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LATIN AMERICAN METRO AND SUBWAY ASSOCIATION (ALAMYS): A 15-YEAR RECORD OF SERVING THE CITIZENRY

This issue of the Bulletin introduces the reader to the Latin American Metro and Subway Association (ALAMYS), which throughout its 15-year history has supported a variety of initiatives aimed at improving the quality of services provided by urban mass transit railway systems.

At its most recent general assembly, held in Madrid, Spain, in December 2000, ALAMYS set up several technical committees to improve its operational efficiency so that it can progress as an organization and achieve its goals.

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1. ALAMYS: A 15-YEAR RECORD

ALAMYS was established (initially under the name of Latin American Committee for Metros and Subways, CLM) at a founding seminar held in Rio de Janeiro, Brazil, in 1986, in response to the need to share concerns and experiences in this sector. Following the precedent and example of other international organizations, and in view of the shared interests of the founding countries, a pact was signed on 14 October 1987 for the purpose of going even further in recognizing the member states' affinities in terms of both technical specifications and geography. As a result of that pact, the first meeting was held in Caracas, Venezuela, to officially establish ALAMYS. Participants at the meeting included interested agencies from Latin American and Iberian countries that had urban mass transit railways, as well as companies and associations engaged in related activities.

The ALAMYS charter clearly stated its altruistic objectives of exchanging technology and sharing its members' experiences in order to boost productivity, make optimum use of resources, and modernize infrastructures and management procedures. Its main goal was to improve services to passengers, considering that mass transit is one of the key factors in the quality of life in major urban areas. In the beginning, obviously, ALAMYS devoted its efforts to helping its members become acquainted with each other and with the operational procedures, shortcomings, and needs of each transit system.

In addition, for the benefit of the members, representatives of manufacturers and consulting and engineering firms in the member states were invited to participate in subsequent meetings. It is evident that ALAMYS represents mutual interests, since it provides a forum for discussion in which metro systems can convey their common needs to industry, while the latter can avoid futile efforts at developing strategies that do not respond to demand.

The most convincing evidence of ALAMYS's resounding success has been the growth in its membership since its inception; from a half-dozen principal founding members, the organization has grown to nearly 40, including 28 principal members, 16 associate members, and three honorary members. Several candidates for different types of membership are in the process of joining.

To carry out its work effectively, the organization started with three committees: Operations, Systems Technology, and Mass Transit Integration. These committees were divided into working groups. The Caracas Metro served as the first secretariat of the association, and its remit was to promote ALAMYS and its objectives. Since that time, a great number of valuable papers have been submitted, and the members have engaged in an active exchange.

Another indication of ALAMYS's success is the different bilateral cooperation or technical assistance agreements that have been signed and carried out among the members: Caracas with Mexico City, Valencia (Venezuela), Medellin, and Barcelona; Santiago de Chile with Barcelona; and São Paulo with Buenos Aires. In addition, there have been 14 general assemblies.

Collaboration Agreement between ALAMYS and ECLAC: In the spirit of cooperation and exchange with associations pursuing similar ends, ALAMYS and ECLAC signed a Collaboration Agreement in August 2000. Among the priority objectives of the United Nations, and specifically of ECLAC within its geographic sphere, is to attain a better quality of life for the people of the region. Consequently, one of ECLAC's areas of interest and the work of many of its divisions are in keeping with ALAMYS's principal objectives: Good mass transit is a key factor in the quality of life of major urban areas. The agreement opens up the possibility of different types of cooperation: in developing projects, carrying out studies, disseminating technical information on mass transit, and so on.

The restructuring of the world economy and the lag in government investment in this kind of transportation throughout the 1980s resulted in the suspension of construction projects (and

therefore a rise in unemployment), higher fares, and traffic congestion. Fortunately, the World Bank has revised its strategic vision for urban transit to include the improvement of transportation as one more factor in its general objective of alleviating poverty. Clearly, promoting social and economic growth in developing countries involves improving access to the labour market and to services in general (and in particular, to health and education services) for the inhabitants of these countries. And this improved access, in turn, means helping to provide better transportation services, for example by promoting investment in transit projects.

Along these lines, ECLAC and ALAMYS will attempt to make their collaboration decisive. Their priority is to prevent excessive growth of automobile usage in the major cities of developing countries, based on traffic, environmental, safety, and cost considerations. This objective can only be achieved if urban transit is planned in a way that appeals to public investors at different levels and appears attractive and viable for new financing schemes.

2. THE MADRID GENERAL ASSEMBLY: A NEW IMPETUS FOR ALAMYS

The XIV General Assembly of ALAMYS was held on 10-15 December 2000, organized by the Madrid Metro in Madrid, Spain. A total of 84 participants from Latin America and the Iberian Peninsula were in attendance. The agenda of the Madrid assembly was highly technical, involving presentations by respected professionals and executives of member companies that play a key role in the sector.

