



ANSA POLICY 2022

Approved by the Board
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1. ABBREVIATIONS

AAA	: Aruba Airport Authority N.V.
ADS-B	: Automatic Dependent Surveillance – Broadcast
AIA	: Aeronautical Information Affairs
AIM	: Aeronautical Information Management
AIP	: Aeronautical Information Publication
AIS	: Aeronautical Information Services
AMHS	: Air Traffic Services Message Handling System
AMU	: Apron Management Unit
ANS	: Air Navigation Services
ANSA	: Air Navigation Services Aruba N.V.
ATC	: Air Traffic Control
ATCO	: Air Traffic Controller
ATFM	: Air Traffic Flow Management
ATIS	: Automatic Terminal Information System
ATM	: Air Traffic Management
ATS	: Air Traffic Services
CEO	: Chief Executive Officer
CLA	: Collective Labor Agreement
CNS	: Communication, Navigation, Surveillance
DCAA	: Department of Civil Aviation of Aruba
DC-ANSP	: Dutch Caribbean Air Navigation Service Provider
EFS	: Electronic Flight Strip
ETA	: Estimated Time of Arrival
FIR	: Flight Information Region
HR	: Human Resources
ICAO	: International Civil Aviation Organization
IMC	: Instrument Meteorological Conditions
KPA	: Key Performance Area
KPI	: Key Performance Indicator
LOA	: Letter of Agreement
MEVA	: Mejoras a los Enlaces de Voz ATS
OPS	: Operations
PBN	: Performance Based Navigation
QMS	: Quality Management System
RTS	: Remote Transmitting Sites
SID	: Standard Instrument Departure Route
SMS	: Safety Management System
SOP	: Standard Operating Procedure
STAR	: Standard Arrival Route
VCS	: Voice Communication System
VMC	: Visual Meteorological Conditions
VRRS	: Voice Recording & Replay System

2. ACTIVIY REPORT 2021

ANSA (Aruba) experienced declining flights during the years 2018, 2019 and the first months of 2020, which subsequently materialized into a steady declining revenue stream, whereas the operational expenses kept increasing. Slowly but surely, we saw our profit slinking. Since March 2020, our revenues were badly affected by the COVID-19 pandemic, resulting in a huge loss for our company. This was on top of the closing of the borders with Venezuela since February 2019. In 2020 ANSA had to implement an investment stop and was forced to cut in the personnel's and other operational expenses in order to safeguard our cash flow. We succeeded in this and managed to survive the year 2020, although seriously weakened by the pandemic.

ANSA closed the year 2020 with a deep loss of Awg. 2.7 million, however the year 2021 shows a small profit of approximately Awg. 429,000 (un-audited figure). This improvement of the financial situation of ANSA was mainly due to a significant increase in our revenues. On the one hand our ANSA Charge was increased with 10% as of January 1, 2021, and on the other hand the year 2021 was characterized by a remarkable recovery of commercial flights.

Although the airlines were faced with loss of income, they still managed to comply with their dues to ANSA. By December 31, 2021 our overall collection rate (2015-2021) was 98.46% of all revenues from cash basis airlines and 99.99% of all commercial airlines. The collection rate of the cash basis airlines is a bit lower due to write-offs of, amongst other, Insel Air Aruba (in 2017) and Insel Air International (in 2019).

Regarding our HR activities, the training plan 2021 was developed and implemented and the yearly personnel performance evaluations have partially taken place and will be completed in the first quarter of 2022. In the ANSA website the monthly ANSA statistics have been included. Attention was also given to the development of the document management procedures and the process descriptions in the ANSA Handbook Employment Regulations.

In 2021 safety training was provided to the ATC unit personnel. This was finalized on October 20, 2021. The safety of using ADS-B as backup for WAM (Wide Area Multilateration) was assessed. This was finalized on March 30, 2021. The risk of using the ADS-B surveillance system for the purpose of separating aircraft, in the event of a WAM breakdown was assessed. The safety of using the ADS-B surveillance system was found to be at an acceptable level. As a result, surveillance service will continue for all flights so equipped and procedural separation will be applied for flights not equipped with ADS-B.

Air traffic was monitored to assess noncompliance to the LOA between DC-ANSP and ANSA. The purpose of this review was to monitor compliance by DC-ANSP to the agreed procedures regarding the exchange of flight data and coordination. Besides phraseology issues, the most important findings are the following:

- 1) Most arriving flights were taken off the STAR as filed and cleared direct to an initial approach fix on the ILS Z approach procedure;
- 2) It was noted that some flights were released outside the WAM surveillance coverage.

The ATC personnel were instructed to report e.g. incidents where arriving flights were released outside the surveillance range. Several reports were filed. These reports were shared with DC-ANSP resulting in the creation of a 40 NM radius virtual circle around the airport on the surveillance monitors at DC-ANSP. DC-ANSP has also made its personnel aware of the situation. Recently no reoccurrences have been reported. Since the redesign of the SIDs and STARs in the Curacao FIR in May 2021, the compliance to the procedures related to STARs by DC-ANSP has also improved significantly.

