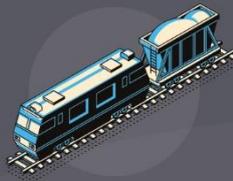


JST | SEGURIDAD EN EL TRANSPORTE



ITSA

International Transportation Safety Association

Recent Experiences and Developments

Argentina **unida**



Ministerio de Transporte
Argentina



Recent Developments and Experiences

Background information for ITSA Member States prior to the 2022 May tele-conference.

State: Argentine Republic

Presented by: Julián Obaid, President, Transportation Safety Board (Junta de Seguridad en el Transporte, JST).

COVID-19 Update

In April 2022, the National Government updated the entry requirements for the country. The epidemiological situation had been favorable up to the time of the decision, with 11 consecutive weeks of decrease in the number of cases of COVID-19 and vaccination levels in the general population of 89.4% with the first dose and 80.5% with complete vaccination schedules. These rates favored the relaxation of border sanitary measures and made possible the restoration of full operation of border crossings that had not been authorized to operate as safe corridors for entry into the country.

As a consequence, the sworn statement for leaving the country will no longer be required. The same data (including destination, airline and vaccination status) will now be entered by an inspector in the immigration process. However, a sworn statement must still be completed for entry into the national territory.

Furthermore, in 2022, the mandatory social distancing of two meters and the self-reporting of symptoms through the Cuidar app¹ were also abolished.

In January 2022, the National Health Pass came into effect, through which people 13 years of age or older must prove a complete vaccination schedule against COVID-19 in order to perform activities such as entering party venues, going on group trips and attending mass events. It is important to clarify that at the moment it is considered as complete vaccination the two-dose schedule with an interval of 14 days or more since the last dose. This definition is dynamic and may be modified in the future based on the progress in the supply of booster doses to the target population.

Source: <https://www.argentina.gob.ar/coronavirus/medidas-gobierno>

Major organizational/structural changes - Legislation changes

Institutional Training Center

The JST Training Department carries out courses and activities both for JST employees and for the community in general. Within the latter category, for example, the "Seminar on Aeronautical Studies and SMS Evaluation" was held on November 2021. The activity featured renowned speakers from the aeronautical field, who spoke about the evolution and importance of national and international regulations and presented practical cases from a systemic approach.

¹ As an integral part of the public health prevention and care strategies in the face of the Covid-19 pandemic, the National Government developed the Cuidar system and app (through Administrative Decision 432/2020). The app enables self-diagnosis of symptoms, provides assistance and recommendations in the case of coronavirus compatibility.

Figure 1 shows the number of training activities developed by the JST from October 2021 to April 2022.

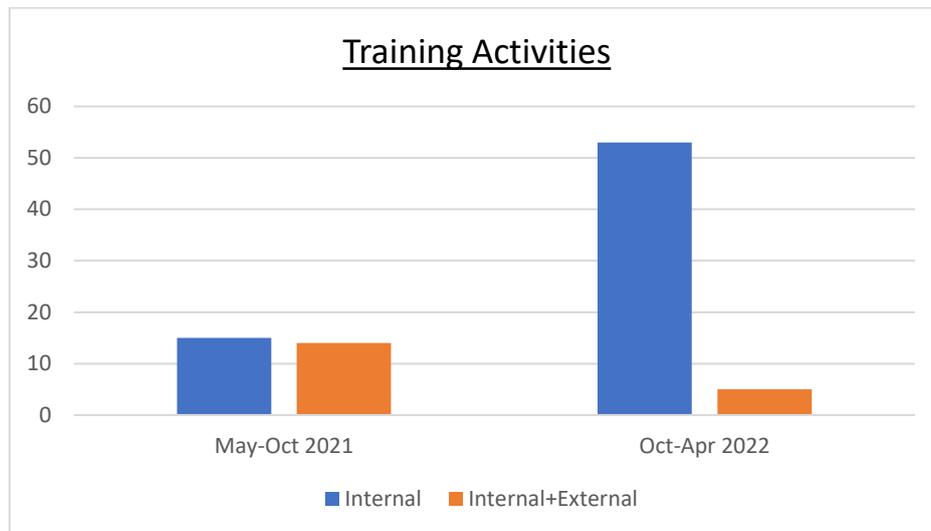


Figure 1. Number of Training Activities. Source: JST, 2022.

As may be seen, during the aforementioned period, a total of 58 activities were carried out, five of which involved the participation of external agents, while the remaining 53 were given only to internal staff.

