SANS
خدمات الملاحة الجوية السعودية
Saudi Air Navigation Services

ANNUAL REPORT

1443 - 1444
2022

VISION رؤيــــة
2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

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SANS

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ANNUAL REPORT 2022

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بسم الله الرحمن الرحيم

لا إله إلا الله محمد رسول الله
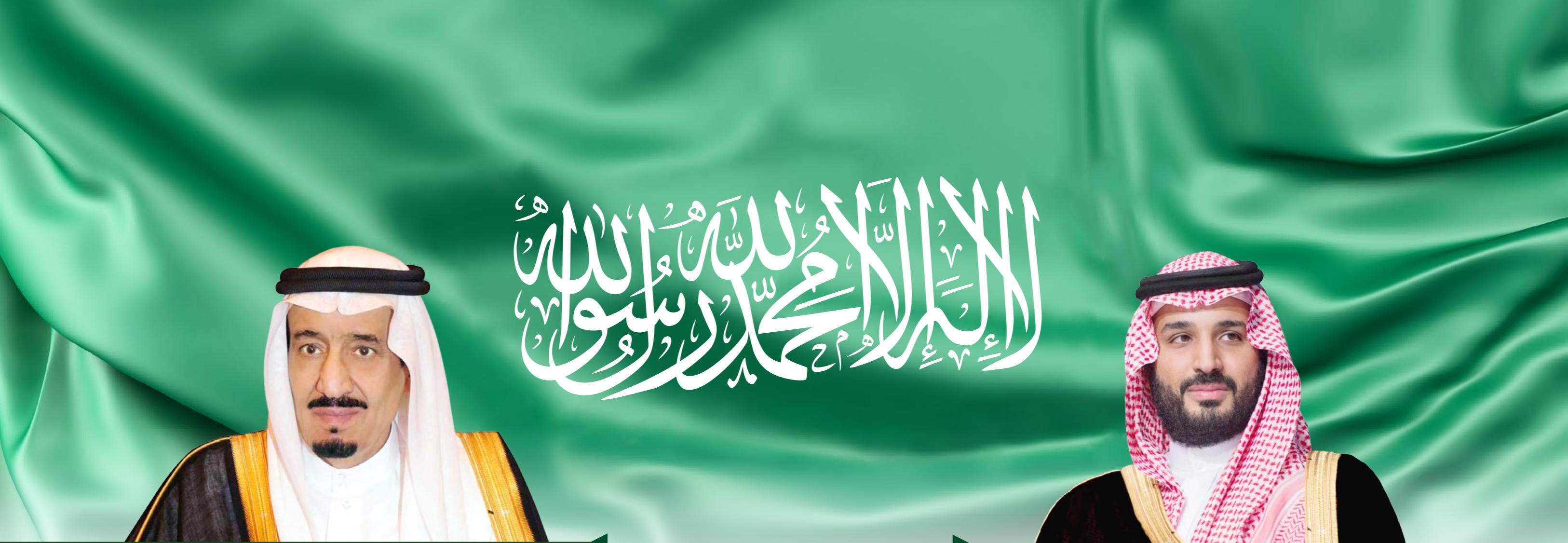
Custodian of the Two Holy Mosques

King Salman Bin Abdulaziz Al Saud

King of the Kingdom of Saudi Arabia

His Royal Highness Prince

Mohammed Bin Salman Bin Abdulaziz Al Saud

Crown Prince, Prime Minister

TABLE OF CONTENTS

MANAGING SKIES
SECURING LIVES

VISION

To achieve regional leadership in air navigation services through the provision of world-class services.

MISSION

To provide safe, reliable, and competitively priced navigation services through investments in employees, technology, and strategic partnerships.

VALUES

TEAM WORK

RESPONSIBILITY

OWNERSHIP

PERFORMANCE

COMMITMENT

STRATEGIC PILLARS

SAFETY

OPERATIONAL EFFICIENCY

FINANCIAL EFFICIENCY

HUMAN RESOURCES
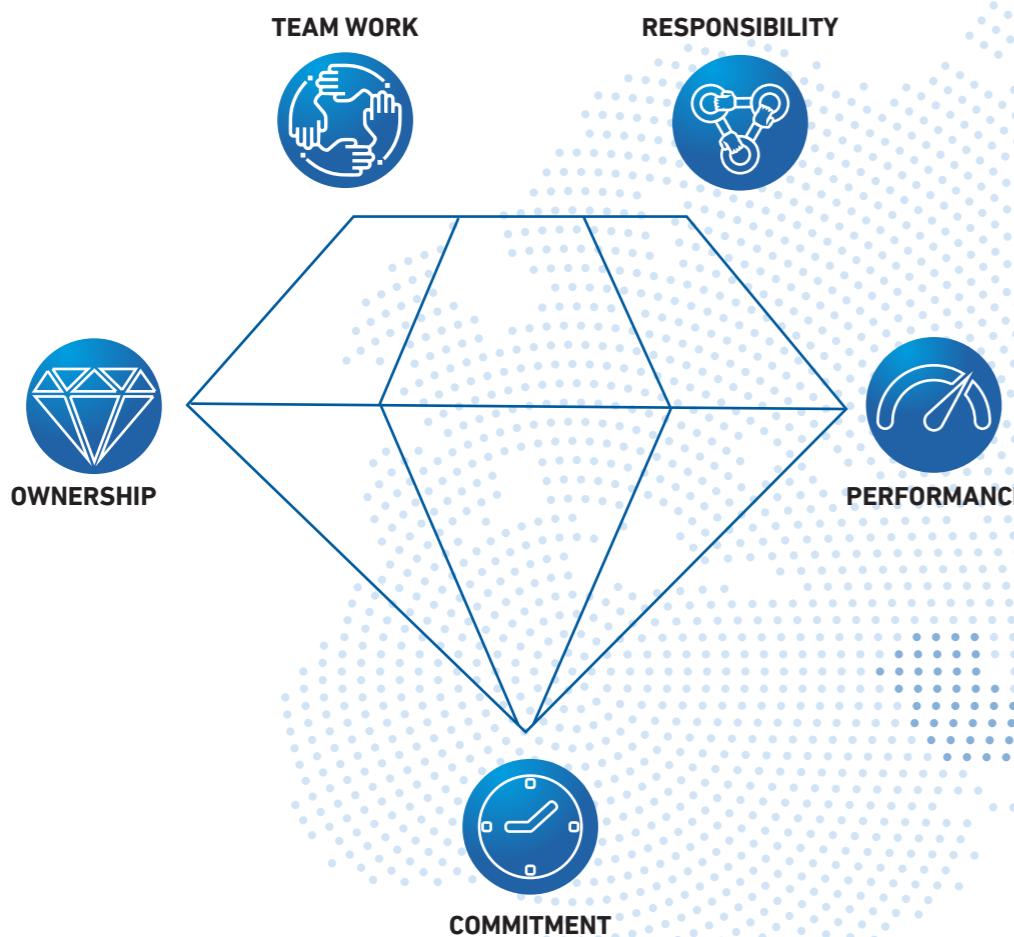
STRATEGIC PARTNERSHIPS
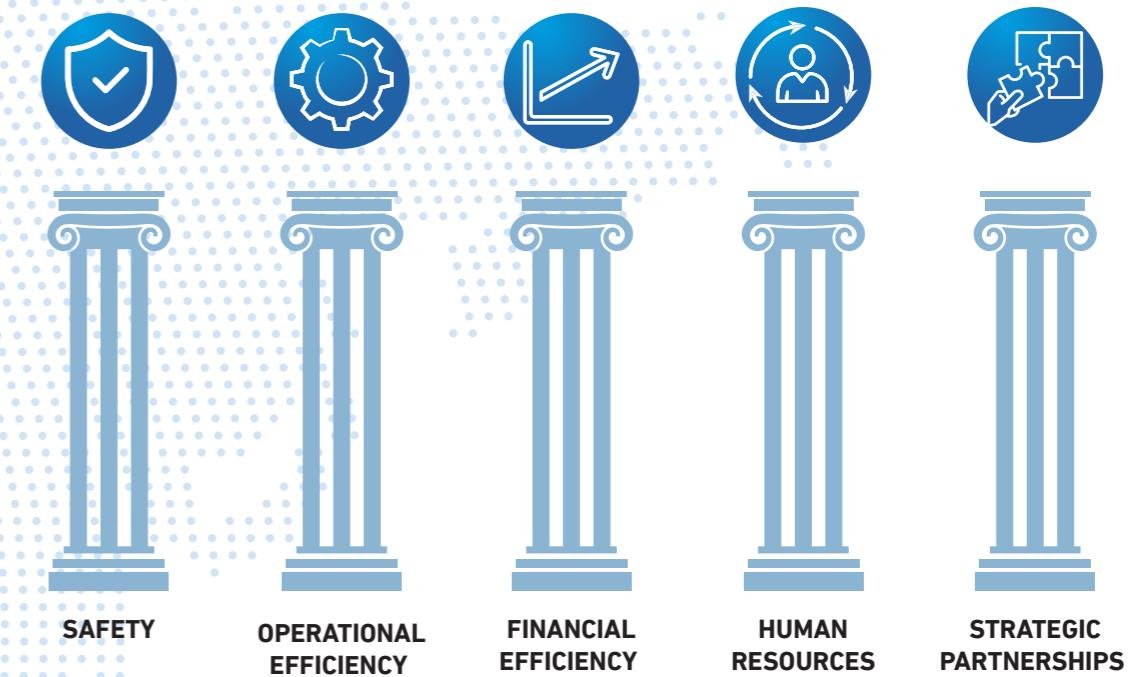
ANALYTICS OF SAUDI AIR NAVIGATION SERVICES, 2022

1,826
EMPLOYEES

15
REGIONAL SURVEILLANCE SECTORS

9
MANAGED AREA APPROACH CENTERS

16
STRATEGIC INITIATIVES IMPLEMENTED

274
CUSTOMERS (AIRLINES)

56
SITES MAINTAINED BY SANS AROUND THE KINGDOM

17
SURVEILLANCE TOWERS

689,938
AIR TRAFFIC MOVEMENTS AROUND THE KINGDOM IN 2022

695
AIR TRAFFIC CONTROLLERS (ATCOs')

2,135,237
SQUARE KILOMETERS OF SAUDI AIRSPACE

SANS

خدمات الملاحة الجوية السعودية
Saudi Air Navigation Services

CHAPTER **1**

MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS

HIS EXCELLENCY
ABDULAZIZ BIN ABDULLAH AL DUAILEJ

On behalf of the Board of Directors of Saudi Air Navigation Services, I am pleased to extend my sincere gratitude to the Custodian of the Two Holy Mosques, King Salman bin Abdulaziz, and His Royal Highness the Crown Prince, the Chairman of the Council of Ministers, Prince Mohammed bin Salman bin Abdulaziz, for their unlimited support in achieving the goals of the aviation sector in line with Vision 2030.

I would also like to highlight the National Aviation Strategy which will contribute to a transformation in the entire Saudi aviation system and enhance the position of the Saudi aviation sector to become the leading sector in the Middle East by 2030.

Saudi Air Navigation Services will continue, based on well-planned strategies and sustainable goals, to double its efforts in contributing to the achievement of the strategy and reaching the vision of our nation in 2030. This will be

accomplished by leveraging its national workforce and implementing the latest technologies in the field of air navigation.

Certainly, we will continue to progress towards making Saudi Air Navigation Services one of the world's leading air navigation service providers. We are committed to managing the airspace in accordance with the highest safety and efficiency standards to facilitate and accommodate air traffic. This is in line with our role in enhancing the aviation industry in the Kingdom.

MESSAGE FROM THE CHIEF EXECUTIVE OFFICER

ENG. ABDULAZIZ BIN SALEM ALZAID

Saudi Air Navigation Services continues its journey towards developing its entire navigation system and keeping up with the latest global technologies in the field.

The company has adopted a set of international standards in air traffic control systems, the most notable of them being the use of virtual surveillance towers. The Kingdom has become the first country in the Middle East to utilize this advanced technology, aiming to enhance the efficiency and effectiveness of procedures, elevate safety levels to accommodate the growth in air traffic and create a safer, and more secure airspace. This achievement aligns with the objectives of the National Aviation Strategy.

Through its expertise and the expertise of its national workforce, and the support it receives from the wise leadership - may God protect them - and guidance from the Minister of Transport and Logistics Services, as well as the Chairman of the General Authority of Civil Aviation, which is dedicated to developing well-planned strategies.

It actively contributes to implementing the National Aviation Strategy, considering it the most important sector in civil aviation.

I am delighted to see our achievements for the year 2022 showcased in the annual report, highlighting our significant accomplishments. We continue to move forward in achieving more, harnessing all our capabilities to ensure that Saudi Air Navigation Services Company remains at the forefront.

