



RUNWAY
SAFE

**HOOKED
ON SAFETY**

RUNWAY SAFE DEFENSE PRODUCTS AND SOLUTIONS.

Discover the world's leading EMAS solutions at runwaysafe.com

RUNWAY SAFE DEFENSE

- Fixed, mobile, and hookless EMAS solutions
- Pre-approved source by USAF for MAAS
- NCAGE and CAGE certified
- 100% success rate across 27 EMAS overruns
- Engineering, R&D, and lifecycle management in-house

Breakthrough safety technology. Delivered worldwide.

Runway Safe Inc. (RWS) is a global leader in aviation safety and controlled energy absorption. With over 30 years of combined expertise, bolstered by the 2020 acquisition of the EMASMAX® division, RWS has delivered breakthrough safety technology to demanding clients across five continents.

In 2024, Runway Safe Defense (RWSD) was established as a subsidiary of RWS to focus on the military market. The RWSD team are accomplished professionals with in-depth knowledge of controlled energy absorption systems, qualified to supply aircraft arresting systems to the military market. RWSD has the expertise to design and manufacture comprehensive aircraft arresting system solutions for both fixed and mobile hook cable configurations, as well as our proven EMAS technology for overrun protection, which holds a 100% success rate across 27 aircraft overruns.

Operating out of a 275,000 sq. ft. facility in Logan Township, NJ, RWSD supports global operations with a skilled workforce dedicated to engineering, R&D, and total lifecycle management.

For more information please visit
runwaysafe.com/defense





EMAS FOR DEFENSE

STOPS MILITARY AIRCRAFT, WITH OR WITHOUT AN ARRESTING HOOK.

Our proven EMAS technology, offered for overrun protection, holds a 100% success rate across 27 aircraft overruns. Unlike hook cable systems, EMAS offers protection for both fighter jets and transport aircraft, making it an alternative passive overrun solution for fifth-generation aircraft.

The Engineered Material Arresting System decelerates an aircraft by crushing under the weight of its landing gear, providing predictable and controlled deceleration. Braking loads are concentrated within the main landing gear, protecting mission-critical components including antennas, pitot tubes, fuel probes, wing leading edges, and high-tech stealth coatings. Once stopped, the aircraft can be safely evacuated and easily removed from the arrestor bed.

EMAS is accepted by the FAA, EASA, ICAO, MLIT (Japan), FOCA (Switzerland), and DGAC (France). An EMAS arrestor bed can reduce the 240-meter RESA requirement to 140 meters or less. A critical advantage for constrained military runways.



Operational Continuity

Rapid aircraft recovery keeps your runway mission-ready.



Improved Safety

Saving human lives, as well as protecting assets & infrastructure.



Certified Performance

Tested and validated to military and civil aviation standards.



Proven Technology

Engineered technology - tested, validated & patented.

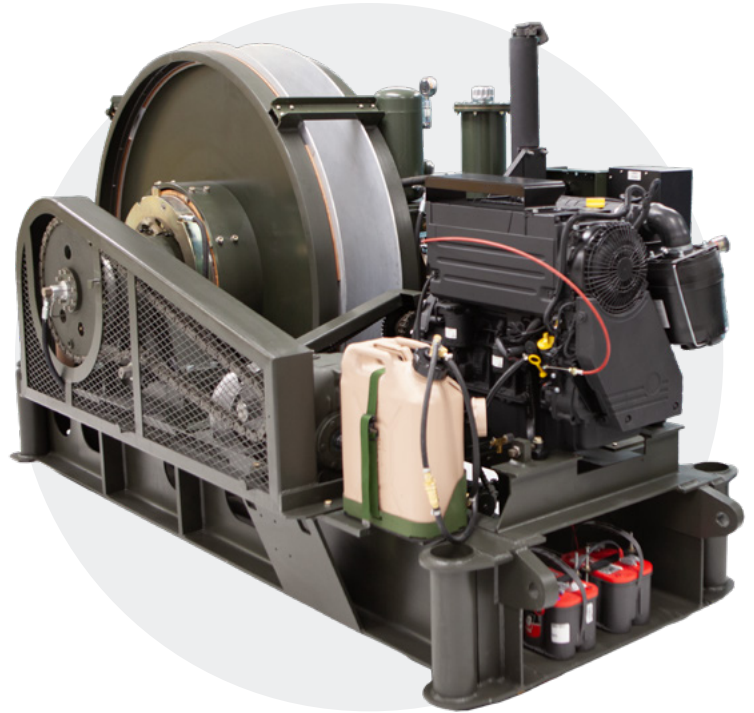
BAK-12 FIXED ARRESTING SYSTEM

THE GLOBAL STANDARD IN EMERGENCY RECOVERY TECHNOLOGY.

