2018-10-25 meeting

Type: **board meeting**

Meeting time: **19:00 – 20:00**

Objectives:

* Present the timeline for the phases 0 and A (3’)
* Present how Concurrent Engineering will be implemented (IDM training, iterations) (10’)
* Present the project advancements within each subsystem (5’ per SS -> 40’)
* Present each subsystem’s objectives and future work to be done (see above)

Information to give:

* They have to be autonomous
* Subsystem meetings shall be set in order to comply with the iteration deadlines (once every two weeks an iteration review is organized)

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Plan:

* Setup (5’)
* Subsystem advancements (~2’ per subsystem)
* Planning presentation for phases 0 and A (10’)
* IDM demo (5’)
* Components acquisition (Christmas gift! – 5’)

Number of people: **14**

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| --- | --- |
| Subsystem | Subsystem referent(s) |
| Structure | Cassagne |
| Thermal | Johan |
| ADCS | Paula |
| Payload | Javier / Pierre-Yves |
| Power | Aly |
| Mission Analysis | Niels |
| Systems engineering | All members |
| OBDH | Niels |
| Communications | Vishal / Clément |

Subsystem status (non-exhaustive):

**OBDH:** they listed what computers they can find. They need to choose at least one and acquire one OBC to develop code for Tolosat. Interfaces are an objective.

**COM:** UHF/VHF, S-band choice. The first step is to get the subsystem members some knowledge of the SS. Simulation and link budgets are an objective.

**GNSS-r:** finishing the GNSS-r assessment. GNSS-r report after holidays. Accelerometry MRD for deadline.

**Thermal:** they worked on SimScale simulations. The idea is to import a CAD model and make the thermal analysis. They have done calculations for the subsystem (each flux quantity for each face). For the next month, they work at Supaero and they want to develop their skills at Systema software (Thermica). They are working in bettering themselves at using it.

**Power:** they are developing a Java program to simulate the charge of the battery as a function of the power budget. They intend to use STK to simulate power generation. They want to make a complete analysis of their SS to train new members. They intend to make reverse engineering on the power board given by CSUT.

**Structure:** 6 to work on the structural design. They have defined the kind of structure they want to develop. Model: 2U Isis structure. Two options: long stack one, two short stacks. Reverse engineering on CAD models from industrials (ISIS notably) is under way. The objective is to get the CAD model of the SS elements.

**Iridium:** coached by Felix. Felix has explained some Iridium things to him. A documentation has been made by Felix for his school project.

**AOCS:** 6 people. The 2 newcomers know already a lot about AOCS. They are learning Pilia. They know how to use it but they need to be able to import AOCS actuators… (elements for the simulation).

**Mission Analysis:** the 5 people are all newcomers, they don’t know a lot about mission analysis. They are reading the documentation made by Niels and Nicolas. Some instructions have been given by Niels for future events, but right now they are learning everything from scratch.

Miscellaneous information given (non-exhaustive):

Overview of IDM-CIC, with a quick demonstration. Future acquisition of components, namely a UHF/VHF transceiver, a power board, an OBC (with some of the EyeSat on-board software), and the command and control software from EyeSat (to be confirmed).

Objectives of iterations; concurrent engineering setup (approximately).