In conclusion, I would like to commend the efforts of all the employees of Saudi Air Navigation Services for their high-quality performance in striving for excellence and positioning the company among the best globally. They spare no effort in fulfilling their responsibilities in various assigned roles. I wish us all continued success and prosperity.

BOARD OF DIRECTORS

HIS EXCELLENCY

H.E ABDULAZIZ BIN ABDULLAH AL DUAILEJ
Chairman of the Board of Directors
President of the General Authority of Civil Aviation (GACA)

Doctor

DR. MANSOUR BIN ABDULAZIZ AL-MANSOUR
Vice Chairman of the Board of Directors

Professor

ALI BIN ABDULLAH AL-LAFI
Member of the Board of Directors

Professor

Mr. BANDAR BIN ABDULRAHMAN AL-MUHANNA
Member of the Board of Directors

Captain

CAPTAIN SAAD BIN ALI AL-SHEHRI
Member of the Board of Directors

Engineer

ENG. ABDULRAHMAN BIN AL-GHAZI AL-TAIB
Member of the Board of Directors

Captain

CAPTAIN TALAL BIN AYYAD AL-MURWANI
Member of the Board of Directors

DECISIONS OF THE BOARD OF DIRECTORS IN 2022

By Royal Decree No. (M/78) dated 20/11/1429 AH, the executive program for restructuring the investment units of the General Authority of Civil Aviation (GACA) and their conversion into companies has been approved. The Authority is authorized to establish and fully own these companies. In the implementation of the decision of the Board of Directors of the General Authority of Civil Aviation No. (T/260) dated 28/5/1436 AH, Saudi Air Navigation Services (SANS) was established and structurally affiliated with the company's board, consisting of seven members who form its four committees: the Executive and Risk Committee, the Nominations and Remuneration Committee, the Audit and Risk Committee, and the Safety Committee.

The Board of Directors of Saudi Air Navigation Services held five meetings during the year 2022. The meetings covered the most important decisions made, including the following:

- Approval of Saudi Air Navigation Services to establish and fully own Nira Al Mutaqaddima (Nira Advanced Aviation) Company.
- Approval of the company's financial statements for the fiscal year ending on 31/12/2021AD, audited by Deloitte.
- Approval of SANS activity report and financial position for the fiscal year ending in 2021.
- Approval of the dividend distribution for the fiscal year ending on 31/12/2021.
- Approval of the business plan and budget for the year 2023.
- Approval of the company's future strategic plan for the year 2030.
- Approval of the appointment of Deloitte as the external auditor for Saudi Air Navigation Services for the year 2022.
- Approval of the company's human resources policy.
- Approval of the annual increase in salary for employees for the year 2022.
- Approval of the annual bonus for employees for the year 2022.
- Approval of the company's organizational structure amendment.
- Approval of implementing investment opportunities worth SAR 101.8 million.
- Approval of the contract; awarding medical insurance services for employees.
- Approval of the project for IT Services Management.
- Approval of the project for the Approach Center at Al-Ahsa Airport.
- Approval of the contract for providing maintenance services for ATM & IFPS systems.
- Approval of updating the Delegation of Authority (DOA 04).
- Approval of the Enterprise Risk Management documents.

EXECUTIVE COMMITTEE

The committee is responsible for reviewing plans and studies related to the allocation of targeted units in the aviation sector, reviewing the financing method for the operations of those units, reviewing the company's financial budget, reviewing the restructuring plans for the company's activities, and conducting regular reviews of the company's achievements. Additionally, it examines matters referred to it by the board regarding operational and strategic aspects.

The Executive Committee held four meetings, which included the following key decisions and recommendations:

- Requesting the Board's approval for the business plan and budget for the year 2023.
- Requesting the Board's approval for the company's future strategic plan for the year 2030.
- Approval of the contract to establish the company Nira Advanced Commercial Services.
- Requesting the Board's approval to contract several investment opportunities in both Riyadh and Jeddah airports.
- Requesting the Board's approval to directly award the contract for providing maintenance services for ATM & IFPS systems.
- Approval of the project for cleaning services and pest control.

4
Meetings

NOMINATION AND REMUNERATION COMMITTEE

The Committee is responsible for evaluating and approving executive directors' remuneration plans, policies, programs, compensations, annual incentives, and long-term incentives. Additionally, the Committee oversees employment agreements, terms and conditions, and any special or additional benefits, as well as any other bonuses, concessions, or payments, and makes recommendations to the Board in this regard.

The Nomination and Remuneration Committee held three meetings during the year 2022 and made several important decisions, including:

- Approval of the Executive Succession Planning.
- Requesting the Board of Directors to approve the update of the company's human resources policy.
- Requesting the Board of Directors to approve the modification of the company's organizational structure.
- Requesting the Board of Directors to approve the annual salary increase for employees for the year 2022.
- Requesting the Board of Directors to approve the annual bonus for employees for the year 2022.

3 Meetings

SAFETY COMMITTEE

The Safety Committee, on behalf of the Council, supervises and controls the safety of devices, through periodic review of the outputs of the safety program, and ensuring efficient performance, ensuring that it achieves its objectives, and conforms to international standards.

The Safety Committee, affiliated with the Board of Directors of Saudi Air Services Company, held four meetings in the year 2022, and the most important decisions made were as follows:

- Appointment of a new committee chairman in the year 2022.
- Appointment of a new secretary-general for the committee in the year 2022.
- Development of the proposed SRC committee from the internal regulations for approval by the Board of Directors.
- Approval of the annual safety program and action plan for the year 2022, including safety surveys, audits, and investigation reports.
- Approval and supervision of the results of programmed safety actions and the action plan to follow up and monitor the effectiveness of the process.
- Approval and supervision of safety performance objectives and alert levels in the years 2022 and 2023.
- Monitoring the reasons for unauthorized entry to the runway and supervising advanced corrective measures. This includes overseeing the results of the task force responsible for monitoring unauthorized runway entry and providing corrective recommendations. Subsequently, implementing these recommendations.
- Monitoring the progress achieved in the CPDLC project towards full implementation.
- Handling all safety concerns and issues on behalf of the Board of Directors. If an issue goes beyond the responsibility or authority of the SRC, it is raised to the Board of Directors for a decision or action.
- Monitoring safety needs and providing recommendations that can lead to improvements in safety performance when necessary, such as implementing a ground surveillance system at major airports (ASMGCS).

4 Meetings
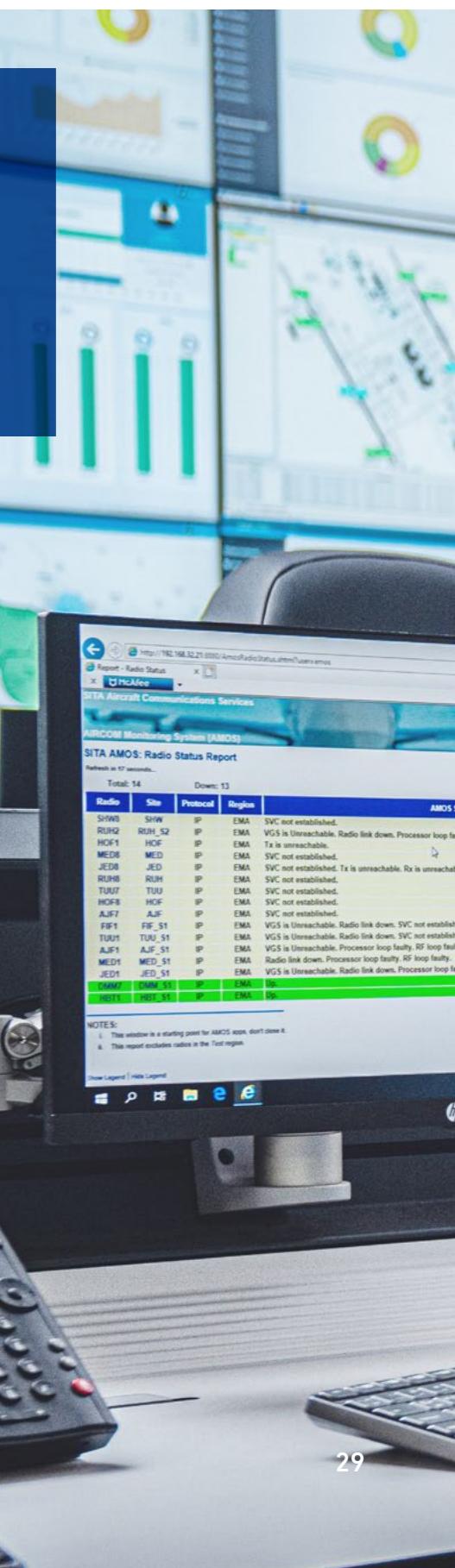
AUDIT AND RISK COMMITTEE

The committee is responsible for monitoring the company's operations and verifying the integrity of reports, financial statements, internal control systems, financial reports, internal control, internal audit, audit of accounts, assuring compliance, and risk management.

The Audit and Risk Committee held seven meetings in the year 2022 and made several decisions, including:

- Requesting to present the company's financial statements for the fiscal year ending on 31/12/2021, as audited by Deloitte, to the Board of Directors for approval.
- Requesting the submission of the company's audited financial report for the fiscal year 2021 by Deloitte to the Board of Directors for approval.
- Requesting against dividing profits for the year 2021AD to the Board of Directors.
- Requesting the submission of the company's activity report and financial position for the fiscal year 2021 to the Board of Directors for approval.
- Approving the appointment of the General Manager of the General Internal Audit Department.
- Monitoring reports from state regulatory authorities.
- Requesting the Board of Directors to seek approval for updating the Delegation of Authority matrix (DOA 04).
- Monitoring the monthly financial reports to ensure the integrity of the financial position.
- Approving the internal audit management plan (2022–2023).
- Approving the organizational structure of the Internal Audit Department.
- Summarizing the results of the Internal Audit Department reports for the year 2022.
- Submitting to the Board of Directors a request for approval of the Enterprise Risk Management (ERM) documentations.

7

Meetings

GENERAL INTERNAL AUDIT DEPARTMENT

It is an independent department functionally linked to the Audit and Risk Committee and administratively reporting to the CEO (Chief Executive Officer). It follows a systematic, strong, and effective risk-based approach in carrying out its responsibilities to assess and enhance the effectiveness of internal controls in accordance with international internal auditing standards, so the objectives of the company can be achieved and its assets protected. Its scope of work includes evaluating the adequacy and effectiveness of the company's internal control systems to determine whether they provide a reasonable guarantee for achieving the company's objectives. It also plays a vital role in assisting the company in achieving its goals within a controlled environment and helps protect against various risks. The department's recommendations, assessments, and analysis help all members of the company at all levels perform their responsibilities effectively. The department also reviews and verifies financial data to ensure accuracy and reliability.

The department assists in planning, decision-making, and achieving the following objectives:

- Safeguarding public funds and assets, and minimizing fraud and errors by promptly detecting and addressing them.
- Ensuring the accuracy and completeness of the financial statements and accounting records.
- Ensuring the effectiveness of administrative, financial, and operational processes to optimize the utilization of available resources.
- Adhering to mandatory regulations, instructions, policies, and plans of the organization.
- Achieving objectives efficiently and in a sustainable manner.

The scope of work of the Internal Audit Department includes the following:

- Conducting periodic reviews and audits of the activities of all departments operating within the company at appropriate intervals.
- Communicating the results of the audit and examination processes to the responsible officials in the respective departments that have been examined, to ensure that necessary actions are taken regarding identified deficiencies during the audit process.
- Supervising the implementation of observations and recommendations outlined in the audit report, and preparing periodic reports on updates for the Audit Committee.

It is entrusted to plan, design, and implement auditing and internal investigative programs related to fraud detection, internal control, and the company's main and secondary operations. This is to ensure its compliance with the company's policies and governance procedures. The department presents the internal audit plan to the Audit and Risk Committee. It also executes audit and investigation activities to ensure the effectiveness and efficiency of operational, financial, and technical activities.

The standards and guidelines issued by the Institute of Internal Auditors (IIA) serve as the fundamental reference and regulatory framework for the provision of internal audit services.

SAUDI AIR NAVIGATION SERVICES
OVERVIEW

SANS

خدمات الملاحة الجوية السعودية
Saudi Air Navigation Services

CHAPTER **2**

THE ESTABLISHMENT OF SANS

In line with the vision of the Kingdom of Saudi Arabia and the commitment of our government to the development of aviation services and the tremendous growth in the aviation sector, by providing and enhancing air navigation services, Saudi Air Navigation Services (SANS) was established by the decision of the Board Directors of the General Authority of Civil Aviation, No. (T/260) dated 28 Jumada Al-Awwal 1436 H. It started operating on the first of July 2016AD, corresponding to 26 Ramadan 1437 AH.

