the Berlin Library and Antioquia. OSSO has translated and distributed a detailed description of the earthquake/tsunami of 31 January 1906 (Rudolph and Szirtes, *El gran terremoto colombiano del 31 de enero 1906*, Gerlands Belträge zur Geophysik, 1910). Other documents are now being translated out of French and German.

- Calculation of tsunami wave travel times and flooding levels for the coastline in the municipality of Tumaco; performed by Captain Alvaro Duarte Méndez with assistance from the DHA-UNDRO/CIDA/DNPAD Programme. Members of OSSO helped in the calculation and the production of maps, and offered guidance for Captain Duarte's thesis (MSc in Oceanography) on the subject.
- Preparations are in train (in cooperation with the Swiss Federal Institute of Technology (ETH), Zurich, and the Russian Academy of Sciences) for attaining the same objectives (calculation of travel times and flooding levels) using dynamic models. Modelling of the Pacific South-West coastline, where Tumaco is situated, began in early 1994 during a visit by Dr. Bruno Martinelli (Institute of Geophysics, ETH, Zurich).
- Indirect observation of the deformation accumulation cycle in the Colombian-Ecuadorian subduction zone by means of geodesic measurements. In one approach, according to experiments reported in the scientific literature, measurements of vertical and rotational deformations have been estimated by means of liquid inclinometers. A prototype was designed and put into operation at OSSO in 1992 (Rafael González, thesis for degree in physics). Subsequent discussions with experts in terrestrial deformation research (GFZ Institute Potsdam, Observatorio de la Selva Negra) during a recent visit to Europe have led to a change in this part of the programme.

2. International cooperation

In view of the important findings that large international institutions have been coming up with in investigations into seismic forecasting, the Observatorio Sismológico del Suroccidente (OSSO) has taken steps to increase its state of knowledge and competence in this field.

Activities in this area are described below:

- Two years ago, the Observatorio Sismológico del Suroccidente (OSSO) began to cooperate with the International Institute for Seismic Forecasting Theory and Mathematical Geophysics (IIEPT) (Russian Academy of Sciences) which, by combining a variety of observations and methods, is trying to acquire a forecasting capacity on a time-scale ranging from minutes to decades. The specific end in view is the development of an ability to forecast tsunami-generating seismic events in the medium term (approximately five years).
- The National Department for Disaster Prevention and Relief has encouraged and organized meetings to promote the use of this information in the definition of disaster prevention and mitigation policies and measures.
- With economic support from Colciencias and the International Council of Scientific Unions (ICSU), Dr. Vladimir G. Kosobokov, a member of IIEPT, paid a first visit to OSSO in March 1993.
- To give members of OSSO a firmer theoretical grounding in matters relevant to the project, a course in the mathematical theory of systems and signal processing