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AIRPORT
& ATCC

CUSTOMIZED SOLUTIONS

iBross

PROJECT DEVELOPMENT

30 YEARS OF EXPERIENCES IN DESIGN & SUPPLY OF ATC/ATM SOLUTIONS

iBross, originally found as ALES Košice in 1991 by Czechoslovak Air Force Radar and IT professionals, was first successful company supplying Air Traffic Control Management and Air Command and Control in Eastern Europe.

1989 - CIVIL-MILITARY COORDINATION
1990 - PC BASED RADAR DATA DISPLAY (i386)
1991 - ELECTRONICS PROGRESS STRIPS (i286)
1991 - ATC CONSOLE
1992 - MILITARY ACC SYSTEM (PRAGUE)
1993 - MULTIRADAR PROCESSOR
1993 - ACC SYSTEM (BRATISLAVA)
1994 - CIVIL AND MILITARY RADARS NETWORKING
1994 - CIVIL MILITARY INTEGRATION (TECHNICAL LEVEL)
1994 - RADAR DATA EXTRACTOR
1995 - AIR FORCE TACTICAL PLANNING SYSTEM
1995 - FIRST ABORAD ATC PROJECT (UKRAINE)
1996 - ATC SIMULATOR
1996 - CIVIL MILITARY INTEGRATION (OPERATIONAL LEVEL)
1996 - ACC SYSTEM (ICAO AND GOST COMPLIABLE)
1996 - ASM/FUA IMPLEMENTATION
1996 - IP BASED NATIONAL RADAR NETWORK
1998 - PSR/SSR RADAR UPGRADE
1998 - MOBILE AIR FORCE COMMAND POST
2001 - ADVANCED ASM/FUA IMPLEMENTATION ON NATIONAL LEVEL (UKRAINE)
2005 - INTEGRATED ACC CENTRE, MIL PART (PRAGUE)
2008 - PREFABRICATED ATC TOWER CABIN
2010 - MOBILE ATC TOWER
2009 - MIDDLE EAST ATCC PROJECT (UAE)
2015 - AFRICA AIRPORT UPGRADE PROJECTS (GHANA)
2016 - REMOTE ATC TOWER SUBSYSTEMS
2017 - TWR SIMULATOR
2018 - MOBILE TOWERS IN INDIA
2020 - MOBILE ATC TOWERS (AIRPORT AUTHORITY OF INDIA)
2020 - NAIROBI WILSON AIRPORT
2021 - MOBILE ATC TOWERS (UNITED ARAB EMIRATES)
2022 - ATC TOWER CABINS (NIGERIA)

CUSTOMIZED SOLUTIONS
ATC/ATM

Listening to clients, project driven philosophy, customized solutions, system integration, extensive experiences can define iBross
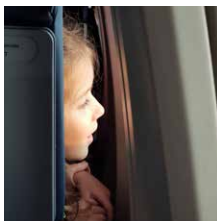
AIRPORT UPGRADE

REGIONAL ATC/ATM

CIVIL - MIL INTEGRATION
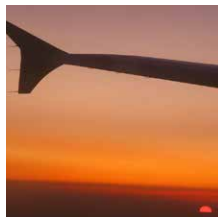
ATC TRAINING

AIRSPACE MANAGEMENT

FLIGHT PROGRESS STRIPS

ATC CONSOLES

MOBILE ATC TOWERS

MODULAR ATC TOWERS

MODULAR ATC CABINS AND CONSTRUCTION

SYSTEM INTEGRATION

REGIONAL ATC/ATM

(M)ACC upgrade and integration
for TWR, APP and ARO workplaces:

- ATC/ATM system:
  - Surveillance data processing
  - Flight plan processing
  - Flexible Use of Airspace
  - Air Force / Mission planning
- ATC consoles, Equipment housing
- Communication systems
- Recording and Reply
- Radars and FIRs networking
- Civil - Military integration