The company provides safe and highly efficient services that adhere to international standards for air navigation service providers. It strives to achieve financial and administrative independence while investing in national resources and enhancing the skills of young Saudi talents, in perfect harmony with the Kingdom's Vision 2030.

The company also prioritized the issuance of an Aviation Manual in the Kingdom, designing arrival and departure procedures, search and rescue services, aeronautical publications, and aeronautical communication services. Additionally, it coordinates with internal stakeholders involved in the aviation field, such as military entities, air navigation service providers in neighboring countries, meteorological services, as well as the provision, operation, and maintenance of air navigation systems and equipment.

Through our slogan "Managing the Skies for Your Safety" Saudi Air Navigation Services Company (SANS) is committed to enhancing the safety, capacity, and efficiency of air navigation services through innovative technologies, advanced solutions, and leading expertise in the field, further strengthening their role in shaping the future of the aviation sector in the Kingdom of Saudi Arabia.

The company strives to achieve its strategic objectives by implementing new and proactive methodologies in the field of safety and security and to provide services to customers that align with the highest international standards.

OVERVIEW OF SAUDI AIR TRAFFIC IN 2022

Flight type

Domestic Flights

Year	Value
2015	210,033
2016	222,444
2017	242,087
2018	257,086
2019	258,413
2020	148,322
2021	208,844
2022	226,267

Intl. Inbound Flights

Year	Value
2015	150,258
2016	164,299
2017	164,511
2018	161,949
2019	160,157
2020	56,260
2021	67,290
2022	147,423

Intl. Outbound Flights

| Year	Value
2015	149,438
2016	163,574
2017	164,183
2018	161,960
2019	159,649
2020	56,169
2021	67,202
2022	147,463

Transit Flights

Year	Value
2015	155,929
2016	149,363
2017	126,452
2018	120,906
2019	124,582
2020	84,076
2021	139,848
2022	168,785

Total Flights

Year	Value
2015	665,658
2016	699,680
2017	697,233
2018	701,901
2019	702,801
2020	344,827
2021	483,184
2022	689,938

OUR TOP CUSTOMERS IN 2022

Airlines	Share of Flights	
Saudi Arabian Airlines	26%	SAUDIA
National Air services (Flynas)	10%	flynas
Qatar Airways	6%	QATAR AIRWAYS
Flyadeal	6%	flyadeal
Emirates Airlines	4%	Emirates
Egypt Air	3%	EGYPTAIR
Fly Dubai	3%	flydubai
Air Arabia	3%	airarabia.com
Saudi Aramco	2%	saudi aramco
Gulf Air	2%	GULF AIR

Domestic Flights **Foreign Flights**

51% **49%**

The percentage of air traffic for local airlines accounted for 51% compared to 49% for foreign airlines, with the following distribution:

Air Sector	Flight Percentage
Commercial Flights	86%
Business Flights	8%
Military and Government Flights	5%
Air Freight	1%
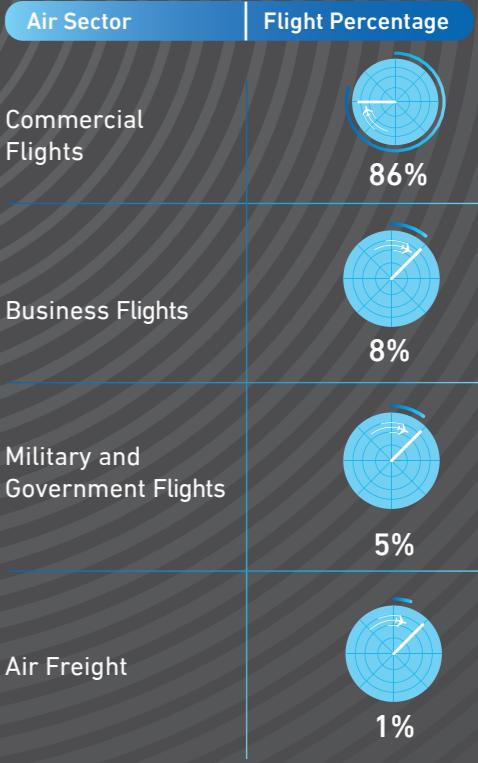
# FEATURES OF THE INFRASTRUCTURE OF AIR NAVIGATION SYSTEMS

Saudi Air Navigation Services (SANS) owns more than 1,100 advanced auxiliary devices and leverages the latest technology to provide distinguished and comprehensive services covering 56 distributed locations across all sectors of the Kingdom. A qualified team manages these facilities, adhering to the highest quality standards and safety requirements.

8 Northern Province Sector

7 Madinah Sector

10 Eastern Province Sector

10 Western Province Sector

10 Southern Province Sector

11 Central Province Sector
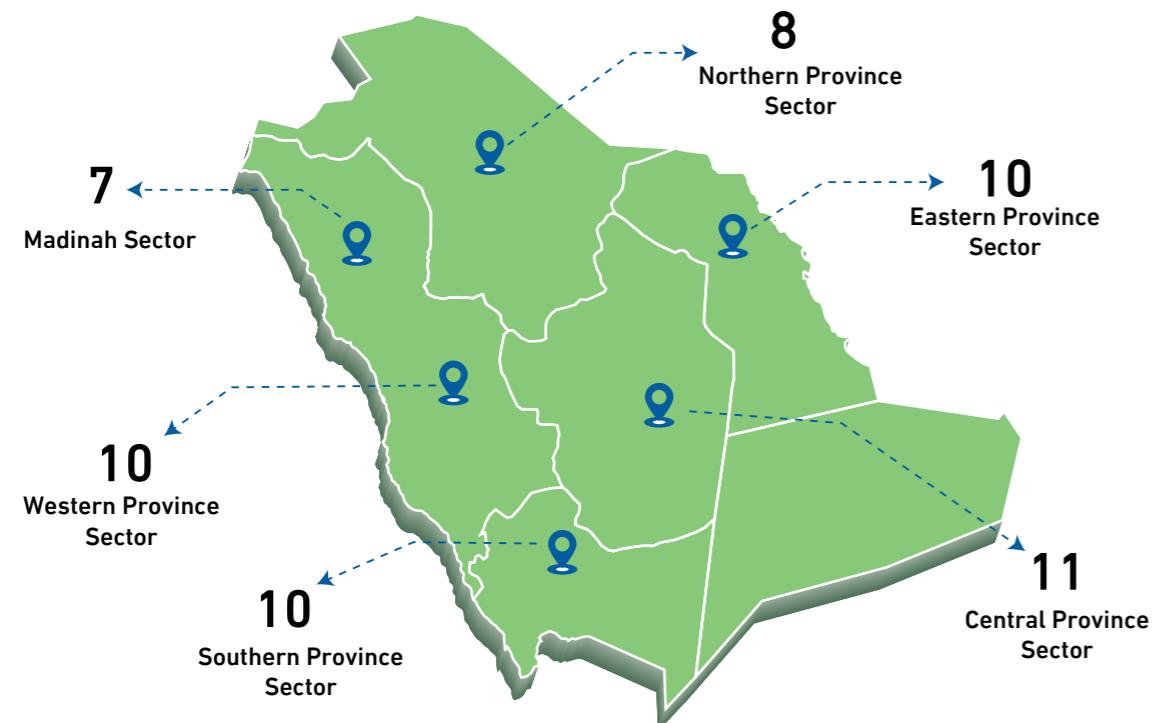
Sector	Number of sites
Western Province sector	10
Central Province Sector	11
Eastern Province Sector	10
Madinah Sector	7
Southern Province Sector	10
Northern Province Sector	8
Total	**56**

Presence type	Number of sites
Airports	28
Military Airports	10
Other	18
Total	**56**

56 Locations
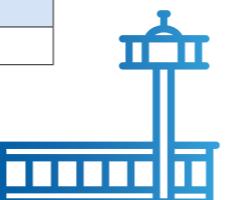
TECHNICAL PERFORMANCE INDICATORS
COMPLETED SECTOR

System Availability — 99.86%
Service Availability — 99.85%
Preventive Maintenance — 7902 Maintenances
Corrective Maintenance — 2039 Maintenances
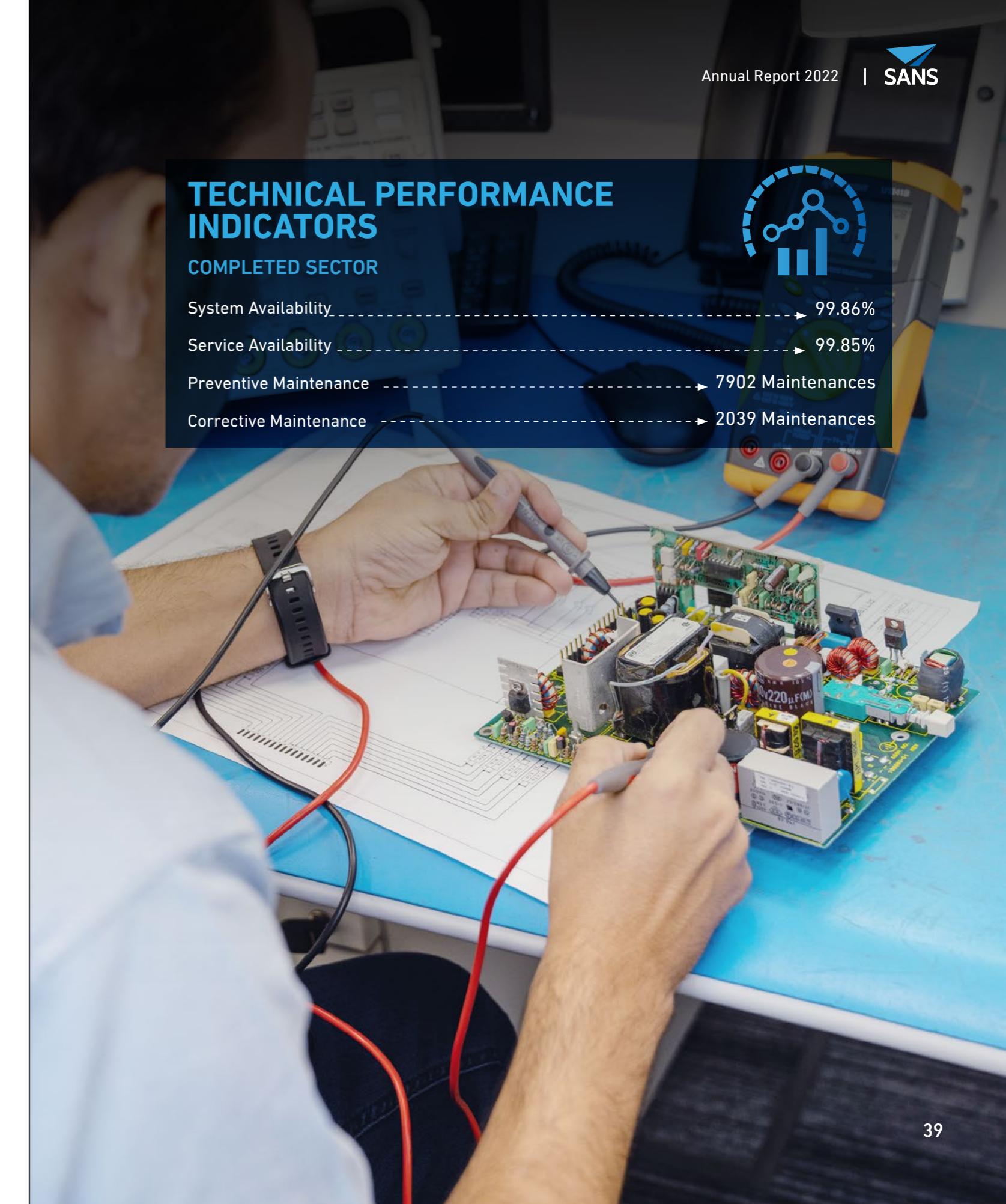
SERVICES PROVIDED TO OUR CUSTOMERS

Saudi Air Navigation Services (SANS) continues to soar in the skies of leadership and excellence by offering a comprehensive range of world-class aviation services that cater to the diverse needs of our customers. The company is committed to responsibly and diligently serving its customers and providing all necessary solutions to enhance aviation services in the Kingdom. Our services include the following:

OPERATIONAL SERVICES

- Flight information to non-controlled areas (AFIS)
- Air traffic management in airports (surveillance towers)
- Air traffic management for approach areas
- Air traffic management for transit areas
- Aviation communication network

MAINTENANCE SERVICES

- Providing maintenance contracts for navigational devices and radars.
- Providing measurement and calibration services for the inspection devices of navigation systems.
- Providing services for developing preventive and urgent maintenance procedures.
- Providing planning services for operational requirements.

