

# **TOGA Pseudo-Stress Atlas**

## **1985-1994**

**Volume III: Indian Ocean**

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## *Forward to Volume I*

*The TOGA programme made considerable progress in the understanding and modeling of oceanic and coupled processes in the tropics. One of the major reasons for this was the progress in analyzing and distributing a surface wind product. This volume is the first in a three part series covering the three tropical oceans. Acquiring data was but one part of the TOGA programme: creating, documenting, cataloguing and distributing the data are equally important. I thank the authors Jacques Servain, James Stricherz, and David Legler for their work in analyzing the surface wind fields for the Atlantic and creating this nice record of the mean wind field and its variations over the TOGA period.*

*As any ocean modeller knows only too well, the performance of a numerical models is a strong function of the forcing fields, particularly the wind field. The analyses for all the tropical oceans performed by David Legler, Jacques Servain, and James Stricherz will provide an excellent record of the TOGA programme in providing forcing fields for ocean modellers. They will provide a nice complement to the forcing fields being developed from the atmospheric reanalyses currently underway at NCEP and at ECMWF. Only by using these fields to force ocean models and by intercomparing results will progress be made in both improving models and the forcing fields.*

*The authors would welcome any feedback on your perceived strengths or weaknesses of the fields. Although TOGA has now ended, it is a pleasure to see projects begun under TOGA coming to fruition. As the last Chairman of the International TOGA Scientific Steering Group, I would like to thank the authors for the valuable contribution they have made. I hope you will enjoy studying these atlases.*

David Anderson  
June 1996

## **Acknowledgments**

This atlas reflects the continuing success of an effort that started over 15 years ago. The hard work of many people can be seen by viewing this product.

Thanks goes to the Center for Ocean-Atmospheric Prediction Studies (COAPS) for always lending a hand when we needed it. Thanks, Gwen, Patty and Ruth for all the things that you do.

We gratefully acknowledge the support of NOAA and the TOGA Project Office; this project could not have been completed without them. Additional support over the yeas has been provided by NSF and ONR.

Finally, we would like to express our gratitude to all of the investigators who use this data.

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## Introduction

One of the legacies of the Tropical Ocean Global Atmosphere (TOGA) program is the specialized tropical wind datasets, which have become the preferred forcing fields for tropical ocean modelling applications. As part of this legacy, we present this third (in a series of three) atlas portraying the monthly mean wind fields from the tropical Indian Ocean for the TOGA period.

In Volume 1 of this set, the tropical Atlantic wind analyses from J. Servain (ORS-TOM, Brest) were presented (Servain *et al.*, 1996). Volume II focuses on the tropical Pacific wind products from Florida State University (Stricherz *et al.*, 1997), while this atlas, Volume III, presents Florida State University wind products from the Indian Ocean. Volume III is an extension of a previous atlas that covered the years prior to TOGA (Stricherz *et al.*, 1993). Additionally, a historical perspective can be found in this prior publication.

## Analysis Procedure

All available in-situ data (taken from merchant ships, buoys, and other marine observing stations) number about 165,000 for any given month for the entire world. To remove spurious wind reports, individual reports of wind speed exceeding  $40 \text{ m s}^{-1}$  are deleted.

The individual wind vector data in the tropical Indian region,  $25^\circ\text{N}$  to  $30^\circ\text{S}$ ,  $30^\circ\text{E}$  to  $120^\circ\text{E}$ , typically between 15,000 and 20,000 observations monthly, are first converted to pseudo-stress. A pseudo-stress vector is defined as the wind components multiplied by the wind magnitude, and a pseudo-stress vector of  $60 \text{ m}^2\text{s}^{-2}$  corresponds to a wind stress of  $1 \text{ dyne cm}^{-2}$  assuming a drag coefficient of  $1.4 \times 10^{-3}$  and an air density of  $1.2 \text{ kg m}^{-3}$ .

Objective filtering is then applied to the data to eliminate questionable pseudo-stress reports. For each month, a basin-wide average was found for both the north-south and east-west components. Upper and lower limits for each were set to be this average value  $\pm 30$  times the average. If either component fell outside this range, the entire observation was deleted. Less than 1% of all reports were removed.

The remaining observations were then averaged in  $1^\circ$  bins. The final screening dealt with each box individually. In bins with greater than 5 observations per month, individual observations were removed when either component was greater than  $\pm 3.9$  standard deviations from the average value. Again, typically less than 1% of the reports were removed. The remaining reports were averaged onto a  $1^\circ$  grid, with empty bins primarily in areas outside of the shipping lanes.

A variational direct-minimization objective analysis is performed on these data using the  $1^\circ$  gridded data as a first guess [see Legler, *et al.* (1989)].

A cost functional, which is to be minimized, consists of five constraints, each expressing a lack of fit to prescribed conditions. These constraints include a proximity to the input data, a measure of roughness, and kinematic agreements to expected climatological patterns. The resulting fields are on a 1° grid.

### Near-Real-Time Analyses

Monthly fields are processed in near-real-time. At the end of each month we receive from National Center for Environmental Prediction's (NCEP) Climate Analysis Center (CAC) the global marine surface observations that were received over the global telecommunications system (GTS) during that month. Additional wind reports, for example island stations, are used to verify these quick-look results. These winds are analyzed as previously discussed. The resulting maps of pseudo-stress are widely distributed (WMO, CAC/CDBs, IGOSS, etc.). These so-called quick-look products are available directly from FSU via WWW and ftp services. Fields of the anomaly from the 23 year (1970-1992) mean month are also produced.

Each spring, a more complete set of marine reports is obtained from the National Climatic Data Center for the previous year. This set contains data already received via the GTS and supplemental reports that were received late. The increase in the number of observations in the tropical Indian regions is about 10-25%. The analysis procedure is the same for this more complete data set, and the results constitute the research-quality product. These, too are available directly from FSU.

### Atlas Description

Maps produced for this atlas are derived from the re-analyzed research quality FSU tropical Pacific products (based on the Comprehensive Ocean-Atmospheric Dataset data). The pseudo-stresses are computed from:

$$\begin{aligned} \mathbf{T} &= T_x \mathbf{i} + T_y \mathbf{j} \\ T_x &= u |\mathbf{V}| \\ T_y &= v |\mathbf{V}| \end{aligned} \quad (1)$$

where  $\mathbf{T}$  is the pseudo-stress vector,  $|\mathbf{V}|$  is the magnitude of the horizontal wind speed defined by  $\mathbf{V}=u\mathbf{i}+v\mathbf{j}$ ,  $|\mathbf{V}^2| = u^2+v^2$  and  $T_x, T_y$  are the pseudo-stress components.

## Explanation of Maps

### a. Climatology charts

These charts are the overall annual, annual anomaly, and monthly mean pseudo-stress vectors, curl of the stress vectors, and the divergence of the wind from the 1970-1994 and the 1985-1994 objective analysis data over the tropical Indian on a 1° grid. The contour intervals are the same for each type of map. The vectors were drawn at every 2° in latitude and longitude for convenience. The contour interval is  $20 \text{ m}^2 \text{ s}^{-2}$ , and  $10 \text{ m}^2 \text{ s}^{-2}$  for the annual anomaly fields

Contoured plots of the yearly and monthly mean wind stress curl were derived from 1° stress data. The magnitude of the stress curl ( $\zeta$ ) is given by:

$$\zeta = \hat{\mathbf{k}} \cdot \nabla \times \tau \quad (2)$$

$$\tau = \rho_a C_d \mathbf{V}^2$$

$$\tau_x = \rho_a C_d u |\mathbf{V}|$$

$$\tau_y = \rho_a C_d v |\mathbf{V}|$$

where  $\tau$ ,  $\tau_x$ , and  $\tau_y$  are the stress vector and components, respectively,  $\rho_a$  is the air density,  $C_d$  is the drag coefficient computed by the Large and Pond (1982) method. The variation in the meridional separation was taken into account in these calculations. A single pass of a 1-2-1 smoother was applied in both the N-S and E-W directions. The contour interval is  $2 \times 10^{-8} \text{ Nm}^{-3}$ .

The yearly and monthly mean wind divergence are calculated from the pseudo-stress components (see (1)):

$$\begin{aligned} u' &= T_x (T_x^2 + T_y^2)^{-1/4} \\ v' &= T_y (T_x^2 + T_y^2)^{-1/4} \end{aligned} \quad (3)$$

Where  $T_x$  and  $T_y$  are the pseudo-stress components. The divergence of the wind is then given by:

$$\nabla \cdot \mathbf{V} = \frac{\delta u'}{\delta x} + \frac{\delta v'}{\delta y}$$

The derivatives where computed monthly, and then averaged. Smoothing was applied by the same method used for the curl. The contour interval is  $1 \times 10^{-6} \text{ s}^{-1}$ .

### b. Monthly charts

These charts are the monthly pseudo-stresses for all 120 months: January 1985 through December 1994. The original analysis results are available on a  $1^{\circ}$  grid, but are plotted on a  $2^{\circ}$  grid. The contour interval is  $20 \text{ m}^2 \text{ s}^{-2}$ .

The monthly pseudo-stress anomalies are deviations from the mean calendar month for the period 1985-1994, and 1970-1994. The contour interval is  $10 \text{ m}^2 \text{ s}^{-2}$ .

The monthly wind stress curl is computed from (2), with the same smoothing applied as in the case of the yearly wind stress curl plots. The contour interval is  $4 \times 10^{-8} \text{ Nm}^{-3}$ .

## Data Availability

The products described are available to anyone who desires them. Monthly pseudo-stress analyses are available on magnetic media for the period 1970 to the present month. The pseudo-stress fields are also available via anonymous ftp at <url:<ftp://coaps.fsu.edu/pub/wind/ndn/>> and via the World Wide Web at <url:<http://www.coaps.fsu.edu/fsuwinds/>>. For additional information please contact us.

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U.S.A.

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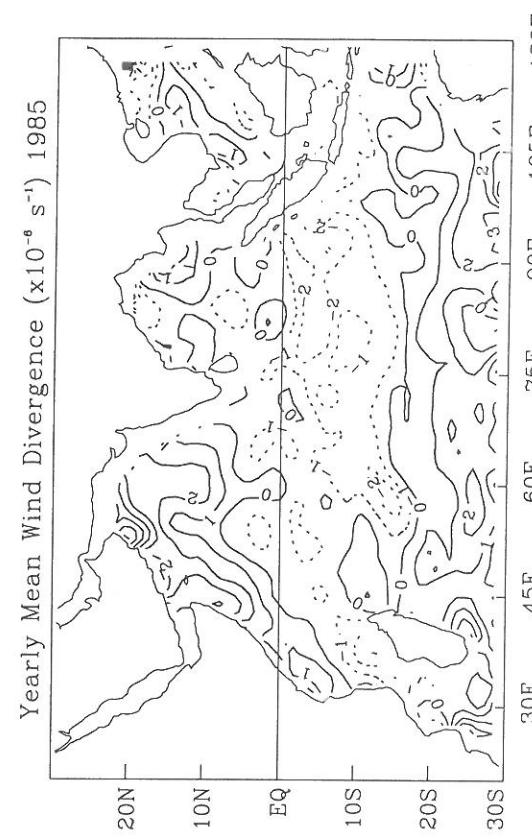
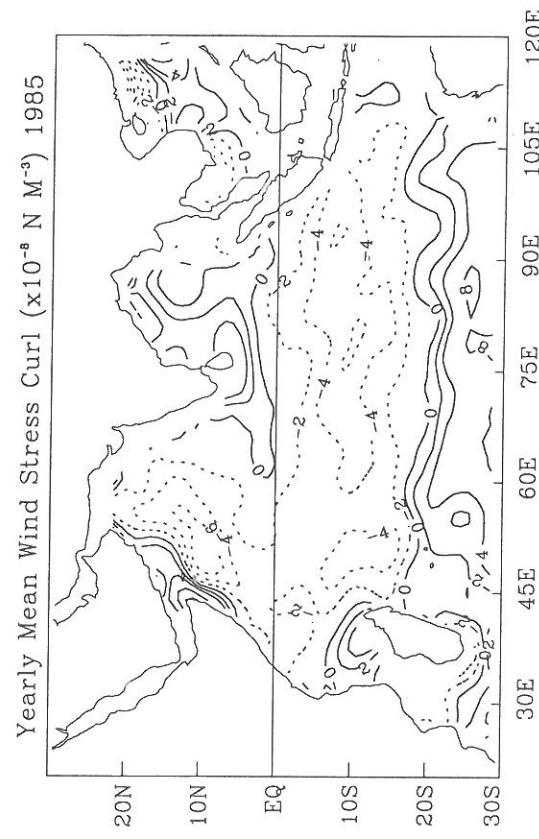
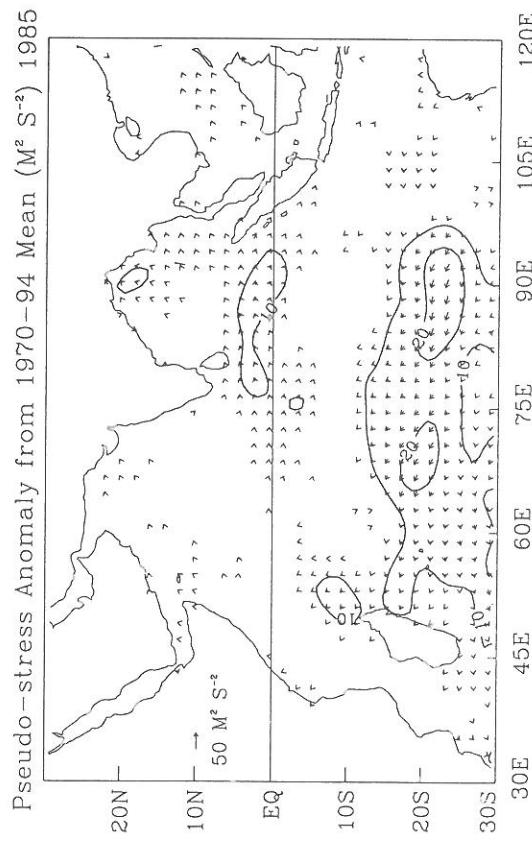
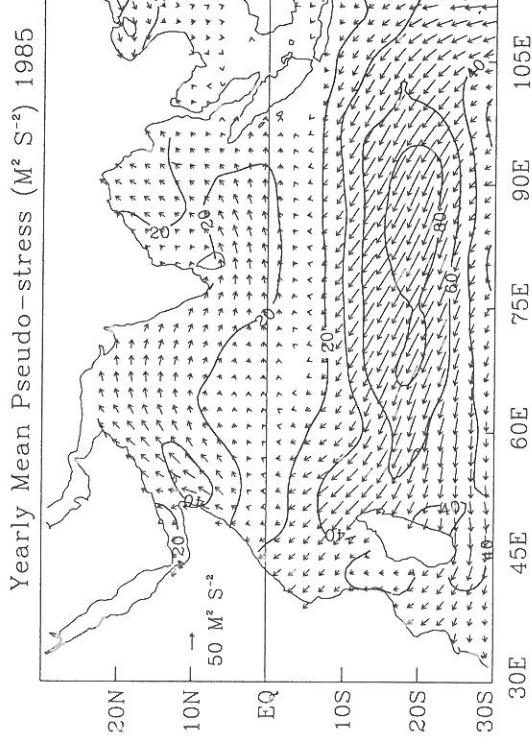
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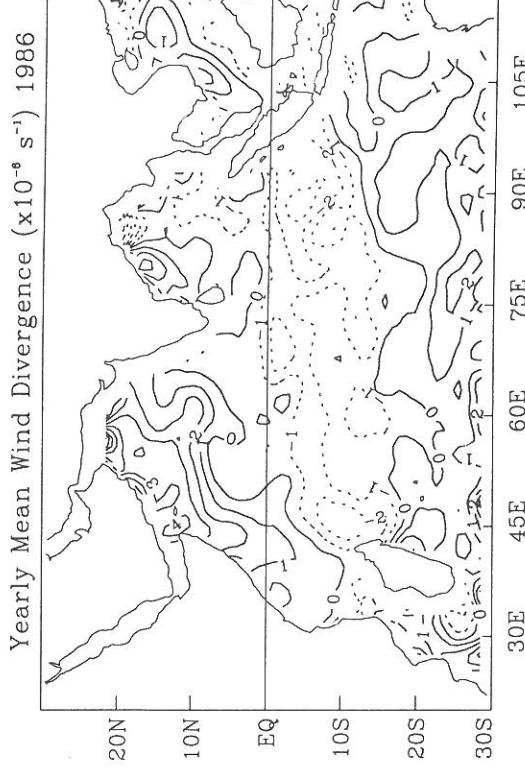
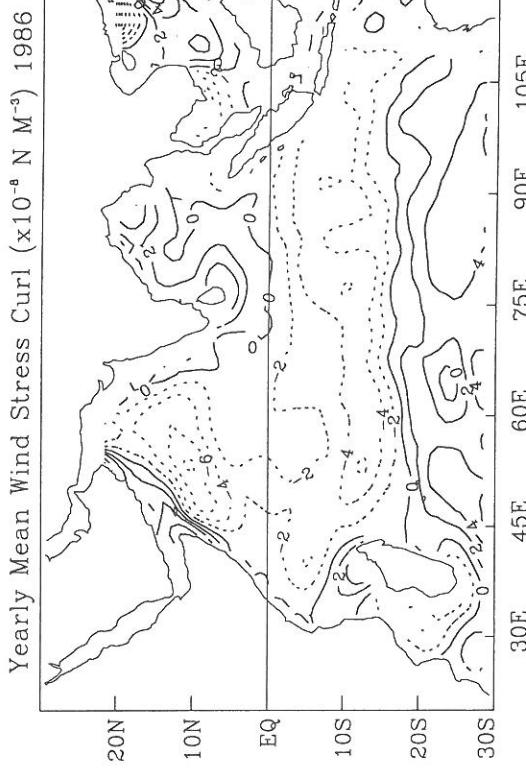
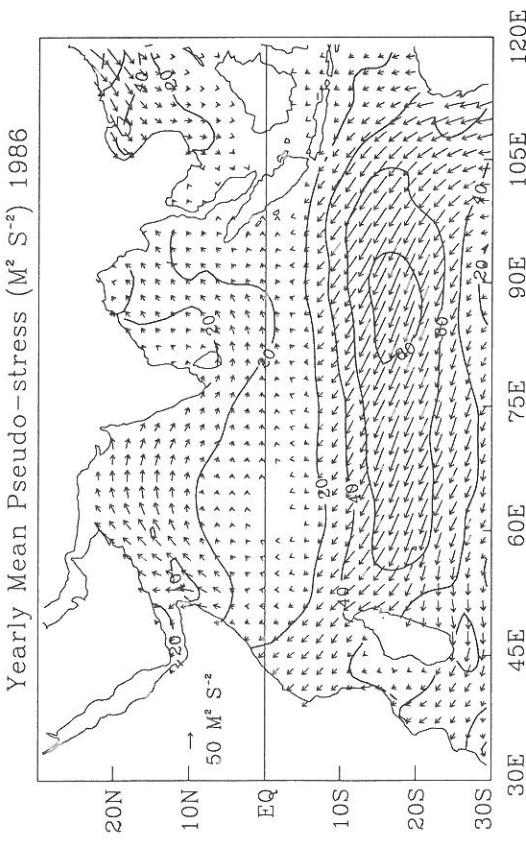
# Annual Means

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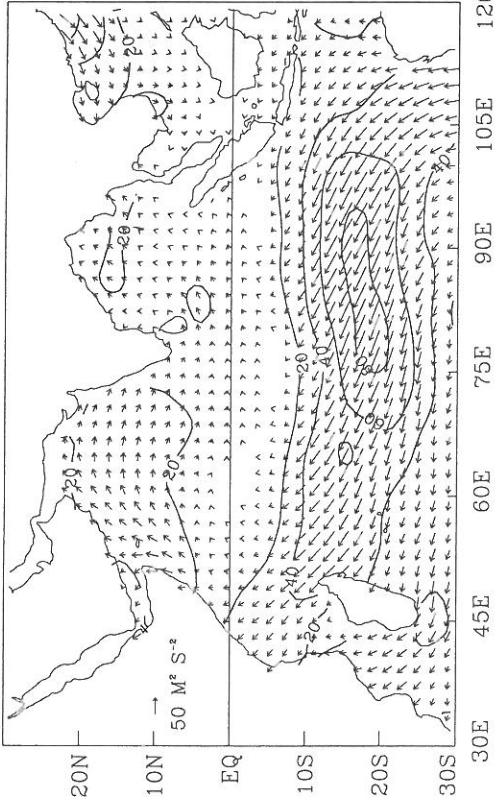
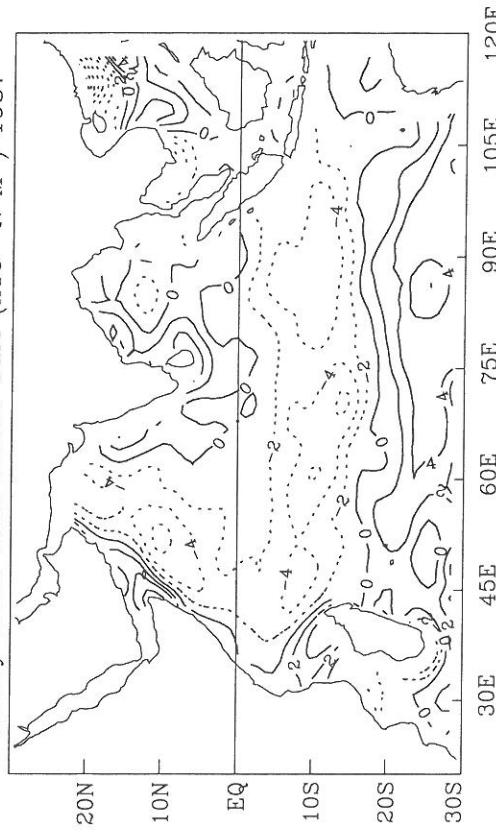
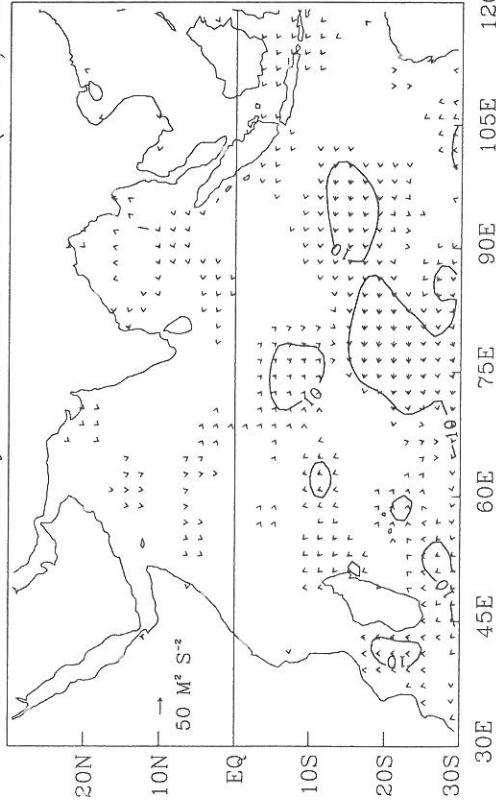
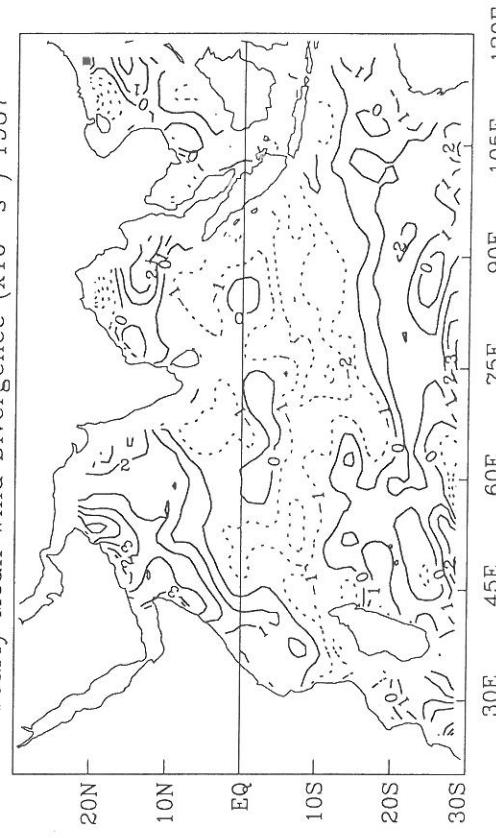


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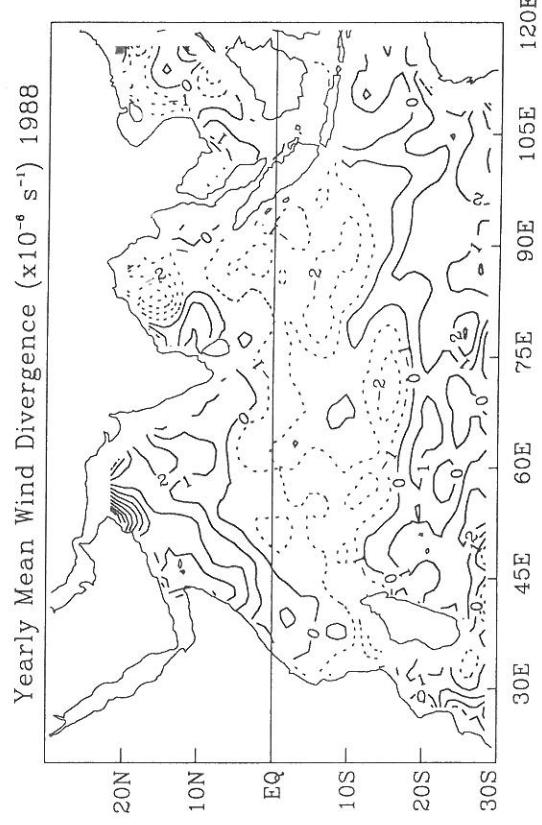
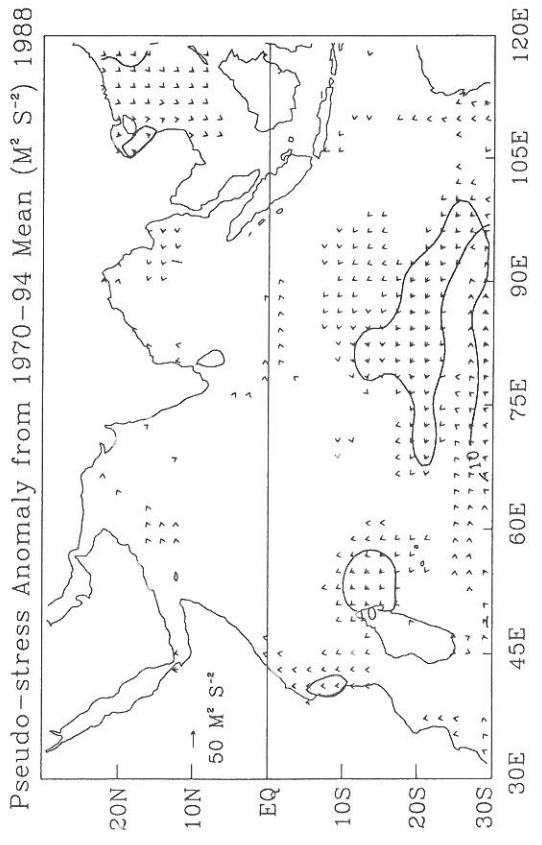
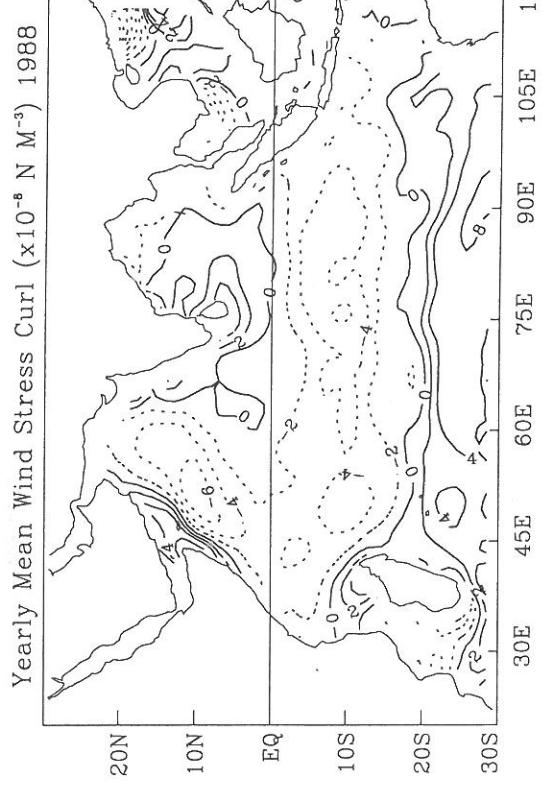
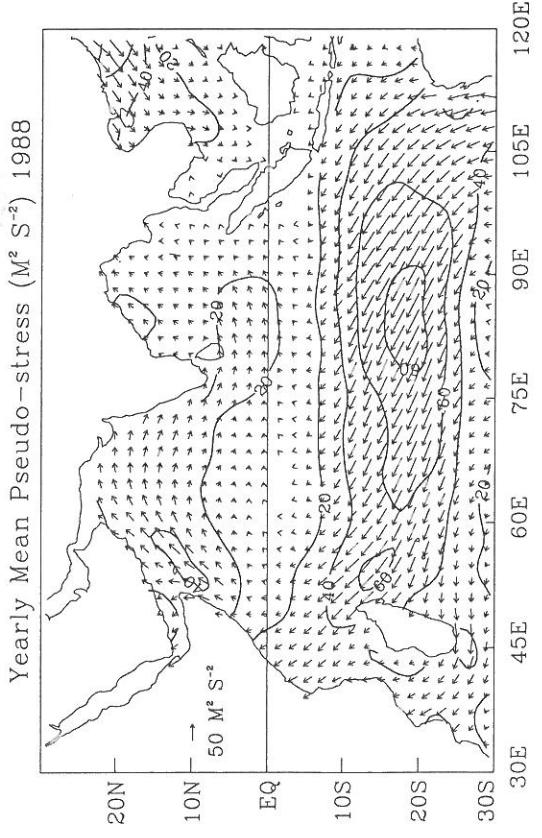
Annual-2



