Need:

* **(4) viewers on Wien girder, all w/ chromox screens => Need 3 weeks**
* **(2) viewers on A1/A2 girder, one chromox + one YAG => Need now**

On hand

* **(new) 7 chromox + 1 yag screens on flags, ready in clean room**
* **(new) 8 cylinders + 10 corresponding springs**
* **(new) 16 or 20 limit switches => Marcy will give to Tony, and figure out if they work**

**Option #1** – Use “as is” => Phil wanted to put a viewer on cross, pump down, **verify stroke** and speed (no slam on cylinder, next test on a solenoid Tuesday => Joe will have UITF open Tue AM)

Tuesday Phil

* + Start with actuating an existing “good” viewer like we want to use UITF or CEBAF
  + Cylinder leakage issue???
    - Use **new** cylinder for additional tests
    - Don’t remove piston from cylinder, unnecessarily
  + Speed test???
    - At UITF on Tuesday morning
  + Stroke looks good

Finalize drawing (Danny/Shaun)

* Is air cylinder shaft glued or glued/threaded, i.e. **what temp is rated for??**
* Machine shorten rod
* Machine add thread
* Fabricate new piston stop

Give two to shop

Have springs

**Option #1b**

Danny/Shaun will look at this

Don’t modify the shaft, use longer support rods + new turn-buckle

**Option #2** – Option #1 + add additional air break if needed

Finish concept

Finalize drawing

Machine hex shaft to X diameter

Machine two piece cushion ring to that spot

**Option #3** – Use existing air cylinder

(Phil will say) How many are re-usable, what does it take?

How many are not re-usable, or long refurbishment

**Option #4** – (Shaun)

Purchase from a different vendor => long lead time, maybe for 4 Wien viewers

Maybe Parker, but rotatable vs. fixed, Danny will look up marcy/tony req

Needs to be **non-rotatable AND fail-safe**