FLIGHT INFORMATION SERVICES

- Issuing the Saudi Aviation Information Bulletin.
- Obstacle evaluation service around airport runways.
- Designing flight procedures.
- Integrated Initial Flight Plan Processing System (IFPS).

PROJECT MANAGEMENT SERVICES

- Designing communication and air navigation systems.
- Implementation of telecommunications and air navigation projects.
- Managing wireless frequencies for civil aviation.
- Research and development in the aeronautics field.
- Engineering support and consulting services in communications and air navigation systems.
- Air navigation systems preparation services.

CHAPTER 3

THE ORGANIZATIONAL STRUCTURE OF SAUDI AIR NAVIGATION SERVICES (SANS)

Saudi Air Navigation Services (SANS) is committed to continuously updating its organizational structure, to ensure the ongoing improvement of company operations. This is achieved by changing the organizational structure most optimally and effectively, in line with international standards for air navigation service providers.

BOARD SECRETARY

BOARD OF DIRECTORS

SAFETY COMMITTEE

EXECUTIVE COMMITTEE

NOMINATION & REMUNERATION COMMITTEE

AUDIT & RISK COMMITTEE

CEO
Eng. Abdulaziz Salem Al-Zaid
م. عبدالعزيز سالم الزيد

CEO OFFICE

Executive Affairs & Governance Director
Mr. Abdullah Al-Matrafi
أ. عبدالله عبدالرحمن المطرفي

Safety, Quality & Environment Executive Director
Mr. Desmond Whitty
أ. ديزموند ويتي

Safety, Quality & Compliance Manager
Mr. Ashley Birdthistle
أ. اشلي بير

Operations Safety Assurance Manager
Mr. Manie Al-khlaiwi
أ. مينع الخليوي

Systems Safety Assurance Manager
Mr. Abdullah Alghamdi
أ. عبدالله الغامدي

Occupational Health & Environment Manager
Mr. Tariq Buwairig
أ. طارق بويرق

Chief Technology Officer
Eng. Khalid Attiah
م. خالد عطيه

Engineering Services Executive Director
Eng. Alaa M. AL-Turki
م. علاء التركي

Commercial Services Director
Eng. Ahmed Al-Zahrani
م. أحمد الزهراني

Information & Operations Technology Director
Mr. Hani Alhazmi
أ. هاني الحازمي

Chief Financial Officer
Mr. Bander Al-Yafie
أ. بندر اليافعي

Finance & Account Manager
Mr. Mazen Hussain
أ. مازن حسين

Financial Planning & Analysis Manager
Mr. Sultan Mujallid
أ. سلطان مجلد

Chief of Shared Services
Mr. Wahhaj Motawie
م. وهاج مطاوع

HR Director
Eng. Emad Ashour
م. عماد عاشور

Supply Chain Director
Eng. Eyad Kintab
م. إياد كنتاب
Acting

Facility & General Services Manager
Mr. Ali Radwan
أ. علي رضوان

Business Partner Manager
Mr. Hussam Ajmarwani
أ. حسام المرواني

Chief Operating Officer
Eng. Saleh Al-Motirey
م. صالح المطيري

ATM Executive Director
Mr. Saleh Al-Zahrani
أ. صالح الزهراني

Maintenance Engineering Executive Director
Eng. Mohammed Organji
م. محمد أورغنجي

AIM Manager
Mr. Ibrahim Alshaia
أ. إبراهيم الشايع

Operational Start Up Manager
Mr. Saad Al-qahtani
أ. سعد القحطاني

PMO Director
Eng. Hazem Alqurashi
م. حازم القرشي

Project Management Office Manager
Mr. Hussam Kaki
أ. حسام كعكي

Center of Excellence Manager
VACANT

Corporate Strategy Director
Mr. Raed Najil
أ. رائد ناجي

Data Management & Decision Support Manager
Mr. Wesam Hussain
أ. وسام حسين

Strategic & Business Planning Manager
Ms. Dalal Saifuddin
أ. دلال سيف الدين

Corporate Communications & Marketing Director
Mr. Omar AbdulKareem Faden
أ. عمر فادن

Marketing and Branding Manager
Mr. Faisal M. Qassim
أ. فيصل قاسم

Communications Manager
Mr. Homoud Alzamil
أ. حمود الزامل

Governance, Risk & Compliance Director
Dr. Saleh Hashbool Al-Ghamdi
د. صالح بن مشبول الغامدي

Compliance & Governance Manager
VACANT

Enterprise Risk Management Manager
VACANT

Cybersecurity & Data Management Director
Mr. Abdulatif Alrushaid
أ. عبداللطيف الرشيد

Cybersecurity Defense Center Manager
Mr. Dhaifallah Alshehri
أ. ضيف الله الشهري

Cybersecurity GRC Manager
Mr. Tariq Fadel
أ. طارق فاضل

Cybersecurity Transformation Manager
Mr. Abdallah Wazzan
أ. عبدالله وزان

Internal Audit Director
Mr. Qusai Osta
أ. قصي اسطى

Internal Audit Operations Manager
Mr. Akram Hydari
أ. أكرم حيدري

Internal Audit Finance & Contracts
VACANT

Internal Audit - Business Units Manager
VACANT

OPERATIONS SECTOR

The Operations sector is considered one of the most important sectors within the organizational structure, given its significant role in the company's operations. The sector focuses on long-term planning for the departments responsible for managing Saudi airspace. This ensures that the company conforms with the goals of the Kingdom's Vision 2030 and prepares itself to accommodate and serve the increasing number of aircraft utilized in the Kingdom's airspace. The governance allows for a comprehensive view of all operational departments within the company, facilitating increased coordination and integration among them. Additionally, the sector provides the necessary support and resolves challenges faced by the operational departments. Some of the key departments under this sector include:

Air Traffic Management Directorate

The Air Traffic Management (ATM) is considered the pivotal point of Saudi Air Navigation Services (SANS), where it provides the following services:

- Air Traffic Services: This includes surveillance of the area, proximity surveillance, tower surveillance, and aeronautical information services in all air traffic control units to ensure coordination and close cooperation with various customers and stakeholders (adjacent air traffic information regions, aviation operators, general aviation, military sectors, etc.)
- Design and plan airspace for air traffic sectors: This involves designing and planning the airspace for the area surveillance towers, departure and arrival procedures, air routes, and holding points, and their implementation in coordination with concerned parties; to enhance air traffic flow, achieve the highest levels of efficiency, and ensure compliance with safety standards.
- Monitoring performance and ensuring compliance with safety procedures approved by the General Authority of Civil Aviation and the International Civil Aviation Organization.
- Studying the needs of Air Traffic management in terms of human resources, training, licenses, and others, by the implementation of national and international standards.
- Monitoring, verifying, and following up on all strategic initiatives and projects for Air Traffic Management, and relevant internal and external work teams, in coordination with the Project Management sector within the company.
- Search and rescue services, alerts, and activities within the responsible area.
- Providing Aeronautical Telecommunication Services at communication centers.

The role of air traffic controllers:

- Managing, directing, and tracking aircraft, whether at the airport or in the sky, to prevent collisions by ensuring the maintenance of accurate altitude, distance, or time intervals between aircraft and providing any essential information to the aircraft.

Specializations in Air tower surveillance

Tower Surveillance:

- Provides air tower surveillance services at the airport, managing ground movement and providing departure clearance services.

Proximity Surveillance :

- Provides automatic proximity surveillance services, radar-based and non-radar-based.

Area Monitoring:

- Provides radar-based and non-radar-based area monitoring services.

Aeronautical Information Services (AFIS)

- Provides information about air traffic movements

The Air Traffic Department provides its services through the following departments:

ATS West Sector Department. ATS East Sector Department. ATM Safety Department. Airspace Management Department. Workforce Planning and Training Department. ATM Development Department. Search and Rescue Department.

Aeronautical Information Management Department

The Aeronautical Information Management Department (AIM) at SANS provides users of Saudi airspace integrated solutions for managing data and information related to air navigation services and flight operations. The department is responsible for compiling, updating, and disseminating information about air navigation services and flight operations within the Saudi Arabian airspace. The information is provided by the requirements of the International Civil Aviation Organization (ICAO), which includes the following:

▶ The aviation directory

▶ Additions to the aviation directory

▶ Aeronautical information publications

▶ Pilot briefings

▶ Pre-flight and post-flight information

In addition to collecting, compiling, and disseminating aviation data and information related to the entire territory of the Kingdom of Saudi Arabia, including the overseas areas for which the Kingdom is responsible for providing air traffic services, the department also ensures the operational needs of the company's clients are met. This includes flight crews, flight planning, flight simulation devices, and operational requirements for air traffic service units. The department also implements quality policies to manage aviation information by the ISO 9001 quality system.

Moreover, SANS prepares, updates, and distributes all aeronautical charts by the requirements of the International Civil Aviation Organization (ICAO). This encompasses air routes within the Saudi airspace, airport charts, and flight procedure charts. In addition, the department compiles and disseminates aeronautical information circulars about the airspace and airports of the

intending to use the airport and coordinates without issuing permits or instructions.

Kingdom of Saudi Arabia, as per the requirements of the International Civil Aviation Organization (ICAO) and the recommendations from the General Authority of Civil Aviation.

There are four sections under the department, which are:

Aeronautical Information Publication Section Static Database Operations Section NOTAM Section Aeronautical Charting Section

Project Operations Department

The Project Operations Department's primary role is to ensure the seamless implementation of initiatives and projects related to Communication, Navigation, and Surveillance (CNS) systems without affecting the operational processes and the end-user. Moreover, it ensures the readiness for anticipated changes arising from initiatives and projects, while safeguarding the quality of operational activities.

Project Operation Department aims to:

- Ensure that operational requirements are met for each project throughout its stages, from planning to delivery.
- Ensure that project implementations at each site adhere to safety standards and operational requirements.
- Ensure that projects are implemented at each site by agreed plans.
- Ensure that multiple projects are not simultaneously executed at one location and ensure planning and coordination among them to prevent any conflicts that may affect the quality of services provided and the safety of navigation systems and air traffic.

There are three divisions under OSD:

- Project operations planning
- Project operations execution
- Systems division

GENERAL ADMINISTRATION DEPARTMENT OF MAINTENANCE ENGINEERING

The Maintenance Engineering department of the company plays a vital role as it is responsible for overseeing maintenance activities within the company's navigational systems and all associated facilities, encompassing implementation, organization, and monitoring. It is assigned the task of developing the annual maintenance plan for the company and determining its short and long-term priorities. The department also notifies related parties, such as aeronautical information services, safety, and quality, of any major system malfunctions. Additionally, the department is responsible for monitoring and evaluating ongoing maintenance projects according to the defined plan and ensuring smooth workflow, quality performance, and timely delivery. It has the authority to take corrective measures in case of any delays or deviations in performance. The department is also responsible for managing maintenance contracts with system manufacturers to ensure availability and continuity of service. Furthermore, the department is also responsible for the technical evaluation of the process of selecting contractors for maintaining navigational systems and their auxiliary systems (such as HVAC and backup power). The department supervises their performance and monitors their compliance with adherence to quality procedures and safety standards.

The department also works around the clock to implement preventive and corrective maintenance on all navigation systems and monitors them through its presence at all airports across the Kingdom and other remote locations and military bases. All maintenance operations are carried out in coordination with the 'Central Maintenance Control Center' around the clock to oversee troubleshooting, and preventive maintenance,

and to coordinate with all concerned authorities to ensure the safety and quality of maintenance work without affecting air traffic safety and ensuring a speedy response to any malfunctions. The department also ensures compliance with all regulations of the General Authority of Civil Aviation concerning wireless communication and navigation service providers in the Kingdom.

The Maintenance Management department takes on a range of key tasks, including but not limited to:

- Conducting necessary studies on navigational systems to ensure the availability of spare parts and calculate the expected lifespan of the systems.
- Developing training and qualification pathways for maintenance technicians on navigational systems.
- Performing necessary maintenance and calibration on inspection devices related to navigational systems.
- Developing operational manuals and maintenance procedures for navigational systems by the requirements and regulations of the General Authority of Civil Aviation.
- Repairing electronic components and panels of navigational systems in the central workshop under the Maintenance Engineering Department.
- Training technicians on navigational systems as per the requirements of the International Civil Aviation Organization (ICAO).
- Collaborating with the Systems Engineering Department in the installation and upgrading of systems.
- Providing on-the-job training for technicians.

There are eight maintenance sectors within the department, namely:

Maintenance Planning	Central Province Sector	Southern Province Sector	Eastern Province Sector
Western Province Sector	Northern Province Sector	Maintenance Operation	Madinah Sector
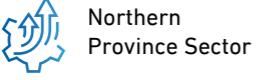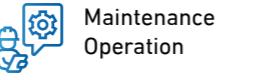
TECHNICAL SECTOR

Saudi Air Navigation Services has adopted the latest modern technologies to provide the best air navigation services for managing the airspace of the Kingdom of Saudi Arabia. To ensure the availability of the system and aviation services throughout the year, the Technical Sector has set several objectives. The most crucial objective is the modernization of air navigation systems according to the best standards in the aviation industry worldwide and ensuring the integration of various systems used and communication among them, which enhances the operational efficiency of the systems. The Information Technology and Technical Operations departments work side by side to provide technical and operational support for the company's devices and protect them against cyber-attacks.

