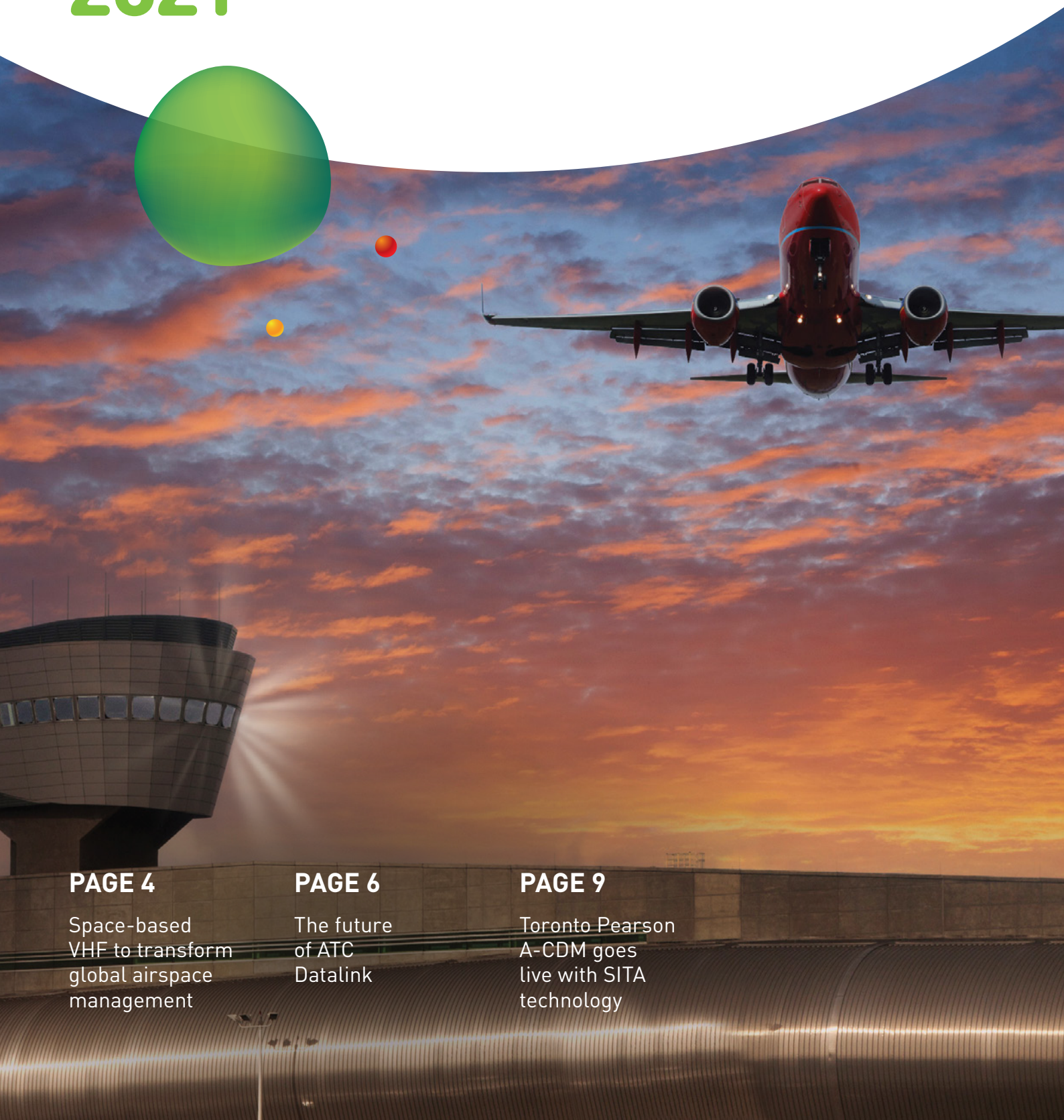
SITA

ATM HIGHLIGHTS 2021



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EDITORIAL

COVID-19 has dramatically impacted the air transport industry, particularly Air Traffic Management (ATM). As traffic slowly but surely picks up again, our primary focus lies on recovering from this unprecedented crisis.

Nevertheless, many of our challenges in ATM have remained the same or have become even more pressing. New regulations have come into effect. The pressure from society and governments on environmental aspects is increasing, and the use of eVTOL (electric vertical takeoff and landing) aircraft and drones is expanding. Given all these developments, we are challenged to make air traffic even safer and more efficient.

Despite the pandemic, the industry has not idled away as new communication, navigation, and surveillance paradigms have gained momentum. They were facilitated by the advancements of real-time data management and processing, telecommunications, and cyber security technologies. Given the scarce investment resources, some ANSPs are joining forces to drive commonality and business efficiency.

Let us highlight some trends: First, seamless – and secure – data exchange is paving the way for enhanced collaboration between operational stakeholders: airports, airlines, ANSPs. More flexible and adaptable decision-making tools will emerge, supporting improved airside operations. Second, while air/ground datalink communication remains a key enabler, new technologies will emerge from enhanced ground networks to satellite constellations. Datalink will also support new navigation concepts, addressing more demanding operational practices and enhanced aircraft equipment. Space-based technologies will allow reduced separation without reducing safety. These trends coincide with new regulations and standards, which raise the expectations and requirements for air traffic control infrastructure.

