Control System Optimization Idea List

• **System Architecture**
  – Eliminate redundant fiber plant
    - $2.5M
    - Reduced capacity for future expansion
  – Eliminate redundant router(s)
    - $74K
    - normal traffic and 120 Hz on one cable. No failover capability.
  – Service more sectors with a single router
    - $700K (1 per 12 IOC instead of 8)
    - Throughput, reliability?
  – Reduce IOC count
    - $5M (1500 reduced to 1000)
    - Reliability of overloaded IOC?
Control System Optimization Idea List

• **Software**
  
  – Delay application development for running code
    474 PY $\Rightarrow$ 335 PY Lack of availability of some functionality at start-up time.
  
  – Standardize basic platform/reduce support
    ? Limits control room/desk-top options
  
  – Utilize more SBIR developments for real applications
  
  – $1M?$ Quality control, maintenance, development time
Controls Software Cost Distribution by Subsystem & Development Phase

[Bar chart showing software cost distribution by subsystem and development phase. The chart indicates the number of person-years spent on various software development tasks, distinguished between later and early stages.]
Controls Software Cost Distribution by Category

![Bar Chart](chart.png)