Of the latter group of activities, 20 corresponded to subjects directly related to the investigation of transport events, among which the "Certification in Safety and Investigation of Civil Aviation Accidents and Incidents" stood out. This was launched together with the La Plata National University, in addition to the two diploma courses already launched in the previous period together with the National Technological University Pacheco and the San Martín National University, for the automotive and railway modes respectively.

The JST also worked on the development of a diploma course for maritime and inland waters transportation, jointly with the National University of Rosario and the National Technological University Mar del Plata. The Diploma in Transportation Safety was also launched in collaboration with the National University of Cuyo.

In addition to this, the following activities were also carried out:

- The webinar "Aeronautical Studies and SMS Evaluation: Presentation of Runway and Excursion cases".
- Two editions of the "Safety Recommendations Workshop".
- Two courses on "General Concepts of Multimodal Transport Accident Investigation".
- The "Dangerous Cargo - Rail Mode Workshop".
- A series of courses related to the following topics: interviews in accident investigation, forensic photography, computer-assisted planimetry, track zone uses and practices, and ECCAIRS-5 system.
- Two courses, one basic and one refresher, on Civil Aviation Accident Investigation.
- A cycle of refresher lectures for the automotive mode and a course together with the Search and Rescue Agency (SAR) for maritime and inland waters investigators.

At the same time, work continues on the opening of the JST Training Center (CECAP JST), created in 2021 by resolution RESOL-2021-330-APN-JST#MTR. At present, while the building is being fitted with four classrooms



and administrative offices, work is being carried out on the development of internal processes for the proper functioning of the Center and the creation of the website and social networks for the promotion of activities.

Finally, a special mention was made by the National Institute of Public Administration within the framework of the first Annual Training Plan (PAC2021) of the JST, for being the agency that accredited the most training activities in the National Training System, accounting for 81 jurisdictional training activities, and thus meeting the training needs of the entire agency.

Environmental Transport Safety Department

The Environment Department works constantly to improve safety and mitigate environmental damage caused by accidents in the transportation field. To this end, it seeks to identify environmental safety problems and contribute to the public benefit, based on systemic investigations of the current state of operation and infrastructure of the different modes.

In this sense, it also collaborates with the private sector in the development and implementation of an environmental management system, in partnership with Copparoni S.A., a fuel and general cargo land transportation company.

Furthermore, it is carrying out an investigation in collaboration with the Marine and Inland Waters Department, called "Disposal of waste from fishing vessels in the Port of Mar del Plata: problems; improvements; traceability of waste to its final disposal and environmental, economic and financial impact for the port and the city".

Finally, it is developing two Special Studies. In the first place, it determined as a Permanent Observation Topic (POT) the identification of threats (physical events, both natural and human-induced) that could generate significant environmental impacts on national routes with high vehicular traffic of cargo transportation.

Secondly, it initiated the first stage of the Special Study on green hydrogen in Argentina and its possible use in transportation. The focus of this study is on the transport facilities of this energy vector (either on land routes, pipelines or fuel cells). Its objective is to establish the possible transportation routes and facilities, as well as to assess the safety and risks associated with these practices.

Events

JST Anniversary (April 20th) – Safety Awards Ceremony

As part of its second anniversary, the JST held the first edition of the JST Safety Awards. This event took place on Wednesday, April 20 and was broadcast live on the organization's YouTube channel.

During the event, awards were given to those whose work makes transportation a more modern, safe and sustainable environment. The awards were given to entities and individuals who contribute to the strengthening of safety in seven categories: environment, automotive, aviation, railway, maritime and inland waters, training and multimodal.

The event took place within the framework of the inauguration of the Mario Meoni Auditorium, as a tribute to the former Minister of Transportation of the Nation, who made a fundamental contribution to transportation safety when he put the JST into operation in April 2020.



