This paper is not to be cited without permission of the authors.

ICES C.M. 1999

ICES C.M. 1999/V:06

#### THE MECHANICS OF QSR 2000

P. C. Reid<sup>1</sup> and S. R. Carlberg<sup>2</sup> <sup>1</sup>Sir Alister Hardy Foundation for Ocean Science, 1 Walker Terrace, Plymouth, PL1 3BN, UK

<sup>2</sup>Swedish Meteorological and Hydrological Institute, Byggnad 31 Nya Varvet, Västra Frőlunda, Sweden

#### ABSTRACT

Assessment of the quality of the marine environment forms an important part of the new 1992 OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic that was ratified and entered into force on 25 March 1998. In the ministerial statement at the signing of the Convention it was agreed that the first assessment (Quality Status Report, QSR) for all Convention waters should be produced for the year 2000. To oversee this charge a new Environmental Assessment and Monitoring Committee (ASMO) was established and a junior group under this committee, to implement necessary actions, the Assessment Co-ordination Group (ACG). Because of the wide geographical diversity and varying levels of information available in different parts of the Convention area it was decided to produce five regional reports for: I The Arctic; II The North Sea; III The Celtic seas; IV The Bay of Biscay and Iberian Coast; V The Wider Atlantic, which will be synthesised in a holistic QSR for the year 2000. The report for the North Sea will largely be an update of QSR 1993 and forms the third cycle of a developing management system for the North Sea. This paper will present the procedures that have been adopted to implement the QSRs, and outlines the guidelines that have been developed for their structure, format, design and publication.

# 1. Introduction

When the new 1992 OSPAR Convention was formalised by joining and revising the 1974 Paris and 1972 Oslo Conventions, a greater focus was placed on assessment and monitoring than previously. By 1998, the new Convention had been ratified by all the Contracting Parties to the former 1974 Paris Convention and the 1972 Oslo Convention plus Luxembourg and Switzerland<sup>1</sup> also takes into account the need for sustainable development of the oceans, seas and coastal environment as outlined in Agenda 21 at the UN Conference in Rio de Janeiro in 1992. At the time the Convention was signed in 1992, the OSPAR Commission and International Council for Exploration of the Seas were close to completing a Quality Status Report of the North Sea, and the experience of the group called the North Sea Task Force (NSTF) that had been given the responsibility to produce this regional assessment was taken into consideration in developing the plans for the new Convention.

All eight North Sea states, the European Commission, OSPAR, ICES and latterly NGO observers were represented on NSTF and the group was unusual in that it included both scientists and government policy makers. The remit for the group was outlined in the Declaration of the 2<sup>nd</sup> North Sea Ministerial Conference in February 1987 and the text finalised for the QSR in November 1993 and published in April 1994. The whole process to produce this regional assessment from inception to publication thus took seven years. Within this period the main work to produce the report took place over a five-year period with meetings of NSTF. Results of a co-ordinated 'Monitoring Master Plan', and modelling and research initiatives were included in the QSR. The 1993 QSR synthesised information from 13 sub-regional reports for different regions of the North Sea, including the Wadden Sea, and holistic overviews on specific themes e.g. seabirds as well as the products of the Monitoring Master Plan. The experiences gained were outlined in a Testament Document (OSPAR/ICES, 1994) to facilitate the production of subsequent North Sea QSRs and provide guidance to other regional assessment initiatives.

It was the experience outlined in the Testament Document that OSPAR Ministers wished to build on when establishing the Monitoring and Assessment structures for the new 1992 Convention. The NSTF is seen in retrospect as an organisation that brought together scientists and senior decision makers in a highly effective way. Part of this success was due to the hard work of the membership, part to the way meetings were organised and part to the unique sponsorship by both OSPAR and ICES. Here we focus on the procedures (mechanics) that have been put in place by OSPAR to produce the first ocean-wide assessment for the whole North Atlantic Convention area by 2000. We also discuss how these methodologies differ from the approach of NSTF, note where the approach has not worked well, and put forward recommendations for improvements for any subsequent round of assessment.

<sup>&</sup>lt;sup>1</sup> Contracting Parties to the Convention are: Belgium, Denmark, the European Community, Finland, France, Germany, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom of Great Britain and Northern Ireland.

# 2. OSPAR Working Structures

As part of the strategy to produce QSR 2000 two second tier groups were established by OSPAR, 1993, the Environmental Assessment and Monitoring Committee (ASMO) and the Programme and Measures Committee (PRAM). This change involved a major shake-up of the existing committee structures of the two parent conventions with the establishment of nine new third tier groups (Fig 1). ASMO was tasked with coordinating the production of the QSR assisted by a new Assessment Coordination Group (ACG), a working group reporting to ASMO. It was decided that a regional approach should be followed with the establishment of five Regional Task Teams with geographical responsibilities as per Fig.2:

RTT	Ι	Arctic Waters
RTT	II	Greater North Sea
RTT	III	The Celtic Seas
RTT	IV	Bay of Biscay and Iberian Coast
RTT	V	Wider Atlantic

At the first meeting of ASMO in March 1994 a strategy for Assessment and Monitoring was established. Terms of reference agreed for ACG included to:

- a. coordinate the work of the Regional Task Teams by the establishment of a general framework, guidelines and timetables for the preparation of regional or, where appropriate, sub-regional Quality Status Reports;
- b. propose arrangements for the review of these reports;
- c. identify, on the basis of submissions of the Regional Task Teams:
  - (i) the need for data and information to be gathered on a Convention-wide basis, and
  - (ii) the need for the submission of specific holistic or regional contributions,

by other Working Groups of the Commission(s) or by other relevant international fora;

d. coordinate the preparation of the Convention-wide Quality Status Report.

Discussions on a new 'Joint Assessment and Monitoring Programme' were also held; this programme was adopted by OSPAR in 1995 and forms the basis of the regional QSRs and QSR 2000. Further information on these OSPAR structures is given in OSPAR, 1995 and Salchow (1999). In practical terms proposals by ACG were in sequence adopted and at times refined by ASMO or higher committees of OSPAR. Here a focus is placed on the deliberations of ACG.

# 3. Assessment Co-ordination Progress Diary

The Assessment Co-ordination Group was established to operate in a similar way to NSTF, but with an expanded membership to include all OSPAR Contracting Parties. ICES continued to contribute to OSPAR's environmental monitoring and assessment work in accordance with a new Memorandum of Understanding signed in September 1995, but was not a direct sponsor as for NSTF. The work of the group was slow to 'get off the ground' with the first meeting on one day prior to the second meeting of ASMO in December 1994. It was at this meeting that a work programme for ACG was established. By this time only three of the regional task teams (RTTs) had met for the first time and one of these RTT meetings was held in parallel with ASMO. Concern was expressed over the lack of guidance that ACG had been able to give on work to be included in the programme of other third tier working groups of ASMO and PRAM and that a date for a future meeting had not been established. In these early meetings there was some re-examination of earlier debates on GESAMP guidelines for Environmental Assessments, ICES recommendations and the NSTF experiences that slowed progress.

In the event no meeting was held in 1995. Progress reports from each RTT were presented in April at ASMO 1995 but largely consisted of identification of gaps in knowledge and presentation of preliminary plans. For example: RTT I intended to build on the Assessment Report of the Arctic Monitoring and Assessment Programme (AMAP) due for completion in 1998 (AMAP, 1998), RTT II had built a matrix table of topics to be included based on JAMP issues and RTT III had still not established a regional task team but had agreed to follow a sub-regional approach dividing the region into three study areas:

- The 'Malin Sea', the area of to the west of Scotland and north of Ireland.
- The Irish Sea proper.
- The Celtic Sea to include the west coast of Ireland.

At the 1995 meeting of OSPAR the Commission established, as part of the JAMP, a description of the scope and content of the regional and convention-wide assessments and formalised the Work Programme for ACG. A brief summary of topics covered and progress at the subsequent ACG meetings is given below.

