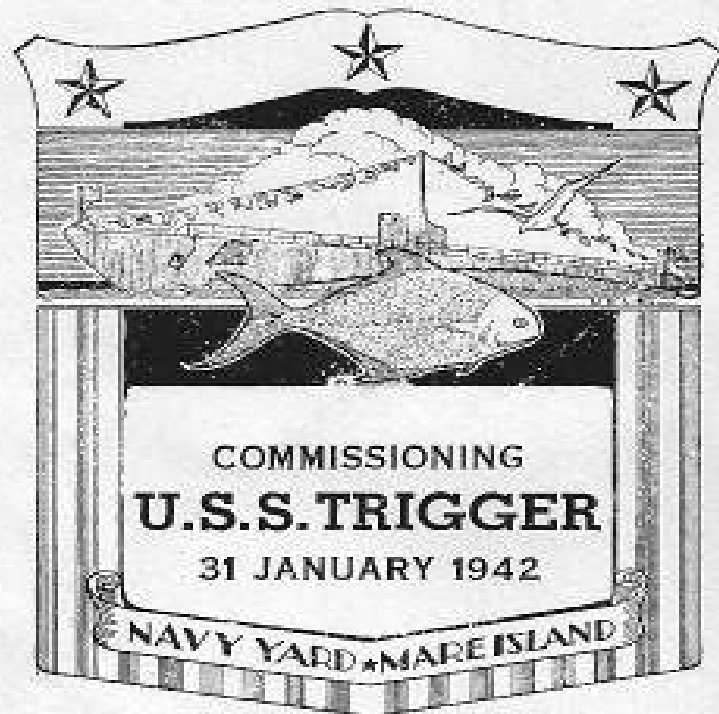


Almost-monthly Trigger report



*Debbie Bard
For the Trigger
group
22nd August, 2007*

Drift Chamber Trigger (DCT)

- 27th June: replaced DCH electronics box
 - Performed successful DCH-DCZ calibration.
 - Occasional instances of “usual” DCT problems:
 - Two types of problem with same symptom, can only differentiate by looking at ROM log files.
 - Minor type: “out-of-synch” and “out-of-order” errors indicate one board is out of synch with the others
 - *start a new run.*
 - Major type: “MPIC spurious interrupt” errors indicate TSF is out of synch, poss, from lost timing signal
 - *Power-cycle the TSF crates.*
 - Known problems that happen ~twice a month, no effect on data quality.
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EMC Trigger (EMT)

- While EMC removed from global calibrations, EMT should be included by the pilot.
 - By default, EMT follows EMC in global calibration. Removing EMC also removes EMT but it can safely be put back in.
 - On-going study on MIP efficiency
 - No change observed over time.
 - Study effect of background conditions.
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Configuration

- Plan to add 1E line before the end of Run 6.
 - 1E = one neutral object over 800MeV anywhere in the EMC.
 - This will increase trigger rate by 8%.
 - 1E line not included in physics filters as full of Bhabhas.
 - Save events with specific 1E filter line for processing.
 - Need to understand possible effect of 1E line on other non-physics (calibration, monitoring) lines before implementation.
 - We don't want to deploy this at exactly the same time as SVT DAQ changes!
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Good spares list:

