OPENING REMARKS

Fasham opened the Executives Committee meeting on Friday, 23 October at 08:30, by extending a warm welcome to all members and participants. Fasham updated the group on the status of his health and announced the need for support in an interim period. If possible, he will attend the 14th SC-IGBP meeting in Portugal, February 1999. Due to earlier problems while flying long distances, attending the IGBP Congress in Japan, May 1999 will only be possible if approved for Business Class travel. Swanberg mentioned that he would check into the possibility of flying Business Class.

Fasham informed the Executives that several issues need immediate attention. The first item of business is to find a representative for the GAIM Task Force meeting, 16-22 November in Stockholm. Swanberg encouraged Ducklow to attend the GAIM meeting. However, Ducklow felt that his time schedule was overloaded and his global modelling experience was limited. Several other names were also mentioned as possibilities: Platt, Falkowski, Garcon, Denman, and Monfray. Because of the short notice, it was difficult to find someone not too over-extended for this meeting. It was agreed that if willing, Monfray would be a good choice. A contingency plan would be for Hanson to represent JGOFS if other alternatives failed to develop.

Action 1. Fasham will contact Monfray during the Synthesis Workshop about representing JGOFS at the GAIM meeting in Stockholm this November 1998.

1 The 1998 Executives met two days before and a half-day after the SSC Synthesis Workshop. This report is a compilation of the minutes taken.
OLD BUSINESS

Book at Cambridge University Press

Publication Status. Hanson reported that IGBP is experiencing serious delay problems with Cambridge University Press (CUP) publications and are now considering alternative publishers. To date, four books have been published in the IGBP Series: three from GCTE and one from SAC IV. Although the Executives hoped that the JGOFS book from the Villefranche Symposium would have been completed for a 1998 publication date, it is more likely that the book will be published in 1999. The Editors submitted the volume to CUP in June 1998. However, as yet there has been no date set for the galley proofs.

During the CUP discussion, it became obvious that there were several unresolved issues on the writing of future book chapters. Murray announced that he would not write another book paper and would not recommend any other serious scientist to write because too often authors were not given full professional credit. Most scientific journals want original papers, not published information. It was also Ducklow’s perception that book series are not strongly refereed. Swanberg mentioned that this was a problem and that it needs to be addressed.

Ducklow suggested the journal Deep-Sea Research (DSR) as a reliable and effective publisher that can take on this task, as it has done with other JGOFS series. Murray mentioned however that DSR appeals mainly to oceanographers and does not have as wide an audience as CUP. He suggested one solution, approach someone to do the whole issues for IGBP. Swanberg will consider these suggestions. Fasham mentioned that it was necessary to find a serious publisher soon for the planned JGOFS Synthesis book, and it should be a hard cover publication. The Executives agreed not to take further steps on their own until IGBP has finished the negotiations with CUP.

International Project Office

Contract extension status. An issue of the highest priority is the IPO contract extension by the Research Council of Norway (RCN). The Executives agreed that there is need for some strong arguments to stimulate Norwegian funding. To our advantage was the recent appointment of Kirsten Broch-Mathisen as chairperson of IGFA (International Group of Funding Agencies) who has been a loyal supporter of the IPO at the RCN. Steffen at IGBP will be meeting with her to discuss matters concerning support from funding agencies in general.

In preparation for the upcoming meeting with the Research Council of Norway, the IPO will be collecting information for documenting the status and future plans of JGOFS (nationally and internationally). The Executives agreed that the international and national community must demonstrate their solidarity for the IPO and write letters of support. We cannot stress enough that RCN support for the IPO will enhance Norway's contributing role to international oceanographic research and JGOFS synthesis and modelling efforts. If the RCN declines to extend its support, the SSC must be notified immediately, so that an alternative country may be offered the IPO.