Throughout the crisis, SITA focused on supporting customers, and we thank them for their continued trust. We leverage and share data to minimize disruptions. We seek to improve operational efficiency and resilience by optimizing resources and predicting air traffic.

We believe VHF/VDLm2 has done a fantastic job supporting the industry and will continue doing so. While new technologies will undoubtedly mature – recognizing the value of multilink – it will be equally critical for the industry to enhance VHF/VDLm2. Existing and new, promising technologies will become dependable and complementary. We will continue to explore datalink technologies such as IRIS, LDACS, and space-based VHF and proactively support TBO experiments in Europe.

Using a combination of decentralized technologies for secure data exchange will enable efficient use of airspace and airport resources. This approach will also support the sharing of airspace between unmanned and manned vehicles in the future.

Finally, SITA will contribute to the new standards and regulations that will combine efficiency and safety, for example, performance-based communication and surveillance (PBCS).

In summary, SITA is committed to supporting ANSPs and the broader air transport community – including airlines and airports – in achieving an i**mproved, safer, and more environmentally friendly air transport network**. If you would like to discuss the continued evolution of ATM in 2021 and SITA's vision for the future, come and visit us at the **World ATM Congress, Hall 9, Stand 337**.

Semi Gabteni, Director Unified Aircraft Communications, SITA FOR AIRCRAFT

Patrick Geurts, Director ATC Business Development, Europe, SITA FOR AIRCRAFT

SPACE-BASED VHF TO TRANSFORM GLOBAL AIRSPACE MANAGEMENT

After decades of relative stagnancy, the management of global airspace is going through a much-needed transformation. Space-based Very High Frequency (VHF) radiocommunication, alongside space-based ADS-B, has the potential to usher in a new area for air traffic control (ATC). Combining these two technologies could finally allow for aircraft separation through oceanic and remote areas, or domestic airspace with communication gaps, to be safely reduced.

While the first civilian air transport boom at the dawn of the jet age in the late 1950s brought significant advancements to ATC and air navigation services, oceanic airspace was, and remains, one of the least-developed areas of air traffic control.

In the early days, air traffic control centers were equipped with VHF radios and radars and situated directly underneath the main flight paths and route intersections to enable optimal radio coverage and tactical intervention. Air traffic controllers relied on pilots sending voice reports over the radio to track aircraft positions while monitoring air traffic in busy intersections with new radar technology. This method, known as procedural service, relied on an air traffic controller maintaining situation awareness of flights by manually triangulating their position without seeing them on the radar.

Fast-forward to today, surprisingly little has fundamentally changed in the management of oceanic airspace. Satellite communications gradually replaced unreliable and poor-quality High Frequency (HF) radiocommunication, but airlines fly the same direct routes over the oceans, and air traffic controllers still provide traffic separation through procedural service.

The introduction of satellite communications (satcom) in the late 1970s represented an important shift for oceanic air traffic control. Manual pilot reporting over voice was replaced with an automated position report relayed via satcom in a service known as ADS-C (Automatic Dependent Surveillance – Contract), and ATC voice instructions from now on were sent via text over controller-pilot data link communications (CPDLC).

These changes improved the clarity and reliability of communication over oceanic regions. However, it still took a long time for messages to reach the aircraft (minutes rather than seconds), meaning that ATC remained largely procedural. The procedural approach caused traffic separation standards to maintain great distances between aircraft, limiting oceanic routes' capacity and growth, particularly in high-volume regions such as the North Atlantic.

To remedy this ADS-B (Automatic Dependent Surveillance – Broadcast) was introduced. ADS-B effectively functions as a space-relay of position signals transmitted by aircraft over the ocean where no ground infrastructure can detect them. While this allows ANSPs to reduce separation, it does not reduce procedural operations. This is because although air traffic control can see aircraft over the ocean in real time, they still cannot talk to them in real time.

The only way to achieve real-time communications, known as Direct Controller Pilot Communications (DCPC), is via satellites. But because this is a dial-up service, like placing a phone call to the cockpit, it can take a minute or so to set up the connection.

THE ONLY WAY TO ACHIEVE REAL-TIME COMMUNICATIONS, KNOWN AS DIRECT CONTROLLER PILOT COMMUNICATIONS (DCPC), IS VIA SATELLITES. BUT BECAUSE THIS IS A DIAL-UP SERVICE, LIKE PLACING A PHONE CALL TO THE COCKPIT, IT CAN TAKE A MINUTE OR SO TO SET UP THE CONNECTION.

As an interim step towards immediate DCPC services, SITA has been working with Inmarsat to reduce the satellite call set-up time from over a minute to under 20 seconds. While this vast improvement already brings operational and safety benefits, it is still not an instantaneous "push-to-talk" capability. Therefore, the next step requires a revolutionary shift, lifting our terrestrial VHF network from the ground and taking it up to the sky for Space-based VHF.

The combination of Space-based ADS-B and Space-based VHF capabilities can offer ANSPs and airlines tremendous growth potential for (new) routes and their capacities by transitioning from procedural to full ATC separation service in oceanic airspace. SITA is closely engaged with new technology and data service providers to explore the possibilities and market feasibility.