AIRPORT ATC/ATM

(M)TWR, (M)APP and ARO workplaces
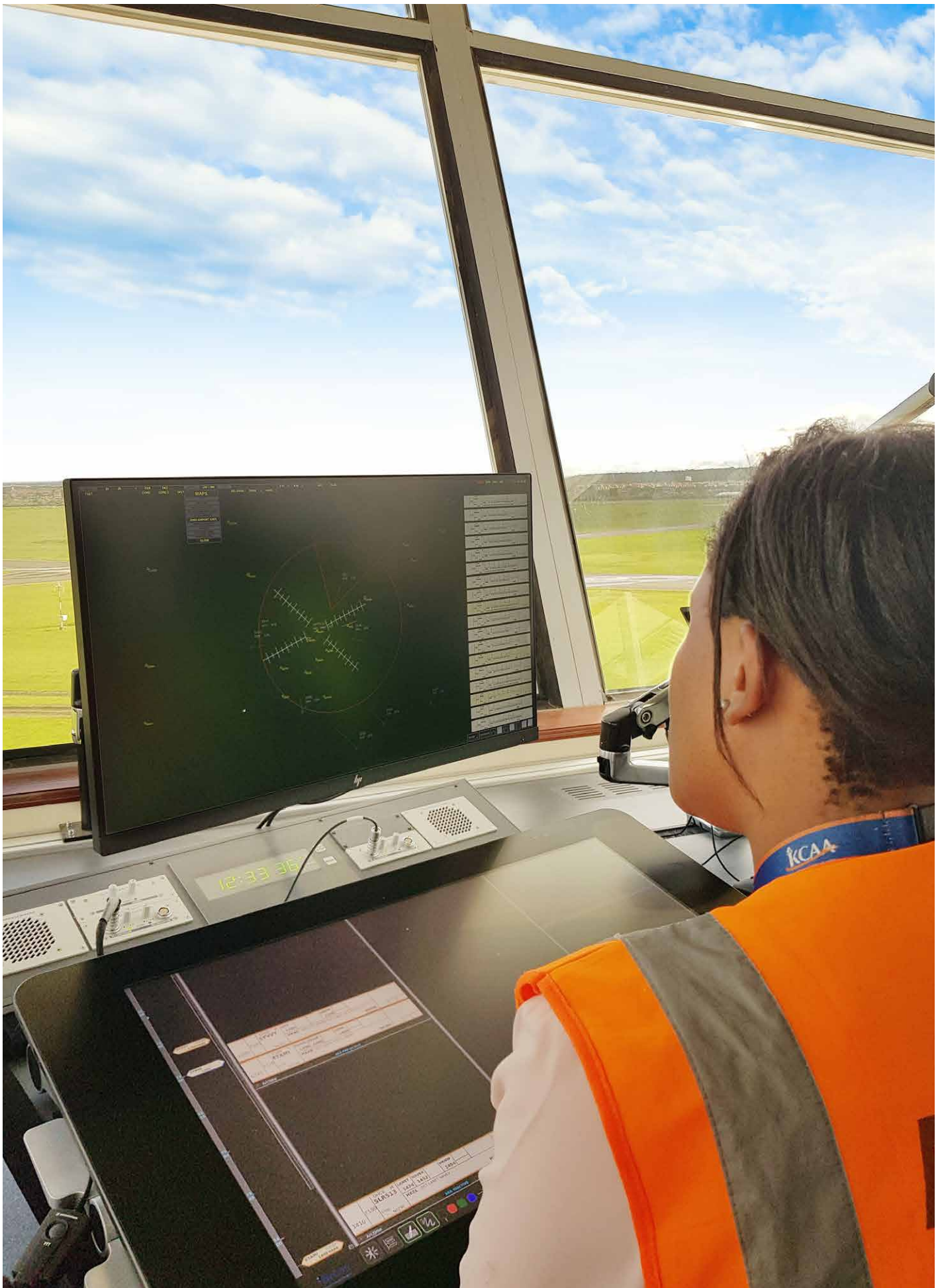upgrade and turn-key solutions:

- ATC/ATM system:
  - Radar, MLAT, ADS-B processing
  - Interactive Flight progress strips
  - NOTAM, OAT data provision
  - AFTN/AHMS
- ATC consoles, Equipment housing
- VHF and VCS systems
- Recording and Reply
- AWOS and ATIS systems
- ATC networking

ATC TRAINING

Visual, Radar and Procedural training from
Ab-initio to Progressive level designed by
active ATC trainee staff

- Real operational environment (airspace,
  procedures, surrounding, HMI) simulation
- Open assignment of workstations roles
- Complex exercise creation, testing and
  validated in less than one hour
- Import real traffic data samples
- Exercise restore and selected point
- Build-in VCS system
- Voice and video replay
- Weather, Surface Radar, Strip displays

AIR TRAFFIC CONTROL / MANAGEMENT
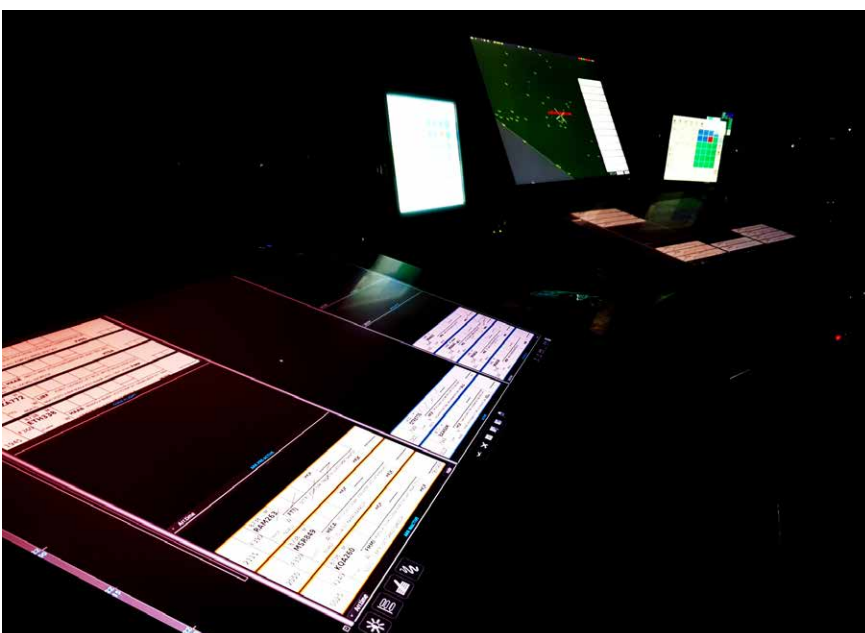
CIVIL - MILITARY INTEGRATION

- Integration on any of 1-3 Levels (Coordination, Technical, Operational):
    - GAT data provision to M ATC
    - Unclassified OAT data sharing
    - Common GAT/OAT workplace
- Air Force Mission Planning
- OAT and GAT data provision to Air Command & Control system
- Enhanced Flexible Use of Airspace
- Enhanced Airspace management
- Flight permission evaluation

AIRSPACE MANAGEMENT

Enhanced Flexible Use of Airspace and entire Airspace Management 1-3 Levels implementation at FIR and AoR:

- Integrated AMC with common civilian and military workplaces
- AA Data provision
- OAT planning and monitoring
- Conflict evaluation across requests and monitoring messages in all levels (Areas/CDR/RCA/OAT FPL/NOTAM)
- NOTAM generation
- AIS and specialised data provision
- FMP/ACC systems data provision

FLIGHT PROGRESS STRIPS

Full replacement of paper strips used for (M)TWR and (M)APP ATC control.

