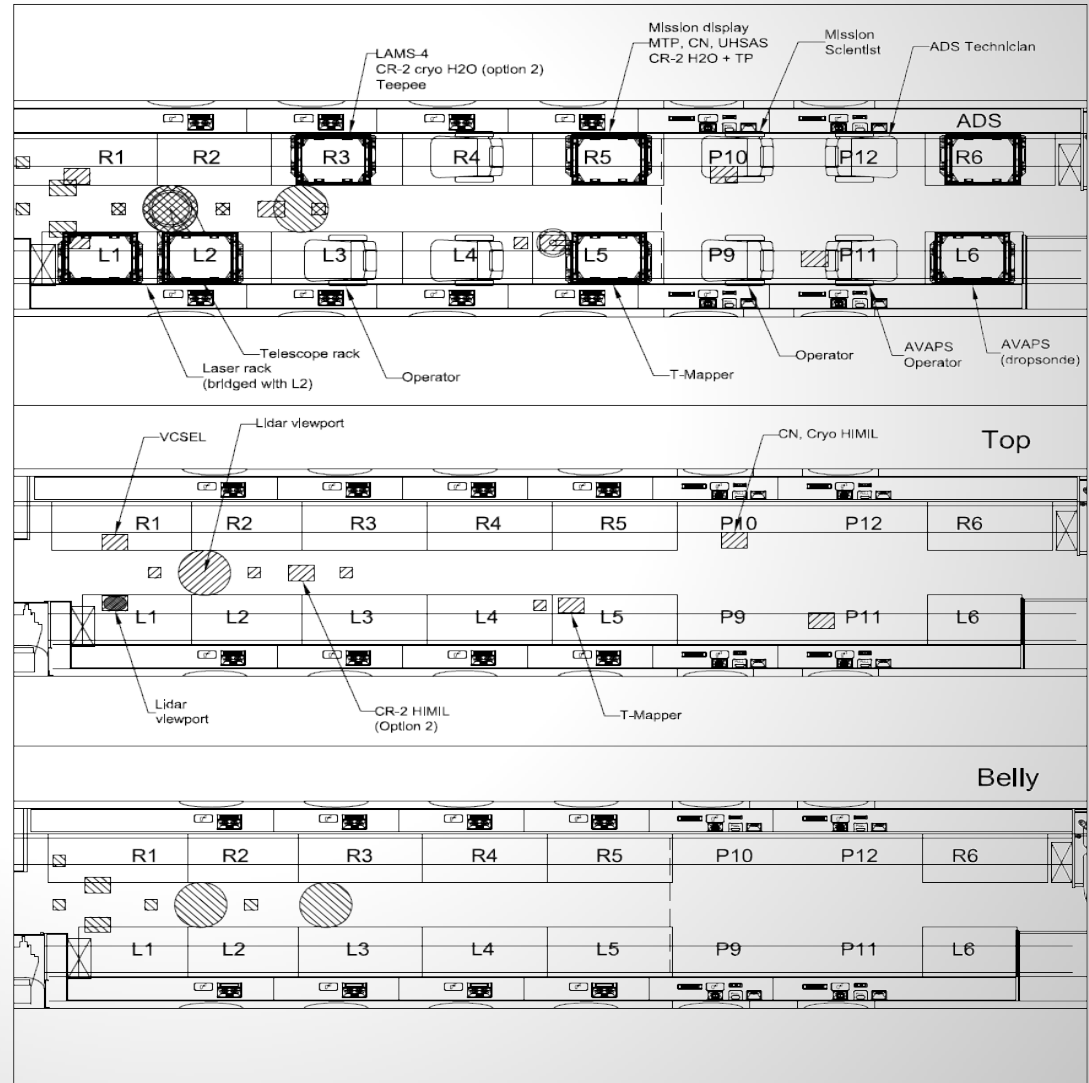
03/04/2014

EOL systems:

- State parameters
- AVAPS
- VCSEL
- LAMS
- Gust pod
- CR-2 cryogenic hygrometer
- MTP
- CN counter
- UHSAS / SID-2H
- Omnistar / DGPS
- Mission coordinator tools

PI instruments:

- T-Mapper (AMTM)
- Na and Rayleigh Lidars



Operations Schedule (example)

3/24/2014

Deployment schedule for DEEPWAVE, Jun-Jul 2014

23 or more RFs required to use up 180 research hours

Crew duty limits apply:

- Max flight duration: 10 h (day)
- Max b2b flights: 2 x 6 h (night)
- Max hours in 7 day: 40
- Max hours in 30 days: 120
- Max consec. Work days: 6
- Max duty day: 14 h
- Consec. Max days, NTE: 2
- Normal duty day: 8 h
- Day / night acclimat.: 36 h

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5/25	5/26 Weigh GV Safety brief FRR	5/27 TF01	5/28	5/29 Down	5/30	5/31 FF01
6/1 FF02	6/2 FF03	6/3 Arrive NZ Day Lost	6/4 Down	6/5	6/6 RF01	6/7
6/8 RF02	6/9	6/10 RF03	6/11 Down	6/12	6/13 RF04	6/14
6/15 RF05	6/16	6/17 RF06	6/18 Down	6/19	6/20 RF07	6/21 RF08
6/22 RF09	6/23 RF10	6/24 Down	6/25	6/26 RF11	6/27 RF12	6/28 RF13
6/29 RF14	6/30 Down	7/1	7/2 RF15	7/3 RF16	7/4	7/5 RF17
7/6 Down	7/7	7/8 RF18	7/9	7/10 RF19	7/11	7/12 RF20
7/13 Down	7/14 RF21	7/15	7/16 RF22	7/17 Down	7/18	7/19 RF23
7/20 End Flight Ops Pre-Pack	7/21 Pack	7/22	7/23 FF04	7/24 FF05 FF06 Day Gained	7/25	7/26

Transit flight dates are accurate.

