

RCR/SNOWTAM

In the high-paced world of airport operations, real-time information is crucial. Accurate and timely assessments of runway conditions are not just regulatory requirements—they are fundamental to safety and efficiency. Safe Sky's RCR/SNOWTAM platform redefines the way airports manage runway condition assessments, offering a seamless, digital solution that ensures compliance with ICAO's Global Reporting Format (GRF). Its intuitive design simplifies reporting while enabling real-time sharing of critical information with all stakeholders, improving decision-making and streamlining operations.

- **Seamless Digital Reporting:** Transform RCR and SNOWTAM assessments into streamlined, real-time digital reports.
- **Real-Time Collaboration:** Share live updates instantly with all stakeholders for faster decision-making.
- **Advanced Integration Capabilities:** Effortlessly connect with existing airport systems for a fully unified workflow.
- **Data-Driven Automation:** Integrates with mobile sensors and aircraft data for semi-automated assessments.
- **Dynamic Visualization in Real-Time:** Instantly view runway, taxiway, and apron conditions through interactive maps and dashboards—empowering proactive decision-making with a clear, real-time overview.

Introduction

Safe Sky's RCR/SNOWTAM platform is a powerful digital solution designed to streamline the assessment, reporting, and sharing of aerodrome conditions. Fully compliant with ICAO's Global Reporting Format (GRF), it empowers airside operations to easily register and compile RCR and SNOWTAM reports in real-time. Whether documenting runway conditions, assessing taxiways, or updating snow and contamination statuses, Safe Sky makes the process intuitive for inspectors and seamless for stakeholders. One of the platform's standout features is its ability to integrate with other airport systems, enhancing data flow and connectivity. This interoperability makes it easy to share real-time updates across all connected users, supporting more informed decision-making and boosting overall operational efficiency.

Key Features

- **Efficient Digital Assessments and Reporting**
Safe Sky's platform provides a user-friendly way to register assessments and compile SNOWTAM reports directly from mobile devices or through a web app.

This seamless approach eliminates manual paperwork, speeds up reporting, and ensures data accuracy in line with ICAO's GRF guidelines.

- **Simultaneous Users**

- Airside Sync's digital platform enables unlimited users to collaborate seamlessly in real-time on the same report, streamlining assessments and enhancing efficiency in report generation.

- **Decision Support System (DSS)**

Built directly into the platform, Safe Sky's Decision Support System helps users navigate the complexities of RwyCC determination. It automatically suggests the correct RwyCC based on the conditions reported, along with any possible upgrades or downgrades, ensuring precise and compliant assessments. Because the entire regulatory framework is built directly into the platform, the Decision Support System not only guarantees compliance but also simplifies the training process for new or seasonal personnel. By providing guidance for the assessor in each step, it allows even less experienced users to confidently perform accurate assessments.

- **Start From Scratch or Amend the Previous Condition**

Safe Sky's platform provides the flexibility to initiate a new report in two convenient ways. You can either start completely from scratch or build upon the latest RCR or SNOWTAM report by simply updating it with new conditions in specific areas. This option not only saves time but also ensures that assessments remain consistent and accurate by carrying forward previously reported information.

Because of this effortless approach to generating new reports, assessments are often performed more frequently, resulting in richer data and a more up-to-date view of airside conditions. This increased frequency of reporting contributes to enhanced safety, compliance, and continuously up-to-date situational awareness.

- **Real-Time Information Sharing**

Real-time synchronization across connected devices ensures that updates are instantly mirrored across all users, regardless of location. This feature guarantees that everyone involved in operations, from airport personnel to air traffic controllers, has immediate access to the most current information available. Additionally, Airside Sync offers a function for users to generate secure, time-limited links that can be shared to provide stakeholders real-time viewing access—just like a Viewer—without the need for account setup.

- **MapView and Dashboard Visualization**

With the MapView and Dashboard, users can easily visualize the current conditions of runways, taxiways, and aprons. The interactive map displays real-time updates of assessed areas, color-coded to indicate status, while the dashboard provides detailed data on runway conditions, including RwyCC values and METAR data.

