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Index

EDITORIAL	03
General Port Administration Vía Navegable Troncal (Navigable Connecting Waterway): The Success of Public Management in Argentina	04
Ricardo Sánchez Uruguay-Brazil: A New Waterway for South America's Integration	05
General Ports Administration Cruises: Post-Pandemic Challenges	06
Latin American Society of Maritime Oil Terminal Operators and Monobuoys (SLOM) The Importance of Incorporating Higher Safety Standards in Latin American Waterways	07
Maritime Port Authority of El Salvador Initiatives and Experiences on the Regulation of Navigation in Waterways and Inland Ports	08
Rodrigo M. Díaz Technology is here to stay: The Smart Waterway System (SWS) is a huge opportunity for river traffic sustainable development	09
Indra Sistemas S.A. Biometrics, Blockchain, and AI Application to the Digitization of Passenger Flows in Maritime Terminals	10
Superintendence of Transportation of Colombia Successful practices of the Superintendence of Transportation in Colombian Interior Ports: Initiatives and Strategic Guidelines	11
Navigation Center of Uruguay (CENNAVE) Partnerships as a coordination strategy for the development of the sector	12



Editorial

2022 has been an important year for Argentine port activity. From the General Port Administration (AGP) we have consolidated our role in charge of the management of the Vía Navegable Troncal (Navigable Connecting Waterway) and reactivated the cruise industry after the years of confinement caused by the COVID-19 pandemic.

In the Vía Navegable, we leave behind a lot of prejudices and show that under the State's management, we can reach high-efficiency levels. Not only did we maintain the quality standards we had been working with, but we also added value to the waterway in terms of the works necessary for expansion, route corrections, and the application of state-of-the-art technology for the collection of information.

The data collected is useful for bringing more transparency to the management of the waterway in Argentina. Based on it, we can make monthly reports detailing the figures related to billing, dredging, beaconing, ship traffic, hydrometric control, and all that pertains to the life of the waterway and its productive role.

In 2022 it was possible to reactivate the cruise industry after the interruption of activity caused by the COVID-19 pandemic, including the satisfaction of having reached numbers that exceeded cruise seasons before the quarantine.



José Beni
Port Comptroller of the General Port Administration (AGP) of Argentina,
and Chair of the Technical Advisory Committee on Waterways, Inland Ports, and Cruise Ports



General Port Administration, Argentina

Vía Navegable Troncal (Navigable Connecting Waterway): the success of public management in Argentina

In September 2021, the General Port Administration (AGP) of the Republic of Argentina faced the challenge of managing the Vía Navegable Troncal (VNT) after more than 25 years of private administration. This waterway is the main river-maritime route for national production, as nearly 80% of Argentina's foreign trade from the agro-export complex, automotive industry, and regional economies, among others, transit through the VNT.

To carry out the task, AGP created roundtable dialogues with all the sectors involved in the waterway's operation, and from that exchange, generated effective solutions for its management.

In its first year, the Argentine Port Administration not only maintained the quality standards with which it had been working on the waterway, but also improved its infrastructure and provided state-of-the-art technology.

During the first year of management by the General Port Administration, 4,523 vessels and more than 20,000 barges transited through the VNT of different sizes and with different types of cargo. With an average of 12 vessels per day, the waterway showed a high level of activity. From the types of vessels, statistics confirm that the main vessel sailing the VNT waters is the bulk carrier, which represents 53.64% of the total -and 61% of the turnover-, with a figure of 2,426 vessels in the year.

AGP inaugurated the VNT Monitoring and Management System (SiMon). By reinvesting the profits from the management of the VNT, this technology will allow more efficient management of the system, as well as the generation of reliable and permanent statistical data and the optimization of the controls inherent to the activity.

The SiMon implied the implementation of technological support - "remote monitoring points" - at different points of the waterway and the creation of a Monitoring Center -two more will be built soon, to integrate data processing,; help speed up traffic, strengthen the waterway safety and environmental conditions, as well as incorporate more data and statistics.

These are equipped with AGP's automatic identification systems (AIS), which provides basic information of the vessel, course, and speed (among other data) detected along the canal; radars; additionally, there are dual spectrum cameras; and weather stations and multiparametric buoys for the environmental care of the waterway.

Progress was also made with the first National Emergency Plan for contamination by fuels and other noxious and potentially hazardous substances in the VNT. This plan consists of having an action and rapid response protocol in case of any eventuality, guaranteeing the necessary technical and physical equipment to face the situation.