The ANSA fatigue risk management (FRM) system is being updated to comply with ICAO Standards And Recommended Practices (SARPs), while the ANSA QMS manual has been developed. Both projects are still ongoing.

ANSA created its performance-based air navigation (PBAN) roadmap, which was sent to the DCAA on November 6, 2018. Based on the NAM/CAR Regional Performance Based Air Navigation Implementation Plan (RPBANIP) v 4.0 dated August 2018, ANSA updated its roadmap in the 1st quarter of 2021, but it hasn't been sent to DCAA pending ICAO's approval of RPBANIP v 4.0.

Procedures for Short Term Collision Alert (STCA) were developed and implemented in May 2021. The generation STCAs is a function based on surveillance data, integrated into the ATC system. The objective of the STCA function is to assist the controller in preventing collision between aircraft by generating, in a timely manner, an alert of a potential or actual infringement of separation minima.

ANSA strongly believes in cooperation with our partners within the Kingdom of the Netherlands and has actively pursued this since we started operations on January 1, 2015. In the context of implementation of the "Landspakket" with regard to the aviation sector, a draft Collaboration Agreement was sent on October 29, 2021 to DC-ANSP, which provided feedback on December 23, 2021. While a practical collaborative approach currently exists, there are specific areas that require improvement. ANSA and DC-ANSP have identified the following areas of collaboration: joint project preparation and equipment acquisition, training, MEVA network node sharing, ATM systems interface and joint missions for flight Inspection of nav aids.

A lot of effort was also put into the development and/or revision of the operating and training manuals for the operational units. A clean version of the revised Tower Manual was sent to DCAA on May 21, 2021. Refresher training procedures were incorporated in the training manual on February 11, 2021. The CNS/ATM Systems Manual was submitted to the DCAA for approval in September 2018. In the meeting between DCAA and ANSA held in April 2021 it was agreed that a new revised version of the CNS/ATM Systems Manual will be sent to DCAA for approval.

To improve the coordination between ANSA and DC-ANSP, special attention was given to the revision of the Letter of Agreement (LOA) between ANSA and DC-ANSP. This process is ongoing and will be finalized in 2022. The LOA between ANSA and AAA was revised, due to the implementation of ICAO Global Reporting Format for runway surface conditions (GRF) and signed on November 18, 2021.

In March 2021 an agreement was signed with W Aviation regarding submission and validation of digital flight plans. An LOA was signed between ANSA and the ground handlers' operations in

September 2021 to establish procedures for the coordination and validation of flight plans and associated ATS messages to achieve an orderly and expeditious process. ANSA also provided training to the ground handlers' operations officers (June-August 2021). The LOA contains procedures aimed to safeguard the required competency level of the ground handlers' operations officers.

In January and February 2021, a data collection of missing flight plans (TopSky ATC & TopSky AIS systems) was performed for all inbound flights to determine the severity of the problem. In August 2021 the corresponding root cause analysis and action plan were presented to the CEO of ANSA and it was decided that, to mitigate the missing flight plan issue and thus avoid surprise traffic within the Beatrix Control Zone, ARO will assist by monitoring on a daily basis all inbound flight plans and report if any inbound flight plan is missing.

In the 4th quarter of 2021, a data collection of flight plan errors was performed to determine the amount and type of errors (human errors, system errors). The corresponding root cause analysis and action plan will be finalized in April 2022. The main goal of this project is to avoid erroneous flight plans which could lead to unnecessary delays.

Training of ANSA's personnel to maintain and improve their competencies is of the utmost importance. In 2021 refresher course was not provided due to several online courses which were given to the ATC personnel. In January and February 2021 online Spanish phraseology training was provided to all ATCOs. Due to the expiration of the validity of the ICAO English Proficiency Level (EPL), several ATCOs got online EPL refresher training and took the Versant Aviation English exams in April 2021. The training was provided by World Wide Training & Translations. In July 2021 the ATCOs did online self-training on SIDs and STARs, and thereafter took an exam. For the EFS implementation, all ATCOs received a training which was provided by Thales in September 2021. A GRF online course and exam was also provided to both ATC and AIA units in October 2021.

Furthermore, in order to refresh and upgrade all aeronautical information officers (AIOs) to understand and execute all procedures uniformly and meet the required proficiency standards, a refresher course was given to all AIOs in January 2021 and a self-training program (that focused on ADS-B in flight plan, NAVAIDS in flight plan, PBN and SIDs and STARs) took place from June till November 2021. The managers of AIA and ATC both completed the ICAO Training Instructors Course part 2 (TIC 2) in September 2021.

An amendment was made to the contract between ANSA and DC-ANSP for performance monitoring of the ABA DVOR/DME. The amendment entails a small increase in the hourly rate that ANSA charges DC-ANSP for the rendered service. This increase is based on the wage increase of the technicians in 2021.

With respect to investment projects: in 2018 and 2019 ANSA invested Awg. 1.3 million and Awg. 1.2 million respectively in equipment, systems and infrastructure. However, in 2020 most of the planned investments were postponed due to the financial malaise caused by the Covid-19 pandemic. The invested amount was therefore only Awg. 148.000,-.