- Interactive flight strips tablet enabling on-screen/strip hand-typing operations
- Multiple formats as full 1:1 copy of strips used at each site, and reduced size enabling to present more strips
- Arrangement, processing, life-cycle customized for each site
- Strip presentation and processing of other data (NOTAM, OAT, ASM, MET)
- Open communication interface
- Local RDPS/FDPS system integration

CONSOLES FOR ATCC

- Smart design technological furniture, advanced modular construction, numerous features selection
- Individual design and configuration for each ATC centre, respecting its' mission, room layout, sectorisation and equipment used
- Highest ergonomic, hygienic, safety standards granted by ultimate quality components (aluminium skeleton, artificial acrylic stone, wood panels, technological gadgets
- EUROCONTROL compliance
- Integration of existing and easy setting of upgraded equipment

CONSOLES FOR MOBILE ATCC

- Rugged smart design technological furniture for ATC and AC workplaces:
  - Mobile ATC towers
  - Transportable ATC units / shelters
  - Trucks / armoured trucks
- Other shelter applications to furnish equipment, office. resting places
- Individual design and configuration
- Highest ergonomic, hygienic, safety standards granted by ultimate materials
- Vibration and shock resistance (CAT A-B)
- MIL-STD-1472G compliance

REMOTE SURVEILLANCE, MONITORING AND CONTROL

- Improved surveillance (RNWY, APRON)
- Remote TWR facilities
- A-SMGS collaboration
- Perimetric control
- Security Video Surveillance (Terminals, Parking lots)
- SCADA features for real time control of various facility processes (Airfield lighting, CCTVs, Access control, Fire alarm, Power supply, Air conditioning...)

MOBILE ATC TOWERS

- Individual design and configuration
- Numerous & proven designs
  - Cabin elevation 6 - 12m
  - Cabin size for 2 - 6 operators
  - Expandable cabin width
  - Equipment and resting shelters
- Optionable platforms
  - Customized trailers
  - Preferred truck
- Air Force versions
  - C130 / C17 / AN transportation
  - Ballistic protection
  - Drone protection

MODULAR ATC TOWERS

- Cost effective version of mobile tower for long-term TWR operation
  - Construction permission not needed
  - Quick deployment/collapse (1-3 days)
  - Transportation by truck/train
- Individual design and configuration
  - Modular 20/40ft shelters design
  - Regular/double ATC tower cabin size
  - Optionable configurations from TWR cabin installed shipping containers to complex facility with balcony, engineering & equipment room, external/internal staircase, resting room, kitchen, wash room

PREFABRICATED ATC TOWERS AND ATC FACILITIES

- Individual design and configuration
- ATC tower cabins designed to fit existing tower masts
- ATC tower with tower cabin and tower masts prefabricated from steel construction enabling fast setting without construction permission
- Small terminals
- Customized shelters
- Heliports, Helipads and Mobile helipads
- Antenna masts, Mobile antenna masts

PRINCIPAL
PROJECTS

ATC / ATM SYSTEMS

EU: Czechia, Hungary, Slovakia
CIS: Azerbaijan, Georgia, Ukraine
Middle East: UAE, Yemen
Africa: Ghana, Kenya, Nigeria
Asia: Thailand
OEM: Jotron

