

The subprojects HCAM, RCAM, FDB and GHIS from the Igluna project M. Berg¹, B. de Winter², B. Foing^{3,4,5}, M. Heemskerk⁴. ¹VU Amsterdam (maarten.berg@live.nl), ²VU Amsterdam (dewinterbram@hotmail.com), ³ESA ESTEC, ⁴VU Amsterdam, ⁵ILEWG

Introduction:

The Subprojects HCAM, RCAM, FDB and GHIS are part of the Igluna Project. This project simulates a habitat on the south pole of the Moon [1],[2]. The simulation itself takes place in Zermatt, Switzerland.

The HCAM and RCAM subprojects provide images & videos which will be stored as data in the FDB (field database). The HCAM and RCAM subprojects both operate in the Igluna project at Zermatt and the RCAM subproject also operates in the HI-SEAS project at Hawaii. With the use of images and videos obtained in the HI-SEAS project we will give geological advice and study the area at which the HI-SEAS project takes place.

HCAM subproject:

Handheld cameras used for documentation during the tests we run.



Figure 1. Testing instruments (telescopes, drones, etc.) on a field expedition to the Eiffel. [3]

When recording various tests we can later look back to these and use them for scientific purposes, see figure 1. Also the tests can be used to support the public outreach of the Igluna Project.

Our main goal is to get people aware of the project using public outreach such as social media and to use the records for scientific purposes. But we also try to involve make children enthusiastic about space, see figure 2.



Figure 2. Making kids enthusiastic about space on the ESA ESTEC open day. [4]

RCAM subproject:

Remotely operated cameras on the lander and inside the lab. The cameras are remotely operated from the Netherlands or out of the habitat (option). The recordings of these cameras have the same purpose as the handheld cameras (HCAM). But these cameras are operated different and are on different locations, the RCAM cameras are for instance all in Switzerland and the HCAM cameras are all (mostly of the time) in the Netherlands (ESTEC, Noordwijk).

FDB subproject:

Field Data Base used for storing all the data gathered in the field. The data base will contain all sorts of data dividing various subgroups of data; Microscopic images, Sensor data, Recordings of HCAM & RCAM cameras. The platform of the data base is still in discussion, will it be Google Drive, Multiple USB-sticks or something like Microsoft Excel.

GHIS subproject:

Geological study of the HiSeas project [3]. Before the Hi-Seas in February, VU students will prepare the astronauts with delivering a geology studies. We will look at the area around the base and write down a report on what they can expect in the area, our recommendations for fieldtrips (some geological features for instance), and some back ground knowledge for understanding processes that happen in this area.

References:

- [1] M. Heemskerk (2019) LPS50, #2416
- [2] B. de Winter (2019) LPS50, #1588
- [3] B. Foing, photo taken in the Eiffel (Germany), 19 October 2018.
- [4] B. Foing, photo taken at ESA ESTEC during the open day, 7 October 2018.

Additional Information: If you have any questions or need additional information about the subprojects regarding this abstract please contact me at (maarten.berg@live.nl).