The second meeting of ACG did not take place until 11-12 January 1996 with only eight OSPAR signatories represented. From this meeting work on the regional assessments started to accelerate. The basic structure of the six main chapters and an executive summary of each QSR was established and a statement on quality assessment reaffirmed. One meeting of ACG was held in 1997 (April) when the first draft of a comprehensive set of instructions to authors, for the preparation of the regional QSRs was produced; subsequently amended and adapted for QSR 2000. Progress reports were received from RTTs. Text had only been produced for a few chapters in RTTs I, II and V; there had been no integration of texts in RTT III and nothing yet written for RTT IV. Uniform use of assessment procedures between different regions was raised and discussions on procedures for peer review of QSR texts initiated. First discussions were held on publication and marketing with the preparation of a timetable and procedure of arrangements to tender for publication.

Two meetings of ACG were held in 1998. Reports on progress were made at the first meeting in March. RTT I was the first region to produce a draft chapter in November 1997. RTT II introduced their plans to use Multi-Criteria Analysis to help prioritise concerns for use in Chapter 6. Text for two sub-regions of RTT III the Celtic Seas and Malin Sea had still not been produced and minimal text for chapters 2 and 3 only written for RTT IV. Results of the tendering procedure were evaluated and a shortlist produced and discussions held on printing runs, costs, design and other publication issues. At this meeting ACG also placed a greater emphasis on plans for the preparation of QSR 2000 using a lead country approach.

At the second 1998 meeting in October further progress had been made and problems were becoming more evident. Text had still only been produced for three chapters in RTT 1, five in RTT II, no integrated texts for the three sub regions of RTT III (however. a statement was made that no problems with the integration of text were perceived), no text had been produced for four chapters in RTT IV and no text for chapter 6 in RTT V. Standard mapping tools to compile and represent data were discussed and tests proposed on ArcView for adoption as a standard GIS system outlined. The two successful tenderers for the design and marketing of the QSR attended the meeting and presented their design concepts and strategies

Three meetings of ACG were planned for 1999, in April, June/July and October. At the first meeting comments from peer reviewers and other sources were compiled, prioritised and decisions made on how they should be addressed. Only RTT V submitted texts on time and a 'very preliminary first draft' was not submitted by RTT III until more than a month after the deadline. Chapter 6 for RTTs I and III were still outstanding by April 1999. The quality of the draft chapters submitted and the extent to which they complied with instructions and guidelines varied widely and in many cases there was a need for considerable improvement in the texts. Standard 'model' texts were produced for the Foreword and Chapter 1 – Introduction and Scope. For Chapter 3 it was especially noted that there was a lack of economic information available in a harmonised format on human activities in coastal regions. It was intended that the Lead and Co-lead countries for QSR 2000 should also have reviewed these drafts for compatibility between regions – this was not done. Authors had invariably not provided information on illustrations e.g. source and copyright as requested. Few photographs had been included and RTT III in particular had had difficulty integrating mapped information between the three sub regions. Plans for QSR 2000 were further developed with the formalisation of Lead and Co-Lead countries and the identification of participants in editorial groups. It was recognised that the timetable for the production and the peer review of QSR 2000 was both ambitious and tight.

At the second 1999 meeting of ACG brief reports on progress were presented by each RTT. Further work was still required on chapters for draft 1 in all regions except RTT V and only RTT IV had presented their illustrations in the requested format. Following examination of the drafts an extensive list of proposals for further amendment/elaboration was compiled. For each region a single individual was identified to check drafts for consistency and to draft the executive summary. All draft texts were now on target for word counts.

A procedure for signing off of the texts by participants in each RTT was adopted on OSPAR recommendation. Because of delays in submission the outstanding Chapter 6 for RTT III and IV had been submitted for peer review and only one peer reviewer had completed this task in time for the meeting. No peer review had been possible for Chapter 6 for RTT I.

Concern was expressed that a further deadline had been broken as the first draft of Chapter 1 for QSR 2000 had not been submitted for consideration: First drafts of all other chapters for QSR 2000 were tabled. Difficulties were experienced in compiling Chapter 3 due to the considerable differences in the approach taken by the RTTs. Liaison between the drafters and editorial groups for QSR 2000 had proved generally poor.

The final meeting of ACG, to be held in September 1999, will follow back-to-back a meeting of ASMO that will review and adopt the final drafts of the regional QSRs. At this meeting the texts for the second version of Draft 1 of QSR 2000 will be evaluated, and plans made to complete draft 2 by 8 October 1999 for submission to a meeting of ASMO planned for November, when the text will be adopted for submission to ICES for peer review at a special meeting scheduled for January 2000. A drafting panel will be convened in February/March to amend the text, in the light of peer review comment, for ASMO 2000 prior to adoption of the text by OSPAR 2000 in June 2000 for printing and subsequent publication.

# Timetable and Organisation

A deadline for completion of QSR 2000 by mid 2000 has been in place since the assessment process was initiated by OSPAR Ministers. From the beginning of ACG a timetable to reach this goal has been developed (attached in its most up-to-date form as Annex 1) with major milestones: at the end of 1997 to incorporate monitoring data, the end of January 1999 to complete the first draft of RTT reports, September 1999 to adopt the regional QSRs at ASMO and the end of March 2000 finalisation of QSR 2000 by ASMO for submission to the OSPAR Commission for adoption in June 2000.

Assessment of progress by RTTs and coordination of their work was achieved by submission of half yearly Questionnaires by the Chairman ACG which complimented information provided in reports to meetings of ACG. The questionnaires which took into account the level of progress and needs of each RTT largely required yes/no answers. They recorded information on RTT meetings and their minutes, provided opportunity for RTT groups to identify difficulties and how these might be addressed and kept an up-to-date contact and address list of participants. It was intended that the questionnaires be filled in with a blue pen for ease of completion and that they should provide a regular prompt to progress work. They were discontinued once first drafts of all chapters were available.

The timing of production of the QSRs required input of information from a variety of sources in addition to published literature. This included output relevant to assessment from OSPAR and ICES working groups, the 5th North Sea Conference Secretariat national, EU and other sources including the EU Dobris report and Eurostat. A deadline

for incorporation of new monitoring results was set for the end of 1997 as a further nine months was needed for analysis of the results by relevant working groups before incorporation in the QSRs. A categorisation of assessment results already available to RTTs, or that will or will not be available for incorporation in QSR 2000 was completed by the first meeting of ACG 1998.

Timetabling also needed to take into account plans for the development of a tendering procedure for publication and marketing, peer reviewing procedures for the rQSRs and QSR 2000 and establishment of electronic communication of text. Difficulties in obtaining data from Eurostat and the EU Environment Agency drew attention to the need to develop an improved working relationship between OSPAR and these organisations and highlighted gaps in the availability, processing and standardised formatting of statistical data on e.g. coastal factors at a European scale. A Memorandum of Understanding was completed between OSPAR and the EEA in [February 1999] **GERT** and contacts made to improve and develop future collaboration with Eurostat.

The production of the regional QSRs was facilitated by the identification of a lead country/countries and participating countries for each region (OSPAR, 1995). A similar procedure was put in place for QSR 2000 with lead and co-lead countries per chapter and a representatives of each RTT per chapter forming the editorial group. Chapter 6 is to be produced by the Chairman ACG with support from the UK, and the Netherlands as co-lead, RTT representatives and representatives from each contracting party. At a late stage in the timetabling of the rQSRs editorial control will be passed from the RTTs to the OSPAR Secretariat after which a copy editor will check the texts. The minimum unit for transfer will be a chapter. Any transfer will not take place until all material for the chapter is complete and the text has been signed off by all contributing Contracting Parties. (No text transfers had been achieved by September 1999.) The text will then be checked by a copy editor to ensure that they are finalised to a high standard of accuracy and language. Technical editing of QSR 2000 will be the responsibility of the lead countries.

