ADVANCED, FORWARD-THINKING, AGILE REMOTE DIGITAL ATS TOWER SYSTEM.

REVAL
VIRTUAL AIR TRAFFIC CONTROL SOLUTION

Adacel's REVAL remote digital Air Traffic Services (ATS) tower system delivers a wide spectrum of digital tower operational solutions, from consulting services to system design, development, deployment, and support, for a successful transition to virtual tower operations. **This ATS remote tower solution was developed for ANSPs in close collaboration with Estonian Air Navigation Services (EANS).**

REMOTE/ONSITE, SINGLE/MULTIPLE AERODROME OPERATIONS

REVAL was built on modular, open architecture principles suitable for a variety of aerodrome operational needs, including integration with existing or new air traffic management, communication, navigation, and surveillance systems. REVAL was created to provide all the benefits of a remote tower with a more cost-effective approach.

The tower can be used remote or onsite for single or multiple aerodrome operations. When used remote, this digital ATS tower system can operate independently in a one-to-one aerodrome control setting or as part of a remote ATS tower center.

REVAL'S COMPETITIVE ADVANTAGES

- **Turnkey delivery:** we provide a full set of customized solutions and services from initial analysis, technology provision, and transition management to validation and certification consultations. The services are provided in a close-knit collaboration between Adacel and EANS.

- **Low threshold investment:** as a fully modular solution, the entry-level investment remains highly affordable and the system scalable upon request.

- **Reliability:** safety is paramount. The system features secure by design software, robust system architecture, no single point of failure, redundancy, and hot failover solutions.

- **Easy to use:** compact and integrated working positions, enhancing air traffic controllers' capabilities with technology engineered to improve air traffic control situational awareness.

- **Seamless transition:** full resemblance of a conventional ATS tower, carefully designed procedures, business case verification.

- **Weather resistant:** advanced mechanical and software solutions to provide high-quality imagery in rain, fog, direct sun, snow and ice; and in dusk and darkness.

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EANS
Estonian Air Navigation Services
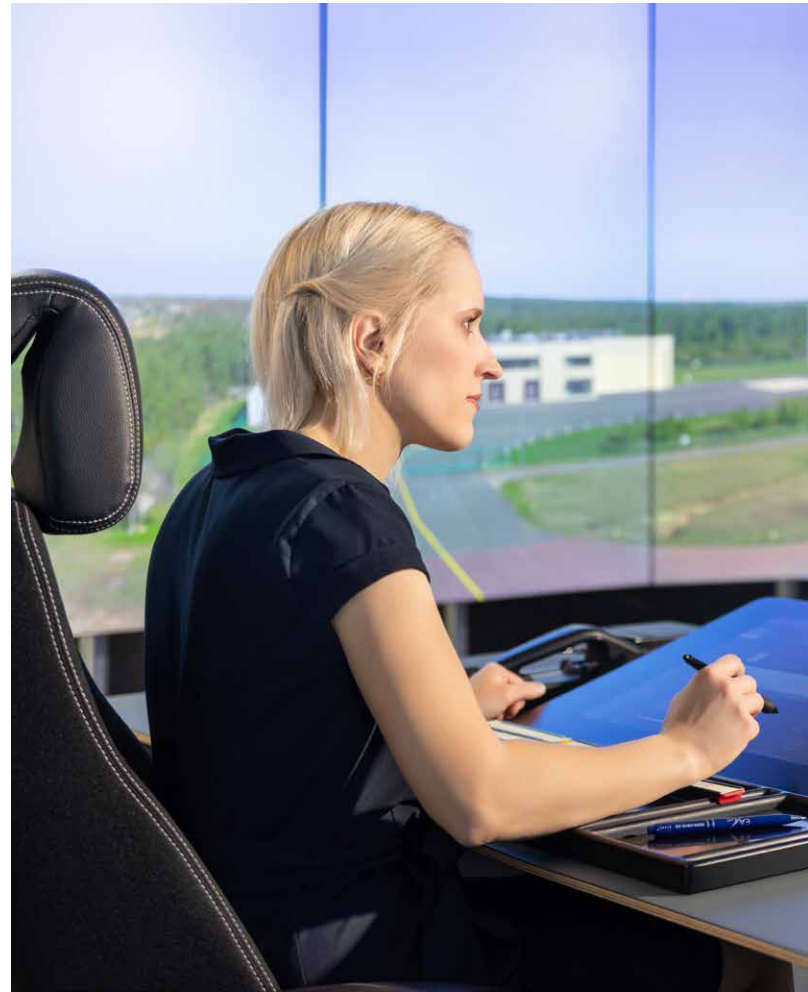eans.ee

REVAL'S APPLICATIONS

- **Single Digital Tower:**
  A solution dedicated to control a single airport

- **Multiple Digital Tower:**
  A solution dedicated to control multiple airports

- **Contingency Digital Tower:**
  A redundancy solution to a conventional ATS tower

REVAL'S CORE ELEMENTS

- Sensor cluster at the local airport
- Data transmission network
- Data processing cluster at a Remote Tower Center
- Remote Tower Centre with ATCOs working positions
- Data processing servers at the local airports
- Module control and voice communication servers at the Remote Tower Center

BASED ON CUSTOMER'S SPECIFIC NEEDS, REVAL FEATURES MAY INCLUDE:

- Out-of-the-window view using high-resolution cameras and displays
- Automated binocular tracking function using military-grade pan-tilt-zoom device
- 360° seamless panoramic view on displays with adjustable setup (e.g. 240°)
- Optional signal light gun
- Augmentation support: overlaid weather, flight data, surveillance track information
- Automatic detection of objects, advanced video analysis
- Fiberoptic datalink to Remote Tower Center
- Increased air traffic situational awareness by integration of detailed surveillance data
- Integrated Voice Communication System
- Ambient stereo audio system

- Continuous recording and archiving, with a playback functionality
- Modular camera mast
- System monitoring and alert scenarios

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EANS
Estonian
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WHY CHOOSE REVAL?

- **Cost efficiency:** built on low-cost architecture, perfect for low traffic volume areas; yet delivers advanced air traffic services and maintains safety at lower total cost of ownership. This is an outstanding cost-efficient ATS solution for low-volume flights aerodromes and heliports, including multiple remote tower solution where the personnel and infrastructure are used in a more effective way.
- **Affordability:** helps avoid excessive costs of building a new Air Traffic Services (ATS) tower or upgrading the existing one.
- **Resolving unexpected events** in a more flexible and cost-efficient manner.
- **Reliable availability:** helps provide 24/7 ATS services to regional airports with low air traffic intensity.
- **Safety and agility:** enables on-demand capacity and availability for non-scheduled flights, i.e. medical & SAR flights; tried and tested in harsh Nordic conditions.
- **Highly focused:** developed based on direct input from ATCOs and in strong collaboration with an ANSP.
- **Integrated Voice Communication System:** a single-user interface for both air traffic service operations and voice communication.
- **Peace of mind:** implementation and consulting services included with the system.

REVAL IMPLEMENTATION PROCESS AND AVAILABLE SUPPORT SERVICES

- Fact finding and analysis
- Operational concept and technical solution
- Infrastructure provision & physical installation

- System integration
- Certification support
- Business process validation support

We are here to help. Contact us: info@adacel.com

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