Due to the pandemic and the financial impact thereof on ANSA, a reprioritization of our investment projects for 2021 took place. Only the investments considered strictly necessary to guarantee continuity of services were implemented. This explains why the invested amount in 2021 was still relatively low at Awg. 279.000,-. The GRF related systems upgrade was the largest project during 2021. The ATC simulator was upgraded and ANSA had the Magnetic Variation on all charts updated. The Tower window shades were replaced after many years. An ongoing project that started last year is the Microwave connections between ANSA and AAA.

This policy paper concisely describes the projects planned for 2022.

3. ORGANIZATION

3.1 General

ANSA started the year 2019 with 46 employees. In 2020 ANSA started with 44 employees due to one (1) early retirement and one (1) resignation (ATCO trainee) in 2019. In 2021 ANSA started with 43 employees because one (1) was dismissed in 2020 and in 2022 with 42 employees because one (1) resigned in 2021. See table 1.

3.2 Organizational structure and manpower resources

The operational organizational structure is provided in Figure 1 below.

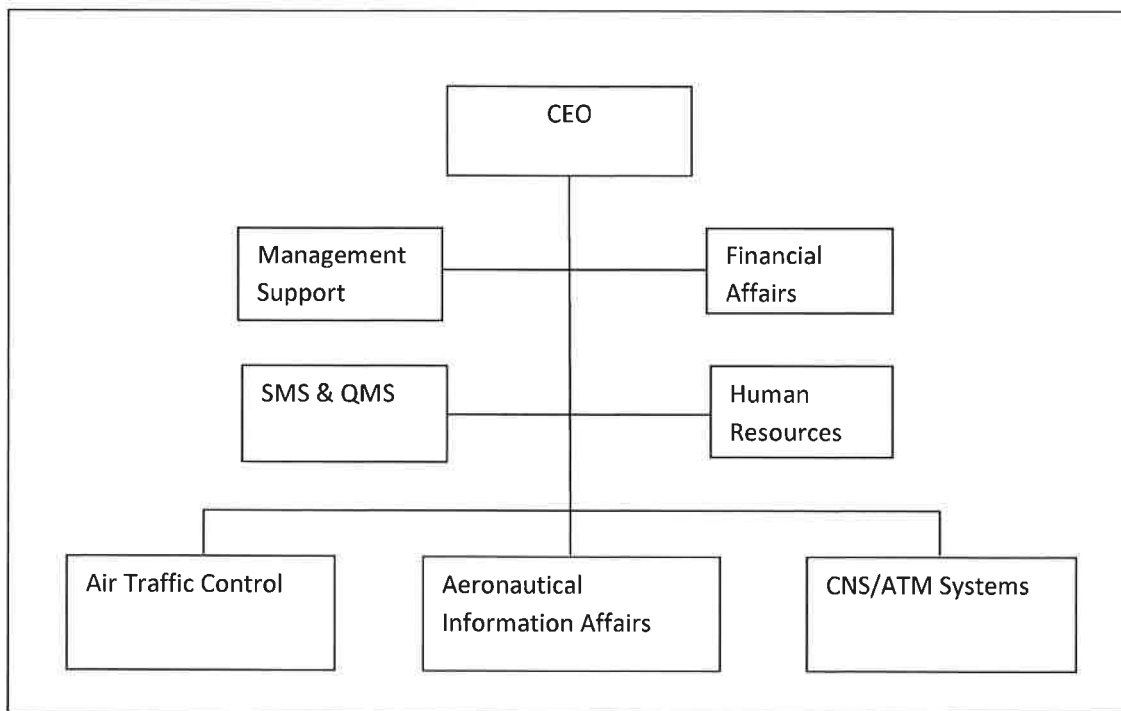


Figure 1: Organizational Structure ANSA

The CEO is the head of the ANSA organization and there is a Management Support consisting of a Management Assistant and an Administrative Assistant (2 staff). Other staff departments are the Financial Affairs (1 staff), Human Resources (1 staff) and SMS & QMS (1 staff). Compared with the previous ATS structure within the DCA, a SMS & QMS unit has been added to the staff departments to comply with the latest requirements for quality and safety management. The staff departments are being kept to a minimum in order to maintain cost-effectiveness. The three operational units are headed by their own Managers:

- Air Traffic Control (ATC);
- Aeronautical Information Affairs (AIA);

- CNS/ATM Systems.

The manpower resources available to ANSA are provided in Table 1 below. The information includes a comparison between January 1 of 2019, 2020, 2021 and 2022.

Department/position	FTEs 1-1-19	FTEs 1-1-20	FTEs 1-1-21	FTEs 1-1-22
Chief Executive Officer (CEO)	1	1	1	1
Management Support	2	2	2	2
Financial Affairs	1	1	1	1
SMS & QMS	1	1	1	1
Human Resources	1	1	1	1
Air Traffic Control	21	24	23	22
Aeronautical Information Affairs	11	10	10	10
CNS/ATM Systems	4	4	4	4
Air Traffic Controller trainee	4	0	0	0
Total	46	44	43	42

Table 1: Manpower Resources ANSA

3.3 Vision, Mission and Core Values

Vision of ANSA

To become a regional leader in the provision of Air Navigation Services with the highest standards.