# **Structure and Format**

# Chapter and section headings

The basic structure of chapter and content to be followed in a QSR was outlined in the JAMP (OSPAR, 1995). This structure was modified at successive meetings of ACG to give the latest version as per Annex 2. Section headings were identified chapter by chapter. The aim of this standardisation was to facilitate review of the rQSRs and the production of the holistic QSR by sectional cross referencing between regions. Even if no text was produced it was suggested that RTTs should include the heading in Draft 1 with a nil response beneath. Despite this strong recommendation some regions formulated their own section headings.

Chapter 1 includes text outlining the aims and scope of the study, the assessment process notes per RTT on who did what, where, why and when, 'Guidance to the reader on the structure' with reference to the glossary and cross referencing. Chapter 2 of the

report gives a concise description of the physical geography, hydrography and climate of the area which have an important bearing on the types and distributions of marine habitats and communities as well as their sensitivity to environmental changes. Chapter 3 examines human activities that directly or indirectly impinge on marine areas, their amenities and resources, identifying localities most affected and assessing any apparent trends. The next two chapters summarise existing knowledge on chemical and biological features of the various coastal and offshore ecosystems of the region, focusing in particular on the causes and any implications of any changes that are occurring to their natural characteristics. Finally, Chapter 6 draws on preceding chapters to identify where improvements have been achieved, the major causes of environmental degradation throughout the area and recommendations for the managerial and scientific actions needed to redress them.

It was agreed that results/information derived from modelling and remote sensing should be used in the hydrography sub-chapter although modelling products can be included anywhere in the QSR as appropriate. Particular attention will be paid to areas where significant impacts occur or that are especially sensitive to human impacts, i.e. relevant estuaries, fjords, spawning areas, sedimentation areas. These areas were termed 'focus areas' to indicate that they are areas of interest and not necessarily 'areas of special concern'. With regard to the landward limit of the assessment any information necessary to help understand 'pressures' on the ecosystems especially from catchments or the coastal margins should be included. Reference to species and habitats will however be confined to the maritime areas although the supra littoral zone and species that depend on the sea for a critical part of their life will be included as appropriate. Lastly, ACG identified a list of candidate issues for which it would be preferred to develop generic texts to be used by all RTTs: toxicity/toxicological effects, types of responses to nutrient enrichment, types of impact of fishing and mariculture, impact of human activities as well as reference to relevant EU and other international legislation, and agreed that common indicators of environmental quality should be sought e.g. those already devised or under development by European Institutions.

# **Drafting Guidelines**

A set of guidelines for drafting the rQSRs was compiled and submitted for consideration at the 1997 meeting of ACG by the UK delegation. Additional information was included in subsequent drafts and the guidelines adapted for draft 1 of QSR 2000 by the second 1998 meeting of ACG. These guidelines are appended as Annex 3 as it is felt that they provide a comprehensive set of editorial instructions that may have a wider application. Space is at a premium in the QSRs which have rigid word and page limits so reference citation needs to be kept to a minimum and use journal abbreviations even though most journals and libraries now recommend use of the full journal title. An average of no more than 50 references (30 for QSR 2000) was recommended, condensed into two column style on one page. A complete list of other references used will be made available on the OSPAR website and hopefully included in an appropriate bibliographic reference system. Some additional instructions for draft 2 of the RTT reports focussed on the design, style, recommended word counts per chapter, types of illustration, images per page, media and communication (Annex 4)

# Mapping/GIS

To represent mapped information in the QSRs two standard map projections were adopted (equal area and Mercator) with other projections to be used only if essential. It was hoped that this approach would facilitate integration of mapped products between regions and would enable adequate representation of the Convention area, regions and catchment which extends from the North pole to 36° N. Decisions on how to present mapped information were not made until the first 1998 meeting of ACG at a time when a general mapping package or standard GIS approach by all countries did not exist. This was too late in the planning process and has caused delays and complications in the production of figures up to the present (September 1999) by all but one RTT, RTT IV. In this latter region a specialist GIS expert was involved in the production of the figures at an early stage. In the case of Ireland complex mapped graphics had been produced in 1997-98 using a GIS system with Power Point overlay. Deconstruction of these figures to produced integrated maps for the whole of Region III has proved impossible.

In August 1998 proposals for a standard GIS mapping approach based on the software Arc View were outlined by the QSR Design company. This system is compatible with the more elaborate ArcInfo System held by some countries and with MapInfo via a standard file exchange format such as .dbf.

Generic base maps with associated files containing geographic features (e.g. coastlines, bathymetry, administrative units along the coast) had not been produced for the October 1998 or April 1999 meetings of ACG by the design company because of difficulties in accessing relevant digitised information covering the whole OSPAR region. Digitised ArcView maps with boundaries, coastline and bathymetry were placed on the OSPAR Website for the communication trial by the end of April 1999.

# **Electronic communication**

From the development of the first drafting guidelines in 1997 electronic communication of texts was the preferred option for exchange of drafted material. The formatting of draft 1 texts was kept at a simple level to facilitate e-mail transfer. Draft 2 texts were intended to follow the design of the final printed product and more sophisticated exchange media are thus needed to take account of the size of files. Proposals are outlined in the instructions for draft 2 in Annex 4. Considering the wide variety of electronic media, software systems and means of communication used by different countries a trial was proposed to test file transfer systems for draft 2 by the end of 1998 before operative use in 1999. In the event this trial did not take place until April-June 1999 and was not conclusive as all contracting parties did not take part and not all transfers proved successful. However, the trial highlighted a need for revised advice on communication at the mid summer 1999 meeting of ACG:

- e- mail was not reliable for important messages and there was an upper limit to the size of attachments
- larger files should thus be put on ZIP-discs or CD-ROM

• illustrations in electronic format should be sent to the secretariat preferably on CD-ROM.

# Peer review procedure

International peer review of the North Sea QSR 1993 produced by NSTF was recognised as an essential part of the QSR process which ensured the credibility of the scientific content and the soundness of the conclusions as a basis for management action. ICES as a partner in NSTF planned the peer review process by ACME from an early stage. The sub-regional North Sea QSRs were not formally reviewed and in some cases were produced at a late stage preventing the full incorporation of their results in QSR 1993.

Peer review of the rQSRs and QSR 2000 was seen, as for the North Sea QSR, to be a key requirement in the production of the reports. However, plans for peer review of the rQSRs and QSR 2000 were not initiated until ACG 1997. Because of the shorter time frame, larger task, and costs involved, review of the rQSRs would have proved difficult to fit into the work schedule of ICES; a separate procedure for the rQSRs and QSR 2000 was therefore developed.

For the rQSRs two reviewers per chapter with wide experience of marine science, regional assessment and editing were nominated. Countries taking the lead and co-lead for QSR 2000 chapters were asked to propose suitable reviewers, provide a resume of their experience and ensure they would be willing to complete the task. Guidelines for the reviewers were compiled by ACG (Annex 4) to try and ensure a harmonised approach to the focus and format of their reports and that could also be adopted as a standard for comments from Contracting Parties and NGOs. A template 'comment box' was produced and made available on a special section of the OSPAR website to facilitate communication of the reports and compilation for their overview at ACG. A very tight timetable was imposed from completion of the first draft of the rQSRs 31 January to completion of the peer review 31 March and overview of the comments at the first meeting of ACG 1999 (12-13 April). As a consequence there were few comments on the scripts other than from the Secretariat and the reviewers.

Problems were experienced at all stages of this peer review process. Nominations were received, in many cases, at a very late stage. Because of the tardy production of some RTT reports and especially Chapter 6, review was not possible for at least one RTT. One reviewer of Chapter 6 failed to produce a review. The reviewers in a number of cases did not read or follow their instructions carefully; in one example all chapters and not the designated chapter were reviewed. Some of the reviewers focussed on the editorial issues rather than scientific base, content and style of the chapters.

