



WORLD'S SAFEST RUNWAY LIGHTING

# SOLAR AIRFIELD LIGHTING





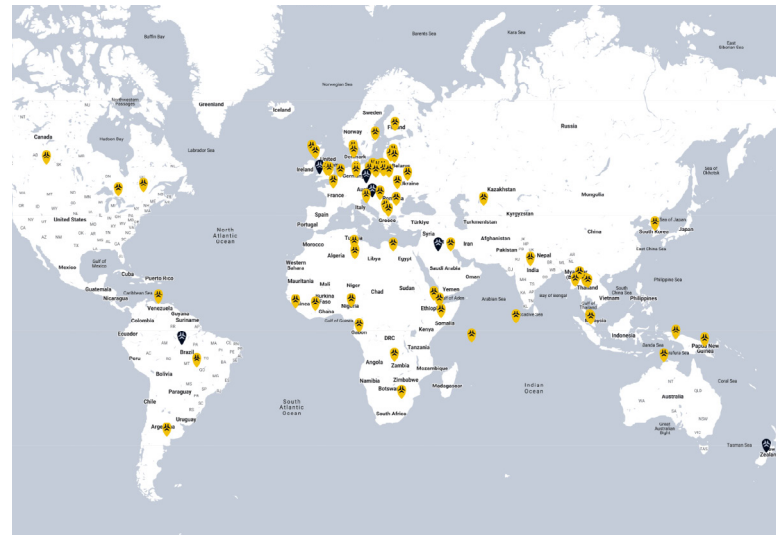
## ABOUT S4GA

S4GA is an airfield lighting company that designs, manufactures, and supplies certified airfield lighting systems to civil and military customers from Canada to Australia.

As of 2024, S4GA delivered over 200 applications to more than 55 countries. Airports in Africa, Southeast Asia, South America, Oceania and Europe are successfully using S4GA systems.

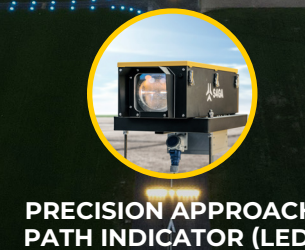
We offer solar, wired, and portable airfield lighting systems. All products are manufactured in Poland. S4GA holds ISO 9001-2015 Certificate.

### WE OPERATE GLOBALLY



## WE OFFER SOLAR AIRFIELD LIGHTING

For regional, municipal, and military airports located in remote areas. Looking for easy-to-maintain permanent airfield lighting. We offer complete solar system with control & monitoring. S4GA airfield lighting is compliant with ICAO, EASA, FAA, MOS, NATO STANAG.



### FEASIBILITY STUDY



Testing of S4GA equipment to make sure it will operate on solar energy as long as airport requires.



### AIRFIELD LIGHTING DESIGN



Airfield lighting design prepared together with certificates, manuals, and test reports required by the airport.



### EQUIPMENT MANUFACTURING



All products are manufactured in Poland. S4GA holds ISO 9001\_2015 Certificate.



### INSTALLATION & TRAINING



Installation takes one week. S4GA offers supervision of installation and provides training.