Mission of ANSA

Our mission is to provide safe, efficient and reliable Air Navigation Services to the aviation industry within the Beatrix Control Zone.

Core values of ANSA

Safety first: We promote a strong safety culture and pursue the highest safety standards.

Service excellence: Work to satisfy our customers and partners by delivering on our commitments and always looking for the best possible outcome.

Involvement and motivation: Foster a welcoming, diverse and stable working environment where everyone has the opportunity to contribute to the decisions that affect them in an open and transparent way and where everyone is willing to go the extra mile to achieve excellence.

Courage and innovation: We foster innovation; we challenge ourselves, others and the status quo.

Excellent professionals: We continuously invest in upgrading and development of our personnel.

Pioneering technology: Keep track of technological developments and invest in new, if any, state-of-the-art equipment.

Partnership: Foster networks and/or joint efforts on national, regional and international level.

3.4 KPAs, Objectives and KPIs

In the coming years the operation of ANSA will focus on four Key Performance Areas (KPAs). These KPA's, together with the associated strategic objectives, Key Performance Indicators (KPIs) and strategic means to achieve those objectives are described in Table 2 below.

KPAs	Strategic objectives	KPIs	Strategic means to achieve goals
Safety	1. Reduction of incidents. 2. Prevention of accidents.	1. Number of safety related reports per year. 2. Percentage of incidents that have been investigated within 30 days. 3. Percentage of safety recommendations implemented or in the process of being implemented. 4. Number of airproxes between IFR and VFR flights. 5. Number of incidents involving the coordination between Curacao ACC and Beatrix approach. 6. Number of runway incursions or excursions. 7. Number of ATM incidents ¹ . 8. Number of MAC incidents ² . 9. Number of severity level incidents A, B and C ³ .	<ul style="list-style-type: none"> - Promote a strong safety and quality culture. - Implement, evaluate and improve the safety management system. - Continuously review and update the coordination procedures with CUR/ACC. - Expand hour of ATC surveillance service. - Continuously review and update the tower manual. - Implement standard clearances and standard releases to reduce verbal coordination. - Review the performance of all air traffic controllers on a yearly basis through proficiency checks and voice recording review. Provide competency-based refresher and safety training on a yearly basis. - Promote the modernization of national aviation regulation through DCAA. - Maintain a high level of equipment availability and reliability. - Development and implementation of QMS in accordance with ISO 9001 requirements. - Implement investment program to ensure safe and efficient ATS. - Perform safety assessments and reviews with respect to planned or implemented airspace reorganizations, the introduction of new CNS/ATM systems or facilities, and new or changed ATS procedures.

¹ Occurrences involving ATM or communications, navigation, or surveillance (CNS) service issues.

² Airprox, TCAS (Traffic Alert and Collision Avoidance System) alerts, loss of separation as well as near collisions or collisions between aircraft in flight.

³ Class A: a serious incident in which collision is narrowly avoided. Class B: an incident in which separation decreases and there is significant potential for collision which may result in a time critical corrective/evasive response to avoid collision. Class C: an incident characterized by ample time and or distance to avoid a collision.

Efficiency and quality of service	Provision of efficient and high-quality air navigation services in order to facilitate efficient operations (reduction of fuel consumption and ATC attributable delays) by aircraft operators.	<ol style="list-style-type: none"> 1. Number of ANSA-attributable gate departure delays: if the time difference between start-up clearance request and start-up clearance exceeds 5 minutes. 2. Number of ANSA-attributable en route clearance delays: if the time difference between en route clearance request and en route clearance exceeds 5 minutes. 3. Number of ANSA-attributable taxi-out delays: if the time difference between start taxi and take-off exceeds 10 minutes. 4. Number of ANSA-attributable arrival delays: if the actual time of arrival (ATA) is later than the expected time of arrival (ETA) upon first contact between the pilot and Beatrix TWR/APP (after responsibility for the control of the aircraft was transferred). 5. Operational availability of the equipment necessary to provide ATM service: the maximum facility service hours minus outage time divided by the maximum facility service hours. 	<ul style="list-style-type: none"> - Proficiency checks and refresher training on a yearly basis. - Continuously review and update the coordination procedures with CUR/ACC. - Implement ATFM. - Expand hour of ATC surveillance service. - Continuously review and update SIDs and STARs and promote the use thereof. - Development and implementation of QMS. - Improve the data quality of Aruba in the Dutch Caribbean AIP. - Improve preventive maintenance program. - Maintain a high level of equipment availability and reliability. - Implement investment program to ensure safe and efficient ATS.
Productivity and capacity	Increase productivity and aircraft handling capacity of ATC.	<ol style="list-style-type: none"> 1. Number of days on sick leave. 2. Number of aircraft movement per ATCO in operations. 3. Maximum number of aircraft handled per hour in VMC conditions. 4. Maximum number of aircraft handled per hour in IMC conditions. 	<ul style="list-style-type: none"> - Enhance working environment. - Implement program of organizational culture change. - Continuously review and update the employee performance evaluation system. - Proficiency checks and refresher training on a yearly basis. - Continuously review and update coordination procedures with CUR/ACC. - Implement ATFM. - Expand hour of ATC surveillance service. - Continuously review and update SIDs and STARs and promote the use thereof.
Cost-effectiveness	Keep total costs as low as possible in order to comply with ICAO's cost-based principle related to the ANS charge.	<ol style="list-style-type: none"> 1. Cost per aircraft movement. 2. Operational costs as percentage of revenues. 	<ul style="list-style-type: none"> - Implement cost control program. - Effective billing and collection policy.

