

Dish Pedestal Shielded Compartment Concept

11 Nov 2015

Penticton BC Canada

George Smit



Agenda



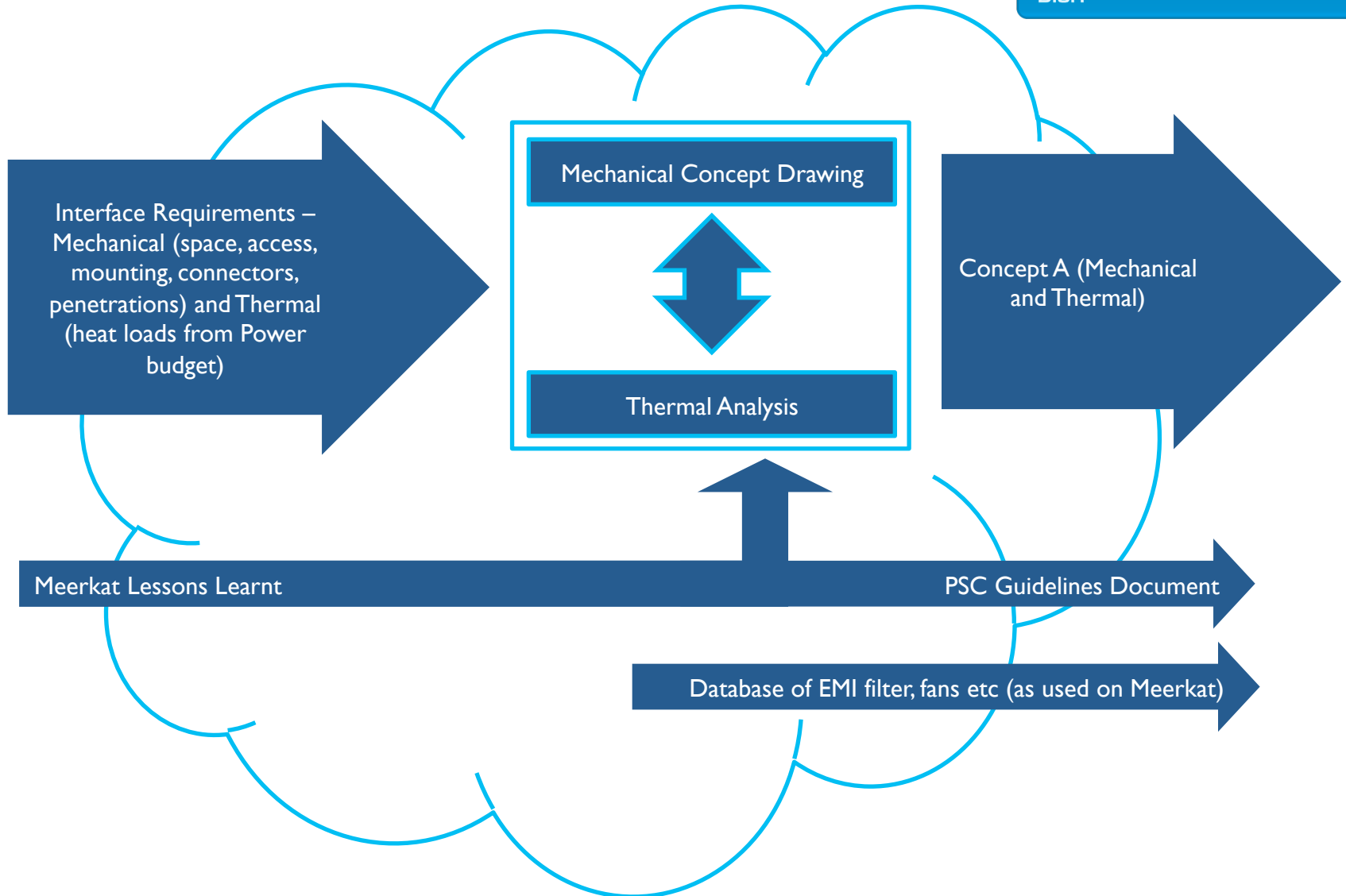
- 14h30 – 14h45: Concept work thus far (All)
- 14h45 – 15h30: Open Discussion (All)
- 15h30 – 15h50: Physical interfaces (DS, SaDT)
- 15h50 – 16h10: Physical interfaces (DS, PAF)
- 16h10 – 16h30: Physical interfaces (DS, SPFRx)
- 16h30 – 16h50: Physical interfaces (DS, LMC)

