

WORLD'S SAFEST RUNWAY **LIGHTING**

CASE STUDIES

PORTABLE AIRFIELD LIGHTING TRAILER



WE OPERATE ALL OVER THE WORLD

150 INSTALLATIONS
IN 50 COUNTRIES



WORLD'S SAFEST
RUNWAY LIGHTING



OPERATES 365 DAYS
ON SOLAR



5-LEVEL PROTECTION
AGAINST SYSTEM FAILURE



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PORTABLE AIRFIELD LIGHTING TRAILER

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CASE STUDY ARGENTINA MILITARY AIRBASE



PROJECT KEY FACTS

Location: Argentina

Application: Military Air Base

Solution: Portable Airfield Lighting Trailer

Products: Portable Runway Edge Lights, Portable Runway Threshold End Lights, Portable Full PAPI, Power Bank for PAPI, Diesel Generator, UR-201 Control & Monitoring Unit, UR-101 Handheld Controller, Trailer

Year of Delivery: 2019



OVERVIEW

Argentine Air Force (Spanish: Fuerza Aérea Argentina, FAA) is aviation branch of the Armed Forces of the Argentine. There are few air bases around the country that belong to FAA and are used for military trainings.

In 2018, FAA requested for mobile airfield lighting system which army was going to use at its air bases. A Tender for supply and delivery of portable airfield lighting trailer was issued. S4GA received an official invitation to bid and won the tender.

CHALLENGE

Military Customer has put special technical requirements to the trailer design and airfield lights. Any standard solution available on the market would not fit:

- High operating time (autonomy) of the lights required
- The trailer had to accommodate two full mobile PAPI systems together with airfield lights
- Contactless charging of the lights
- All equipment to be made of durable materials to withstand extreme climate conditions of Argentina and to ensure long lifespan
- Non-standard trailer dimensions.

SOLUTION

S4GA offered portable airfield lighting system stored in a tailored trailer specifically designed for Argentine Air Force:

- 86 x portable airfield lights, remotely controlled from handheld controller and air-band radio, certified and compliant with ICAO requirements
- 2 x mobile full PAPI systems powered by diesel generators
- Power banks to ensure PAPI autonomous operations for at least 60 minutes
- Automatic immediate light failure reporting system built in a Trailer
- S4GA Trailer is made of high-grade aluminum and designed to fit in a C-130, for transportation.

S4GA Trailer is the best solution for military air bases where high performance of the system and its compliance with industry standards is a must.

CASE STUDY ARGENTINA MILITARY AIRBASE

S4GA PRODUCTS

①



SP-401P PORTABLE RUNWAY EDGE LIGHT

②



SP-401P PORTABLE RUNWAY THRESHOLD END LIGHT



PORTABLE PAPI LIGHT



POWER BANK FOR PAPI



UR-201 CONTROL & MONITORING UNIT



UR-101 HANDHELD CONTROLLER

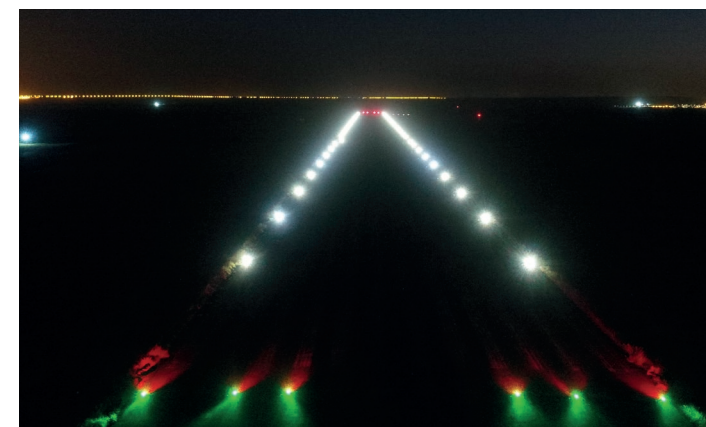


DIESEL GENERATOR



TRAILER

APPLICATION PHOTOS



CASE STUDY GERMAN AIR FORCE

PROJECT KEY FACTS

Location: Germany

Application: Military Air Bases / Unpaved Runways

Solution: Military Airfield Lighting Trailer

Products: Portable Runway Edge Lights, Portable Runway Threshold End Lights, Portable Taxiway Lights, Portable Full PAPI System, Power Banks, Diesel Generators, UR-201 Control & Monitoring Unit, ALCMS Basic, UR-101 Handheld Controller, Trailer