### MAINTENANCE SUPPORT

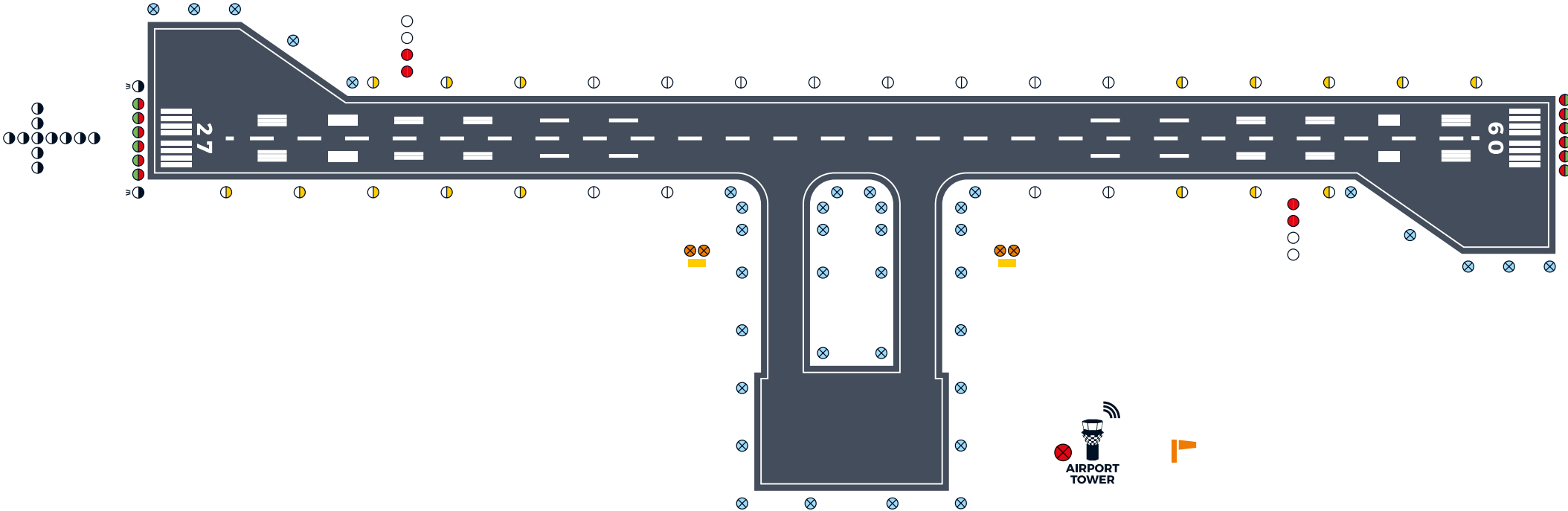







99% of troubleshooting cases are successfully solved by S4GA tech support team remotely.











NON-PRECISION OR VISUAL APPROACH RUNWAY


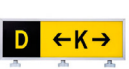
APPROACH		
		
<b>SP-401 SOLAR APPROACH LIGHT</b>	<b>SP-401 SOLAR RUNWAY THRESHOLD IDENTIFICATION LIGHT</b>	<b>LED PRECISION APPROACH PATH INDICATOR</b>
Medium intensity White (clear) Remote control NVG-compatible 1 800 cd light output Operates 365 days on solar	Medium intensity Flashing white GPS synchronization Remote control NVG-compatible Operates 365 days on solar	LED multi-lamp type Remote control 10 km+ visibility NVG-compatible Power supply: 110-230VAC, 24VDC, 6.6 Amp





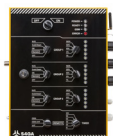

RUNWAY				
				
<b>SP-401 SOLAR RUNWAY EDGE LIGHT</b>	<b>SP-401 SOLAR RUNWAY THRESHOLD END LIGHT</b>	<b>SP-401 SOLAR TURNING PAD LIGHT</b>	<b>SP-200 LIRE / LIRH SOLAR LED INSET LIGHT</b>	<b>LED AIRPORT BEACON LIGHT</b>
Medium intensity White/white, white/yellow, yellow/red 1 200 cd light output Remote control NVG-compatible Operates 365 days on solar	Medium intensity Bidirectional red/green 320 / 450 cd light output Remote control NVG-compatible Operates 365 days on solar	Omnidirectional blue 11 cd light output Remote control NVG-compatible Operates 365 days on solar	LED type High intensity White/white, white/yellow, yellow/red, red/green Remote control	LED type Over 2.000 cd light output Flashing White, White/Green Power supply: 110-230 VAC, 24 VDC

SOLAR ENGINES & POWER SUPPLY				
				
<b>SE-40 SOLAR ENGINE MINI</b>	<b>SE-150 SOLAR ENGINE COMPACT</b>	<b>SE-350 SOLAR ENGINE OPTIMA</b>	<b>SE-700 SOLAR ENGINE MAX</b>	<b>UNINTERRUPTIBLE POWER SUPPLY (UPS) FOR PAPI LIGHTS</b>
Solar panel: 40 W Battery capacity: 336 Wh Designed for: Wind Direction Indicator, Solar Runway Guard Light, Solar LED Inset Light	Solar panel: 175 W Battery capacity: 720 Wh Designed for: Airport Guidance Sign - Small / Medium	Solar panel: 360 W Battery capacity: 1320 Wh Designed for: Airport Guidance Sign - Large, Group of Solar LED Inset Lights	Solar panel: 720 W Battery capacity: 2640 Wh Designed for: PAPI System	2640 W total capacity Rugged pelican housing

TAXIWAY & APRON			
			
<b>SP-401 SOLAR TAXIWAY EDGE LIGHT</b>	<b>SP-401 SOLAR OBSTRUCTION LIGHT</b>	<b>SOLAR RUNWAY GUARD LIGHT</b>	<b>TAXIWAY RETROREFLECTIVE MARKER</b>
Omnidirectional blue 11 cd light output Remote control NVG-compatible Operates 365 days on solar	Low intensity, type A Omnidirectional red 37 cd light output Remote control NVG-compatible Operates 365 days on solar	LED type Flashing yellow 3 500 cd light output Remote control Operates 365 days on solar	Weather resistant Jet blast resistant Frangible Maintenance-free