- **Non-Winter Mode**

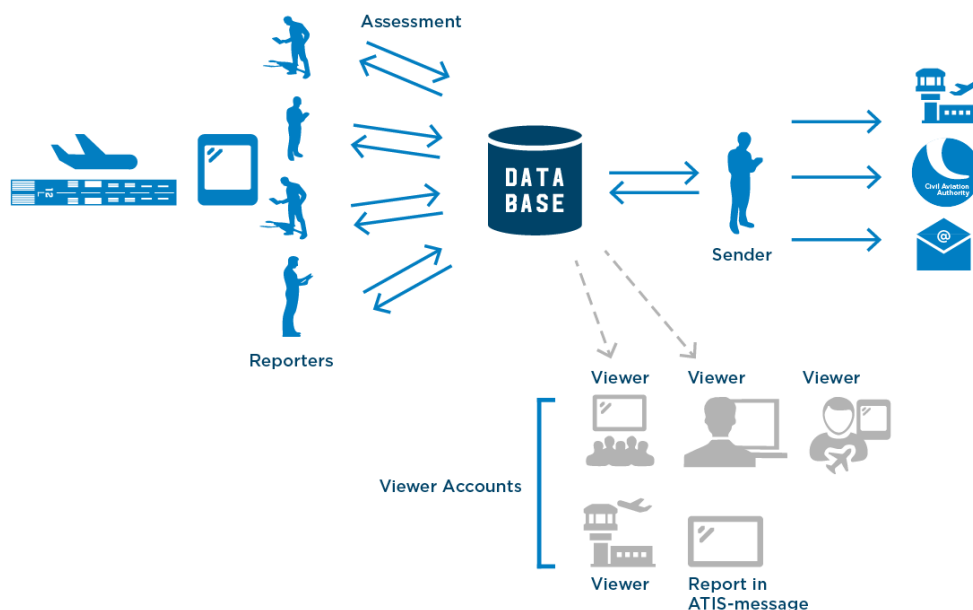
Adapting to diverse weather conditions, the Non-Winter Mode simplifies the user interface, hiding winter-specific fields and only showing the relevant summer data. This makes reporting in non-winter conditions faster and more efficient.

- **ATIS Generation**

Safe Sky automatically generates Automatic Terminal Information Service (ATIS) reports, both in text (D-ATIS) and audio (Voice ATIS) formats, with no extra work required from users. This functionality ensures that relevant parties always have access to the latest runway condition information, making it easier to share with stakeholders and aviation personnel.

- **Various different user-roles/account-credentials**

When a person is added to Airside Sync, the account is given a user-role defining what the account is accredited to do or see. Depending on the different roles when generating and issuing reports, your rights can be adjusted by the administrator. Any user account can be assigned one or multiple roles. Simply inspect and register, or review and send the final report to the responsible authorities. Airside Sync contains a flexible setup that will fit perfectly to your specific needs.



Reporter An account with reporter-credentials is allowed to perform assessment and report conditions into Airside Sync.

Sender An account that also has sender-credentials is an account that is accredited to sign off on a report, once completed, and thus send it off as an official SNOWTAM-report

Viewer	An account can be given a viewer-credential meaning that the account can view but not report. Hence a viewer-account can be given persons or functions who in any way can be benefited by the ability to see or display the current official SNOWTAM-report
Admin	Besides the central reporting-functionality of Airside Sync, there are additional features available for a user such as adding, changing locking and deleting users, ability to view archived reports, ability to see the metadata behind reports etc

- **Digital Archive and 100% Traceability**

Within the app you can easily access all previous SNOWTAM reports. All files within your history can therefore be accessed again and shared by email in different formats (txt, PDF).

In the archive all the metadata behind each report is also saved and accessible for users with the adequate credential. The metadata contains information on for example who assessed which area, if RwyCC was upgraded, downgraded, if the system-suggested code was overridden and the notes on the reason for that etc.

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- **Dedicated Training Mode**

Safe Sky's platform goes beyond just real-time assessments and reporting—it also includes a dedicated Training Mode. This feature provides a realistic, hands-on environment where staff can practice assessments, learn the reporting process, and develop their competence without affecting live operations.

Training Mode is designed to mirror the real assessment environment, allowing personnel to familiarize themselves with the system's functionalities, test different scenarios, and build confidence in their reporting skills. Whether it's onboarding new team members or running refresher courses for experienced staff, the platform's dual-environment setup ensures that everyone is fully prepared and competent when it's time for real-world assessments.

Assessment of runways

Making an assessment of the runway in Airside Sync is very easy. Sync imports and updates the latest METAR value automatically by default, or you have the option of importing your AWOS-data. This can also be updated manually in the assessment window.

Start by inputting the general information about observation time, temperature (in case you want to update value) and landing direction (optional if you wish to use). Next, move on to the aircraft performance calculation to input information about type, coverage and

depth of contaminants. Together with the air temperature will result in a RwyCC for each 3rd. If you want to make any upgrades or downgrades, simply press the RwyCC button and input desired value and reason for change (optional).