Table 2: KPAs, Objectives and KPIs ANSA

4. INVESTMENTS

4.1 Investment policy principles

ANSA features different Communication, Navigation, Surveillance (CNS) and Air Traffic Management (ATM) equipment that are essential for the provision of ATS. This equipment is critical for the aviation industry and need to be maintained, upgraded and/or replaced in order to guarantee continuous operation of the equipment. With properly functioning CNS/ATM equipment, ANSA is able to provide ATS at an optimum level within the Beatrix Control Zone.

Adequate air transport can only be assured when the airlines can rely on a safe, efficient, and expeditious flow of air traffic, supported by well-functioning equipment and installations. As in previous years, ANSA's investment policy of 2022 will be primarily based on the following principles:

- Investment backlog that ANSA inherited from the DCAA will be eliminated as soon as possible.
- Focus will be on safety, efficiency, and quality of service.
- Needs and interests of Airlines will be factored-in as much as possible.
- All investments will be funded with ANSA's own cash flow.

4.2 Investment Plan 2021-2025

The investment plan 2021-2025 is provided in Table 3 below and was developed in accordance with the principles mentioned in paragraph 4.1.

Our investments in 2022 will return to normal levels after two years of almost no investments. In 2022 ANSA will invest Awg. 1.1 million. The most important investments that will be implemented in 2022 are the following: Upgrade Voice Communication System (VCS) and Upgrade ILS/DME.

INVESTMENT SCHEDULE 2021-2025

		2021	2022	2023	2024	2025	TOTAL
6	GRF systems upgrade	161,412					161,412
7	Upgrade Voice Communication System (VCS)		380,000				380,000
10	Electronic Flight Strip	1,186					1,186
12	Renewal TopSky ATC hardware		100,000				100,000
14	Robust ATS System	9,606	127,000				136,606
17	Upgrade BEA VOR/DME		39,000	200,000			239,000
19	Upgrade ILS/DME		230,817				230,817
20	Updates on Magnetic Variation on all Charts	29,587					29,587
27	ATC simulator upgrade	20,897			25,000		45,897
22	TopSky AMHS/AIS upgrade		10,000	223,000			233,000
23	Upgrade RTS and Glide Path antennas		50,000				50,000
24	Upgrade VRRS (Voice Rec. & Replay System)		22,000				22,000
25	New ATC tower Annex Ansa Office Building			1,000,000	2,000,000	2,000,000	5,000,000
26	MEVA 4.0 VSAT Dish				100,000		100,000
21	Aeronautical charts update		11,000	440,000			451,000
28	A/C's	1,734	15,000	10,000	10,000	10,000	46,734
29	Furniture, Fixtures & ICT Assets	30,003	50,000	10,000	10,000	10,000	110,003
30	Spare Parts	3,824	50,000	50,000	50,000	50,000	203,824
31	Other investments	21,051	35,296	25,000	25,000	25,000	131,347
TOTAL INVESTMENTS		279,300	1,120,112	1,958,000	2,220,000	2,095,000	7,672,412

Table 3: ANSA Investment Schedule

4.3 Description of Investment Projects 2022

A. Upgrade Instrument Landing System (ILS)

Upgrading of the ILS/DME system to guarantee its continuous and reliable operation and to extend its lifespan started in January 2022 with a system health check from its manufacturer Selex. Actual refurbishing following Selex's recommendation will be executed in the first and second quarter of 2022.

B. Renewal TopSky ATC Hardware

The TopSky ATC system was acquired in 2012, at that time to be used for Flight Planning. Since completion of the AMHS/AIS project in July 2017 Flight Planning is done on the AMHS/AIS System, whereas the TopSky ATC System is used for processing and displaying of surveillance data. With the aim to guarantee service continuity on the TopSky ATC system, all the computer hardware of the system will be renewed. This includes the server computers and workstation computers. This project will be implemented in the second quarter of 2022.

C. Upgrade Voice Communication System (VCS)

The SolaCom Voice Communication System (VCS) was installed and put into operation in 2008. The main function of the VCS is to switch/interface telephone and radio communications between

ATC and aircrafts and vice versa. The upgrading of the SolaCom VCS will start in the last quarter of 2021 and be completed in the second quarter of 2022. This project entails new hardware and software and the “switch over” from analogue to IP technology.