The General Directorate of Engineering Services

The Engineering Services Directorate is responsible for providing and upgrading the reliable infrastructure for communication technologies, surveillance, navigational guidance, air traffic management, and designing navigational systems. It manages projects related to the navigation systems considering the latest global technologies and assessing the risks associated with implementation, operation, and change management within the approved budget to contribute to achieving the strategic objectives of SANS and managing the airspace with the highest safety standards. It also includes updating system programs that comply with the requirements of the General Authority of Civil Aviation (GACA), the International Civil Aviation Organization, and the Air Traffic Control Operations Department.

There are four departments under the Engineering Services Directorate, that are:

Communications and Navigational Aids Engineering Departmentt.

Automation and Navigational Surveillance Engineering Department.

Environmental Engineering Department.

Planning Engineering Department.

The General Directorate of Commercial Services

The General Directorate of Commercial Services works to achieve the best results and increases the company's profits by creating investment opportunities such as managing projects, providing operational services, and maintenance services. It has also worked on a business development strategy to achieve the following objectives:

- Diversifying non-regulated services that aim to increase the revenues of Saudi Air Navigation Services.

- Building innovative technological solutions and ensuring that SANS becomes an industry leader.

- Creating new markets through entrepreneurship.

- Enhancing capabilities through strategic partnerships and new joint ventures.

The General Directorate of Information Technology

The Information Technology Department is responsible for meeting all the needs of SANS related to systems, software, hardware, and cybersecurity, by the best practices and standards. It aims to provide effective technical solutions to support the company's core activities and support services. Additionally, it ensures the provision of a high-efficiency IT infrastructure characterized by reliability and security, along with providing technical support to users of IT services.

There are 4 departments that fall under the IT directorate, which are:

1. Governance and Planning Department.

2. Infrastructure and Operations Department.

3. Information Technology Services Department.

4. Institutional Infrastructure Department.
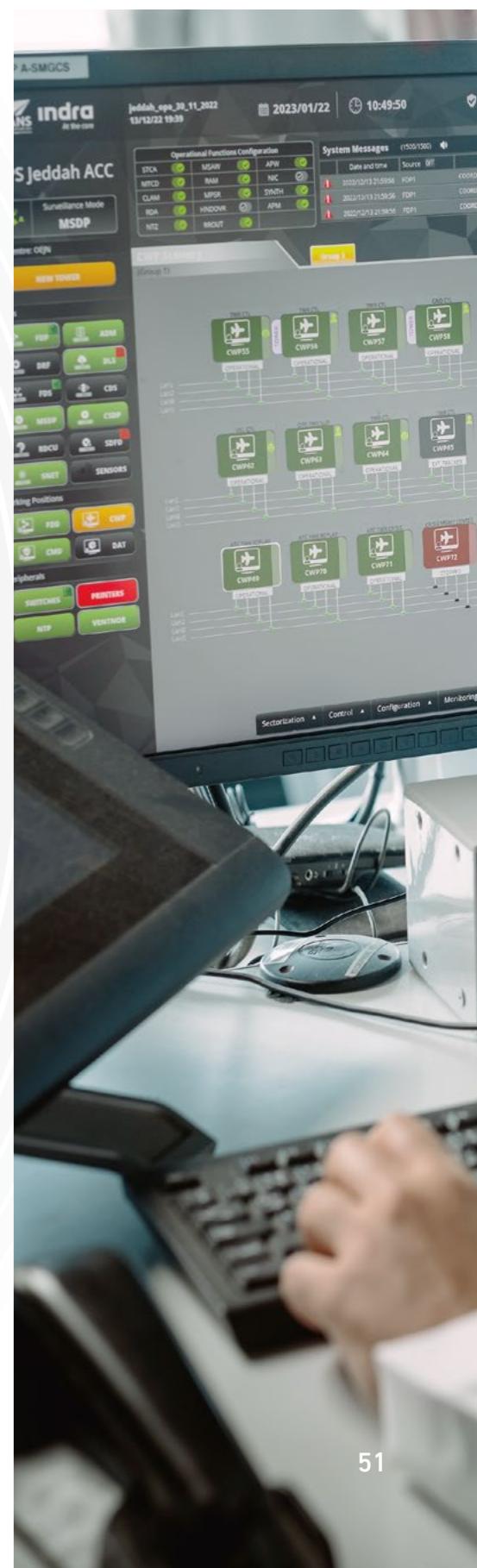
THE SHARED SERVICES SECTOR

The Shared Services Sector recognizes that the best results are achieved through concerted and unified efforts. Since its establishment in early 2020, the sector has been working to provide necessary support to the company's employees, enabling them to accomplish their work efficiently and swiftly. Moreover, it prioritizes achieving the highest levels of satisfaction among the company's employees. This sector includes five main departments: Human Resources, Supply Chain Directorate, Facilities and General Services, Business Partners, and Operational Excellence. The following are the key roles assigned to each department:

Human Resource Directorate

The Human Resource Directorate is divided into four main departments: Outstanding HR Performance Management, Organizational Development, Talent Management, and HR Operations. Human Resources is generally responsible for developing and implementing the company's human resource strategy in order to enhance the company's human capital. Its tasks include preparing and managing developmental activities related to the internal human resources systems and working to make the company a central hub for talent retention, development, and attraction by developing employees and enrolling them in innovative training programs to enhance their performance and maximize their potential.

Supply Chain Directorate

SANS Supply Chain Directorate is divided into two main parts: Planning and Procurement, Warehouses and Logistics, as well as a Contracts Compliance Section that was introduced in 2021 to support compliance monitoring operations. In addition, this department is responsible for sourcing qualified suppliers for various materials and services, ensuring sufficient storage spaces for inventory and efficiently managing them whilst tracking the transportation, from the suppliers to the main warehouses and between the main warehouses and branches.

The Supply Chain Directorate within the Shared Services Sector enables other departments to achieve their operational goals by collaborating with a network of qualified local and international suppliers in various fields, including but not limited to system supply and installation, system maintenance, building and utility services, construction projects, and various consulting services. Additionally, the Supply Chain Department negotiates with suppliers to ensure the acquisition of the best business deals that guarantee the success of both parties and emphasizes the development of strategic relationships where required. This supports different departments in reducing their expenses.

In terms of inventory materials, the Supply chain department works alongside the Maintenance Engineering department to plan the procurement of various spare parts, ensuring their availability from their sources and monitoring various shipments from the beginning of their export from the countries of origin until they arrive at the company's warehouses. This includes working with multiple governmental bodies such as the General Authority of Customs and the Communications and Information Technology Authority concerned with clearing certain communication system components to complete their formal procedures. Subsequently, it manages inventory operations, conducts regular inventory audits, and distributes the inventory to the relevant departments when needed, across all sectors operated by the company.

In addition to the above, the Supply chain department also handles contract completion with suppliers and monitors the progress of contracts with various departments. This is to ensure the preservation of the company's rights and that the terms and conditions of these contracts are adhered to. This is carried out through the Contracts Compliance Section.

Facilities and General Services Department

Facilities and General Services Department is responsible for projects and maintenance of staff-occupied facilities within SANS. This includes construction, air conditioning, electrical power, plumbing, lighting, decoration, security, and safety systems, excluding navigation systems. It also supports the main operations that are carried out by the company and ensures it has everything it needs to achieve its goals and enhance the quality of its services. It can also be described as providing logistics support activities for the company's main sectors and tasks. This includes warehouse management (closed and open), scrapyard management, and logistics activities related to scrap and fixed assets such as furniture, suitable units, and obsolete assets.

This requires attention to those services through policies that emphasize the importance of quality in their delivery. Quality here means improving the level of service performance within high-quality standards, as well as implementing effective monitoring and accountability measures. The objective is to enhance the working environment to increase employee productivity and ensure their safety.

Furthermore, the Facilities and General Services Department is responsible for developing and managing service-level agreements with external partners such as international, regional, and domestic airports, meteorological services, and air forces. The purpose is to define the responsibilities and services provided by both parties, including operational, technical, and maintenance aspects of the facilities among other things.

Business partnership Department

The responsibility of the directorate is to ensure that all the company's facilities are ready for employee operations. They report any malfunctions, maintain cleanliness, and organize facilities according to the general safety standards. Additionally, they provide services that assist employees in carrying out their work effectively. These services include issuing security permits to access airport and company facilities, providing office services and printing, document translation, booking meeting rooms and workshops, and related arrangements. Furthermore, they are responsible for the security services at the company sites and ensuring the implementation of the highest security standards across all the company sites to safeguard its assets and facilities. The Security Department successfully passed the ICAO security audit without any observations.

This department also oversees the fleet of work vehicles used by employees for their technical or administrative tasks including tracking and providing services related to periodic maintenance, fuel, and transportation of vehicles as per the operational requirements.

Moreover, the directorate provides catering services for employees through restaurants located on company premises. They also support and monitor public hospitality platforms available in all work facilities.

The Center of Excellence department

The responsibility of the Center of Excellence department is to monitor the performance measurements of Shared Services departments, and present monthly reports to the CEO of Shared Services, ensuring the departments' compliance with internal policies, and required company standards, such as ISO, safety, and quality. The department conducts self-audits of department operations to ensure their compliance and improve internal and shared procedures with the Safety and Quality Department, Internal Audit Department, and Governance and Risk Department. This contributes to achieving the targeted results of 2022, for which the department achieved a 100% rate of departmental commitment to quality, safety, and compliance in policies and procedures.

FINANCIAL AFFAIRS SECTOR

The Financial Affairs sector of SANS is responsible for formulating the company's financial strategic aims, organizing, and monitoring all budget-related operations and managing variations, as well as supervising all accounting procedures, and reviewing and approving major accounting policies within the company. It is also responsible for ensuring the integrity and completeness of the company's unified financial data promptly, in accordance with Saudi accounting standards.

Financial planning and analysis

- Contribute to the formulation of financial strategy, annual business plans, policies, and procedures of the department to support departmental and organizational business strategies.
- Ensure that budgeting processes within the organization and related entities and business areas are carried out effectively and efficiently toward achieving high operational standards.
- Build and maintain strong and effective relationships with all other related units to achieve the department's goals.
- Maintaining the highest standards of professional conduct, ethics, and integrity in providing services within the department.
- Foster engagement and satisfaction among all employees within the department by holding regular meetings to discuss achievements and address any employee-related issues or concerns.
- Ensure that reporting processes within the organization operate effectively and efficiently to achieve financial accuracy and transparency.

Finance and Accounting

- Maintain the highest standards of professional conduct, ethics, and integrity in providing services within the department.
- Enforce the implementation of procedures and controls within the department and ensure that all financial accounting transactions follow the organization's policies, procedures, and regulatory requirements.
- Provide accurate and timely information to external and internal auditors when required.
- Manage the processing, recording, and retention of vouchers, invoices, and other relevant documents through the supervisors of the reporting unit.
- Take overall responsibility for achieving the goals and objectives set by the management.
- Build and maintain a strong and effective relationship with all other related units to achieve the objectives of the department.

SUPPORT SERVICES DIRECTORATE

The Support Service Directorates are considered auxiliary and enhancing departments that support the other departments within the company. They are responsible for supervising the provision of necessary services to ensure the quality of work in coordination with their respective departments and divisions. They secure resources and fulfill various needs to enhance task performance. The role of these departments is based on providing the required services to support operations, secure resources, and ensure the fulfillment of various requirements for project success and all operations in a professional manner. They strive to raise the quality of services by implementing policies, and strategic plans, and managing internal and external corporate communications within the company. The following provides an overview of the key supporting departments:

Safety, Quality, and Environment Directorate

The Safety, Quality, and Environment Directorate is responsible for planning, directing, and implementing safety and quality management systems, environmental policies, crisis management, and security measures to enhance a culture of safety, quality, environment, and occupational health awareness within the company.

The department also coordinates with relevant stakeholders, including the members of the Board of Directors, particularly the Safety Committee, to review and approve the company's safety policies, procedures, and plans. They provide reports on safety performance and trends to the committee.

The department ensures the implementation of approved safety policies and procedures throughout the company, including the Safety Management System (SMS), and continuously evaluates and enhances safety assessments of air traffic management, maintenance engineering, engineering services, and aviation Information Management departments, as well as issuing necessary recommendations to ensure safety.

