

Plans for the mobile sounding units (MGAUS)

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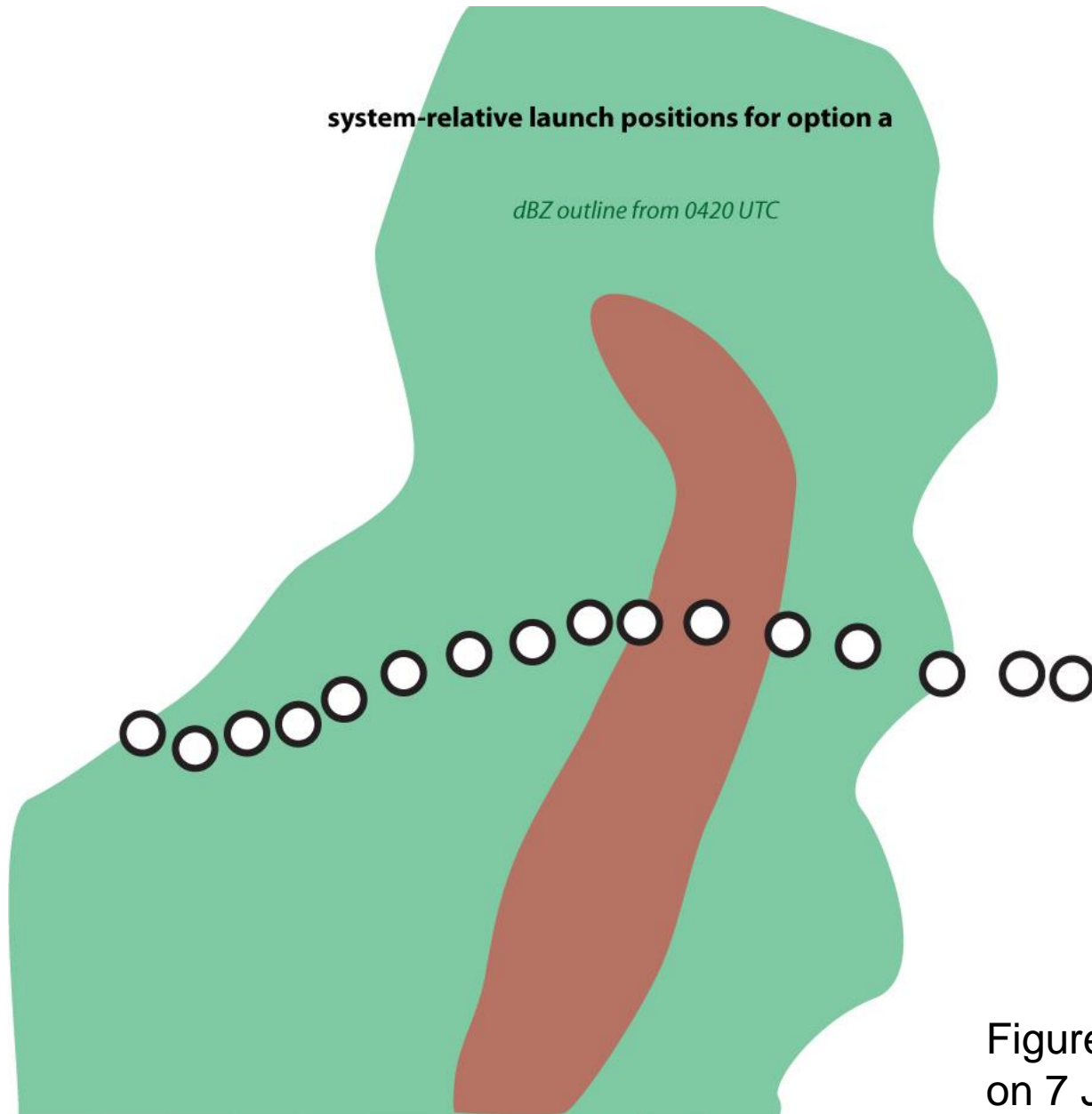
PECAN planning meeting
Boulder, CO
2 March 2015

Rough sonde budget for each of the 3 MGAUS vehicles (2 NSSL, 1 CSU)

<u>Mission type</u>	<u># of IOPs</u>	<u>Sondes per IOP</u>	<u>Total usage</u>
MCS	10	7	70
CI	5	2	10
Bore	5	2	10
Student training	2	1	2
5% failure rate		(120*0.05)	6
Running total			98
remainder			22

- This suggests we could “afford” up to 3 additional MCS missions, several bore or CI missions, or some combination of these
- What (if anything) should MGAUS do on CI and bore missions? MGAUS are drawn into the EDO diagram for both types of missions, but guidance on specific strategies from the CI and bore PIs is needed.