D. Other Investment Projects

- A data communication microwave link will be implemented between ANSA’s Head Office and ANSA’s equipment room at the airport. This will make ANSA less dependent on Setar for data communication and reduce telecommunication expenses. This project started in 2021 and is pending the government’s concession permit to be implemented in 2022.
- Upgrade RTS and Glide Path antennas. The mast at the RTS site and the Glide Path will be refurbished and repainted. This project will be executed in the third quarter of 2022.
- Upgrade VRRS. The VRRS software needs to be upgraded to be able to record the digital radio’s when the VCS is upgraded. This project will be implemented together with the VCS upgrade project.
- Due to the Covid-19 pandemic and its financial impact on ANSA, several projects that were planned for 2021 will be implemented in 2022 (and 2023). These are:
 - ✓ Upgrade of the BEA VOR/DME. This project entails a microwave radio link for the remote control and status monitor for the BEA CVOR/DME, as required by ICAO Annex 10, Volume 1. This project will start in the 3rd quarter of 2022 and be finalized in the 2nd quarter of 2023.
 - ✓ Phase 2 of the project Robust ATS System includes three activities, namely:
 - a. implement a redundant Uninterruptible Power Supply (UPS) system with an automatic transfer switch for the IT rack at the main office (started in 2021 and will be completed in the 1st quarter of 2022);
 - b. purchase of spares for the WAM/ADS-B (to be implemented in the 4th quarter of 2022);
 - c. purchase of new batteries for the different UPS systems at MEVA, Tower and Nav aids (to be implemented in the 4th quarter of 2022).
 - ✓ Upgrade of the TopSky AMHS and AIS. This project comprises the upgrade of both hardware and software of the AMHS and AIS systems to ensure up to date AMHS and AIS software release and system availability.

5. OTHER PROJECTS

In this chapter the projects that are not considered investments will be described. These projects are mentioned in the Roadmap of ANSA for 2022 and will be described separately by every unit at ANSA.

5.1 Air Traffic Control

A. Revision Tower Manual

A clean version of the updated Tower Manual was submitted to DCAA, as per their request, May 21, 2021. DCAA provided feedback February 17, 2022. ANSA will review the feedback and update the Tower Manual as suggested. ANSA will submit the revised Tower Manual to DCAA by April 2022.

B. Performance Based Air Navigation

ANSA is pending ICAO's approval of RPBANIP v 4.0.

C. Tower Training Manual

ANSA is awaiting DCAA's feedback or approval.

D. Surveillance Training Program

The Surveillance course is provided in three parts: theoretical, practical and OJT by Trinidad and Tobago Civil Aviation Authority - Civil Aviation Training Centre (TTCAA-CATC). 7 ATCOs and 1 DCAA inspector are expected to follow the surveillance course in the 2nd quarter of 2022. TTCAA-CATC will facilitate the theoretical part virtually for 1 week. Thereafter practical (simulator) training will be given by TTCAA-CATC for 4 weeks in Trinidad. When the 7 ATCOs return, they will start their surveillance OJT. TTCAA-CATC will also monitor and appoint for DCAA's approval 3 OJTIs for surveillance and 2 examiners.

E. English Proficiency training and Exam

2 ATCOs who have English proficiency level 5 will be trained and take the English Proficiency Exam (EPE) in April 2022. They will be trained online by World Wide Training & Translations.

F. Proficiency checks and refresher course for ATCOs

To refresh/guide all ATCOs to understand and apply all work-related procedures correctly/uniformly and meet the required proficiency standards, an online self-training refresher course is planned for March 2022. Focus will mostly be on emergency phases and GRF.

G. Revision of LOA between ANSA and DC-ANSP

In the 2nd quarter of 2022, ANSA and DC-ANSP will revise their present LOA. Main changes are the following: the EFS implementation will be included, ETA shall be provided at the Curacao FIR boundary and inbound releases shall be given at 40NM when surveillance service is provided by Beatrix Approach.

H. Collaboration Agreement with DC-ANSP

It's expected that the Collaboration Agreement will be signed in March 2022.

I. EFS related activities

A TopSky ATC EFS Guide was implemented in February 2022, which incorporates the process description. The SOP between Beatrix Tower and Approach has also been updated to include EFS.

J. Simulator training

The simulator will be used to provide the 7 ATCOs familiarization of surveillance prior to their theoretical training. The simulator will also be used to provide all ATCOs in September 2022 training on emergency, unusual situations and procedures for runway 29. The scenario's will be created in the coming months.

K. JUMP-1 and VFR procedures

JUMP-1 procedures were revised and will be sent to DCAA for approval in March 2022. This procedure is of importance for both ATCOs and JUMP-1 pilot respectively to know the area where JUMP-1 will climb and descend and for JUMP-1 to remain in the defined area during climb and descend.

VFR procedures to hold VFR traffic are being developed and will be sent to DCAA for approval in April 2022. These procedures are for when there are arriving VFR flights which are subject to hold due to multiple IFR/VFR arriving flights and are also meant to sequence the VFR traffic in an orderly flow.

L. ICAO Training Developers Course

DCAA requires the ANSA instructors to complete the ICAO Training Developers Course (TDC) which will be provided online in August 2022.

5.2 CNS/ATM Systems

A. Flight Inspection of Nav aids

To assure signal accuracy in the air and to comply with the ICAO requirements set forth in ICAO Annex 10 Volume1 and ICAO Doc. 8071, the BEA VOR/DME, the IBE ILS/DME and PAPIs (Nav aids) should be calibrated and flight inspected annually. The last calibration and flight inspection of these Nav aids was performed in March 2021 by "Radiola Aerospace" and the results were up to standard. The next flight inspection mission is scheduled for May 2022.