Design work has commenced, but much remains to be done, particularly in frequency usage and allocation, link budget verification, and cost-feasibility studies. The Civil Aviation Authority of Singapore (CAAS) has already signed a memorandum of understanding to explore a world-first Space-based VHF solution, recognizing its potential benefits for ANSPs.

SITA, in the meantime, is going a step further. We recently joined forces with Indra to support the SESAR VLD project called VOICE. VOICE stands for "VHF communications over LEO satellites for reduced separations and improved efficiency". The project aims to demonstrate that VHF payloads on an LEO satellite can enable standard communication services such as FANS, ATN, and voice communication.

Exciting times lie ahead.

THE FUTURE OF ATC DATALINK

GROWING BANDWIDTH DEMAND

It is now evident that new ATC features such as Trajectory Based Operations (TBO) will become the norm. They will require significantly more bandwidth. TBO, for example, is expected to require three to four times the bandwidth of today's ATC features. The reliability, latency, and security requirements for these new features will become more demanding as Air Traffic Services Units (ATSUs) become increasingly dependent on them to perform efficiently.

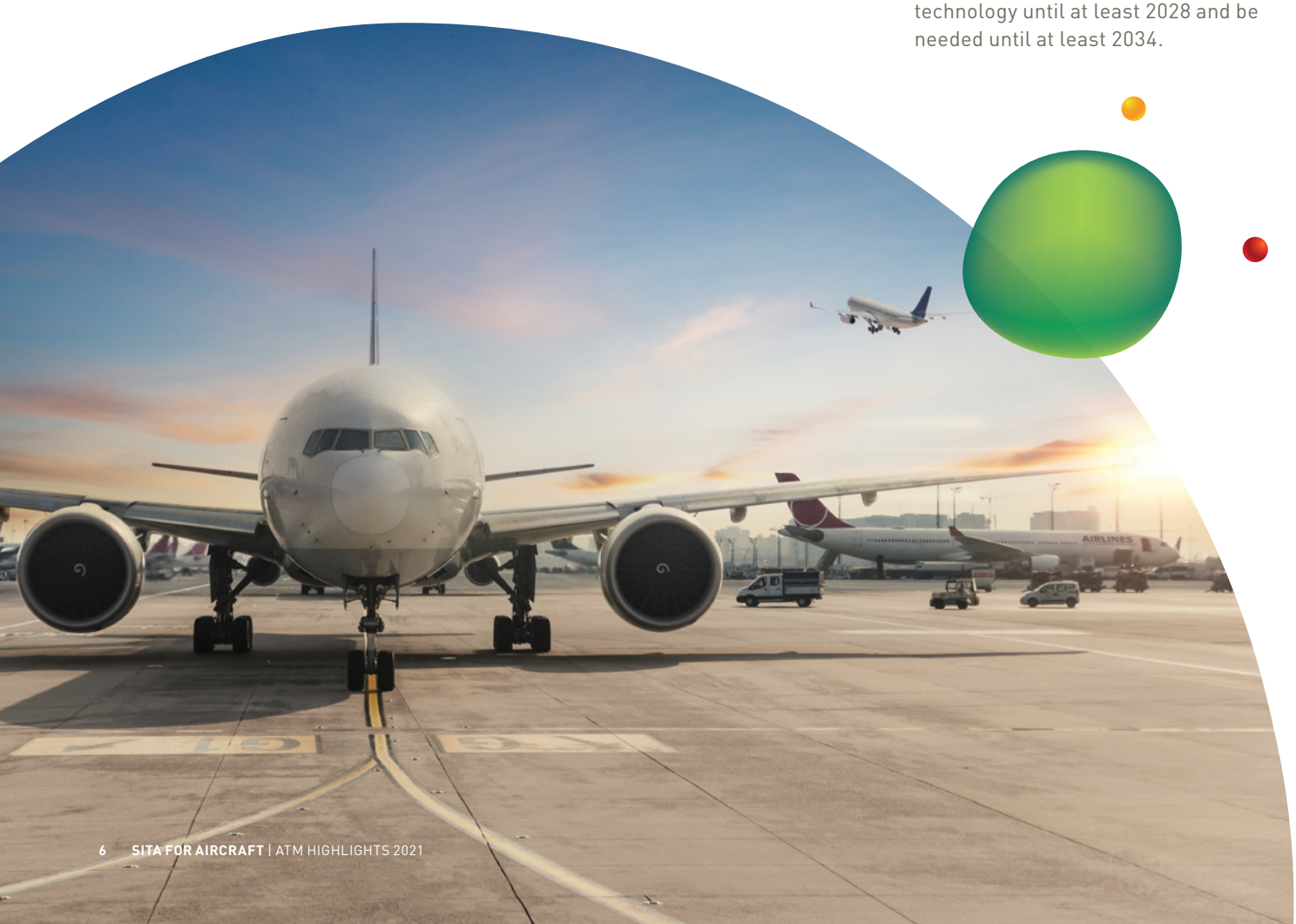
We also observe that every new aircraft generation requires roughly four times the bandwidth of the previous one. If these airline needs are to be met without impacting the ATC community, significantly more bandwidth will be needed. This is because the bandwidth of today's air-to-ground links is shared between air traffic control and airline operational communications (AOC) stakeholders. Sharing the bandwidth is efficient, but increases in one stakeholder's demand can impact the other stakeholder.

