**Getting Time\_Manage Working Again:**

* Need to find Omar’s old settings.
* I’d like to transmit a time packet once every 1-2 minutes.

**RTC Initialization:**

* SPI\_TDR |= 0x00BB
* Spi\_master\_initialize:
* Master mode
* PCS(0)?
* 16 bits per transfer
* SPI FREQ: 4MHz
* POLARITY: 1
* PHASE: 0
* DLYBS: 0x45
* DLYBCT: 0x02
* DLYBCS: 0
* **I could desolder SPIMEM1 from the IT3 CDH board and solder on the RTC to start working or I could try to interface from the giant headers.**
* However none of the chip selects seem to be pinned out.
* P2\_38 corresponds to SPI0\_CS3

**NOTE: THE RTC IS CURRENTLY OPERATING ON CS1 BY ITSELF.**

**Fucking got it to work, #likeaboss.**

**TM transfers are a hell of a lot faster now.**

**TRYING TO MAKE RADIO COMMUNICATIONS EVEN FASTER:**

* SPI bus speed.
* Reduce delays in transceiver\_run( ) and see if stuff still works.
* If so, let’s reduce the timeout for transmitting stuff on the COMS SSM, GS.
* **Adding in an if-statement to OBC\_packet\_router:**
* If(!receiving\_tcf) so that the OPR doesn’t yield when it’s in the middle of receiving a TC transfer.
* Okay, so TC transfers are also faster now.
* Let’s try increasing the bus speed on the groundstation and the SSM. (Let’s raise it up to 2MHz).
* Still works.
* **Q:** Can I get rid of the huge delays that I have been consecutive SPI transfers?
* **So far so good, GS now has a TRANSCEIVER\_CYCLE of 100 ms.**
* Increasing SSM SPI speed to 2MHz.
* Still works.
* Decreased TRANSCEIVER\_CYCLE on the COMS SSM to 100ms.
* I’m going to transmit the most recently received telemetry packet every 1s regardless of whether or not it is new.
* Okay so sending and receiving between the groundstation and the satellite is a hell of a lot faster now.
* However, the OBC is actually taking a long time to get a new packet ready to send to the COMS SSM.
* **Let’s decrease the housekeeping loop timeout on the OBC to 5s.**
* **V FAST**
* I’m turning off the part where we transmit old packets (spamming radio a little too much).
* Increasing TRANSMIT\_TIMEOUT on the Groundstation to further reduce radio spamming
* Some of the SSMs are still returning 0 during housekeeping collection.
* **Receiving an ACK shouldn’t reset lastTransmit, really…**
* **Commenting out:**