



SkyLine-XTM

NEXT GENERATION GLOBAL
AIR TRAFFIC SOLUTIONS

From Takeoff to Landing, A Trusted ATM Solution For Today and Tomorrow

Air Traffic Management (ATM) requires uninterrupted services, robust response, adaptability, flexibility, and intuitive failsafe operations. At Leidos, we meet these comprehensive requirements through a single system: SkyLine-X™.

Leidos has been a leader in providing ATM systems to the world's Air Navigation Service Providers (ANSPs) for more than 50 years. We designed SkyLine-X™ to keep our customers ahead of the rapidly growing demands of the global aviation market, built the system from the best components of proven, globally deployed ATM technologies, and incorporated next generation features co-developed in partnership with ANSPs and technology providers. The system provides the latest ATM services for tower and terminal, en route, oceanic, and comprehensive flow control management capabilities.

Highly Configurable Human Machine Interface To Meet Evolving Controller Needs

SkyLine-X™ features a modern human machine interface (HMI), giving it a modern look and feel that reduces clutter and allows controllers to make inputs with a minimal number of actions. The HMI was built through ANSP controller workshops, and we have found that the best of breed UI significantly decreases user acceptance and training time. The HMI's framework enables highly flexible customization — some of which can even be done by an ANSP through an intuitive styling engine — to reduce the challenges associated with transitioning from an existing HMI. In short, customers may shape the HMI to their needs without significant development effort.



Why SkyLine-X™?

- ▶ Reduces air travel delays and congestion with certified 3-mile separation tracker
- ▶ Increases throughput, cuts fuel usage, and reduces environmental emissions by optimizing the flow from runway to runway
- ▶ Provides scheduling predictability through point-in-space metering
- ▶ Improves aircraft guidance with operationally proven 4-D trajectory
- ▶ Easily integrates with existing and future technologies
- ▶ Facilitates flight data sharing with ANSPs via encrypted AIDC/OLDI interfaces
- ▶ Provides flexible configuration of features and functions
- ▶ Increases controller efficiency by allowing execution of most functions from the datablock
- ▶ Operates reliably due to dual channel architecture and poison pill cyclic redundancy protection
- ▶ Scales easily to handle greater amount of traffic
- ▶ Fast, cost-effective implementation (can be operational in months, not years)



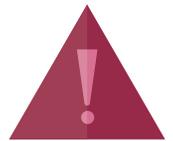
IMPROVED SAFETY WITH MODERN SURVEILLANCE

Reduces flight risk and enables three nautical mile separation by allowing controllers to monitor and control airplanes with greater precision over a greater distance thanks to high-performance sensors and sophisticated tracking algorithms. Our multi-sensor tracker easily integrates with a variety of surveillance sources including Mode-S radar, ADS-B/C, and multi-lateration. Multiple safety features include conflict alerts, minimum safe altitude warnings, approach path monitoring, automated terminal proximity alerts, and VFR intrusion alerts.



GREATER THROUGHPUT WITH TRAJECTORY-BASED OPERATIONS

Our new trajectory model featuring a kinetic-based algorithm improves throughput, flight efficiency, flight times, and schedule predictability. This real-time four-dimensional flight trajectory modeler enables performance-based navigation, automatic flight plan coordination and hand off, automatic insertions of SIDS/STARS, full flight plan route expansion display, and graphical route editing. This improved trajectory model combined with an operationally proven medium-term conflict detection capability, means controllers are able to safely handle more traffic.



OPTIMAL SITUATIONAL AWARENESS FROM SAFETY ADVISORY TOOLS

Our modern surveillance tracker and improved trajectory model are combined with our safety advisory tools such as MSAW/APM, STCA/RVSM, MTCD/LTCD, SUA alerts, STSA, and RSVM to allow controllers to safely handle more traffic. Weather and congestion advisories are also provided as an aid to controllers to increase efficiency.



INDEPENDENT ELECTRONIC FLIGHT STRIP CAPABILITY

The system includes an independent EFS that synchronizes with FDP or serves as a back up when the FDP is unavailable. The EFS can be configured to meet specific needs and the user interface can be set as touchscreen or mouse/keyboard.



GREATER AIR TRAFFIC CAPACITY PROVIDED BY SKYLINE FLOW

SkyLine Flow, our time-based scheduling flow capability is operational at seven of the ten busiest airports in the world. SkyLine Flow uses highly complex algorithms sequence aircraft within a single FIR as well as across FIR boundaries. The capability provides flight crossing and delay absorption time recommendations and speed advice at a dynamic distance from merge points enabling pilots to make small adjustments earlier in the journey, and lessening the need for vectoring. SkyLine Flow also includes a Terminal Sequencing and Spacing (TSAS) capability, which allows controllers to merge traffic into a final approach flow, even when approaches are curved. This ultimately reduces no notice holding, increases airport capacity by 3-5%, and decreases fuel use by as much as 11%.



FASTER, SAFER CONTROLLER PILOT COMMUNICATION

Using standards-based, state-of-the-art technology, SkyLine-X™ provides faster, safer and more efficient communications solutions for air traffic controllers. Supports various data modes, including FANS 1A+7 ADN, and encrypts all messages outside the system.



EFFICIENT COLLABORATION

Enables airports, airlines, and ANSPs to exchange operational information across flight information regions. Encourages better, lower cost information sharing for improved planning and resolution of ATM-related disruptions by providing controllers access to collaboration interfaces directly from the datablock. Supports ICAO standard AIDC and OLDI interfaces.

Why Partner with Leidos?

As a trusted technology provider to the U.S. Federal Aviation Administration, U.S. Transportation Security Administration, EUROCONTROL and Pacific Rim ANSPs, and 70 airport operators around the globe, we're committed to keeping our customers ahead of the rapidly growing demands of the global aviation market.

Our comprehensive suite of airport solutions — from passenger tracking to resource management, AODB to aeronautical billing, forecasting and revenue planning, departure sequencing to time-based flow measurement — help our customers more efficiently handle more than a billion passengers and 3 million flight movements annually. Combined with 24x7x365 global support, on-time delivery, and consistent reliability, Leidos is a name you can trust to support your air traffic needs.

Next Steps

SkyLine-X™ is affordable, easy to implement and maintain through an open architecture, compliant with global aviation standards including ICAO, Eurocontrol, CIS, and FAA, and can be operational in months. Schedule a technical workshop today to learn how SkyLine-X™ can help you accommodate more flights without compromising safety, even as you grow.

FOR MORE INFORMATION

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