In addition, the Safety department also supervises the investigations regarding safety incidents and occurrences and issues and monitors the necessary recommendations to prevent their recurrence in the future.

The department ensures continuous compliance of Air Navigation Services with the requirements and standards of the General Authority of Civil Aviation (GACA) and the International Civil Aviation Organization (ICAO). They also monitor the specific conditions related to the company's license as an air navigation service provider issued by the General Authority of Civil Aviation and ensure the periodic renewal of the licensing certificate.

The five departments that fall under the General Management for Safety, Quality and Environment are:

- Safety, Quality, and Compliance Management.
- Operations Safety Assurance Management.
- Systems Safety Assurance Management.
- Health, Safety, Security, and Environment Management Department.
- Crisis Management.
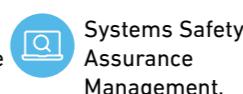
Safety performance data for the year 2022

During the year 2022, Saudi Air Navigation Services continued to implement several safety enhancements, including the use of the Risk Assessment Tool (RAT) and the (eTOKAI) system to automate safety reports and assist in investigations.

Currently, the eTOKAI system automates safety reports and incidents. The reports are collected and sent to relevant authorities in real time. The system generates safety reports automatically and determines the level of risk associated with the incidents by using the Risk Assessment Tool (RAT). Moreover, it identifies and analyzes the causes of the incidents using specific classifications and predefined criteria.

In addition, the company has established Safety Performance Targets (SPTs) and alert levels for safety indicators based on the analysis of safety data performance from the past years. These combined efforts contributed to the completion and systematic analysis of safety data, in addition to improving the quality and content of safety reports.

The chart below illustrates the evolution of reporting levels of safety-related occurrences and incidents over the past three years. These levels are measured by dividing the total number of recorded incidents by flight hours. It shows a continuous increase in reporting levels during the past three years, which indicates the enhancement of the company's commitment to enhancing its safety culture.
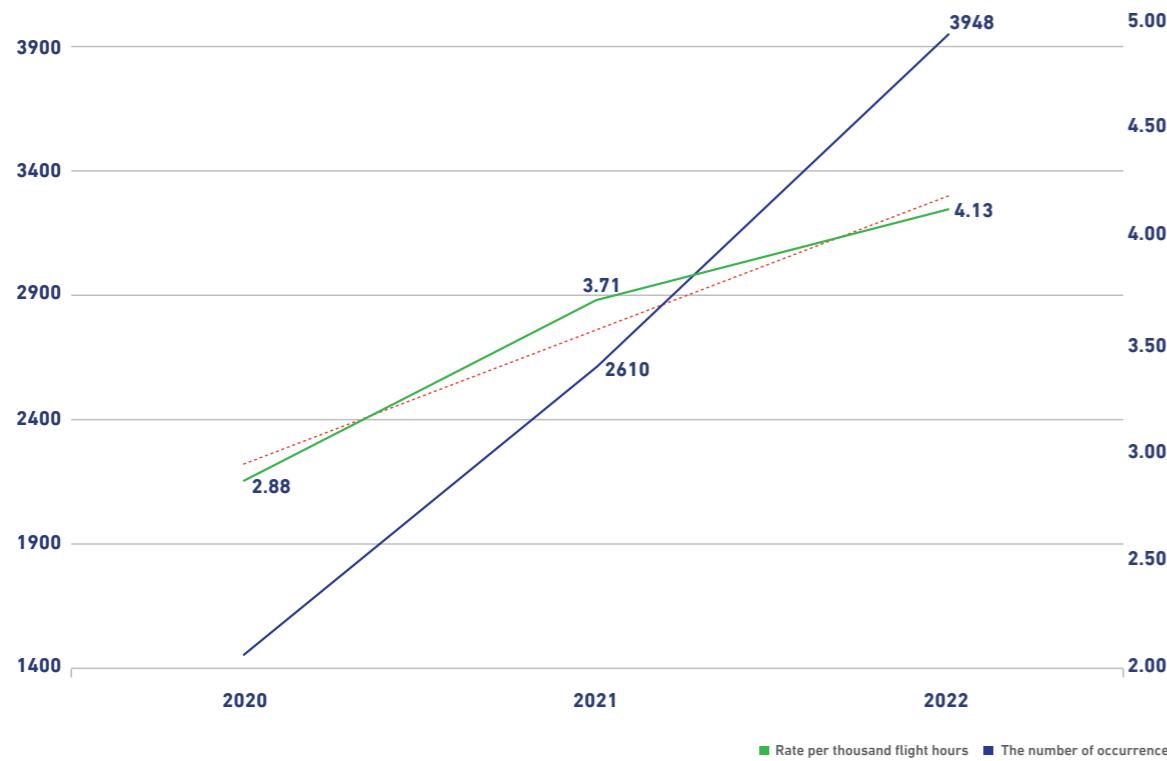
Chart 1: Evolution of Safety-Related Incident Reporting Levels

The chart below provides a detailed breakdown of safety events by category along with a severity rating. Most of the safety events recorded during the year 2022 show a low level of severity and had no significant impact on safety.
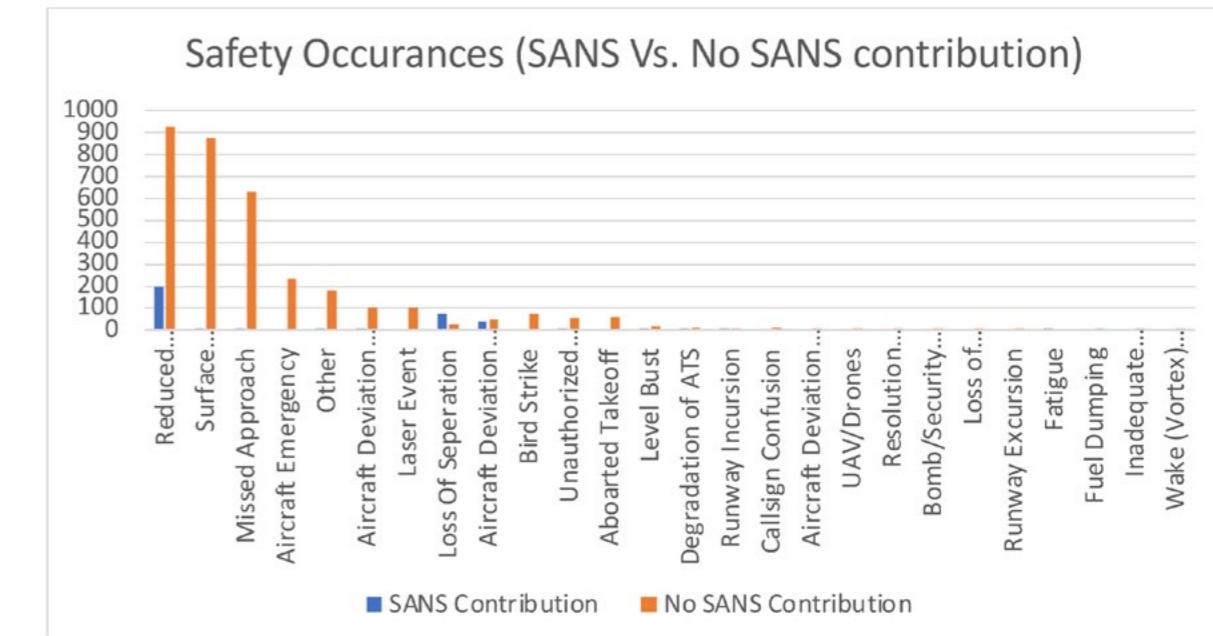
Chart 2: Safety-Related Events and Contribution by Category.

The categories of events that were most frequently reported during 2022 remained largely unchanged from the previous three years. These categories included some minor navigation equipment malfunctions, ground movement events at airports, re-take-off due to approach failure, emergencies on board, and the reduction of the spacing between the planes.

All safety incidents reported are systematically evaluated, and investigations are conducted for all incidents listed in the safety indicators list.

During 2022, the defined Safety Performance Targets (SPTs) for all safety performance indicators were achieved as summarized in the following table:

Safety indicator	Were the safety goals met?
Unauthorized runway incursion	✓
Proximity alert between two aircrafts	✓
Reduced separation between two aircrafts	✓
Deviation from air traffic control instructions	✓
Significant damage to air traffic services	✓
Unauthorized entry into airspace	✓

Table 1: Analysis of Performance Indicators Development

The company aims to enhance and maintain the completeness and reliability of safety data and ensure full compliance with the General Authority of Civil Aviation requirements and international best practices to achieve further advancement in the field of aviation safety analysis.

The General Strategy Department

The Strategy department is the originator of the company's transformation journey and the planner for all elements of the strategic planning and performance department. It plans the company's strategy, outlines its vision, and oversees these features into a tangible reality. Additionally, the department is responsible for analyzing the strategic performance activities of the company across all departments and divisions to drive growth and increase productivity. It also manages and enhances communication channels with international institutions in order to improve global air navigation services and elevate the company's presence in international forums, ultimately enhancing customer satisfaction and surpassing their expectations.

There are two departments under the General department directorate which are:

Strategic Planning

Data Office and Decision Support department.

The General Directorate of Corporate Communication and Marketing

It undertakes the task of building and managing corporate communication and marketing activities in the company to create awareness of the company's services, achievements, and directions of the company and everything related to it. It also focuses on establishing the company's brand image internally and externally based on specific key performance indicators, according to an agreed-upon budget, and approved policies and procedures.

There are two departments and one sector under the General Directorate, which are:

Marketing and Branding Department

It undertakes the tasks of improving and developing the company's brand, creating a renewed visual identity. It also prepares marketing plans to promote the concept of air navigation internally and externally.

Public Relations and Internal Communication Department

This department works on strengthening the communication link drive internally with employees across the company within the kingdom and externally with media outlets and responds to their

inquiries and queries. Additionally, it is responsible for creating and managing the company's accounts on social media platforms and updating the content of the official website, the employee portal, and the mobile application. It also focuses on developing effective programs for public relations and communication internally and externally.

Customer Relations Sector

It builds strong relationships with the company's customers, manages their needs, addresses complaints and suggestions, and improves the level of services provided to them.

Governance, Risk, and Compliance Directorate

This department is considered the second line of defense for the company. The Governance, Risk Management, and Compliance process describes the integrated methodology followed by the company in an integrated application in implementing comprehensive control measures and compliance activities necessary to manage risks to ensure the company's adherence to all applicable laws, regulations, and regulatory guidelines. In general, its main tasks include:

- Achieving principles, frameworks, and governance practices to enhance the quality and efficiency of decision-making.
- Monitoring organizational changes and tracking plans for regulatory compliance throughout the company.
- Promoting an effective compliance culture and adherence to internal policies and external laws, rules, and regulations.
- Identifying company risks, including strategic, operational, financial, and cybersecurity risks, and evaluating reporting and addressing them within risk tolerance limits.
- Empowering risk management and business sustainability, establishing an effective controlled framework to avoid risks before they occur.
- Ensuring transparency and information flow to top management for better, faster, and more effective decision-making.

Considering the growing awareness of governance and risk management and commitment concept, leading organizations tend towards adopting these systems to achieve desired benefits. This department is based on ensuring that all departments comply with the rules and laws governing the company's business and activities in accordance with Saudi government laws and the laws of the General Authority for Civil Aviation (GACA).

Furthermore, this department identifies and deals with all risk factors to reduce or eliminate risks for all departments such as Human Resources, Procurement, Contracts, Finance, etc.). One of the most significant improvements achieved by this department during 2021 was the preparation and management of a comprehensive record of all the company's risks and the activation of governance roles and responsibilities at the executive level. Also, the preparation of a comprehensive guide for the governance framework and policy. In addition to conducting several awareness sessions for all departments of the company in terms of governance risk and compliance department.

There are two departments under the general Directorate, which are:

Governance and Compliance department

Institutional Risk Management department

Project Management Office Directorate

The Project Management Office is considered the foundation for the successful implementation of projects and strategic initiatives at Saudi Air Navigation Services. The primary role of this office is to establish project management standards and ensure that projects and programs are managed in a unified manner. The PMO supports project and initiative execution by implementing mechanisms that manage all changes in a controlled manner aiding the company's management in making decisions regarding financing, prioritizing, and allocating resources.

The main objective of this office is to set standards for project management methods, whereas there are technical projects and strategic initiatives to improve performance and efficiency. The PMO relies on key principles such as project planning, project manager support, and providing sufficient information for decision-making.

Cybersecurity and Data Security Directorate

The Cybersecurity and Data Security Department was established in recognition of the importance of data technical systems and sensitive infrastructure in the aviation sector and their connection to the safety of the kingdom's airspace. It emphasizes the importance of protecting them from any threats or risks in cyberspace. The most important tasks and plans of the department are to protect networks, information technology systems, operational technology systems and their components such as hardware, software, the services they provide, and data contained against any unauthorized disruption, risks, unauthorized access, use, modification, or exploitation according to the standards of the National Cyber Security Authority. This also includes information security, electronic security, and digital security.

