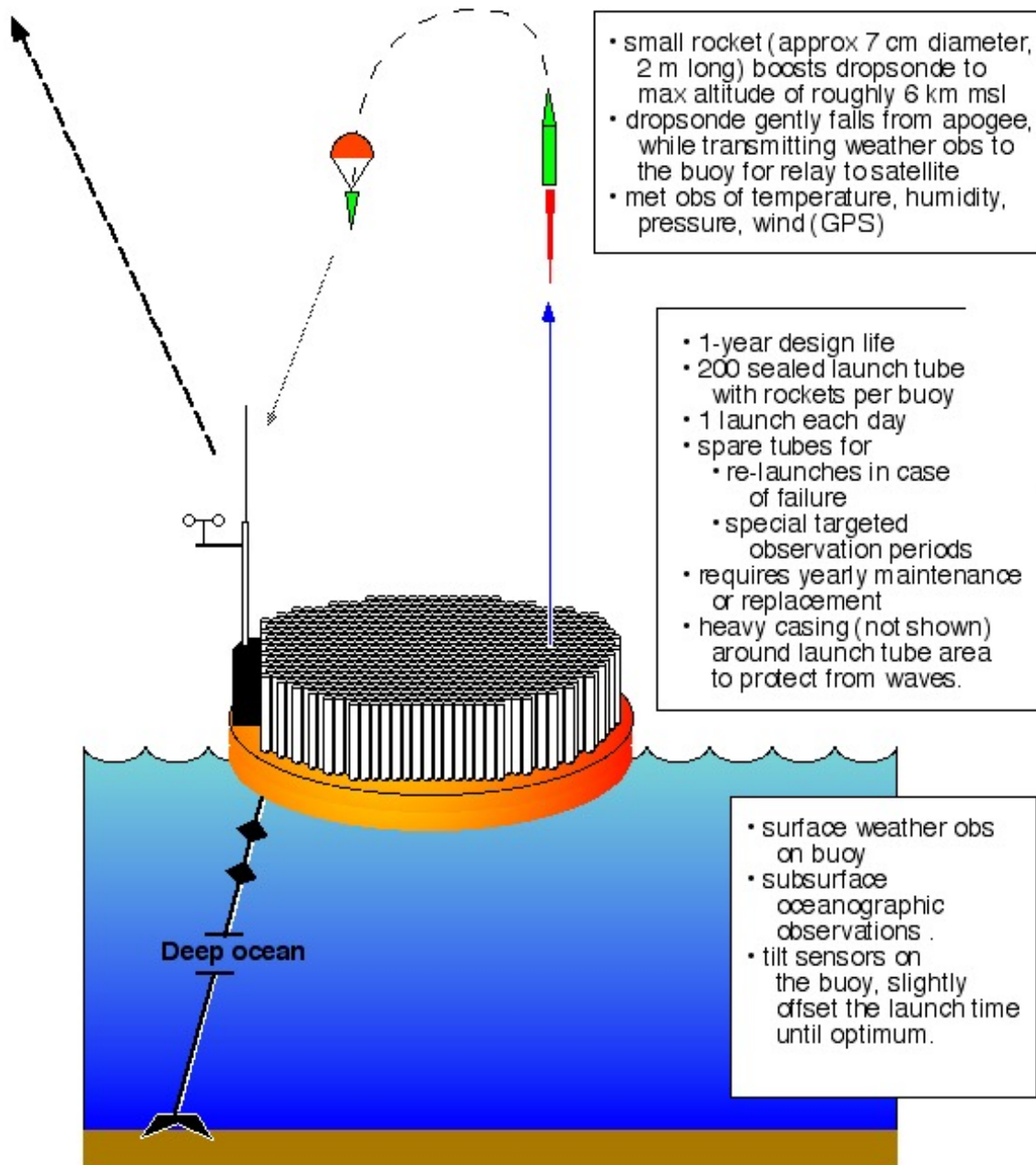


# Rocket Buoy System (RBS)

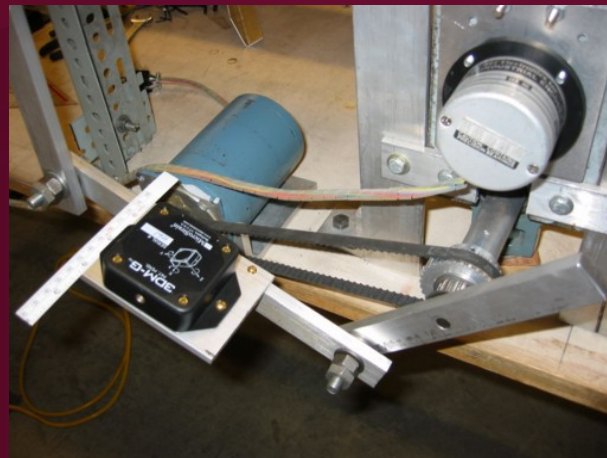
For In-situ Weather Observations Over Oceans

Prof. Roland Stull  
Atmospheric Sci., UBC  
(rstull@eos.ubc.ca)





# Rocketsonde Development at UBC

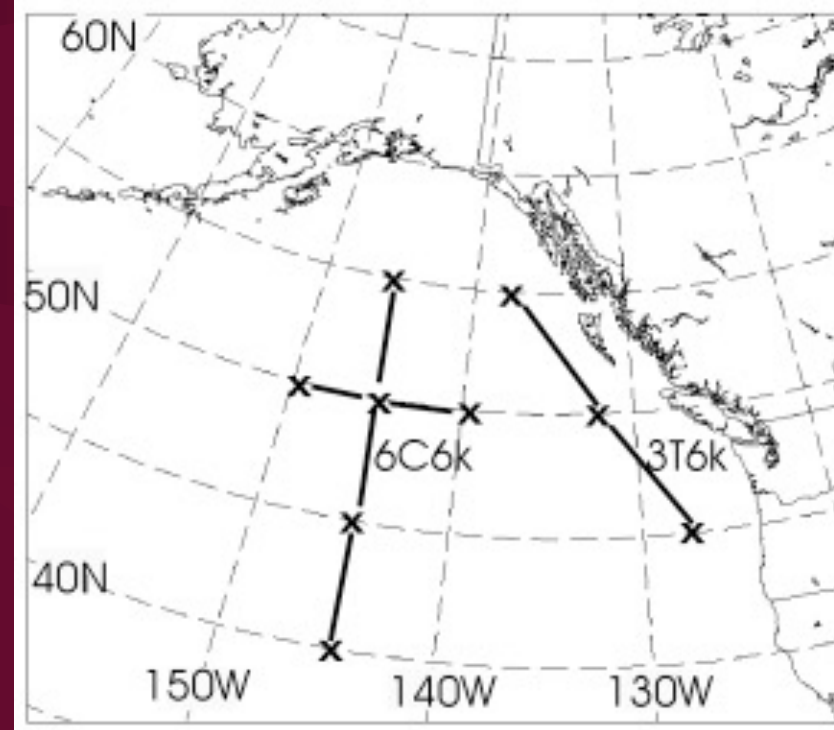




# Observing System Simulation Experiments (OSSE)

- OSSEs are numerical experiments where “virtual” rocketsonde soundings are inserted into numerical forecasts

- MM5 runs of 7 winter cyclones & 5 summer cyclones 2001-2002.
- Experimented with effects of buoy locations
- Found N. Amer. paid 20 - 35% penalty in fcst accuracy due to the Pacific Data Void.
- Optimum RBS: 6 buoys in cross (see Fig ->) 6 km altitude, 12Z each day, only Fall-Spr.
- Penalty reduced to 5 - 15% with optimum RBS



Spagnol & Stull, 2003