The above difficulties confirmed the value of taking a 'committee' approach, again via ICES, of the overview of QSR 2000. A special joint meeting of experts, originally planned for November 1999, was postponed to the end of January 2000 to enable ASMO to have an effective input and ensure the quality of the draft QSR 2000 prior to submission to ICES.

# **Preparation and Production of QSR 2000**

Planning for QSR 2000 was minimal in the first few meetings of ACG as priority was given to the rQSRs. By 1997 it was agreed that chapters 1 to 5 would be produced by a lead and co-lead country with a panel comprising experts from each RTT, and that ACG would be responsible for completion of the first draft and that observers would be invited to comment on this draft. Work accelerated from the first meeting of ACG in 1998 with the initiation of the identification of named representatives on the editorial groups the development of working arrangements to include timing and allocation of responsibilities and discussions on resource and budgetary needs to produce QSR 2000. Confirmation of the lead/co-lead responsibility and nominated RTT representatives for some chapters of QSR 2000 was only finalised at the first meeting of ACG in 1999. The responsibility of the editorial groups was to assist the main drafters from the lead/co-lead countries and act as a first reviewing tier. Communication of different drafts would be via electronic means eliminating the necessity to organise meetings.

Given the late start in identifying drafting teams the production timetable for QSR 2000 was very tight and is closely linked with the timely completion of the rQSRs. A specialist copy editor would be employed to correct residual errors and ensure the final draft 2 text of QSR 2000 was completed to a high standard of language and harmonised content.

# Tendering for design publication and marketing

A recommendation to initiate a tendering procedure for the publication and marketing of the QSR was made at the April 1997 meeting of ACG. Comprehensive tender documents were produced by the Chairman ACG and OSPAR Secretariat including: detailed instructions to tenderers, a form of tender (i.e. contract) and a for contract specification. The specification included a background to OSPAR, details of QSR plans and design, printing, marketing, distribution and technical details (as known) for the QSRs. The tender package was circulated to all national contact points on 28 January with a completion date of 2 March 1998. Tenderers were asked to submit a tender for one or more of the following:

- a. Overall design of the front page, chapter format, page structure and illustrations of five regional QSRs and QSR 2000
- b. Printing the five regional QSRs
- c. Printing QSR 2000 in both English and French versions
- d. Marketing and distribution of QSR 2000 (English and French)

To ensure anonymous selection special precautions were put in place including an identification code, a double envelope system and a sealed container for receipt. Two companies were selected in summer 1998 from a shortlist that gave presentations at the OSPAR Secretariat, one to undertake design and printing and the other marketing

# **Design and Publication**

Basic design concepts for the OSR were outlined at the October 1998 meeting of ACG by the selected tenderer. They included a new OSPAR/QSR logo, colours, typography, cover and spine designs, chapter structure and word/illustration numbers per page. The aim is to produce a functional and attractive envelope for the QSRs which will interest a wide audience and will be available at an affordable price. The proposed number of words per page (450) and per chapter (Annex 2) was established iteratively by comparison with other published reports and the advice of the designer to give optional visual impression and reader-friendliness. The density and variety of illustrations was seen as a key element of the design and early advice was included in the instructions to authors on choice of illustrative material. RTTs were tardy in providing appropriate information on illustrations with draft 1 and their balance was inappropriate with provision of very few photographs. In the instructions for draft 2 a target of three illustrations per two pages (900 words) with one third of the total illustrations as photographs was proposed. By the mid summer meeting of ACG in 1999 the total word count for all RTT reports was on target, representing a considerable shortening in many cases from original text. However, the number and variety of illustrations was in most cases well short of expectations.

The subregional reports produced for NSTF were compiled and printed by lead countries in a variety of formats, but with a standard A4 cover. For the holistic report close liaison with the publishing company was maintained with the NSTF Secretariat. The company took full responsibility for the typography and computer graphics i.e. colour illustrations were produced entirely by the publisher from roughs provided by the drafters. The contract developed by OSPAR for QSR 2000 include the design, project management and printing of five regional QSRs and QSR 2000; a much larger project. The work involves creating initial visuals, and grids, typesetting, scanning in pictures black and white laser proofs and formatting artwork on disc. Publication and printing has to be completed to a tight budget so considerable effort was placed on calculating print runs and allocation of copies between delegations. A basic print run for each report and the French and English versions of QSR 2000 was established on the basis of a calculated unit print cost and allocations to delegations, marketing and other needs agreed. Additional requirements will be charged at cost. [Computer to plate versus traditional printing] **GERT/STIG.** 

# **Marketing and Distribution**

The company selected to market and distribute the QSR presented a strategy and plan to the October meeting of ACG in 1998. A press campaign over an extended period will form the core of the strategy to disseminate information on QSR 2000 and the rQSRs to a wide audience including scientists/professionals, policy makers and the general public. A secondary aim will be to raise public awareness of the OSPAR Commission and help develop an understanding of marine environmental policy developed within OSPAR. The size of the marketing campaign will be limited by the available budget and launch events will be a national responsibility. [The marketing company] will be responsible for the storage and distribution of all books identified for sale and will manage all aspects of marketing design and publicity including input to the OSPAR website and links to appropriate search engines. At a later stage, subsequent to publication, it is hope that the QSR texts will be placed on the World Wide Web.

# **Discussion and Recommendations**

(5) 7 years NSTF versus (4)6 QSR 2000

# Acknowlegements

The engine for the mechanics is the OSPAR Secretariat. We are especially indebted to Gert Verreet for his major contribution to the work of the ACG and to other former and present colleagues at OSPAR. The work outlined in this report has been developed by a large number of participants in ACG and ASMO. We wish to record our felicitations and thanks to all concerned and especially to Mrs L Heriot (SAHFOS) for preparation of the manuscript.

# References

Oslo and Paris Commissions, 1995.

Oslo and Paris Commissions/International Council for the Exploration of the Sea.North Sea Task Force 1994: Review and Evaluation/ The Way Forward, North Sea Environment Report No.5. Copenhagen, pp 23.

AMAP, 1998. AMAP Assessment Report: Arctic Pollution Issues. Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway. xii+pp 859.

Salchow, R. 1999; Towards a first ocean-wide assessment. ICES CM 1999/V:3

- Annex 1 Timetable
- Annex 2 Structure of QSRs
- Annex 3 Instructions to authors
- Annex 4 Guidelines for reviewers

ANNEX	1
-------	---

# Timetable for the production of the Regional QSRs and the QSR 2000 $\,$

		19	97			19	998							1	999							20	00				
				IV	_	=		IV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Ju
1. Collection of monitoring data																											
2. WG Assessments																											
3. RTTs prepare rQSRs - draft 1																											
4. Comments on rQSRs - draft 1																											
5. ACG meeting on rQSRs - draft 1																											
6. RTTs prepare rQSRs - draft 2																											
7. ACG meeting on RQSRs - draft 2																											
8. RTTs prepare final draft rQSRs																											
9. Adoption of RQSRs by ASMO																											
10. Preparation of Convention-wide contribution																											
11. Drafting teams & ACG draft QSR 2000																											
12. ACG reviews draft 1 version 2 and establishes QSR 2000	- draft 2	versio	11																								
13. Comments by CPs and Obs on QSR 2000 - draft 2 version	1																										
ASMO meeting on QSR 2000 - draft 2 version 1, establishes of	lraft 2 v	ersion 2	2																								
14. Peer review process by ICES of draft 2 version 2																											
15. ASMO prepares final draft QSR 2000																											
16. ASMO meeting to prepares final draft QSR 2000																											
17. Adoption of QSR 2000 by OSPAR																											

