PERU

The Republic of Peru

The Republic of Peru is situated in the central and western part of South America. The land area is $1,285,215 \text{ km}^2$, with a population of approximately 22 million. The population density is 17 per km².

Peru is bordered in the north by Ecuador, in the northeast by Colombia, in the east by Brazil, in the southeast by Bolivia, in the south by Chile and in the west by the Pacific Ocean.



FIG. 1.- Peru.

The independence of the Republic of Peru was proclaimed on 28 July 1821 by General Don José de SAN MARTIN. The country is divided into 24 departments, 179 provinces and 1776 districts. On June 1988, the "Bases de la Regionalizacion" Law was promulgated with the aim of establishing the delimitation responsibilities, structure, relationships and funding of the Regional Governments. At present, this territorial, political and administrative re-organisation is being developed. As a result of its climatic and geographic conditions, the country has three natural, well-defined zones: the Coast, the Mountain and the Forest, each with very different characteristics.

Among the most important geographical features, the following should be mentioned: the Cordillera Blanca, with the highest mountain in the country, the Nevado del Huascaran (6,768 m), Lake Titicaca, whose basin lies between Peru and Bolivia and which is the highest lake in the world, and the deserts of Sechura and Ica. The forest occupies a large percentage of the land area of the country.

Three hydrographic basins exist in Peru: the basin of the Pacific $(279,689 \text{ km}^2)$, the basin of the Amazon River $(956,751 \text{ km}^2)$ and the basin of Lake Titicaca.

The capital city is Lima, established by Francisco PISANO on 18 January 1535; the harbour of El Callao, the most important port in the country, handles 95% of the external maritime trade of the country. The other important ports are Talara, Paita, Chimbote, Ilo and Matarani.

Peru has an important mineral wealth and is one of the major producers of copper, silver and vanadium in the world. Other main industries of the country are textiles, leather and furs, wood, shipyards and jewellery.

The hydraulic capability has been developed by large engineering works resulting in an extensive network of hydro-electric energy. The offshore Peruvian current gives the biological conditions necessary for the development of a great variety of microscopic phytoplankton which favour the reproduction of different species of fish and result in an important production of fish-flour and fish-oil.

The Hydrographic Service

The Directorate of Hydrography and Navigation of the Peruvian Navy is located in Chucuito, Callao, about 15 km from the centre of Lima, the capital. It has modern facilities and is staffed with approximately 400 people, military and civilian.

The beginning of hydrographic activities in Peru dates back to the establishment of the Hydrographic Commission, by High Decree promulgated on 20 June 1903. The mission of the Hydrographic Commission was to determine the geographical position of the cities and main ports of the country, the study of the Pacific coast and eastern rivers by means of the necessary surveying and charting and to calculate the data necessary for a safe maritime and river navigation.

The Commission achieved important field tasks and produced the first national charts of the coast and of the Amazonian Region. On 13 September 1926, the Hydrographic Commission obtained the necessary support to carry out permanent hydrographic tasks with the appropriate techniques. The name of the organisation charged with these tasks changed and eventually was known as the Directorate of Hydrography and Navigation, name at present in force. The principal mission of the Directorate is to administrate and investigate the activities related to environmental marine sciences, to give the necessary support to safe navigation and also to contribute to the development of the country. In addition to these tasks, the DHNM plays many roles before national and international organizations, in accordance with the different technical activities for which it is responsible.

The Hydrographic Service is formed by a Directorate and a Sub-Directorate, with two Divisions : Technical and Administrative, divided into different Departments.

The DHNM carries out hydrographic surveys in coastal areas, in the Amazonian region and in the interior lakes. In some cases, surveys are carried out in collaboration with the Hydrographic Offices of the neighbouring countries : Bolivia (in the Titicaca river) Brazil (in the Yaraví river) and Colombia (in the Putumayo river). Other activities include vertical control, remote sensing, bathymetry and data gathering and processing.

The hydrographic flotilla is formed by four survey vessels and one hydrographic/oceanographic launch.

Peru was a founding member of the IHO, in 1921. The DHNM is now the NAVAREA XVI Coordinator and a member of the South East Pacific Hydrographic Commission. The Hydrographic School runs a course in Hydrography for Officers, which has been recognized at Catebory B level by the FIG/IHO International Advisory Board on Standards of Competence for Hydrographic Surveyors in 1994.

To achieve its tasks and face the future, the Directorate of Hydrography and Navigation trains its staff permanently, renovates the equipment to keep pace with new technology and develops techniques to provide safe navigation along the Peruvian coasts and contributes to the development of the country.

The present Hydrographer is Rear Admiral Luis MORENO Gonzalez.