**Meeting Minutes**

1/30/19

9:00am-10:37am

Team/Staff Meeting

**Members Present:**

Travis Byakeddy

Steve Sorden

Corey Marcum

Nathaniel Schaul

Dr. David Trevas

**Discussion:**

The team gathered at the library to go over their individual action items assigned from the previous staff meeting. The team meeting at the library is now proposed as a standing appointment in attempt to get all members contributing more and accounting for each other’s weekly progression. The meeting started with just the team members were the Worked as a group to understand the hand calculations. The worked to understand and model the moment forces on the frame provided by the thrust from the fan ducts. They also went over the Ansys and proposed meeting as a team so each member understands the software and can be fluent and aid Travis in the work to model the stresses on the frame. Steve presented his work on the materials list and is planning on working with Corey who is taking FEA to perform hand calculations to provide the client with the best possible list of potential useable materials.

**Moving Forward:**

The team created a list with initials by each for items to work on moving forward:

**3D Printing**

* Work on models/ scaling- N/T
* Printing –S/ Cline
* Asking Jim for 3D Plastic reel- N

**Hand Calcs.**

* Ask Jim where masses are i.e. motors/pilot/etc. to find C.O.M/ pipe thickness – Team
* Vector moment review- Team
* Find deflection/ deformation of frame-Team(future)
* Material beam list FEA- S/C

**Material List**

* Finalize list w/ .2 yield strength- S
* Cost/weight – S
* FEA- S/C
* Potential different pipe dia. & thickness variables

**Ansys**

* Double check beam FEA hand calcs.-T
* Figure out running simulations- T
* Import hand calc. values Jim’s frame – T

**Redesign Team Frame (future)**

* Based off Jim’s Frame failures redesign team frame
* Test frame in Ansys