Building a Dynamic SCADA Training Program / Lessons Learned

- Until recently training demand has been pretty much steady state
- Unnecessary to spend much time on basics as most replacements came from within the organization
- Just In Time training for enhancements to SCADA systems
- SCADA System Engineer responsibilities not considered as Operator Qualification managed duties
Building a Dynamic SCADA Training Program / Lessons Learned

- Entirely new training requirements as new hires arrive with excellent skills, but little or no ‘oil business’ background
- Develop curriculum appropriate for new hires
  - Much existing material is too advanced so new entry level material must be developed
- Everything is new – Where to start
- New concepts require developing a sense of urgency around all that we do
- Employ training that dovetails with our corporate direction of a Meritocracy
- Lay a foundation that will build an understanding that Teamwork is a viable tool in developing a Meritocracy
Building a Dynamic SCADA Training Program / Lessons Learned

- Training must be conducted in concert with day to day work activity
  - Offers many unique hands on training opportunities
- Reserve two days per week for classroom type training
  - Begin introduction of basics, what is a process variable, transmitter, how does a SCADA communication system work, etc
- Received management permission for field trips
  - Moss Point, MS, Houma LA, Cherry Point Refinery
- Closely monitor individual progress to ensure all are on track
  - Use peer assistance to help as needed
- Yes, existing staff notice special treatment
  - Planning underway to ensure existing staff have an opportunity to visit the field sites and grow their knowledge of our business
Building a Dynamic SCADA Training Program / Lessons Learned

- Trainees work through the presented material with review at appropriate intervals
  - When Supervisor feels they are ready they move to the On-Call list paired with an experienced peer until ready to solo
- Operational readiness is proven as trainees work through day to day real life issues
- As changes to the existing SCADA system warrant training is prepared for existing employees, changes are implemented when employees have been trained
- Planned / Unplanned transfers to our Backup Control Center provide the greatest opportunity to see what is and is not working
Building a Dynamic SCADA Training Program
/ Lessons Learned

- Early on the SCADA system was a single hardware platform
  - Hardware and Software provided by a single vendor
- SCADA communication backbone was a dedicated 4 wire land line
- Presently have multiple SCADA system providers and a hybrid, satellite-landline-cellular communication backbone
- Dozens of servers for local and Enterprise application support
- Changes in the very steady state staff began to happen
- Trends in governmental regulations are pointing toward the necessity for a more structured and documented training program
Fantastic opportunities
- With new arrivals come new ideas, successful programs will capture these

Speaking of “New Hires” - I believe our world is REALLY changing.

*And in a workforce where the two demographics are often at odds for power, not seeing eye to eye is a problem. According to the Harvard Business Review, in four years Millennials—the people born between 1977 and 1997—will account for nearly half of all employees worldwide.* (Forbes Meghan Casserly)

Much, Much, more to come
- Company wide training centers
- Houma Operations Learning Center partnering with Fletcher Technical Community College