Previous Action items: Review

1. GLOBEC data. Presently, the GLOBEC IPO is not up and going. However, Fasham will continue discussions with Roger Harris after talking with Roy first. According to Swanberg, GLOBEC will mimic JGOFS data approach. This action has not been acted on as such. Another issue would be the merging of JGOFS/WOCE CO2 data sets in the Indian Ocean with that taken on GLOBEC NOAA cruises. Data issues for discussion at the SSC meeting in Japan.
2. *Arabian Sea CD-ROM*. Baliño was not successful in her quest for Pakistani data, although some Indian data are now available. There seems to be a cultural problem regarding communication. Baliño mentioned that Roy Lowry suggested that a copy of the CD-ROM should be sent to Dr. Amjad, the Pakistani representative, accompanied by a letter expressing regrets that Pakistan data is not included in the product. Pakistan should also be made aware that the failure to share their data could have consequences for their future involvement in international research projects. Other countries are also problematic as Lochte mentioned. Swanberg suggested not drawing the line for now and declare that the data are unavailable. Swanberg informed the Executives that, if asked, he would put pressure on certain contacts.

3. *National data sets*. Baliño will check with Roy and then contact national chairs asking for help in obtaining data.

4. *Iron calibration issue*. From JGOFS point of view this issue will not be resolved unless all groups become involved. Fasham agreed to contact Dave Turner to check on progress. Swanberg stated that IUPAC should be involved.

5. The inventory of Southern Ocean cruises and PIs has not been delivered to Baliño at the IPO.

6. Bathmann recommended new IOSG members to the Executives.

7. Extra resources for data management at the IPO. Fasham has not received any response from START. In addition, Baliño has not contacted DIS on this matter as there are intensive ongoing discussions regarding the future of DIS within IGBP.


9. *DOFTT (Deep Ocean Flux Task Team)*. Shimmield has sent information to PAGES. However, Lochte informed the Executives that PAGES is reluctant to co-operate with JGOFS efforts. She suggests that instead of struggling with PAGES, JGOFS should co-operate with current activities in the European Community on this topic, in which Lochte is already involved. Hanson mentioned that it might be worth waiting on this decision, as PAGES will have a new chair, Tom Pedersen whose vision is in line with JGOFS. Fasham suggested that the DOFTT should propose a common session on deep ocean fluxes for the coming IGBP Congress. Murray can suggest names to Lochte.

10. Executives approved Monfray as JGOFS representative on the GAIM Task Force.

11. Fasham wrote a letter in support of Canadian JGOFS synthesis efforts.

12. Hanson notified IGBP on the expected number of JGOFS SSC members and guests at the IGBP Congress.

13. Hall continues to look for opportunities to share information with BAHC.

14. *Brochure work continues*. Synthesis Workshop follows the Executives meeting.

15. *Baliño’s visit at the LOICZ IPO*. The purpose was to obtain information (strategy) that LOICZ utilised to get the IPO contract extended in the Netherlands and to discuss LOICZ strategy on the coastal CO₂ sink/source issue. Ducklow commented that the principal objective for LOICZ is specifying C, N, and P transport, while CMTT new terms of reference takes up CO₂ problem. Fasham will insure that the issue is discussed at the SSC meeting and the Congress in Japan. The Executives feels that LOICZ needs a stronger focus on coastal CO₂ exchange.
16. In January 1999, Burkill and the IOSG will consider SSC recommendation for the IOSG to include the entire Indian Ocean in its synthesis efforts.

17. Hanson notified the US Southern Ocean Committee that JGOFS would support one European to the US Southern Ocean Workshop in Tennessee.

18. Congress sessions. Fasham talked to Roger Harris about a common session at the IGBP congress. Grazing control and primary production links between GLOBEC and JGOFS should be highlighted at a session in Japan. Ducklow commented that JGOFS has done the best work on grazing so far.

**NEW BUSINESS**

**JGOFS SSC**

*Structure and Balance.* Fasham pointed out that although the SSC had a fair geographical representation, the expertise at present was not adequate for the modelling and synthesis phase. Swanberg suggested that JGOFS develop an approach similar to the ones developed by GAIM and IGBP for the overall-synthesis. The same group could develop non-modelling and modelling components together. Fasham felt that JGOFS needed someone with a broad view of JGOFS on the SSC.