Flight dates, as well as total number of flights, are tentative and provided for estimation only.
Actual dates will be adjusted as needed for science.

Typical Flight Crew

- Two pilots
- Aircraft Data System (ADS) technician
- Mission scientist (if desired)
- Dropsonde (AVAPS) operator
- T-Mapper operator
- Lidar operator

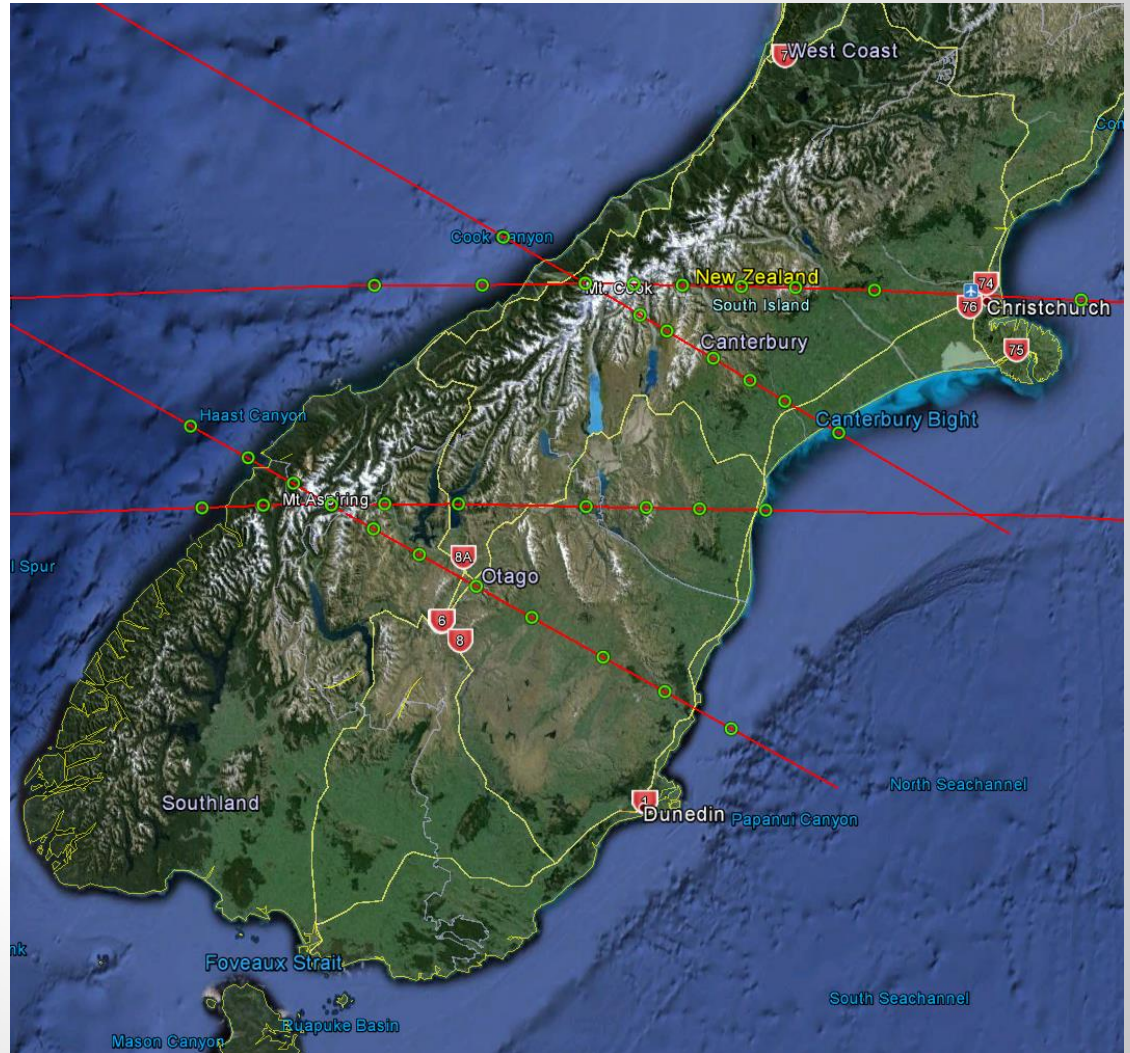
Dropsonde Operations

Night Vision Goggles (NVG) will be used to ensure airspace below is free of other aircraft

Over water, sondes may be released anywhere except over airways

Over land, sondes may be released at designated points only (clear of airways or sensitive ground areas)

Pilots will cancel release if any other aircraft is present on TCAS or NVG that may possibly be affected by a sonde release



Maintenance Days

- Instrument maintenance will be performed on the same schedule as flight operations (night)
- Power and access to the GV will be provided as arranged with the instrument investigators
- Power and access will be terminated if instrument teams are not working on the GV
- Power and access to the GV only in presence of RAF mechanic and technician

Southern Ocean Flights

- Extended duration flights may require the planning using the Supplemental Oxygen System
- Determination of this will be made by the pilots upon reviewing the flight plan
- No more than 6 people can fly in the back cabin on such flights

Questions?

