San Francisco International Airport Aviation Museum

San Francisco International Airport recently completed a $1 billion addition of the new international terminal. During the latter part of 2000, while construction was being completed on the terminal, an 11,000 square foot Aviation Museum located within the new terminal faced an ambitious completion date that coincided with the planned opening dedication party for the international terminal.

With 12 weeks worth of work still to do, and only 6 weeks left remaining in the project schedule, the general contractor and the project manager realized that their subcontractor’s work was progressing more slowly than expected. Among other problems, system integration issues with the fire/life-safety systems were threatening their eligibility for the temporary occupancy permit necessary for the museum’s opening.

The project manager was familiar with building commissioning from other projects he had worked on and understood the dramatic benefits of methodical and comprehensive functional testing of each system to verify and document proper performance. The project manager states “If you don’t take a proactive approach (to identify and fix problems early) you will end up spending more money on callbacks and have an unhappy owners and facility managers. This is why we commission our projects.” LCI, the general contractor on the project, promptly contracted with Mazzetti and Associates of San Francisco, a consulting engineering firm that provides commissioning services, to assist them in getting the job closed out.

Commissioning was performed on the HVAC, electrical, lighting controls, sprinkler plumbing, and fire/life-safety systems. To manage any potential conflicts of interest, since the commissioning provider was contracted to the general contractor, all the commissioning findings were simultaneously reported to design engineering firm, the airport project’s fire marshal representative, and the airport’s owner representative.

Since both the museum’s fire/life-safety and HVAC air-handlers were connected to the larger airport terminal equipment, special attention was paid to equipment integration issues. Commissioning identified and corrected some minor problems with the air-handlers and also involved methodically testing and debugging the fire/life-safety system. Most significantly, commissioning resulted in on-time substantial completion, proper functioning of the fire/life-safety system (as verified by the fire marshal tests), and the issuance of a temporary occupancy permit in time for the terminal’s grand opening celebration.