Statistics

Investigations by National Transport Investigation Department

NATIONAL DEPARTMENT	OCT-MAY
DNISF ²	13
DNISMFYL ³	7
DNISAU ⁴	39
DNEYMA ⁵	4
DNISAE ⁶	54
TOTAL	117

Table 1. Investigations opened between October 2021-May 2022

Institutional expansion

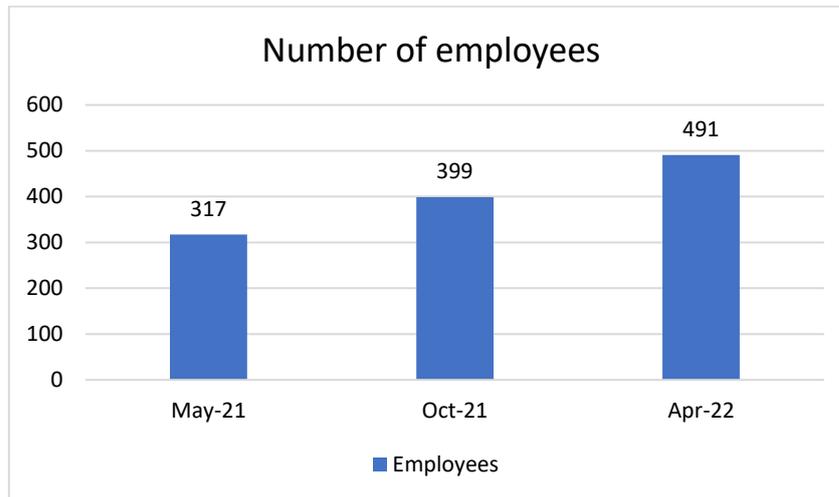


Figure 2. Expansion of the personnel number, May 2021-April 2022. Source: JST, 2022.

Major/important Investigations

Investigation: El Repunte – National Marine and Inland Waters Occurrences Investigation Department (DNISMFyL)

On June 17, 2017, the fishing vessel Repunte was in navigation heading towards General Norte. At 09:35, the captain issued a distress message, informing that the vessel was sinking and that they would proceed to abandon it. Hours after the abandonment, two crew members floating at sea were rescued alive; one by the fishing vessel (B/P) María Liliana (01174) and the other by a helicopter of the Argentine Naval Prefecture. Three lifeless bodies were recovered from the water, while the other seven crew members are still missing. The incident was categorized as a "Very Serious Accident".

² National Rail Occurrences Investigation Department.

³ National Marine and Inland Waters Occurrences Investigation Department.

⁴ National Road Occurrences Investigation Department.

⁵ National Multimodal Investigation Department.

⁶ National Aviation Occurrences Investigation Department.

So far, the corresponding Resolution has not been signed. Eventually, a Safety Recommendation will be added to the Safety Report.

Field and documental investigation data:

- Investigators assigned to the case: 10.
- Technical advisors: 2
- Approximate number of hours dedicated to information collection and analysis: 5.280 hours.

The JST proceeded to retrieve from Rawson the remains found for study and analysis, as well as to conduct the corresponding interviews and to collect and analyze the satellite detections of the Emergency Position Indicating Radio Beacon (EPIRB), the technical documentation (including the ship's plans, stability manual, engine room and tank information, certificates, departure dispatch, photographic and filmic records) and the images of the underwater inspections. To analyze the weather conditions, the JST used issued forecasts and a meteorological product specially made for this research.

Among the most significant findings that emerged from the investigation were the following:

- The rotation of the sea from ESE to SE resulted in a successive onslaught of high waves, which caused the vessel to change course and reduce its speed, exposing it to cross seas and high winds, and it found itself almost without a starboard start.
- In the last moments the vessel heeled significantly to starboard and was trimmed by the stern. This situation could not be controlled by the crew despite their best efforts, so they decided to abandon the vessel.
- The life raft launching maneuver was performed according to the instructions on board, however, they were unable to board the raft.
- The Trelew airport authority did not allow the helicopter to deplane until the lifeless body was removed. Then, the lack of daylight and the deteriorating weather conditions made it impossible to return to the emergency area for a second rescue.

Inconsistencies were found in the following important parameters of the ship stability manual:

- The intact stability criteria for shrimp operations were never evaluated.
- The most critical operating condition was never evaluated.
- The flood angles were higher than the actual ones.
- The damping factor was below the minimum possible.
- The weights in the hold did not correspond to shrimp operations.
- The destination of the aft central tank differed from the rest of the technical documentation (permanent ballast/diesel tank).
- The wind exposure area was less than the actual one.
- The area of the balance keels was not shown in the technical documentation.
- The ration between heeling and righting energy of weather criterion was inverse to the actual one.



Based on the above, the following safety recommendations were made:

- To the Naval Prefecture of Argentina:

Implement with the utmost urgency a plan to guarantee the quality control processes in the inspection, technical supervision and approval of the requirements related to the intact stability criteria that must be met by vessels of national registration.

Implement an action plan so that, during periods of weather alerts, vessels participating in the Argentine Republic's Communications Service for the Safety of Navigation (SECOSENA) include in their three daily services the report of meteorological data, with the purpose of creating an electronic database to be shared, in real time, among the different stations of the Prefecture and other organizations of interest.

