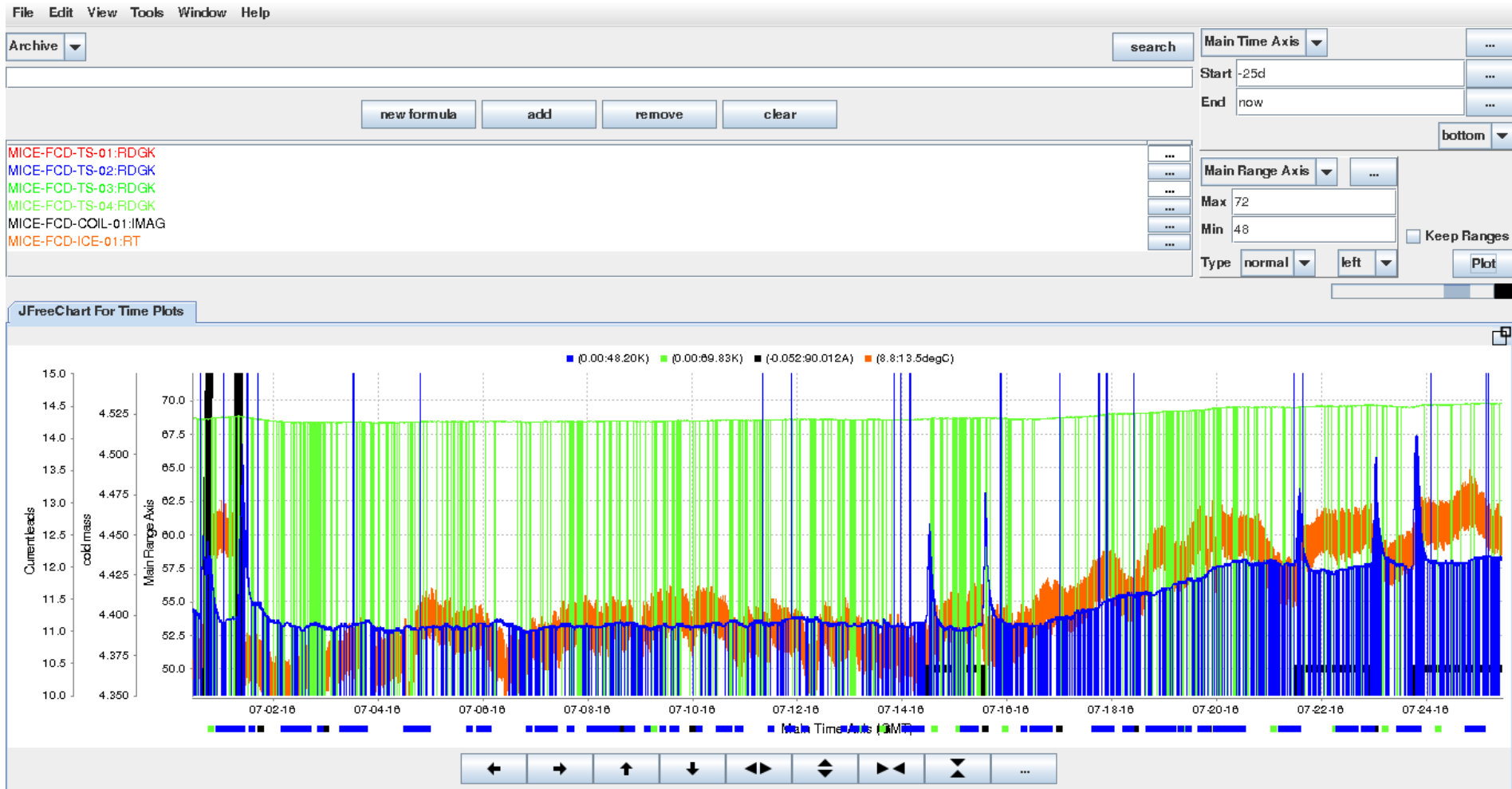


- **FCD thermal performance seems to be degrading**
 - ?? Vacuum ??
 - **May also be correlation with weather**
 - **But Hall temp. sensors show constant T**
 - **believable?**
- **One consequence is to limit ramp rate:**
 - **Ramping up or down injects heat**
 - **Must keep $T(\text{He bath}) < 4.51 \text{ K}$**
 - **or $P(\text{He}) > 1.3 \text{ bar}$ → pressure relief opens at 1.35 bar**
- **Currently ramp rates limited to ~ 7.5 mA/sec**
 - **~ 2 hours to 50 Amps or down to zero**

FC THERMAL 25 DAYS



Blue: He bath, Green: Upper rad. shield, Orange: current leads (external)