Beyond the issues related to the day-to-day management of the VNT, from the beginning, the General Port Administration understood the relevance of disclosing data about the waterway. Therefore, it set out to generate traffic statistics as a way of providing transparency and adding value to the work done to understand the behavior of the cargo circulating through the waterway.



Ricardo Sánchez, Co-Director Chair Kühne of Logistics, Universidad de los Andes, Colombia and Head, Caribbean Research Institute

Uruguay-Brazil: a new waterway for South America's integration

The Uruguay-Brazil waterway is a strategic project to advance regional integration in the Southern Cone, as it is a direct physical connection between the two countries, with network benefits due to its new and efficient connections, which also include Argentina, Paraguay, and Bolivia.

The project consists of regularizing the connection between the Merín and Los Patos lagoons, and the expansion of the associated infrastructure in an area where it is currently scarce.

It appeals to valuable and important conditions in terms of social and economic efficiency, since: (a) it is a decentralized strategic development project, improving conditions for investment and accessibility to less favored inland regions; (b) it evolves towards a much more ecological and efficient mode of transportation than the current one; (c) it drives the expansion of production and tourism, with the potential of obtaining a positive and high social impact, by achieving the improvement of sustainable logistics and mobility connections; (d) it opens a great avenue for regional tourism, providing coverage to areas of high, national and international, tourist impact.

The project directly benefits the three departments bordering the Merín Lagoon (Rocha, Treinta y Tres, and Cerro Largo), but also other departments (states) when the project to improve the country's central transversal road connection is completed, incorporating the state of Rio Grande do Sul, the rest of Uruguay, other states in southern Brazil, and the rest of the southern cone countries, due to improvements in logistics and mobility capacity, new connections would improve accessibility from the interior. These improvements

directly benefit a population of more than 10 million inhabitants.

Studies carried out by the Economic Commission for Latin America and the Caribbean (ECLAC) conclude that it is advisable to continue with the project, moving on to the next phase. The studies have shown significant development that includes a reduction in the operating costs of transportation and its polluting gas emissions; the increase of productive surfaces; aiding the development of an innovative tourist pole for a potential market of more than 14 million people.

At the same time, it is important to emphasize that, as is the case with logistics infrastructure in general, the project should also involve a review and updating of specific trade facilitation measures, particularly customs integration (ACIs) and dry ports.

It has been determined that the Uruguay-Brazil Waterway project is consistent with the high sustainability objectives of the beneficiary countries and that the accessibility improvements will drive a positive change in the living and production conditions of the areas involved.

The project highlights South America's historical experience in inland water transport, its vast river and lake resources, as well as its productive capacity (food, tourism, and other goods), and the exchange between neighboring countries.

A new waterway project appears in the regional horizon, a new boost to integration.



General Port Administration, Argentina

Cruise ships: the post-pandemic challenge

The tourism industry was one of the sectors most affected by the COVID-19 pandemic. As far as the port sector is concerned, cruise activity suffered an interruption of almost two seasons, demonstrating the challenge of keeping up with COVID-19's complications.

After a season with no cruise traffic in the Port of Buenos Aires, corresponding to 2020/21, and another one with only 11 calls in 2021/22, the General Port Administration (AGP) faced the challenge of reactivating the sector. The 2022/23 season ended with 127 calls, 36 vessels, and more than 400,000 passengers, surpassing the last seasons before the pandemic.

For this purpose, AGP implemented a system through which bonuses were given to cruises that called on the Port of Buenos Aires and made Argentina an attractive destination for the industry. A 100% benefit was granted to all cruise ships in form of the General Port Use Tax, Passenger Tax, Scanner Use, and Security Charge, 99.5% in the VNT Tax for cruise ships arriving in the country, and 25% to all cruise ships in the General Port Use Tax.

At the national level, considering numbers of the ports of Ushuaia and Madryn, it is estimated that there will be more than 700 cruise calls in Argentina, adding the, and a flow of 725,000 passengers. The Port of Buenos Aires serves as a hub and entry point to the country, from where the cruise ships trace different routes. Towards the north, the cruise

ships make itineraries to the beaches of Uruguay and Brazil, while, towards the south, they visit the port of Madryn, the port of Ushuaia, the Antarctic territory, and some continue their way to the Chilean coast.

