

## Balancing the IRTF Telescope – Apr 2009

### 1. Setup

Stow Platform.  
Check if Ok to open Mirror Covers.  
Check if ok to go to -30 dec. and -3hr ha.  
Move telescope to Zenith.  
Open Mirror Covers. Turn on mirror support.

### 2. Dec Balance w/ Horizontal Tube.

MP to Zenith  
MV 0 -200 (South), take note of currents  
MV 0 +200 (North), take note of currents.  
Turn up balance:  
Move in the direction with the greater current value  
Move THF.1 to improve balance. If out of range, move THS.2.  
Repeat until balanced, or out of counter weights.

### 3. Dec Balance w/ Vertical Tube.

MP to 0 hrs -30 deg.  
MV 0 -200 (South), take note of currents.  
MV 0 +200 (North), take note of currents.  
Turn up balance:  
Move in the direction with the greater current value.  
Move TVF.3 TVF.4 together to improve balance. If out of ranges, use TVS.5 TVS.6 together  
Repeat until balanced or out of counter weights.

### 4. HA Balance w/ Horizontal Yoke.

MP to 0 hrs 0 deg.  
MV -200 0 (East), take note of currents.  
MV +200 0 (West), take note of currents.  
Turn up balance:  
Move in the direction with the greater current value.  
Move YHF.7 YHF.8 together to improve balance. If out of ranges, use YHF.9.  
Repeat until balanced or out of counter weights.

### 5. HA Balance w/ Vertical Yoke.

MP to -3 hrs 0 deg.  
MV -200 0 (East), take note of currents.  
MV +200 0 (West), take note of currents.  
Turn up balance:  
Move in the direction with the greater current value.  
Move YVS.10 YVS.11 together to improve balance.  
Repeat until balanced or out of counter weights.

### 6. Completion

The Telescope is now balanced.  
Move Telescope to Zenith.  
Set Telescope to Servo Mode STOP.  
Close mirror covers and turn off mirror support.  
Save counterweight configuration in CW.Mode Auto using IRTF naming convention.