WG: Third tier working group under ASMO ( and ASMO for some JAMP items)

rQSR: Regional quality status report

# ANNEX 2

# Structure of the QSRs as modified by ACG(1) 1999

	Recommendation Word Count	Recommendation Word Count
	for QSR 2000	for rQSR
Cover Page		
Title Page		
"Technical" page		
Table of contents		
Foreword		
The Participants		
Executive Summary	3 pages, 1350 words	3 pages, 1350 words
1. Introduction and scope	3 pages, 1350 words	5 pages, 2250 words
2. Geography, hydrography and climate	13 pages, 5850 words	22 pages, 9900 words
3. Human activities	7 pages, 3150 words	12 pages, 5400 words
4. Chemistry	19 pages, 8850 words	33 pages, 14850 words
5. Biology	11 pages, 4950 words	18 pages, 8100 words
6. Overall Assessment	16 pages, 7200 words	29 pages 13050 words
Glossary, species list		
List of symbols, acronyms and abbreviations used		
Illustration credits and copyrights		

## ANNEX 3

# Guidelines for the Preparation of the Regional QSRs and the QSR 2000:

# Instructions to authors and drafting groups of the regional QSRs (version 3)

# 1. Introduction

There will be five regional Quality Status Reports (QSRs) and a holistic (QSR 2000) report that will be produced to a uniform format in A4 size. Guidelines for the preparation and production of regional QSRs including a common layout/structure were agreed by ACG(2) 1998 (cf. ACG(2) 98/11/1, Annex 8). These instructions have to be read in conjunction to those guidelines. Detailed instructions have been provided to aid the production process for QSRs and to ensure that a uniform approach to the different reports is achieved from the first drafts. This text (version 3 adopted by ACG(2) 1998) provides guidance for authors and drafting groups preparing the first draft of regional QSR chapters. Further guidelines for the preparation of the second and final versions of draft QSRs will be completed in conjunction with the designer/printer. It is possible that at a later stage instructions will be issued:

- to the printer;
- with regard to electronic publishing requirements (if adopted).

# Instructions for the format of draft 1 of the QSR 2000 (version 1)

#### 1. Introduction

There will be five regional Quality Status Reports (QSRs) and a holistic (OSR 2000) that report will be produced to a uniform format in A4 size. Guidelines for the preparation and production of regional QSRs including a common layout/structure were agreed by ACG(2) 1998 (cf. ACG(2) 98/11/1, Annex 8). The instructions below form the first guidelines for the formatting of the QSR 2000. Detailed instructions have been provided to aid the production process for QSRs and to ensure that a uniform approach to the different reports is achieved from the first drafts. This text (version 1 adopted by ACG(2) 1998) provides guidance for authors and drafting groups preparing the first draft of the QSR 2000. Further guidelines for the preparation of the second and final versions of the QSR 2000 will be completed in conjunction with the designer/printer. It is possible that at a later stage instructions will be issued:

- to the printer;
- with regard to electronic publishing requirements (if adopted).

#### 2. Language

The QSR reports should be written in standard English with spelling following the Oxford English Dictionary and the text should be checked for linguistics by a native English speaker.

#### 3. Style

There are basically three audiences for the regional and holistic QSR reports, namely a scientific audience, an audience of policy makers and the general public, each with a differing interest in

the documents. To take these varying needs into account the text should be reader-friendly, well-structured and concise in clear, unambiguous language.

Within each chapter only four hierarchical sections are permitted (three are preferable). Number the heading of each section (e.g. for chapter 2: 2.1, 2.1.1, 2.1.1.1). Restrict the use of abbreviations, especially acronyms (ASMO, ACG) and do not make-up any new acronyms. All acronyms must be stated in full at the first instance of their use. In the general text, aimed at a non-scientific audience, define all abbreviations at first occurrence. Authors/co-ordinators should attach a list of all abbreviations and acronyms used at the end of each chapter.

# 4. Manuscripts

Manuscripts should be typed, double-spaced throughout, on one side of A4 paper. Margins should be 3cm minimum. Font size: 11pt for running text; 12 pt for headings; 9pt for footnotes and 8pt for the footer. Use Times New Roman throughout the document. Manuscripts should be arranged chapter - by - chapter in the following order: text, references, tables, illustrations, figure legends and appendices. All pages should be numbered serially beginning with the title page and including references, tables and figure legends.

# 5. Document coding

The drafting process will involve the generation and exchange of a large number of documents. To identify the progressive status of these papers the following coding system should be used and typed in a footer on all drafts:

RTT no./Chapter no./Section no./ Version no./Draft no./Date

for example:

RTT I/Chapter 1/Section 1.2/ Version 2/ Draft 1/15 May 97:

means:

RTT I Report; Chapter 1 Introduction; Part 1.2 Scope of the QSR; version 2; 1st draft dated 15 May 1997.

# 6. Exchange and distribution of assessment texts

Prior to the production of each 'version of a chapter or section' (i.e. version 1, version 2, etc.), material should be exchanged internally within the drafting groups. This process should be co-ordinated by the chairperson of each drafting group or submitted to consultants in the manner most convenient. The co-ordinator should decide on the required number of versions.

For each draft chapter, all relevant texts, supporting documentation (reference lists, abbreviations used, etc.) and graphical materials must be compiled and checked by the coordinator and submitted for review following procedures yet to be agreed.

Tables and figures must be provided on separate pages.

All relevant text and supporting documentation should also be supplied on a (virus checked) IBM formatted 3.5 inch disc; containing files in one of the following word-processing formats: Microsoft-Word (DOS or WINDOWS versions 1, 2.1 or 6.0), or Word Perfect (versions 4.2, 5.0 or 5.1). .RTF files (Rich Text Format) may also be used. E-mail should be used, where possible, to exchange text.

All text will be formatted prior to submission for final publication; the first draft should therefore be provided with only the most basic formatting applied (bold, underline, italic etc.) with no bullet sections and no justification of the right hand margin; a more sophisticated presentation during the drafting stage is unhelpful and will be a source of later complications. If specific presentation features are desired, these should be indicated by annotations on the hard copy versions.

Due to potential problems associated with translation of 'special characters' (e.g. Greek characters and superscript) and tables during conversion of word-processor files, drafters should provide clear instructions on their requirements whenever possible. Tables should preferably be tabulated using one of the selected word processing formats to limit the amount of retyping or reformatting that will be needed during the final compilation stage.

# 7. Units/symbols/abbreviations

Metric units belonging to the International System of Units (SI units) and ISO Standard 31, #1000 and annexes should be used throughout. The units must be designated by their international symbols (cf. Appendix 1).

Record numbers up to 9999 without a space, for numbers between 10 000 and 999 999 leave a space at the thousand interval and for larger numbers (e.g. 1,000000) use scientific notation as  $10^{6}$ .

Abbreviate terms in the text denoting units of weight and measurements only when they are preceded by numerals. It is recommended to use ml (millilitre) instead of cm<sup>3</sup> and l (litre) instead of dm<sup>3</sup>. Use of '/' for 'per' rather than negative superscripts. Subscripts should be used for indices in chemical formulae (e.g. H<sub>2</sub>O). Radionuclides should be given as <sup>137</sup>Cs rather than Cs-137 or 137Cs.

Due to potential problems associated with translation of 'special characters' during conversion of word-processing files, drafters must be 'explicit' when drafting text during the early stages of the work, i.e. using prefixes (micro g/l) in preference to symbols ( $\mu$ g/l or even ug/l) as a substitute for 'micro'; corrections will be applied at a later stage in the drafting process.