During the 2022/23 season, eight new cruise ships visited the Port of Buenos Aires. Four of them will travel to the south to visit Ushuaia and then visit the Argentine Antarctic. They are the National Geographic Endurance, Oosterdam, Sapphire Princess, and Fridtjof Nansen. The other four ships that will arrive in Buenos Aires, such as MSC Seaview, MSC Preziosa, Silver Moon, and Seabourn Ventura, will sail the route that connects the coasts of Brazil, Uruguay, and Argentina.

In addition, after the season ended, AGP participated with a stand at Seatrade, the world's largest cruise fair, held in Miami, where it also held meetings with its regional peers and with interested firms in the sector.

The cruise activity in Argentina is important as it is estimated that cruise passengers spend approximately US \$100 daily, representing a significant revenue stream from tourism. With its work, the AGP ratifies its commitment to the country's development and the growth of regional economies.



Latin American Society of Marine Oil Terminal and Monobuoy Operators (SLOM)

The importance of incorporating higher safety standards in Latin American waterways

Latin America's Waterways

Latin America has two of the ten largest waterways in the world, located on the Amazon and de la Plata basins, with the Orinoco, Magdalena, San Francisco, and Tocantins River basins standing out, make up more than 100,000 km suitable for river transport.

These waterways provide an outlet to the sea and have boosted development capacities through foreign trade. However, they also present administrative challenges due to the different interests that arise between states, resulting in a few disputes and consequently, the deprioritization of some of the maritime sector's needs.

The energy industry and waterways

The access to the sea offered by waterways allows the development of oil production projects, such as those of Breaña Norte in the Peruvian Amazon, which is then transported by barges to seaports in Brazil, the Orinoco oil belt in Venezuela or the Magdalena Medio in Colombia. The growth of countries and regions generates, in turn, a greater demand for the transportation of energy products (gasoline, diesel, liquefied gases, etc.). This exponential increase in transported volumes and the lack of updated regulations has created a gap between the environmental and safety standards applied in the maritime sector and those applied in the inland waterway sector.

Risks and safety standards in the inland waterway industry

From a risk management perspective, river operations are quite vulnerable to hazards because they are near coasts,

human settlements, and sensitive ecosystems. It is important to take into account events that have incurred in catastrophic results, as these caused damages to tourist areas, fishing areas, cities, and the navigation channels themselves.

On the other hand, it is still very common to see barges operating all kinds of fuels containing toxic and flammable gases -such as benzene, hydrogen sulfide, and organic components- with open tank inlets venting these gases on deck and exposing the health of crew members and people in the vicinity and polluting the environment.

To mitigate these risks, organizations such as SLOM, OCIMF (Oil Companies International Marine Forum) and the CIP-OAS are both leading and promoting joint initiatives for the development and application of best practices in the industry, through the creation of guidelines and promotional activities that improve the understanding of the different actors for more effective and focused risk management.

Collaboration is a major key to success. Therefore, the joint work between industry organizations, authorities, energy companies, shipping companies and other interested parties is essential to achieve changes that can be carried out in a harmonious way, promoting safer, cleaner and more efficient operations.



Maritime Port Authority of El Salvador

Initiatives and experiences in navigation regulation in waterways and inland ports

The Maritime Port Authority (AMP) of El Salvador, serving as the regulatory body of the maritime port subsector, is honored to share successful practices for the First Edition of the Information Bulletin of the Technical Advisory Committee (CTC) of Waterways, Inland Ports and Cruise Ports.

Aquatic Patrols In Inland Waters

In 2022, the AMP, as part of its strategic vision of promoting a country with a strong maritime culture, initiated a project to acquire and put into operation three maritime units with outboard engines and fiberglass hulls.

This project, among others, allowed to:

- Strengthen navigation supervision capabilities in aquatic spaces, mainly canals;
- Act in emergency rescue situations;
- Event investigation and incident prevention.

In 2023, the AMP will continue with the expansion of its fleet and will acquire three vessels to be deployed nationwide.

Modernization of the Regulatory Framework to Regulate Navigation

The AMP has included in its regulatory improvement agenda for 2023 a cross-cutting review project of the framework that regulates navigation (vessels and seafarers). It is intended to incorporate regulations that will allow regulated users to submit documentation, in a more agile way and from the comfort of their homes, by electronic devices such as cell phones. This new regulation will facilitate access to regulation and transform outdated and bureaucratic regulatory frameworks into modern instruments with a focus on users and the safety of navigation, people, and vessels as the primary axis of operation.



