



# Status of Facility, IR, and Detector Changes

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# Facility Status

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- ✍ Deuterons and Au have been delivered to the W-line dump (at RHIC arcs)
- ✍ Blue ring is cold
  - ✍ Au has been injected and taken to Phobos
  - ✍ Deuterons have been injected for several turns
- ✍ Yellow ring due to be cold 12/08/02
- ✍ Blue power supplies are being “tuned”
- ✍ Blue beam work is in progress (d)



# Facility Cont.

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## ✍ Deuteron Intensity

- ✍ Work in progress to increase intensity
- ✍ Exp. will need to agree if luminosity is high enough

## ✍ Au Intensity

- ✍ “Vacuum problem” needs to be solved to get to  $1.0E9$  Au/bunch (from 0.7)
- ✍ Solenoids mounted on beam pipe
  - ✍ Several in our IR
  - ✍ Possible fringe field issues with Inelasticity counters
  - ✍ Solenoids will be modified if they cause a problem



# Facility Cont.

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## ✍ Controlled Access

- ✍ Method 1 is to get key from MCR
- ✍ Method 2 (New)
  - ✍ Go to AGS and register in IRIS database
  - ✍ When IR in correct status scan IRIS
  - ✍ Key will be released— Use like a controlled access key from MCR
  - ✍ Keys work only for the IR where the key tree is located
  - ✍ **If you have Personal Reservations then use method 1**



# Facility Cont.

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- ✍ Scheduled Access
  - ✍ 8 Hr scheduled access each week for commissioning phase
  - ✍ Probably every Wed. or Thur.
  - ✍ Physics Phase every other week
- ✍ Random Access as machine/priorities dictate



# IR Changes

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- ✍ Walkover at back of MRS
  - ✍ Use appropriately
- ✍ FS Shielding
  - ✍ T4 shield
  - ✍ Shielding along beam pipe ( T5, T3, H1, H2)
- ✍ MRS Shielding
  - ✍ End of Dx (MTPC1)
  - ✍ Middle of Dx (MTPC2 and TOFW)
  - ✍ Concrete for side of D5 (In IR but to one side)



# Detectors

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- ✍ Fibers
- ✍ TOFW
- ✍ Trigger electronics
- ✍ FS\_to
- ✍ MRS\_to
- ✍ D5\_trig
- ✍ Spect. Triggers
- ✍ TOFWII



# Fibers

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- ✍ FS– Unchanged

- ✍ MRS

- ✍ Front of TPM2 unchanged

- ✍ Back of TPM2 rebuilt

- ✍ 6 fibers

- ✍ 1 pmt on an end, alternate sides

- ✍ ½ inch tubes ( same as FS)

- ✍ Option for 2 fibers behind TPM1 (10-12 cm apart) out of magnet aperture





# TOFW

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- ✍ Removed Calibration slats
- ✍ Removed panel 1 (20 slats)
- ✍ Re-centered remaining 105 slats
- ✍ All disc. are now octal (ph710)
  - ✍ Required for trigger electronics



# Trigger Electronics

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- ✍ CAMAC Crate installed with Nim to ECL
- ✍ TOFW signals installed to CAMAC
- ✍ VME Crate installed
- ✍ Trigger boards
  - ✍ One “prototype” installed
  - ✍ Complete set due 12/15
  - ✍ 3 trigger cables installed
  - ✍ Control cable installed
- ✍ Enables TOFW to be in MRS spect. trigger



# TRIG. Elec.

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✍ Others detectors which may use

✍ MRS

✍ D5\_trig

✍ TOFWII

✍ FEH

✍ H1

✍ H2

✍ Beam-Beam

✍ Rack for VME and CAMAC installed



# FS t0

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- ✍ Same counters as PP run
- ✍ Changes
  - ✍ Use it's own disc.
  - ✍ Use spare BB cables
  - ✍ Use own TDC and spare chan. Of BB ADC
- ✍ Performance (a guess)
  - ✍ 45 ps (40-50)
- ✍ Use for FS trigger for d+Au and PP



# MRS t0

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- ✍ New segmented counter
  - ✍ 6 Counters 3x5x1 (cm) BC418
  - ✍ 1 2 inch PMT and light pipe
  - ✍ Alternate up/down
  - ✍ One calib. Counter with 2 PMTs and I.p.
  - ✍ Counters are ready
  - ✍ Stand/fixtures will be ready by 12/11
  - ✍ Electronics will be done same as FS\_t0



# MRS Trigger Hodoscope

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- ✍ Frame/holder complete
- ✍ Scint. Cut and polished (BC404)
- ✍ Partially assembled (worked stopped for MRS\_t0)
- ✍ 12 scint. 12x3x0.4 with a  $\frac{3}{4}$  inch PMT assembly at each end (H5010)
- ✍ Mounted to the back of the D5 shield
- ✍ Moved TPM2 back 4 inches



# MRS Trig Hodo Cont.

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- ✍ Will test this year but not needed for d+Au or PP
- ✍ Will use trigger boards
- ✍ If works well can make a “copy” for FS to be placed on D1 shield.



# Spectrometer Triggers

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## ✍ MRS

- ✍ d+Au and PP
  - ✍ MRS\_t0 .AND. TOFW
- ✍ Au+Au or Si+Si
  - ✍ TOFW .AND. D5\_trig
- ✍ Other --TOFWII .AND. (D5\_Trig .or. MRS\_t0)

## ✍ FS

- ✍ D+Au or PP
  - ✍ D1\_t0 .and. (H1 .or./.and. H2)
- ✍ Au+au or Si+Si
  - ✍ D1\_trig .and. (H1 .or./.and. H2)





# TOFWII

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- ✍ Preparing to construct (Install 1/7/03)
- ✍ L is 5.5 to 8 meters
- ✍ Slats are 40x5x1.5 with 2 inch PMTs
- ✍ Arc centered on 190cm with  $R=510\text{cm}$
- ✍ Expect t.o.f. resolution of 60 ps
- ✍ 12-20 slats for this year
- ✍ May not be centered on mag. Gap



# Inelasticity counters

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- ✍ Plan to use 3 stations on each side for both d+Au and pp
- ✍ Will add splitters and ADCs