Buyer: NATO Member State

Year of Delivery: 2020



OVERVIEW

The German Air Force is the branch of the Bundeswehr - the armed forces of Germany. It's the third largest air force in European Union. All acquisitions & procurements for Bundeswehr are regulated by NATO standards.

In recent years Chief Command invested in upgrade of military equipment for German Air Forces. One of the procurements was a portable emergency airfield lighting system to support night operations.

CHALLENGE

German army is one of the most demanding military customers in the World. The highest quality and compliance with aviation and military standards is a must for every supplier who wants to deal with German military.

Portable airfield lighting products that German Army was using by that time, did not meet their expectations in terms of quality and performance. Thus, the challenge was to find a better alternative solution that would be more reliable, more long-lasting, certified and compliant with European aviation standards.

SOLUTION

S4GA offered Military Airfield Lighting Trailer specifically designed for NATO operations. The Trailer accommodates a complete portable airfield lighting system able to illuminate up to 3 500 m runway in accordance Customer's requirements. It includes portable runway & taxiway lights, mobile full PAPI system, power banks and generator sets. All lights are controlled remotely via ALCMS integrated into the Trailer. ALCMS provides individual light status monitoring and automatic light failure reporting.

S4GA portable airfield lights are certified and fully compliant with ICAO, FAA, STANAG regulations. The lights have been tested in accredited independent laboratories, and are fully capable and compliant with NATO NVG operation requirements.

S4GA Military Trailer is the best solution for military air bases, temporary runways and humanitarian missions.



CASE STUDY GERMAN AIR FORCE

S4GA PRODUCTS

①



SP-401P
PORTABLE
APPROACH LIGHT

①



SP-401P
PORTABLE
RUNWAY EDGE
LIGHT

③



SP-401P PORTABLE
RUNWAY
THRESHOLD END
LIGHT

④



SP-401P
PORTABLE
TAXIWAY LIGHT



PORTABLE PAPI
LIGHT



POWER BANK
FOR PAPI



DIESEL
GENERATOR



TRAILER



ALCMS BASIC

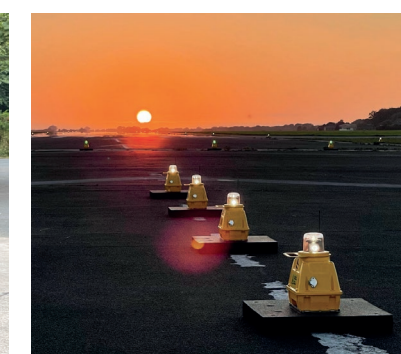


UR-201 CONTROL
& MONITORING
UNIT



UR-101 HANDHELD
CONTROLLER

APPLICATION PHOTOS



CASE STUDY NORTHEAST AFRICA MILITARY AIRBASE

PROJECT KEY FACTS

Location: Northeast Africa

Application: Military Air Base

Solution: Portable Airfield Lighting Trailer

Products: Portable Runway Edge Lights, Portable Runway Threshold End Lights, UR-101 Handheld Controller, Diesel Generator, Trailer

Year of Delivery: 2019



OVERVIEW

Undisclosed military air base located in Northeast Africa. To operate at night, air base should have illuminated runway.

S4GA has been awarded delivery of Portable Airfield Lighting Trailer by one of Africa's leading remote site service providers that serves UN agencies such as UNICEF, UNHCR; governmental organizations such as the UK MOD, the US State Department and the EU.