Annual-2

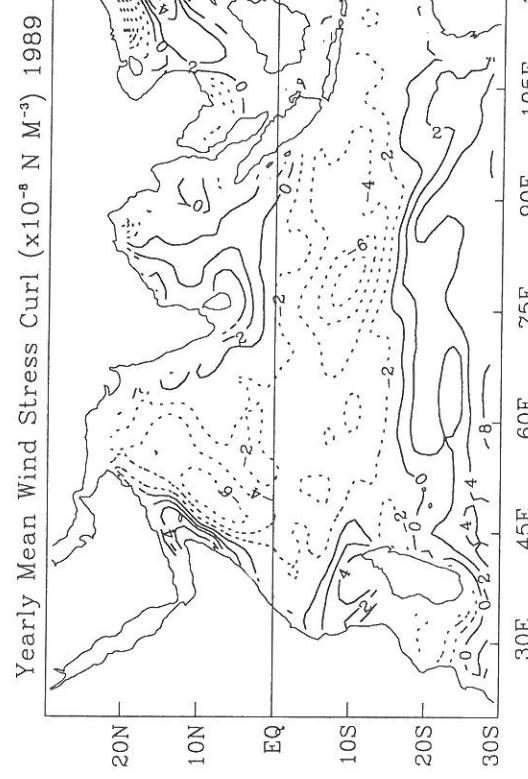
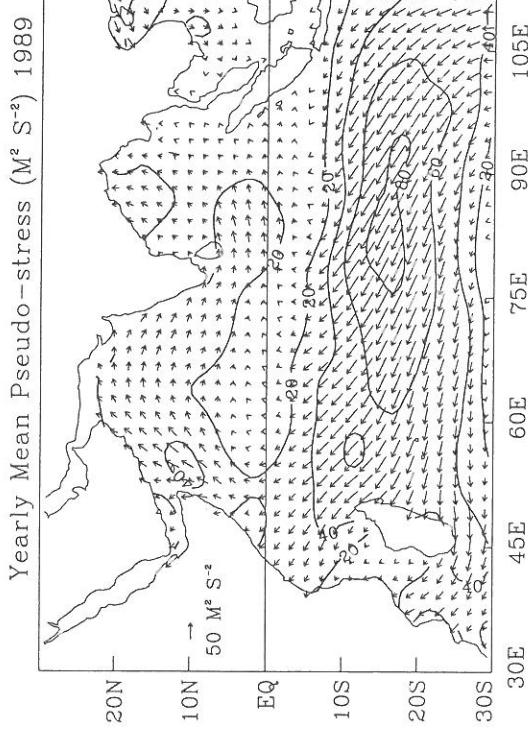
Yearly Mean Pseudo-stress ( $M^2 S^{-2}$ ) 1987Yearly Mean Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ ) 1987Pseudo-stress Anomaly from 1970–94 Mean ( $M^2 S^{-2}$ ) 1987Yearly Mean Wind Divergence ( $\times 10^{-8} s^{-1}$ ) 1987

Annual-4

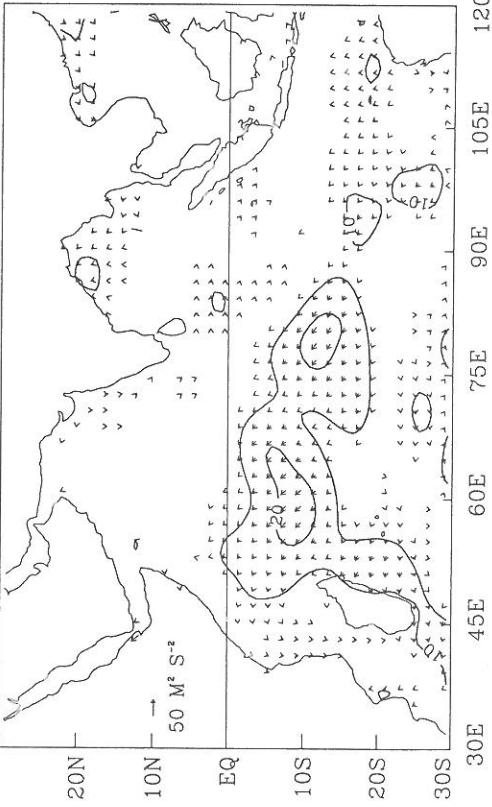


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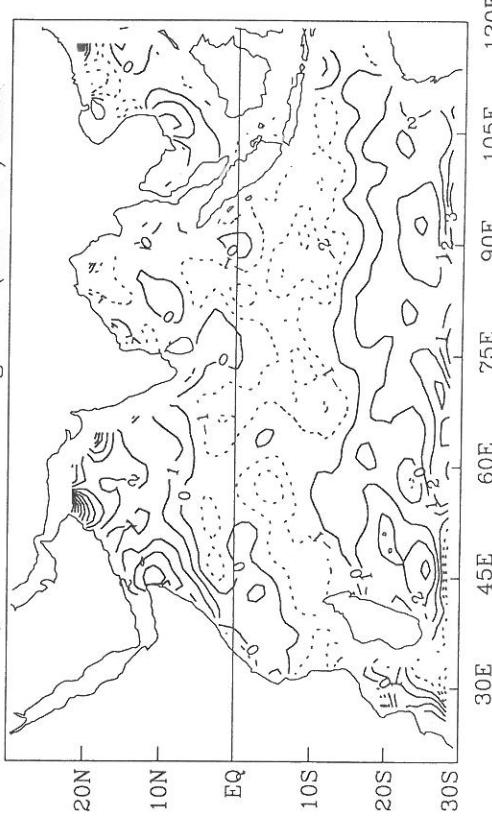
Annual-5



Pseudo-stress Anomaly from 1970–94 Mean ( $M^2 S^{-2}$ ) 1989

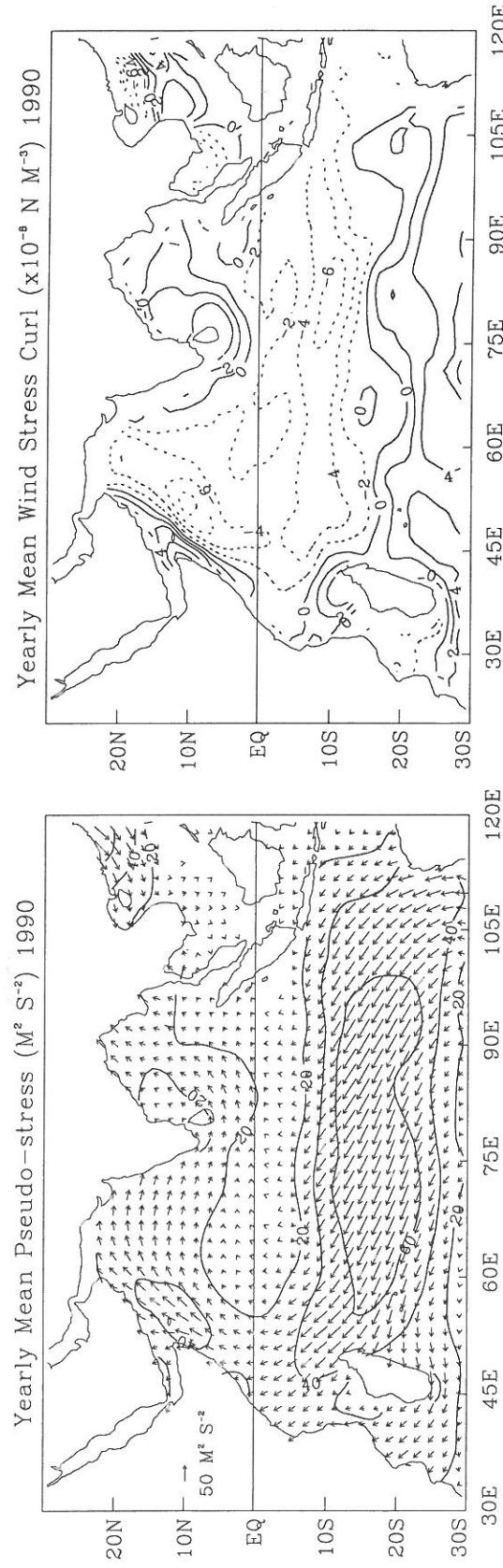


Yearly Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) 1989

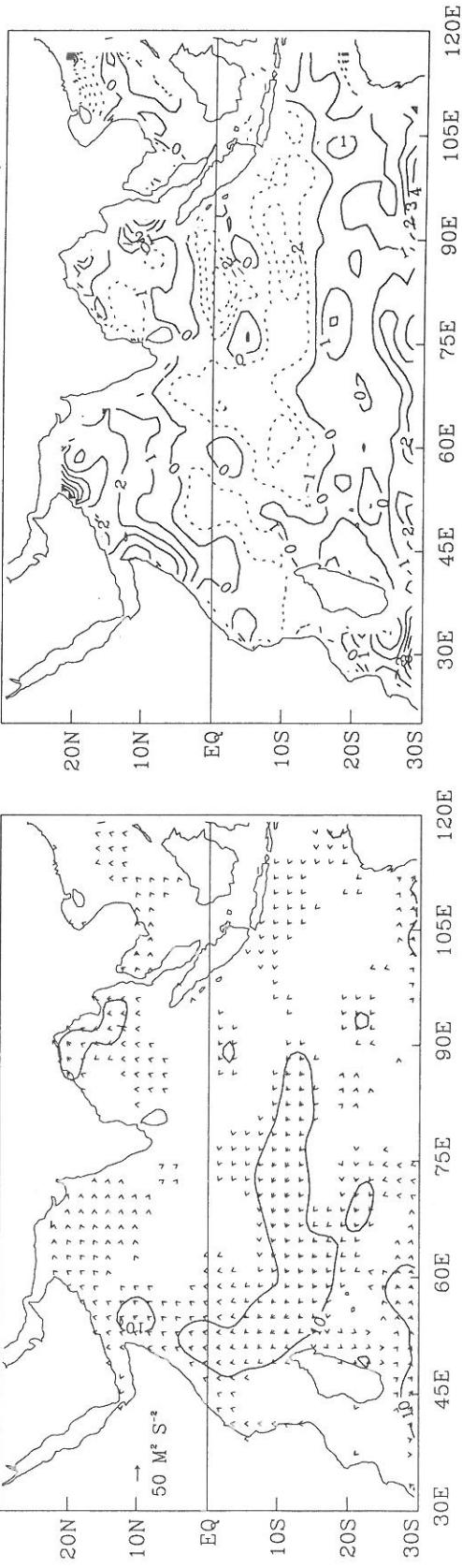


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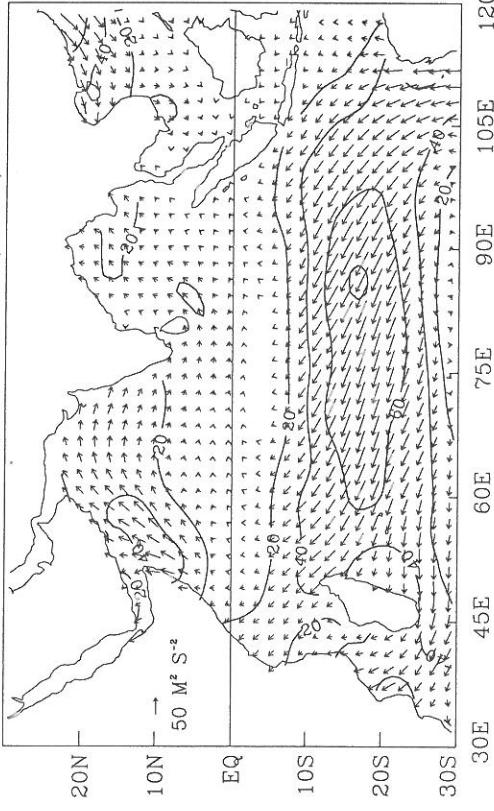
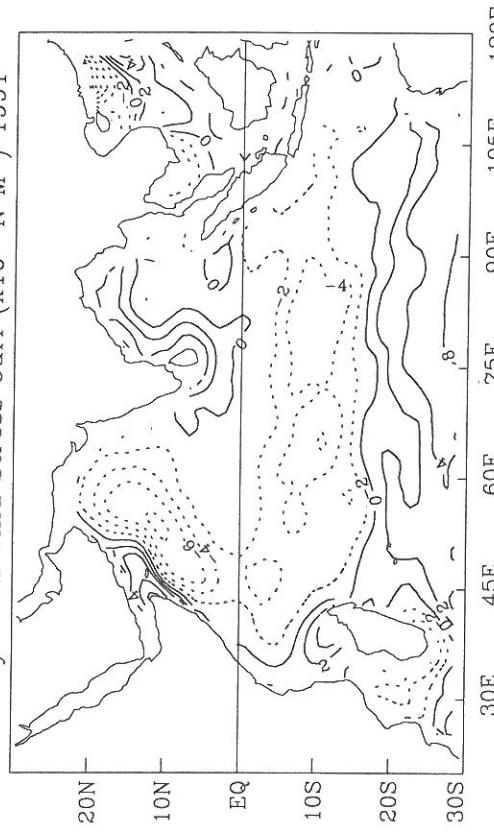
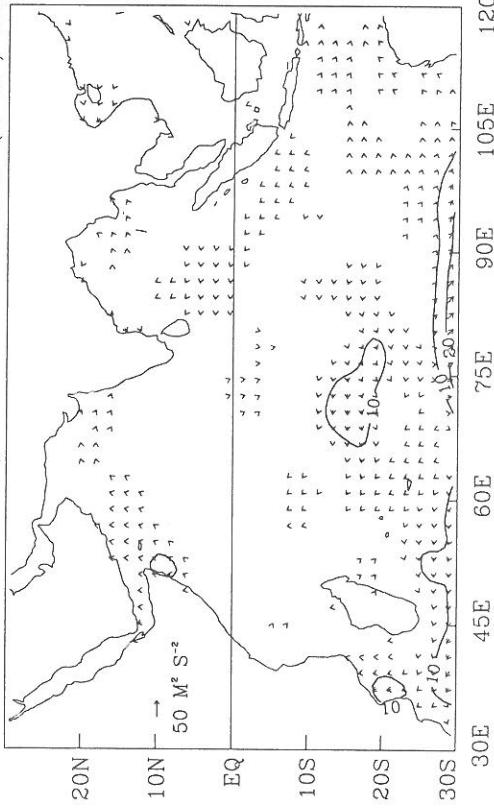
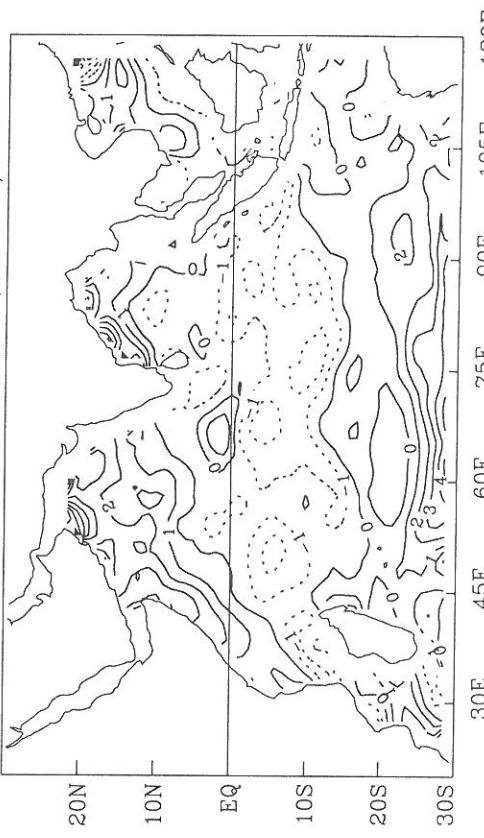
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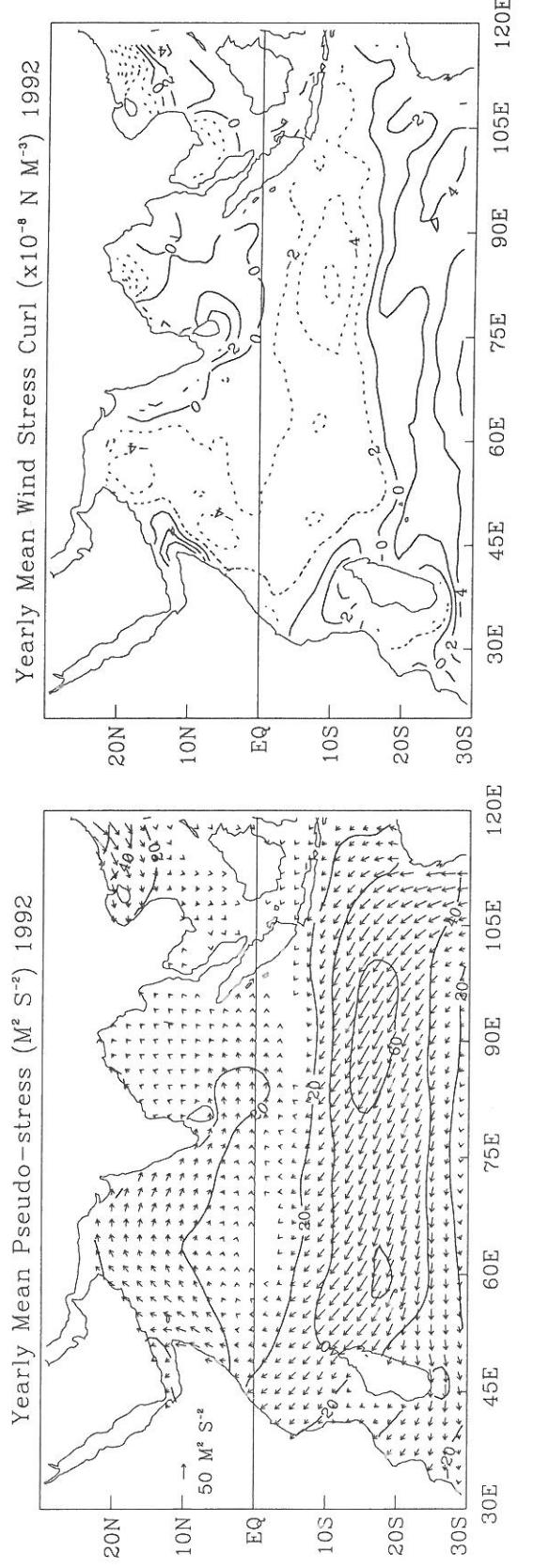
Pseudo-stress Anomaly from 1970–94 Mean ( $M^2 S^{-2}$ ) 1990



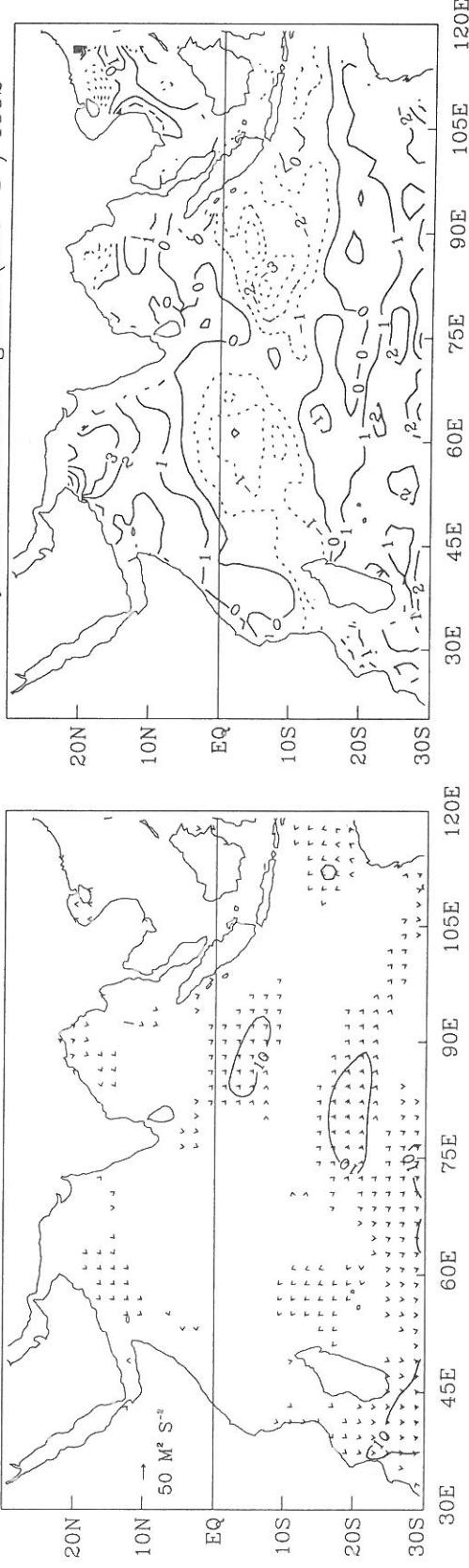
Annual-6

Yearly Mean Pseudo-stress ( $M^2 S^{-2}$ ) 1991Yearly Mean Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ ) 1991Pseudo-stress Anomaly from 1970–94 Mean ( $M^2 S^{-2}$ ) 1991Yearly Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) 1991

Annual-8

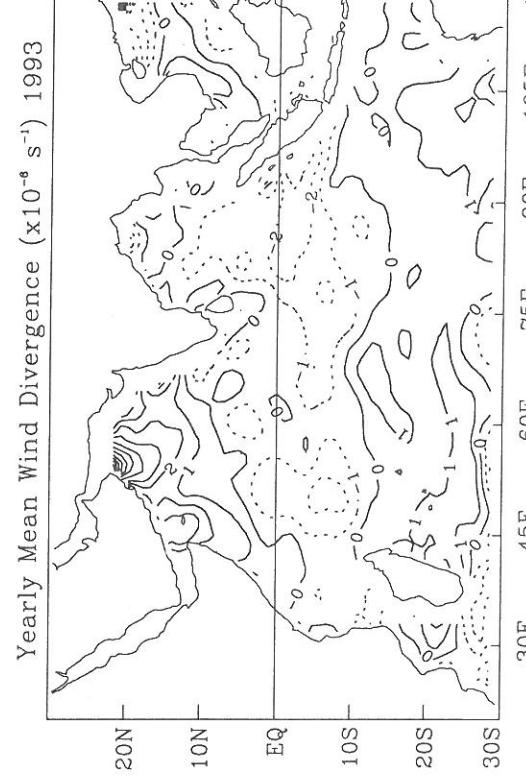
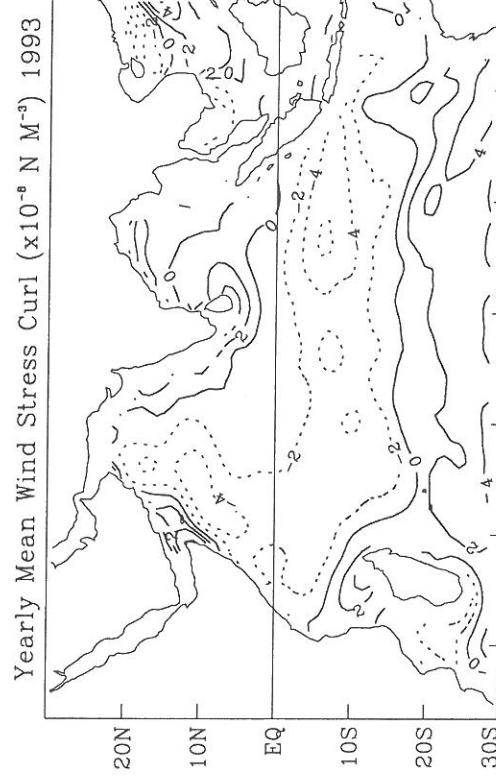
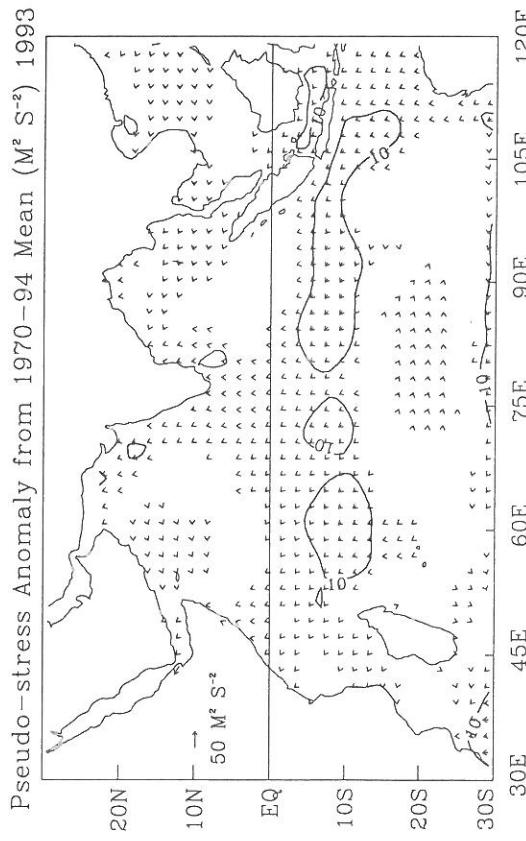
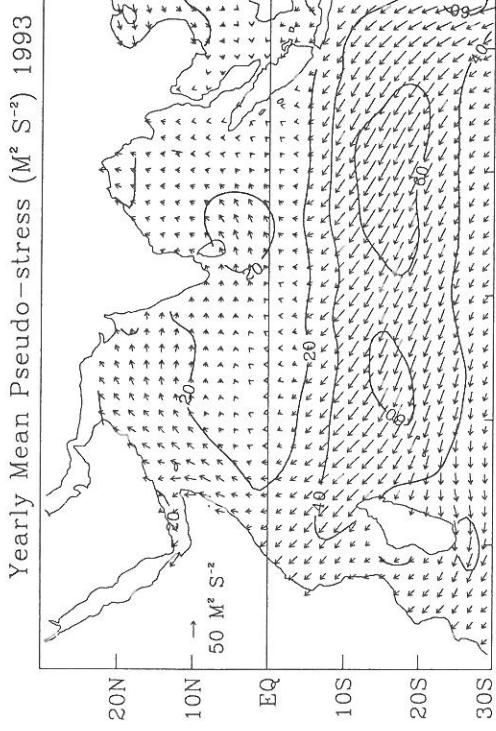


Pseudo-stress Anomaly from 1970–94 Mean ( $M^2 S^{-2}$ )



Annual-8

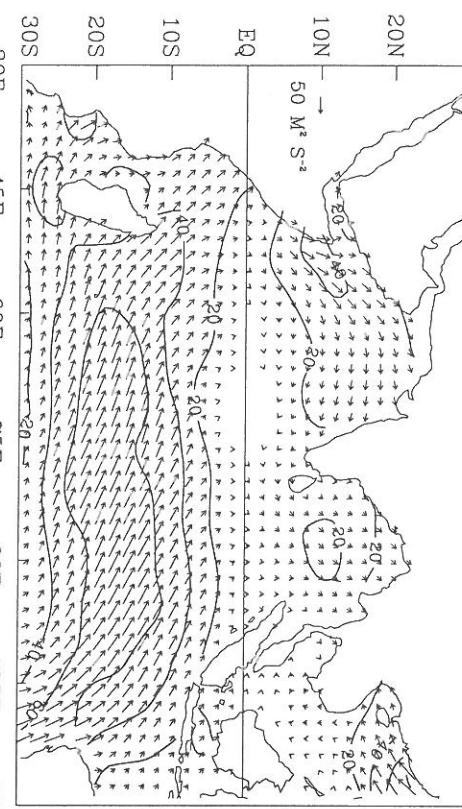
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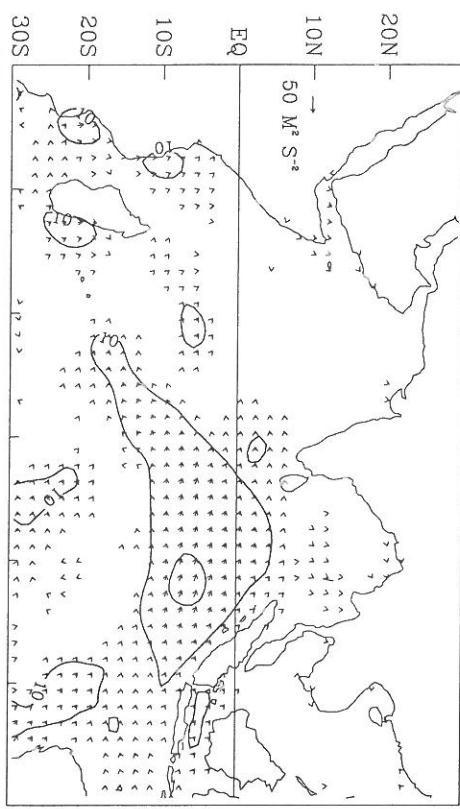
Annual-9

