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Meeting of Experts to Evaluate  
the Pilot Phase of MED POL and  
to Develop a Long-Term Monitoring  
and Research Programme for the  
Mediterranean Action Plan

Geneva, 12-16 January 1981

Data processing for MED POL - PHASE II

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MED POL DATA PROCESSING - PHASE II

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1. Data collected under the various activities connected with the implementation of the Barcelona Convention can be classified in several ways: by subject area, by pollutant, by medium, etc. One of the most important classifications, from the point of view of assessing priorities, is that by purpose. This gives three groupings:-
  - A. Data that are required for monitoring the observance of the Barcelona Convention and its protocols.
  - B. Data of international (not necessarily Mediterranean - wide) scientific interest which can be re-used by scientists in other countries.
  - C. Data that are of purely national interest.
2. Class A data must be processed, summarised and archived by the Secretariat of the Convention, with the production of statistical and cartographic display material for regular distribution to the Contracting Parties, after prior authentication by the Interagency Team and the Working Group for Scientific and Technical Co-operation.
3. Class B data should be archived centrally and made available for use by scientists from the Mediterranean Region and elsewhere.
4. Class C data should not, in general, be centrally held, but should, as far as possible, be retained in compatible form in the various national archives.
5. Class A data is a priori non-confidential (within the region) in that it must be published. Data of Classes B and C that are considered confidential by the originating government should not be passed to the central archives. They should be retained in national archives, but with a central inventory of such data maintained by the Secretariat so that access is possible subject to negotiation with the government concerned. The MEDSI (Marine Environmental Data Information System) of IOC is probably the best model of such an inventory with the above provisos. Under these conditions there should be no problem of confidentiality of data, since the Secretariat will not hold confidential data, but will simply record the fact that it exists.
6. The provision of relevant data to outside international systems, including the World Data Centres (Oceanography), the International Oceanographic Data Exchange system of IOC and the Aquatic Sciences Information System of FAO remains the individual and collective responsibility of the Contracting Parties. The Secretariat will however, upon request, act as an intermediary with regard to this matter and will assist governments by transmitting the data they wish to release to such system.

7. The data collection (monitoring) procedures and pollutant analysis methods for MED POL will be standardized. It is equally important that the data reporting be consistent. This means not only standard reporting forms, but also standard methods for data validation and analysis. In addition, much effort will be saved if national files are held in formats consistent with the central archives. Finally all reporting formats must be compatible with (or convertible to) standard international formats (GF3 of IOC and other applicable formats).
8. The Computer Unit of the Secretariat will perform the data analysis, archiving and reporting functions for Class A data. It will, on request, perform similar functions for Class B data released by governments. These activities require considerable preparatory work including the investigation of similar systems in use elsewhere, systems design and analysis, obtaining the agreement of experts from the Governments and Agencies concerned, file designing, programming, testing and production of reports. The tasks of system design are primarily a matter of harmonization since existing procedures in national centres will have to be taken into account. This means considerable consultation in the early stages.
9. The Computer Unit is not, in any way, responsible for checking the scientific validity or consistency of data submitted. Nor is it responsible for conversion of this data from non-standard formats. It will be necessary, at least in the initial stages, to have designated channels through which all data pass for pre-computer checking by qualified experts. These channels or centres may use the expertise of the co-operating Agencies or of appropriate regional or national centres.
10. A Reference Handbook will need to be prepared for data handling procedures. Training in the standard methodologies will be required. Wherever possible computer programs in use in the Secretariat should be in forms available for use on national computers. This is a long-term project with some fairly immediate requirements if there is to be no hiatus between the Pilot and long-term MED POL programmes.
11. The access to data held by the Secretariat should, eventually, be possible through the established data networks of the region, including EURONET. This is not likely to be an economic proposition until the data base reaches a sufficiently high data content and level of usage, but the long-term requirement must be borne in mind.
12. The experience of the Secretariat Computer Unit personnel is in computing not in marine science and certainly not in the multiplicity of disciplines covered by the Barcelona Convention and its related Protocols. There will, therefore, be a need for advisory committees to specify the scientific, management and legal requirements for data handling as well as the requirements for data display.

13. The ultimate aim of the Barcelona Convention is environmental. This means that the inter-relationship of data items will gradually need to be more closely defined and used so as to be able to produce, given maximum computer assistance, an integrated picture of the state of pollution of the Mediterranean. From the beginning data collection methods for the various parameters should be sufficiently consistent so that inter-comparison of results is feasible. The central files should be integrated to the maximum extent possible. Nationally held files, including relevant files of data collected prior to the MED POL should be gradually brought into line with the standards decided on by the Contracting Parties.
14. This work schedule implies a considerable load on the Co-ordinating Unit for MED POL and on its limited computer staff. For efficient operation it is essential that there should be maximum decentralization of the data reduction and pre-digestion process which should, as far as possible, be achieved at country level. The building up of expertise and facilities for these functions must receive high priority in the overall programme. With this in mind it is strongly recommended that national co-ordinators for data quality be designated in each country, even if only to provide a channel of communication for formal and informal interaction during the development of the integrated data processing system for the Barcelona Convention, with participation from the other RS/PAC regions, each of which is expected to draw on the MED POL experience as its data begins to become available.

MED POL DATA PROCESSING COST ESTIMATES

A. Equipment Purchase.		
Purchase of stand-alone interactive graphics terminal with associated mapping routines and software. (one-time only cost)		\$45,000
B. Computer Usage and Terminal Rental		
Annual cost of VDU programmer terminal and computer usage costs for processing at ICC		\$17,500
C. Staff Costs		
MED POL Data Processor		\$54,000
D. Consultant Costs		
(i) Systems analyst to define the MED POL data processing system		
1981	6 m/m	\$38,000
1982	3 m/m	\$20,000
(ii) Consultants to perform data editing and pre-validation		
1981	4 m/m	\$20,000
1982	6 m/m	\$30,000
E. Travel for Consultants \$ 5,000		
F. Data Entry		
Contract services or staff costs for data preparation and entry		\$10,000
G. Total Costs		
Estimate for 1981		\$189,500
Estimate for 1982		\$136,500
Estimates for later years as for 1982 plus inflation component at approximately 10% per annum.		