LIGO E-Lab 1
Draft
August, 2006

Phase 1

1. Go through the short tutorial on the data analysis tool.
2. Log on to the data analysis tool. Do some trial-and-error experimentation to get a feel for how the tool works.
3. Now use the tool to make a plot completely of your choosing. When the plot comes up, spend some time scrutinizing it carefully. Note the different things you see on the plot.
4. Make several more plots. Practice saving them as JPEG's.
5. Now pick your most interesting plot and attach it to an entry in the discussion room. Write some comments in your entry that summarize what you think are the important features of the plot.

Phase 2

6. Tell your colleagues about your plot; each participant will do this in turn.
7. After each participant describes their plot, share your thoughts with several participants about the plots that they have made. You may do this verbally or by responding to entries in the discussion room or both. What do you see in these plots that strikes you? Do you notice similarities between the features on your plot and those on other plots, or significant differences?
8. Reflect on the input that you received about your plot during the discussion time. Form a question about your plot that involves what you think is its most compelling feature – a feature that you would like to investigate more vigorously. This question now becomes the focus of your E-Lab. Post this question to the discussion room. Respond to at least one of the "step 8" postings made by a colleague.

Phase 3

9. Now you will make additional plots to test your ideas related to your step 8 question. Having picked a single feature to explore on your plot, make more plots that could help you test any ideas you have about what might

cause the feature. Think carefully and try to collect evidence that makes a strong and clear argument.

10. Now do one more round of discussion in which you post your findings and respond to the findings of others. Probe the stories that other participants share about the features on their plots – do their stories hold up? Likewise, prepare to have your own story probed.
11. Finally, write a final paragraph that sums up your learning from this E-Lab. Describe what you have concluded about your plot and discuss the evidence and reasoning that supports your conclusion. Discuss any further research that you could do that might be of value in relation to the interpretation of your plot.