CHALLENGE

The were two main challenges in regards to runway lighting system requested:

- Time: air base had to start night flights as soon as possible: delivery time was critical factor.
- Non-standard application: AGL system should be easily transportable to other locations. In the meantime, airfield lighting will be used as semi-permanent application, therefore constant power supply is a must.

SOLUTION

S4GA offered complete portable runway lighting system stored in a Trailer and fully compliant with international aviation regulations.

The AGL system is activated remotely via Handheld Controller. Light brightness, operating modes and light grouping are selectable via the Controller.

Stored in heavy duty Trailer, airfield lights can be safely transported to another location. Built-in charging system in a Trailer ensures the lights are ready-to-use at any time.

S4GA received a contract for Portable Airfield Lighting Trailer. One month after placing the order, AGL system has been delivered to the air base.

CASE STUDY NORTHEAST AFRICA MILITARY AIRBASE

S4GA PRODUCTS

①



SP-401P
PORTABLE
RUNWAY EDGE
LIGHT

②



SP-401P PORTABLE
RUNWAY
THRESHOLD END
LIGHT



UR-101 HANDHELD
CONTROLLER



DIESEL
GENERATOR



TRAILER

APPLICATION PHOTOS



CASE STUDY THAILAND PHITSANULOK AIRPORT



PROJECT KEY FACTS

Location: Thailand

Application: Domestic Airport

Solution: Emergency Runway Lighting in a Trailer

Products: Portable Runway Edge Lights, Portable Runway Threshold End Lights, Portable LED PAPI, Power Banks for PAPI, Diesel Generators, UR-201 Control & Monitoring Unit, Trailer

Year of Delivery: 2020



OVERVIEW

Phitsanulok Airport (ICAO: VTPP) is a domestic airport in Thailand operated by DOA (Department of Airports of Thailand). The airport has 3 000 m paved runway equipped with a wired primary lighting system.

In recent years DOA decided to increase availability and safety of Phitsanulok Airport by investing in an emergency runway lighting. A public tender for the supply of Emergency Runway Lighting has been issued.

CHALLENGE

The backup runway lighting system is required whenever the primary AGL is unavailable: during runway rehabilitation works, AGL maintenance, power failure or any other emergency situations. Thus, DOA was looking for a reliable backup solution compliant with ICAO regulations. High autonomy and mobility of the system was one of the key requirements.

SOLUTION

S4GA offered an emergency runway lighting system in a trailer:

- certified and compliant with ICAO regulations
- remotely activated and pilot-controlled
- high mobility and high autonomy of the lights
- suitable trailer for storage and transportation of the lights.

The Trailer is equipped with AGL Control & Monitoring System allowing to control S4GA lights remotely from land and from the air. It also notifies airport technicians about lighting fixtures failures (e.g. low battery level, light is out of runway).

S4GA airfield lighting trailer has been selected as the best solution for Phitsanulok Airport. With S4GA emergency runway lights, airports are available and open for flight operations regardless of any malfunctions of the primary AGL.