What follows is a summary of the principal papers read at the assembly. It does not go into detail on the technical aspects of the presentations, but some comments that have been deemed of interest to the reader have been included in order to provide an accurate “snapshot” of the association.

- *Institutional, Political, and Economic Framework of Transportation in the Community of Madrid*, by Luis Peral, deputy secretary of public works, urban development, and transportation in the Community of Madrid.
- *Institutional and Economic Framework of Public Transportation in the Major Capitals of Latin America*, by Oscar Figueroa, an economist with a doctorate in urban development.
- Report of the General Secretariat and statements by the technical committee coordinators.

With respect to the latter point, it should be noted that the committees’ overall approach in their internal work is to bring together and discuss a number of issues that have been identified as being of interest to the membership with a view to achieving an appropriate benchmarking among the members of the association. Depending on the purview of each committee (maintenance, resource management, planning, new metros, and operations),

this task is accomplished in two different ways. Either model experiences are presented in areas such as expansion projects, levels and methods of obtaining financial resources, physical and fare integration, and new technology; or for more quantifiable activities, a number of indicators are identified by consensus for an ongoing annual evaluation of activity, so that objective comparisons can be made among them all (more than 30 attributes have been defined in the areas of operations, safety, efficiency, and maintenance). There has been a great deal of interest in the issue of outsourcing services and processes in maintenance and operations.

System Reports: Nearly two days were devoted to these reports. First, the expansions of systems in Lisbon, Valencia, São Paulo, Mexico City, Santiago de Chile, Barcelona, and Madrid were presented. All agreed on the goals of the expansions:

- Environmental: reduced fuel consumption and therefore pollution.
- Economic-financial: achieving economies of scale for companies holding concessions.
- Social: cutting riders' commute time, expanding service into previously unserved areas, and reducing the number of accidents.

Of all the projects, the Madrid Metro's deserves special mention for its comparative growth indices, duration, and costs, as well as the new construction methods, rapid decision-making, and proactive safety measures.

Forms of Operational Financing and Investments for Development: The weakness of traditional sources of financing for expansion projects (including leases; federal, central, or municipal governments; and development banks) is a fact of life, especially in Latin America. Private investment, on the other hand, shuns this type of project for its low yields and long amortization period. Therefore, the following paper presented at the Madrid assembly is of exceptional importance:

- *Financing Alternatives for Opening up New Lines*, by Zélia Ferreira and Arnaldo Luis Santos Pereira of the Companhia do Metropolitano de Rio de Janeiro. The coordinator of the Planning Committee presented newly discovered alternatives to traditional sources, citing as examples the bank financing secured by fare collections that the Madrid Metro obtained, the sharing of profits from development on the outskirts of London and Hong Kong, the fuel tax levied in Germany, the participation of suppliers and banks in Bangkok, the fee levied on French firms to form an urban transportation fund, and the taxation of companies holding concessions from Rio de Janeiro and Flumitrens.
- *Programme for the First Six Years of the Valencia Metro Expansion*, by Jorge García Bernia, managing director of railways for the government of Valencia, Spain, who introduced the new corporation Metro Valencia and its expansion programme.
- *Social Benefits*, by Arnaldo Luis Santos Pereira of the Companhia do Metropolitano

de Rio de Janeiro (CMSP), who presented the social balance sheet that his company compiles along with its financial balance sheet for the purpose of expressing the total value of the benefits the population of São Paulo receives from this transportation system. It is interesting to note that the company assumes a “corporate social responsibility” that covers all the repercussions its activities may have on society in general, as well as on its employees, the environment, and the creation of wealth within the organization itself, and hence its contribution to the country’s socio-economic growth. In the specific case of CMSP, the factors taken into account are the reduction of pollutant emissions, fuel consumption, commute time, costs, and accidents; and the increase in real estate values, accessibility, and productivity.

Integration of Metros in Surface Transportation (Integration of Physical Infrastructure, Fares, etc.):

- *East Express*, by Pedro Benvenuto Pereira, CPTM.
- *Coordination of Public Transportation in the Community of Madrid: Transfer Stations*, by José Ignacio Iturbe, managing director of the Regional Transportation Consortium.
- *Development and Integration Plan for the City of Santiago*, by Fernando Bustamante Huerta, chairman of the Santiago Metro.

Concessions:

- *Metrovías Concession Programmes*, by José Gabellieri Ferrer, METROVIAS, S.A., and Alejandro Nazar Anchorena, Subterráneos de Buenos Aires, S.E. This Argentine metro is an example of privatization of an existing system with an obligation to renovate the infrastructure.
- *Companhia Paulista de Trens Metropolitanos (CPTM) Concession Programme*, by Oliver Hossepien Salles de Lima, CPTM.
- *Introducing the Madrid Metro*, by Jesús Valverde Bocanegra, managing director of Metro de Madrid, S.A.

