The GTS meeting Friday January 9th was beneficial

for all in attendance. We agreed on what components

are necessary and where they should reside on the

chamber. So moving in the right direction for

having the chamber configured correctly, see the

below action items:

(1) Phil and John to design a Fork adapter for the

Rotary Manipulator, ensuring that the Fork and

Pucks' grooves center lines(in the Storage garage)

match up.

(2) More Pucks with grooves are needed for the

storage garages in the chamber. We should make

three more so as to have a total of Four(4) - three

for KSb and one for GaAs as a standard.

(3) The Garage that holds 3 pucks is the best to

use, and will be made by the shop. (Phil to

submit). The chamber will be fitted with two pucks

per garage. The last garage modification should be

implemented to ensure that the pucks remain upright

during manipulation.

(4) The Bottom 10" Flange with 5 ports with the

near zero length configuration will be used.

5 @ 2.75" conflats flanges equally spaced are

mounted on the 10" conflat Flange with one in the

center. The High powered puck Heater will be in the

center, and four windows for Lasers.

(5) The Top 10" Flange will be Marcy's hogged out

version with NEG hangers. It also has 5 2.75"

conflat ports. The Heater will be in the center, an

activation feedthrough for the NEGs, the Rotary

feedthrough for the Mask (see 8 below) and two

windows.

(6) The chamber Ion pump will be moved to the back

of the chamber. This position clears the center

area between the Gun HV chamber and the KSb chamber

facilitating the Helmholtz coil, if neccessary, for

Magnetized beams in the future. This positioning

requires a cut out in the Oven wall to allow the

roughing line connections for evacuation while also

affording access to the Right Angled Valve during

Bake outs.

(7) The RGA needs a Nipple Modification to place

the Ionizer into the chamber proper. It will be

mounted on the upper level at the back side port.

(8) The Mask will need an extension rod to

position it at the space ~0.5" - 1" below the Puck

face (once it is rotated downward on the

Manipulator), in the activation configuration. The

Rotary Feedthrough will be mounted with a small

bellows - 1.33" conflat flanged with guide threaded

rods used as aligners to move the Mask up against

the Puck for activations.

(9) An NF3 spigot should be added / mounted on the

Lower level for activating the GaAs wafer as a Standard. {a fall back for Beam operations if

making KSb cathodes are a problem}

Note: Matt's initial drawing conveys most of this

configuration with minor changes to the lay out of

devices on each Level.

I trust this help and allow us to work toward a

timely completion.

Phil Adderley