ACHIEVEMENTS
in 2022

SANS
خدمات الملاحة الجوية السعودية
Saudi Air Navigation Services

CHAPTER 4

COMPLETING THE TRANSFORMATION JOURNEY OF SAUDI AIR NAVIGATION SERVICES (SANS) DURING THE YEAR 2022.

The aviation industry is one of the key drivers of the global economy and an essential element in enabling and connecting it to global investment, tourism, and trade opportunities. Through the Vision 2030, the Kingdom aims to leverage its strategic location and move forward in creating an aviation industry befitting its global stature.

The ambitious strategy adopted by the company has enabled it to innovate, excel, and enhance its services. The strategy has been crystallized in its ambitious transformation plan, aiming to achieve significant leaps in its services and empower various sectors within the aviation industry sector in the Kingdom to reach their targets. Despite numerous challenges faced by the company, it continued to build and shape its future. It has adeptly dealt with all these challenges in a professional manner and managed to achieve balanced growth. This is attributed to its strategy that combines flexibility, innovation, and investment in human resources and new technologies to devise innovative solutions within a secure and distinguished environment.

The ambitious transformation plan has had a profound impact on the company's operations and practices. By investing in and consolidating efforts towards continuous improvement in five core pillars, the company formulated its plan. These pillars are:

Safety   **Operational Efficiency**   **Financial Efficiency**   **Human Resource**   **Strategic Partnerships**

THE SAFETY PILLAR

Safety is considered one of the most critical pillars of the aviation industry, if not the most critical one. The concept of safety extends to encompass:

- Aviation safety
- Safety in the offices and workplaces of the company
- Cybersecurity

It covers all elements of the aviation industry including sectors and activities related to passengers, employees, aircraft and airport environments, maintenance workshops, offices, and company projects. Therefore, SANS consistently strives to enhance safety management systems in all its facilities and considers it a top strategic priority. The company has utilized and implemented the latest air navigation technologies to achieve the highest global safety standards. It has also established numerous effective programs to promote a safe culture among its human resources, embracing the best international practices and modern scientific methodologies in risk management through a proactive and preventive approach.

Vision of the Safety Pillar:

To provide an effective and proactive safety management system, as well as fostering a safe culture at all levels of the company, supported by a suitable and secure environment.

Key achievements:

- **Implementation and execution of the Safe Operations Survey Initiative**

This initiative helps to identify errors, risks, and underlying challenges within the routine operations carried out by air traffic controllers. This is achieved through conducting surveys of the daily routine operations at air traffic control centers.

- **Establishment of the Enterprise Risk Management Committee**

For enhanced efficiency and appropriate risk management support, this committee is created to oversee and promote a culture of formal discussion and consultation on various significant matters related to risk management.

- **Safety Risk Register**

Working within a specific mechanism to address all obstacles affecting operations and establish a proactive approach by outlining mitigative plans.

- **Establishment of a Disaster Recovery System**

In line with the requirements of the Cyber security Authority, it is crucial to provide a contingency environment for systems to handle disasters.

- **The issuance of a new software module within the Maintenance Management System**

A new edition in the Maintenance Management System which includes a new feature "Safety Findings" allowing for the management and tracking of safety observations.

A program to raise awareness of a Safe Culture within the company throughout the Kingdom through workshops, interactive activities, and awareness campaigns.

- Cybersecurity Training Programs.
- Awareness Campaigns.
- A Training Program for Safety Management System.
- Workshops for Building a Safe Culture.
- **Safety Measures**

Enhancement of security facilities at several locations including the regional control centers in Jeddah and Riyadh.

OPERATIONAL EFFICIENCY PILLAR

Saudi Air Navigation Services considers operational efficiency as a guideline for continuous improvement. By adopting the latest global air navigation technologies to serve its customers and enhance the Kingdom's position as a vital global communication hub, the company has harnessed these advancements and more to provide the best service to its clients. No matter how much progress the company achieves, its ambitions never wane. The company will continue to update the Kingdom's airspace and create new pathways in its skies to accommodate the growing air traffic and ensure smooth, safe, precise, and challenge-free air traffic management.

Vision of the Operational Efficiency Pillar:

To embrace the latest advancements in air navigation services management, operation, and continuous improvement in information technology systems by ensuring optimal resource utilization and effective internal management processes.

Key achievements:

- **Developed Maintenance Management System- (MMS)**

It covers all preventive and corrective maintenance activities, infrastructure monitoring for communications, navigation and surveillance across locations throughout the Kingdom to provide a comprehensive overview and insight into equipment performance. SANS envisions marketing and utilizing the MMS program locally and globally after making it commercially ready through development, organization, and customization to meet market needs. Thales has expressed interest in being a partner in this project, given its strong position and footprint in the aviation industry, which will contribute positively to targeted air navigation service providers.

- **The Maintenance Engineering Department Obtained an ISO 9001:2015 Certification**

Raising the efficiency of the safety and quality team in identifying gaps, facilitating the continuous improvement of the Quality Management System. This certification also enables the ability to conduct audits on external suppliers.

- **The Airspace Rehabilitation Project in the Empty Quarter**

To ensure the safety of airspace movement, expand communication and radar coverage in the Empty Quarter region, thus increasing capacity for air traffic.

THE HUMAN RESOURCES PILLAR

The remarkable achievements of Saudi air navigation Services (SANS) could not have been accomplished in such a short period of time without its highly efficient, dedicated and loyal employees. The employees of Saudi Air Navigation Services are its most valuable assets and their commitment and dedication drive its transformation. Therefore, we continuously strive to provide an exceptional, motivating and inspiring work environment that fosters the development of our employees' skills and enhances their performance.

Vision of the Human Resources Pillar:

Building a work environment that fosters development by empowering employees and providing high-quality training programs, all within a competitive environment characterized by a culture of high performance.

Key Achievements:

- **Implementation Plan for the Organization's Culture Survey Outcomes**

The plan aims to create a healthy and appealing work environment for employees after their participation in the survey.

- **Renewal of the Internal Employees Portal**

The new version of the internal portal was launched to improve electronic services provided to employees by creating a unified digital channel that includes electronic services and an application to receive company notifications.

FINANCIAL EFFICIENCY PILLAR

The growth strategy pursued by Saudi Air Navigation Services is built upon its core values, which have significantly contributed and will continue to drive its growth and development over the coming years. This approach aims to achieve the company's vision of regional leadership in air navigation services on a global scale. All departments of Saudi Air Navigation Services operate in an integrated and coordinated manner enabling it to address one of the most crucial challenges in its transformation journey, becoming financially and administratively independent. The company has devised valuable economic initiatives to efficiently manage its financial resources, including initiatives that ensure financial expenditure efficiency, monitor operational costs effectively, ultimately achieving financial self-reliance.

Vision of the Financial Efficiency Pillar:

To optimize the company's financial resources through ensuring the generation of effective revenue, meeting regulatory and governmental requirements, and ensuring the timely collection of the company's receivables.

Key Achievements:

- **Initiating a Business Development Strategy**

To leverage the company's assets and achieve better returns on its investments.

- **Ongoing Efforts to Improve Expenditure Efficiency**

The company continues to improve its expenditure efficiency by renegotiating contracts and reducing their value, to achieve the highest levels of financial efficiency.

- **Establishment of the Nira Company**

Since the establishment of the General Directorate of Commercial Services in 2019, the company has signed approximately 30 contracts to implement projects and consultancy services valued at around 330 million Saudi riyals, of which 135 million riyals in 2022 alone. This significant growth had a profound impact on the decision to establish an independent business entity (Nira Company), a Saudi company chosen to represent and lead a revolutionary era in the future of aviation in the Middle East and around the world by serving the aviation and navigation sectors. It provides technical and operational solutions to enhance operational efficiency for the business sector while complying with international safety standards required by relevant global organizations.
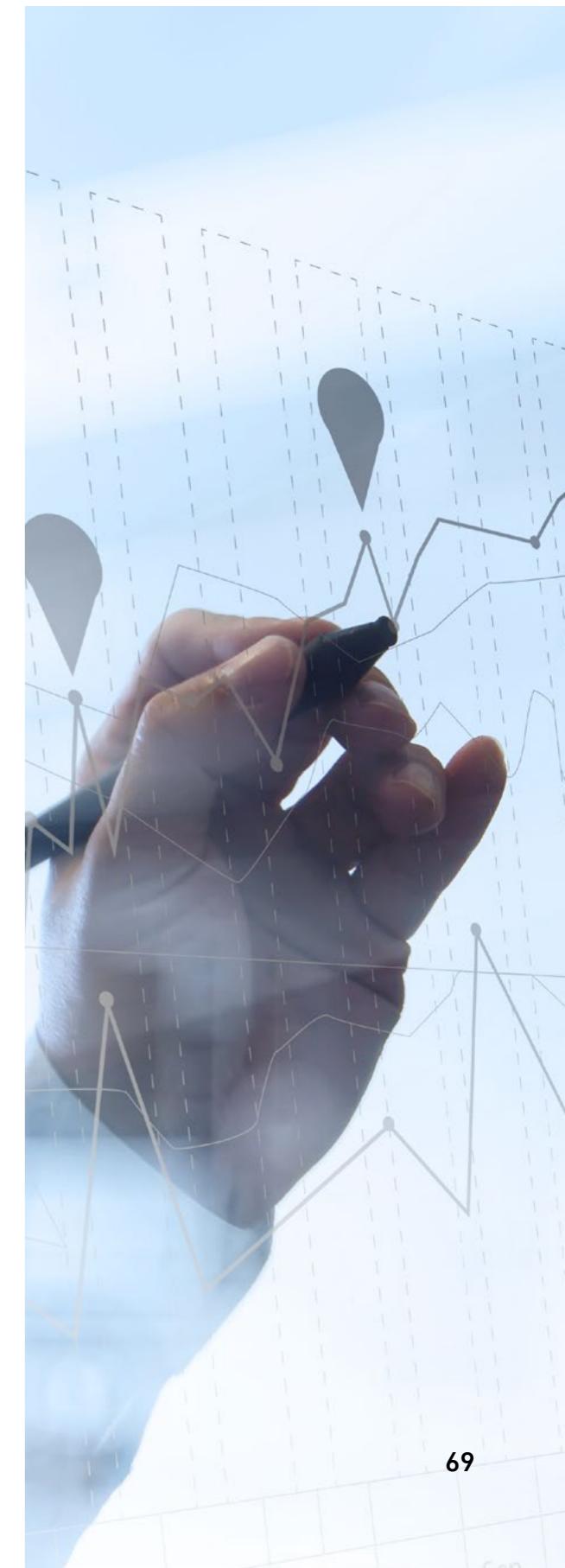
THE STRATEGIC PARTNER-SHIPS PILLAR

Saudi Air Navigation Services(SANS) takes pride in its commitment to its clients and its exceptional services characterized by the highest levels of reliability. The company continually seeks to improve itself by forming fruitful partnerships with leading providers of air navigation services. These partnerships leverage their expertise to enhance the company's services to its clients and meet their expectations in terms of quality of service, if not surpassing them. The company also continues to innovate solutions that will help to strengthen its relationship with the customers, by establishing direct communication channels with them, to enhance their satisfaction, receive their feedback, understand their needs and respond to any observations they provide.

Vision of the Strategic Partnerships Pillar:

Strengthening collaborative relationships with stakeholders and enhancing customer satisfaction.

Key Achievements:

Signing of an agreement between Saudi Air Navigation Services and Indra Sistemas, a Spanish company, for the development of virtual air traffic surveillance towers.

Signing of an agreement between Saudi Air Navigation Services and the Spanish company Indra Sistemas for the supply, installation, and operation of the first remotely managed virtual air traffic surveillance tower in the Middle East, to be located at AlUla International Airport.

- **Renewal of the Company's Website**

Improvement of customer experience, automation of daily procedures across various departments through organizing the management of the company's products on the website, applying additional data protection standards, improving the systems and operational interface of the website.

- **Upgrading the Search & Rescue System**

Building an electronic system that facilitates the management and operation of the "Beacon" database of navigation devices and providing external entities with relevant interests to access the system.

- **Signing Several Agreements with the Military Sector**

Agreements were signed with King Faisal Air Base, King Fahd Air Base, and King Khalid Air Base, to establish operational procedures to facilitate the flow of air traffic between the military and civilian sectors, ensuring safety and smooth operations.