Finally, it is predicted that global traffic levels will return to 2019 pre-COVID levels relatively quickly and then continue to grow. In Europe, traffic levels could exceed those of 2019 in 2024.

VDLM2

Many of the world's ATSUs currently have datalink connectivity through SITA's VDLm2 (VHF Data Link mode 2) network. This network has enabled the community to benefit from the advantages of CDPLC and ADS-C for more than 13 years.

While new technologies are being developed, none of these will replace VDLm2 in the short or medium term. It will take time until these technologies are ready for deployment. The transition of aircraft and ANSPs to even the simplest of these alternatives is likely to take many years. The community should expect the VDLm2 network to be the primary datalink technology until at least 2028 and be needed until at least 2034.



The VDLm2 technology, therefore, needs to be upgraded and maintained. In the years to come, SITA will keep enhancing its VDLm2 network so that it continues to meet customer expectations for the rest of its lifetime.

FUTURE TECHNOLOGIES

The improvements that are planned to the VDLm2 network will extend the life of the technology but despite this, it will not be adequate to meet the long-term needs of customers. A mixture of new terrestrial and non-terrestrial technologies will be needed to meet this challenge.

MultiLink
ANSPs and airspace users have shared their wish to see a future that provides them with viable choices and flexibility. To meet this requirement, SITA is investing in MultiLink technology that will allow the integration of many communications technologies into one platform, providing:

- Redundancy – messages always have a viable delivery route.
- Customer choice – customers can balance performance against cost.
- Selective routing – messages of different types can be routed with the most appropriate technology.
- Simplicity – the complexity will be handled by the communication service provider, leaving the customer with a simple interface.

IRIS
To offer European customers a non-terrestrial datalink connection, SITA plans to interface with the Inmarsat IRIS satellite network. This technology provides high-bandwidth, low-latency connectivity across Europe, including oceanic and remote areas where VDLm2 connectivity is not viable.

LDACS
To complement the existing terrestrial datalink connection (VDLm2), SITA plans to offer LDACS connectivity. This solution is based on a terrestrial network of ground stations that support high-bandwidth, low-latency connectivity via l-band frequencies.

IPS
Today's datalink infrastructure uses bespoke protocols (ATN/OSI in Europe and FANS/ACARS elsewhere). These protocols perform as designed, but they are less efficient than the more modern Internet Protocol Suite (IPS). IPS would also allow the implementation of greater security measures.

ADOPTION AND DEPLOYMENT

While the high-level requirements for ATSUs in different regions are typically similar, the timescales can be dramatically different. Because the future SITA ATC Datalink Service product will be MultiLink-compliant, customers will be able to choose only the capabilities they need when they need them.

New air-ground technologies require varying levels of change to aircraft avionics. Because of the large number of aircraft likely to perform datalink communication in the future, this equipage change has obvious financial implications. SITA guides the implementation of these technologies, minimizing costs.

The programme above represents a substantial set of investments that SITA is making to ensure that the ATC Datalink infrastructure of the future exceeds the requirements of the community.

IT IS PREDICTED THAT GLOBAL TRAFFIC LEVELS WILL RETURN TO 2019 PRE-COVID LEVELS RELATIVELY QUICKLY AND THEN CONTINUE TO GROW. IN EUROPE, TRAFFIC LEVELS COULD EXCEED THOSE OF 2019 IN 2024.

EVOLVING PERFORMANCE-BASED COMMUNICATION AND SURVEILLANCE (PBCS)

This article is intended to provide the brief history of PBCS from the development of its initial concept to the inclusion into the ICAO standard framework and more improvements to come.

The performance based communication and surveillance or PBCS concept provides a regulatory framework to apply required communication performance (RCP) and required surveillance performance (RSP) specifications to ensure appropriate performance levels for relevant Air Traffic Management (ATM) operations. This enables reduced horizontal separation (lateral/longitudinal) between eligible aircraft in an airspace where performance based separation standards are applied.

In the absence of objective criteria to evaluate communication performance requirements, the International Civil Aviation Organization (ICAO) in 1997 developed the concept of Required Communication Performance (RCP). RCP established the performance required for communication capabilities that support air traffic management functions without referring to a specific technology. This was essential for developing operational concepts using emerging technologies.

The ICAO Operational Data Link Panel further developed the initial RCP concept, completing it in 2001. The Panel's work then became the foundation of the Manual on RCP (Doc 9869). Over the next decade, this Manual was continually adapted and finally published in 2010.

From then on, the North Atlantic (NAT) region worked on transitioning to performance-based separation minima, initially targeting implementation in 2015. In 2014, the ICAO decided to include performance-based communication and surveillance (PBCS) provisions in the relevant ICAO Annexes and Procedures for Air Navigation Services (PANS) documents. The ICAO's decision provided the basis for harmonizing global safety and efficiency and standardizing international functional and performance requirements for communication. At the time, ICAO changed the global standard for separation minima from requiring 'datalink equipage' to 'RCP240 and RSP180 compliance.'

