

# Talbot Laboratory #0013

**Building Gross Sq.Ft.:** 79,061

**Retrocommissioning** Nov 2014—Jan 2015

**Team Visit Period:**

**Principal Building Use:** Classroom and Laboratory



## Building & Occupant Overview

Talbot Laboratory was originally built in 1929 and is approximately 79,061 square feet. It holds several classrooms and small lecture halls, as well as extensive structural mechanics and fluid mechanics laboratory equipment. It also includes offices for most of the Aerospace faculty as well as the Computer Lab (Aero Lab). The building went through a series of remodels in the late 80s. There are 8 air handling units, a mix of constant volume system and pneumatic VAV system.

The facility's total metered energy during FY14 was 16,730 MMBTU.

## Retrocommissioning Specifics & Results

Prior to the Retro-commissioning visit, there was a DDC controls upgrade to the 4 chilled water cooled air handling units (AHU) and the heat exchangers. This allowed more opportunity to take advantage of the technology and increased the energy savings opportunities. All AHUs were operating 24/7 prior to the controls upgrade, but schedules have been implemented through DDC and through time clocks were DDC was not available. Occupancy sensors were being implemented on fan coil units and pneumatically controlled VAV boxes (using line voltage EP switches) in classrooms. The inlet vanes were removed from 2 AHUs and VFDs were added to the VAV system AHUs. The control valves and steam traps for the perimeter radiation were inspected for proper operation and the failed equipment was identified and fixed. The exposed steam risers were insulated.



## Project Highlights

- Installed occupancy sensors for lights, pneumatic VAVs, and 3 AHU operations
- Calibrated all sensors and transducers
- Visited each VAV and thermostat and calibrated accordingly
- Modified existing scheduling to better match building usage
- VFDs were installed in AHUs
- The control valves and steam trap for perimeter radiation has been fixed/replaced
- Insulation added to steam lines
- Removed inlet vanes from 2 large AHUs.
- Reduced airflow of a constant volume AHU.