The last section covers the situational awareness and allows you to add any additional information needed, i.e. limitations in cleared length or width, if you have snowbanks present and where they are located, chemical treatment, friction value etc. You also have the option of adding any free text information in the remarks section (predetermined standard remarks can be listed and added by the click of a button).

The Runway condition assessment contains three sections:

General Information

- a. Observation time – is automatically "now" if you do not wish to change it
- b. Air temp is automatically imported from your official METAR-data unless you wish to change it
- c. Landing direction – optional if you wish to use

1. Aircraft Performance Calculation

- a. Contamination descriptions
- b. Contaminant Coverage
- c. Depth of Contaminant
- d. => [together with air-temperature] => automatically results in a RwyCC (according to RCAM)

2. Situational Awareness assessment

- a. Limitations (reduced width/length, snowbanks etc)
- b. Additional information (chemical treatment, friction, etc.)

Assessment of Taxiways and Aprons

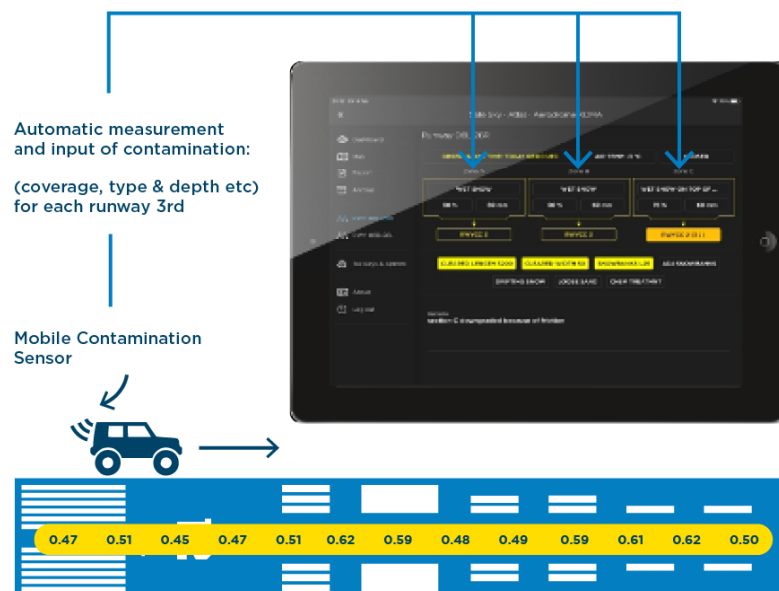
Reporting the taxiways and aprons are also very easy. Simply click on the area you want to assess and input the state, Good – Poor – Closed. In addition to status you can add if you have snowbanks present, and where they are located on the taxiways.

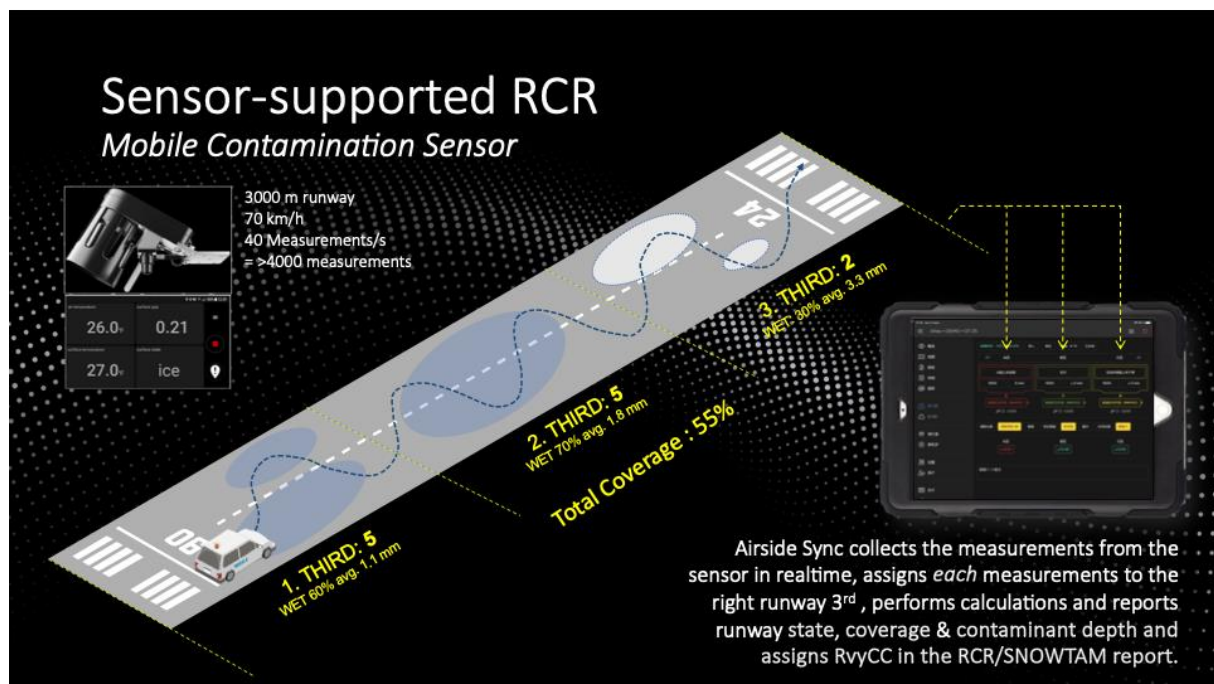
If you want to assess several at the same time you can highlight all wanted areas and just update the state in one of them and all of them will be updated. The same