Amendments to the Annexes and PANS concerning PBCS and performance-based separation were approved and adopted by the ICAO Council with an applicability date of 10 November 2016. Doc 9869 was renamed and updated to align it with the final PBCS provisions in the Annexes and PANS.

Today, the ICAO Operational Datalink Working Group updates the Doc 9869 (now renamed as PBCS Manual) with the PBCS Project Team – a dedicated task force consisting of industry experts from Air Traffic Service Providers (ATSPs), aircraft operators, aircraft systems manufacturers, and Communication Service Providers (CSPs). The goal is to publish the next PBCS Manual in the first half of 2023, improving the guidances on operational authorization for RCP and RSP specifications, ANSP's safety assessments when end to end performance does not meet the requirements, and means of compliance for CSP requirements and its demonstration, among others.

As a standing member of the Working Group, SITA has played a key role in the ongoing refinement of the PBCS framework, clarifying network performance boundaries and CSP compliance in support of the PBCS Global Monitoring Program.

PBCS ENABLES REDUCED HORIZONTAL SEPARATION (LATERAL/LONGITUDINAL) BETWEEN ELIGIBLE AIRCRAFT IN AN AIRSPACE WHERE PERFORMANCE BASED SEPARATION STANDARDS ARE APPLIED.

TORONTO PEARSON A-CDM GOES LIVE WITH SITA TECHNOLOGY

As the industry prepares to recover from the pandemic, one airport in North America is uniquely positioned for traffic to the return: Toronto Pearson International Airport. Managed by the Greater Toronto Airport Authority (GTAA), the airport recently pioneered North America's first full implementation of Airport Collaborative Decision-Making (A-CDM) by using SITA's solutions.

Now fully operational, A-CDM brings together Toronto Pearson's stakeholders to make operational decisions based on accurate, timely information. This collaborative approach to airport operations was made possible by implementing the complete A-CDM platform of the SITA Operations at Airports portfolio.

More than ever, airport collaboration based on relevant and accurate real-time information is vital. A-CDM puts powerful data in the hands of all airport stakeholders so they can quickly and easily adapt operations to changing circumstances. GTAA refers to the constantly updated information – which crucially is visible to all – as the single point of truth. Having the ability to share real-time information about turnaround times has meant that GTAA could reduce congestion and improve on-time performance. The efficiency gains also resulted in cost savings for GTAA.

The predictive capabilities of SITA's technology not only prove beneficial to airport operations teams, but airlines, ground handlers, government agencies, and other stakeholders. The entire airport ecosystem can get in front of problems and fix them before they cause long delays. Airports can see arrivals up to a thousand miles out, plan and make necessary changes.

Looking ahead, GTAA is focusing on landside efficiencies and having everything connected with Total Airport Management (TAM). This approach will encompass surface access, landside, terminal and airside operations, giving the airport an end-to-end view. With the A-CDM foundation in place and TAM on the horizon, SITA looks forward to continuing the journey with GTAA.

SITA products and modules: SITA Airport Management, SITA Pre-Departure Sequencer (PDS), SITA De-Ice Operation Planner

EUROPE

PANSA SELECTS SITA FOR ATC TOWER COMMUNICATIONS OF EIGHT POLISH AIRPORTS

The Polish ANSP PANSA contracted SITA to provide air/ground communications for the Departure Clearance (DCL) service of eight Polish airports: Warsaw, Krakow, Gdansk, Katowice, Modlin, Wroclaw, Poznan, and Rzeszow. It is an essential step for PANSA in its quest to digitalize air traffic control further. DCL will enhance tower controller productivity while improving the safety of departure clearance. SITA will add a VHF station in Modlin to its infrastructure and commence service in 2022.

DFS RENEWS ATC COMMUNICATION SERVICES WITH SITA

SITA and DFS signed a contract in 2020 renewing the provision of ATN/VDLm2, DCL and D-ATIS-managed services in Germany. Operating a network of 29 VHF stations in Germany, SITA supports DFS for CPDLC according to the European Implementing Rule on Data Link Services in the Karlsruhe and Munich ACCs. The offered solution is based on a VHF infrastructure that fully supports VDLm2 multi-frequency as per the model recommended by the SESAR Deployment Manager (SDM). In addition, SITA's air/ground communications support the DCL application at 10 German airports and the D-ATIS application at 15 German airports.

DCA CYPRUS RELIES ON SITA FOR ATN/VDLM2

By deploying SITA's ATN/VDLm2 solution, the Cyprus Department of Civil Aviation (DCA) is using the best option for a seamless CPDLC service and complying with the European Implementing Rule on Data Link Services. SITA provides complete VHF coverage of Cyprus' airspace, including the maritime area. It ensures that the air/ground data exchange meets the stringent performance requirements of modern ATC operations. SITA also supplies the ATN (Aeronautical Telecommunication Network) ground router based on Thales' ProATN.

SITA COMPLETES SAT FOR ATC TOWER SYSTEMS IN AZERBAIJAN

AZANS, Azerbaijan's ANSP, and SITA successfully completed the site acceptance test (SAT) for the ATC tower systems in Baku, implementing DCL and D-ATIS-managed services. The SAT had been postponed to March 2021 due to the pandemic and the resulting travel bans in 2020.

