



360° VIRTUAL / REMOTE TOWER

Air Traffic Control in times of
staff shortages and cost pressure

| Who we are

TRIAC GmbH offers a comprehensive suite of Air Traffic Control (ATC) services, Quality and Safety Management, Incident Management and Personnel Qualification.

Our services encompass both traditional on-site ATC operations and innovative location-independent solutions. Personalized services for each client make TRIAC an ideal integral business partner.

TRIAC continuously improves the services provided to our clients. Becoming a strategic partner, TRIAC is able to supply better support, including discounted prices, expedited deliveries, technical support, and advices.



As a joint venture, TRIAC combines the extensive expertise of **Austro Control**, the leading air navigation service provider from Austria, with the experience of **TRIWO AG**, a real estate developer and the owner and operator of five airports in Germany.

| What we do

TRIAC offers a wide range of services:

- **Air Traffic Services (ATS)**
Air Traffic Control (ATC) for Towers and AFIS to ensure highest operational standards in a safe and efficient service provision.
- **Quality and Safety Management**
Including procedures and protocols to uphold highest standards of safety and operational excellence.
- **Incident Management**
Helping to mitigate the impact of unforeseen events within the aviation sector.
- **Personnel Qualification**
Ensuring that individuals involved in ATC possess the necessary skills and certifications to perform their roles effectively.
- **Enhanced Surveillance Tower Control (Remote Tower)**
Allowing airport control services to be conducted remotely, regardless of physical locations.
- **Consulting**
Supporting you in a wide range of services like Compliance Management, Safety Management and Technical Development and Integration.

"TRIAC's Remote Tower Solution delivers unmatched operational efficiency with a flexible, modular architecture that adapts to any airport environment. It enables seamless integration with existing infrastructure and offers controllers a familiar, ergonomic workspace tailored for ATCOs and AFIS operations. With fast deployment, low maintenance, and proven performance, TRIAC is the smart choice for scalable, future-ready remote tower operations."

Peter Eropkin,
General Manager
Urtica Smart Solutions LLC



Our solution



Since November 2023, our **Enhanced Surveillance Tower Control (ESTC)** is fully operational for remote Air Traffic Control (ATC) at the control zone at Oberpfaffenhofen Airport (Munich area). The ESTC can be deployed as a cost-effective entry-level version featuring a single situation display that provides all critical information from the remote airport – enabling full ATC control from the outset.

Seamless integration of

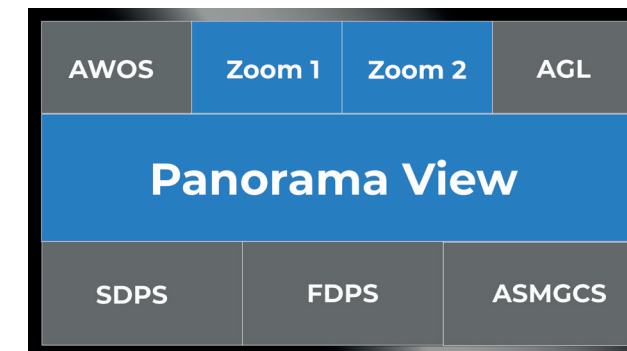
- Airfield ground lighting control
- Weather and radar data
- Flight schedule management (Electronic Flight Strips)
- Flight data overlays within video feeds
- Tracking of any aircrafts and vehicles
- Integrated voice communication systems

Advanced features like auto-tracking flight displays enhance situational awareness and support efficient ATC operations.

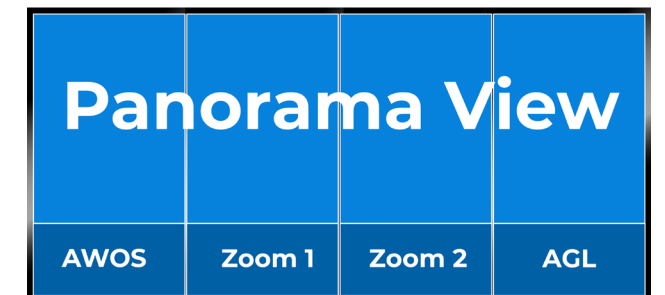
Operator comfort and efficiency

The system is fully scalable and can be customized to meet individual requirements – from a single-monitor setup to multi-monitor configurations or even large-format monitor wall solutions.