CASE STUDY THAILAND PHITSANULOK AIRPORT

S4GA PRODUCTS

①



SP-401P
PORTABLE
RUNWAY EDGE
LIGHT

②



SP-401P PORTABLE
RUNWAY
THRESHOLD END
LIGHT

③



SP-401P
PORTABLE
TAXIWAY LIGHT



PORTABLE
LED PAPI



POWER BANK
FOR PAPI



DIESEL
GENERATOR

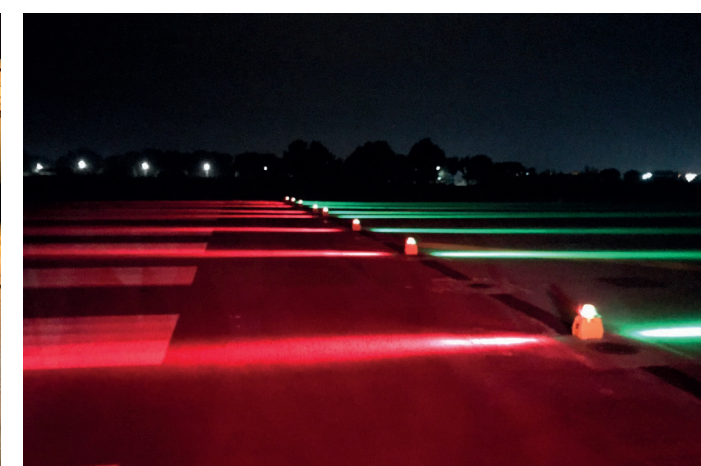


UR-201 CONTROL
& MONITORING
UNIT



TRAILER
UNIT

APPLICATION PHOTOS



CASE STUDY ZAMBIA KALUMBILA AIRPORT

PROJECT KEY FACTS

Airport: Kalumbila Airport

Location: Zambia

Application: Mine Airstrip

Runway Length: 2 760 m

Solution: Portable Runway Lighting

Products: Portable Runway Edge Lights, Portable Runway Threshold End Lights, Portable Halogen PAPI Lights, Telescopic Floodlight Mast, UR-101 Handheld Controller, Trailer

Buyer: First Quantum Minerals

Year of Delivery: 2021



OVERVIEW

First Quantum Minerals (FQML), one of the biggest mining and metal companies in the World, has acquired S4GA Airfield Lighting System in a Trailer for Kalumbila Airport in Zambia. The Company was looking for a mobile runway illumination which can be easily transported and deployed on a few different runways.

CHALLENGE

The Airport has been already equipped with the solar-powered runway and taxiway lighting supplied by another manufacturer. However, the technical personnel reported about non-sufficient brilliancy of the lights which caused the Airport's inability to use runway for medical emergency evacuations at night time.

To keep the runway operational, the Company had to find another runway illumination. Permanent lighting system was not considered as the Customer was going to use the lights occasionally on two airfields. First Quantum contacted NTEC - an S4GA partner in South Africa - and requested a portable runway lighting they could rely on.

SOLUTION

S4GA Portable Airfield Lighting in a Trailer has been offered to Kalumbila Airport. The system was able to address all challenges and meet all requirements provided by the Customer:

- 20 min fast deployment
- easy transportation
- high autonomy and reliability
- official approval by Zambia CAA.

In the end, S4GA solution was found the only one among all systems offered, addressing all Customer's requirements. As a result, FQML made a decision to acquire S4GA System for Kalumbila Airport. NTEC provided supply, installation and commissioning of S4GA lighting as well as onsite staining for airport personnel. S4GA airfield lights and mobile PAPI have been installed on special rubber pads allowing to quickly deploy/remove the lights and providing jet-blast resistance. Remote activation of S4GA illumination makes it very easy to use.

CASE STUDY ZAMBIA KALUMBILA AIRPORT

S4GA PRODUCTS

①



SP-401P
PORTABLE
RUNWAY EDGE
LIGHT W/W

②



SP-401P PORTABLE
RUNWAY
THRESHOLD END
LIGHT



PORTABLE
PAPI LIGHT



UR-101 HANDHELD
CONTROLLER

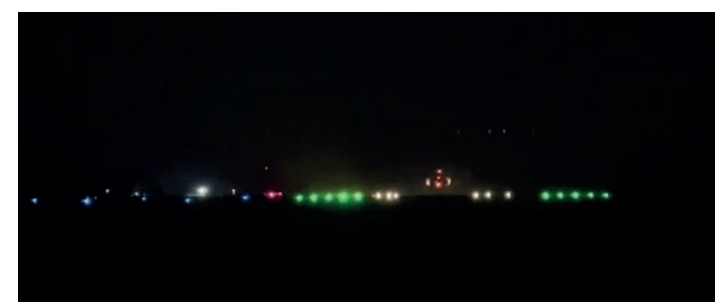


TRAILER



TELESCOPIC
FLOODLIGHT
MAST

APPLICATION PHOTOS





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