CIVIL - MILITARY INTEGRATION

EU: Czechia, Hungary, Slovakia
CIS: Ukraine

AIRSPACE MANAGEMENT

EU: Czechia, Hungary, Slovakia
CIS: Ukraine

FLIGHT PROGRESS STRIPS

EU: Czechia, Hungary, Slovakia
CIS: Azerbaijan, Ukraine
Middle East: UAE, Yemen
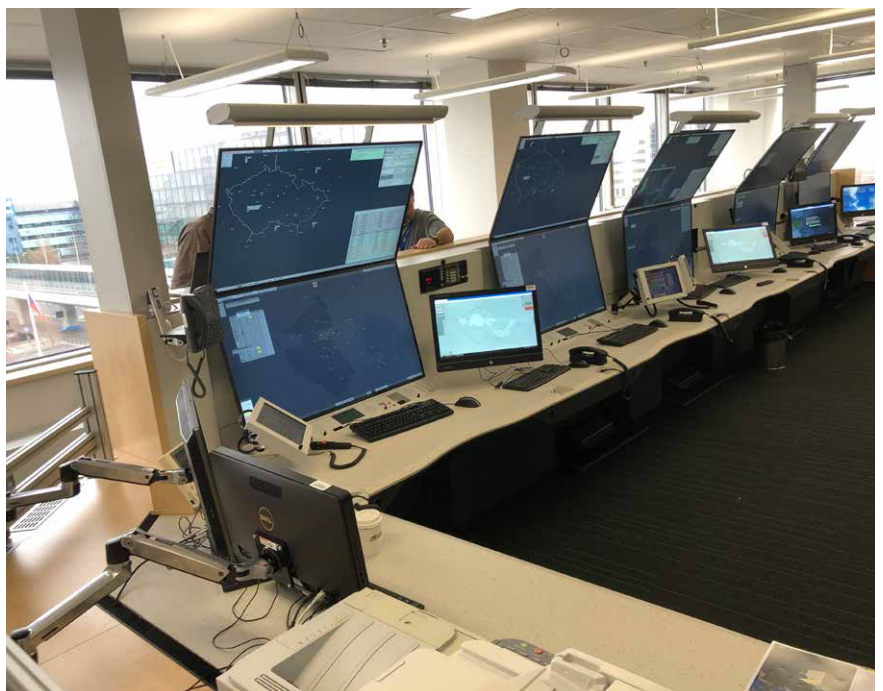Africa: Ghana, Kenya
OEM: Jotron

TWR SIMULATORS

EU: Romania
America: USA

ATC CONSOLES

EU: Czechia, Hungary, Poland, Portugal, Slovakia
CIS countries: Armenia, Azerbaijan, Ukraine
Middle East: Iraq, KSA, Jordan, UAE, Yemen
Africa: Ghana, Kenya, Morocco, Nigeria, Uganda
OEM: Jotron, Rohde-Schwarz

MOBILE/MODULAR TOWERS

EU: Poland, Slovakia
CIS: Azerbaijan, Ukraine
Africa: UN
Asia: India
America: Haiti
OEM: Rohde-Schwarz

SYSTEM INTEGRATION AND TURN KEY SOLUTIONS

PARTNERS

Turn-key solutions and system integration is provided in cooperation with leading European suppliers of aviation industry.

ADVISORY

- Services of project, quality, safety & software safety, test, training and configuration management (ESARR guidelines, EC Regulations and SAM)
- Implementing of Single European Sky legislation
- NSA audits

SURVEILLANCE

- Surveillance data processing and distribution
- Radar Networking
- ADS-B

COMMUNICATION

- VHF/UHF, Voice Communication Switching, Recoding & reply

AVIATION WEATHER
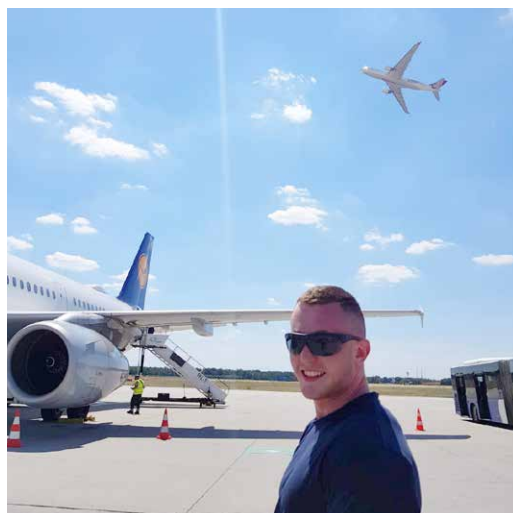
- AWOS, ARWIS, AWOSS, IMS, ATIS/VOLMET

AIRFIELD OPERATIONS

- Video surveillance (remote towers)
- Bird collision avoidance
- Drone radars
- Terminal equipment