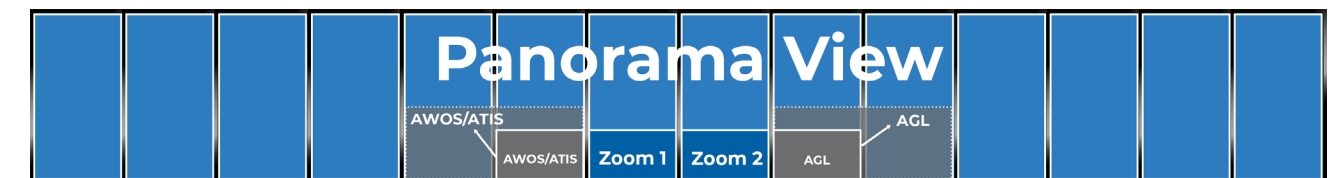
Each ATC workstation features motorized height-adjustable desks and individually adjustable monitor positions to ensure optimal ergonomics, whether seated or standing. Personalized ergonomic settings are stored and automatically applied upon user login.



Standard: Single 65" Screen (landscape)



Medium: 4x 65" screens (portrait)



Large: 14x 65" screens (portrait)

Rapid project implementation

From planning and engineering to delivery, installation, and commissioning – all possible in under 12 months.

With extremely low bandwidth requirements between the airports, data centers, and ATC working positions, ESTC minimizes transmission latency and opens new possibilities for cost-effective and reliable remote tower operations.

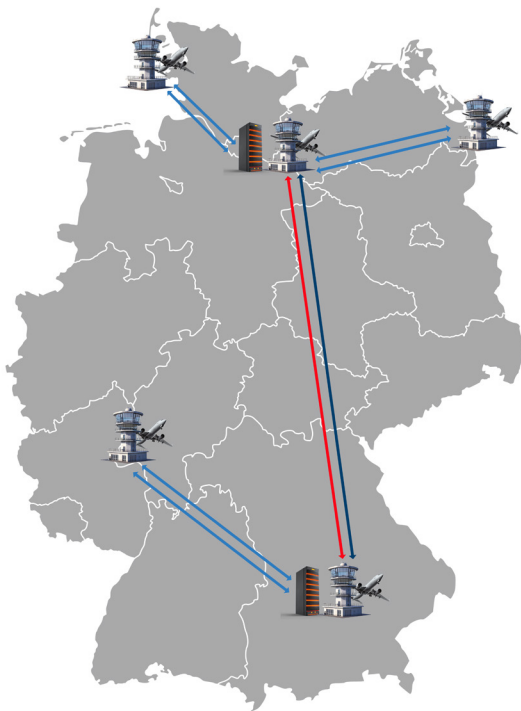
Safety, redundancy and reliability

TRIAC is using visual camera technology without any moving parts for long lasting and nearly maintenance free operation.

TRIAC offers optional gap-filler cameras and infrared cameras for enhanced night vision. The system supports also redundant data center configuration.

TRIAC system at Oberpfaffenhofen

Two different network providers and redundant network connections between the data centers, from airports to data centers and also between controller working positions and the data centers are in use.



Exemplary illustration

At the current connected airports, the respective data centers and the operation centers are using redundant servers, working position computers and redundant software running in parallel.

TRIAC offers also 24/7 remote monitoring of the installed systems by our CNS team.

"The Enhanced Remote Tower Solution will secure Air Traffic Control at our airports in the medium and long term. And thanks to the technical and personnel redundancy, we are able to perform services reliably and at a reasonable cost."

Peter Adrian,
CEO
TRIWO AG



Your advantages

1. Turnkey Solution

TRIAC provides a comprehensive system tailored for all kinds of airports, combining cameras and ATC systems with minimal on-site integration.

2. Efficient Bandwidth Usage

Our system transmits only the screen content needed by the controller, conserving bandwidth and ensuring near real-time video with minimal latency.

3. 24/7 Reliability

Using redundant data centers running in parallel ensure continuous tower operations even if one center turns down.

4. Minimal Maintenance

Without physical moving cameras or any mechanical parts our system requires less and low-cost maintenance.

5. User-Friendly Interface

Our controller workstation integrates all key functions on one or more screens, making it easy for controllers to monitor everything briefly.

6. Remote Control Capability

Our ESTC concept allows remote control from any location, making it ideal for scaling up to multiple regional airports or providing contingency services.

7. Comprehensive Service

TRIAC not only provides technology but also operational services, including staffing, training, and regulatory compliance support.

Our solution allows for **cost reductions** in ATC operations of **>25%** per airport connected.



Visit us at Oberpfaffenhofen (EDMO)!

Experience our Remote Tower solution live in action and speak with our ATCs to find out why they enjoy working with the TRIAC ESTC system!

Let's talk about your project:

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