



ELS continuously evolves its airport maintenance activities to progress our programs ahead of industry standards. One example of our value added services has been achieved through Reliability Centered Maintenance (RCM) techniques. This approach leans heavily on predictive maintenance inspections rather than reactive “break-fix” and is used in conjunction with traditional preventive maintenance scheduling. This process has been in place at our long running Baggage Handling System (BHS) programs and has been instrumental in keeping BHS availability consistently greater than 95%.

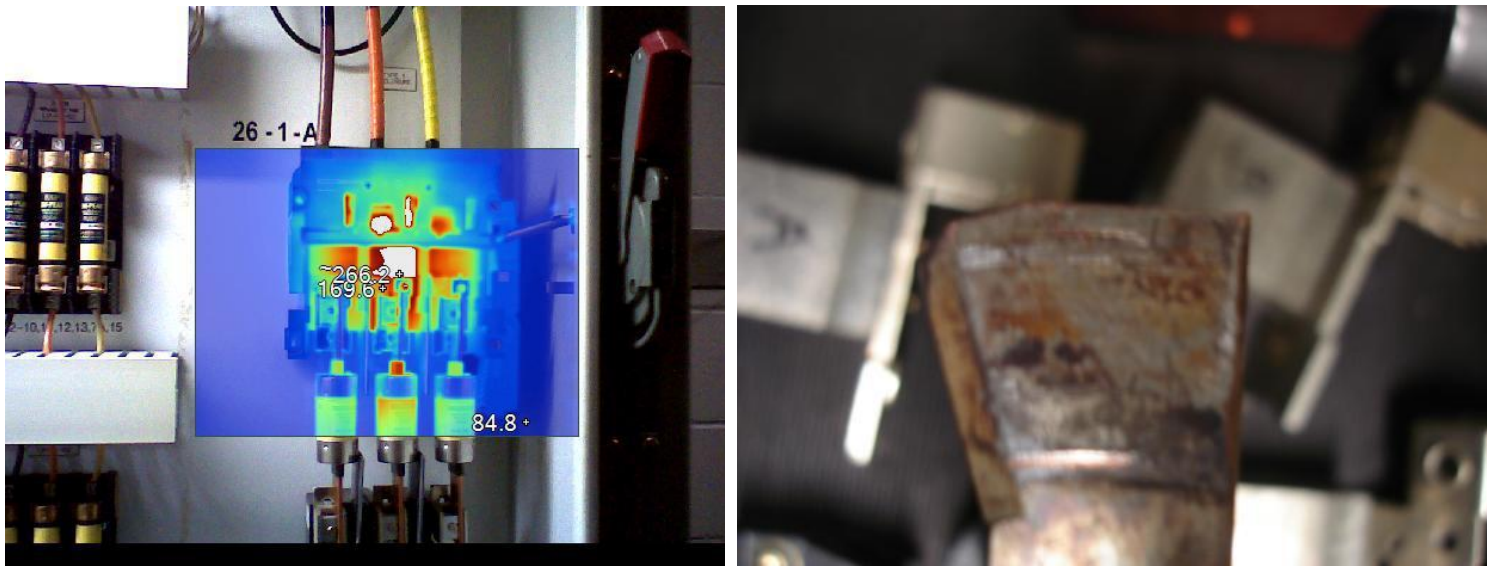
One of the many tools that have been introduced as a part of the RCM program is Infrared (IR) Camera technology. By rendering Infrared energy (heat) as visual light it converts to an easily viewed image that is displayed on the camera’s screen. This allows the technician to quickly identify the early signs of problem such as; a component demonstrating increased electrical resistance by the color variations in the camera’s display compared to what is seen against a similar part. Equally it can also assist in quickly trouble shooting the location of a failed item which will show as a “cold” image when compared to other components.

## SPOTLIGHT:

- **Electrical breakdowns within Electrical Panels are very hard to predict without the right experience, techniques and tools.**
- **The use of a thermal imaging camera can reveal problems before they become an expensive disruption to airline and airport operations.**

### Benefits include:

- ✓ **Scheduled down time**
- ✓ **Parts are ordered in advance of repair**
- ✓ **Avoids catastrophic failures**
- ✓ **Increased component life**
- ✓ **Efficient trouble shooting**
- ✓ **Reporting software integration**
- ✓ **Greater equipment availability**
- ✓ **Lower total cost**



For example the photograph above left demonstrates a main disconnect switch which when viewed with the IR camera demonstrated a significant rise in temperature compared to those positioned either side. External inspection did not provide any indication of a problem, however when the switch was removed it had evidence of heat distress and carbon build up on its surfaces (right). Although it had not resulted in a failure at that time, a work order was raised, parts were removed from inventory and the repair was scheduled to be performed to cause the least disruption to BHS operations. Upon the replacement, the new switch was checked with the IR camera which confirmed that the issue had been rectified.

**How does this IR system work?** When establishing a predictive inspection plan using an IR camera, shots are taken of each set of electrical components which are then filed in their sequence order using a pre-established inspection route. Initial images are used to create the components heat signature base line against which future images will be compared. The camera software will also help distinguish between real problems and false alarms.

ELS continue to add value to its Planned Maintenance Programs that support our customer's efficiencies and their operational competitiveness. To learn more about how ELS can help your operations, contact us today.