Annual-10

Yearly Mean Pseudo-stress ( $M^2 S^{-2}$ ) 1994

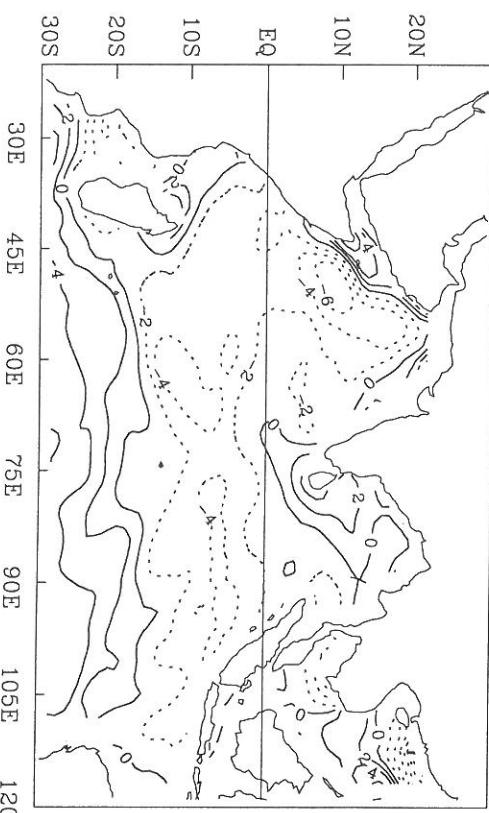


Pseudo-stress Anomaly from 1970–94 Mean ( $M^2 S^{-2}$ ) 1994

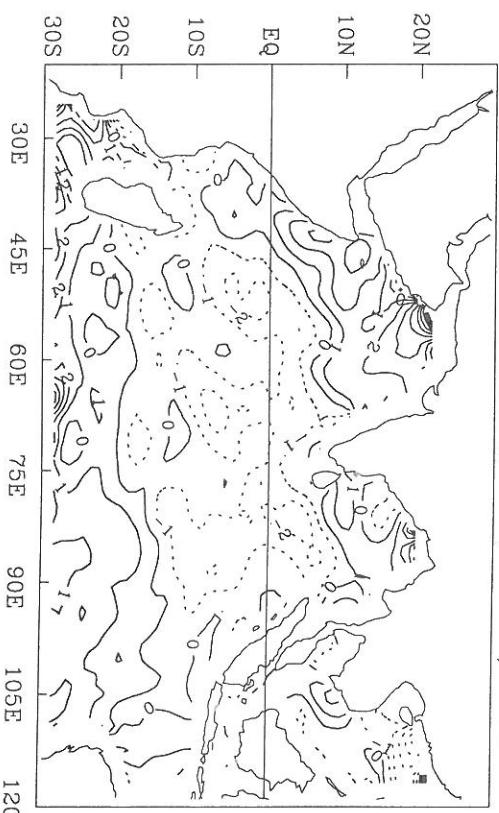


Annual-10

Yearly Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) 1994



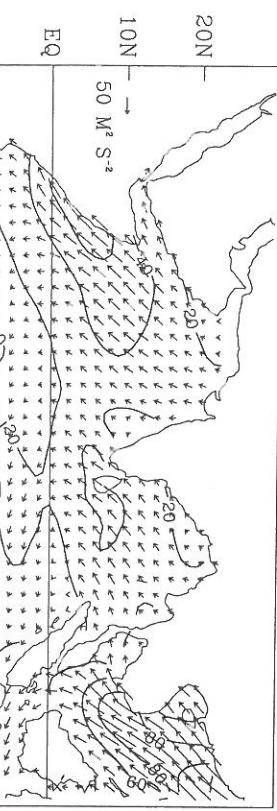
Yearly Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) 1994



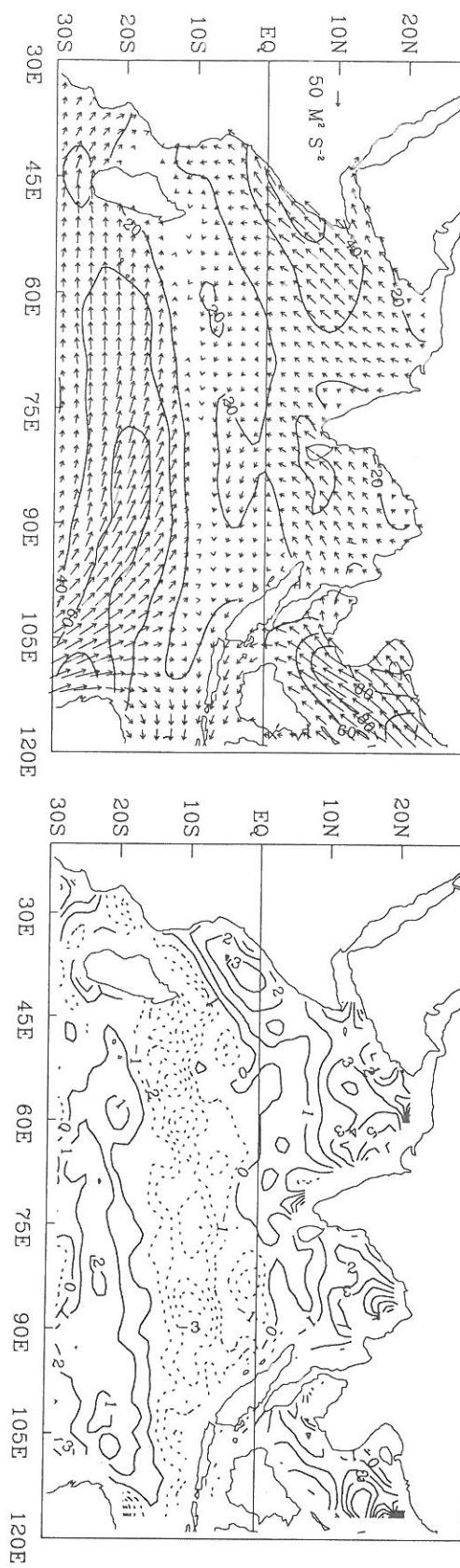
1985-94 Monthly Fields

Clim-1

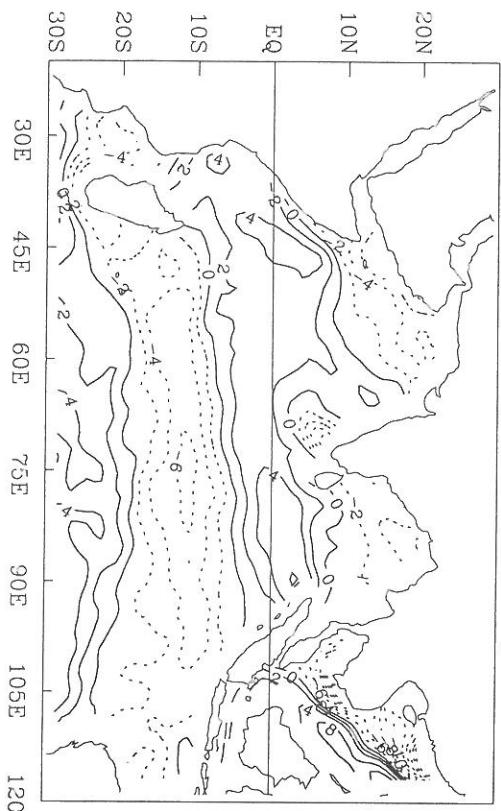
Mean Pseudo-stress ( $M^2 S^{-2}$ ) January 1970–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) January 1970–1994



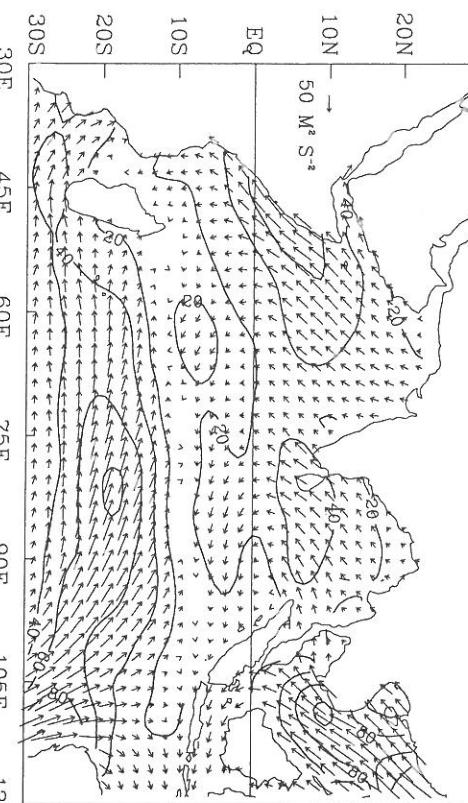
Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) January 1970–1994



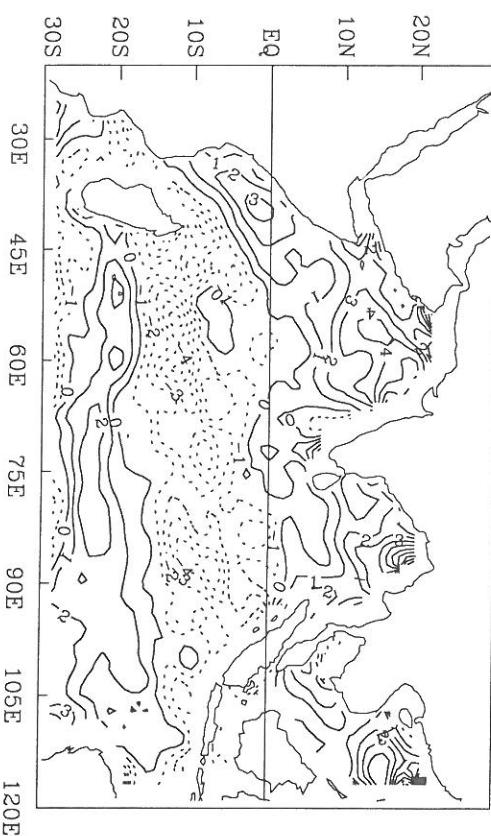
Clim-1

Clim-2

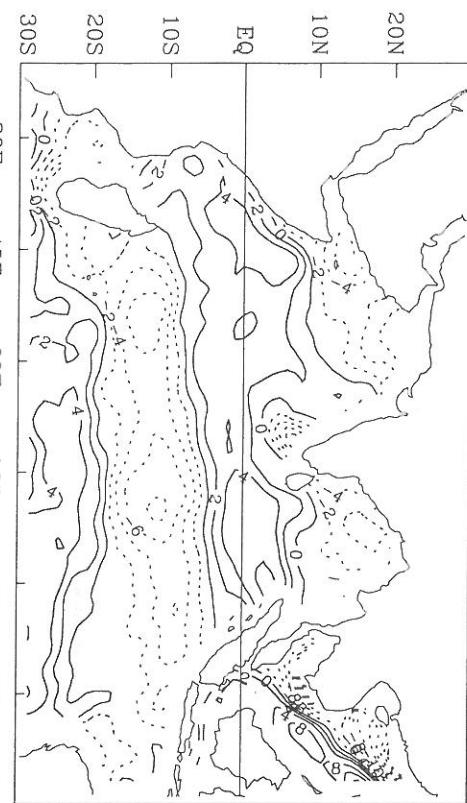
Mean Pseudo-stress ( $M^2 S^{-2}$ ) January 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) January 1985–1994



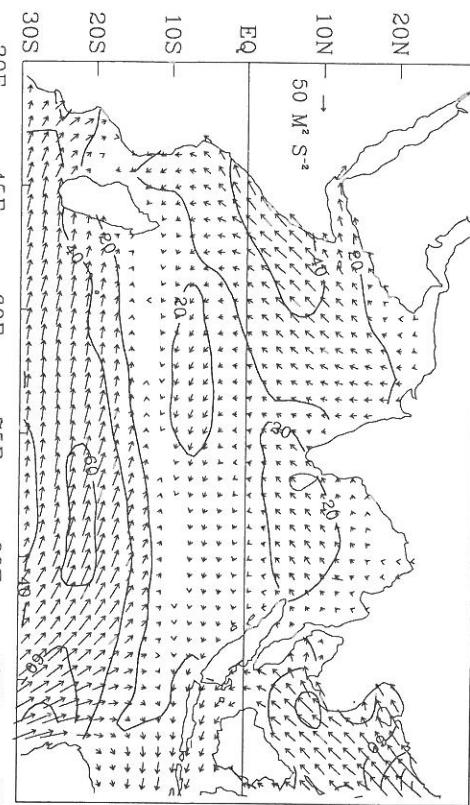
Mean Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ ) January 1985–1994



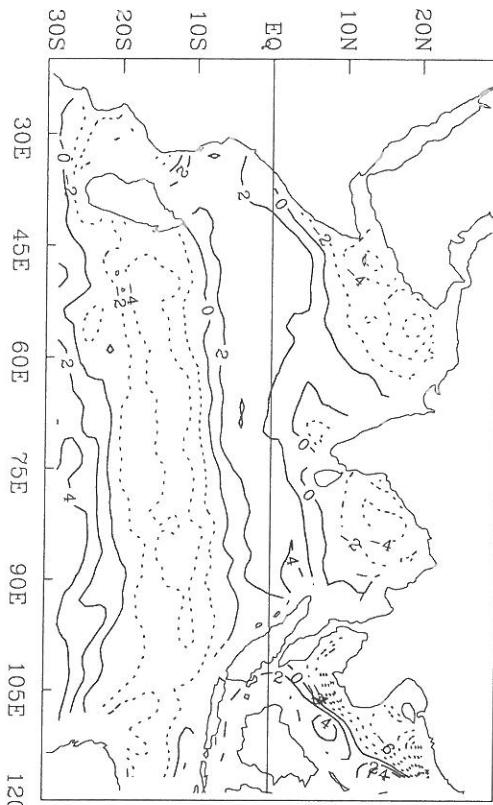
Clim-2

Clim-3

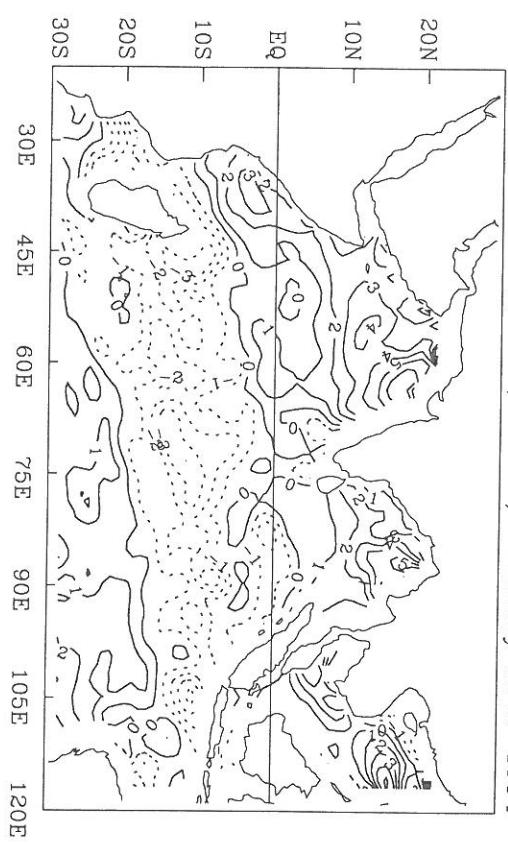
Mean Pseudo-stress ( $M^2 S^{-2}$ ) February 1970–1994



Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) February 1970–1994



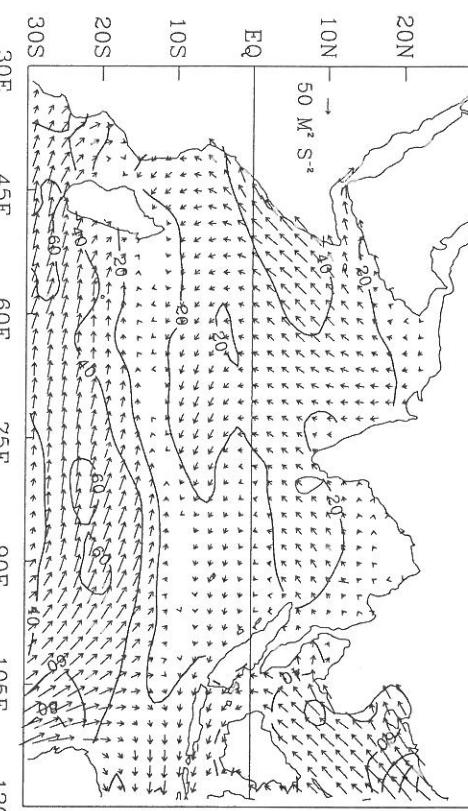
Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) February 1970–1994



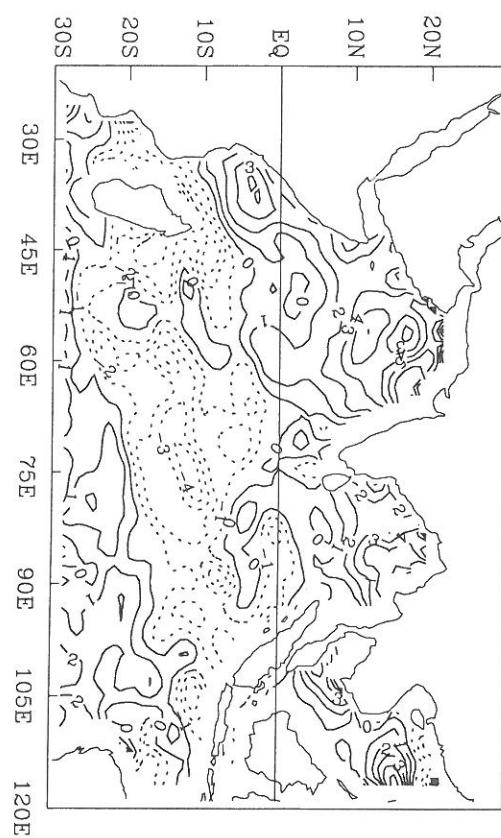
Clim-3

Clim-4

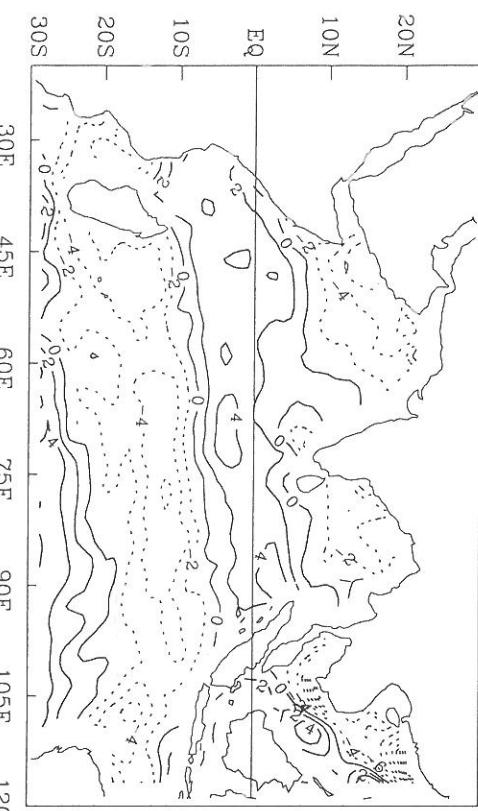
Mean Pseudo-stress ( $M^2 S^{-2}$ ) February 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) February 1985–1994

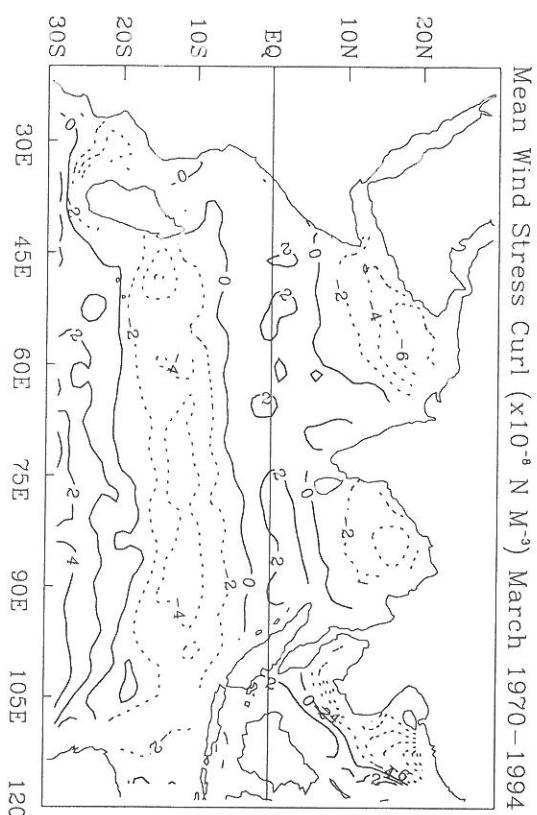
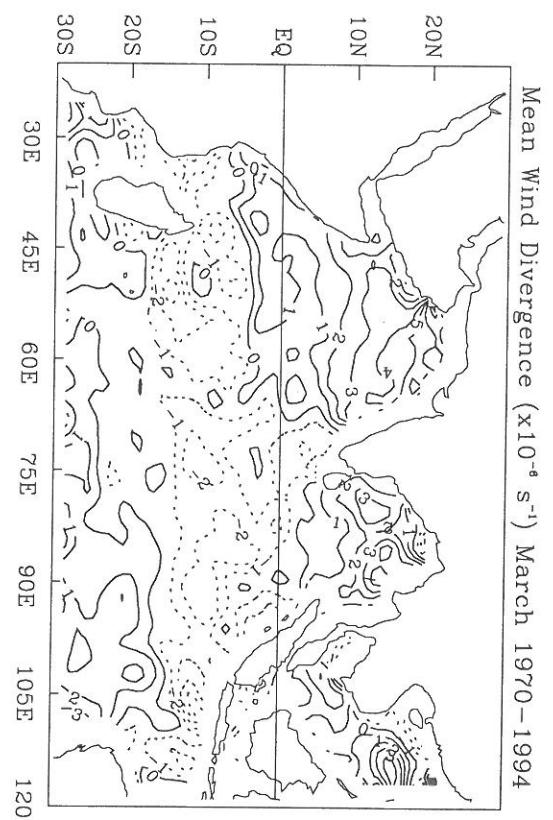
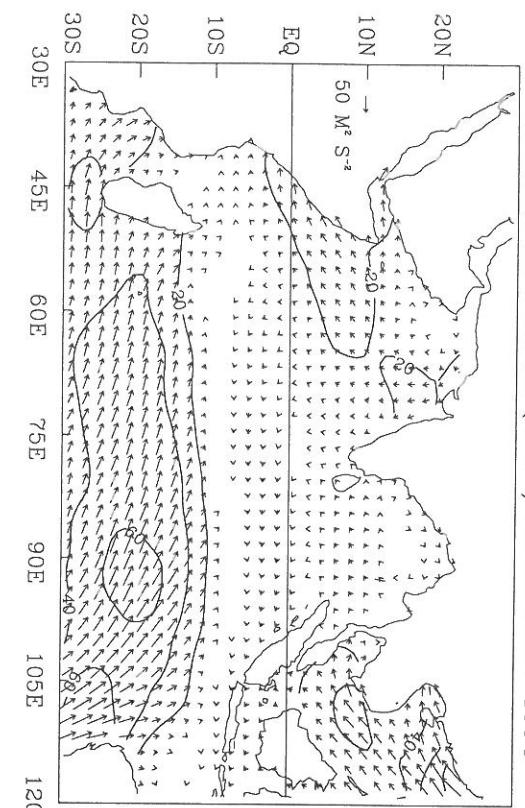
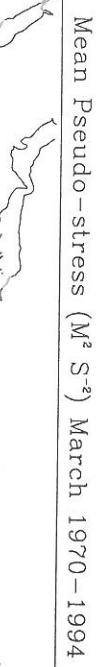


Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) February 1985–1994



Clim-4

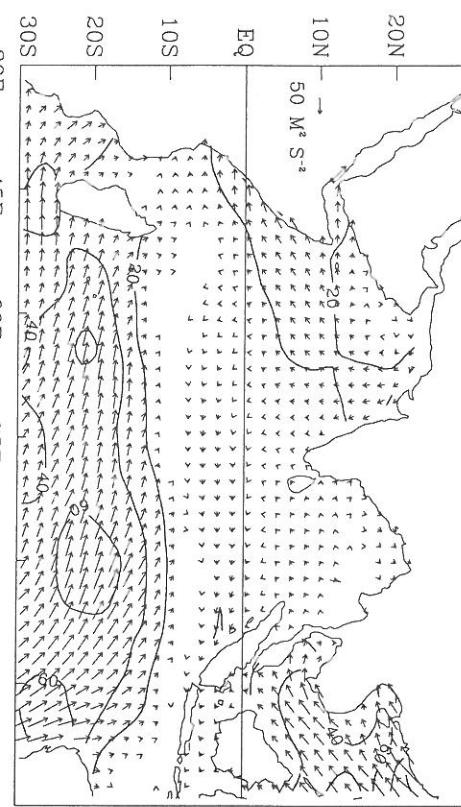
Clim-5



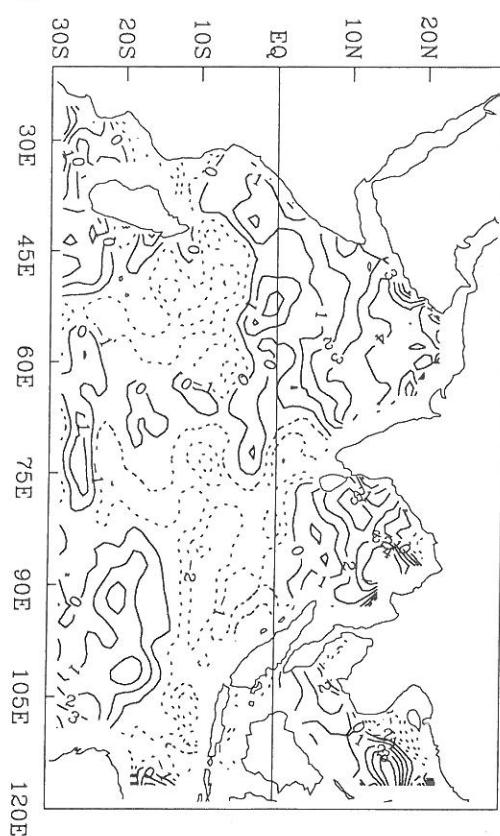
Clim-5

Clim-6

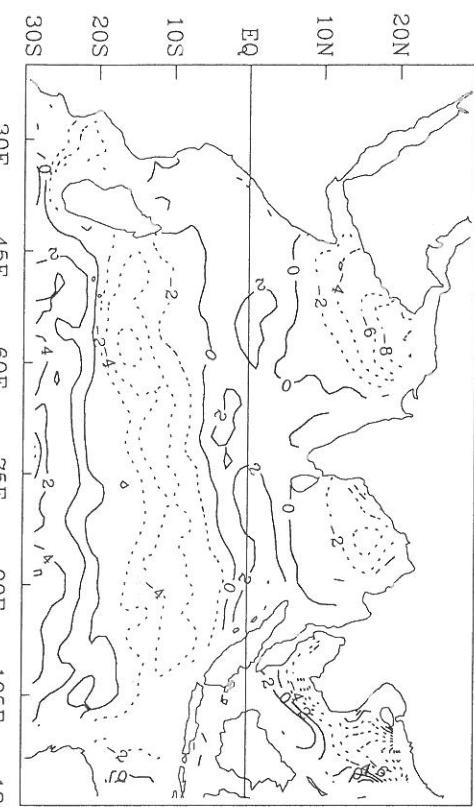
Mean Pseudo-stress ( $M^2 S^{-2}$ ) March 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) March 1985–1994



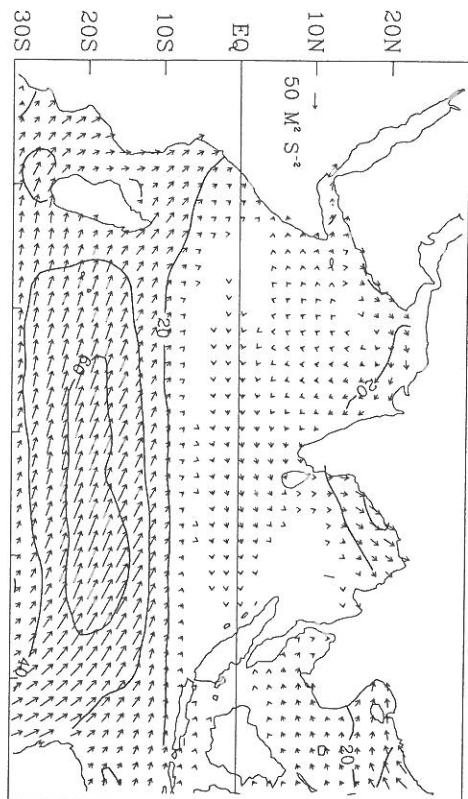
Mean Wind Stress Curl ( $\times 10^{-6} N M^{-2}$ ) March 1985–1994



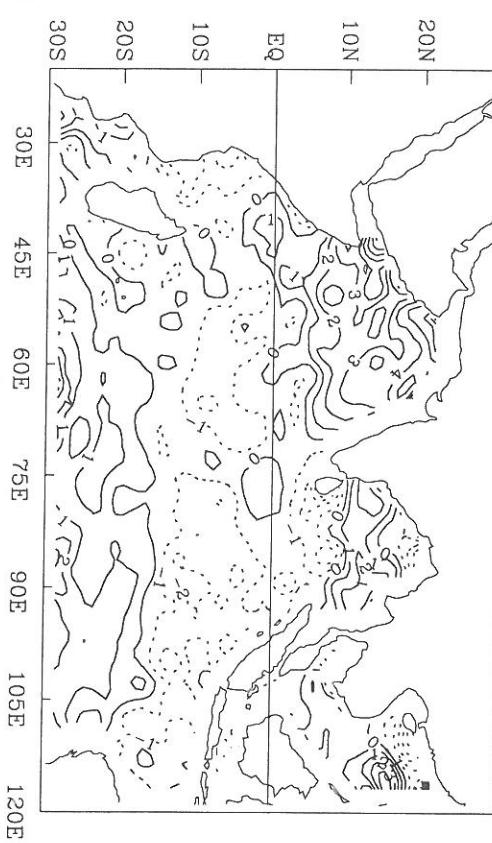
Clim-6

Clim-7

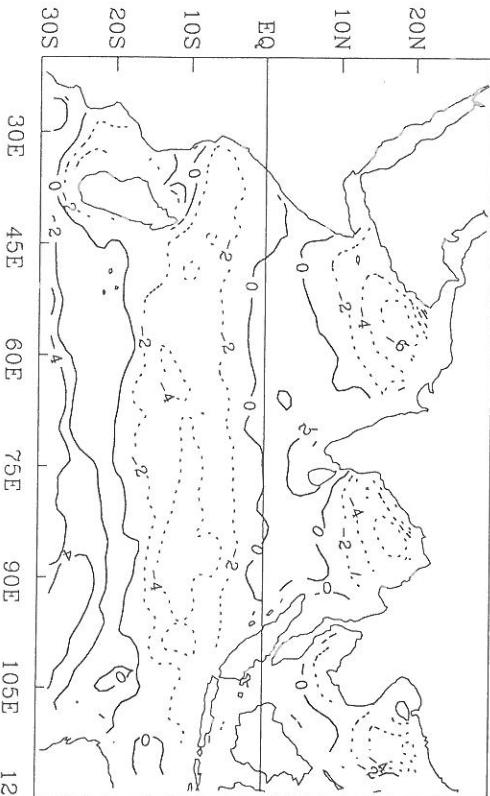
Mean Pseudo-stress ( $M^2 S^{-2}$ ) April 1970–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) April 1970–1994