Denman, who had been nominated as a candidate for the SSC, is experiencing funding difficulties in Canada and is therefore hesitant to accept a position. In addition, he is unavailable for the IGBP Congress and the SSC meeting in Japan. After Fasham discussed with him during the Executives meeting break, Denman asked that his nomination be withdrawn and deferred until 2000. Murray announced that he would not be available to go to Japan due to an overloaded schedule and asked that he be rotated off the SSC at end of the year. Fasham extended the SSC wish for him to stay on but the decision would be his.

Fasham pointed out that with Murray's resignation from the chair of Equatorial Pacific Synthesis Group, the SSC lacked USA representation in 1999. Moreover, because Wallace is no longer officially representing USA on the SSC, the Executives made a necessary move to correct the imbalance. The need for USA members on the 1999 SSC lead to the decision of changing Bychkov at-large member status to solely co-Chair of the North Pacific Task Team. In the process, the Executives recommended the names of Paul Falkowski and Robert Anderson for IGBP and SCOR approval. In 1997, Anderson was recommended for the SSC but was deferred because of organisational conflicts.

**Action 2a.** Fasham will relay the message to Denman of the decision to withdraw his name for 1999 approval and defer his nomination to next year.

**Action 2b.** Fasham will notify Bychkov of the changes made.

**Action 3.** The Executives will recommend Paul Falkowski and Bob Anderson to IGBP and SCOR for approval to sit on the 1999 SSC.

On the issue of Patrick Monfray as the GAIM representative and Trevor Platt as the IOCCG representative, there is an arbitrary time line of one year as to whether to continue this form of participation. Travel funds for their participation come from SCOR.

**Synthesis Groups and Task Teams**

*Member updates and changes*

*North Atlantic Synthesis Group*
Fasham reiterated that he has stepped down as chair of the NASG but remains in the synthesis group. The new chairperson is now Veronique Garcon (France).

**Equatorial Pacific Synthesis Group**
(List is under discussion and must not be circulated until confirmed.) Because a member is too busy for the group activities, Murray recommended that Fei Chai (USA) be substituted for his/her place on the list based on Chai’s strong participation at the recent synthesis group meeting. In addition, Murray recommended Robert LeBorgne (France) to take over for him as chair of the Equatorial Pacific Synthesis Group. He has a strong background in zooplankton (observationalist) and has written several papers on the Equatorial Pacific Study.

**Action 4a.** Executives approved Chai as EPSG member and LeBorgne as EPSG chair.

**Action 4b.** Murray will ask Chai and Le Borgne to send their CVs to the IPO to have on file.

**Indian Ocean Synthesis Group**
The group members are still not confirmed. IOSG has tried without success to get Amjad from Pakistan to attend the Arabian Sea Synthesis and Modelling Symposium and IOSG meeting in India (January 1999). Efforts are still underway to increase pressure on Pakistan to release Pakistani JGOFS data from the NASEER program. Fasham will advise Burkill to keep the pressure low key, and if the problem continues, Hanson might seek assistance from IGBP or SCOR through ICSU. Because there is a need for German representation on the IOSG due to the German program in the Arabian Sea, IOSG nominated Tim Rixen to the IOSG on Lochte’s recommendations.

**Action 5a.** The Executives approved Rixen nomination to the IOSG.

**Action 5b.** Burkill will ask Rixen to send a brief resume to the IPO.

**Southern Ocean Synthesis Group**
The Executives gave final approval of the membership list.

**Data Management Task Team**
Lowry nominated two people, Marie-Paule Labaied (France) and Brian Griffith (Australia) to the DMTT.

**Action 6.** The Executives approved Labaied and Griffith membership on the DMTT.

**Continental Margin Task Team**
Regarding the JGOFS component of the CMTT, the discussion involved Julie turning over the chair to K.-K. Liu at the IGBP Congress (May 99) and other members which LOICZ approved (resumes distributed earlier). New Terms of Reference were submitted for approval.