Reason for the PSC work group

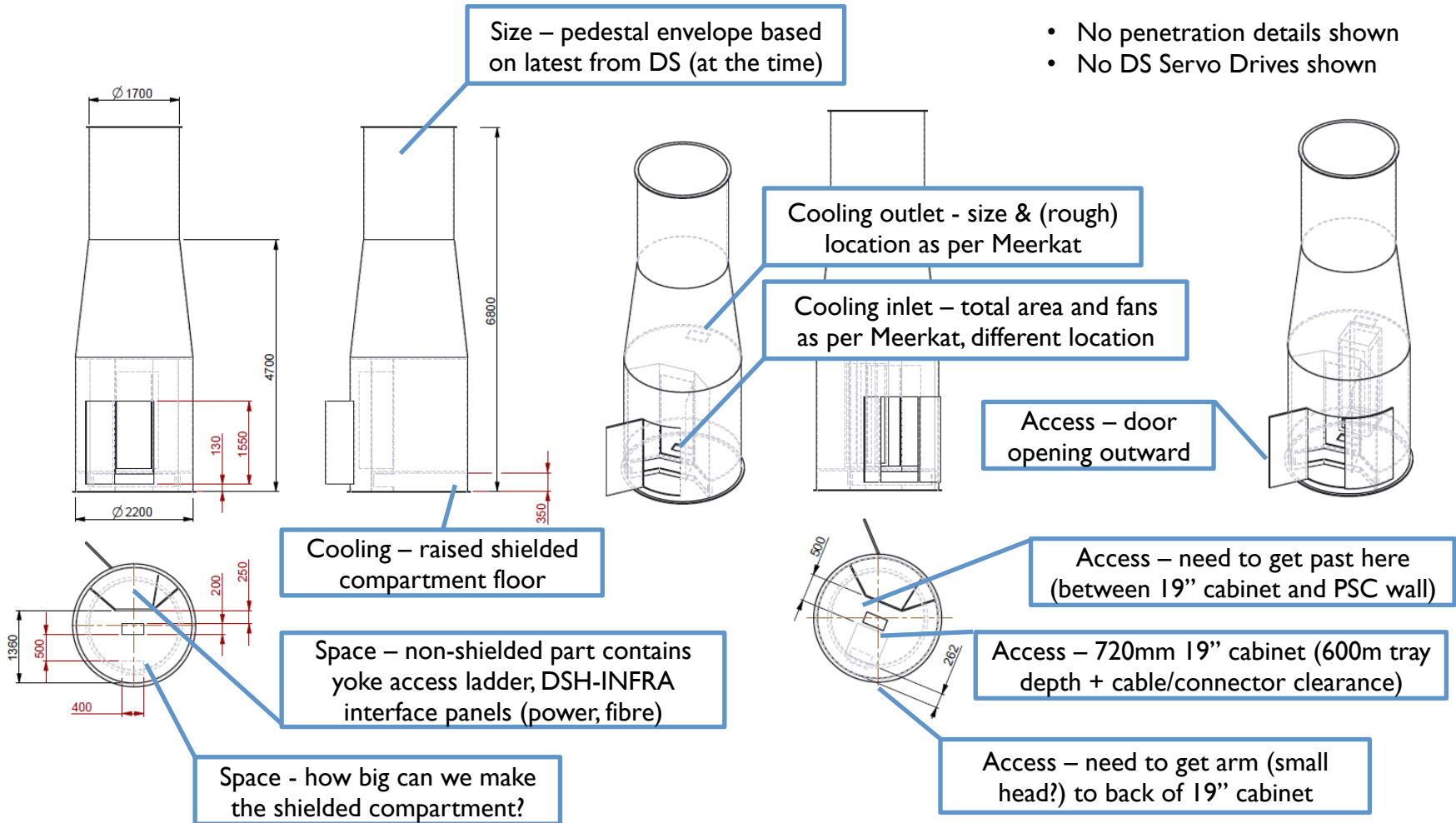


- De-risking
 - Sub-element interface hotspot (mechanical, thermal, lightning, RFI)
 - Slow project progress
- Interface information gathering and definition
 - Internal (between sub-elements)
 - SaDT (external)
- Extract Meerkat lessons learnt
 - Some applied in Concept A
- Going forward: Dish Structure