B. CNS/ATM Systems Manual

The CNS/ATM Systems Manual was completed and presented to the DCAA for approval in September 2018. A revised version of the manual will be finalized by end of June 2022. This manual contains a detailed description of all the processes, procedures and instructions that are essential for

the maintenance of CNS/ATM systems for the provision of safe and efficient ATS in the Aruban airspace.

C. Calibration test equipment

To ensure that all test equipment used for maintenance of CNS/ATM Systems are accurate and available for the continuity of measurement capability, these test equipment needs to be calibrated against the standards on a yearly interval. In the first quarter of 2022 ANSA will send all the test instruments used in the maintenance of the CNS/ATM Systems for these to be calibrated to a certified laboratory in Miami.

D. Technical support agreement with Thales

To ensure the continuity of service of the WAM/ADS-B, the AMHS and the AIS, a support contract with Thales is being negotiated. It is the intention to reach an agreement in the first quarter of 2022.

5.3 Aeronautical Information Affairs

A. Training activities

The Air Traffic Services Reporting Office (ARO) is responsible for the provision of services associated with the submission of flight plans and the distribution and reception of messages of air traffic services. In addition, it distributes NOTAMs & Pre-flight Information Bulletin (PIB) based on the requirements of the aircraft crew or the representatives of aircraft operators, in accordance with the track data in the flight plan.

In April 2022 a proficiency check will be conducted and in July 2022 a refresher course will be provided. The proficiency check will be implemented to evaluate if further training is required for the whole ARO team or if individual remedial training is appropriate. The goal thereof is to maintain and improve the competency of the ARO team and the quality of our Aeronautical Information Services.

A self-training program for the ARO team will be implemented in November 2022. For the Manager AIA ICAO's Training Developers Course (TDC) is planned for August 2022 and ICAO's Safety management for April 2022.

B. Transition from AIS to AIM

The main objective of the AIS to AIM transition is to enhance the process of data distribution in terms of quality and timeliness. This will contribute to improved safety, increased efficiency, and greater cost-effectiveness of the air navigation system. Derived objectives can be structured per step as defined in the ICAO Roadmap document.

In 2016 ANSA complied with the ICAO Port-of-Spain Declaration including the transition from AIS to AIM phase 1.

In phase 2, Going Digital, the introduction of database-driven processes will improve the value of current products by improving their quality and availability for current users. This will concern mainly the creation of a national database or regional databases to produce the existing products and

services, but with better quality and availability. The global deployment of new, already well-specified products such as the electronic AIP will also be initiated. The projects in the second phase will be conducted to enhance the quality and availability of existing products in the medium-term work program activities. Due to the pandemic, states are pending for ICAO's updated timeline. See table 4 below.

Phase/Step	Step No.	Timeline						Remarks
		2019	2020	2021	2022	2023	2024	
Phase II								
Data Quality Monitoring	P-01							SEMI-COMPLETED PLX module
Data Integrity Monitoring	P-02							SEMI-COMPLETED PLX module
AIXM	P-06							COMPLETED
Unique Identifier	P-07							COMPLETED
Aeronautical information conceptual model	P-08							COMPLETED
e-AIP	P-11							COMPLETED
Terrain Area 1, 2, 3, 4	P-13							IN PROGRESS
Obstacle Area 1, 2, 3, 4	P-14							IN PROGRESS
Aerodrome Mapping	P-15							

Table 4: Timeline Phase 2 AIS to AIM Transition

C. AIA Manual

To comply with ICAO and national regulations, and to guarantee a standardized workflow for the AIA unit, an AIA Manual was developed. The manual was submitted on January 18, 2018 to the DCAA for approval and it was approved on May 28, 2019. A review/update will take place in the last quarter of 2022.

D. Data/Info of Aruba in the Dutch Caribbean AIP

To ensure the Aruba data quality, accuracy and integrity in the AIP, a complete review will be performed in 2022 by the AIS Officer under the supervision of the Manager AIA. All the data originators will be involved in this process. Furthermore, to standardize the collection of aeronautical info/data a multilateral Service Level Agreement (SLA) will be signed with all our data originators by the end of 2022.

E. ICAO Task Force for the implementation of AIM 2022-2025

During the first meeting of the Air Navigation Implementation Working Group (ANI/WG), it was agreed to activate a group (AIM/TF) working for the AIM implementation to support and make more efficient the implementation activities of AIM in accordance with the roadmap for the transition from AIS to AIM. This task group will have to improve processes and coordination among States, Territories, and international organizations, as well as offer to the regional planning groups and States practical guidance and advice for the development of implementation strategies of AIM. The AIM/TF will also propose the tasks that have to be done and corresponding implementation schedule, as well as update and report its progress to the ANI/WG based on the plan of action for these tasks. Approval from the DCAA was granted to manager AIA to form part of the AIM/TF. The Taskforce is pending ICAO for the activities and timeline for 2022-2025.