procedure is applied for aprons as well. You can also customize and group your taxiways and aprons for easy sorting and assessment for optimized reporting.

Sensor-Supported RCR - Semi-Automated Reporting

Airside Sync offers a unique integration with mobile contamination sensors, providing airports with the option to include highly accurate, semi-automated runway assessments. This custom-built feature allows airports to seamlessly incorporate sensor technology directly into their RCR process. These sensors perform up to 40 measurements per second, capturing contamination type and depth at every point. This results in around 4,000 individual measurements on a runway — all geo-tagged to the correct runway third. Airside Sync then uses this data to automatically calculate coverage and support RCR assessments with unmatched precision.





Benefits of Sensor Support:

- **Objective Measurements:** The sensor-based data provides a more accurate and objective way to assess runway conditions compared to manual inspections.
- **Faster Reporting:** Automatic data collection speeds up the reporting process, allowing for quicker and more reliable updates.
- **Reduced Workload:** Inspectors can focus on verifying the sensor data instead of manually collecting measurements, making the process more efficient.

Airplane Braking Action Data Integration



Integrating airplane braking action data provides an added layer of accuracy and safety to RCR assessments. By incorporating real-time aircraft feedback, Safe Sky's platform allows for more precise correlation between reported runway conditions and actual aircraft performance.

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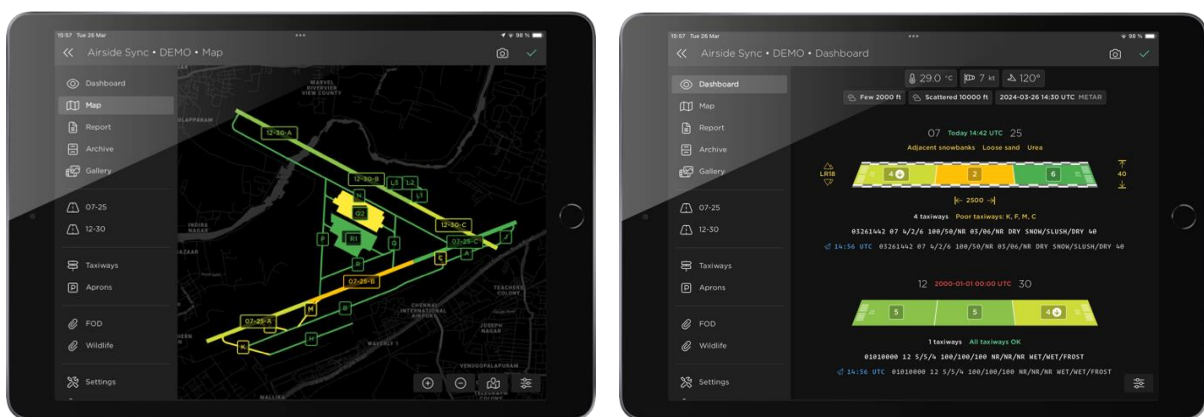
- **Real-World Validation:** Provides objective feedback on runway friction levels.
- **Enhanced Accuracy:** Supports more precise RCR assessments by validating conditions with actual aircraft performance.
- **Informed Decision-Making:** Enables better runway maintenance planning and situational awareness.

Visualization

Safe Sky's platform provides powerful visualization-tools that transform raw data into clear, interactive displays.

Through its **MapView** and **Dashboard**, users can monitor real-time conditions with intuitive, color-coded maps, offering a complete overview of runways, taxiways, and aprons. The interactive maps display real-time updates of assessed areas, enabling users to identify contamination, cleared zones, and any operational constraints at a glance.

The **Dashboard** complements this with detailed, structured information such as RwyCC values, METAR data, and situational awareness elements. This clear representation of data helps teams quickly grasp the status of all operational areas, contributing to faster decision-making and more efficient coordination.



