# Physical Interactions between Atmosphere, Oceans and Sea-Ice

## Fact Sheet

Project Information

Grant agreement ID: EV5V0507

Project closed

**Start date**
1 July 1994

**End date**
31 December 1996

**Funded under**
Specific research and technological development programme (EEC) in the field of the environment, 1990-1994

**Total cost**
No data

**EU contribution**
No data

**Coordinated by**
ROYAL NETHERLANDS METEOROLOGICAL INSTITUTE
Netherlands

## Objective

To identify deficiencies in coupled climate models, which contribute to regional "climate drifts". To develop improved parameterizations for sea-ice and for physical interactions between atmosphere and oceans and test these against regional data. To test the global and regional impacts of model improvements on global simulations.

Budget studies at high latitude will be performed, using coupled atmosphere-ocean-ice models. The representation of ice and snow cover will be analysed. It will be attempted to separate thermodynamic contributions to the drift problem from the contribution of ocean dynamics. Similar budget studies will be performed for ice-free regions of the oceans with nested coupled models (1-D and 3-D).

Special attention will be paid to the impact of errors in sub-grid parameterizations and cloud representation on the interaction between atmosphere and ocean.

In connection with the above budget studies improved parameterizations will be developed and tested in particular for sea-ice and further for horizontal diffusion in relation to horizontal resolution, for vertical transport by boundary-layer turbulence and by (deep) convection in atmosphere and oceans and for radiative fluxes and other vertical fluxes at the air-sea interface (including the role of clouds an precipitation).

Results from the studies will be exchanged between the participants and compared. Improved parameterizations will be implemented and tested in global models as a joint effort.

## Programme(s)

FP3-ENV 1C - Specific research and technological development programme (EEC) in the field of the environment, 1990-1994

## Topic(s)

0102 - Anthropogenic climate change

## Call for proposal

Data not available

## Funding Scheme

CSC - Cost-sharing contracts

## Coordinator

### ROYAL NETHERLANDS METEOROLOGICAL INSTITUTE

EU contribution

**No data**

Total cost

**No data**

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**10,Wilhelminalaan 10**
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## Participants (8)

### CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE

France

EU contribution

**No data**

Address

**Avenue Gustave Coriolis 42, C.N.R. MTtTorologique**
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Total cost

**No data**

### CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE

France

EU contribution

**No data**

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Total cost

**No data**

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### DANISH METEOROLOGICAL INSTITUTE

Denmark

EU contribution

**No data**

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Total cost

**No data**

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### Ente per le Nuove Tecnologie l'Energia e l'Ambiente (ENEA)

Italy

EU contribution

**No data**

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Total cost

**No data**

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### MAX-PLANCK-GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.

Germany

EU contribution

**No data**

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Total cost

**No data**

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### NANSEN ENVIRONMENTAL AND REMOTE SENSING CENTER

Norway

EU contribution

**No data**

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Total cost

**No data**

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### SECRETARY OF STATE FOR DEFENCE - MINISTRY OF DEFENCE

United Kingdom

EU contribution

**No data**

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Total cost

**No data**

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### UNIVERSITY OF READING

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EU contribution

**No data**

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Total cost

**No data**

**Last update:** 4 June 1997

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