The Runway Safe BAK-12 stands as the U.S. Air Force standard for aircraft recovery. Engineered for uncompromising reliability, this hydraulically actuated rotary friction energy absorber is designed to safely arrest hook-equipped aircraft during emergency landings or aborted take-offs.

Whether deployed in permanent high-traffic airfields or remote expeditionary environments, the BAK-12 provides a self-contained, bi-directional solution that ensures pilot safety and asset preservation under the most demanding operational conditions.

The BAK-12 uses a velocity-sensitive braking philosophy: brake pressure automatically adjusts based on aircraft weight, engagement speed, and off-center positioning, delivering a smooth, programmed stop tailored to specific aircraft weight ranges.



PRODUCT OVERVIEW

Compatible aircraft

All hook-equipped aircraft

Max. arrest speed

190 knots (352 kph)

Hook required

Yes

Certifications & standards

MIL-A-38202, Standard U.S. Air Force Aircraft Arresting System

Installation configurations

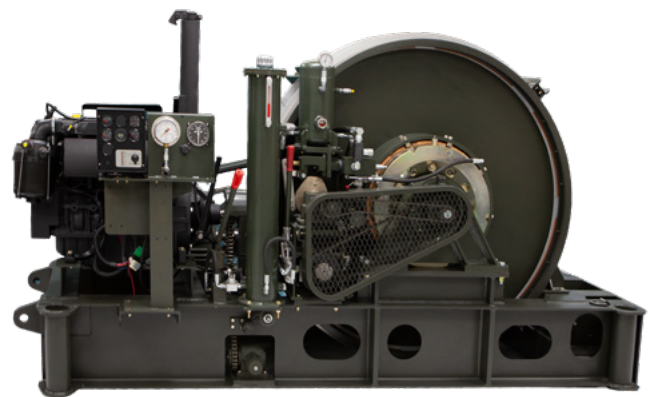
Above Grade, Below Grade, Expeditionary (Earth Anchors), Trailer-mounted

Operating temperature

-40°C to +52°C
(-40°F to +125°F)

Cycle capacity

Standard Cycle: 6 arrestments/hr
(Rapid Cycle: 20 arrestments/hr)



Scan to book a BAK-12 technical briefing.

Learn more about Runway Safe and our products at runwaysafe.com

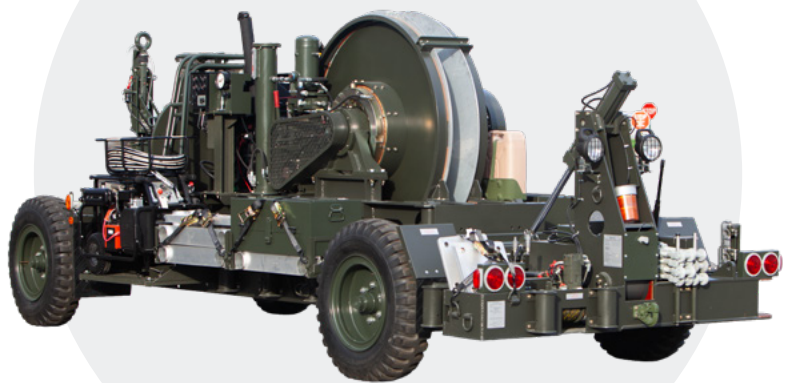


MAAS MOBILE AIRCRAFT ARRESTING SYSTEM

THE PREMIER EXPEDITIONARY RECOVERY SOLUTION.

The Runway Safe MAAS is designed for rapid deployment and total self-sufficiency. As the standard mobile arresting gear for the U.S. Air Force, the MAAS supports safe aircraft recovery on permanent runways, forward operating bases (FOBs), and emergency airstrips.