- To the National Weather Service:

Implement an action plan to include significant wave direction and height parameter in the routine maritime meteorological bulletins issued by the National Weather Service, which contain warnings, synopses and weather forecasts.

Importance of this investigation in the creation of the JST:

It should be noted that, as a result of the initial difficulties in the investigation of this event, the National Government established the objective of creating an institution dedicated to the investigation of accidents in all modes of transportation in the same way as air accidents, for which there was already a specialized agency.

Thus, Law 27514 was passed, which promoted independent investigation and international assistance for accidents in all areas, creating the Transportation Safety Board, a decentralized agency under the Ministry of Transportation of the Nation, with economic and financial autonomy, its own legal personality and capacity to act in the field of public and private law.

Safety Recommendation: Brasil Av. And Huergo Level Crossing - National Multimodal Investigation Department (DNEyMA)

On July 27, 2020, train No. 736/209, consisting of locomotive 9003, sixteen cars loaded with polyethylene and a caboose (empty), belonging to the company Ferrosur Roca S.A., departed from Patio Kilómetro 5 (Avellaneda, Province of Buenos Aires) bound for Empalme Norte (City of Buenos Aires).

At 8:32 p.m., the train crossed the Brasil Avenue 40 Level Crossing (LC) and collided with a city bus of Line 4, company Transportes Sol de Mayo C.I.S.A., domain MGQ 239, which was traveling in the Liniers - Costanera Sur direction. The urban bus suffered significant damage to its extreme rear right side, while the train was not damaged. No people were injured.

The JST issued eight Preliminary Safety Recommendations (PSRs) to the Department of Transportation and Public Works of the Government of the City of Buenos Aires, related to coordination and communication procedures, active and passive signaling of the level crossing, training, equipment and visual obstacles. In addition, two PSRs were issued to Ferrosur Roca S.A. on coordination and communication procedures. All of them were processed along with the corresponding responsible parties and a response was received. Currently, two PSRs have been closed.

At present, the Safety Report is in the process of final approval by the Legal Affairs area, for its subsequent publication.



Safety study: Recurrence of accidents at the Granaderos Level Crossing (Ciudadela) – National Rail Occurrences Investigation Department (DNISF)

On October 24, 2021, the Studies and Statistics Area issued an Orange Safety Alert, which was identified through the S.E.I.S. system (Interactive Statistical System of Events). After three events occurred at the Granaderos railway level crossing (LC) of the Sarmiento Line (district of Ciudadela), the DNISF requested a study report to be conducted by means of a survey carried out on November 1st, 2021.

Subsequent to the issuance of this alert, the DNISF received from the Control and Response Center (CCR) the report of two new events that occurred in the same LC of Granaderos, both on the upward track, reason for which a new Orange Alert was issued and the opening of a study report was recommended due to the recurrences.

After performing the on-site inspection and taking the corresponding photographic and metric samples, the following conclusions were reached:

- The barrier arms, both ascending and descending, are in divergence with the measures established in the SETOP 7/81⁷, regulation, since they show breakages. This situation increases the possibility of undue trespassing.
- The operation of the low barrier in terms of time of permanence generates a vehicular bottleneck, which causes drivers and pedestrians to cross the barriers inappropriately.
- The signage corresponding to the Granaderos LC is in divergence with the requirements established by the regulations in force in SETOP 7/81, which contributes to the fact that motorists and pedestrians do not receive the warning information.
- The absence of passive vertical and horizontal signage on both vehicular access arteries, in discrepancy with the provisions of SETOP 7/81 standards, causes a lack of warning of the risks arising from crossing the barrier in the LCs.

From the conclusions derived from the survey conducted, it was inferred that the operational safety deficiencies identified in the Granaderos LC are precursors for improper crossing of the level crossing with the potential to cause accidents or incidents of different consequences. For this reason, the following Safety Recommendations were issued:

- Install road dividers within the Granaderos LC to prevent drivers from encroaching on the opposite lane.
- Adapt the barrier times, according to their original design, to the train circulation.
- Comply with SETOP 7/81 regulations, modified by Decree No. 779/95, Annex L, signal R.30: "Railway Barriers".
- Improve the condition of the crosswalk to prevent injury to the crossing public.

⁷ SETOP 7/81 is the regulation that establishes the standards for crossings between roads and railroads.
Link: https://www.argentina.gob.ar/sites/default/files/setop_7-81.pdf