WIND CONES & SIGNS	
	
<b>WIND DIRECTION INDICATOR</b>	<b>AIRPORT GUIDANCE SIGN</b>
Weather resistant Internally illuminated	Weather resistant Internally illuminated

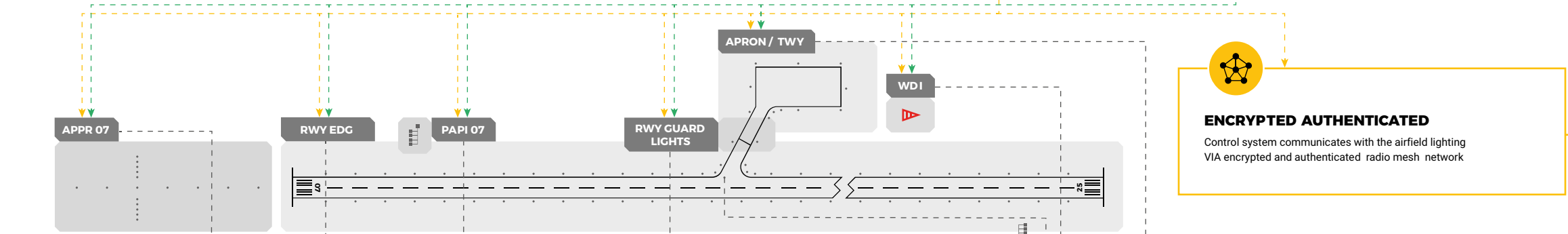
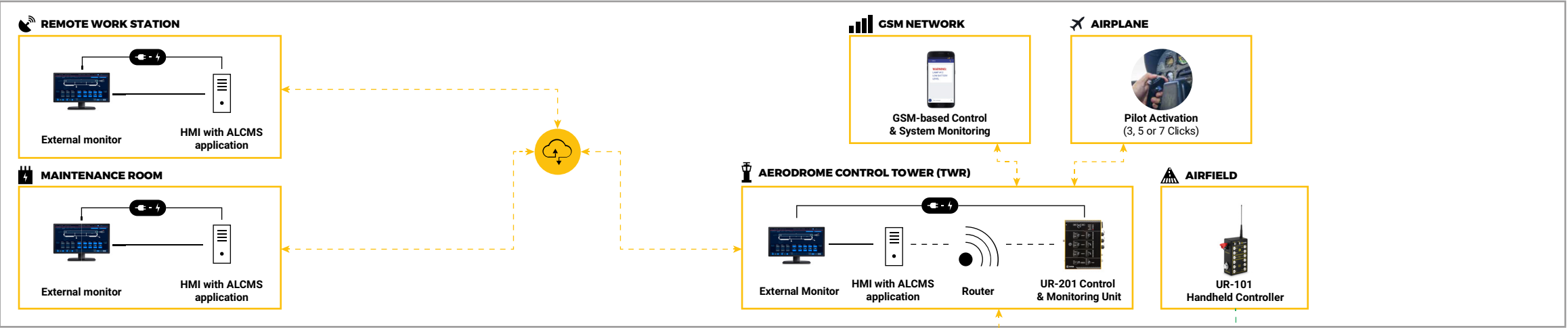
ACCESSORIES	
	
<b>OCT-401 CHARGER FOR 10x SP-401 AIRFIELD LIGHTS</b>	<b>DIGITAL INCLINOMETER FOR LED PAPI</b>

AGL CONTROL & MONITORING		
		
<b>AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS)</b>	<b>UR-201 CONTROL AND MONITORING UNIT</b>	<b>UR-101 HANDHELD CONTROLLER</b>
Custom airfield layout Individual light status display Grouping of lights: up to 150 circuits 6-step Light Intensity Setup (optionally 6-steps) Operating mode setup (Visible/NVG/Remote/Autonomous) Scenarios selection	Airfield lighting control panel Automatic failure alarm via SMS Remote activation via VHF, GSM Remote airfield lighting diagnostics Obligatory part of ALCMS	Grouping of lights: up to 5 groups 3-step light intensity setup Operating mode setup (Visible/NVG/dusk-till-dawn)

