

**TARSIER®**  
AUTOMATIC RUNWAY  
FOD DETECTION SYSTEM



Moog Inc., a 2.5 billion dollar corporation with over 65 years of experience in aerospace and industry, is pleased to introduce the Tarsier® Automatic Runway FOD Detection System. The capabilities of the Moog Aircraft Group give us a position with every major aircraft platform, producer, and operator in the industry – commercial and military. Tarsier leverages our legacy of innovation to provide a preeminent, ground based, FOD detection system that prevents damage to aircraft and enhances reliability and safety.

Other emerging capabilities are: cold spray for economical repair of corroded and damaged parts; additive manufacturing for creation of parts with complex geometries not possible through traditional methods; and application of block chain technology for provenance and traceability of additive manufactured parts. Additionally, our long-standing integrated logistics services provide highly responsive, customer-focused support to commercial and military operations worldwide.

With Tarsier, by Moog, you are guaranteed proven and capable technology, grounded in a long history of aerospace success.





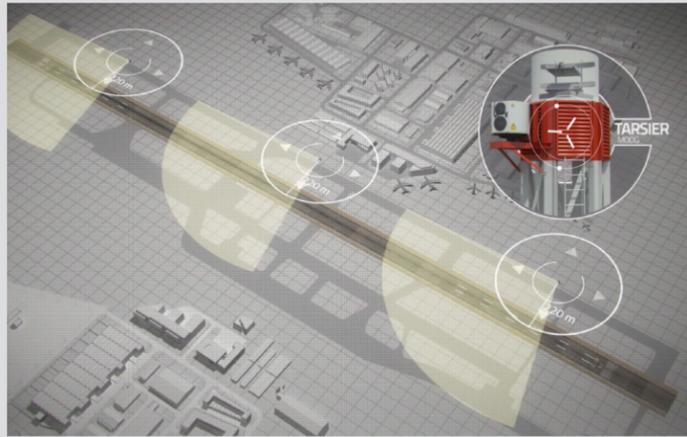
## WHAT IS FOD?

Over 66% of airport emergencies are related to Foreign Object Debris (FOD). This is any substance that does not belong on or around the runway. From litter to wildlife to aircraft parts, a debris detection system scans for FOD and alerts airport operators of potentially dangerous objects. Airport FOD radars ensure proper training, inspection and maintenance to minimize damage to airlines, equipment and personnel.

## TARSIER: NEXT LEVEL AIRPORT RUNWAY SURVEILLANCE

While airports relying on human runway inspection can only guarantee safety for 1% of their flights, Tarsier-equipped airports provide 100% inspection of the runway for all flights—setting a new safety standard.

Tarsier's advanced, all-weather technology radar system guarantees runway inspection even in inclement and harsh weather conditions. Whether operating Tarsier in high temperatures, sandstorms, or at an airfield that encounters frequent fog, Tarsier is the only runway surface management system that can operate and detect foreign object debris in zero visibility conditions.



## WHY CHOOSE TARSIER?

Today, Tarsier has more than 100,000 hours of operation at several major international airports and has set the standard for FOD detection systems.

- Tarsier is the most precise, reliable, and lowest cost FOD detection system in the world.
- There are nearly 2,880 Tarsier inspections per day compared to 4 human inspections per day.
- No FOD damage has ever been reported by airports using the Tarsier system.
- Tarsier operates in rain, fog, storms and zero-visibility conditions to ensure runways are safe, efficient and fully operational every day of the year.
- Tarsier is the only FOD detection system to meet all global specifications for safety.
- We offer installation, maintenance and repair of Tarsier equipment, apparatus, and applicable software included in the sale of the Tarsier product.
- We offer advisory and consultancy services related to Tarsier and the risks and hazards posed to aircraft by FOD.



## THE WORLD'S MOST RELIABLE FOD DETECTION SYSTEM

Tarsier's performance is ranked best in class against all other fixed runway surveillance in the Federal Aviation Administration's (FAA) four tested detection systems. Because of this, the FAA has selected Tarsier to set the standard for radar-based FOD detection systems. The Tarsier standard is 100% detection out to 3,168 feet, making it much more sensitive than the human eye.

Tarsier's intuitive design allows for the runway to remain open and operational during service, support and installation—making a safe and disruption-free experience for passengers:

- Advanced digital signal processing accurately identifies and confirms debris eliminating false alarms.
- The system is able to detect metal, plastic, rubber, glass and organic matter.
- Status information is relayed to airport operators through a single intuitive graphical display.
- Live video feeds from a powerful MIL-SPEC day and night camera systems are automatically cued to allow object verification before personnel are dispatched to remove debris (a high-resolution night camera combined with a near-infrared illuminator exceeds any competing night vision system).
- An event log records data for historical analysis and continued safety.