**Action 7a.** The Executives approved Hall turning over the CMTT Chair to Liu.

**Action 7b.** The Executives approved the new Terms of Reference for CMTT that emphasise the role of coastal CO₂ sources and sinks.

**Proposals and requested funds**
The Executives decided early on that several synthesis group meetings needed to be deferred until 2000, with the exception of the IOSG that will meet for the first time in India. For those not receiving funds, Lochte suggested that there is a real need to look for funds elsewhere. Fasham emphasised that, if possible, these groups should meet in Bergen in 2000 and interact with other synthesis groups to save on funds.

Swanberg questioned whether Task Teams are asked to find other funding so as not be so totally dependent on the IPO and sponsors for funds. Fasham mentioned that it has not been the policy.
but that meetings have received support from national funds, e.g., the NPTT Workshop and SEATS Meeting in Taiwan next year. Swanberg also emphasised that JGOFS Synthesis Groups need to address this issue as well.

According to the IPO budget report, there is not much money left over at the end of the year. Fasham stressed that there is a need to be realistic when requesting SCOR funds. The long-term issue is whether these groups and teams need to meet annually. The consensus seems to be that it is not. Therefore, a thorough evaluation of each request needs to be made to determine which meetings are essential in 1999.

**WOCE/JGOFS CO$_2$ Transport Workshop**

Fasham reported that the workshop would not take place until after 2000 because WOCE synthesis must proceed further before this workshop can be held.

**Indian Ocean Synthesis Group**

The IOSG and GSMTT requested additional funds for GSMTT Training Course (i.e., travel funds for Platt, Garcon, and Evans. Total: $6,000 USD). Fasham reminded the Executives that GSMTT has already been asked to stay within budget. In addition, the US JGOFS project is contributing $10,000 USD for USA students for the course, and JGOFS-SCOR is supporting GSMTT (Training Course) at $15,000 USD.

**North Pacific Task Team**

Hanson reported on the upcoming PICES annual meeting and the CO$_2$ Session in Alaska in 1998 and the requests for further funds for an ad hoc third NPTT meeting. In support of NPTT members travelling to this meeting and session, Bychkov received funds from LOICZ to support Arthur Chen travel expenses, and in Cape Town, the Executives obligated $2000 USD for the CO$_2$ session and Toshiro Saino travel expenses. Further requests for funds for the meeting and session from JGOFS were declined because of lack of funds.

The NPTT and the CMTT request financial support for their proposal to hold a JGOFS North Pacific Workshop and SEATS (South-East Asia Time-series Station), which was distributed earlier. In the future, the NPTT plans to hold NPTT meeting annually because synthesis must start soon. Ducklow says it might be premature.

**Action 8a.** The Executives approved the support of $14,000 USD for NPTT Workshop-SEATS meetings in Taiwan in March 1999.

At the third ad-hoc NPTT meeting in Alaska, NPTT modified its TOR for synthesis and modelling. In support of the TOR, they request (1) an additional task team member, (2) funds to co-sponsor a CO$_2$ data workshop in 2000, and (3) funds for the fourth NPTT meeting in 2000.

**Action 8b.** The Executives approved the modifications of the Terms of Reference.

**Action 8c.** The Executives supported the addition of an ocean modeller to the task team but that the team must remain at 10 members. The Executives recommends that the team restructure to accommodate an ocean modeller.

**Action 8d.** The Executives declined the request for funds to co-sponsor a CO$_2$ Data Workshop and suggested that this workshop be deferred until after the WOCE/JGOFS CO$_2$ Transport Workshop (2000).

**Action 8e.** The Executives declined the request to hold its 4th meeting in 1999 for lack of funds and suggested postponing the meeting until 2000 or seek funds nationally.

**Continental Margin Task Team.**

The CMTT requested funds to hold a one-day meeting immediately before the Congress to prepare for the joint JGOFS and LOICS SSCs meeting on CMTT future directions.
Action 9. The Executives approved funds for the CMTT meeting at the IGBP Congress.