SITA PROVIDES COMPLETE VHF COVERAGE OF CYPRUS' AIRSPACE, INCLUDING THE MARITIME AREA.

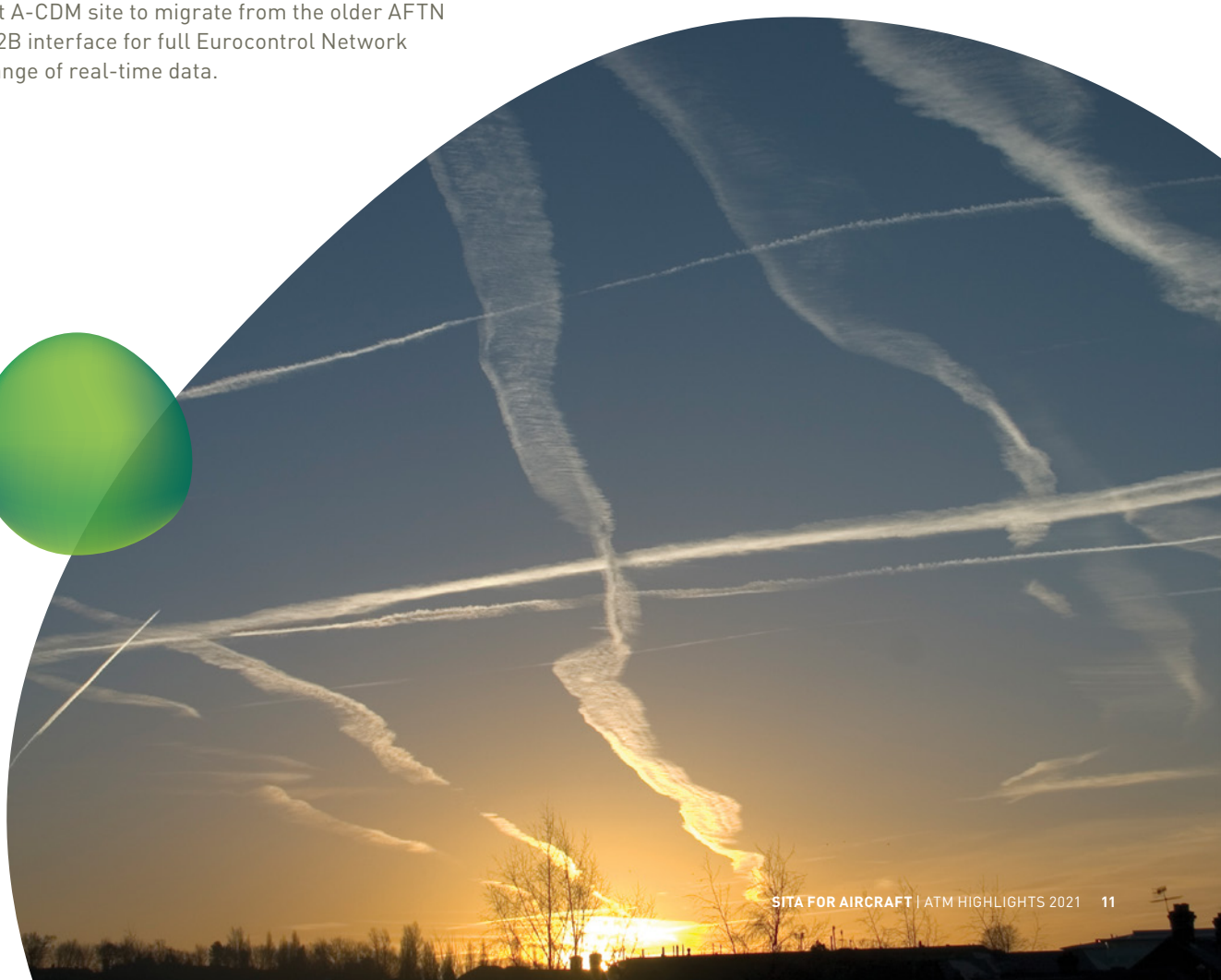
HUNGAROCONTROL RENEWS ATN/VDLM2 CONTRACT WITH SITA

Hungarocontrol prolonged its ATN/VLm2 contract with SITA by 5 years for a seamless CPDLC service in copliance with the European Implementing Rule on Data Link Services. The contract renewal includes full support for VDLm2 multi-frequency as per the model recommended by the SESAR Deployment Manager (SDM).

ATHENS INTERNATIONAL AIRPORT

Looking to replace its existing tools, Athens International Airport (ATH) in September 2021 selected SITA to provide AODB (Airport Operations Database), FIDS (Flight Information Display System) and A-CDM (Airport Collaborative Decision-Making). Recently, ATH entered the parallel testing phase for A-CDM. Until go-live later in 2021 the SITA Pre-Departure Sequencer provides a parallel departure sequence. ATH is also SITA's first A-CDM site to migrate from the older AFTN to the newer B2B interface for full Eurocontrol Network Manager exchange of real-time data.

AZANS, AZERBAIJAN'S ANSP, AND SITA SUCCESSFULLY COMPLETED THE SITE ACCEPTANCE TEST (SAT) FOR THE ATC TOWER SYSTEMS IN BAKU, IMPLEMENTING DCL AND D-ATIS MANAGED SERVICES.



