



# Background Rejection Prep Work

- Plan two stages: 100M event run(s) then full DC2 background run (~1B events)
- 100M event generation for first new background studies: prior to pushing the button (in two weeks?) want
  - geometry final checks (TKR, ACD, CAL, NAD)
  - physics final checks (MS, step sizes)
  - background fluxes (agree and document, see Toby's talk)
    - not include heavy ions? check processing times.
    - include albedo gammas in 100M run; for DC2 background runs, plan to do a separate set of runs (attitude dependent)
      - propose just do few orbits and then replay those events
  - hardware trigger checks (mainly CAL & vetoes)
  - onboard filter (agree on the selection bits)
  - bad channel lists
    - no bad channels for ACD&CAL; for TKR see Leon's proposal
      - assume for now we will be flying Tower A
  - zero suppression and noise checks
    - see Julie's proposal for CAL
  - check ACD efficiencies (run 10M muons through center of one tile as an end-to-end check)
- generation plan TBR in 2 weeks (after Bill has a chance to look at current tuples). Need a 2<sup>nd</sup> 100M event run? One (or two?) 100M event runs, then the big DC2 run according to Julie's schedule.



# Background analysis prep continued

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- What we keep:
  - use the Onboard Filter, run in passthru mode so we have all the status bits
    - for background events (including gamma albedo), for large majority of runs, if filter rejects event don't run recon and don't write out events. for a small subset of runs (<x2 final sample increase), run recon and write out events as a check.
    - for all\_gamma events, run recon and write out ALL events.
- For support of the analysis need
  - recons checked
  - tuple check (floats), document
  - demonstrate ability to reprocess all or subset of events
  - peeling eventlists, event display of these events
  - classification tree infrastructure comparisons and operating plan