Equatorial Pacific Synthesis Group
The EPSG requested funds for a second meeting in Marseille, France to discuss the synthesis book. This would also be an opportunity for talks on synthesis with the French.

Action 10. The Executives declined EPSG request for lack of funds and suggested that they postpone the meeting until 2000 or seek alternative national funds.

Southern Ocean Synthesis Group
Bathmann requested funds for a second meeting of the SOSG.

Action 11. The Executives declined the request for lack of funds and suggested that they postpone the meeting until 2000 or seek funds nationally.

Deep Ocean Flux Task Team
The DOFTT requested funds for a meeting with four people.

Action 12. The Executives declined the request for lack of funds and suggested that they postpone the meeting until 2000 or seek funds nationally.

North Atlantic Synthesis Group
The NASG requested funds for a second meeting of the NASG.

Action 13. The Executives declined the request for lack of funds and suggested that they postpone the meeting until 2000 or seek funds nationally.

Second SSC Synthesis workshop (fall 1999)
Regarding residual IGBP synthesis funds from 1998 (~$10-15,000 USD), the Executives asked Swanberg to confer with Will Steffen on availability or carry over of residual funds to 1999. After conferring with Steffen and Wännman, he confirmed that the residual funds are available in support of synthesis activities in 1999. There was no action taken at this time.

IGBP Congress: JGOFS SSC and Guests
The Executives plans to invite 10 guests, e.g., Synthesis book lead authors. At present, no funds are available for these people. Swanberg enlightened the Executives that IGBP is budgeting approx. $1,100 USD per person at the Congress. Fasham mentioned that IGBP might allow us to use the residual funds from the JGOFS Synthesis Workshop support for Congress guests.

IGBP CONGRESS
Swanberg reported that the SSC meetings are scheduled on the first and last days of the Congress. The second and third days are devoted to an overview of synthesis within the core projects. Further plans include joint discussion sessions on earth systems and synthesis activities within projects. A half-day is scheduled for the Japanese community for presentations.

The facilities are excellent for meetings with a variety of rooms available. All core projects need to start proposing themes with a focus on IGBP synthesis. JGOFS needs to make a clear statement of its own synthesis. Fasham deferred further discussion on the Congress program to the SSC synthesis workshop.

Swanberg emphasised that synthesis topics need to be designed that will attract the interest from other core projects, such as PAGES, GLOBEC, IGAC, etc. In addition, there is a need to push for discussions or themes that form new links to other projects.
Fasham commented that JGOFS needs to focus on the bigger ocean issues, but IGBP should take the lead on earth systems. The GAIM meeting in Sweden should help resolve some of these issues, e.g., the global carbon cycle. Immediately following the Executives Meeting, the SSC Synthesis Group will meet and address the joint discussion sessions at the IGBP Congress. Swanberg stated that the goal of synthesis is to take it one step further from what you have learned in JGOFS and asked where this does lead. Then he asked new questions. These questions led to serious discussions.

**JGOFS SYNTHESIS**

Fasham opened discussion on how to structure both the brochure and book. Swanberg commented that it is necessary to energise the SSC into believing in the synthesis process and the importance of writing a book. The Executives agreed that people need to get involved and JGOFS needs to get closer to Synthesis already in the brochure.

Lochte suggested that the book chapters be deferred until after the Congress in Japan where lead authors can meet and ask the question about the role of the ocean. Field agreed that a few overarching questions could be used to shape JGOFS synthesis. This approach will define what JGOFS does or does not know.

Fasham emphasised that JGOFS synthesis needs to be more then just a review of what we know. Ducklow felt that JGOFS had not yet reached a point in synthesis to have the answer to many of the relevant questions at hand. Synthesis is a two-stage process where one first must determine what is known about the ocean before any synthesis can be presented.

Swanberg commented that the IPCC third assessment will appear soon. If the IGBP-wide synthesis is to have any influence, it must have produced a global picture of the carbon cycle by the year 2000. For that assessment and IGBP-wide synthesis, JGOFS needs a picture of the ocean CO2-carbon cycle.