MIDDLE EAST & AFRICA

SOUTH AFRICA – AIR TRAFFIC & NAVIGATIONAL SERVICES (SOC LIMITED), ATNS

ATNS, South Africa's air traffic and navigation services company, is the sole provider of air traffic, navigation, training, and associated services within the country and also responsible for ten percent of the world's airspace. SITA has supplied ATNS with ATC datalink connectivity services since 2014 and will continue to do so until 2028. A newly signed contract not only reaffirms SITA as the region's leading provider of ATC datalink connectivity services, but also opens the door to new opportunities such as satcom voice services for the oceanic areas.

BAHRAIN – BAHRAIN CIVIL AVIATION AFFAIRS

In 2009, Bahrain Civil Aviation Affairs and SITA entered into an agreement for ACARS datalink and maintenance services. Since then, SITA has been responsible for the provision, maintenance, and management of airport terminal information (D-ATIS), weather data (D-VOLMET) and Departure Clearance (DCL) datalink services at Bahrain International Airport. The service period was recently extended to 2023.

GHANA – GHANA CIVIL AVIATION AUTHORITY

SITA has provided FANS datalink services to the Ghana Civil Aviation Authority since 2011. We were awarded several ATC projects, including the D-ATIS system at Kotoka International Airport in 2020 and, more recently, the 5-year provision of Pre-FANS D-ATIS datalink services for Accra.

NIGERIA – NIGERIAN AIRSPACE MANAGEMENT AGENCY (NAMA)

SITA will provide a comprehensive tower solution to the Nigerian Airspace Management Agency (NAMA). The respective 30-month contract marks a turning point in SITA's ATC offering as it covers both data link application and departure management. The project will lead to more automation, reducing controller workload and enabling greater security while multiplying the number of manageable flights. In addition to the Datalink D-ATIS and Departure Clearance solutions, SITA will provide the DMAN (Departure Manager) systems.

MOZAMBIQUE – AEROPORTOS DE MOÇAMBIQUE

SITA has been awarded with the FANS datalink project for Aeroportos de Moçambique. The project will provide CPDLC and ADS-C datalink services in the Beira flight information region (FIR) for the coming two years. The project strengthens SITA's leading position in aeronautic communications in Africa.

SITA HAS SUPPLIED ATNS WITH ATC DATALINK CONNECTIVITY SERVICES SINCE 2014 AND WILL CONTINUE TO BE SO UNTIL 2028.

ASIA-PACIFIC

SITA JOINS FORCES WITH CAAS TO EXPLORE SPACE-BASED VHF TECHNOLOGY

SITA and the Civil Aviation Authority of Singapore (CAAS) have signed a memorandum of understanding (MoU) to explore the potential of space-based Very High Frequency (VHF) radiocommunication.

The space-based VHF voice service would use VHF radio relay stations in satellites, enabling Direct Controller-Pilot Communication (DCPC) in remote areas, including oceanic and other regions where providing and maintaining terrestrial VHF and HF services is not cost-efficient.

CAAS is already embarking on technical studies into space-based VHF in the Singapore flight information region (FIR), focusing on medium earth orbit (MEO) and low earth orbit (LEO) satellites used as relay stations for voice and, if feasible, data communications. SITA will support the initiative by contributing to various studies around the enablement of dual-mission voice and data capability that may benefit from ACARS datalink services.

AIRPORTS AUTHORITY OF INDIA (AAI) SELECTS SITA FOR ITS NATIONAL ATC DATALINK PROGRAM

The Airports Authority of India (AAI) has mandated SITA to supply ATC datalink services in India for five years. The project will include FANS 1/A Datalink for ADS-C/CPDLC in four ATC centers (New Delhi, Mumbai, Chennai, and Kolkata), plus tower datalink for Departure Clearance and D-ATIS/VOLMET at six airports (the ones mentioned above plus Hyderabad and Bengaluru).

SITA's datalink service will provide reliable air/ground surveillance and communications – via ACARS – between air traffic controllers and pilots flying over India by exchanging CPDLC messages and providing ADS-C surveillance data plots to ATC controllers. The tower datalink service will also allow pilots to receive D-ATIS and VOLMET uplink information from controllers via ACARS in text format, facilitating the communication of meteorological data, runway conditions, and other relevant information.

SITA TO SUPPLY AIR/GROUND DATALINK FOR D-ATIS/VOLMET AND DEPARTURE CLEARANCE FOR HONGKONG CIVIL AVIATION DEPARTMENT (CAD)

SITA has been awarded a two-year contract to supply ACARS air/ground datalink services for Hong Kong's ATC center. The services will be used for D-ATIS/VOLMET and Departure Clearance application purposes. With this agreement, Hong Kong CAD and SITA are extending their long-term cooperation for ATC datalink services which started in 1999. SITA will also support Hong Kong CAD to transition from existing to new D-ATIS/VOLMET systems. SITA is deploying a dedicated team to configure, test and monitor the datalink services in the new systems and setting up a transition process that ensures continued service and backup contingency protocols.