Concentrations of chemicals should be expressed in a form appropriate to the media concerned and on the basis (e.g. per unit wet weight, per unit dry weight, per unit lipid weight, per unit volume) normally applied for that type of media. The method selected must be used consistently throughout the chapters, i.e. concentrations in a given medium should not include both presentation of values on a wet weight basis in some cases and on a lipid weight basis in others, or should not use mg/l in some cases and M (molar) in others. It is the responsibility of the drafting group co-ordinators to define the units/basis to be used for a given chemical in a given medium within their chapter, to ensure that it is used consistently, and (where necessary) to ensure that this is consistent with the way in which values are expressed in other chapters and in other RTT reports.

Chemical concentrations should be expressed as mass units per:

- litre in water
- millilitre in biological fluids
- unit of dry weight in soils and sediments
- unit of wet weight in biological tissue (supported by information on water and fat content), or
- unit of lipid weight in (fatty) biological tissue (supported by information on fat content)
- unit of dry weight for atmospheric particulate media

• unit of volume for atmospheric gaseous media.

The following standard units should be used throughout the QSR:

• Oxygen ml/l

,	Nutrients		micromol/l
,	Metals		
	in seawater		microg/l
	in sediment		mg/kg
	in biota	mg/kg	

Chemicals shall be presented by their conventional trivial names according to the International Union for Pure and Applied Chemistry (IUPAC) recommendations. The corresponding chemical names and chemical formulae must be presented in a separate table for inclusion in an annex to the QSR reports. Conventional trivial names of biological species must be followed by scientific names printed in italics when mentioned for the first time. Give the genus and species name where known e.g. *Calanus finmarchicus*; where the species is not known record as *Calanus* sp. or when more than one species is included *Calanus* spp.

The abbreviations of Latin expressions e.g. *i.e.*, *cf.*, *et al.*, *ibid.*, *etc.* should be in italics.

# 8. Reference citation in text

The name-and-year system of citation should be used; that is, the surname of the author(s) and the year of publication are inserted in the text at an appropriate point: Brown (1983) compared...or ....were compared (Brown, 1983). For references with two authors cite as: Williams and Orange, 1997. If the reference has more than two authors, include only the surname of the first author followed by *et al.*. Unpublished books or articles accepted for publication should be listed by the reference followed by the notation 'in press'. Personal communications should not be used. When citing more than one publication separate the different references by a semi-colon e.g. Brown *et al.*, 1983; Mykels and Skinner, 1985 a,b).

# 9. References

References should be selected judiciously and kept to a minimum. The manuscript should be carefully checked to ensure citations in the text correspond exactly with the reference list and vice versa. Please note that genus and species names in the titles of papers should be in italics.

References should be listed at the end of each chapter in alphabetical order according to surnames of the first author. References with the same first author are listed in the following order: (1) papers with one author only are listed first in chronological order, beginning with the earliest papers. Where an author is cited twice for publications in a given year, these must be distinguished by a character sequence following the year, e.g. Reiersen' 1992a; Reiersen, 1992b, etc. (2) Papers with dual authorship follow and are listed in alphabetical order by the last name of the second author. (3) Papers with three or more authors appear after the dual-authored papers and are arranged chronologically and in alphabetical order.

The following bibliographic citations illustrate the punctuation and style to be used. Abbreviations (according to Chemical Abstracts Service Source (CASSI) or Biosciences Information Service Database or the World List references. If it is not clear how best to abbreviate a journal name not included in the above sources give the name in full

#### Journal article

Carpenter, P., Dewarumez, J.-M. and Lepretre, A., 1997. Long-term variability of the *Abra abra* community in the Southern Bight of the North Sea. Oceanol. Acta **29**, 283-290.

#### Entire issue of journal

Putiakka, J., Rintala, J., Wartiovara, J. and Heinonen, P. (Editors), 1991. Forest industry waste waters. Proceedings of the 3rd, IAWPRC symposium on Forest/Industry Wastewaters, held in Tampere, Finland, 5-8 June 1990. Wat. Sci. Technol. **24** (3/4), 1-447.

#### Book in a series

Cushing, D.H., 1996. Towards a science of recruitment in fish populations. Excellence Ecol., 7, pp. 175.

#### Book not in a series

Clark, R.B., 1997. Marine Pollution., Clarendon Press, Oxford. pp. 161.

#### Part of a book

Kautsky, H., 1995. Quantitative distribution of sublittoral plant and animal communities along the Baltic Sea gradient. In: Biology and ecology of shallow coastal waters. Edited by Eleftheriou, A., Ansell, A.D. and Smith, C.J., Olsen and Olsen, Fredensburg. pp. 23-30.

#### **Corporate author**

Oslo and Paris Commissions, 1992. Dumping and incineration at sea. Oslo and Paris Commissions, London. pp. 295.

#### Theses

Rajuddin, M.K.B.M., 1997. The sagittal otoliths and ecology of early juvenile flounder, *Platichthys flesus*. Ph.D. thesis, University of Newcastle upon Tyne. Kutty, M.N., 1996. Some studies on the respiratory quotient in goldfish and rainbow trout.

Ph.D. thesis, University of Toronto, Toronto, Ont. Natl. Libr. Can., Can. Thesis Microfilm No. 646.

#### Reports

Hunt, G.J., 1988. Radioactivity in surface and coastal areas of the British Isles, 1987. Agret. Envir. Monitg. Rep. No.19, 1-67.

#### **ICES Paper**

Dahm, E and Wienbeck, H., 1996. New facts on the efficiency or total gear selectivity of German survey bottom trawls - possible effects on stock assessment and stock protection. ICES Comm. Meet. Pap. Rep. C.M. 1996/B:8, 1-20.

#### Translation

Koike, A. and Ogura, J., 1977. Selectivity of meshes and entrances of shrimp traps and crab traps. J. Tokyo Univ. Fish. 64, 1-11. (Translated from Japanese by Can. Transl. Fish. Aquat. Sci., 1983. No. 4950.)

### 10. Tables

Tables are used to present data and should be as economical of space as possible. Type each on a separate page and number with Arabic numerals. Table captions should be placed above the Table. The caption should be succinct and identify the purpose sufficiently well to allow the table to stand on its own. Comments on the enclosed data should be placed as a footnote below the table.

# 11. Illustrations

Illustrations for the text can be divided into four categories:

- 1. Maps
- 2. Schematic diagrams, sketches, etc.
- 3. Plots and graphs.
- 4. Photographs.

Illustrations should be used to synthesise information into a compact form, to explain in a more simple way complex concepts or to record an event; they should not duplicate written text and/or tables. Wherever possible illustrations should also be used to improve the visual design and dramatic effect of a chapter. In calculating the number of illustrations needed drafters should estimate a need for one illustration or table per page. In the second draft alternative or additional illustrations may be needed. A catalogue of potential illustrative material should therefore be maintained by each regional task team (cf. table format attached at Appendix 2).

Each illustration should be submitted on separate paginated A4 sheets as per the sequence outlined in section 4. With some exceptions, the maximum size for an illustration or photograph in draft 1 should be  $134 \times 200$  mm. A full scale original version of the illustration and a one third reduction should be printed or attached to the page with its associated legend (see below). If necessary use two or more pages per illustration.

Single tone maps, drawings or graphs should be in black ink on white paper. High quality copies of coloured illustrations should be printed or pasted onto A4 sheets. If coloured originals are used, the colouring scheme should, where possible, enable black/white reproduction (photo-copying, Fax) ensuring sufficient distinction between the coloured areas/lines. Labelling should be clearly legible, precise and use standard units as per Section 7 so that the illustration with its legend is self explanatory. Wherever appropriate, size should be indicated by a scale line.

As a standard format or GIS system for maps is not available, no restrictions will be placed on map formats presented in Draft 1. The company undertaking the design of the QSRs will use ArcView software to create maps and RTTs are advised, if they produce new maps, to use that map format or compatible map formats (e,g, ArcInfo, MapInfo) and/or to store data for maps in electronic formats compatible with this software.