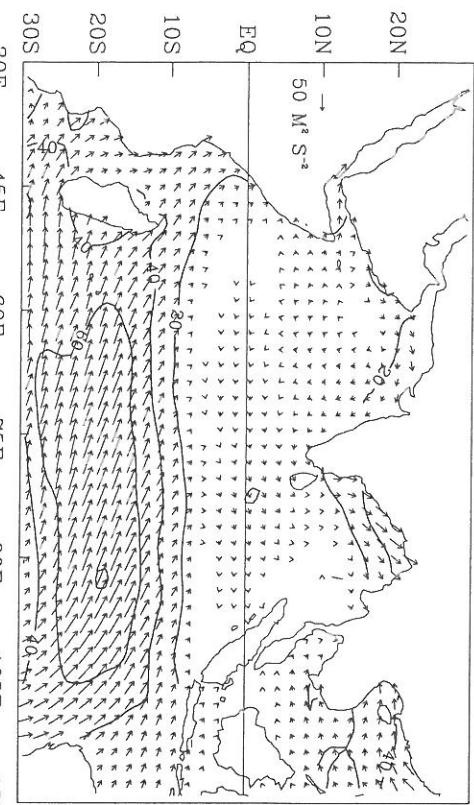
Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) April 1970–1994



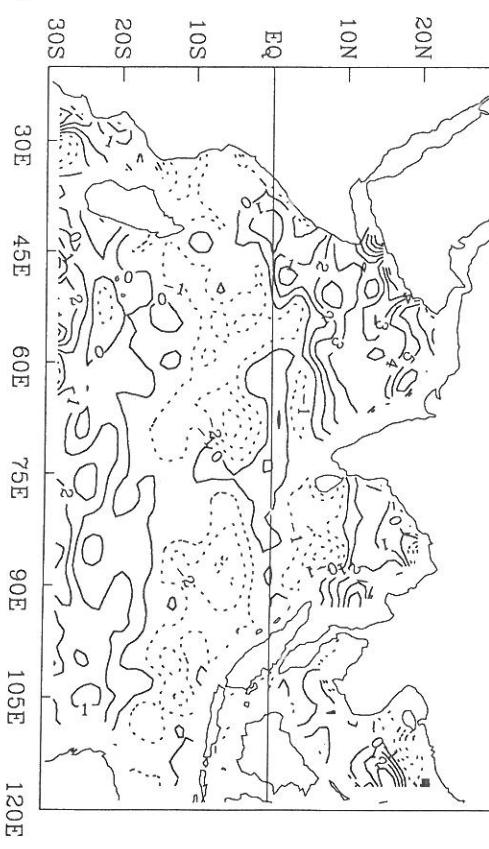
Clim-7

Clim-8

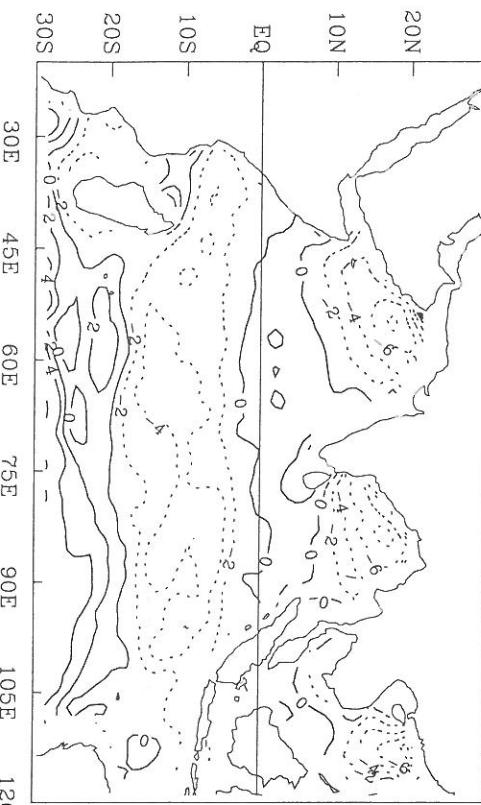
Mean Pseudo-stress ( $M^2 S^{-2}$ ) April 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) April 1985–1994



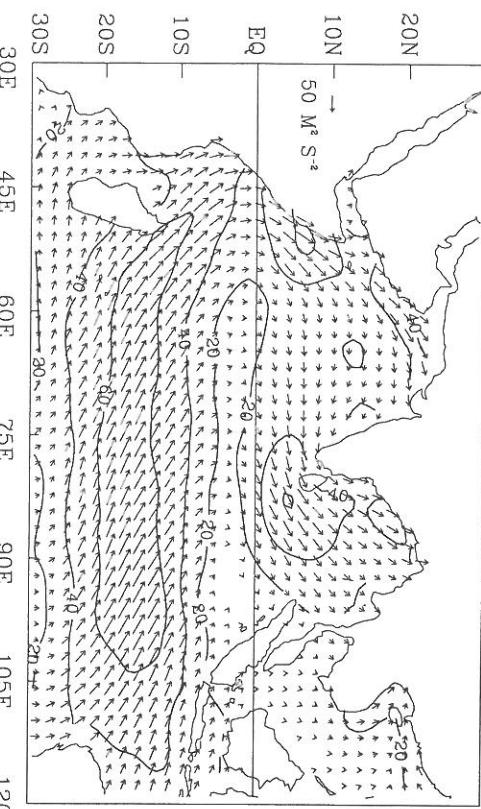
Mean Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ ) April 1985–1994



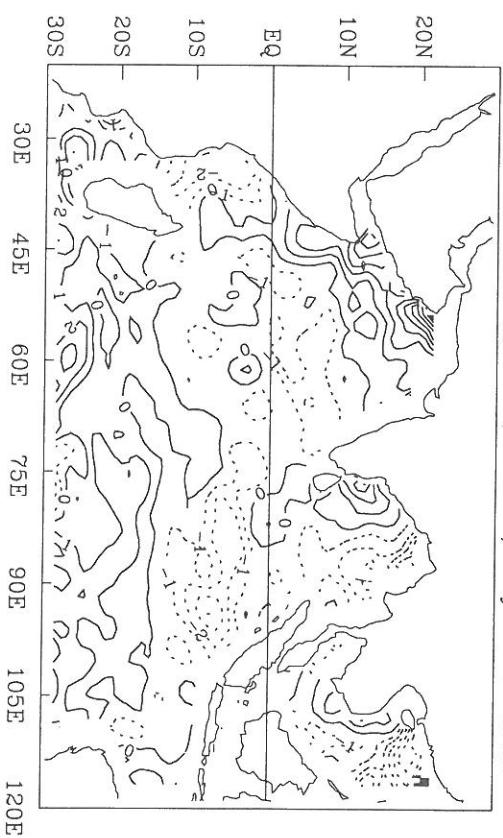
Clim-8

Clim-9

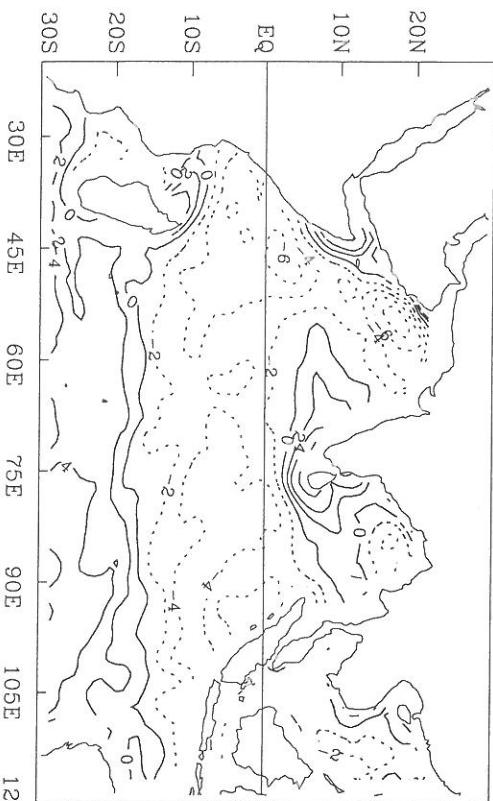
Mean Pseudo-stress ( $M^2 S^{-2}$ ) May 1970–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) May 1970–1994



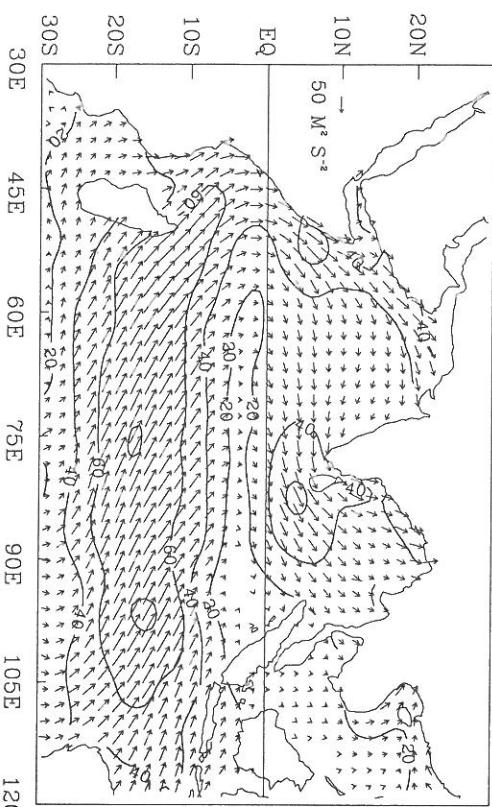
Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) May 1970–1994



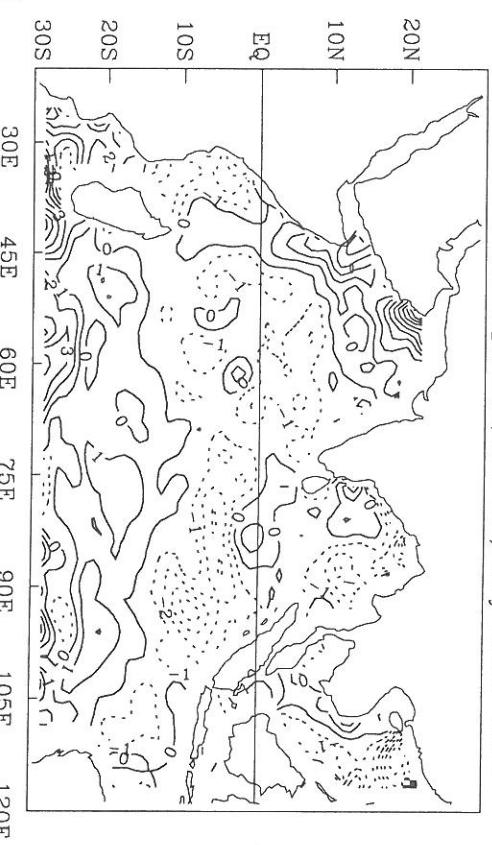
Clim-9

Clim-10

Mean Pseudo-stress ( $M^2 S^{-2}$ ) May 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) May 1985–1994



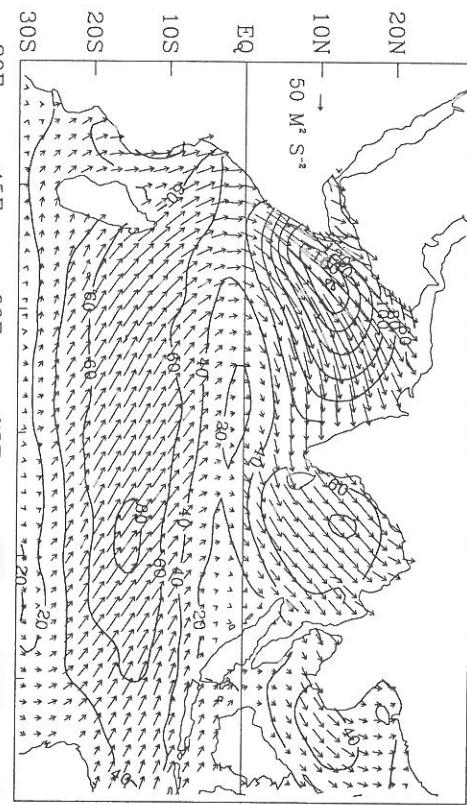
Mean Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ ) May 1985–1994



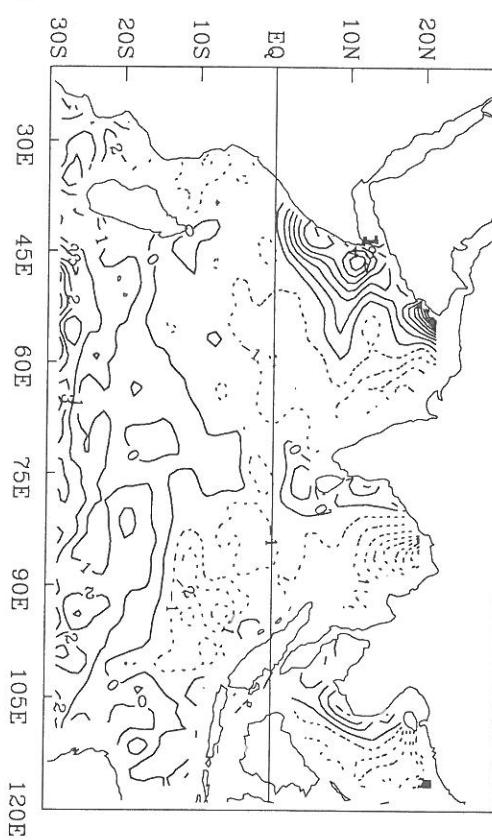
Clim-10

Clim-11

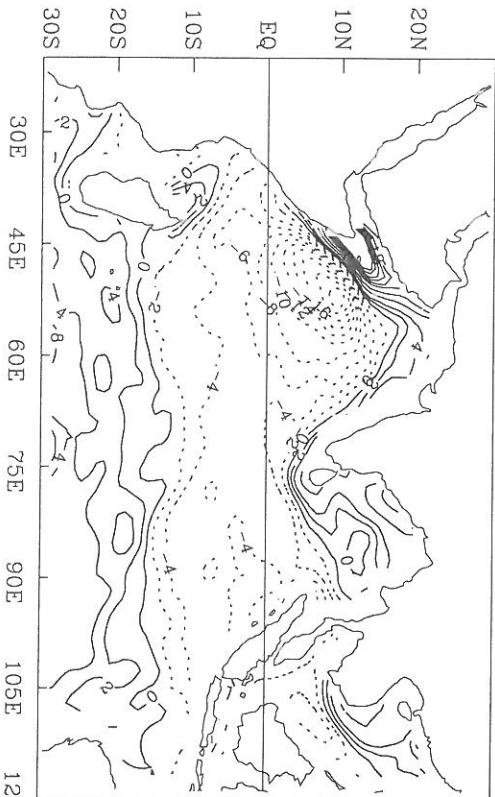
Mean Pseudo-stress ( $M^2 S^{-2}$ ) June 1970–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) June 1970–1994

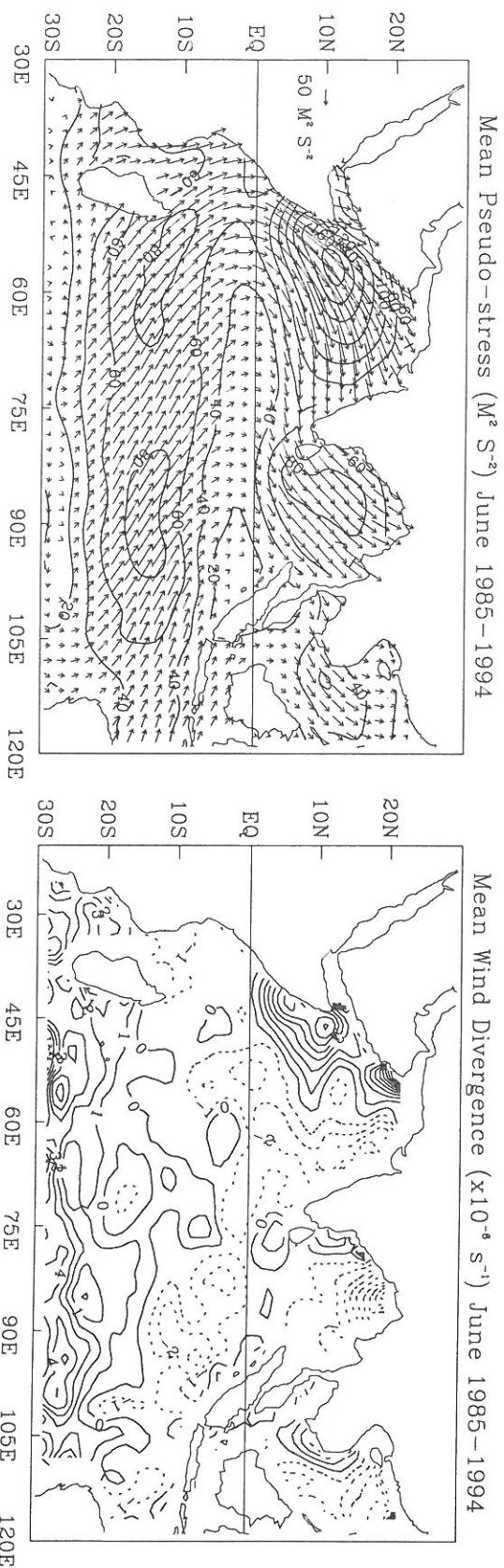


Mean Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ ) June 1970–1994

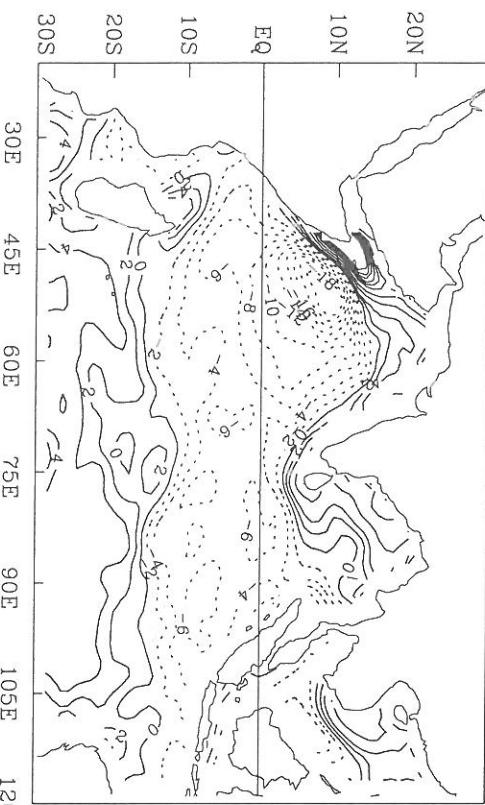


Clim-11

Clim-12



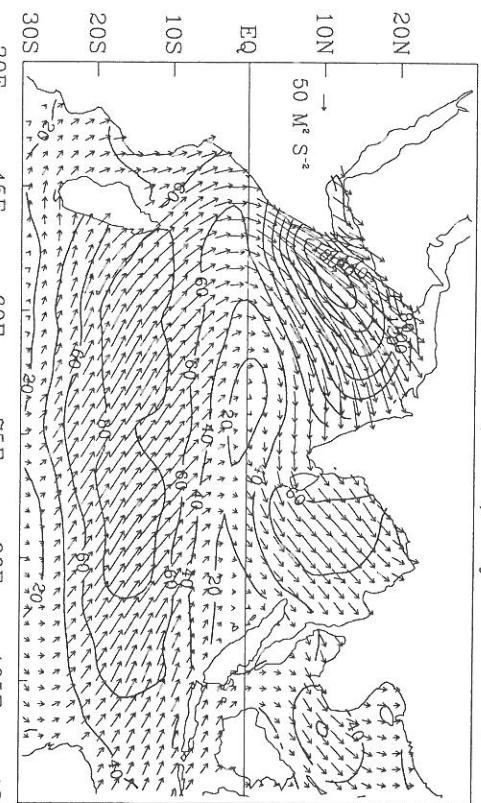
Mean Wind Stress Curl ( $\times 10^{-6} \text{ N M}^{-3}$ ) June 1985–1994



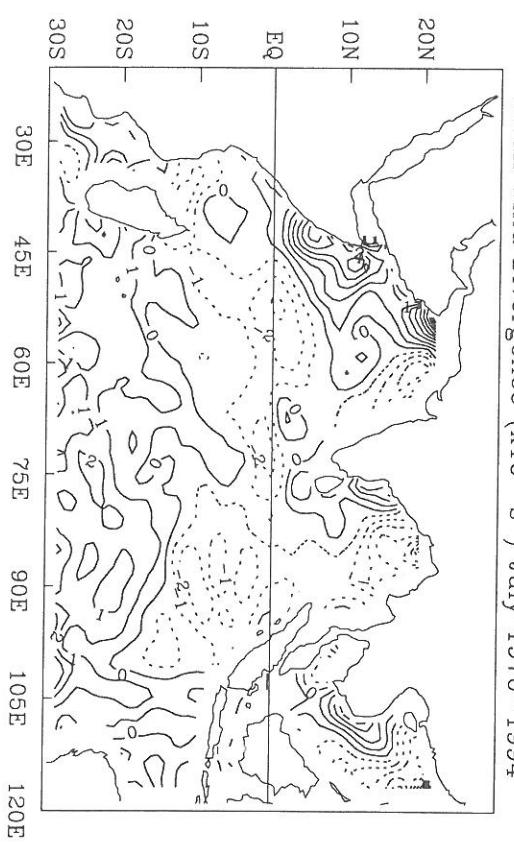
Clim-12

Clim-13

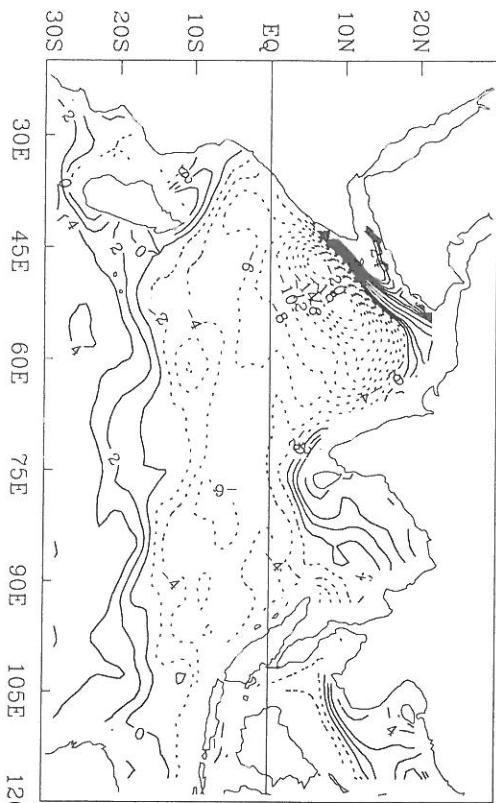
Mean Pseudo-stress ( $M^2 S^{-2}$ ) July 1970–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) July 1970–1994



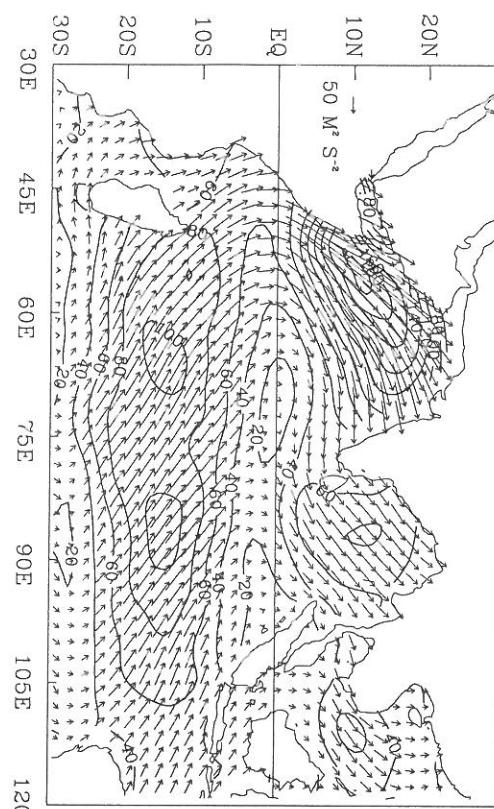
Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) July 1970–1994



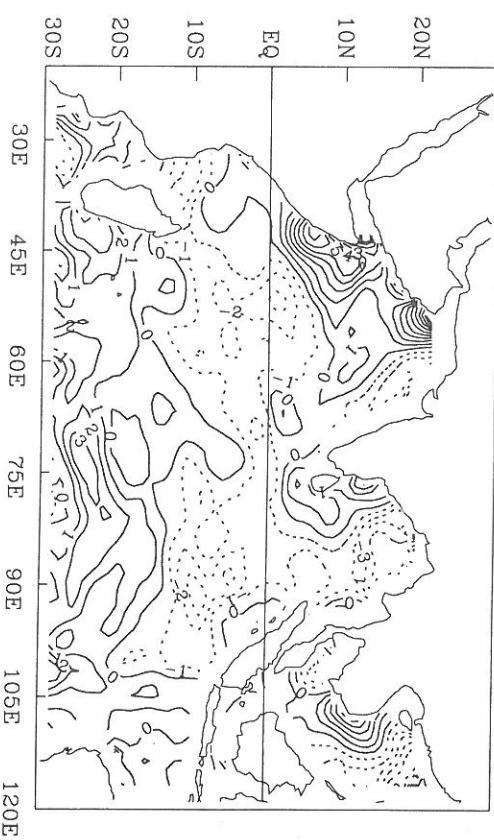
Clim-13

Clim - 14

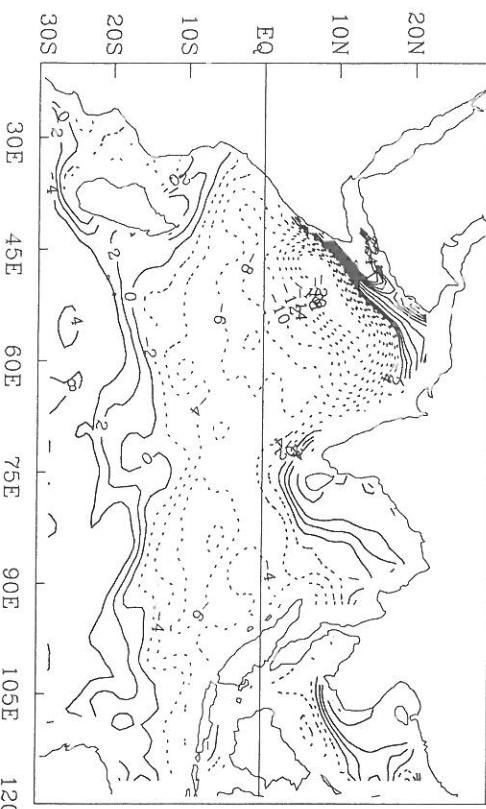
Mean Pseudo-stress ( $M^2 S^{-2}$ ) July 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) July 1985–1994



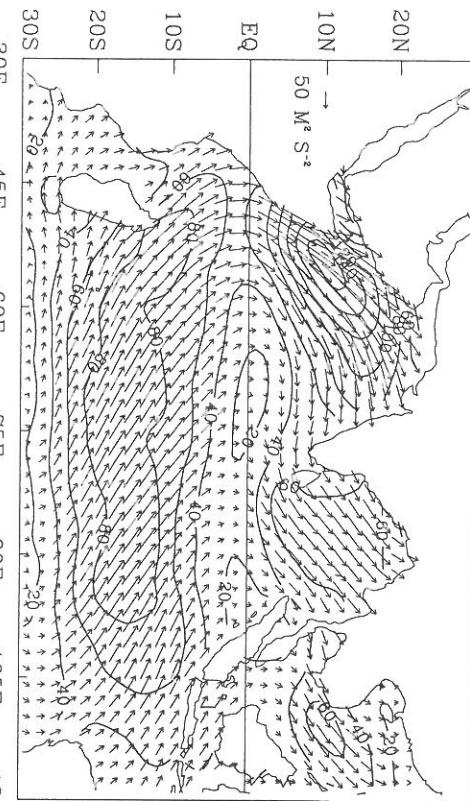
Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) July 1985–1994