AIR COMMAND & CONTROL

- Air Traffic Control - Air Force coordination (integration)
- National Air Command & Control system
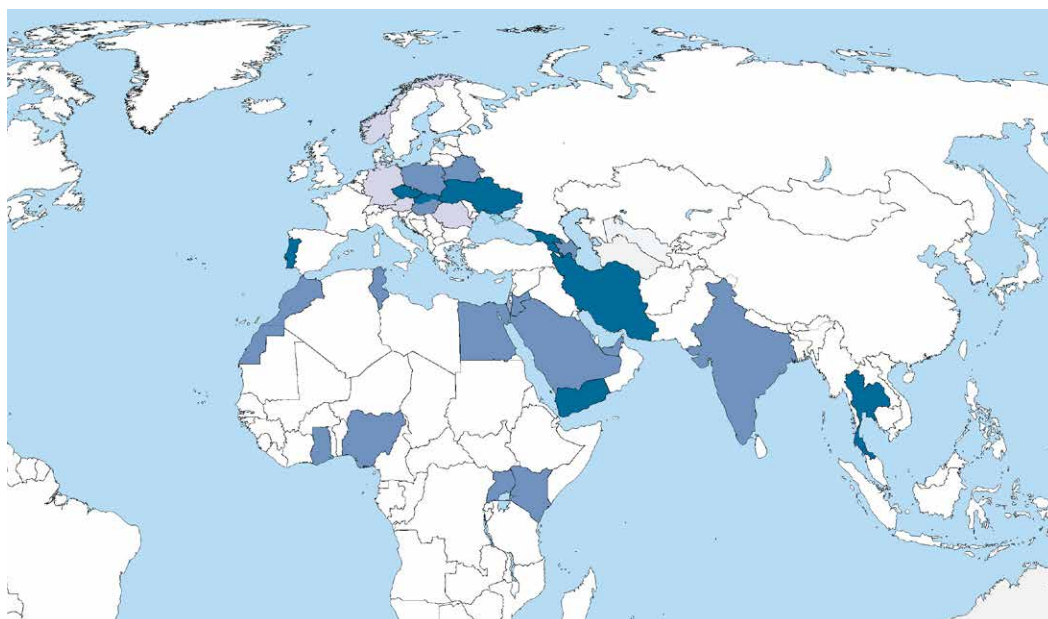- Mobile Air Command & Control systems

ROHDE&SCHWARZ

JOTRON

MicroStep - MIS

SPOT HUNGARY LTD

KS DESIGN s.r.o.

KATO design spol. s r.o.

APAC

integral we make IT simple

LOGIPIX

installations 1991 - 2012
installations 2012 - 2021
supplies

"iBross provided us with very innovative ATM facilities customised to our needs at the Nairobi Wilson Airport. The new ATM system promises to be a model not just in the country but also in the region."

James W. Nderitu
KCAA Project Manager Kenya

"I am fully satisfied with the product. It's a fantastic solution for Airports, where we may need to place air traffic control immediately. Good solution. Moreover, all products are of high quality. Good. Hopefully we may go ahead with such towers in many more airports in India..."

Arindam Chakraborty
AGM (CNS), AAI Durgapur Airport, Kolkata, India

"Thank you. I am glad that we enjoy our cooperation. We rely on you for our part of the business."

Farhan Guliyev
AZANS, Director General, Azerbaijan

"I am very pleased with the long and constructive cooperation. All systems and equipment work efficiently. Thanks for the partnership and success in new projects."

Gennadij Davidov
Head of CNS Kyiv, UKSATSE, Kiev, Ukraine

"Thanks for your great support during your stay in Morocco, please note that the plane of the Emir of Qatar has landed today successfully, I kindly thank you for your help and patience."

Bahae Rray
Maghrebnet, Morocco

"Good one. I know you are doing everything to make sure we have a very nice experience with the system. Your customer service and prompt response are greatly appreciated. Thank you very much for good job done."

John Kwofie
Civil Aviation Authority, Ghana