The 1999-2003 Madrid Metro Expansion Exposition: As host of the assembly, the Madrid Metro introduced its current system and expansion plan, as well as the technological and economic-financial aspects of that plan. In addition to the presentations on the Madrid Metro and field trips that took place during the general assembly, afterwards the metro organized a three-day programme, the *1999-2003 Madrid Metro Expansion Exposition*, in which the now completed expansion was displayed and the current project, construction methods, station design, and geotechnical procedures were explained.

The Madrid Metro's management and expansion has been adopted by the World Bank as a model for the projects it intends to finance in developing countries. The Community of Madrid

has been chosen by the World Bank to disseminate information on its construction methods, planning, and management of the expansion process. In addition to the representative statistics (114 new kilometres, 75 stations, eight years of work, more than \$3.1 billion invested) and the comparisons with other metro systems around the world in terms of duration/results or costs, for example, the achievement the Madrid Metro itself is most proud of is the ridership's appreciation of its effort and the change in their attitudes towards the service—with respect to not only the variables directly affected by the expanded service, but also aspects such as cleanliness, safety, speed, quality/price ratio, proper operation, and signage.

Millions of residents of the Community of Madrid use the different modes of public transportation every day to go to work, school, shopping, or simply for recreational activities. With a well-designed fare policy that makes transportation affordable for all, passengers can make use of a large network. In 2000, 1.501 billion trips were made with the utmost quality, safety, and speed.

One of the most important measures in recent years has undoubtedly been the effort by the Madrid Community Public Works, Urban Development, and Transportation Department to plan new transportation infrastructures. This effort, which took place between 1995 and 1999, has resulted in the construction of 56.3 new kilometres of track and 38 new stations, with a total investment of \$1.376 billion.

Consequently, in 2000 the metro system had 171.4 kilometres of track and 201 stations distributed along the 12 metro lines. On any workday, approximately two million commuters use this mode of transportation; during rush hour, the demand amounts to more than 20,000 passengers per line per direction. Annual demand totals 524.3 million trips. In addition, the rolling stock has expanded by more than 25% in the past five years.

The fleet consists of 1,354 cars with an average age of 13 years. In 2002 and 2003, another 343 new cars are expected to come into service.

In the near future, development of new infrastructures will include the construction of another 57.8 kilometres of track under the 1999-2003 Expansion Plan and 37 new stations, 11 of which will be transfer stations. Investment in the expansion will total \$1.754 billion. The showcase project of this plan is the 40.5-kilometre Metro Sur. This line will connect the cities to the south of Madrid, a vast area that has been growing constantly in terms of both population and urban development. It will be a circular line that will serve five municipalities with a total population of nearly one million. The plan also calls for the trip between the Madrid-Barajas Airport and Nuevos Ministerios, where many businesses and services are concentrated in Madrid, to take less than 15 minutes. A large terminal will be established in the Nuevos Ministerios station where travelers can purchase airline tickets and check luggage.

Once this project is completed, the Madrid Metro system will comprise 229.2 kilometres and 238 stations. The guests were treated to a preview of the fruits of this unprecedented growth.

ALAMYS Steering Committee Meeting: At this meeting held in São Paulo, Brazil, on 14-15 March 2001, committee coordinators were appointed and each committee's plan of action was proposed:

- **Management Committee:** Internet database (structuring of data, conception and analysis of quality indicators).
- **Planning Committee:** New forms of financing (sources and mechanisms for financing expansion and service costs).
- **Maintenance Committee:** Outsourcing services and processes (criteria, concepts, advantages and disadvantages, benefits, risks, and costs).
- **Operational Management Committee:** Alternatives and strategies for maintaining escalators and electronic interlocks.
- **Operations Committee:** 1. Models of operational management (parameters for monitoring, oversight, and regulation of services). 2. Quality of service (services provided by the company and the ridership's perception of services).
- **New Metros Committee:** 1. Models for project management (planning, building, and implementation). 2. Technological trends (innovative fare collection and automation methods).

3. MADRID METRO NEW GENERAL SECRETARIAT OF ALAMYS

The new ALAMYS General Secretariat in Madrid intends to be a true reference point for all members, one that is familiar with their strengths and needs so that it can be an efficient intermediary in addition to playing a strictly administrative role, in accordance with the directives of the General Assembly and the Steering Committee.

Composition of the New ALAMYS Steering Committee: **Chairman** – Alejandro Nazar Anchorena, chairman of Subterráneos de Buenos Aires; **First Vice-Chairman** – Oliver Hossepián Salles de Lima, chairman-director of CPTM, São Paulo; **Second Vice-Chairman** – Jesús Valverde Bocanegra, managing director of the Madrid Metro; **Members** – Jorge García, managing director of the Valencia Metro; Manuel Frasquilho, chairman of the board of the Lisbon Metro; Jesús Osegueda, operations manager of Metrorrey in Monterrey; and **Secretary General** – Aurelio Rojo Garrido, operations director of the Madrid Metro.