ALCMS

AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM

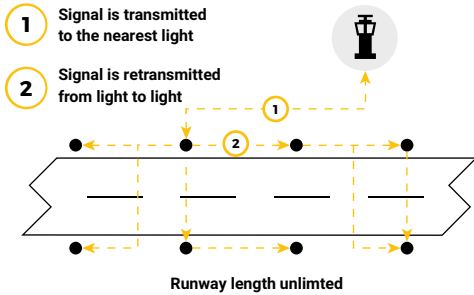
Provides remote control and Individual Light Status Monitoring of S4GA solar airfield lighting from the ATC Tower or maintenance center



MONITORING SYSTEM



WIRELESS MESH NETWORK  
EACH LIGHT IS A TRANSMITTER



OPERATING RANGE AND FREQUENCY

Control TWR to the nearest light	Up to 1.5 km 868 MHz, Mesh
Handheld Controller to the nearest light	Up to 1.5 km 868 MHz, Mesh
Communication between the lights	Up to 1.5 km 868 MHz, Mesh
Pilot Activation (3, 5 or 7 clicks)	Up to 20 km 118-136 MHz
GSM network	Unlimited 900/1800 MHz
Remote work station (WLAN)	Unlimited Internet Connection

MONITORING SYSTEM  
MAIN FEATURES

- Real-time monitoring (27 parameters)
- Individual Light Status Monitoring
- System Performance Reporting
- Automatic failure notifications
- Automatic alarm emails
- Prioritization of warning information (critical failure on top)
- Predictive & preventive maintenance

CONTROL SYSTEM  
MAIN FEATURES



- Grouping of lights: up to 150 circuits
- Light intensity: up to 100 levels
- Customized airfield layout
- Operates in special modes
- NVG, Remote, Autonomous
- Pilot controlled activation
- Timer adjustment (15 – 120 minutes)

CONTROL SYSTEM

Necessary System Updates can be performed remotely by the S4GA Support Team



WHY IS S4GA BETTER?

S4GA SOLAR AIRFIELD LIGHT		OTHER SOLAR LIGHT	
			
	AIRFIELD FIXTURE DESIGN		MARINE LANTERN DESIGN Not suitable for airport use
	COMPLIANT Compliant with ICAO, FAA, MOS, EASA, NATO STANAG Entire unit frangibility certified 240 kph jet blast resistance certified 10+ km high visibility confirmed 50+ certificates available		NON-COMPLIANT Non-compliant with ICAO No certification on frangibility Not tested on jet blast resistance Hardly visible from far distance
	PERMANENT 20+ years system lifespan Solar collection covers 100% of energy needs		TEMPORARY 7 years maximum system lifespan Not enough solar collection
	PROTECTED FROM BLACKOUT Reliable wireless network Backup power source Backup control		UNRELIABLE Poor wireless connection No backup power source Limited control
	ALCMS MONITORING Individual light status monitoring Preventive maintenance diagnostics		NO MONITORING No data on the status of the system No data on individual light status No data on maintenance
	EASY MAINTENANCE All compartments are replaceable Low battery cost		EXPENSIVE MAINTENANCE Non-replaceable parts Expensive batteries required

AIRFIELD LIGHTING SUPPORT SERVICES

S4GA offers a full range of expert airfield lighting system support services designed for airport engineers, consultants, and industry experts. We provide our clients with services and trainings on-site, as well as at the S4GA Center Of Excellence located in Poland.

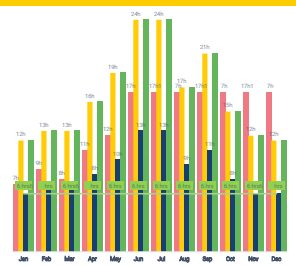


SOLAR AIRFIELD LIGHTING DESIGN



Prepared by experienced airport designers and performed in compliance with ICAO, FAA, EASA, CASA.

FEASIBILITY STUDY



Determines the optimal schedule for the usage of S4GA Solar Airfield Lights system without the risk of insufficient solar energy causing them to deplete.

INSTALLATION TRAINING



Equips installers with the necessary knowledge and skills to properly install and verify key operating parameters of S4GA solar airfield lighting.

COMMISSIONING SUPPORT



Ensures optimal performance, integration, and functionality of our equipment.



## PROVEN. TRUSTED. DEPLOYED. WORLDWIDE.

Used by civil and military airports worldwide to ensure safe, reliable runway operations.  
Trusted in 70+ countries for resilient and sustainable airfield lighting.



**250+**  
Applications

**10+**  
Years

**70+**  
Countries







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S4GA Sp. z o. o.  
26-600 Biznesowa 4  
Radom, Poland

[www.solutions4ga.com](http://www.solutions4ga.com)

+48 22 307 10 01 | [office@solutions4ga.com](mailto:office@solutions4ga.com)

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