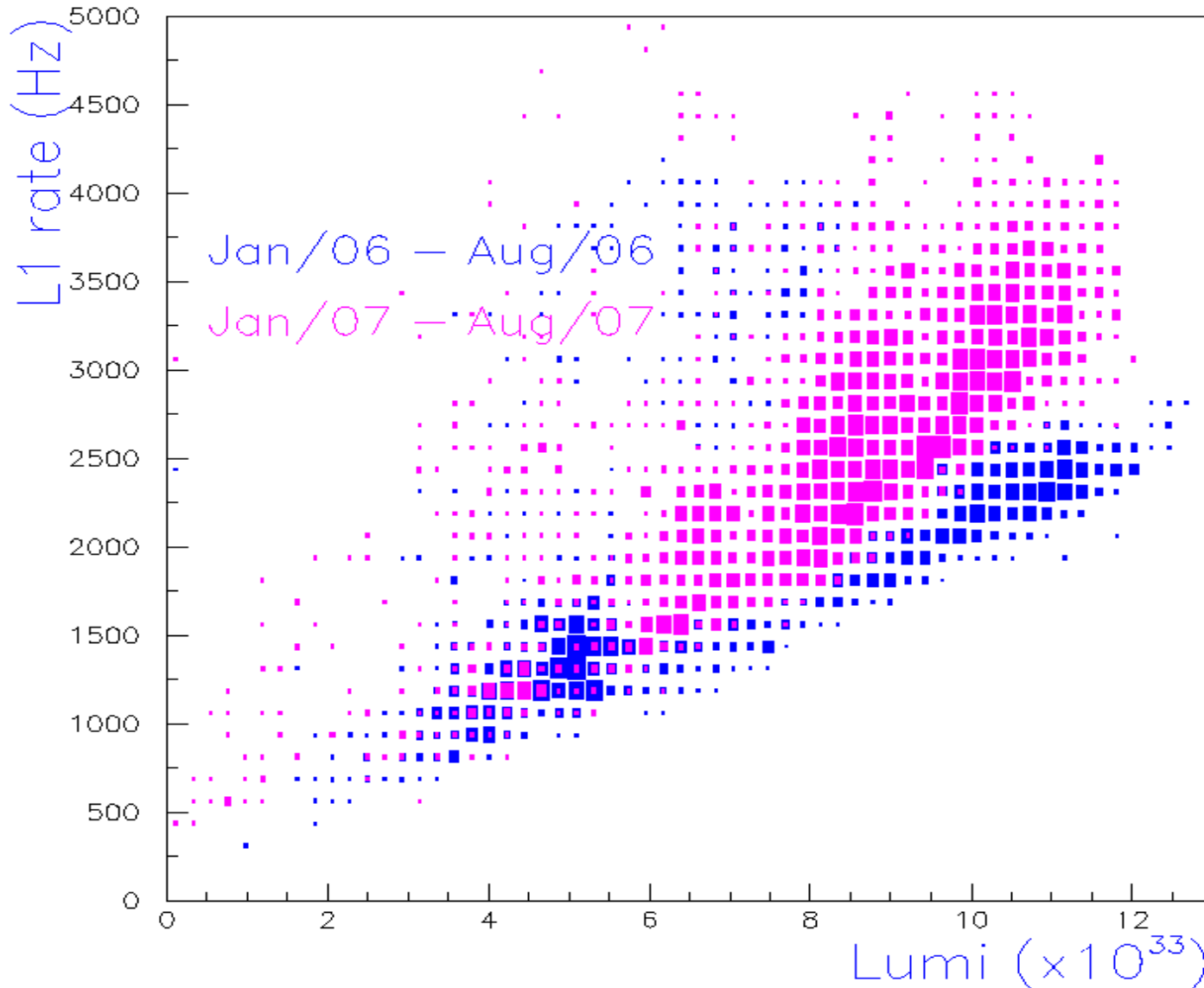
- 1 BLT (Binary Link Tracker) *need 1 in IR2*
- 4 DCCs (DIRC Crate Controller) *need 4*
- 1 GLT, 2 GLTaux (Global Level 1 Trigger) *need 1,1*
- 2 TSFs, 2 TSFis (Track Segment Finder) *need 24,24*
- 2 ZPDs, 2 ZPDIs (Z Pt Discriminator) *need 8,8*
- 2 TPBs (Trigger Processor Board) *need 10*
- 3 TCBs (Trigger Carrier Board) *need 1*

→ **Spares situation
is good!**

L1 Trigger rate vs Lumi

2007/08/22 15.03

Trigger Rate vs Luminosity



- Run 6 performance.

Manpower

- Hojeong takes over as Trigger Commissioner at end of Run 6
 - currently in active training.
 - Mark Tibbetts continues as EMT expert for Run 7.
 - Rainer Bartoldus continues as L3 expert.
 - System managers are Su Dong and Rainer Bartoldus.
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Summary

- Occasional DCT errors continue.
- We're in good shape for spares.
- L1 rate is looking good for the current high lumi.
- Hojeong will be commissioner for Run 7.
- Still no major problems with trigger or the trigger data so far.....

→ **The trigger looks good!**





Bye!