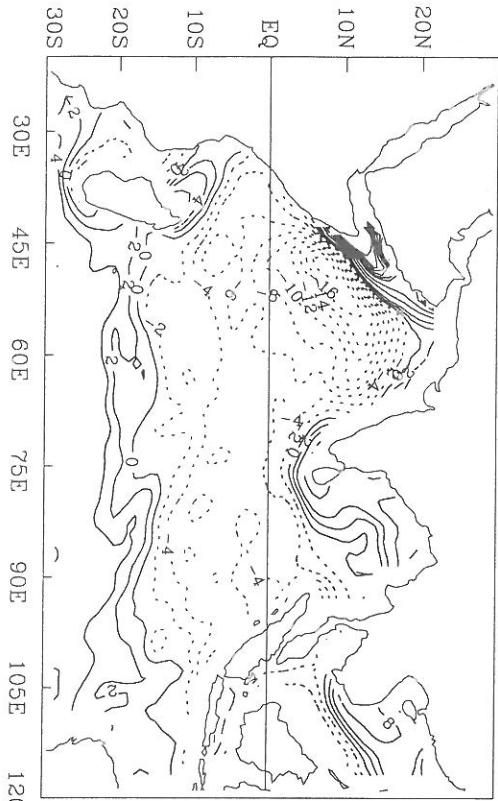
Clim - 14

Clim-15

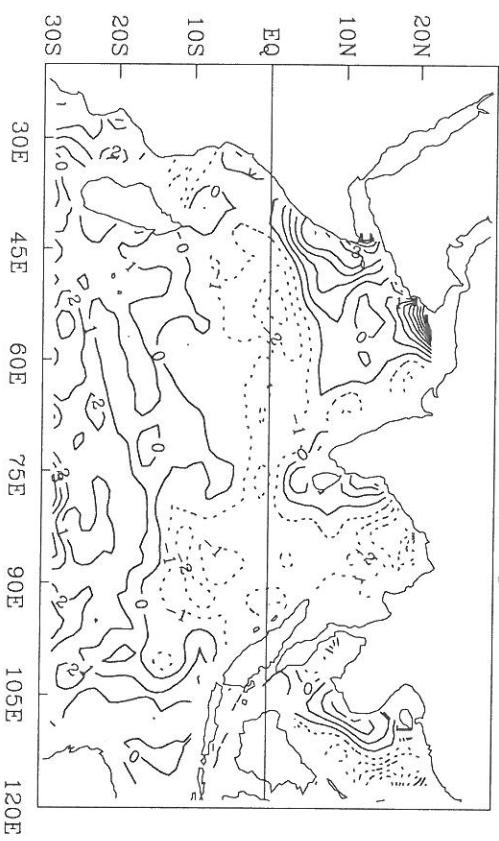
Mean Pseudo-stress ( $M^2 S^{-2}$ ) August 1970–1994



Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) August 1970–1994

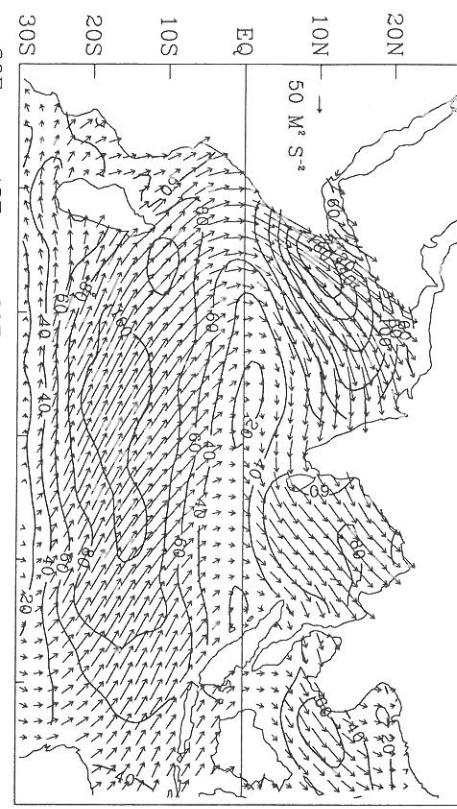


Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) August 1970–1994

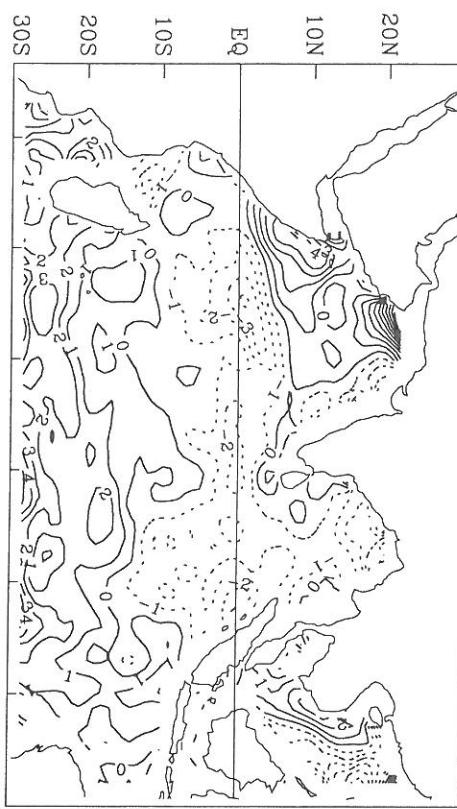


Clim-16

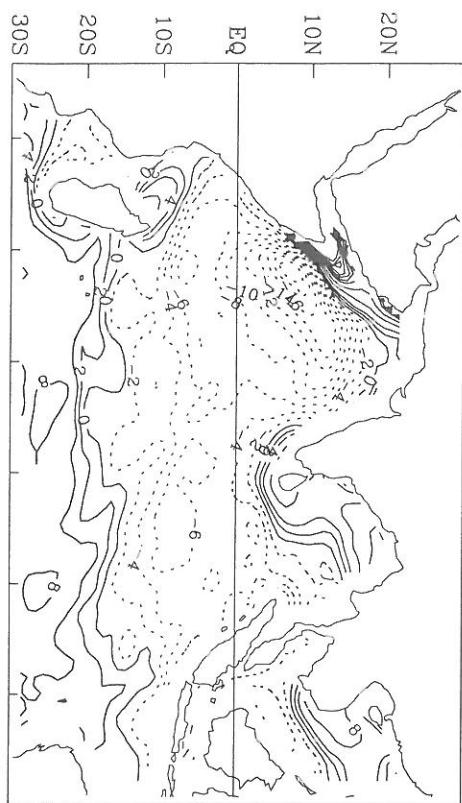
Mean Pseudo-stress ( $M^2 S^{-2}$ ) August 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) August 1985–1994



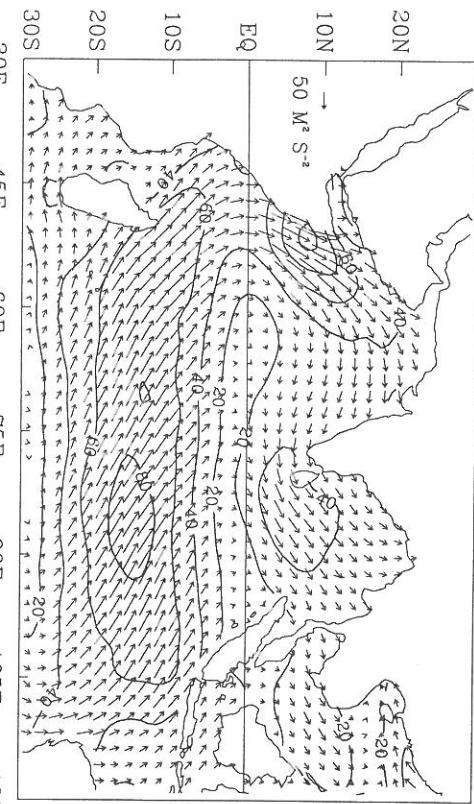
Mean Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ ) August 1985–1994



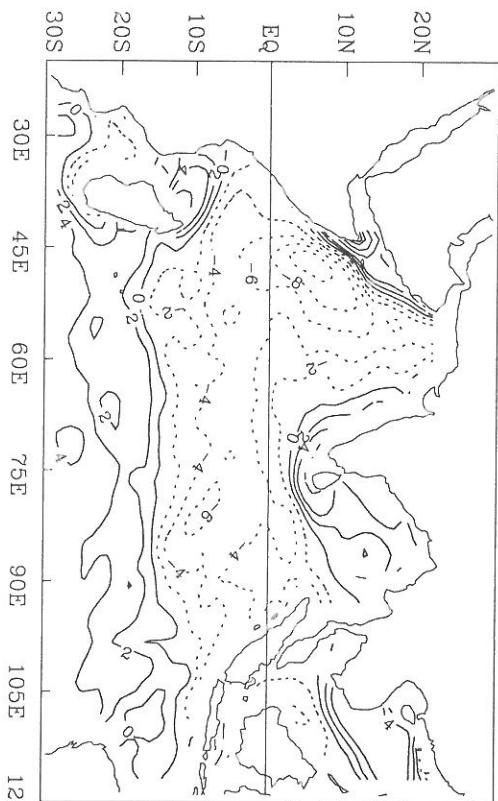
Clim-16

Clim-17

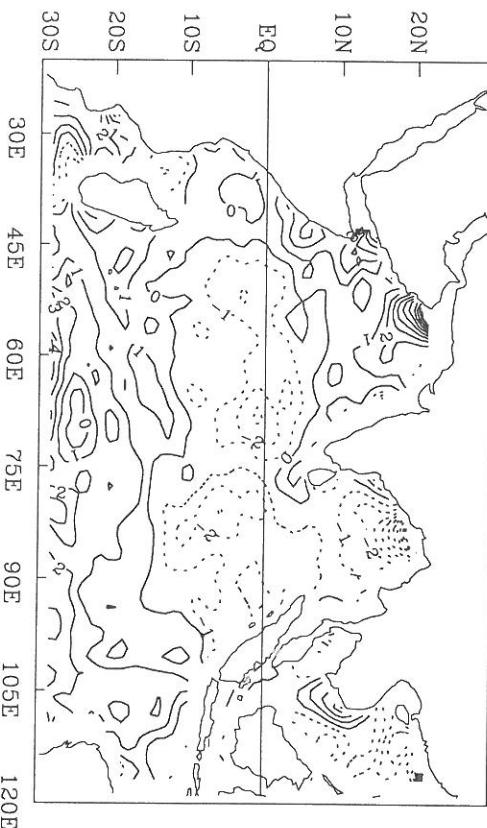
Mean Pseudo-stress ( $M^2 S^{-2}$ ) September 1970–1994



Mean Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ ) September 1970–1994



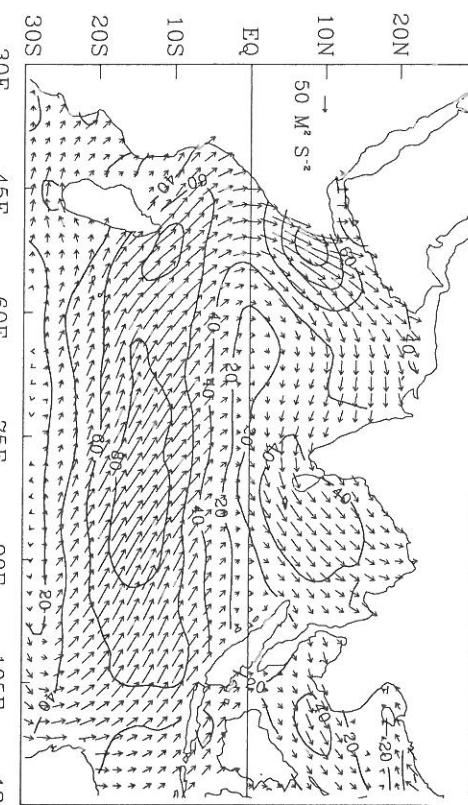
Mean Wind Divergence ( $\times 10^{-3} s^{-1}$ ) September 1970–1994



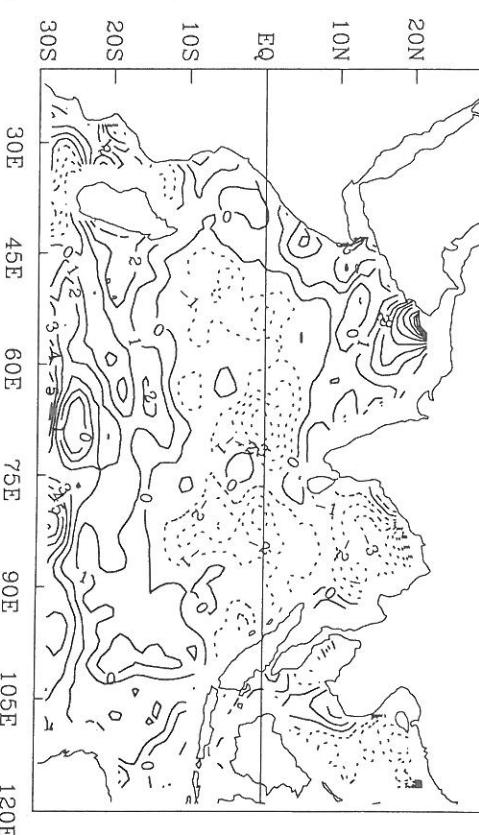
Clim-17

Clim-18

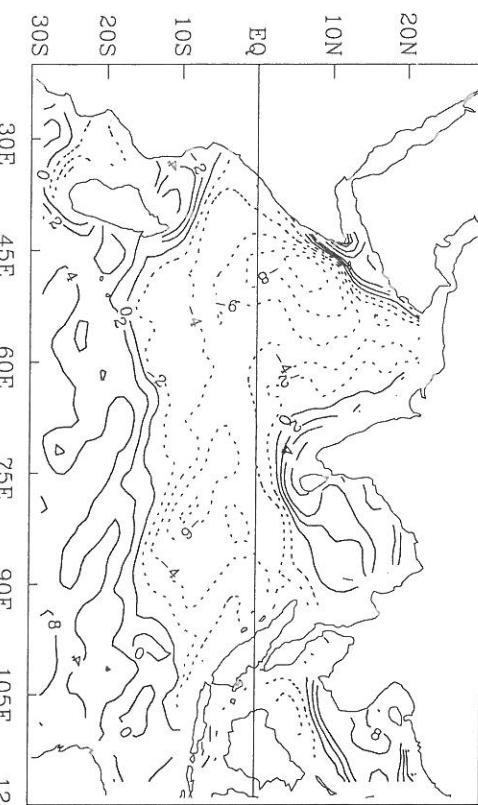
Mean Pseudo-stress ( $M^2 S^{-3}$ ) September 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) September 1985–1994



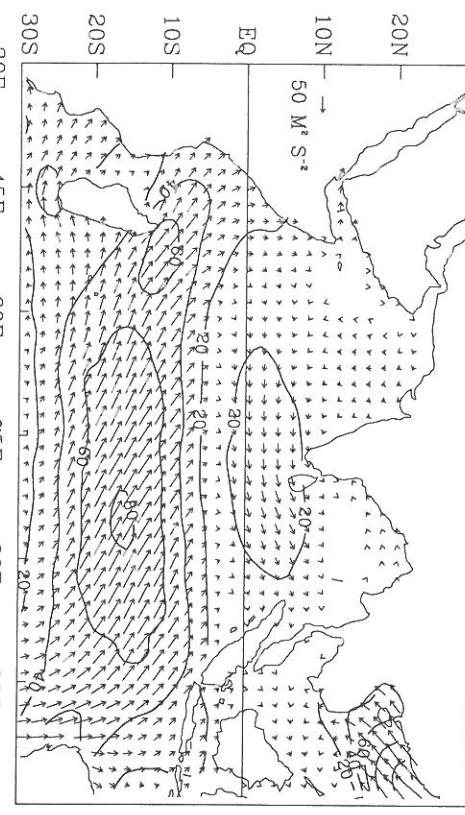
Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) September 1985–1994



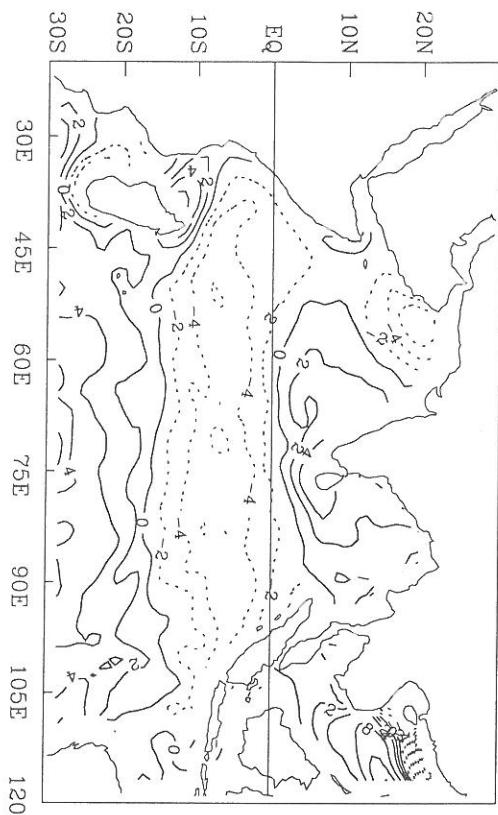
Clim-18

Clim-19

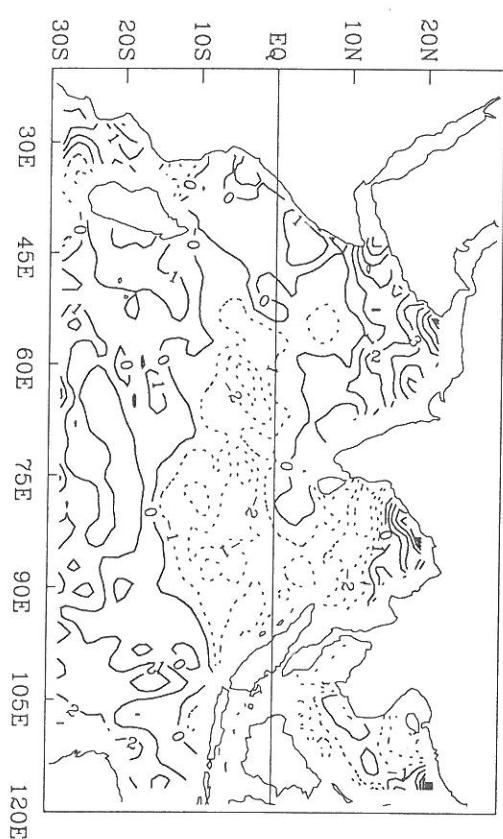
Mean Pseudo-stress ( $M^2 S^{-2}$ ) October 1970–1994



Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) October 1970–1994



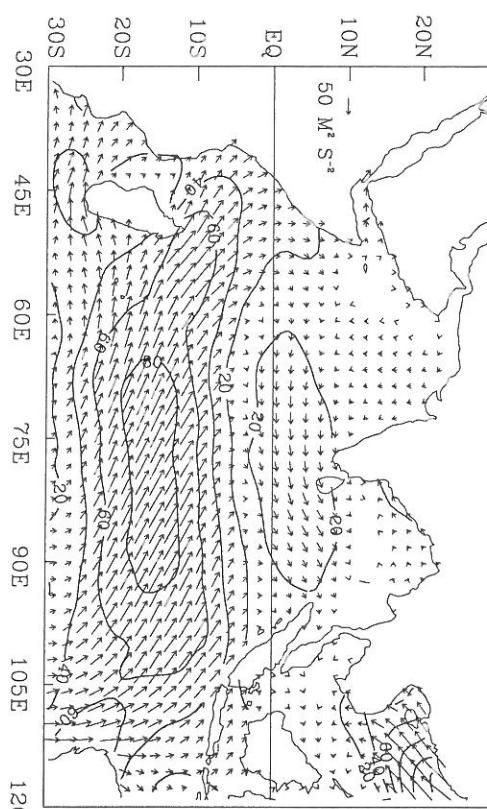
Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) October 1970–1994



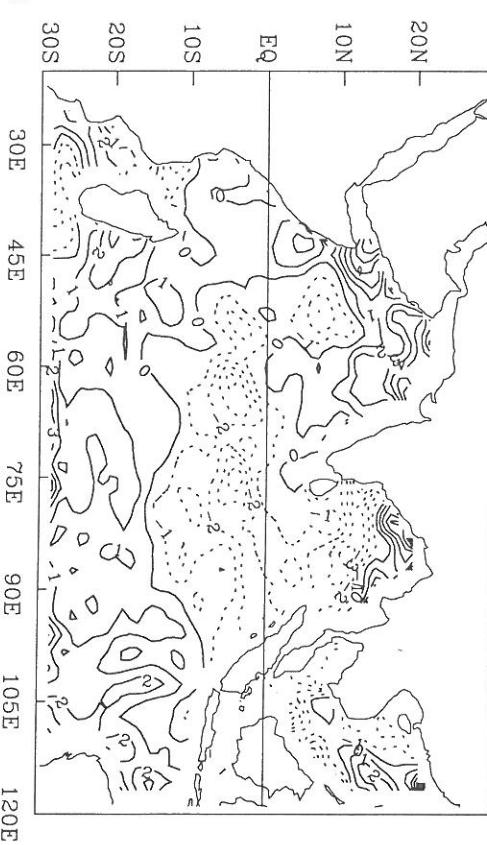
Clim-19

Clim-20

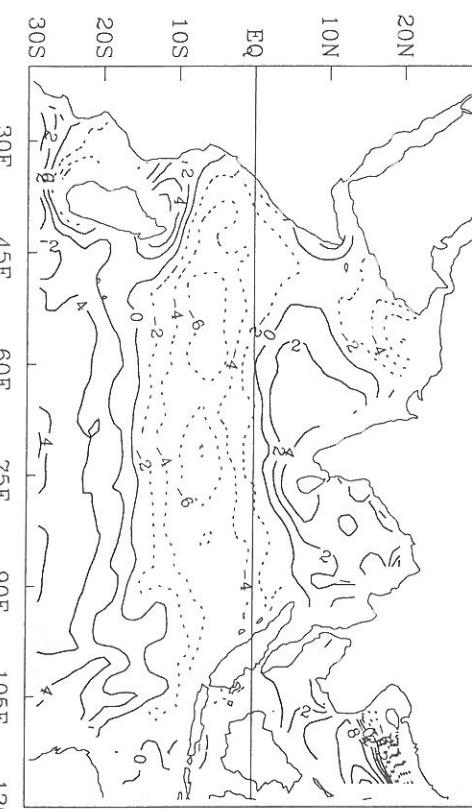
Mean Pseudo-stress ( $M^2 S^{-2}$ ) October 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) October 1985–1994



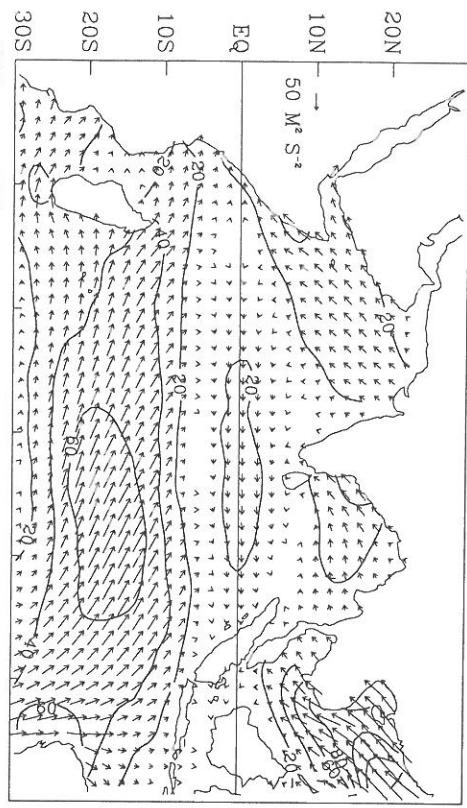
Mean Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ ) October 1985–1994



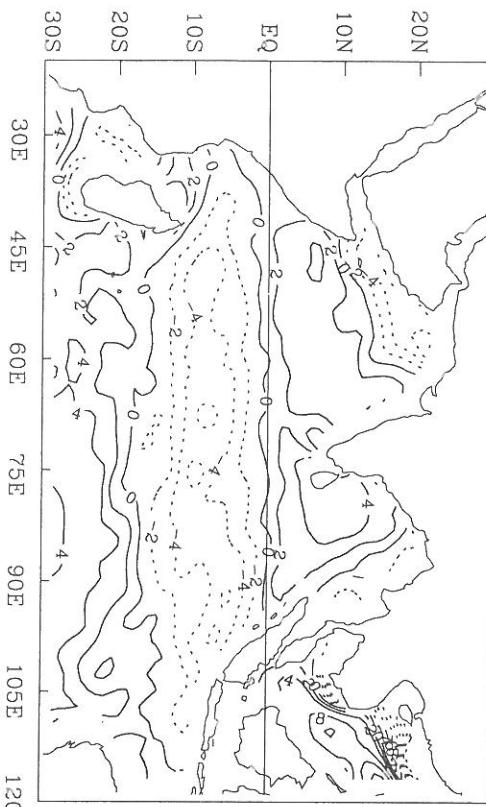
Clim-20

Clim-21

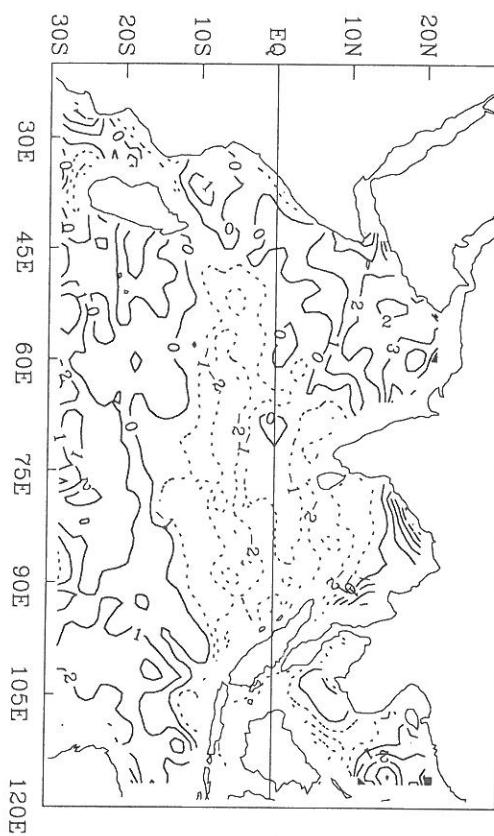
Mean Pseudo-stress ( $M^2 S^{-2}$ ) November 1970–1994



Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) November 1970–1994



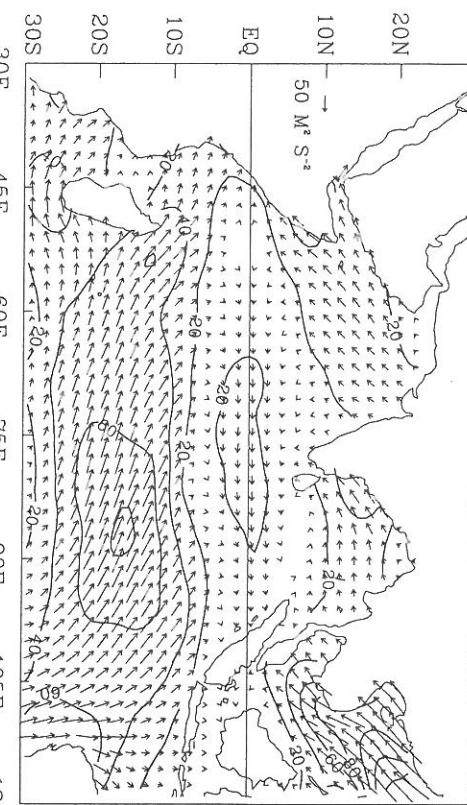
Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) November 1970–1994



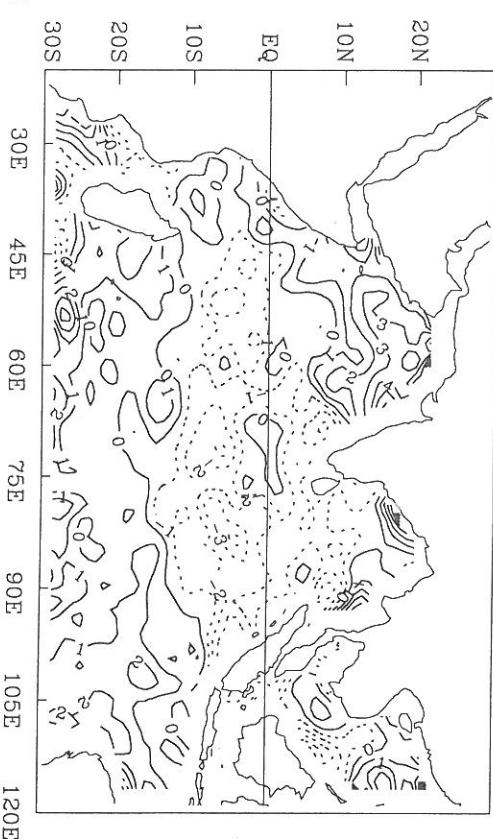
Clim-21

Clim-22

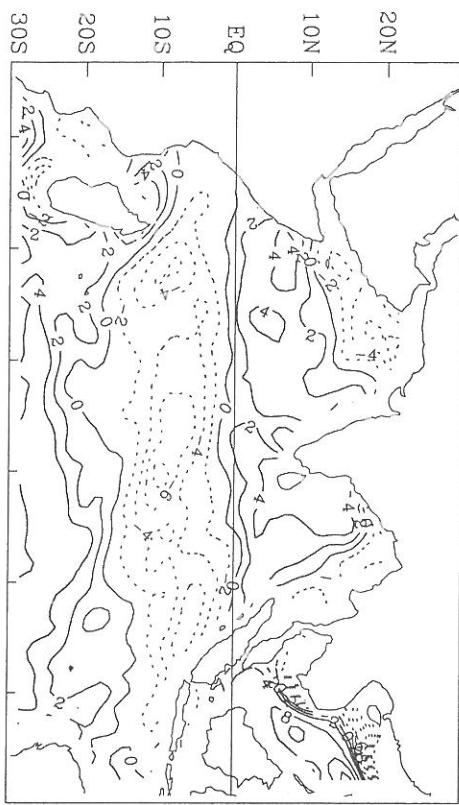
Mean Pseudo-stress ( $M^2 S^{-2}$ ) November 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) November 1985–1994