Rodrigo M. Díaz
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Technology is here to stay and grow: the smart waterway system (SWS) is a huge opportunity for river traffic sustainable development

Smart Waterway System (SWS) is understood as a system composed of data from echo sounders placed on ships navigating the river, beacon buoys with topographic technology and data transmission, and all information related to navigability that does not require intervention or dependence on a manual process, adding the appropriate computer tools for processing, with the purpose of delivering real navigability forecasts. This includes, for example, forecasting low water or reconstructing a morphological topography of the waterway bed. The Danube waterway, the Alberto Canal and the access to the Port of Posorja are some successful examples of SWS.

The automation technologies involved in SWS to support the captains' decision making, such as ECDIS (Electronic Chart Display and System), which are electronic display and information systems, make navigation increasingly safer and more predictable, thus increasing the logistic flow in this modality. Small developments in navigation assisted by Automatic Identification Systems (AIS) may have a great impact on of water transport activity. For example, the technology based on AIS AtoN (Aids to Navigation) to determine navigability and control river traffic, presents savings in initial investment and maintenance costs, adding the possibility of creating virtual elements on demand in the beaconing, as temporary events or incidents occur, reducing the complexity of management and improving the safety of waterways. Through the features mentioned, SWS provides efficiency, safety, control and assistance to the port authority, based on the design and implementation of ICT tools, helping to increase system governance, a decisive factor for the continuous improvement of logistics performance.

Autonomous commercial navigation in inland waterways will be increasing in the coming years, according to a report by PIANC Working Group 210, which assumes prior implementation of SWS. Consequently, those channels that do not have

these systems in place will encounter barriers to enter into a market where high levels of automation generate more efficient opportunities and reduce the risk of human error, thereby increasing the operability and sustainability of commercial navigation.

If, in addition, the SWS is integrated with a Port Community System (PCS) in a platform where the necessary services for the administration and execution of trade and river navigation converge, management times are improved and the satisfaction of system users is increased, and new opportunities for export, import, and navigation, in general, open up.

Having the contractual definitions in the PCS and the navigation variables in the SWS could represent a tool for the execution of intelligent contracts on an objective basis that has the pre-agreement of all the intervening parties. However, regardless of any conditions, it is always essential to take cybersecurity precautions.

The implementation of these technologies, combined with adequate control processes to measure the emission of polluting gases and particles in river traffic, should be of interest to internalize pollution costs. Today, these are assumed by society as a whole, under the concept of "polluter pays" and a reward system of for choosing the river as an alternative to land, which generate heavy congestion, and thus functions as a regulatory tool in favor of the sustainability of foreign trade in the region.

Technology represents an irreplaceable ally for efficient and sustainable commercial navigation to grow and occupy the place it deserves in the world of logistics and the safe mobility of people by water.



Indra Sistemas S.A.

Biometrics, blockchain, and AI application to the digitization of passenger flows in maritime terminals

Context

Recent years have seen an increase in regular traffic and in the number of passengers that call in Latin American waters, requiring tools to obtain reliable information on the people using this means of transportation, especially to control their ingress and egress. Port security and some administrative processes have helped to ascertain that this information is not good and is not available sufficiently in advance.

Technology serves as a support to facilitate the boarding process, accelerating the digitization of maritime passenger transport through passenger verification. This reduces the physical interaction of the passenger and improves their comfort and experience in the boarding process. It also facilitates a smooth flow of passenger traffic, improving passenger arrival management, helping to streamline operations.

Countries' security forces will have better traceability of people's movements and advance passenger information. In addition, the market is requesting non-invasive COVID passenger screening solutions at ports and passenger terminals.

The solution consists in tracking the complete passenger process from the beginning of the ticket purchase through the different available options (on-line shipping portal, travel agency, ...) until disembarkation at the port of destination.

Proposal

The flow begins with the purchase of the ticket in any of its possibilities, web or counter. The first list of Sold Tickets (Potential Passengers) starts to be generated and is registered in the Blockchain Network and will be automatically available to those agents involved with permission to read it, being able to read the associated information in full (government security forces and corps) or partial and/or anonymized (Port Authorities/Administrations).

