

White Paper

Transforming Air India's Cargo Operations with AssetMaestro



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Air India, through its cargo handling subsidiary AISATS, has embarked on a transformative journey to modernize and optimize its cargo logistics operations at key airports, including Kempegowda International Airport, Bengaluru, and Noida International Airport. The implementation of AsstMaestro’s comprehensive asset and maintenance management solution has significantly enhanced operational efficiency, asset utilization, and compliance management. This whitepaper explores how AssetMaestro’s platform has empowered Air India to streamline complex cargo handling processes, improve maintenance reliability, and support scalable growth across geographies.

Introduction

The aviation cargo ecosystem is inherently complex, involving diverse assets ranging from dedicated freighters and ground handling equipment to cold storage and automated warehousing systems. Managing these assets efficiently while ensuring operational continuity and regulatory compliance is critical to maintaining high service standards and profitability.

Air India, via AISATS, operates two major cargo hubs:



AISATS BLR Logistics Park

at Bengaluru, operational since September 2024, serving the export-import (EXIM) community and freight forwarders with cargo consolidation and transportation.



AISATS Multi-Modal Cargo Hub (MMCH)

at Noida International Airport, an integrated cargo terminal and warehousing facility expected to commence operations by Q4 FY 2024-25.

To meet operational challenges and growth ambitions, Air India adopted AssetMaestro’s intelligent asset management platform, enabling data-driven decision-making and operational excellence.

Challenges Addressed by AssetMaestro



1 Managing a Diverse Complex Asset Portfolio

Air India manages a wide range of high-value assets including aircraft fleets (freighters, passenger belly hold, charter aircraft), ground handling equipment (cargo loaders, forklifts, unit load devices), warehousing infrastructure (cold storage, automated storage & retrieval systems), and fuel resources.



Impact

The platform delivers a consolidated 360-degree view of all assets, integrating data from multiple systems to provide real-time visibility into asset health, location, and status. This single source of truth empowers optimized asset utilization and proactive maintenance scheduling.

2 Optimizing Fleet Utilization and Maintenance

Challenges such as aging fleets, under utilization, and maintenance delays impact operational costs and reliability.



Impact

- ✓ Predictive maintenance capabilities reduce downtime by anticipating equipment failures before they occur.
- ✓ Automated alerts and workflows facilitate timely spare parts management, minimizing delays caused by sourcing challenges.
- ✓ Enhanced route and load planning analytics improve capacity utilization, reducing operational costs and missed revenue opportunities.

3 Ensuring Regulatory Compliance and Safety

Air India must comply with stringent domestic and international customs, security, and environmental regulations, including carbon emissions tracking.



Impact

- ✓ Real-time tracking and transparency features enhance cargo security and customs compliance.
- ✓ Integrated compliance management tools help monitor regulatory adherence across multiple business domains, ensuring safety and security standards are met consistently.



Challenges Addressed by AssetMaestro



4

Coordinating Across Multiple Stakeholders

Operations involve coordination among airport authorities, freight handlers, customs, and internal teams.



Impact

The platform’s collaborative features streamline communication and coordination, ensuring alignment across stakeholders and minimizing operational disruptions.



Improved Operational Continuity

Strategically planned asset maintenance reduces unplanned downtime, ensuring smooth cargo terminal and fleet operations—critical for meeting tight cargo schedules and minimizing passenger disruptions.



Cost Optimization

By balancing maintenance with operational needs, and improving asset lifecycle insights, Air India has optimized CAPEX and OPEX planning, resulting in significant operational expense reductions.



Enhanced Safety & Security

Consistent compliance monitoring and automated safety checks lead to improved adherence to aviation regulatory standards, safeguarding personnel, passengers, and cargo.



Increased Productivity & Asset Life

Automation and intelligent asset tracking have improved first-pass yield in maintenance and cargo handling processes, extending asset life and boosting workforce productivity.

Operational Benefits Realized

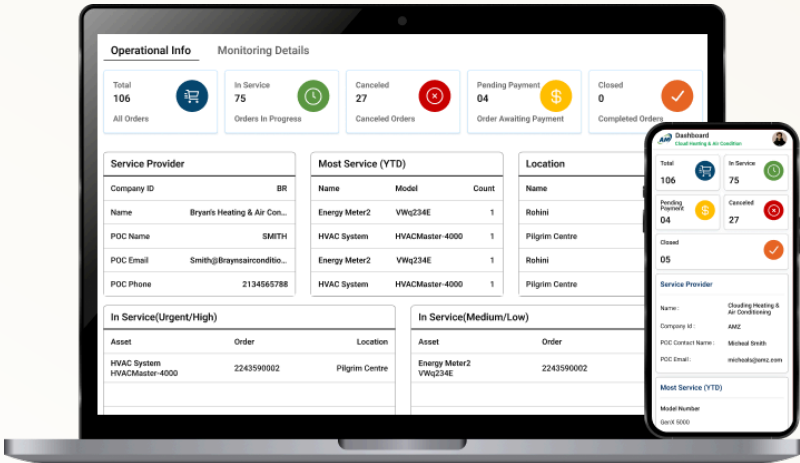
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Future Outlook



With AssetMaestro’s scalable platform, Air India is well-equipped to support the upcoming operationalization of the Noida MMCH and its ambitious global expansion plans starting with the Middle East. The integration of advanced technologies and data-driven asset management will continue to be a key enabler in delivering seamless cargo operations across geographies.



Conclusion

AssetMaestro’s partnership with Air India exemplifies the power of intelligent asset and maintenance management in transforming aviation cargo operations. Through enhanced visibility, predictive maintenance, regulatory compliance, and stakeholder coordination, Air India has achieved operational excellence, cost savings, and improved customer satisfaction – positioning itself as a leader in India’s evolving cargo logistics landscape.



For more information on how AssetMaestro can transform your aviation operations, visit

www.assetmaestro.com

To schedule a demo, call us at
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