Completely self-contained, each MAAS unit stores all necessary tools, hardware, and power units on-board, ensuring immediate operational readiness in any environment, from arctic cold to desert heat. Rapid Installation Kits allow for 10-minute setup on prepared concrete and under 45 minutes on soil. A single C-130 can transport a complete hook-cable system. The MAAS is also compatible with C-17, C-141, and C-5 aircraft, and certified for road towing at up to 55 MPH (88 KPH). Utilizing the USAF-standard BAK-12 energy absorber, the MAAS offers the same high-performance standards as fixed-site installations, with fully adjustable runout and braking force to meet specific aircraft envelopes.



PRODUCT OVERVIEW

Compatible aircraft

All hook-equipped aircraft

Max. arrest speed

190 knots (352 kph)

Hook required

Yes

Certifications & standards

MIL-M-8090 (Mobility),
MIL-A-8421 (Transportability)

Installation configurations

Soil, Asphalt, Concrete, Asphalt
over Concrete

Operating temperature

-40°C to +52°C
(-40°F to +125°F)

Deployment time

10 min (prepared concrete)
Under 45 min (soil)

Scan to book a MAAS deployment briefing.

Learn more about Runway Safe and our products at runwaysafe.com



EMASMAX[®]

OPTIMIZED ENGINEERING

PASSIVE SAFETY. PROVEN TO SAVE LIVES, ASSETS AND INFRASTRUCTURE.

The Runway Safe EMASMAX is a bed of customized cellular cement material, designed to crush under the weight of an aircraft, providing predictable and controlled deceleration. Once stopped, the unique EMASMAX material allows passengers and crew to exit the aircraft safely, and for the aircraft to be easily removed from the arresting system.

- 120+ runway ends worldwide
- Reduces RESA from 240m to 140m or less
- Tailor-made per airport: fleet mix, topography, RESA
- Engineered blocks, ready to install
- Effective in all weather conditions

The EMASMAX is tailor-made to fit your runway and to accommodate your airport-specific aircraft fleet mix. Blocks are produced to meet exact specifications and are ready to install.

Recognized and accepted by ICAO, EASA, FAA, UK-CAA, and DGAC (France), EMASMAX is now installed on more than 120 runway ends worldwide, credited with no fewer than seventeen successful emergency arrestments. An EMASMAX arrestor bed can reduce the 240-meter RESA requirement to 140 meters or less.



December 2018, Burbank Airport, CA

Boeing 737 overran the runway in wet conditions. EMAS brought the aircraft to a safe stop. No injuries, no damage to the aircraft.

EMASMAX & greenEMAS OVERVIEW



Compatible aircraft

All aircraft weighing more than 12,500 lbs

Max. arrest speed

70 knots (130 kph)

Hook required

No

Certifications & standards

ICAO, EASA, FAA, UK-CAA, DGAC

Installation configurations

Permanent runway end,
pre-manufactured blocks,
ready to install

Operating temperature

-40°C to +52°C
(-40°F to +125°F)

Track record

120+ runway ends worldwide,
17 emergency arrestments

Scan to request a preliminary EMASMAX performance assessment.