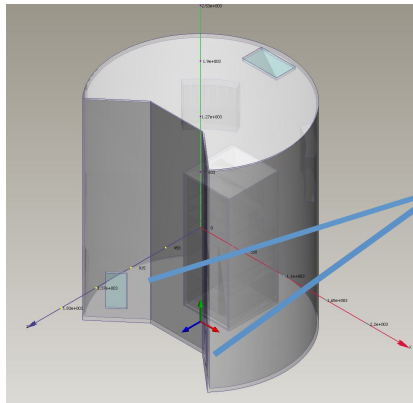
PSC work group outputs



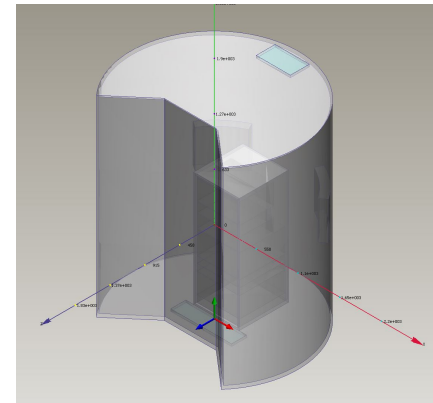
Concept A: Mechanical



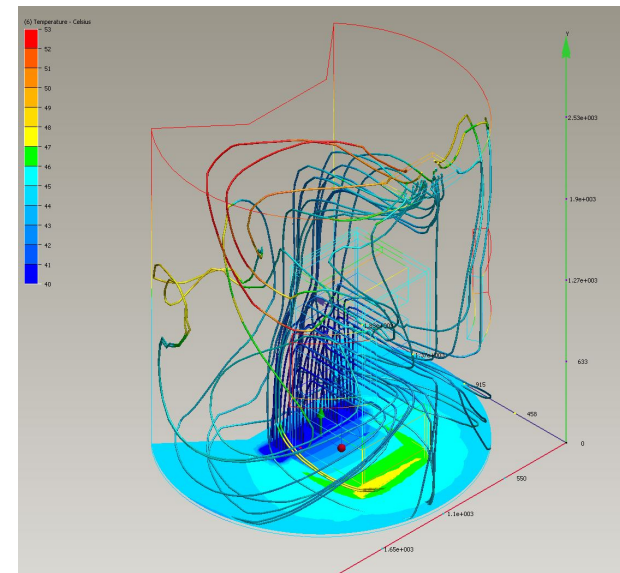
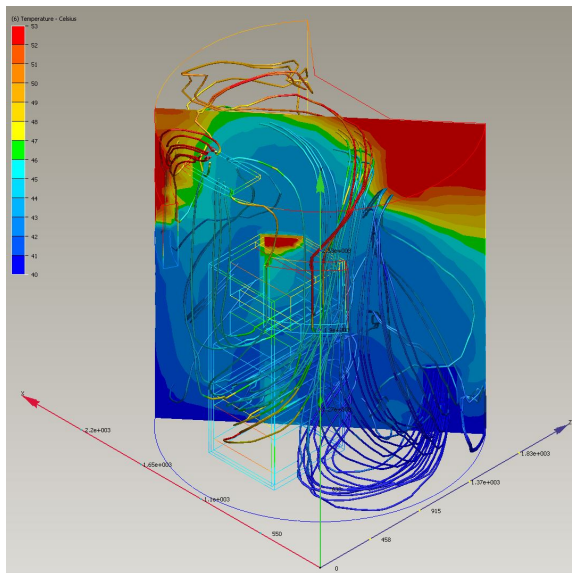
Concept A: Thermal Analysis I