After the registration of the purchase, the passenger will be offered the possibility to carry out the biometric registration that will allow the access in a more secure and comfortable way, without the need to touch any element or show transport documents, respectively. On each biometric registration that is processed, a virtual fingerprint will be generated, which in turn will be registered in the Blockchain network to provide greater security to the process by making each virtual fingerprint generated immutable.

The List of Tickets Sold and the List of Passengers Boarded, will be closed once the vessel leaves the port. The corresponding lists will be sent to the competent authorities automatically and at the ship's departure.

Indra Sistemas

We have experience in passenger management in terminals where migration and operation processes are identical in the maritime and air environment.

We have developed our own technology for check-in kiosks, biometric passages, and boarding control elements, among others, as well as solutions for infrastructure management that optimize and simplify operation and maintenance costs.



Superintendence of Transportation of Colombia

Successful practices of the Superintendence of Transportation in inland ports of Colombia: initiatives and strategic guidelines

The Superintendence of Transportation (ST), part of the Colombian Ministry of Transportation, is the entity in charge of permanently overseeing, inspecting and controlling the provision of transportation services and port activities in Colombia.

To ensure free access, safety and legality in the provision of port services in the country and to contribute to efficient logistics in the sector, the Port Authority of the ST has developed the following initiatives and strategies:

Implement actions to improve the quality of the products generated by the ST, with which it was possible to obtain the Certifications of Excellence Seal in Digital Government of Colombia, category Open Government - Open Data, level 3, complying with the quality requirements in the statistics of Maritime Port Traffic in Colombia and level 2 of quality in the statistics of Number Of Containers According To Port Traffic By Port Zones Of Colombia, granted by the Ministry of Information Technologies and Communications of Colombia.

The ST is implementing the guidelines to obtain the certificate of statistical quality of the National Administrative Department of Statistics - DANE, in the two (2) categories mentioned above, these can be consulted in the following link:



<https://www.supertransporte.gov.co/index.php/superintendencia-delegada-de-puertos/estadisticas-trafico-portuario-en-colombia/>

On the other hand, the georeferencing and description of eighty (80) ports under concession in operational status was carried out, with the identification of the type of service and cargo, the contract number, start and end date of the same, this information can be consulted at the following link:



[Visor del Mapa de Infraestructura No Concesionada - Superintendencia de Transporte \(supertransporte.gov.co\)](https://www.supertransporte.gov.co/visor-del-mapa-de-infraestructura-no-concesionada)

Finally, since 2020, the Port Authority has been carrying out the Permanent Activities strategy in port facilities, which consists of making supervisory visits to the country's port areas, to promote greater competitiveness and efficiency based on the measurement of aspects of their operations. In the last year, more than eight hundred (800) inspection visits were made.



Navigation Center of Uruguay (CENNAVE)

Partnerships as an articulation strategy for the development of the sector

As the Business Chamber of the maritime and port sector of Uruguay, we are convinced, and we make it known whenever we can, that the best articulation strategy for the development of the sector are partnerships.

We understand that the partnerships are part of a strategic guideline that must be part of the joint effort of all the actors in any subject for which it is intended to promote development. This is how our Institution approaches the issues, playing a leading role within the articulation strategies for maritime-logistic and port activities in Uruguay.

We have developed a social and human capital that contribute to the relationship with the competent authorities on each subject.

Without leaving aside the particularities and interests of each of the parties, partnerships become effective through the generation and periodic participation in different areas with the authorities and public and private institutions of the country.

At the same time, we are in permanent contact with chambers and institutions related to the activity, at local, regional and international level, being members of CIP-OAS, CIANAM and FONASBA.

A clear example is the National Logistics Institute where we all sit around a table (public and private institutions of the logistics sector) and work on everything we agree on, leaving differences for other areas.

That is why we believe that it is through the joint effort of public and private companies and institutions that we strengthen the development of any business unit, which demand quality services and agile solutions to any unforeseen event, with the authorities' hand outstretched to find solutions and to ensure that activities run as smoothly as possible.

As recent reference, using partnerships we managed to have a successful cruise season after two very difficult years in which this business was almost null.

It was a great effort of all the sectors and actors working in the sector, including shipowners, shipping agents, port operators and national authorities who set themselves the objective of facilitating operations and providing cruise passengers with the best service.

We know that, partnerships may not be common in other countries, but we strive and encourage to deepen them in our country and to be able to set the best example, since success can only be achieved when we all have the same horizon.