INTERNATIONAL AND REGIONAL PARTICIPATIONS

Participating locally, regionally, and internationally is of great importance to keep up development of the aviation industry and enhance the company's position as a leading regional and global entity. Among the notable events, forums, and internal, regional and international conferences attended by the Saudi Air Navigation Services and the participation of a number of specialists and stakeholders from within the company, are as follows:

VIRTUAL CAREER FAIR

Participation in the first virtual career fair for the transportation and logistics sector in the capital city, Riyadh, held from the 3rd to the 5th of January, 2022. The CEO of Shared Services, Engineer Wahhaj Mutawa, participated as a speaker in the exhibition.

THE CYBER SECURITY CONFERENCE FOR ASSETS

Participation in the cyber security Conference for critical assets for the Middle East Region in Dubai, in the presence of more than 100 specialists in the field. The Director of cyber security Department, Mr. Abdul Latif Al Rasheed participated as a speaker in the conference which was held during the month of February 2022.

GLOBAL DEFENSE EXHIBITION

Participation in the Global Defense Exhibition in the Kingdom's first hosting of the world's largest defense and security event, in addition to managing the air traffic accompanying the exhibition, during the period of the 6th to the 9th of March, 2022.

CONFERENCE FOR FUTURE OF AVIATION

Participation in the conference for Future of Aviation, which was held from the 9th to the 11th of May, 2022 in the capital city Riyadh.

CAREER FAIR

Participation in the Kingdom's Career Fair at King Abdullah University of Science and Technology (KAUST) during the period of the 8th to the 9th of June, 2022.

WORLD AIR TRAFFIC MANAGEMENT CONFERENCE

World ATM Congress 2022

Participation in the World Air Traffic Management Conference in Madrid during the period of the 22nd to the 25th of June, 2022, which is considered one of the most important and specialized conferences in the field of air navigation.

TRAINING PROGRAM EXHIBITION

Participation in the Forum of On-the-Job Training Program Exhibition "Tamheer" organized by the Chamber of Commerce in Jeddah and the Human Resources Development Fund. The event was held at the Jeddah Center for Forums and Events from the 27th to the 30th of June, 2022.

SAUDI AIRPORTS EXHIBITION

Participation in the Saudi Airports Exhibition in the capital city Riyadh, showcasing some of the largest air navigation and airline companies, held on the 7th of November, 2022.

OVERVIEW OF PROJECTS
AND THEIR COMPLETION RATE

OVERVIEW OF PROJECTS AND THEIR COMPLETION RATE

Project Name

Providing Audio Recording Systems

Implementation start date:
3rd Quarter of 2019

Expected completion date:
4th Quarter of 2022

Completion Rate **100%**

Search and Rescue System

Implementation start date:
3rd Quarter of 2018

Expected completion date:
3rd Quarter of 2023

Completion Rate **73%**

Establishment of Workplaces for Surveillance Center Supervisors

Implementation start date:
3rd Quarter of 2021

Expected completion date:
4th Quarter of 2022

Completion Rate **100%**

Improvement of Surveillance Coverage in the Empty Quarter Region.

Implementation start date:
1st Quarter of 2020

Expected completion date:
2nd Quarter of 2022

Completion Rate **100%**

Automatic Landing System at Al-Ula Airport

Implementation start date:
1st Quarter of 2021

Expected completion date:
2nd Quarter of 2022

Completion Rate **100%**

Increasing Operational Efficiency in the Surveillance and Approach Centers (Al Madinah)

Implementation start date:
1st Quarter of 2022

Expected completion date:
1st Quarter of 2023

Completion Rate **100%**

Advanced Guidance and Control System for Surface Movement at Riyadh and Madinah Airports

Implementation start date:
3rd Quarter of 2018

Expected completion date:
4th Quarter of 2023

Completion Rate **68%**

OVERVIEW OF PROJECTS AND THEIR COMPLETION RATE

Project Name

Automatic Self Surveillance – Broadcasting System

Implementation start date:
2nd Quarter of 2019

Expected completion date:
3rd Quarter of 2024

Completion Rate **40%**

Project of Upgrading the Automated Operating Systems and Navigation Information System

Implementation start date:
2nd Quarter of 2019

Expected completion date:
2nd Quarter of 2023

Completion Rate **94%**

A Project for Developing Communication Systems for Certain Surveillance Towers (Hail, Jazan, Madinah, Al Qassim)

Implementation start date:
4th Quarter of 2018

Expected completion date:
2nd Quarter of 2023

Completion Rate **88%**

Upgrade of Automated Airport Information Systems

Implementation start date:
3rd Quarter of 2019

Expected completion date:
3rd Quarter of 2023

Completion Rate **59%**

Replacement of the Navigation Information Messages Transmission System Automatically

Implementation start date:
3rd Quarter of 2019

Expected completion date:
4th Quarter of 2023

Completion Rate **54%**

Increasing the Operational Efficiency at the Regional Surveillance and Approach Center in Jeddah

Implementation start date:
4th Quarter of 2022

Expected completion date:
3rd Quarter of 2023

Completion Rate **88%**

Remote Air-to-Ground Control System (Thabhloten – Empty Quarter)

Implementation start date:
4th Quarter of 2018

Expected completion date:
1st Quarter of 2022

Completion Rate **100%**

SANS
خدمات الملاحة الجوية السعودية
Saudi Air Navigation Services

CHAPTER
5

INTRODUCTION 2022

Since its establishment as an independent entity from the General Authority of Civil Aviation in 2016, Saudi Air Navigation Services has formulated a transformation strategy to elevate the aviation sector into a company that operates according to the best practices and work methodologies while focusing on the main goal that is ensuring airspace and aviation safety.

The transformation strategy was based on five main pillars: Operational Safety, Operational Efficiency, Human Capital, Financial Efficiency, and Strategic Partnerships. Under these axes, 21 programs were included, from which more than 150 strategic initiatives emerged that were implemented during the period of 2017 to 2020. The strategy achieved its intended targets and the expected level of maturity during that year, despite the outbreak of the COVID-19 pandemic, which significantly impacted the aviation sector and consequently air navigation activity. As a result, the launch of a new strategy was postponed, and efforts were redirected towards enhancing resource and operational efficiency.

Here is an outline of some of the most important outputs of this strategy:

Operational Safety Pillar:

Under this pillar, we worked on comprehensive improvements of the procedures and mechanisms used, a comprehensive redefinition of our role in ensuring airspace safety, and adhering to the best international practices in this regard. The company completed the requirements for Phase 4 of the Aviation Safety Management System of the aviation sector. In addition to the above, the company has applied the necessary culture capabilities to verify the ability to deal fairly in incidental cases situations and identify sources of defects.

Operational Efficiency Pillar:

During that period, efforts were concentrated on comprehensive improvements of everything related to the company's infrastructure and a complete optimization of the various systems, which included the air traffic control system, voice communication systems, radar systems, and various other systems that positioned us as one of the world's best countries in providing aviation services.

Human Capital Pillar:

The company harnessed the capability to serve its employees by improving facilities, creating a comfortable and modern work environment that enhances productivity. Additionally, the company modified its organizational structure and verified the compatibility of existing competencies with the roles assigned to them. Efforts were also directed towards developing the second generation of the company's leaders through a leadership program (Qiyadah). Moreover, numerous complementary programs were launched, emphasizing the company's core values as the central focus of our endeavors.

Financial Efficiency Pillar:

Despite growth, infrastructure expansion, and improvements in the quality of the work environment and various systems, the company has reduced operational costs and enhanced productivity. It also established systems and mechanisms for managing financial operations, issuing financial reports, and improving collection levels, which greatly contributed to enhance the company's financial sustainability. Additionally, income sources were diversified which was done through collaboration with the Business Development Department, a newly established unit as part of the strategy implementation.

As the aviation sector returned to pre-pandemic levels in 2022, in addition to what was witnessed due to the return of momentum to the aviation sector and aligning with Saudi Arabia's Vision 2030, the Saudi Air Navigation Services played a pivotal role in this resurgence. The company's contribution to the aviation ecosystem is vital to achieving the goals of Vision 2030. It anticipates future trends and plans proactively to achieve the Kingdom's vision. The company linked its strategy to the aviation strategy and Vision 2030. It also engaged in forward planning to enable aviation to achieve its objectives. During the second half of 2022, the Saudi Air Navigation Services developed its future strategy for 2030, set to be launched during the first quarter of 2023.

THE AVIATION STRATEGY IN THE KINGDOM AND THE ROLE OF (SANS) IN ACHIEVING IT

In line with the ambitious National Vision 2030, the General Authority of Civil Aviation developed the National Aviation Strategy in the Kingdom of Saudi Arabia. This strategy translates the goals of Kingdom's Vision 2030 into reality by detailing and mapping out the road map to achieve the vision's objectives. This will support the Kingdom in reaching the goals of 2030.

The development of the aviation strategy significantly contributes in achieving the entire Vision, by defining roles, and responsibilities as well as expectations of various participating government entities and the private sector. This will greatly support the private sector in the Kingdom. The new aviation strategy offers a comprehensive overview of the aviation sector in the Kingdom

The most important objectives of the new aviation strategy:

- Accommodating 330 million passengers by 2030.
- Positioning Jeddah and Riyadh on the global tourism map by qualifying them to become major tourist hubs in the Kingdom of Saudi Arabia.
- To reach the first position in the aviation sector in the Middle East.
- Attaining the first position for cargo services in the Middle East.
- Improving the passenger experience to reach global standards.
- Adding 151 new travel destinations, increasing the count from 99 to 250 destinations.
- Accelerate growth in the aviation sector through achieving sustainable returns in the aviation sector.
- Improving and increasing the level of competition between companies operating in the sector.
- Ensuring workforce sustainability by providing skilled human resources.

SANS PLAN TO ACHIEVE THIS

Increase operational efficiency:

- Saudi Air Navigation Services is working towards enhancing the level of the company's operational efficiency in preparation for achieving the ambitious goals of the aviation strategy. In addition to this, SANS is closely collaborating with airports to raise the efficiency of operations within the yards and exploit the operational capacity of airport infrastructure, aligning with the best global practices in this field.

Increasing the capacity of Saudi airspace:

- Increase the capacity of Saudi airspace to meet the growing demand for travel

expected in 2030. This is done by working with the General Authority of Civil Aviation to redesign the Saudi airspace completely, along with associated flight procedures and infrastructure development.

Enhance aviation safety:

- Enhancing the safety of the Saudi airspace in alignment with the best global practices to ensure the highest levels of aviation safety.

OUR GOALS FOR 2022

To adapt to the global challenges arising from the COVID-19 pandemic, various industries and sectors had to adopt new measures to be able to deal with the changes resulting from this pandemic. Based on this context, Saudi Air Navigation Services modified its strategy to focus on improving its financial resources and maintaining the smooth and secure running of its operations, while gradually recovering air traffic levels to pre-pandemic conditions.

Main Goals for 2022:

Three main objectives were identified to serve as the primary drivers for the company's efforts in 2022, and these objectives will have an impact on several levels, and they have been translated into strategic work streams and initiatives that align with the company's current aspirations for the current stage.

1. Developing aviation safety methodologies in alignment with the best global practices

Providing effective and highly efficient safety management systems based on a proactive approach, promoting a safety culture across all levels of the company.

2. Achieving further successes in elevating the operational efficiency standards of the company

This is accomplished by supporting continuous improvement efforts in systems, technologies, and airspace through optimal resource utilization and effective administrative operations.

3. Improving efficiency and financial governance standards

Focuses on optimal utilization of financial resources by ensuring effective revenue generation and meeting regulatory and governmental requirements.

3 Strategic Goals

4 Work Streams

16 Strategic Initiatives

THE KEY INITIATIVES IN 2022

Developing aviation safety methodologies in line with the best global practices

- **Implementing safe, effective and efficient safety systems compatible with the best regional and international practices.**

This includes establishing a comprehensive institutional governance structure, as well as carrying out a systematic and detailed study of some unsafe aircraft proximity cases in the airspace, analyzing relevant information In order to find appropriate solutions and raise safety levels to record levels in this field in line with the best global practices.

Achieving further successes in raising the company's operational efficiency standards

- **Improving airspace**

This is represented in conducting a comprehensive study of capacity and operational load in high-density areas in the airspace, and proposing improvements to airspace design to enhance coordination efforts among operating units and increase the flexibility and flow of air traffic in all airspace regions. The initiatives also include developing a digital communication network to increase the operational communication capacity in the airspace.

- **Improving and automating internal management processes efficiently with the appropriate quality.**

By adopting globally recognized policies and procedures to ensure the creation and completion of documents for all relevant departments, as well as closing all outcomes and workplans through the completion of the internal audit cycle, and completing all requirements in the standards, including implementation of ISO 9001:2015 standard throughout the company.

Improving efficiency and financial governance standards

- **Ensuring compliance with regulatory governance requirements.**

Implementation of financial compliance assurance programs by increasing the level of accuracy and independence of financial information, providing accurate records of available assets, and elevating governance and process modeling related to asset and company financial management.