F. AIP quality control

AIS/AIM does not normally originate the information it processes and ultimately publishes. The “raw data” must be provided by those responsible for the operation of the various air navigation facilities and services. This, in turn, is necessary to ensure timely distribution of all significant information both within the State and to other States as required. The quality control procedures will be finalized in April 2022.

5.4 Financial Affairs

The Financial Controller provides monthly the Financial Statements, which include the Balance Sheet, Profit & Loss, Budget Comparison figures, Cash Flow Report, investment progress report, the Accounts Receivable statuses (debtor list with collection percentages for Commercial Credit and Commercial Cash Basis airlines) and the notes with an explanation of the aforementioned figures including illustrative charts. Once a year the Annual Budget is prepared, and this budget is then divided in appropriate monthly figures to be used in the comparison analyses with the actual monthly figures.

To date ANSA has closed 6 years, successfully audited and duly presented to the Supervisory Board and the Minister concerned. By the end of May 2022, the Financial Report for the closed 2021 fiscal year should be ready. Plus Accountants has been hired to audit ANSA’s figures (revenues, expenses, accruals, balances etc.) and procedures, which process will start in the first quarter of 2022. The necessary confirmations will be requested from the different parties and the reconciliations will be provided to facilitate the verification of the final figures. In order to lower the audit costs for 2021, the Financial Controller will (for the first time) prepare the financial statements for the year ending December 31, 2021, with the guidance of Plus Accountants.

ANSA incorporated in its planning for 2022 to create its own Corporate Governance Code (CGC) in order to comply with possible regulation by the Government in the near future. The Government of Aruba issued and published a report in December 2020 called Corporate Governance in Aruba (“Onderzoek naar de naleving van de basisprincipes van corporate governance in entiteiten in de publieke- en semipublieke sector in Aruba”) based on interviews with stakeholders in the various entities to determine the “Nulmeting”, the so called Zero measurement. This first step is highly important for any other comparison in the future. Most of the government entities have indicated already to have started the process to create their own CGC. ANSA hopes to get the necessary collaboration with the relevant Government departments responsible for the development of the CGC regulation to cross check our own CGC.

5.5 Human Resources

The training plan 2022 has been approved. The document management procedures will be finalized in March 2022. In the Handbook Employment Regulations, the detailed description of all HR procedures will be completed in the second quarter of 2022. It is important for a healthy employer-employee relationship that clarity and transparency exist regarding the rights and obligations of the employee.

ANSA’s website will be updated with new information (e.g. new policy paper, organizational chart and monthly ANSA Statistics). The current CLA has been prolonged with one (1) year and will

expire December 31, 2022. Negotiations for a new CLA will commence most probably in the third quarter of 2022.

5.6 SMS & QMS

To comply with article 15 of the “Landsbesluit luchtverkeer” ANSA has developed a Safety Management System (SMS). The ANSA SMS manual was submitted to the DCAA for approval on November 23, 2018. The DCAA has performed its review of the above-mentioned manual and shared its findings with ANSA on June 15, 2021. The ANSA SMS manual is currently being revised and updated to conform with the DCAA feedback. The revised SMS manual is expected to be submitted to the DCA by the end of March 2022. The performance of the SMS is being reviewed and this internal review will be finished in March 2022.

In 2021 SMS training was provided to all ATC personnel. ARO personnel will follow in March 2022. This training has the objective to make everyone aware of their role within the SMS and the many factors affecting safety.

In 2022 ANSA will continue its efforts to identify hazards through e.g., the investigation of incidents, analysis of hazard reports, safety reviews and the managements of risks involved with changes in procedures and equipment.

ANSA is in the process of introducing a Quality Management System (QMS). Quality management is a dynamic process to continually monitor, evaluate, and improve ATS processes and performance. Although the quality of the service will continue to be measured against historical data such as the number of delays, employee and customer feedback, factors that cannot be measured readily must also be recognized. The willingness to function as a team, training, awareness (“quality culture”), and actions taken to achieve ANSA’s quality objectives are essential to ANSA’s QMS and efforts to provide quality service. It is ANSA’s aim to be ISO certified by the end of 2023.

6. CONCLUDING REMARKS

Although ANSA maintained its vision, mission and core values and still strives to continuously improve its organizational performance in terms of safety, quality, capacity and efficiency, the focus has shifted from ensuring the survival of the company into the direction of recovery and consolidation. The fact of the matter is that ANSA is still being confronted with huge challenges and risks due to the financial impact of the COVID-19 pandemic and its aftermath. Yet, we are hopeful that with the support and cooperation of all employees, our Supervisory Board and stakeholders, we will overcome these challenges and that 2022 and beyond will be positive years for ANSA.

From the contents of this paper, it can be concluded that ANSA's 2022 projects are primarily aimed at enhancing safety, improving quality, increasing capacity, maximizing efficiency, and complying with or exceeding international standards. To achieve this, ANSA will invest in CNS/ATM equipment necessary to safeguard continuity of service. Moreover, ANSA will focus on training as well as employees' development and performance. Furthermore, special attention will be given to ways to improve coordination with DC-ANSP, strengthening of the cooperation with stakeholders, updating of operational manuals and implementation of SMS and QMS.

Attached is the Roadmap of ANSA, which contains a general overview and timetable for the projects of ANSA for 2022.