Copies of original drawings should be provided, when possible, to a size that will allow one third reduction. Lettering, numerals and symbols should be clearly legible and in 8 point (about 2.5 mm high) using a Helvetica font for Draft 1. A different font may be chosen for Draft 2. Line and computer drawings should be of good quality with smooth lines and curves of sufficient thickness to allow reduction. Half-tone and colour photographs should have appropriate contrast; one original, with an explanation as appropriate, should be provided as a glossy print pasted to an A4 sheet. All illustrations, including photographs, should be numbered in Arabic numerals as in section 12 below and referred to in the text by the same number as 'illustration 3.4' etc. Where an illustration has two or more distinct components they must be given a single illustration number with each part distinguished by a different capital letter in sequence from A. Three types of information about the illustrations should be provided on separate pages (in chapter order and following the sequence of Section 4, starting with a new sheet for each chapter; a model for such a page is attached as Appendix 2) as follows:

- 1. Each illustration should be accompanied by a succinct and descriptive legend caption. The legend should typically have three components: a number e.g. Illustration 3.4. text e.g. Fish landings from the North Sea in 1990. and a source e.g. Source: de Boer (1988). or Source of data: ICES Oceanographic Data Centre. or after ICONA, 1992). If the illustration was produced by and from data compiled by the drafting group a source will not need to be identified in the final publication, but Source: Drafting Group. should be used in Draft 1.
- 2. Copyright information should be added on separate lines beneath each illustration legend as:
  - a) the copyright holder (publisher, institute, etc., or none for new material),
  - b) whether permission to use the illustration has been granted (yes/no/not yet/new material, not required).

Note: If an illustration, subject to copyright, is selected for use in Draft 2, a copy of a form or letter giving permission for its use will need to be appended to the manuscript.

3. It is expected that most illustrations will be produced by computer and in consequence can be transmitted in electronic format. As there is a wide range of formats as well as transmission systems available – ranging from e-mail to diskette to CD-ROM to Zip disks – the simplified system proposed here for Draft 1 is preferred. To help establish the extent to which illustrations are computer generated the following should be added as a third category of information below each legend:

Electronic format: Yes/No, and the type of format e.g. Adobe Illustrator, PICT, XLS, BMP.

The legends should also be printed below each illustration for ease of editorial reference.

For illustrations prepared on the basis of numerical data, these data should be stored separately, preferably in an Excel spreadsheet format. When figures include text, this should be available in Word or Wordperfect.

As illustrations will be added and/or deleted in the different versions of each draft, it is essential that each page of the illustrations and the accompanying legends contains the coding system of the QSR production series (see section 5).

# 12. Table and figure numbering systems

The chapter numbering system should be used for tables and figures (e.g. Table 1.1 for the first table in chapter 1, Figure 3.4 for the fourth figure in Chapter 3, etc.).

Illustrations that should not be numbered in the final QSR (e.g. photographs to enliven the start of a chapter,...) should be treated as the other illustrations (cf. above), with the exception that they do not need to have a title; the number should be "[chapter number].[letter (from A)]".

Figures should be numbered sequentially in each version of the draft.

# **13.** Mathematical expressions, equations and formulae

Equations should only be rarely used. They should be simplified as much as possible so that they are understandable by a general readership. All equations should be serially numbered at the right-hand side in parentheses and all symbols of abbreviations used fully explained immediately afterwards. References in the text to the equations may then be made by the number in parentheses, without use of the word 'equation'. If necessary explain the equation in diagrammatic text form to make it more easily understandable.

Formal statistical citations in the text should also be kept to a minimum and should largely be confined to significance levels.

# 14. Dates

Dates should be written in the sequence day-month-year without internal punctuation (e.g. on 9 October 1983, the...).

# 15. Time

For the time of the day use the 24 hour system with no punctuation, following ISO standard 8601:1988 (Data elements and interchange formats – Information exchange – Representation of dates and times) in the format "hours minutes seconds" (hhmmss) with decimalisation for fractions of seconds identified by a comma. Thus 133012,5 means 13 hours 30 minutes 12.5 seconds in the afternoon. The symbols "h", "min", and "s" are not used, since they are symbols for hour, minute and second in the sense of duration of the length of time. Thus, "12 h 30 min" expresses a measured time of twelve hours and thirty minutes duration.

# **16.** Geographical locations

To facilitate later preparation of a map of areas/locations referred to in the QSRs authors/coordinators should compile a list of all geographical locations referred to in each chapter accompanied by a simple map showing the locations. When defining map positions and in all tabulations geographical co-ordinates must be given in standard decimal form e.g. 52.58N 11.5W. This latter format facilitates data handling and is the recommended system of the European Environment Agency. When coordinates are included in text they should first be given in decimal form followed in brackets by the traditional representation e.g. 52.58N 11.5W (52°34.5'N 11°30'W).

# **19.** Copyright

Authors are required to check if any material used in their contributions (tables, illustrations, graphics, etc.) is covered by copyright and, if so, to obtain the relevant permission for reproduction or take appropriate steps to obtain the permission. A note on copyright clearance requirements and their status should be added to the figure legend.

# **18.** Further information

Suggested improvements to these instructions or queries on interpretation should be addressed to:

Philip C. Reid e-mail: pcre@wpo.nerc.ac.uk Tel: +44 1752 221112 Fax: +44 1752 221135

# Appendix 1

Unit	Abbreviation
Becquerel	Bq
Calorie	cal
Centimetre	cm
Centimetre, square	cm <sup>2</sup>
Centimetre, cubic	cm <sup>3</sup>
Centimetre per gram per second	$cm.g^{-1}.s^{-1}$
Coulomb	С
Day	d
Decimetre	dm
Degree Celsius	°C
Degrees of freedom	df
gram	g
hectare	ha
hertz	Hz
hour	h
joule	J
kilometre	km
litre	1
lumen	lm
lux	lx
metre	m
metre, square	$m^2$
metre, cubic	$m^3$
micrometre	μm
milligram	mg
millilitre	ml
millimetre	mm
millimetre, square	mm <sup>2</sup>
minute	min
molar mass	М
mole	mol
moles per litre	mol/l,M
month	mo
Pascal	Pa
second	S
standard deviation	SD
standard error	SE
tonne (metric ton)	t
volt	V
volume	vol
watt	W
week	wk
year	yr

					Appendix 2
	rQSR: (I – V)	Chapter:			
1					
	Illustration number:				
	Full title:				
	Source:				
	Copyright holder:				
2					
			1	1	1
	Repro permission granted: (tick or circle)	YES	NO	NOT YET	NOT
					NECESSARI
3	Electronic format:	YES	NO	file name:	
	Type of format:				
Date	of this information:				
	000				
	rQSR: (I – V)	Chapter:			
1					
1					
	Illustration number:				
	Full title:				
	Source:				
	Copyright holder:				
2					
			1	T	1
	Repro permission granted: (tick or circle)	YES	NO	NOT YET	NOT NECESSARY
3	Repro permission granted: (tick or circle) Electronic format:	YES YES	NO	NOT YET file name:	NOT NECESSARY
3	Repro permission granted: (tick or circle) Electronic format:	YES YES	NO	NOT YET file name:	NOT NECESSARY
3	Repro permission granted: (tick or circle) Electronic format: Type of format:	YES YES	NO	NOT YET file name:	NOT NECESSARY

# ANNEX 4

# **Guidelines for reviewers of Regional QSRs**

#### **Review procedure for the regional QSRs**

- 1. The attention of reviewers is drawn to:
  - the recommended contents for regional assessment reports expressed in section 1.4 of the Joint Assessment and Monitoring Programme (JAMP);
  - the Structure of the QSRs and the more detailed description of the content of each chapter;

A copy of the report outlining the JAMP and other relevant documents from ACG and ASMO will be provided to reviewers as background to the QSRs.