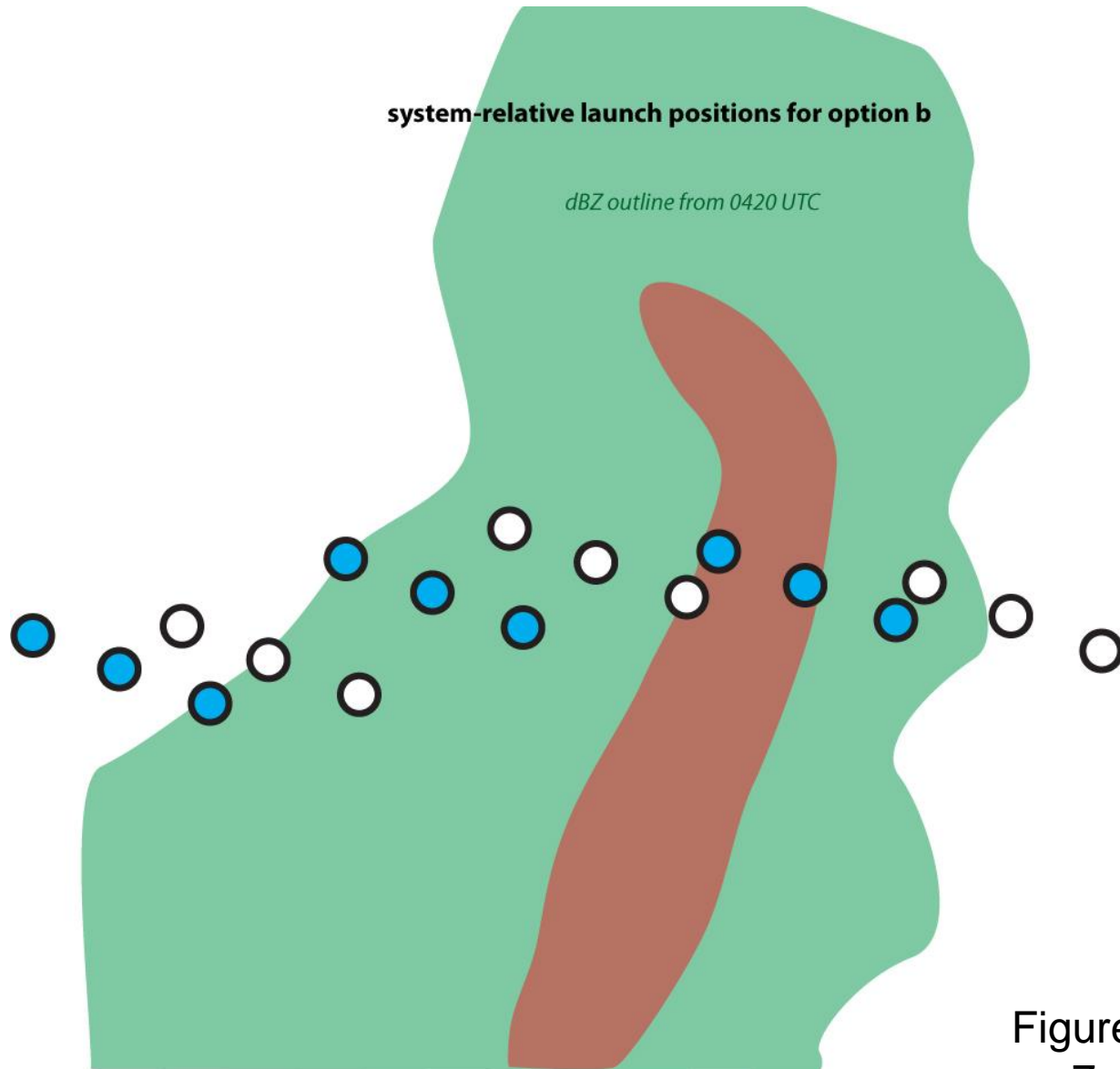
Possible deployment strategies



All vehicles in same spot, launching every 20 minutes as MCS passes over

Figures by Matt Parker, based on 7 June case from dry run

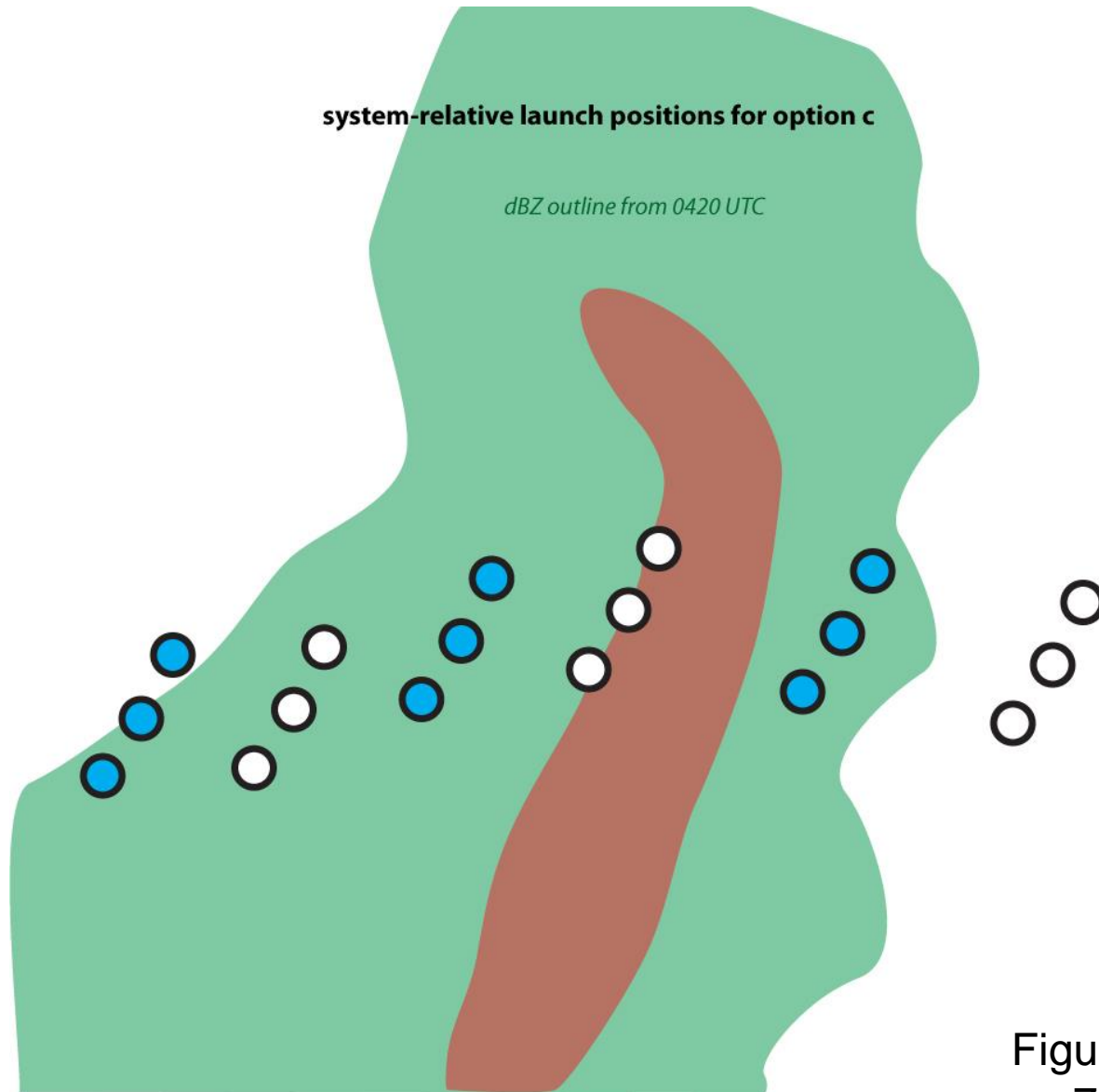
Possible deployment strategies



Vehicles in line
normal to
leading edge,
launch
simultaneously
every hour

