



## Airport Ground Safety Technology has landed in the Middle East

By Raymond Sport

Synthetic turf has been around for decades to provide maintenance, environmental and durability alternatives to natural grass. As the technology has improved, the number of applications for synthetic turf has also increased.

The Latest use for turf has been developed by American aviation surface technology experts AvTurf. They have developed and patented an artificial system that solves many of the challenges of airport managers. The AvTurf system can replace the natural turf groundcover at an airport to control erosion, significantly reduce the debris-causing effects of jet blast, deter birds and animals, and stabilize runway/taxi shoulders and infield islands. It also enhances visibility to pilots on approach, reduces maintenance needs in safety areas, and provides stable areas for emergency response vehicles to drive over the turf and directly to an accident.

AvTurf's President of Sales and Operations Daniel McSwain comments, "We are very pleased to have entered into this exclusive strategic alliance with ACT Global Sports. They

are the leading artificial grass manufacturer Worldwide with an excellent reputation for integrity and technical expertise. ACT Global is also known to have the highest quality installation standards in the industry. When installing AvTurf at an airport experience and technical expertise are essential components of the project team since the installation must withstand the extreme forces of jet blast. ACT Global's ability to market, manufacture and execute large scale airport projects around the world was a major factor when deciding on this strategic partnership".

John Baize, Director of ACT Global states, "AvTurf has pioneered an excellent application for synthetic turf. We are impressed by their patent portfolio and unique system design. This combination along with our manufacturing strength and project management expertise especially in the Middle East will enable a tremendous growth opportunity. With backgrounds in aviation, airport security and the military the AvTurf team demands the highest level of safety and quality."

The AvTurf system technology

is already a proven success. With multiple AvTurf installations around the world including major airports such as the John F. Kennedy Intl. Airport, New York, USA, Toronto Pearson Intl. Airport, Toronto, Canada; Madrid-Barajas Intl. Airport, Spain; Ataturk Intl. Airport, Istanbul, Turkey and the United States Airforce Academy Airfield, Colorado Springs, USA, the future of safety application is here NOW.

Represented in the region by Raymond Sport, ACT Global Sports is headquartered in Austin, Texas with manufacturing and client offices across the US, Asia and Europe. Raymond Sport specializes in Sports and Leisure related design and construction activities and has successfully created a formidable reputation for client servicing and quality. Their product line expansion has been continuous for the last 25 years but always with an emphasis on surfaces engineering.

For more information about all types of surfacing including AvTurf contact Sujit Tavkar at Raymond Sport on +971 4339 1331 Ext 112 or email him on [sujit.tavkar@raymondssport.com](mailto:sujit.tavkar@raymondssport.com)

## SAFETY

AvTurf is a Safety Enhancing alternative for airport ground cover.

### FOD

AvTurf provides airport operators the ability to easily identify and remove FOD from the artificial turf installation areas. The installation area also becomes sterile of possible FOD created from the natural ground cover or paved surfaces subject to jet blast.

### Bird Strikes

AvTurf creates an environment free of food, water, or shelter for birds. Installing artificial turf alongside runways and taxiways will drive birds further away from these critical areas and reduce the potential for bird strikes on or near the airport property. Eliminating the need to mow the natural grass surface will also significantly reduce the presence of birds such as the cattle egrets that accumulate in large numbers while airport operators mow their natural ground cover.

### Wildlife Management

AvTurf non-lethally mitigates wildlife around the installation areas. Removing food, water, and shelter for all species is the key to driving wildlife away from the targeted areas. Burrowing species cannot penetrate the synthetic turf backing and are forced to move away from the installation area.

### Incursions

Installing artificial turf on the airport property minimizes the need for equipment or personnel to be in or around runway and taxiway safety areas. Reducing the need to enter into these areas will significantly decrease the potential for an incursion.

### Drainage

AvTurf is an artificial turf system that allows water to drain through natural percolation. The sand infill is a natural filter that can drain approximately 60 gallons of water per square foot per hour.

### Erosion

Installing AvTurf will help stabilize runway and taxiway shoulders and prevent the erosion of natural ground cover in these areas. This artificial turf system is resistant to erosion created by jet blast and therefore creates a stable area free of rutting and erosion.

### Visual Recognition

AvTurf significantly enhances the visual delineation for aircraft pilots and airport ground crew. This artificial turf system can be used in numerous applications that will help with airport marking and significantly increase safety by covering current hard surface areas that aircraft should not traverse.

### ARFF Response

Covering infield islands with artificial turf will help create a more stable area that will allow emergency response equipment to traverse over these areas during all types of weather and ultimately reduce response times to airport incidents.

1st installation of synthetic grass in a Blast Pad area:  
MDW, April 2002



1st demonstration of aircraft deviation onto synthetic grass:  
MDW, December 2000



1st installation of synthetic grass for airfields in the world:  
MDW, December 2000



The Critical Review and Economic Appraisal of Airside Turf Safety System Applications at Toronto Pearson International Airport, University of Toronto Master of Engineering Research Project 2003, research began:  
October 2002



1st FAA William J. Hughes Technical Center demonstration of synthetic grass: Fire and Wind tunnel demos:  
March & August 2003

1st university sponsored studies conducted on synthetic grass at airfields: FAA Center of Excellence for Aviation Technology at the University of Illinois Surface Drainage Runoff Coefficient Study:  
February 2003

## Environment

AvTurf products are completely environmentally friendly and will even reduce the need for applying certain chemicals on airport properties.

### Herbicides/ Pesticides

Installing artificial turf on airport properties will virtually eliminate the use of herbicides and pesticides in these areas.

### Beautification

AvTurf is an aesthetically pleasing ground cover that will significantly increase the beautification of any airport property.

## A380

AvTurf provides airports with a ground cover solution for future A380 movement areas. The artificial turf system will stabilize the shoulders of the A380 movement areas and prevent future safety concerns due to erosion created by jet wash.

### Eliminates Asphalt/Concrete Shoulders

AvTurf provides airports with a visually enhancing alternative to asphalt and concrete used to extend shoulders for the A380 movement areas.



JFK INTERNATIONAL AIRPORT  
NEW YORK, NEW YORK

1st and 2nd patents issued for synthetic grass utilization on airfields in the world.  
U.S.P.T.O. # 6,620,482  
Issued 9-16-2003  
U.S.P.T.O. #67,794,007  
Issued 9-21-2004

1st utilization of AvGrass synthetic grass as a landing surface for Sail Planes at Calhan Airport:  
October 2004



1st Glue-down application of synthetic turf on an airport:  
BOS, June 2007