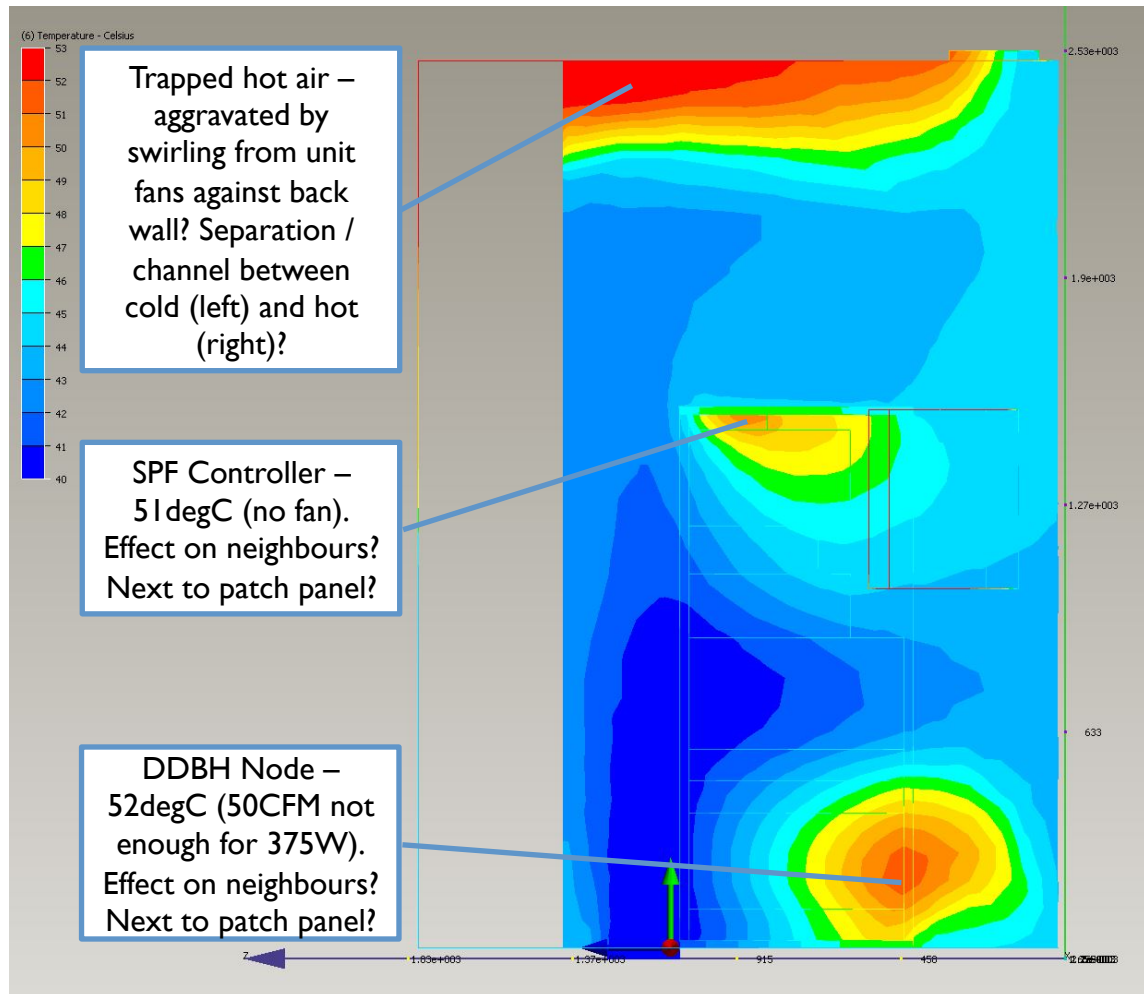
Cooling inlets –
Meerkat locations



Better
airflow



Concept A: Thermal Analysis II



- Analysis done inside shielded compartment only.
- 40degC ambient outside air assumed.



QUESTIONS / DISCUSSION

- Other Concepts? KAT-7.
- Meerkat ventilation – humidity/corrosion/equipment life issues?
- Temperature range / rate of change issues – SaDT SAT and RX?
- Fans - Dust ingress? Staged integration.
- RFI during maintenance?
- Pedestal door that opens outward?
- DS Servo Systems – what will it look like?
- UPS ventilation/environmental requirements (batteries)?