ALCMS ADVANCED

AIRFIELD LIGHTING CONTROL & MONITORING SYSTEM

+ HARDWARE

— SYSTEM OVERVIEW

S4GA ALCMS is an Airfield Lighting Control and Monitoring System designed to provide full remote control and monitoring of solar LED runway lighting from the TWR or maintenance center. S4GA ALCMS consists of Computer Interface integrated with UR-201 Control and Monitoring Unit. It features open interface for integrating with existing conventional AGL control system.

— FEATURES

- Custom Airfield Layout
- Individual Light Status Display
- Custom Grouping of Lights
- Up to 5-step Light Intensity Setup (optionally 6-steps)
- Operating Mode Setup (Visible/NVG/Remote/Autonomus)
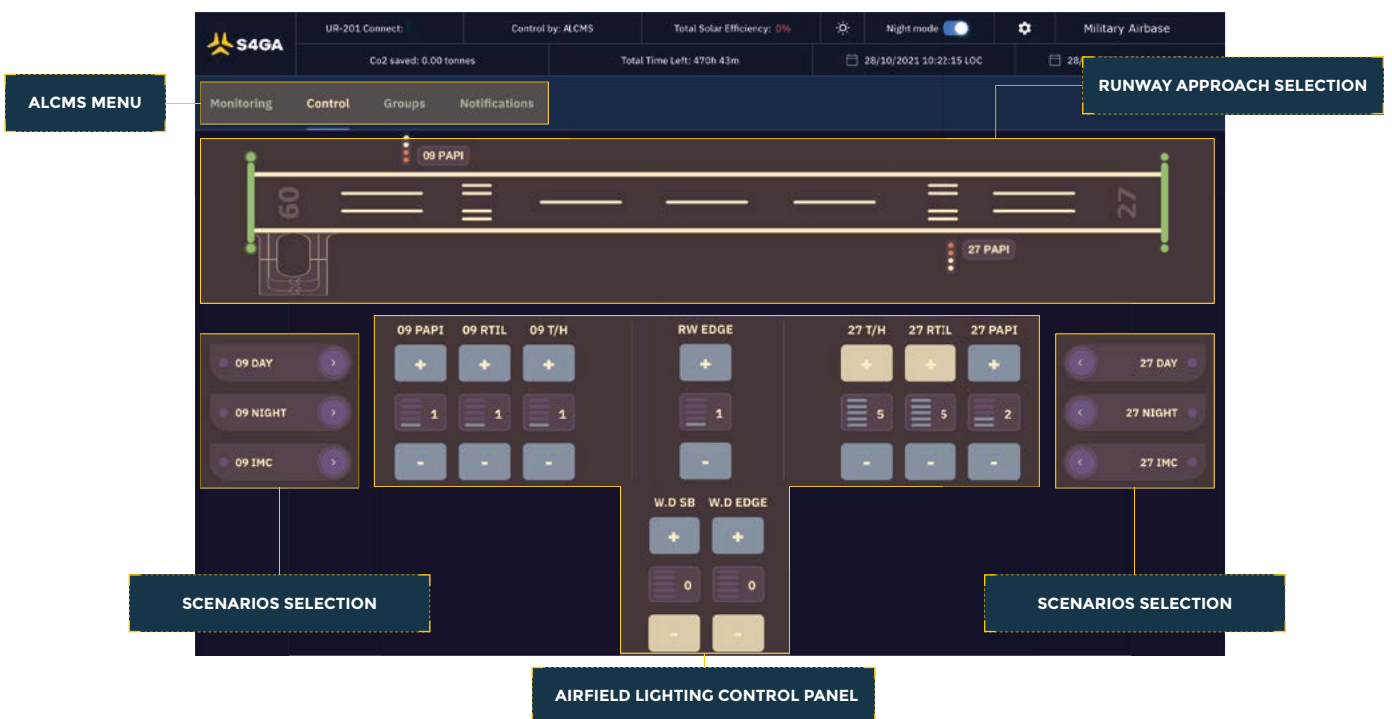- Scenarios selection

— CONTROL

- Grouping of entire airfield lighting in major groups
- Control of entire lighting system and groups of individual lights
- Control of separate taxiways
- 5-step intensity level setup for a particular group of runway lights and PAPI
- Operating modes setup: Visible, NVG, Remote, Autonomus)
- Timer setup (for pilot-activated and GSM-activated modes)

ALCMS Advanced is designed for airports with advanced AGL system (including multiple taxiways, approach lighting, temporarily closed areas). This type computer interface has advanced features like customized airfield layout and more detailed grouping of lights (e.g. control of separate taxiways).

• Real-time monitoring	YES
• Automatic failure alarm	YES
• Operating mode setup	YES
• Individual light status indication	YES
• Grouping of airfield lights	up to 50
• Light intensity, steps	up to 6
• Separate taxiways control	YES
• Airfield layout	YES

For airports with simple runway lighting system (runway edge, threshold and one taxiway), S4GA offers **ALCMS Basic.**

ALCMS MENU

RUNWAY APPROACH SELECTION

SCENARIOS SELECTION

SCENARIOS SELECTION

AIRFIELD LIGHTING CONTROL PANEL

MONITORING

Monitoring Tab makes it possible to monitor all airfield lighting devices. The information provided allows to obtain data not only about the current condition of devices, but also about maintenance requirements. This way end user can pro-actively supervise entire system and its components. Key features of the monitoring system:

- Individual light Status Monitoring - includes such parameters of light as: battery level, charging speed, temperature, operating status, etc.
- Monitoring of UR-201 Control unit status
- Preventive Maintenance function allows for planning maintenance works for individual equipment items (ie. battery replacement, solar panel cleaning etc.)

NOTIFICATIONS

Notification Tab provides user with quick overview of all critical issues. Whether light is not working or it has low battery - user will have immediate feedback stored in Notification Tab. Moreover user can customize level of threshold that triggers particular notification (e.g. battery level is lower than x%). Key features of the notification system:

- Automatic Failure reporting via email
- Customization of reporting thresholds

— KEY ELEMENTS OF ALCMS

Compliance of ALCMS Computer Interface

Compliance	
ICAO AerodromeDesign Manual	Part 5 Electrical Systems / Chapter 10, clauses 10.1 - 10.12 & clause 10.14
ICAO Annex 14, Volume I	Electrical Systems Chapter 8, clauses 8.3.1 - 8.3.5
EASA CS ADR-DSN.S.890	CS ADR-DSN.S.890 Monitoring, clauses (a), (b) & (d)
FAA AC 150/5345-56B	Specification for L-890 Airport Lighting Control and Monitoring System (ALCMS), clauses 3-7 & 9

Compliance of ALCMS Hardware - UR-201 Control & Monitoring Unit

Compliance	
RED Directive	RED DIRECTIVE 2014/53/EU on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC, clauses 3.1a, 3.1b & 3.2
RoHS Directive	ROHS DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment, clause 4.1
FAA AC 150/5345-56B	Par. 4.3 Hardware Requirements, clauses 4.3.1 & 4.3.2

ALCMS ADVANCED OBLIGATORY REQUIRES UR-201 TO BE SUPPLIED.

AND HMI COMPUTER

+ HARDWARE

— ACCESSORIES INCLUDED

24' TV Monitor for TWR	Wireless set: keyboard + mouse	Power cable LAN cables	HMI Computer	LAN Router	Tablet PC (optional)

— SHIPPING DATA

Item	Dimensions of Package (LxWxH)	Gross Weight
ALCMS Set (24' screen, cables, keyboard, mouse)	600 mm x 400 mm x 360 mm	10 kg