

MSD Team P17453

Weekly Update

Week 13

4/20/17 - 4/27/17

#### Weekly Accomplishments:

- Testing
  - Performed test with no poppet valves, 1/8" cut poppets, and 1/32" cut poppets
  - Analyzed with the spectrogram Matlab function provided by Dr. Kolodziej
- Submitted final draft of poster for printing
  - Added pictures of poppets and spectrograms
  - Reduced number of risks in risk management
- Cut out new sheet of plexiglass for insert in 8020 frame.
- Ordered more hose length for Imagine RIT
- Confirmed receipt of refund for incorrect relief valve
- Added some costs to the BOM
- Completed mathematical model of actual system pressure curve

#### To do by next week:

- Insert plexiglass sheet into 8020 frame
- Set up the system in the machine shop by the actual compressor
- Pick up poster for Imagine RIT
- Divide up shift times for Imagine RIT
- Work on finalizing the technical paper
- Continue to update Edge website

MSD Team P17453

Meeting Notes

4/25/17

Meeting Accomplishments:

- Testing
  - Performed test with no poppet valves
- Obtained spectrogram Matlab function from Dr. Kolodziej
- Received feedback on poster
  - Only show important risks
  - Pictures of actual poppet valves
  - Include spectrogram of damaged vs good poppet valves if noticeable difference
- Participated in technical paper peer review
- Cut out new sheet of plexiglass for insert in 8020 frame.
- Decided to purchase some more hose length for Imagine RIT
- Confirmed receipt of refund for incorrect relief valve
- Emailed about getting total budget costs so far

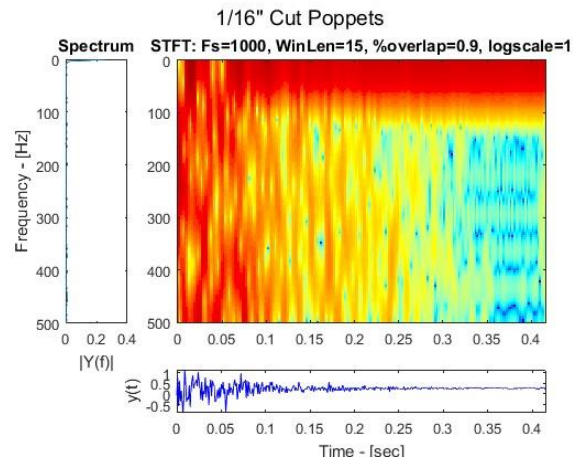
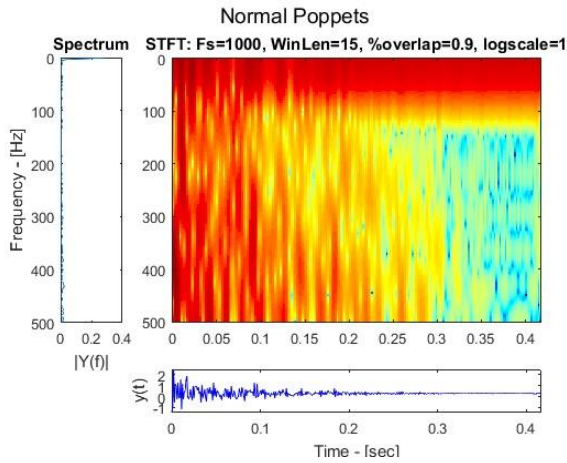
MSD Team P17453

