Abstract
Airfield construction projects have unique construction challenges due to their close proximity to aircraft operations. Emphasis on communication, safety areas, airspace protection zones, and foreign object damage is stressed. Incursions and incidents are of significant concern to the FAA, airport operator, and contractor. This paper discusses how time-lapse photography can be utilized to develop training and educational material pertaining to the construction practices and on-site awareness of airfields. This is illustrated through two case studies documenting runway reconstruction at two GA airports in Indiana. The paper is supplemented with several images and links to YouTube videos to illustrate these concepts. With some modifications and support, the proposed techniques could be applied to larger airports.

Pre-Construction Engagement
Prior to the start of construction at VPZ, several meetings with the designer, contractor, and owner took place to ensure the project ran smoothly. In these meetings, specific construction operations, runway and taxiway closures, and safety measures were discussed. This time was also used to confirm camera locations and contractor interaction throughout the project.

LAF Construction Plans

VPZ Construction Operations (Camera 1)
- (a) April 29, 11:00 – Original pavement
- (b) May 6, 11:10 – Milling runway threshold
- (c) May 13, 09:15 – Soil treatment placed
- (d) May 13, 11:30 – Soil mixed
- (e) May 28, 15:30 – Asphalt placement
- (f) July 1, 14:00 – Pavement markings placed

VPZ Construction Operations (Camera 2)
- (a) April 29, 11:00 – Original pavement
- (b) May 6, 10:35 – Milling nears completion
- (c) May 13, 07:00 – Soil treatment placed
- (d) May 13, 07:45 – Soil mixed
- (e) May 25, 16:30 – Asphalt placement started
- (f) June 30, 11:00 – Pavement markings placed

Construction Operations Studied

Camera 1 Video Playlist: [http://tiny.cc/VPZcam1](http://tiny.cc/VPZcam1)
Camera 2 Video Playlist: [http://tiny.cc/VPZcam2](http://tiny.cc/VPZcam2)

Activities in Video Playlist | Date Range | Completion Time
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Runway Milling | 5/2/16 – 5/14/16 | 10 days (30 seconds)
Soil Treatment | 5/12/16 – 5/25/16 | 4 days (30 seconds)
Asphalt Layers | 5/2/16 – 6/29/16 | 14 days (45 seconds)
Pavement Markings | 6/28/16 – 7/1/16 | 5 days (13 seconds)