1. Read: “NASA Space-to-Space Communications System” <http://www.nasa.gov/pdf/384149main_SSCS_case_study.pdf>

For this NASA case study, prepare to discuss the last step in DMAIC, Control (do not turn this in):

Consider implementing a solution to a root cause (you may reuse problem identification, measures, and analysis from HW10&12).

* Identify a solution – Identify possible design-of-experiments approaches
* Define a control plan for implementing and monitoring the improvement. Identify control mechanisms and/or measures that would be necessary for successfully implementing the improvement and monitoring effectiveness
* Define the required or expected progress of specific measures that will be used to determine success and control
* Identify any additional organizational improvements to ensure success

2. For your selected case study, submit a draft of your “Improve” section (see Syllabus).

Improve the Problem

* + Conduct a trade study on possible solutions and select a preferred solution which solves the problem or improves the situation
  + Show, based on the analysis, modeling and data, why the solution is feasible, effective, and preferred
  + Develop a “design of experiments” implementation for optimization of the implementation
  + Identify challenges and compensating strategies for implementing the improvements
  + Define implementation plans, including tasks, timelines, budget, resources, and stakeholders, to ensure feasibility, effectiveness, and optimization of the improvement plans