SITA SATVOICE ADOPTED BY ASIA-PACIFIC ANSPs

SITA has embarked on a pioneering SatVoice project for ANSPs in Asia-Pacific. The project is set to enhance ATM communications, airspace efficiency, and safety. SatVoice operations have been performed successfully with the Japan Civil Aviation Bureau using Inmarsat satellite services. Trials on two-stage procedures (via standard or public-switched telephone networks) were undertaken with Air Services Australia.

SatVoice uses dependable and resilient networks and satellite infrastructure to enable a high-quality worldwide connection with any aircraft connected to a satellite almost instantly without line-of-sight dependence. The service also alleviates workload. Data analysis interim results presented at ICAO working groups show that establishing a DCPC SatVoice end-to-end call takes less than 60 seconds. With this performance, SatVoice could serve as a backup for VHF and HF voice services.

AMERICAS

FAA (FEDERAL AVIATION ADMINISTRATION) SELECTS SITA FOR OCEANIC DATALINK SERVICES FOR SEVEN YEARS

In August 2021, the FAA announced the award of the FANS (Future Air Navigation System) Oceanic Data Link seven-year contract to SITA. The Federal Aviation Administration is one of the most influential and leading ANSPs globally.

SITA mission-critical infrastructure already supports the FAA datacom program for domestic airspace operations.

SITA is continuing the expansion of VHF/VDL to provide FAA CPDLC services throughout the contiguous U.S. airspace. Three more airports are to be added to the existing 62 airports where CPDLC DataLink Clearances are provided prior to departure for operators, including business aviation aircraft. The VHF/VDL network expansion includes new sites for added capacity as well as adding additional VDL radios at select existing sites for multifrequency VDL channels to handle added capacity for newer data-intensive aircraft.

SITA SUPPLIES AIR/GROUND DATALINK FOR D-ATIS/VOLMET FOR 27 AIRPORTS IN COLOMBIA AND DEPARTURE CLEARANCE FOR BOGOTA INTERNATIONAL AIRPORT

In June 2021, SITA and the local telecommunications company Entelcom installed a mission-critical datalink connection in Bogota, enabling the Colombian ANSP Aerocivil to exchange D-ATIS/D-VOLMET messages from 27 airports via SITA's infrastructure.

The same connection also allows the controllers of Bogota International Airport to send and receive departure clearance (DCL) messages via text.

Aerocivil's new services increase the safety and efficiency of tower and cockpit operations by minimizing misunderstandings and reducing air traffic controller and pilot workload. The improved communications capabilities can also help airlines save fuel and reduce delays, especially during severe weather conditions.

DECEA, THE BRAZILIAN ANSP, PUT CPDLC DOMESTIC MESSAGES IN OPERATION WITH SITA'S SUPPORT

Over the last two years, SITA and DECEA worked closely together to expand VHF datalink coverage in Brazil's domestic airspace and support CPDLC domestic messages for the Landell Project.

In September 2021, after months of testing with DECEA, CISCEA (Implementation Commission for Air Space), GEIV (Flight Inspection Squadron), several Brazilian and international airlines, and ATECH (ATM systems producer), DECEA went operational with CPDLC messages in the two air traffic control centers (ACCs) in Recife and Manaus. The other two ACCs in Brasilia and Curitiba will follow soon.

SITA IS CONTINUING THE EXPANSION OF VHF/VDL TO PROVIDE FAA CPDLC SERVICES THROUGHOUT THE CONTIGUOUS U.S. AIRSPACE.

SITA
FOR AIRCRAFT

SITA AT A GLANCE

Easy and safe travel every step of the way.

- Through information and communications technology, we help to make the end-to-end journey easier and safer for passengers – from pre-travel, check-in and baggage processing, to boarding, border control and inflight connectivity.
- We work with over 400 air transport industry members and 2,500 customers in over 200 countries and territories. Almost every airline and airport in the world does business with SITA, and nearly every passenger trip relies on SITA technology.
- Our customers include airlines, airports, ground handlers, aircraft, air navigation service providers, and governments.
- Our solutions drive operational efficiencies at more than 1,000 airports, while delivering the promise of the connected aircraft to customers of 18,000 aircraft globally.
- We help more than 70 governments to strike the balance between secure borders and seamless travel.
- Created and owned 100% by air transport, SITA is the community's dedicated partner for IT and communications, uniquely able to respond to community needs and issues.
- We innovate and develop collaboratively with our air transport customers, industry bodies and partners. Our portfolio and strategic direction are driven by the community, through the SITA Board and Council, comprising air transport industry members the world over.
- We provide services over the world's most extensive communications network. It's the vital asset that keeps the global air transport industry connected in every corner of the globe and bridging 60% of the air transport community's data exchange.
- With a customer service team of over 1,700 people around the world, we invest significantly in achieving best-in-class customer service, providing 24/7 integrated local and global support for our services.
- Our annual Air Transport and Passenger IT Insights reports for airlines, airports and passengers are industry-renowned, as is our Baggage IT Insights report.
- We are a certified CarbonNeutral® company, reducing our greenhouse gas emissions for all our operations through our UN recognized Planet+ program. We also develop solutions to help the aviation industry meet its carbon reduction objectives, including reduced fuel burn and greater operational efficiencies at the airport.

For further information, please visit **www.sita.aero**

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