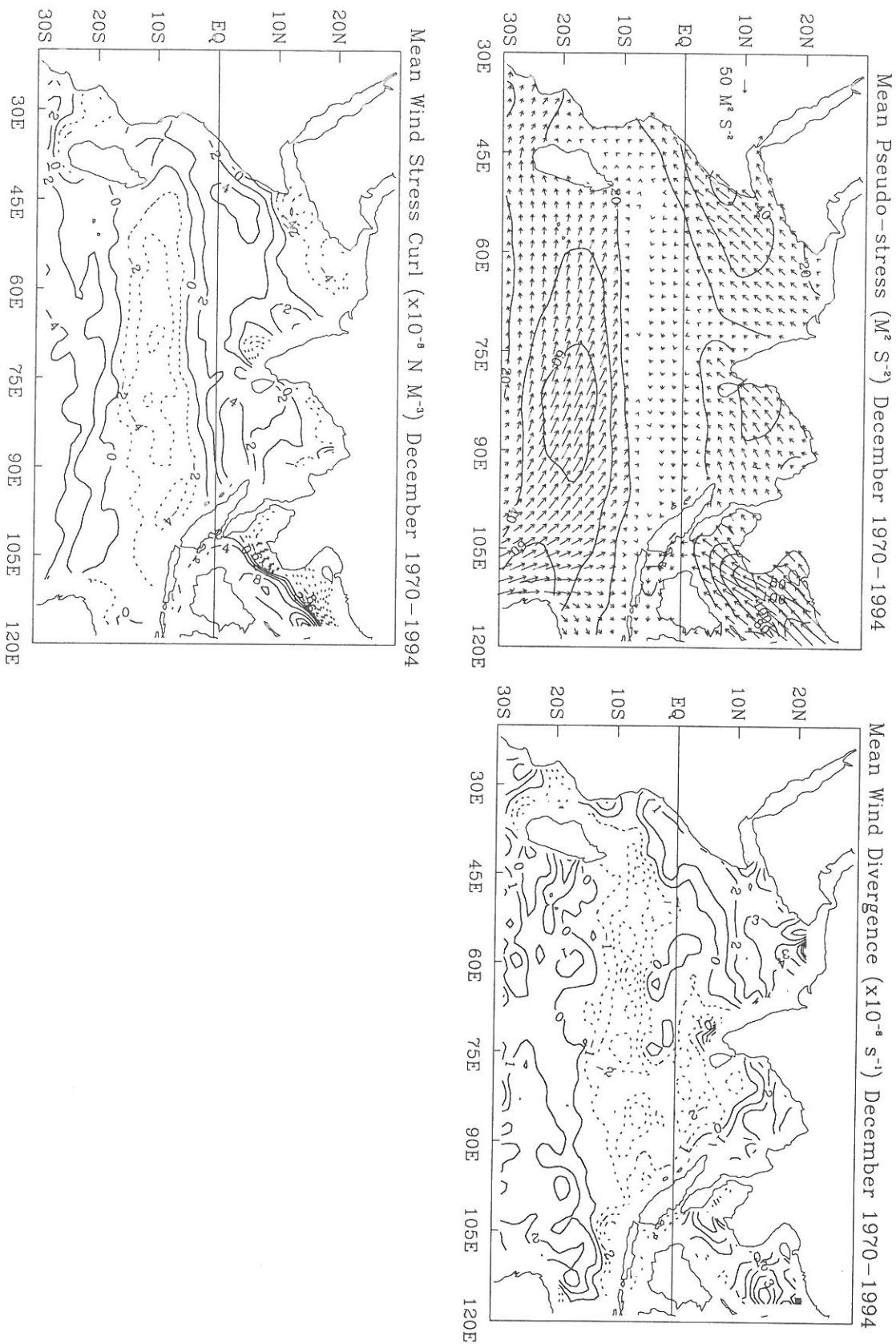


Mean Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ ) November 1985–1994



Clim-22

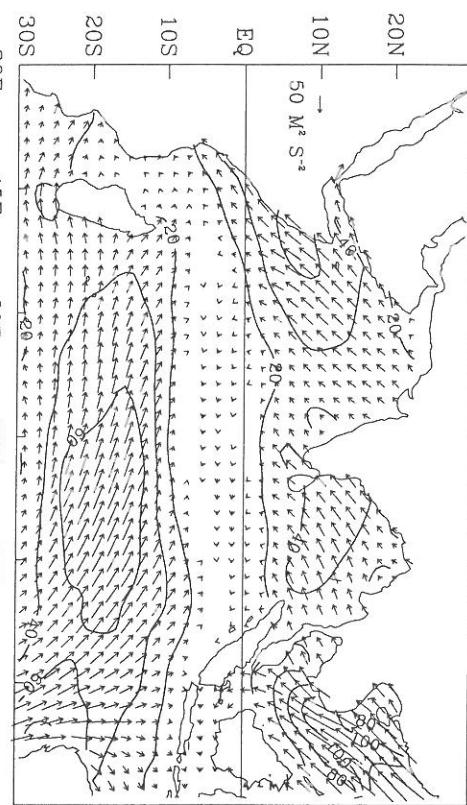
Clim-23



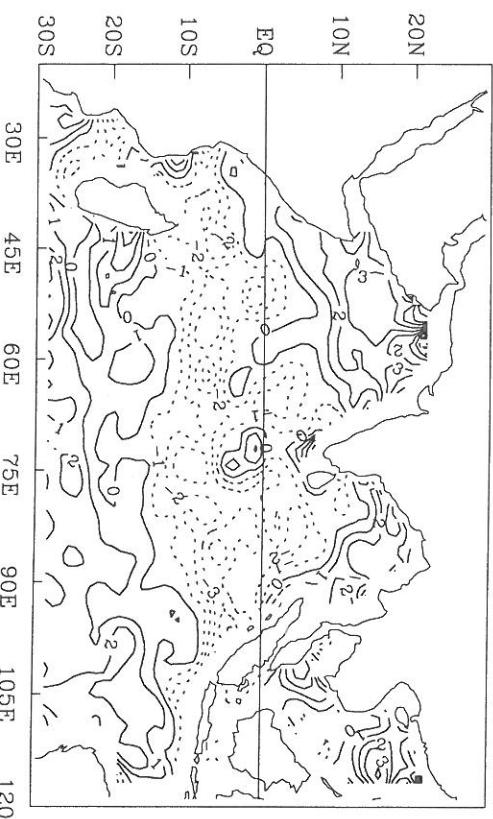
Clim-23

Clim-24

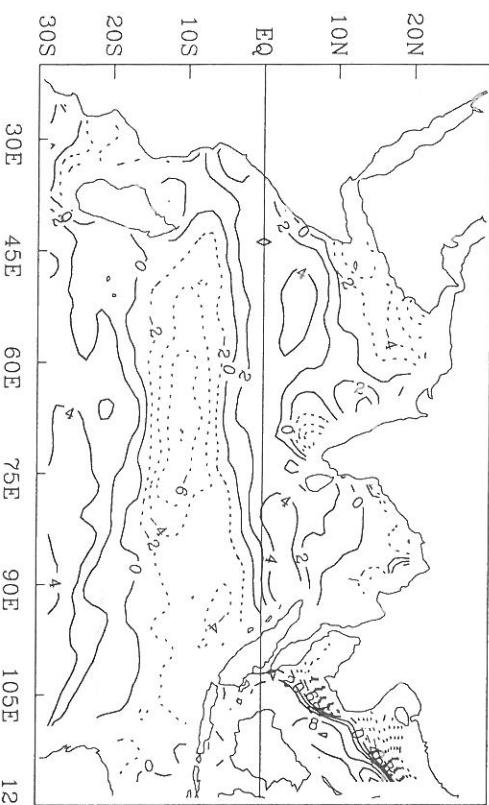
Mean Pseudo-stress ( $M^2 S^{-2}$ ) December 1985–1994



Mean Wind Divergence ( $\times 10^{-6} s^{-1}$ ) December 1985–1994



Mean Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ ) December 1985–1994

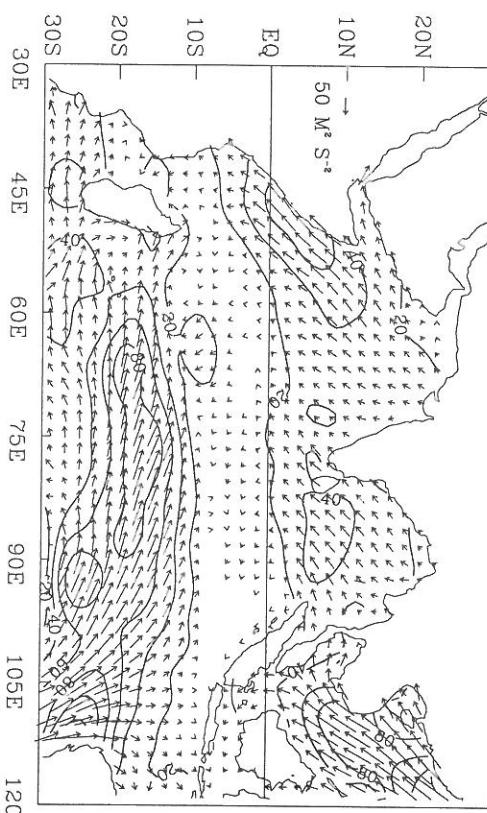


Clim-24

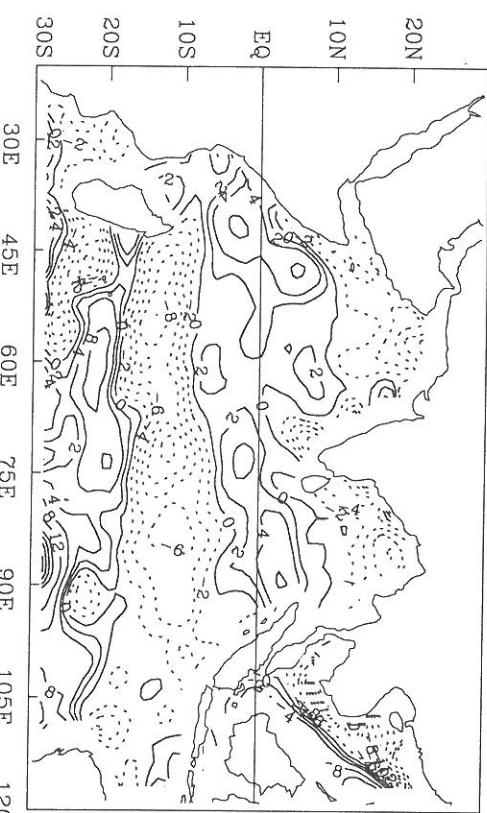
# Monthly Climatologies

January 1985

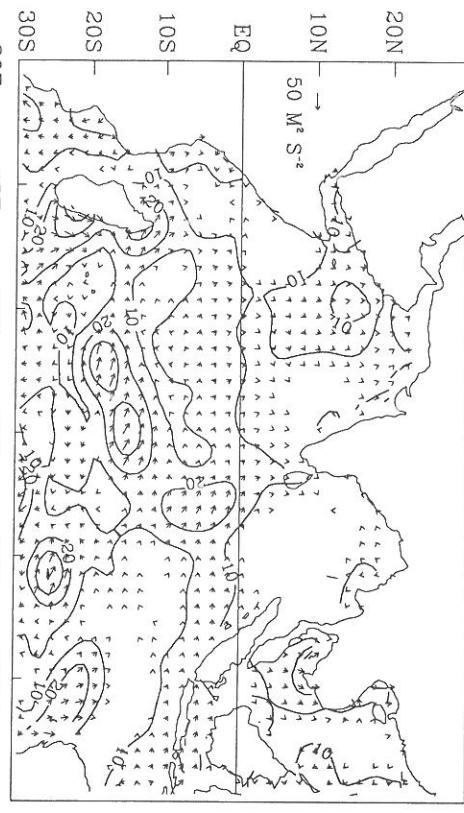
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



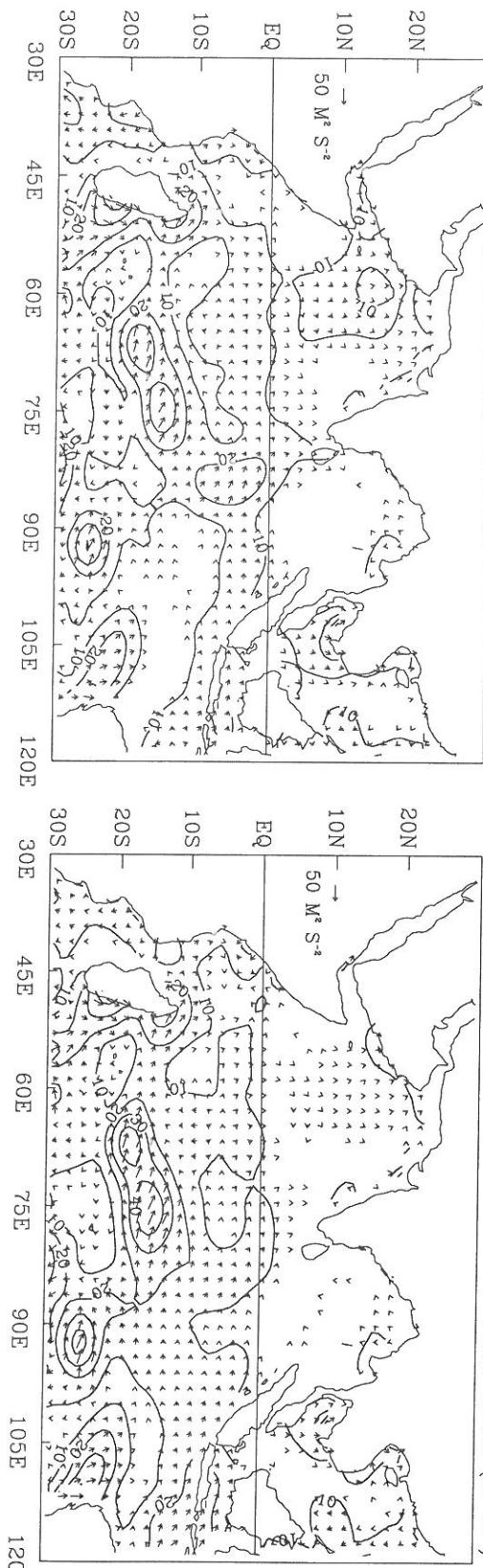
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



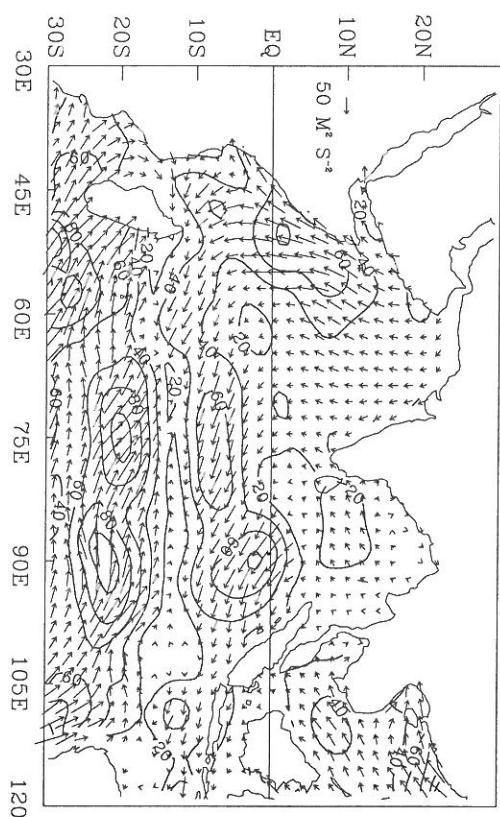
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



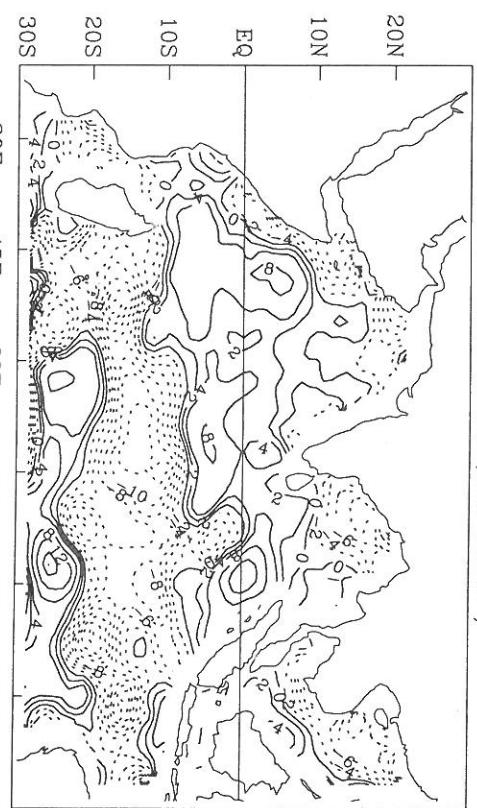
January 1985

February 1985

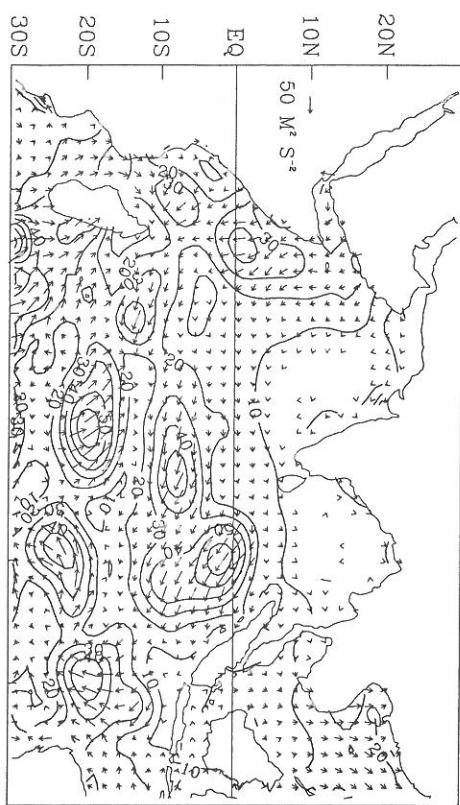
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



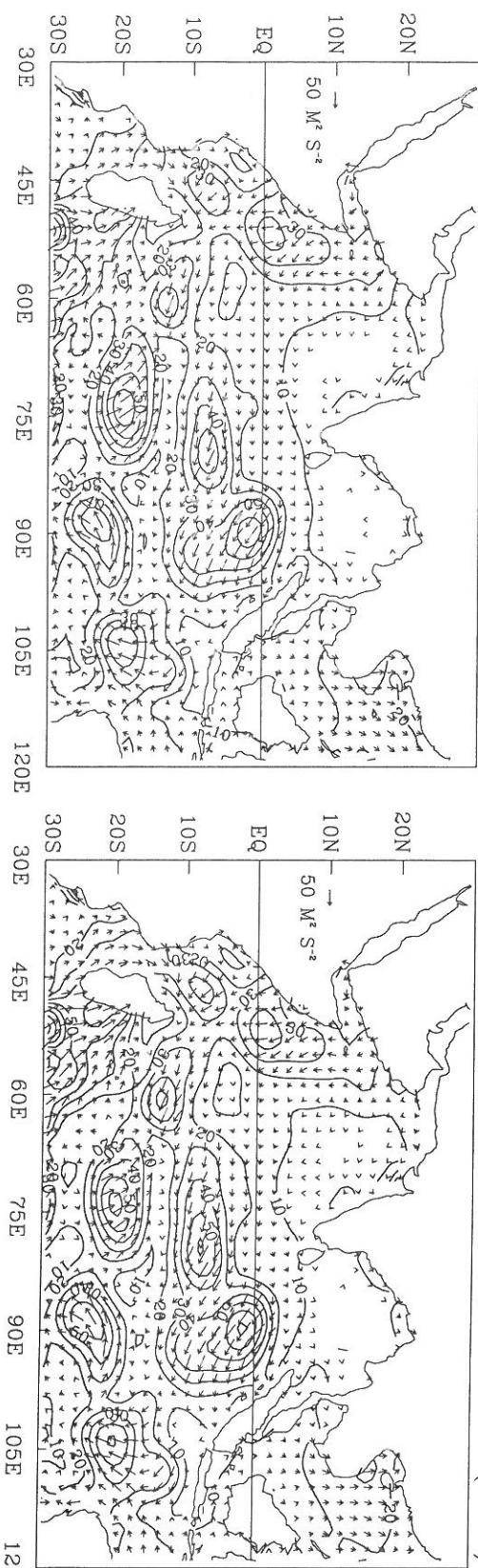
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )

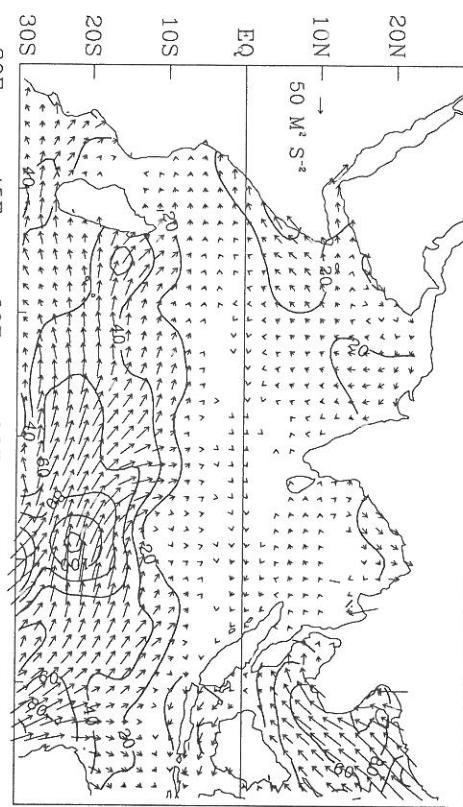


February 1985

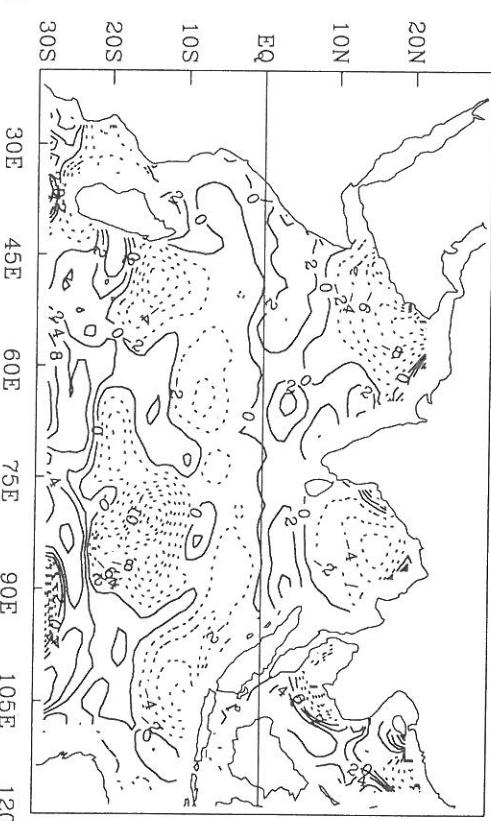
30E 45E 60E 75E 90E 105E 120E

March 1985

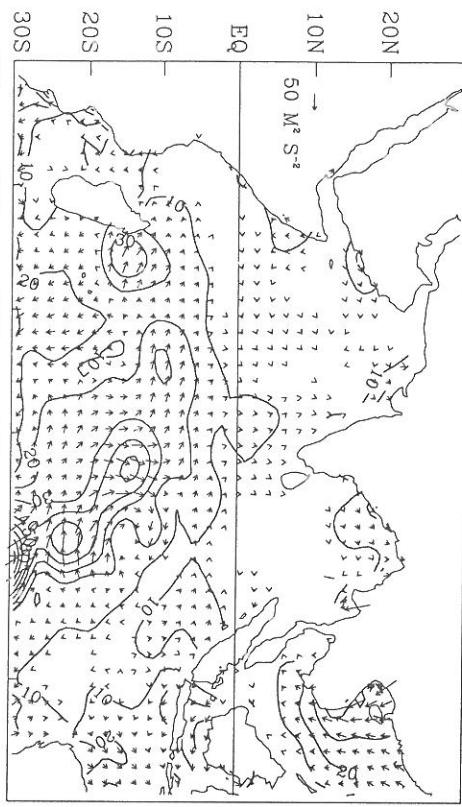
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



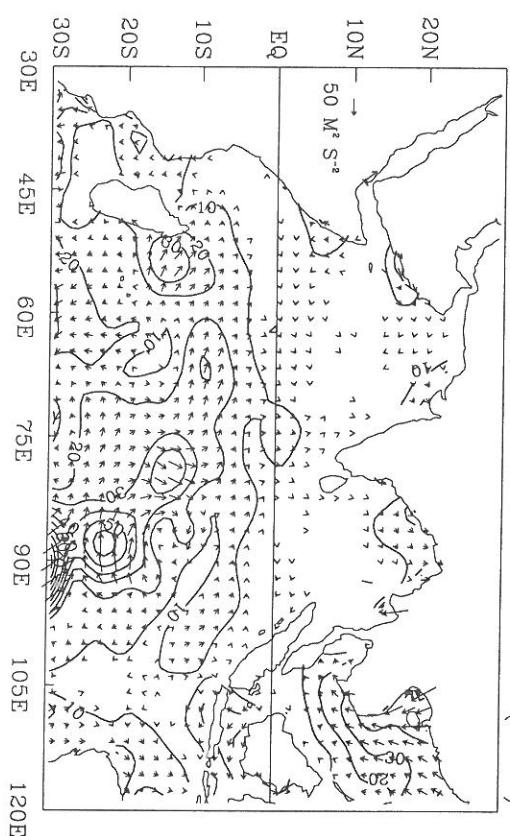
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



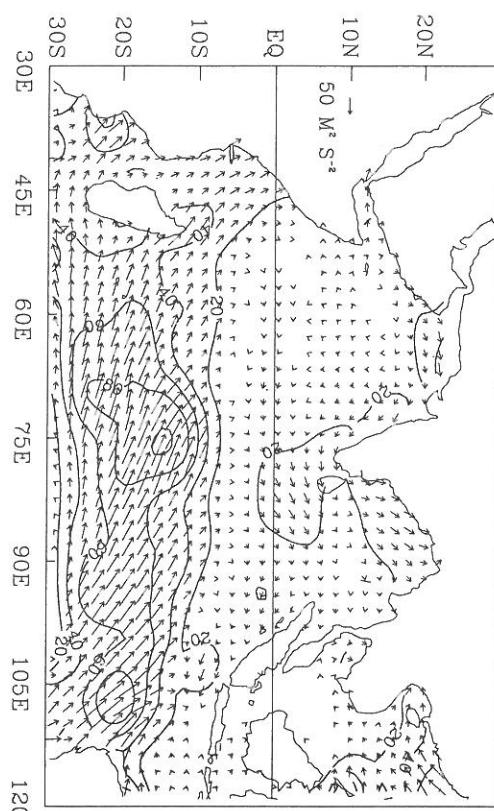
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



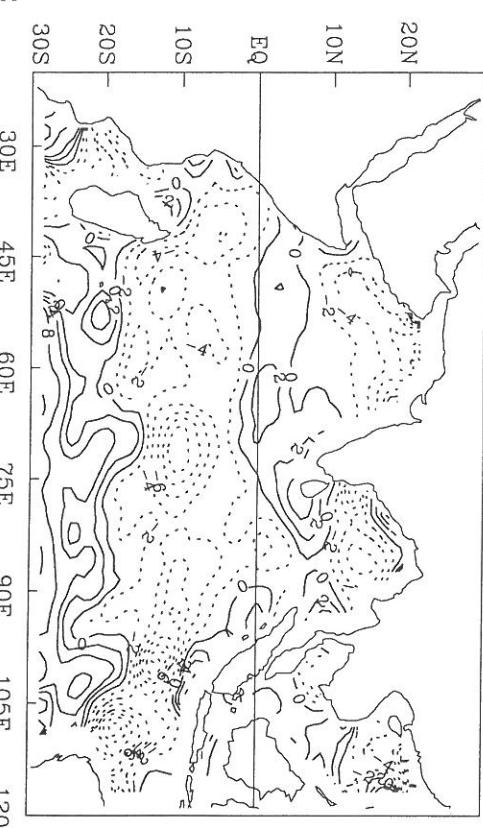
March 1985

April 1985

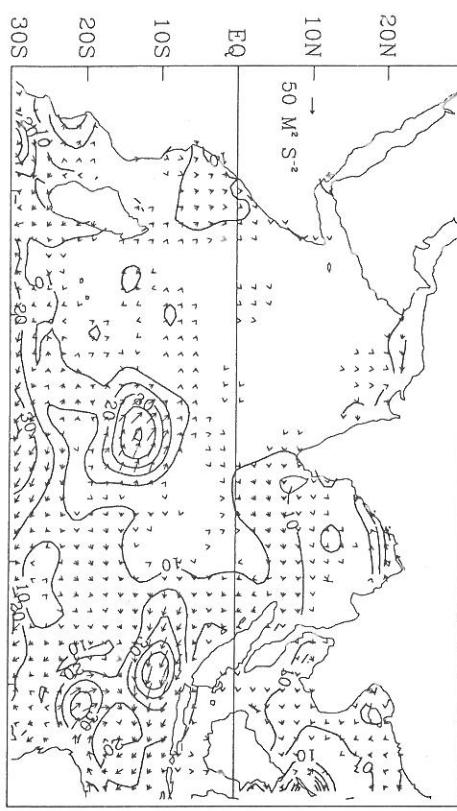
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



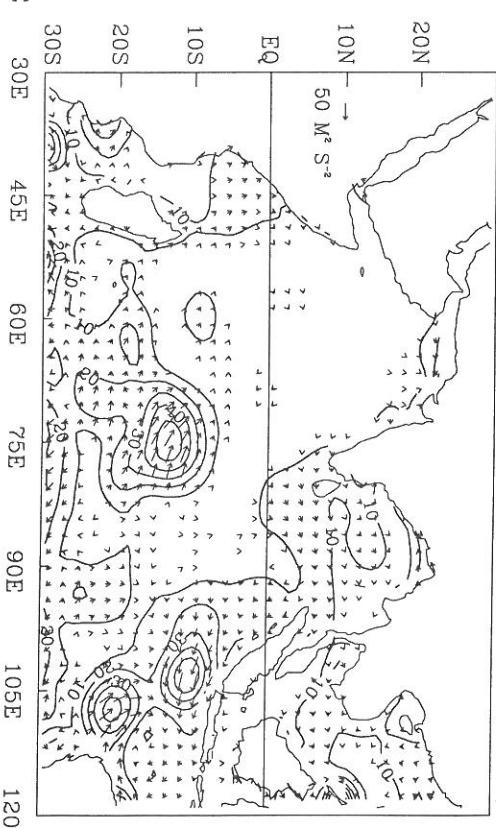
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