Learn more about Runway Safe and our products at runwaysafe.com



GREENEMAS SUSTAINABLY ENGINEERED

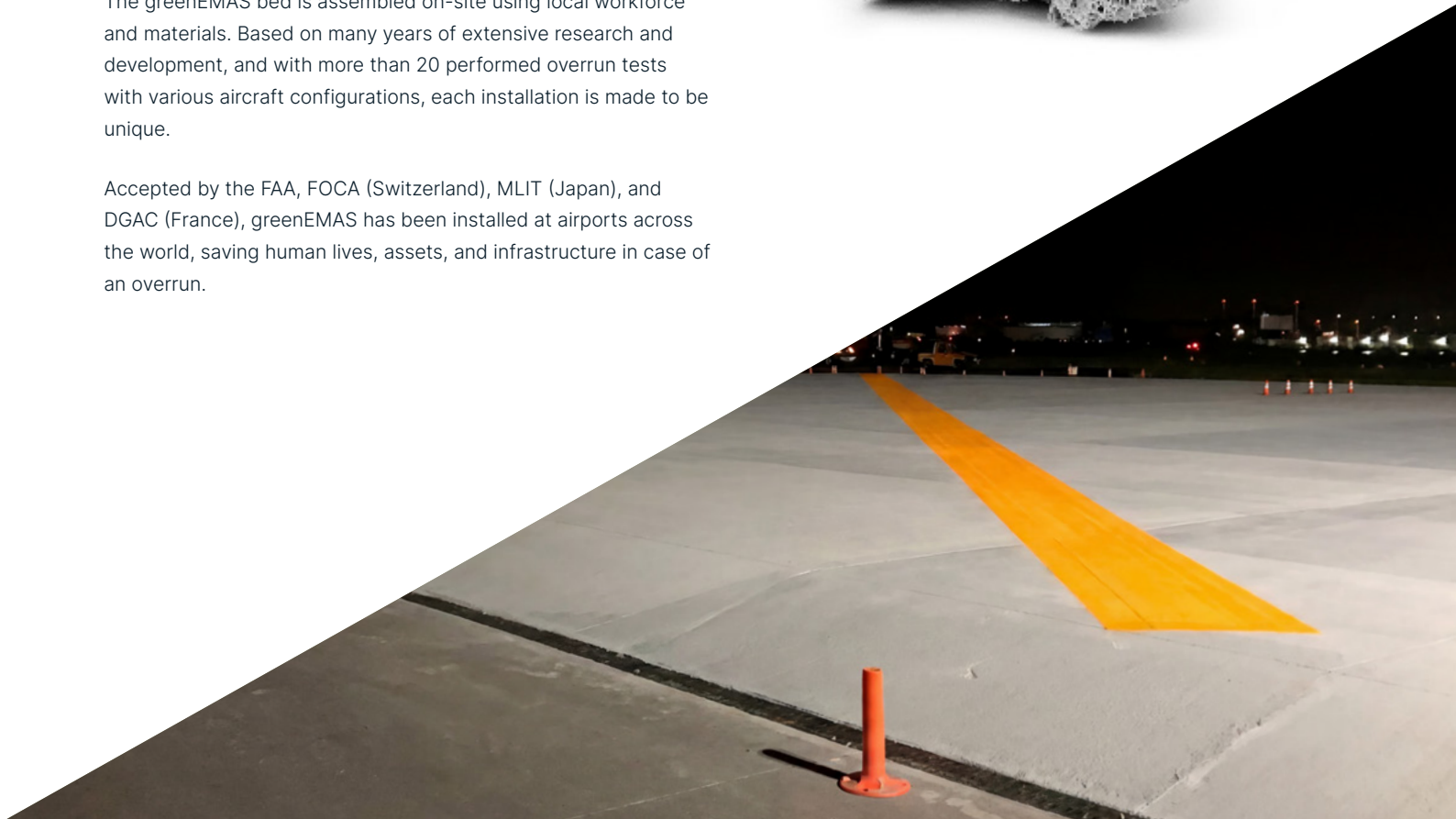
SUPERIOR SAFETY SOLUTION.

The Runway Safe greenEMAS is a sustainably designed passive safety system that decelerates an aircraft, bringing it to a safe stop in case of an overrun. The main arresting component is foam glass, made from 100% recycled glass, a superior safety solution, sustainable over a long period of time.

- Main component: foam glass from 100% recycled glass
- Assembled on-site with local workforce and materials
- 20+ overrun tests with real aircraft configurations
- Sustainable over a long period of time
- Full Runway Safe lifecycle support

The greenEMAS bed is assembled on-site using local workforce and materials. Based on many years of extensive research and development, and with more than 20 performed overrun tests with various aircraft configurations, each installation is made to be unique.

Accepted by the FAA, FOCA (Switzerland), MLIT (Japan), and DGAC (France), greenEMAS has been installed at airports across the world, saving human lives, assets, and infrastructure in case of an overrun.



Scan to request a preliminary greenEMAS performance assessment.

Learn more about Runway Safe and our products at runwaysafe.com



Runway Safe Group



A GROUP WITH GLOBAL PRESENCE

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Discover the world's
leading aircraft
arresting solutions

Scan to learn more about Runway Safe.



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