Figures by Matt Parker, based
on 7 June case from dry run

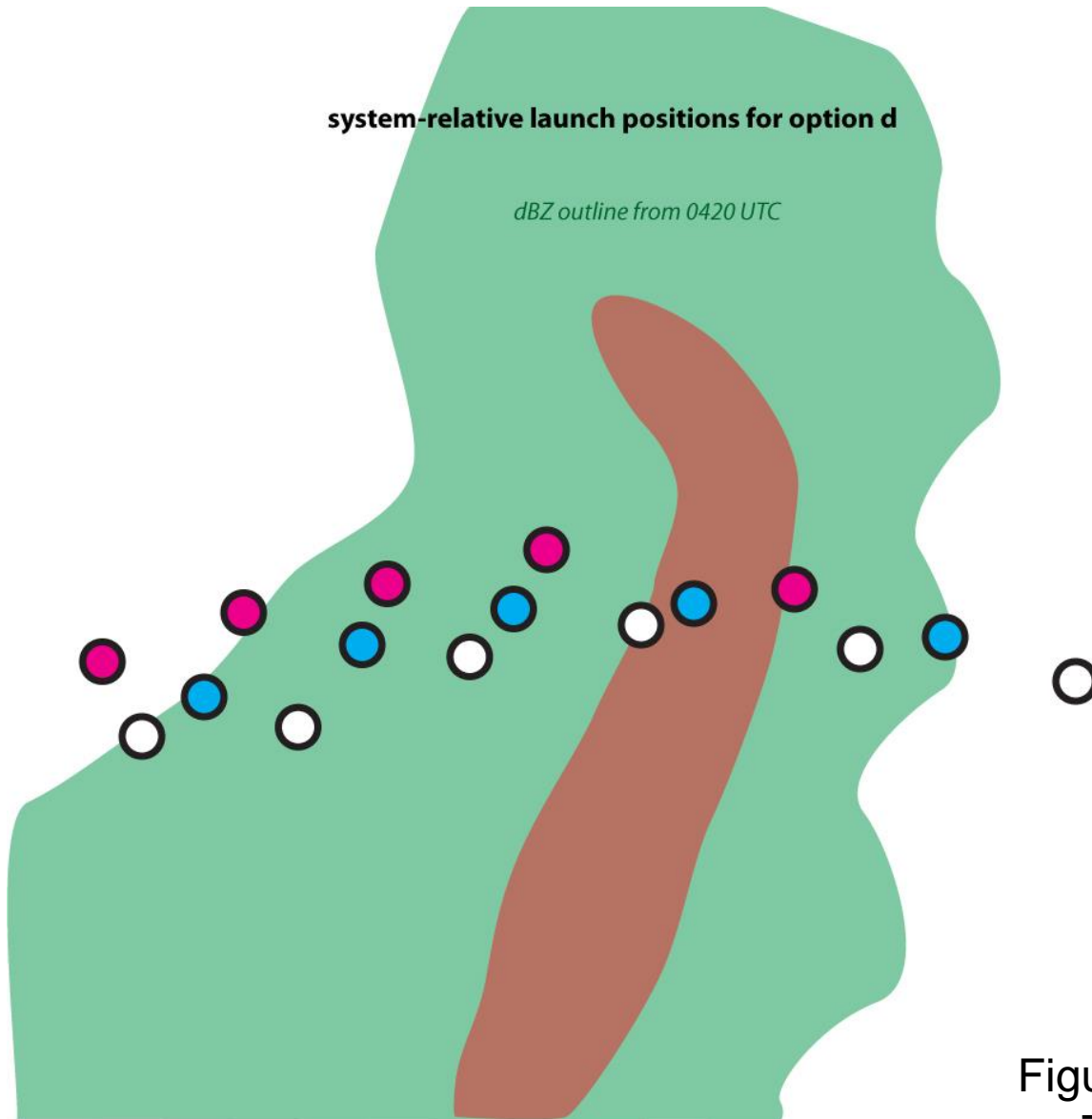
Possible deployment strategies



Vehicles in line
parallel to
leading edge,
launch
simultaneously
every hour

Figures by Matt Parker, based
on 7 June case from dry run

Possible deployment strategies



Vehicles in line
normal to
leading edge,
launches
rotating every
20 minutes

Figures by Matt Parker, based
on 7 June case from dry run

Notes

- None of these strategies require the vehicles to move during the deployment, but we will be capable of that if necessary
- We are working on a “playbook” for MGAUS deployments in different MCS organization and motion scenarios, using model simulations of cases from the dry run, etc. to guide the decision making