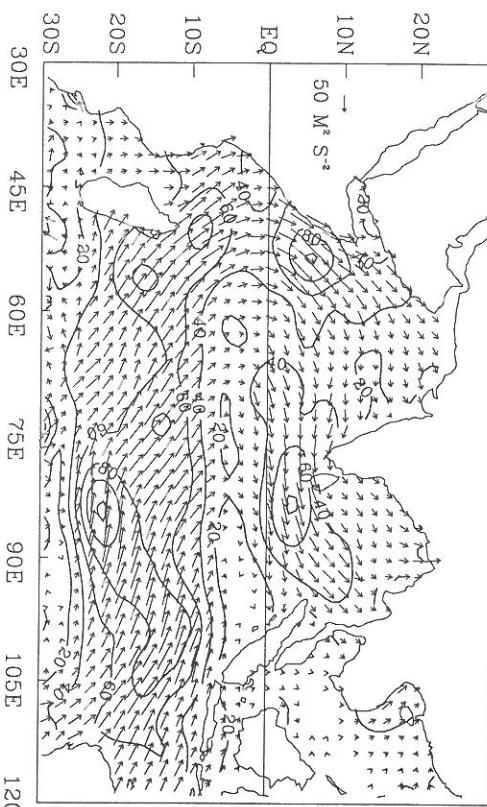
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



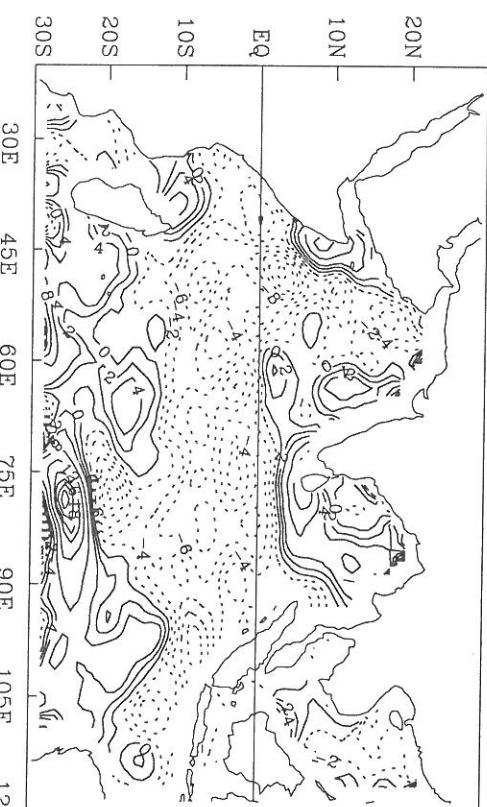
April 1985

May 1985

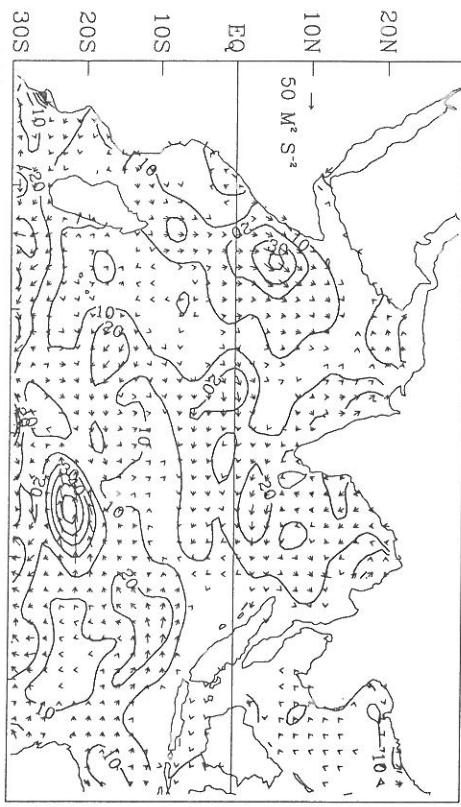
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



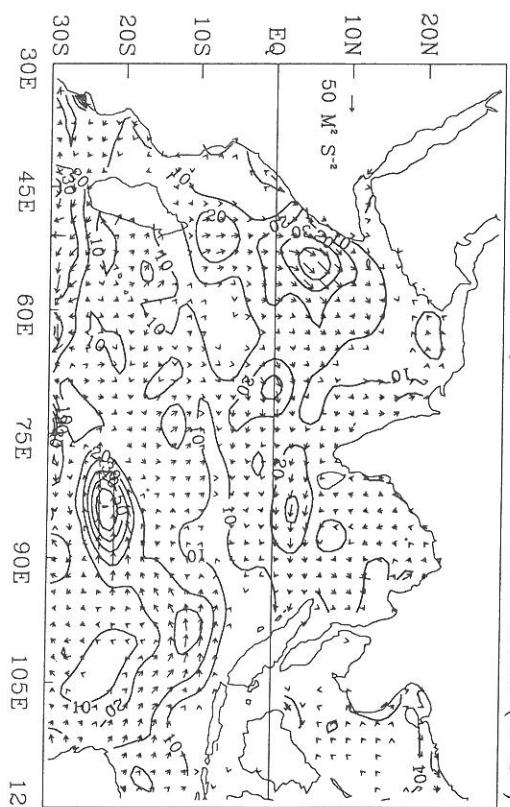
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



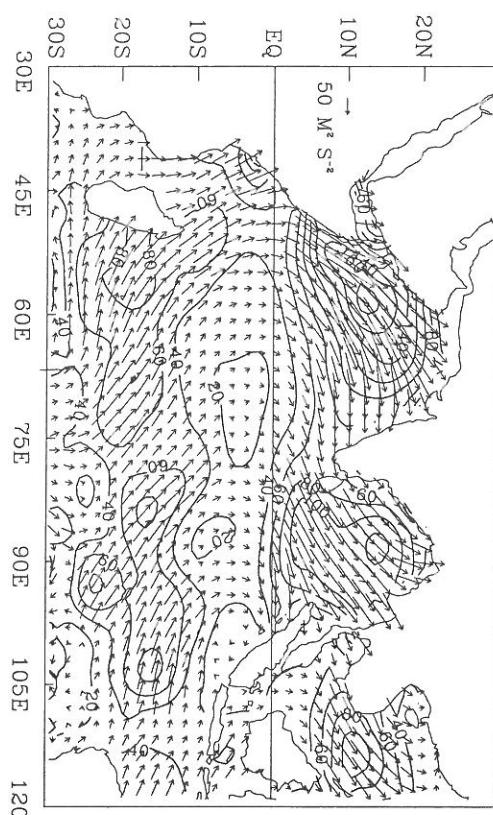
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



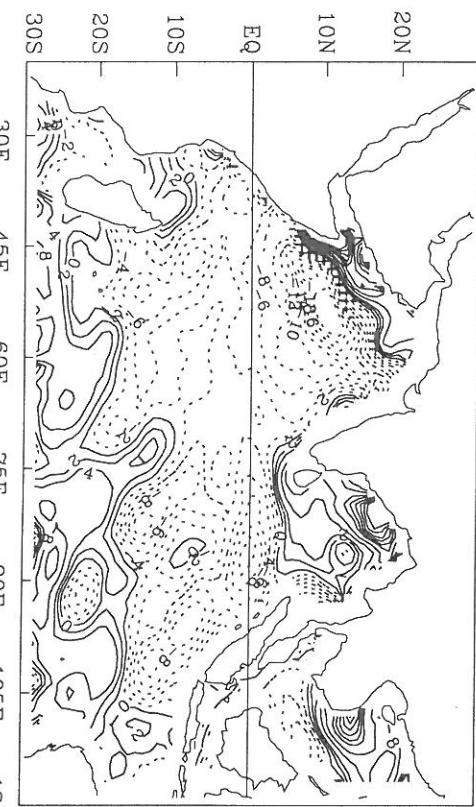
May 1985

June 1985

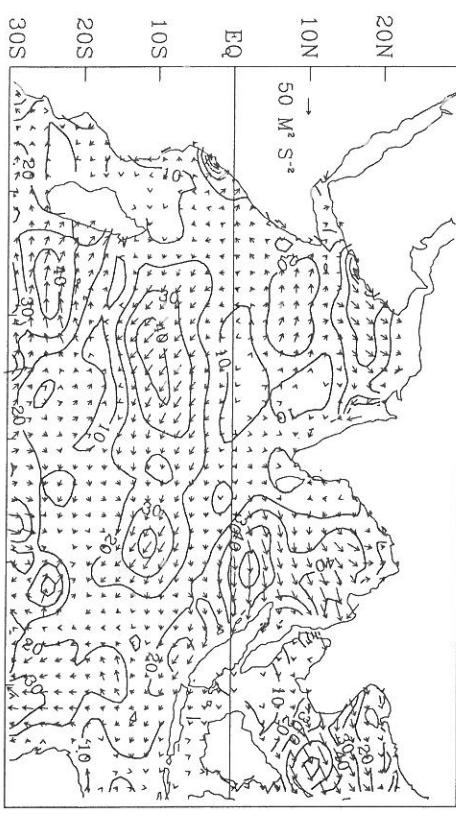
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



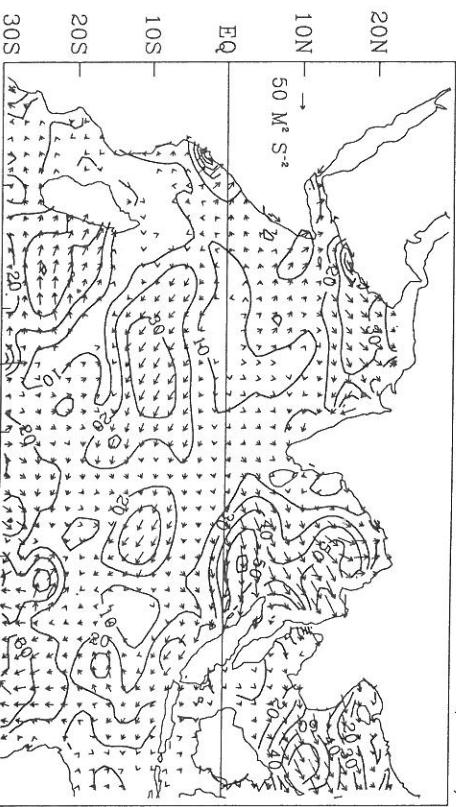
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



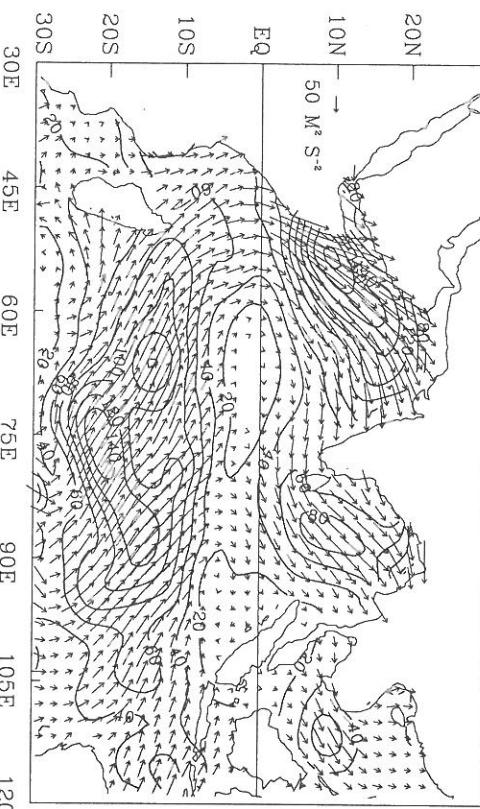
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



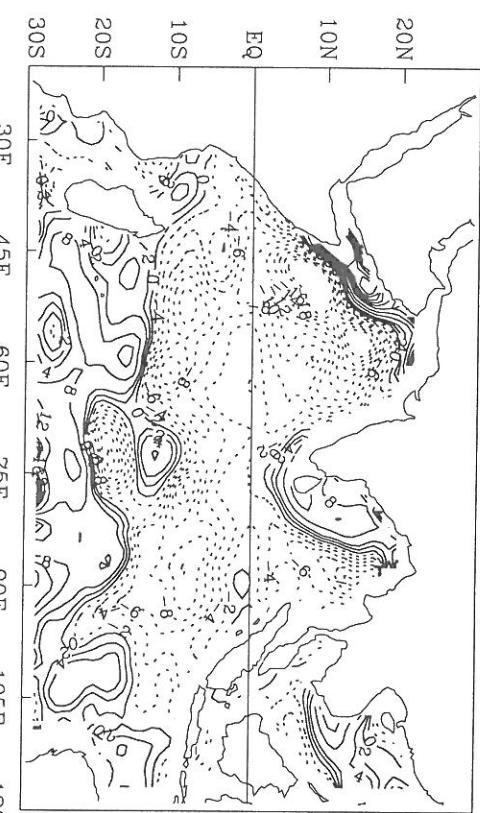
June 1985

July 1985

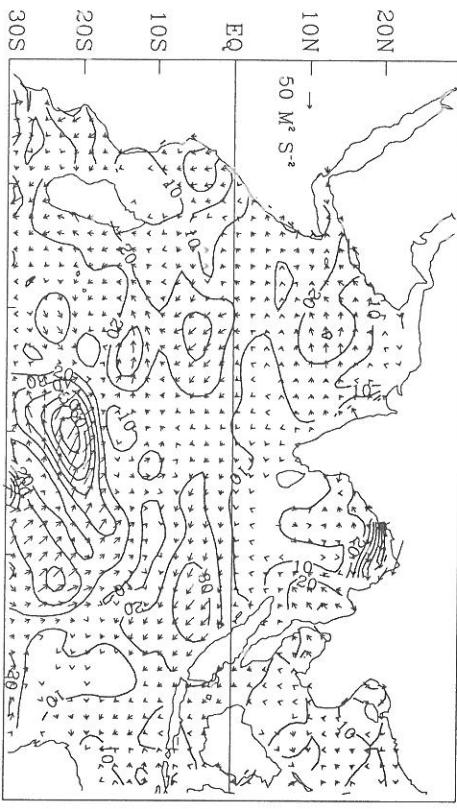
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



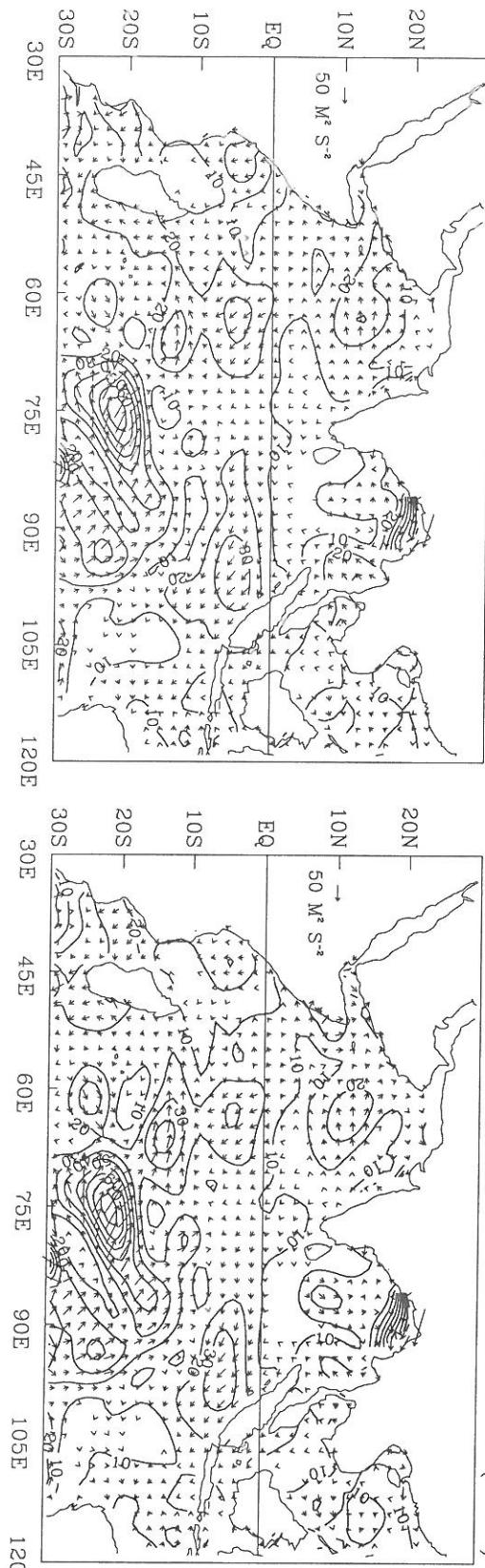
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



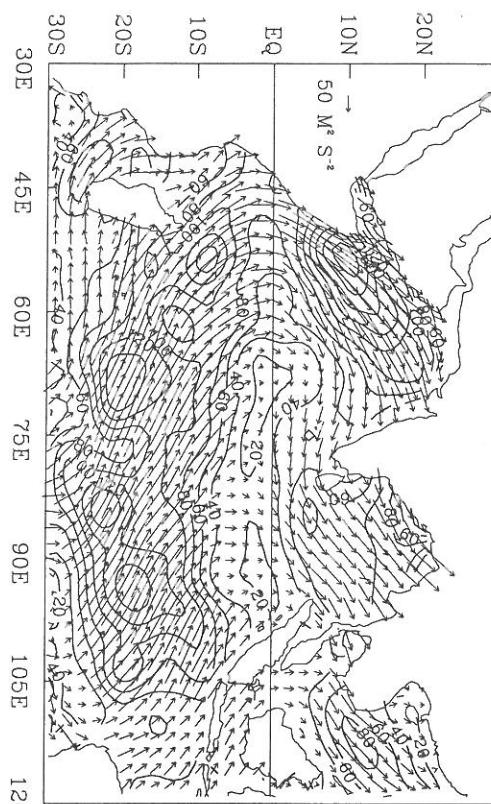
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



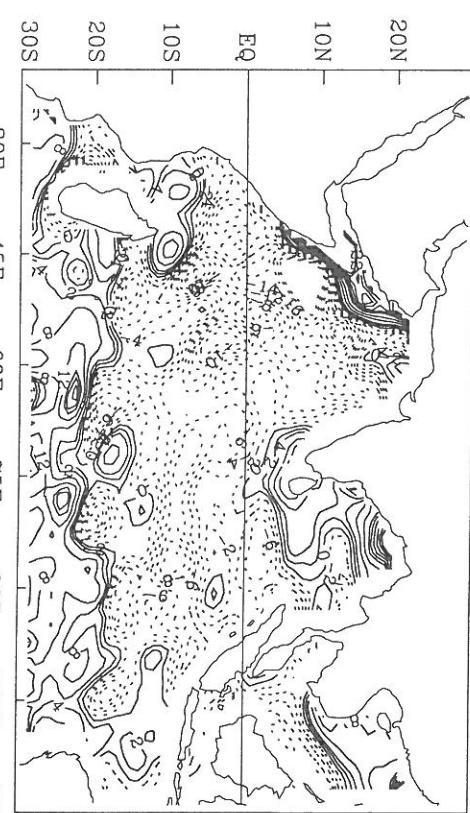
July 1985

August 1985

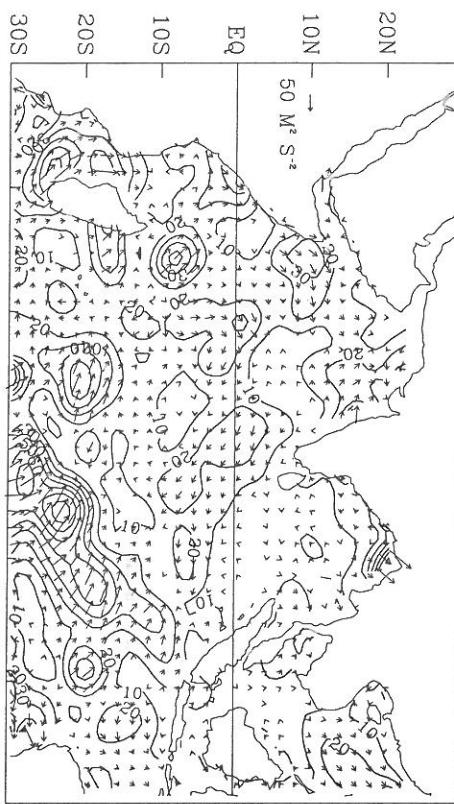
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



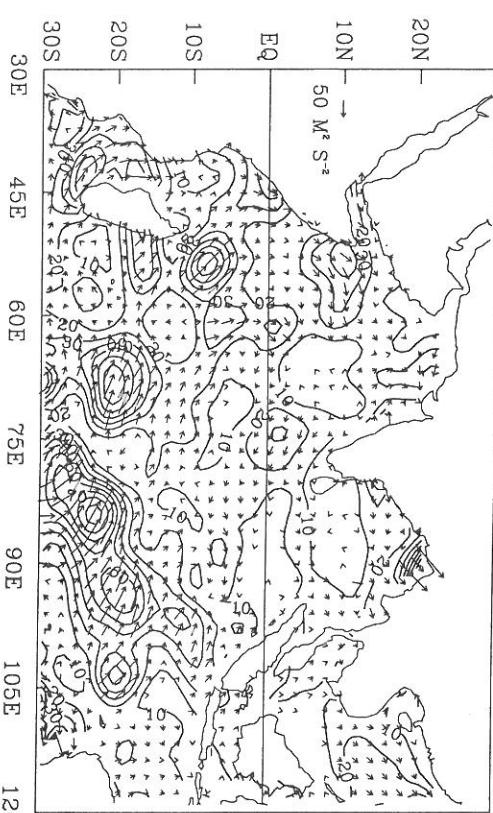
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



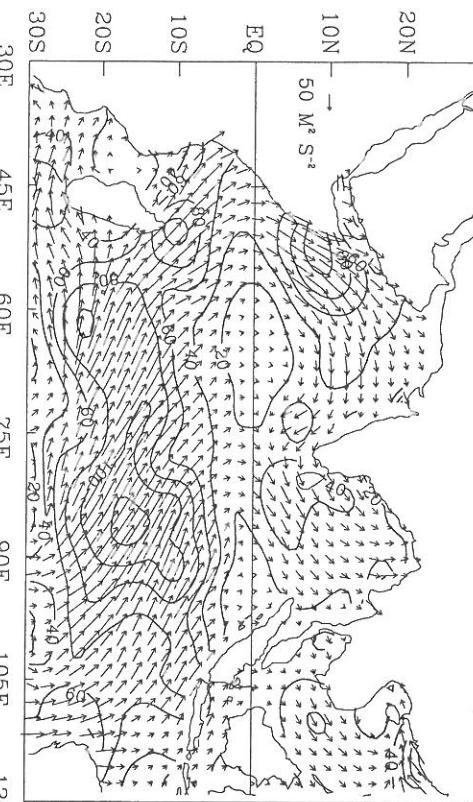
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



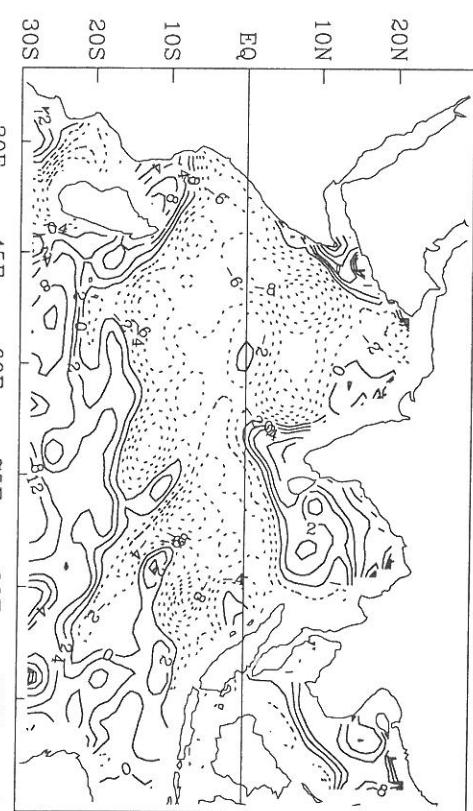
August 1985

September 1985

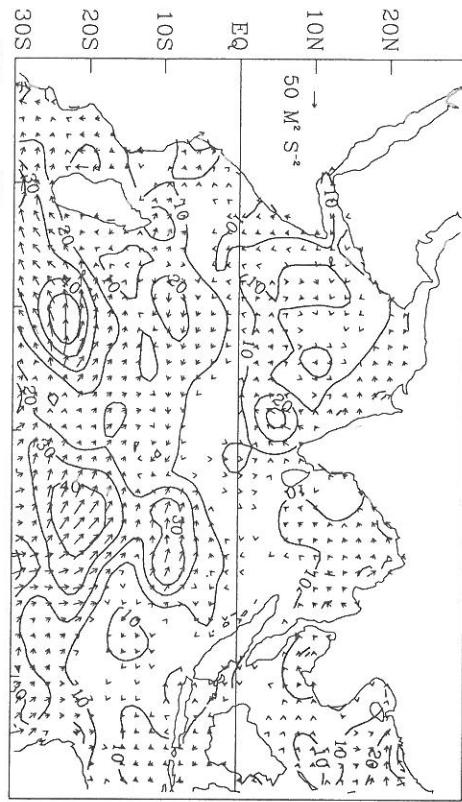
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



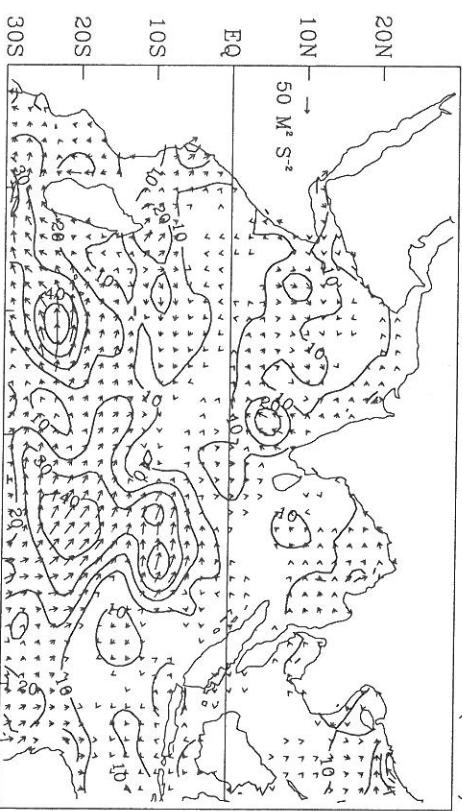
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )

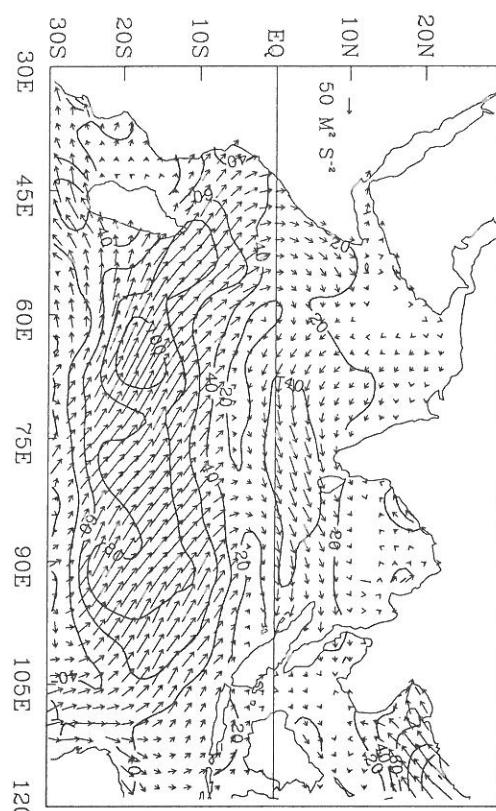


September 1985

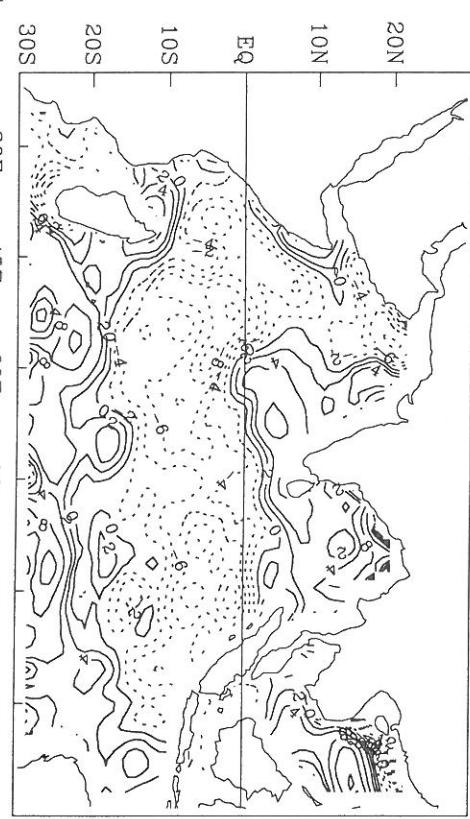
30E 45E 60E 75E 90E 105E 120E

October 1985

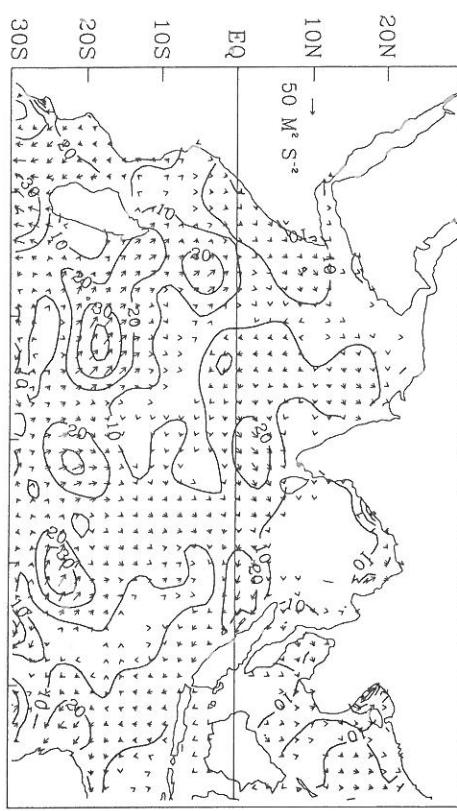
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