## INCREASE RUNWAY SAFETY WITH MILLIMETER WAVE RADAR

When it comes to a debris monitoring system, Tarsier uses advanced technology millimeter wave radar. This special radar combined with Tarsier's patented processes detects FOD, birds and wildlife with a high level of sensitivity.

Tarsier's specific millimeter wave radar/software combination is also capable of continuously monitoring pavement and infrastructure. Tarsier can determine if there is a pavement crack or change in surface height, or even the movement of an in-pavement light fixture—alerting airport operations before it becomes a hazard.



# TODAY'S LEADER IN FOREIGN OBJECT DETECTION

MEETS THE STANDARDS OF:



USED BY:



## BENEFITS AND APPLICATIONS



Operates in rain, fog, storms and zero-visibility conditions



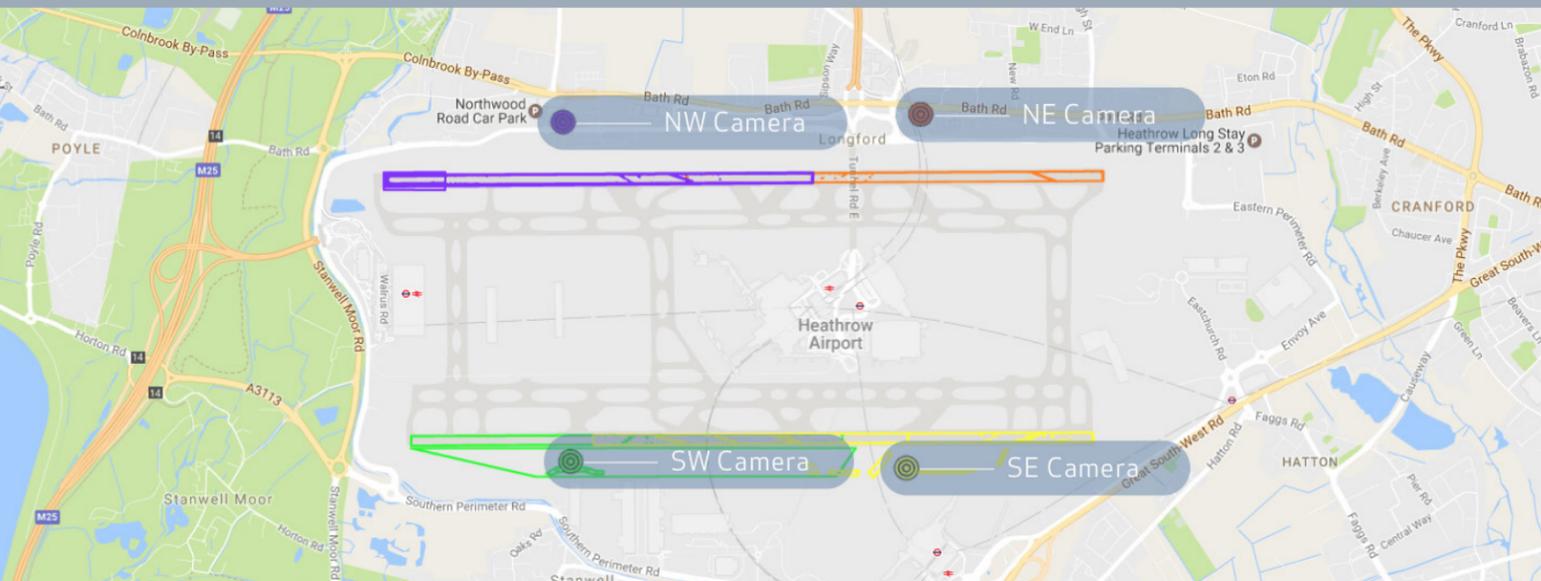
Live video feeds allow object verification



Advanced digital signal processing accurately identifies debris



Records data for historical analysis



## THE HEATHROW JOURNEY

London Heathrow is one of the busiest and most critical international airport hubs in the world. Predictable and safe airflow is vital to ensuring 70 million passengers make connections. FOD events can lead to aircraft engine loss or tire failure on takeoff - dramatically impacting airflow for hours. Heathrow eliminated their FOD with the 2007 installation of the Tarsier system.

Since 2007, Heathrow's airflow has not been impacted by any unexpected FOD related emergencies. Tarsier has played a critical role in Heathrow's growth and support of its high capacity airflow by providing a safe and predictable landing surface.



## CONTACT US



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