Real-Time Information Sharing

One of the standout features of Safe Sky's platform is its ability to share real-time information across all connected users. As soon as a condition is reported or updated in the system, it is instantly reflected on every connected device, ensuring synchronized awareness among all relevant parties. This live mirroring extends to air traffic control, ground operations, and decision-makers, eliminating delays and reducing the risk of miscommunication.

Additionally, Airside Sync offers a powerful Temporary Viewer Link feature, allowing users to generate a secure, time-restricted URL for any chosen stakeholder. This link grants real-time access to view current conditions directly within Airside Sync, just as if they held Viewer credentials—without the need for account setup. This makes it incredibly easy to share critical updates with external partners, emergency teams, or regulatory bodies on demand.

With Airside Sync everyone stays informed and aligned, ensuring a quicker, more coordinated response to changing airside conditions.

Benefits of Visualization and Real-Time Sharing:

- **Improved Situational Awareness:** Clear, up-to-the-minute information allows for faster, more informed decisions.
- **Streamlined Communication:** All users see the same data simultaneously, reducing miscommunication.
- **Faster Response Times:** Real-time updates allow for quick adjustments and faster maintenance response.

PIREPs Integration for Smarter Runway Reporting

Airside Sync offers an optional PIREP module that provides flexible options for managing and utilizing pilot reports: users can either enter PIREP data directly into the Airside Sync PIREP module or import it seamlessly from existing PIREP sources. This powerful integration merges real-time PIREP observations with SNOWTAM and RCR data, enabling a comprehensive and accurate picture of runway conditions. The system automatically monitors for discrepancies based on the Global Reporting Format (GRF) regulations and triggers alerts when pilot reports indicate a need for reassessment. This ensures that runway condition reports remain current, compliant, and reflective of actual conditions.

Beyond real-time alerts, PIREP data also serves as valuable decision support during runway assessments, providing direct insights into the actual experienced conditions of landing aircraft. Furthermore, it enables follow-up analysis, allowing airports to compare reported RwyCC and runway conditions with real pilot feedback, enhancing both the accuracy and reliability of future assessments.

Benefits

Safe Sky's RCR/SNOWTAM platform offers a wide range of benefits that enhance both safety and operational efficiency:

- **Operational Efficiency and Time Savings**
The RCR/SNOWTAM module significantly reduces the time and effort required to assess and report runway conditions. With real-time collaboration, instant updates, and automatic generation of SNOWTAM and ATIS reports, airports can enhance operational efficiency and focus more on safety-critical tasks. Resulting in more frequent assessments and reports.
- **Enhanced Safety and Compliance**
By automating many aspects of the reporting process, Safe Sky ensures that all assessments are fully compliant with ICAO's GRF and regulatory requirements. The platform's built-in decision support minimizes the risk of incorrect data

entry, contributing to safer airside operations.

- **Improved Situational Awareness**

With real-time updates and detailed visualizations on the map and dashboard, airport personnel have a clear view of current conditions at all times. This enhanced situational awareness allows for faster response times and more informed decision-making.

- **Streamlined Data Management and Analysis**

Safe Sky's digital platform consolidates all reports into a single archive, making it easy to retrieve past assessments for analysis. This feature not only helps ensure consistency across reports but also enables deeper insights into historical data, supporting data-driven decision-making and continuous improvement in operational practices.

- **Seamless Communication and Collaboration**

Real-time synchronization of data across multiple devices allows all relevant stakeholders to stay on the same page, with up-to-date information available at a glance. Whether in the ops office, control tower, or on the ground, everyone has immediate access to the same information, improving communication and coordination.

- **Predictive and Historical Analysis**

By providing easy access to both historical and real-time data, Safe Sky enables airport operators to identify trends, assess long-term changes in runway conditions, and make proactive improvements based on data-driven insights. "" (Section content remains as previously added)

Conclusion

Safe Sky's RCR/SNOWTAM platform is a comprehensive, all-in-one solution for modern airside operations. It simplifies the reporting process, improves decision-making, enhances safety, and ensures compliance with international standards. With its innovative features, including sensor integration, real-time information sharing, and seamless reporting, Safe Sky offers airport operators the tools they need to stay ahead in the complex and ever-changing world of airside management.

By embracing this digital platform, airports can not only streamline their reporting processes but also improve the accuracy, efficiency, and safety of their operations. Safe Sky is committed to providing forward-thinking solutions that drive safety, compliance, and operational excellence in airside management. As regulations evolve and demands on airport operations increase, Safe Sky's RCR/SNOWTAM platform remains a reliable partner, delivering real-time insights and robust decision support for the industry's most critical assessments. "" (Section content remains as previously added)""