2. Apart from comments inserted into the text of the various chapters using a template "comment box", the reviewers report should be divided into two main sections. The first section should be completed for each RTT chapter for which the reviewer has responsibility. The second section should compare and contrast the approach made by the drafters of each RTT:

#### Section

- 1. A synthesis report per chapter examined by the reviewer, addressing the series of questions on scientific and technical content, structure, quality and relevance in Appendix 1. It should not exceed ten pages of text and it should accompany for the entire chapter the possibly more detailed comments inserted into the electronic version of the chapters (cf. Appendix 1). It should focus on weaknesses and make recommendations as to how they may be addressed.
- 2. A written report:
  - indicating in the title to which chapter of which draft regional QSRs the comments relate, and
  - not exceeding two pages of text.

The text of this report should compare and contrast the relevant chapters of RTT report. It should also focus on inconsistencies, lack of uniform assessment and make recommendations to improve the intercomparability of the approaches chosen by RTTs.

#### Procedures for exchange of manuscripts and reports

- 3. The Secretariat will provide to the reviewers:
  - the relevant documents referred to in paragraph 1 above:
  - an electronic version of the text of the relevant chapters, with numbered paragraphs + an electronic template for the various reports (the reviewers comments at the level of the sections and paragraphs should be inserted after each relevant section and/or paragraph in the electronic version):
  - a hardcopy version of all chapters of all rQSRs.

# **REVIEWERS REPORT**

### **SECTION 1**

Reviewers comments on the scientific quality of the text at the chapter, section and, if necessary, paragraph level.

Region:	Chapter

#### On the electronic version of the draft chapters

The reviewers should provide the following on the basis of the electronic version of the chapter texts and using a template "comment box" due to be provided by the Secretariat:

#### **Paragraphs**

Each paragraph in the text will have been numbered. The reviewer should mark and address the items below at the <u>chapter-section level</u> (or if necessary at the level of the paragraphs which give rise to comments). The reviewers comments (A and B below) should be inserted in the "comment box" in the electronic version of the chapter for which the Secretariat will provide a template.

#### A. Short rating

Note first one of the following comments against sections which give rise to comments:

- MIN Minor changes needed
- MAJ Major revision required
- COM Complete redraft required
- REO Content OK, but needs reorganisation
- SHO Shorten
- EXP Expand

#### **B.** Answers to more detailed questions for the paragraphs rated

Complete, as appropriate, a response to the following questions – in sequence for the relevant questions:

- 1. Are there any omissions in the topics covered (content appropriate)?
- 2. Is the structure/order/plan of the text appropriate?
- 3. Is the content of a sufficiently high scientific/technical level?
- 4. Are the ideas expressed up to date?
- 5. Are the citations appropriate, relevant sufficient/too many?
- 6. Are statistics used correctly?
- 7. Where models have been used as examples are they well chosen and properly validated?
- 8. Are databases and other sources of information cited adequately referenced?
- 9. Is the text relevant to the section or should it be placed elsewhere in the QSR.
- 10. Is the use of illustration and their balance appropriate?
- 11. Are there occasions where a table graph diagram map etc. would better explain specific areas of text?

#### ANNEX 5

# Instructions for the Format of Draft 2 of the Regional QSRs (Version 1)

The Instructions to Authors and Drafting Groups for the Preparation of Draft 1 (version 3) still stand, with the following additions.

#### 1. Editorial notes

To help with the consistency of the documents and in accordance with the recommended design style, the following word counts are recommended. They are based on an ideal scenario and there is a certain amount of flexibility, however, the aim would be to achieve them for as many chapters as possible and that the total word count will not exceed 54900 for the main body of RTT texts.

Per chapter:

Introduction	approximately 60 words. (Note: the design possibility exists that the chapter introduction will feature on the chapter opener divider page.)
Body text	The chapter design will be based on an average of 450 words per page, Draft 2 hardcopy print-outs should type to approach this. Hardcopy should indicate clearly the position of the supplied illustrations and tables, e.g. marked by provisional text boxes at the insertion points.
Subheadings	It is recommended to foresee subheadings approximately every 150 words throughout the body text. These may have to be added later in the editorial process.
Text boxes	It would help if key points/facts/interesting information were extracted so that they can be presented in standalone text box – this would ideal c.every 600-800 words.
Illustrations	RTTs should aim to provide material for three illustrations per 900 words (i.e. aim for 3 illustrations for 2 pages of text). The final choice of illustrations will be based on an assessment of their overall relevance and the mix of maps/diagrams/graphs/photographs. RTTs should aim to provide half as many photographs as material for the other types of illustrations taken together (i.e. one third of illustrations provided should be photographs).
Conclusion	Whenever relevant and without risking duplication of information provided further in the report, each chapter could have a brief conclusion, summarising key points in the chapter. This should be approximately 100 words.

# 2. Format for supply of graphics and communications

# General

The term "illustration" denotes all different types of graphical elements for the QSRs. The term "image" denotes photographs and similar graphics.

Important note: Each illustration should have a label (format: as from the listing of illustrations for draft 1 (cf. ACG(2) 98/11/1, Annex 9, Appendix 2) attached with a title and a figure number clearly marked and this should relate to the title and figure number in the draft copy. For hardcopy photographs/images, the label should be stuck on the back of the photograph/image.

Where images are sent:

- by <u>e-mail or ISDN</u> a faxed notification should accompany it, along with a copy of the completed label:
- <u>digitally</u>, a colour laser copy should:
  - accompany the digital version on disc sent via surface mail and discs should be clearly labelled:
  - be forwarded via separate surface mail if the digital version is sent via eletronic communication means.

Images should be saved in one of the following file formats: TIF, lo-compression JPEGs or EPS.

# Media and communications

For Draft 2, graphics can be supplied in the following media and formats:

Photographs/images	To be suppplied as:
1 notographs/ nnages	10 be supplied us.

- 35mm transparencies
- b/w or colour photographic prints (size smaller than 210mm x 297mm, but ideally larger than 40mm x 40mm)
- hi-resolution digital images (scanned in at 300dpi) in TIF, lo-compression JPEGs or EPS and supplied either via:
  - Zip disc
  - Optical (230/640Mb)
  - CD-ROM
  - ISDN available on request
  - by e-mail to secretariat@ospar.org

Simple graphs Information for simple pie or bar charts can be provided either as an Excel file or graphs can be created in Adobe Ilustrator 7. Electronic communication via normal file (disk or email). Zip disc, CD-ROM. A hardcopy of the graph should be provided via separate fax/mail.

Maps and<br/>illustrations with a<br/>backgroundThe designers will be creating/formatting these in ArcView – a mapping<br/>software package which is compatible with ArcInfo and MapInfo. Some map<br/>RTTs already have ArcInfo and/or MapInfo and will be able to create<br/>and supply their charts in this format. Others may want to supply raw<br/>data and let the designers create the maps - there are several ways to<br/>provide the data:

• First of all, the compatibility of existing GIS systems will be addressed to ensure that the map output created within the RTTs is easily transferable to the software platform chosen.

- The designer will provide the RTTs with generic/template base maps for each region (on request, where relevant and in bilateral agreement with the designer, supplemented by specific sub-regional base maps) generated in accordance with the GIS approach chosen and further developed after ACG(2) 1998.
- The preferred option is for the RTTs to make mapped data and information available for the designer in ArcView files using generic/template base maps provided.
- If the preferred option cannot be achieved, RTT should make every effort to provide mappable data and information in the next best compatible format (e.g. compatible files exported from MapInfo data, Excel spreadsheet records and precise coordinates, a CSV file, an ASCH file, all should be accompanied by a sketch of the illustration). The very minimum information necessary for mappable data and information is the data (including geographic coordinates) and/or information in a compatible format with a precise concept for the final map to be designed.

All digital images should be supplied either on:

- Zip disc
- Optical (230/640Mb)
- CD-ROM
- by e-mail to secretariat@ospar.org
- ISDN facilities are available on request