

*'Feel*  
*your Airport'*

*Primary Cable is the Backbone*

# *FOD by GRP*

*AGL FOD prevention*

# System presentation

FODs are a major concern in the vicinity of runways and on taxiway. From aircrafts to work areas leftovers, debris originate from various sources and can be found almost anywhere on the airfield.

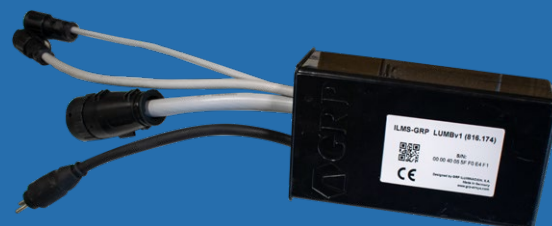
AGL, due to its stressful use, can contribute to the spread of FODs, that will by definition end up on runways and taxiways.



Using appropriate sensors, GRP has develop a solution to monitor airfield lighting equipment and prevent debris to appear before or as they are set loose.

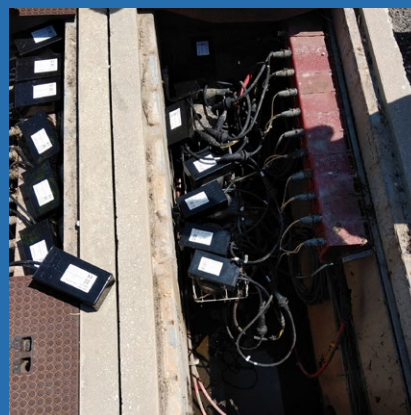
Relevant information is taken from the field and send back to the airport monitoring system using GRP field communication technology.

**Bolts, inset lights, deep cans or signs can be monitored in real time, contributing to FOD prevention.**



Our sensor management unit is always one step away from the target.

Either located inside a deep base or in an AGL pit, it will provide power supply and communication capability to any sensor located on a runway or taxiway.



# Loose bolt detection

Bolts are key to inset light installation and **monitoring their tightening torque** is paramount to avoid potential FOD to appear. **Assessing bolts** is part of airport maintenance procedures but due to runway access restriction this activity can be challenging. Using proper sensors inside the light fixture, GRP is able to monitor and provide relevant information, **detecting loose bolts** before they become FODs.



# Collapsing signs detection



Signs are one of the biggest equipment near the runway. Signs may collapse or be damaged due to jet blast, collisions with vehicles or extreme winds.

Thanks to sensors accurately installed in the sign's structure and using its field communication technology, **GRP can provide real time information about the signs integrity** and trigger alarms in case of damage and potential FOD near the runway.

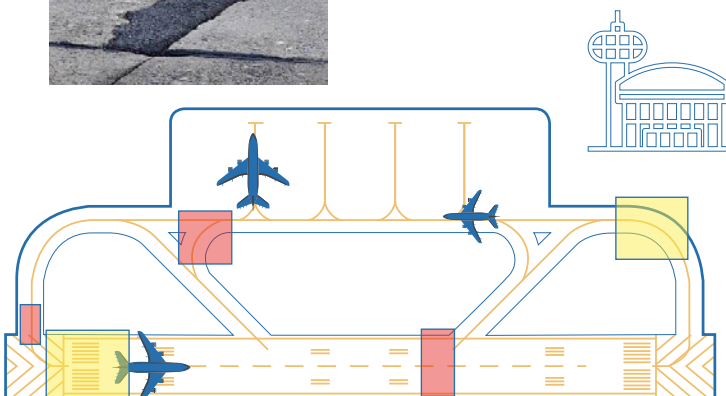
# Deep cans monitoring

Deep bases are subject to high stress due to impacts, shear stress or ground movement. **Damage could lead to inset lights being released from their base or debris to be spread on the pavement.**

Visual inspection will unlikely detect faults before parts are set loose, whereas proper sensors installed inside the bases can report structure status and monitor wear off in order to **anticipate damage and potential debris threat.**



# Pavement stress monitoring



Pavement distress can lead to FODs appearing on the runway and taxiways.

Spreading stress sensors at designated areas can provide reliable information that will allow maintenance teams to **monitor pavement status** and anticipate pavement refurbishment.

GRPsolution will allow airport to record and analyse pavement stress during operation **enhance and optimise runway maintenance work** planning.



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