**Lidar Report / Processing Steps:**

4 May – draft report to Todd

13 May – todd returns draft

20 May – final report due to Todd.

**Lidar Wiki:**

http://esdynamics.geowissenschaften.uni-tuebingen.de/groups/esdlidarwiki/

**Mapping Course Data processing required.**

**BASIC MINIMUM STEPS:**

1. Align all related images.
2. Put all scan information into spreadsheet.
3. Drape photogragraphs over aligned images (when possible)
4. Create a mesh for each merged/aligned scan.
5. Conduct virtual scans (if needed) to fill data holes.
6. Calculate volume differences between scans (when applicable), eg. erosion estimate.
7. For each set of aligned scans. Use one GPS measurement to georeferences the scan.
8. Correct/update document “Introduction to JRC Reconstructor.doc”. Return edited version for posting on wiki to Faisal.

**ADDITIONAL ANALYSES:**

1. Difference between scans with first /last arrival test.
2. Can you extract slope information from the scan. E.g. average slope of the outcrop, slope over ~1 m window, 10 m.
3. (manually?) Are identify different fracture spacings, orientations/sets for each scan.

**WRITTEN REPORT STRUCTURE:**

Figures from JRC should be ‘professional’ looking in terms of what you would expect to see in a scientific publication. Aim for high resolution tiff or jpg output.

**Write the report in Word.**

1. Summary / statement of findings (1 paragraph).
2. Introduction:
   1. 1 paragraph states the obsjectives of the exercise, the problem addressed, its significance.
   2. 1 paragraph – background on previous related work (find some references)
   3. 1 paragraph – summary of what is presented in this study and how your approach compliments previous work.
   4. Need Fig. 1 to be a basement of Elba showing scan locations. Load your GPS cords into a KMZ file and plot on google earth.
   5. Include appendix table 1 which would be the information in the scan log excel sheet.
3. Methods: 1-2 paragraphs. Summary of data processing steps completed.
4. Results (Observations only – no interpretations):
   1. Subsection for each scan area. Preferably present figures for each of the steps above. In each figure caption – give the directory / path where the files are stored. For each scan have a google maps enlargement of the area showing the scan locations.
5. Discussion / Summary.
   1. have subsections (1-4 paragraphs) for each fo the analyses points mentioned (e.g. Erosion Rates Estimates, or vegetation effects on pulse.)
   2. Also have section on problems encountered, recommendations for next time.