Meeting Notes

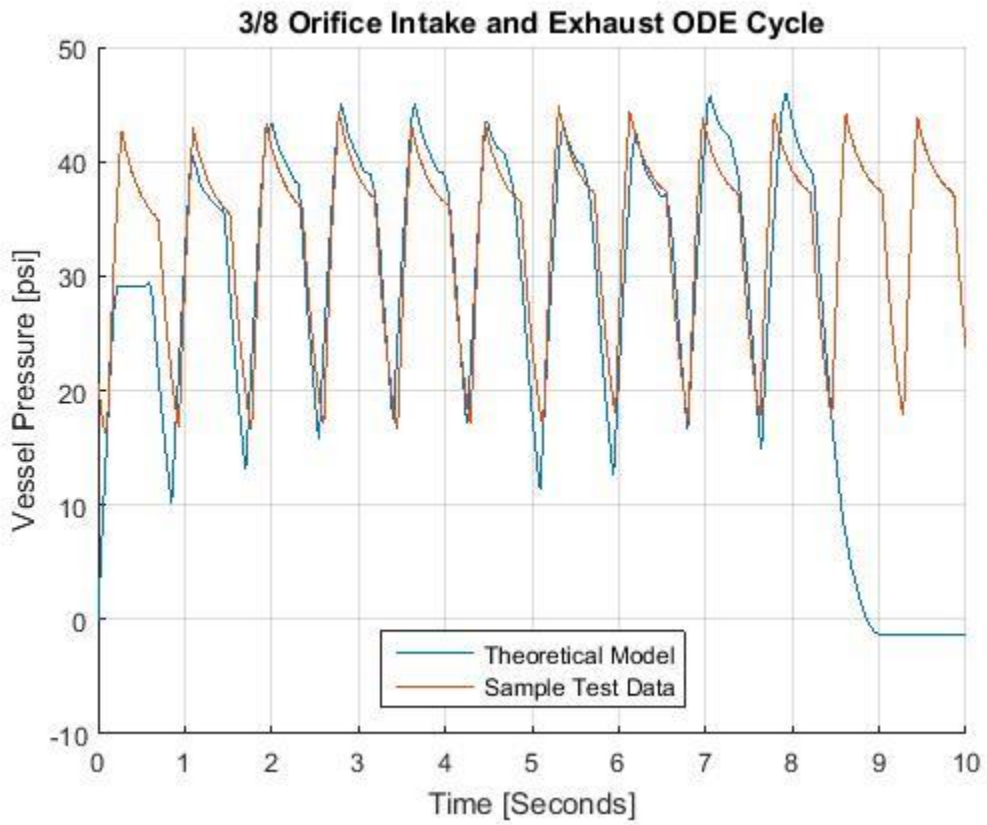
4/27/17

Meeting Accomplishments:

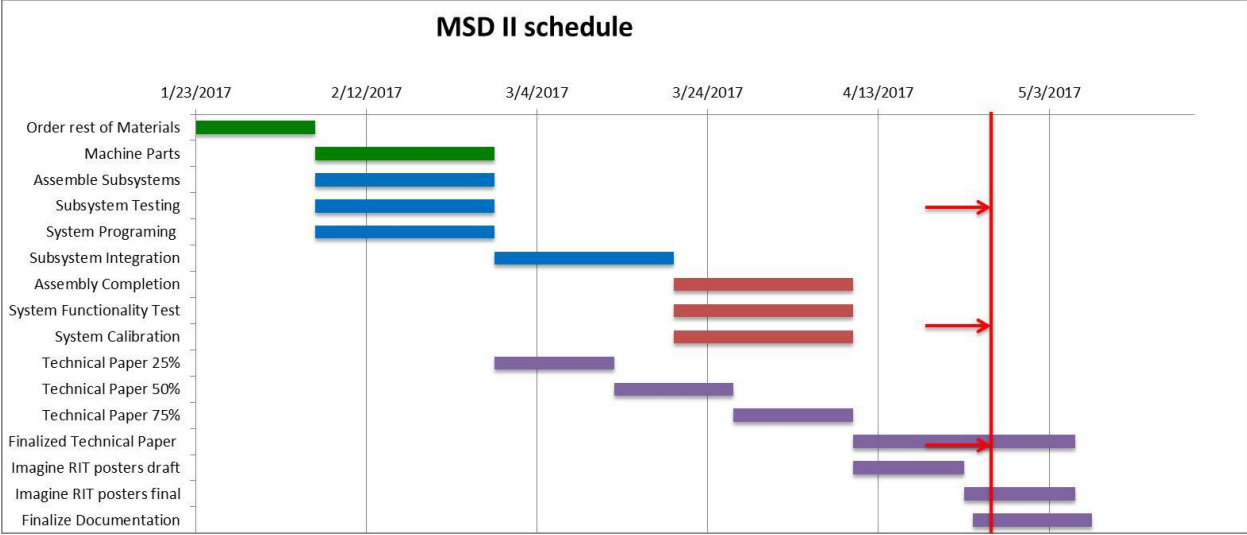
- Testing
  - Performed tests with 1/16" and 1/32" cut poppet valves
  - Analyzed with spectrogram function
  - Hard to tell specific differences off of one test but put two dissimilar tests on the poster in order to display the theory of what will be researched
- Submitted final draft of poster for printing
  - Added pictures of poppets and spectrograms
  - Reduced number of risks in risk management
- Completed mathematical model of actual system pressure curve
- Purchased some more hose length for Imagine RIT
- Updated Bill of Materials



Spectrogram Analysis: Different poppet valves, short term fast Fourier transforms



Mathematical Model: Complete finalized system.



Gantt Chart: Team progress through week 13.