

ITALY

Italy is part of central southern Europe. Its territory - covering an area of about 301,000 km² - extends from the watershed of the Alps to the central basin of the Mediterranean Sea. In its peninsular part, it is surrounded by the sea, facing the Adriatic Sea to the east, the Ionian Sea to the south, the Tyrrhenian Sea to the west, and the western Mediterranean beyond the Island of Sardinia.



FIG. 1.- Italy.

The land is mostly mountainous (80%), the Italian territory includes the large islands of Sardinia and Sicily, plus a number of smaller islands, and archipelagoes. Its coastline totals 7,600 km and its population is about 57 million. The capital city is Rome, which is the seat of the Government.

Italy which was unified in 1860 was a Kingdom until 1946 and a Republic since 1946, the present President being Senator Oscar Luigi SCALFARO. It comprises 20 counties, and, geographically, includes two other sovereign States, i.e. the Vatican State and the Republic of San Marino. It has been one of the initial adherents to the European Union and has a long-standing maritime tradition, which

has been going on from the Roman times through the age of geographical discoveries in the 15th and 16th centuries onwards. Today the merchant tonnage is about 6,959,267.

The main ports are Genoa, Taranto, Trieste, Augusta, Venice, Leghorn, Ancona, Savona, Naples and La Spezia, where the overall annual traffic averages 350,000,000 tons. Major shipyards in these ports produce large naval and merchant vessels.

Since World War II, Italy has developed into a major industrial power, with highly diversified branches of manufacture and trade. Tourism is also an important resource for the national economy.

Italy occupies a preeminent position in the Mediterranean Sea because of the wide extension of its waters of national interest. Its continental shelf extends over about 550,000 km² and its territorial waters extend to 12 miles from the baselines (proclaimed on 26 April 1977). Italy has so far claimed neither its contiguous zone nor its Exclusive Economic Zone.

The Hydrographic Service

Long before the national unification in 1861, there was a number of topographic offices founded by the Italian States. In 1781, the "Officio Topografico del Regno di Napoli" was established in the Kingdom of Naples. A similar institution saw the light in 1814 by will of the Savoy Court, while in Milan there was the Austrian Istituto Geografico Militar, directed by Italian engineers. Their often-combined activities resulted in the publication of commendable nautical atlases of the Italian seas, to which the complete hydrographic survey of the southern Thyrrenian sea was to be added, by Capt. W.H. SMITH of the British Admiralty; he also contributed to the coastal chart of the Adriatic, in cooperation with the Austrian and Napolitan Authorities, which was published in 1839, consisting in 13 sheets 1:100,000, and was the first instance of international hydrographic cooperation in the Mediterranean. In 1865, the "Scientific Office of the Navy", was created in Leghorn to coordinate nautical activities and soon joined by a Cartographic Commission, expressly set up in 1867. Finally the Hydrographic Office of the Italian Navy - afterwards renamed "Hydrographic Institute" - was founded in Genoa on 26 December 1872.

As the founder of the new establishment, the Italian Navy appointed a well-known scientist, Rear Admiral G.B. MAGNAGHI, who created a cartographic section and promoted the hydrographic surveying of the whole Italian coastline, a task which was completed by 1893. By 1920, about 200 charts covered the Mediterranean Sea, the largest Italian lakes, the Red Sea, the Indian Ocean, the Aegean Sea and the African northern and eastern coasts. At the same time, the Institute launched a full specialization course in Hydrography, and the production of the nautical publications in use to-day.

To-day, the Istituto Idrografico della Marina (IIM) employs about 250 people comprised of naval and civilian staff, and produces about 100,000 copies of nautical charts per year and about 70,000 copies of associated publications. Computers have

entered various phases of the production process and of the data processing, archiving and publishing. Likewise, the Hydrographic Institute is developing the field of electronic cartography in agreement with international guidelines, and has produced an experimental CD-ROM with 12 nautical charts, to be used by an ECDIS (Electronic Chart Display and Information System).

Research is carried out in the fields of hydrology and dynamic oceanography, as well as topographic charts of the sea floor, while technical support is extended to the Ministry of the Environment for the production of a geological chart of the continental shelf.

Support is also extended to the Ministry of Foreign Affairs, during international negotiations for maritime boundaries, as well as to the Ministry of Cultural and Artistic Affairs for marine archeological exploration. Since 1986 the Istituto Idrografico has been participating in the national programme of research in Antarctica (PNRA) with a hydrographic team, and has already contributed to the local marine cartography with two bathymetric charts of the area where the Italian base is located in the Ross Sea. The Navy's hydrographic flotilla includes the 1700 ton AMMIRAGLIO MAGNAGHI, fitted with an advanced data processing system and two smaller units, PIOPPO and MIRTO, plus a number of survey motor launches. The two smaller vessels will be replaced by two 400 ton hydrographic vessels.

Italy feels strongly committed to international cooperation and has been a member of the International Hydrographic Organization since its foundation in Monaco in 1921.

In the same context of international cooperation, the Hydrographic Institute has for many years opened its standard "A" courses for Italian officers to foreign hydrographers. Accordingly, since World War II, officers coming from Brazil, Venezuela, Iran, Lybia, Algeria, Tunisia and Somalia have successfully completed their training in Italy.

In the field of technical assistance, the Hydrographic Institute contributed to the creation of the International Maritime Academy at Trieste in 1992, holding post-graduate theoretical courses in hydrography - complete with practical training - open to trainees coming from developing countries.

Being an active member of the International Hydrographic Organization, the Hydrographic Institute participates in a number of Commissions and Committees thereof; furthermore it is a member of the Global Sea-Level Observing System (GLOSS), and of the Permanent Mean Sea Level Commission (PMSLC); and finally, participates in the cartographic and oceanographic projects of the European Union, such as COST 326 and EUCLID.

The present Hydrographer is Captain Corrado FIORI.