**IGBP Science Series**

Fasham opened discussion on the JGOFS brochure. During the discussion, the Executives agreed that the brochure should be aimed at a broad scientific audience of IGBP, decision-makers, and educated lay people. It should include important highlights as well illustrations resulting from JGOFS activities. Most importantly, contributors should be given full credit for their efforts.

Hanson reported that Steffen mentioned at the IGBP-IPO Officers meeting that he suggested the publication of the JGOFS brochure in the IGBP Science series. IGBP would offer its graphics expertise and distribution network. Further discussion on publisher and printing was deferred to the Synthesis Workshop.

Fasham asked the Executives if there was anything missing from the brochure outline, list of accomplishments, or the list of articles that contributors have submitted. There was not. Because of the breadth and diversity of topics and expected readers, the Executives suggested that Mardi Bowles might be interested in the job as scientific writer for the brochure. Ducklow volunteered to inquire about Bowles availability and interest in the job.

Swanberg asked about the WOCE/JGOFS Global Survey data and its recognition in the brochure. He emphasised that JGOFS needs to confirm that there is agreement among the parties on recognition issue. Fasham noted the concern.

The Executives decided on a Brochure Editorial Board of Fasham, Ducklow, Murray, Hanson, and Baliño.
Synthesis Book Plans

Fasham mentioned that JGOFS should be looking for new contributors, or lead authors. Many young scientists might be available and willing to contribute to this effort. The same process used at the Villefranche Symposium might work at the Congress, i.e. invite speakers, and write papers. Alternatively, each chapter could be assigned to a single scientist and this person could, in turn, choose his/her co-authors. The Executives recommended that the SSC Synthesis group selects possible lead authors and provides guidance on content. The Executives offered the following tentative chapters or titles (themes) and lead authors.

1. Biogeochemical regimes (Longhurst, Platt)
2. CO$_2$ in the global ocean (Wallace, Watson)
3. Regional and global primary and new production (Platt/ Falkowski/ Barber/ Sakshaug)
4. Role of community structure in regulating (Landry/Legendre)
5. Water column biogeochemistry (Interior and Deep) (Lochte/Hansell)
6. Feedbacks processes and climate change (Denman)
7. Benthic processes and the paleo-record (Calvert)
8. Results from global 3D and box models (Sarmiento/ Doney)

The Executives deferred further discussion until the SSC Synthesis Workshop that follows.

Open Science Conference

Fasham opened discussion on the upcoming JGOFS Open Science Conference in Norway in year 2000. During the discussion, the Executives agreed on a format of invited and contributed talks in the morning with break out of discussion sessions on the morning themes in the afternoon. This would be a great opportunity for linking to other projects. During the workshop, the SSC Synthesis Group needs to think about themes or questions. The Bergen Conference might also model itself after the IGBP Congress:
• Opportunity for internal discussions
• Opportunity for mapping out programs and identifying key people and making contacts.
• Opportunity to help raise inspiration level

Further discussion deferred to the SSC Synthesis Workshop.

OTHER BUSINESS

Fasham announced that SOLAS (Surface Ocean and Lower Atmosphere Study) will hold an open science meeting in December 1999 in Kiel (update on information: SOLAS Open Science Meeting is now planned for February 2000). Swanberg requests that somebody from JGOFS participate.

In regards to 1999 Executives members, the group decided on individuals and Fasham will be contacting them soon as to their availability and interest.

Fasham opened a short discussion on where to hold the next Synthesis Workshop and Executives meeting in 1999. During the discussion, the University of California at Santa Barbara and East-West Center at the University of Hawaii were suggested. Murray also offered the services at the University of Washington as an alternative possibility.

The next meeting of the SSC will be held in Japan along with the second IGBP Congress where Fasham will present JGOFS science and synthesis plans.

Fasham adjourned the Executives meeting on Thursday at 15:30, 29 October 1998.