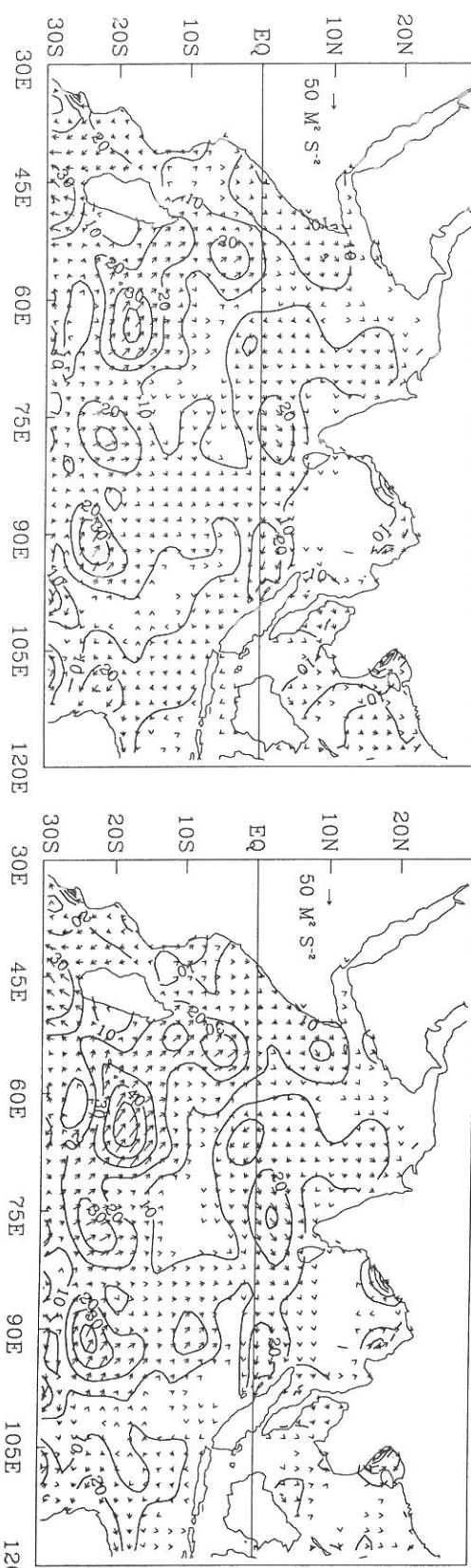
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



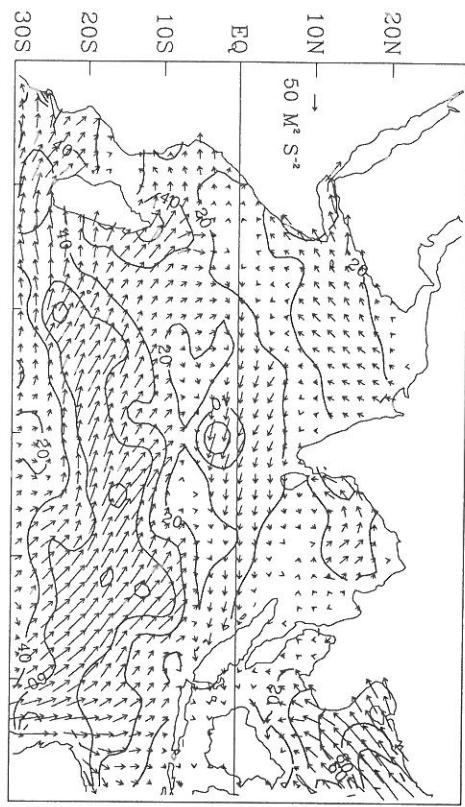
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



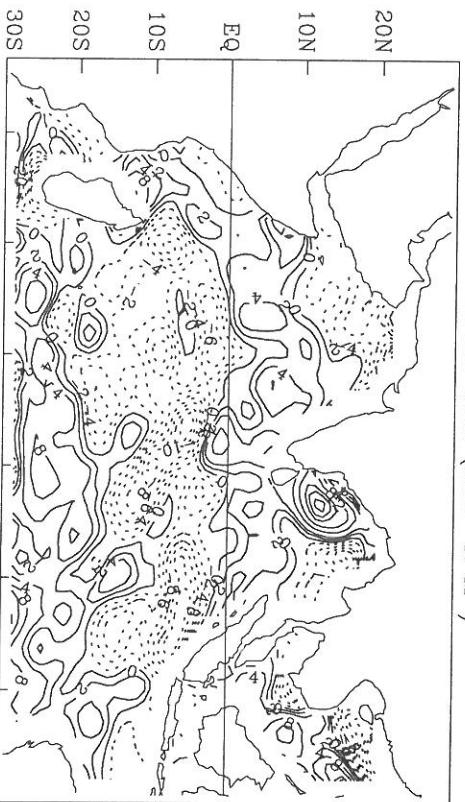
October 1985

November 1985

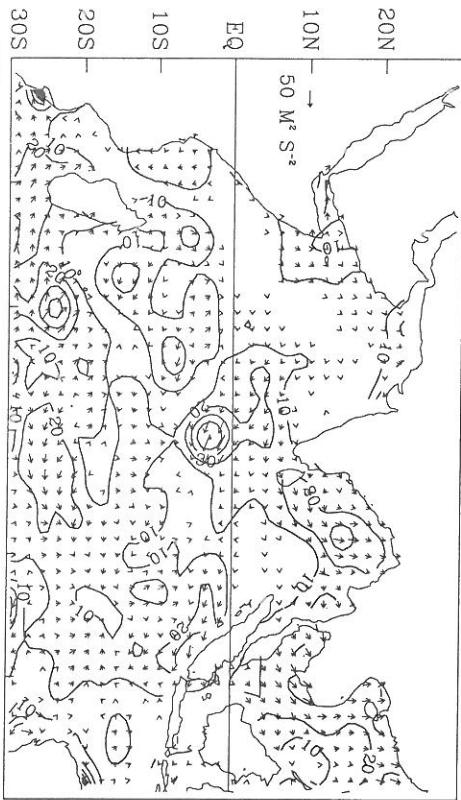
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



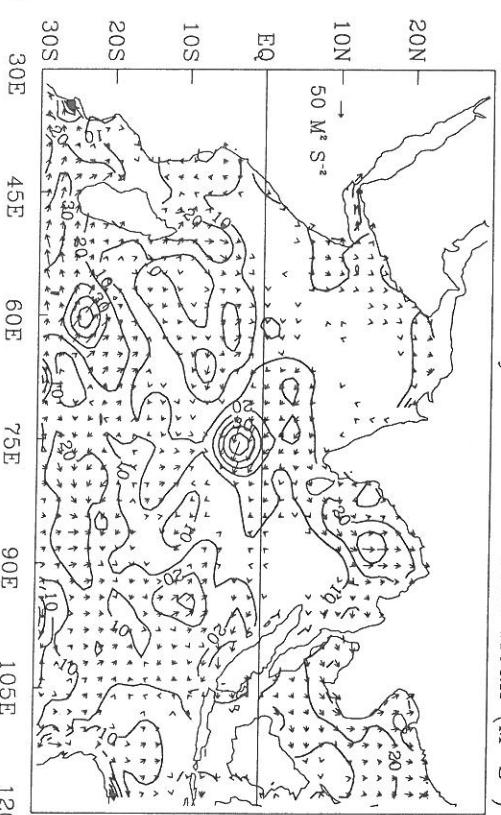
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



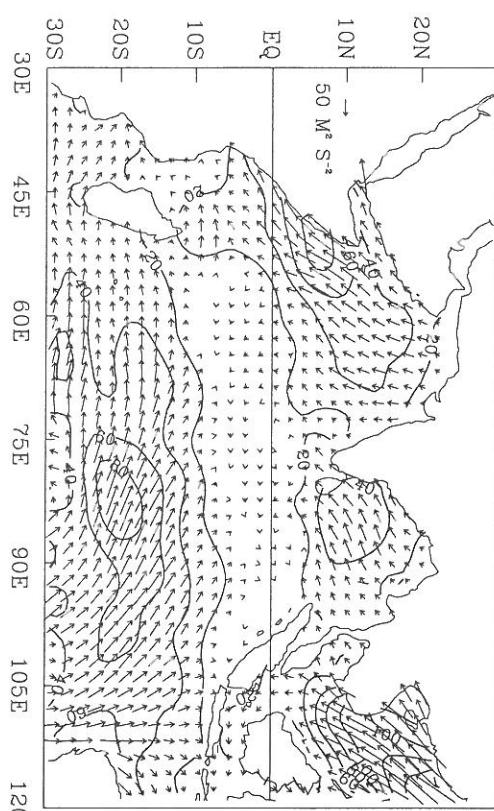
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



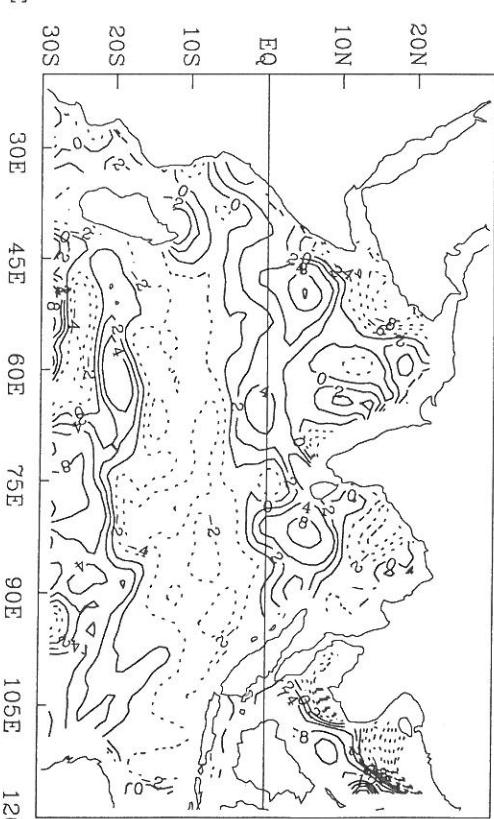
November 1985

December 1985

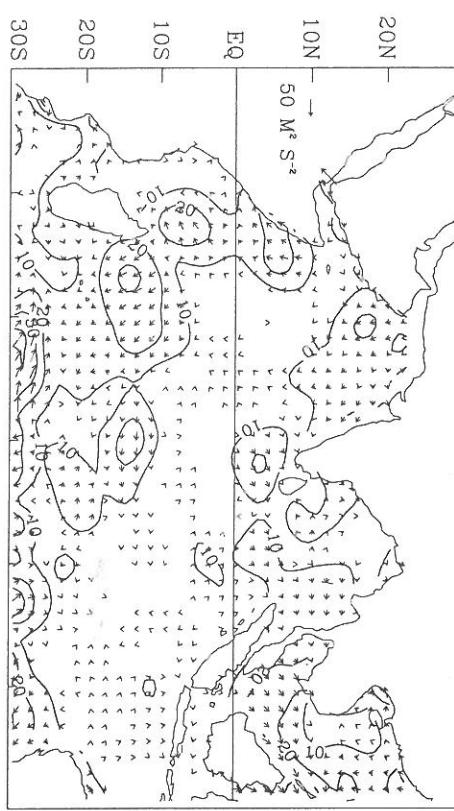
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



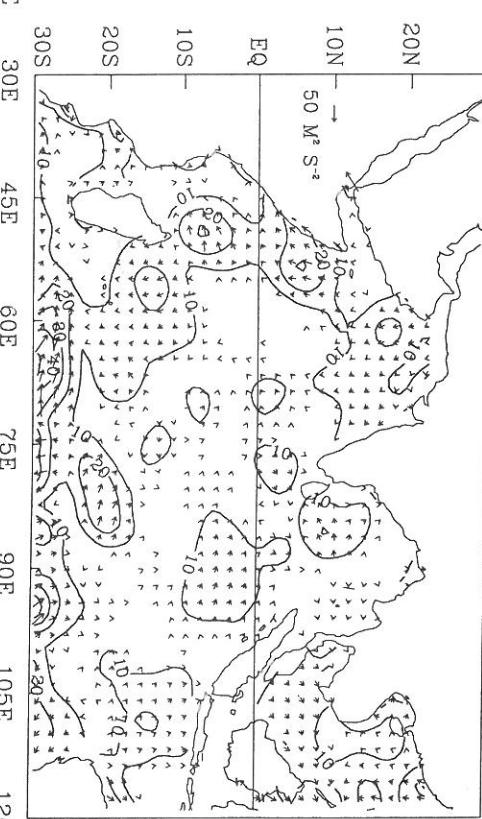
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )

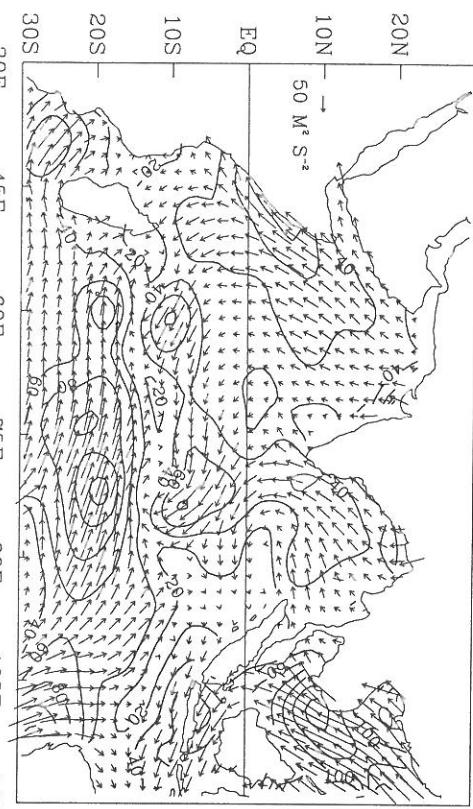


December 1985

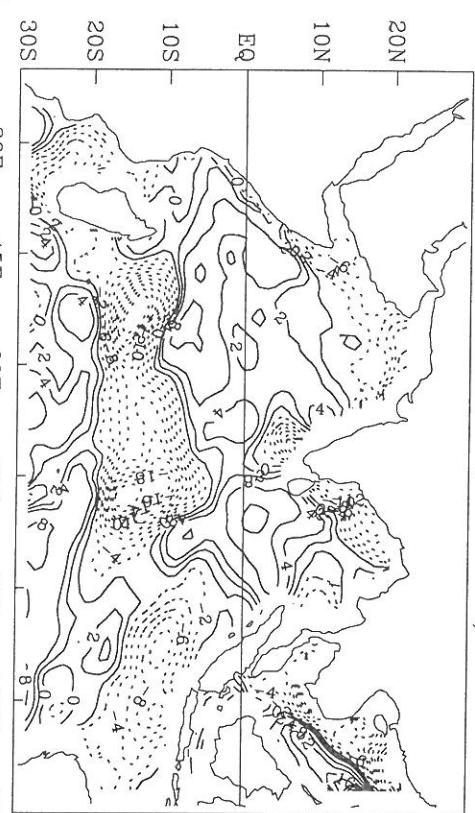
30E 45E 60E 75E 90E 105E 120E 30E 45E 60E 75E 90E 105E 120E

January 1986

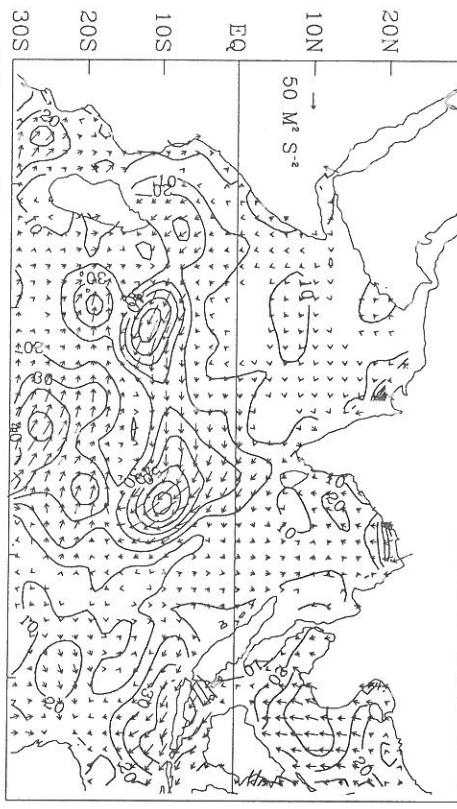
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



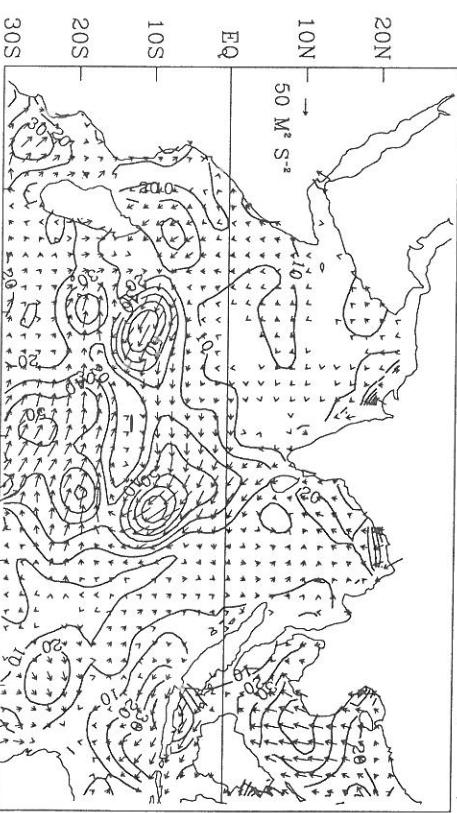
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



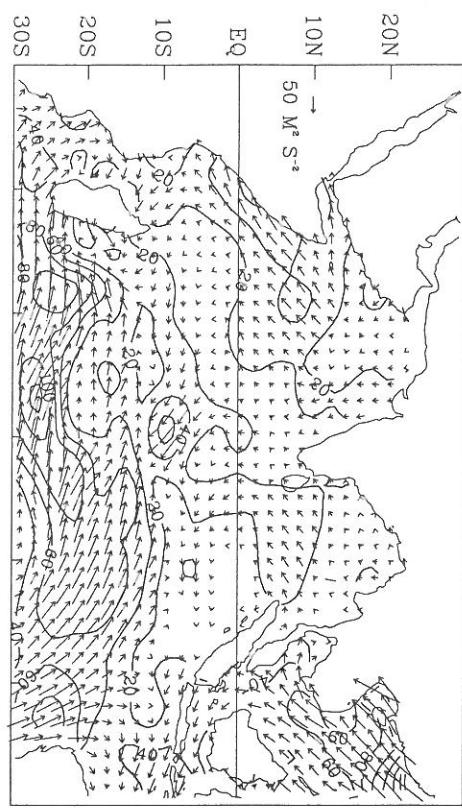
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



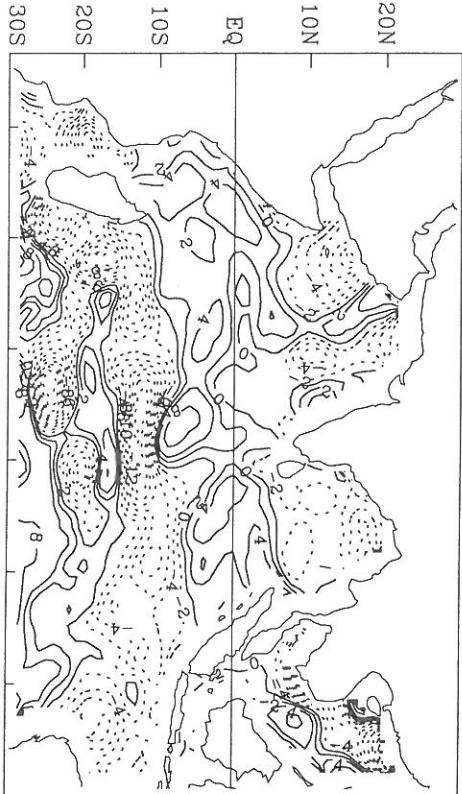
January 1986

February 1986

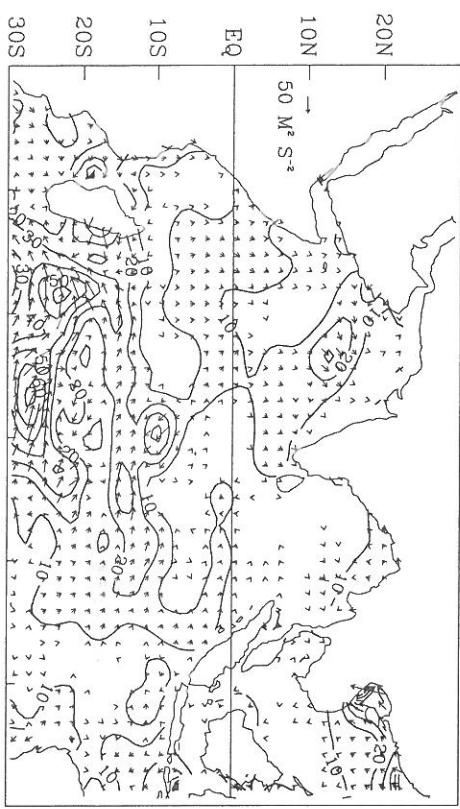
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



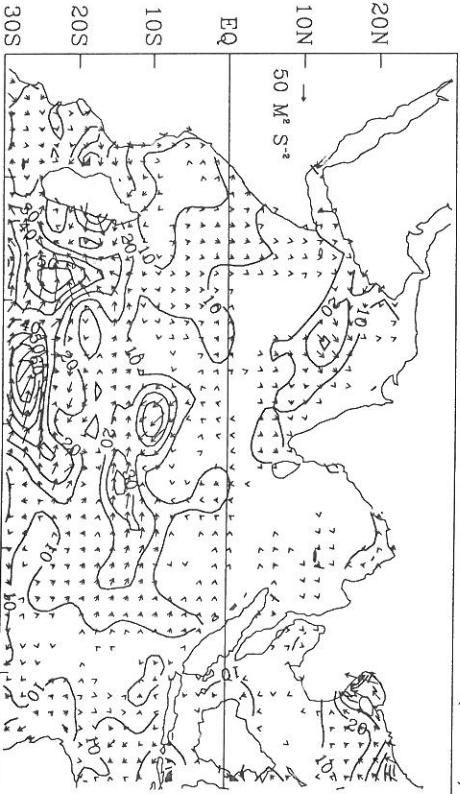
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )

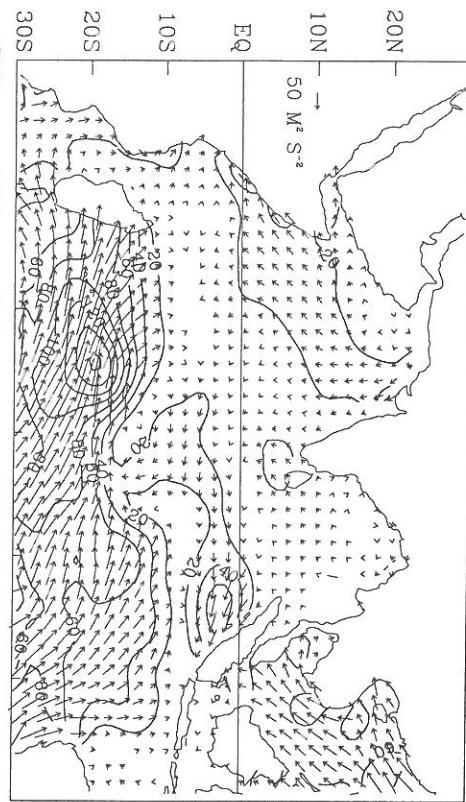


February 1986

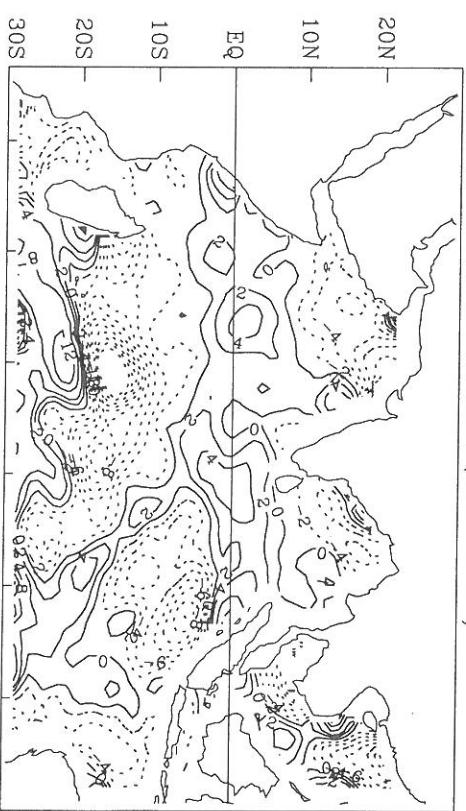
30E 45E 60E 75E 90E 105E 120E 30E 45E 60E 75E 90E 105E 120E

March 1986

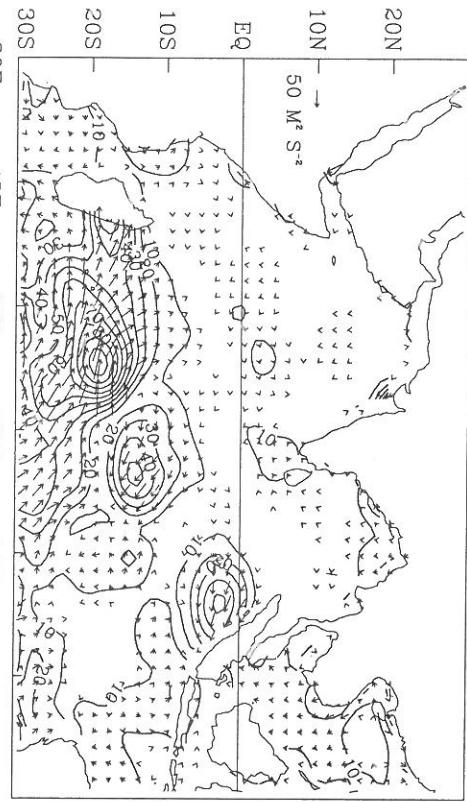
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



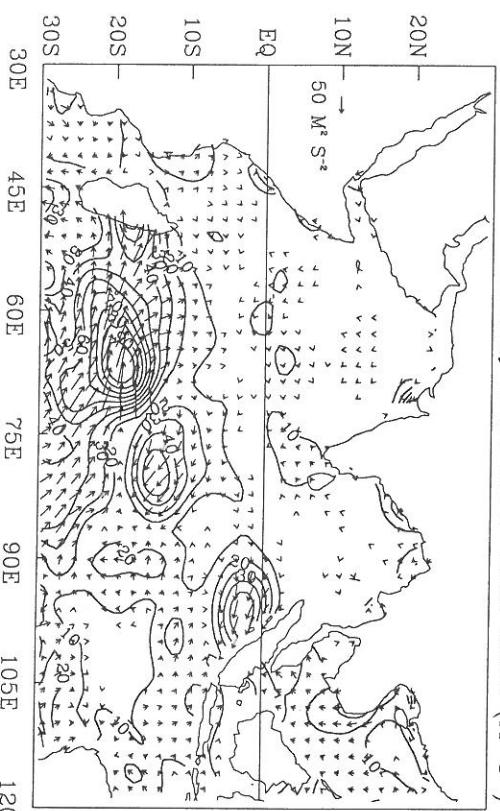
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



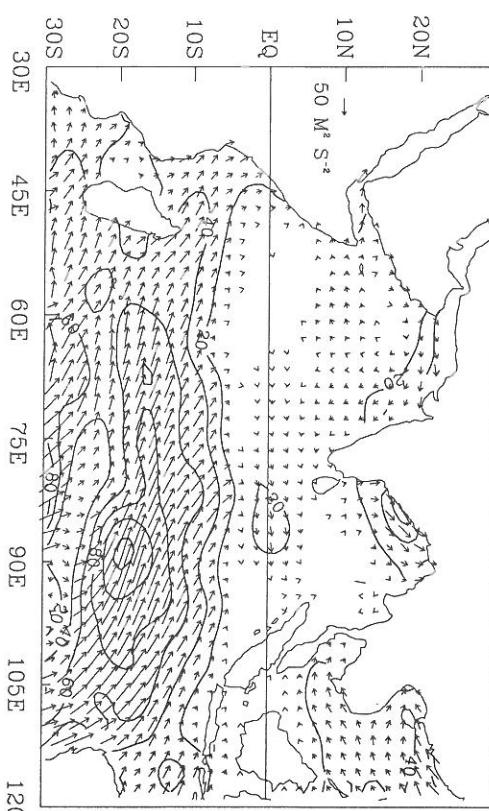
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



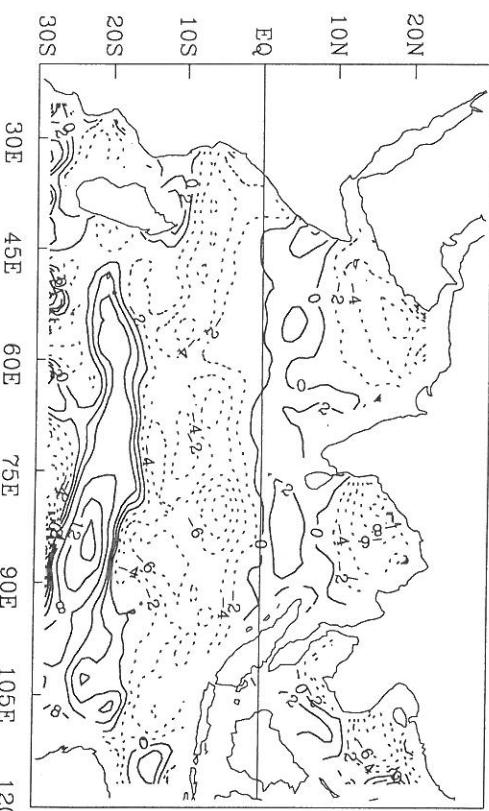
March 1986

April 1986

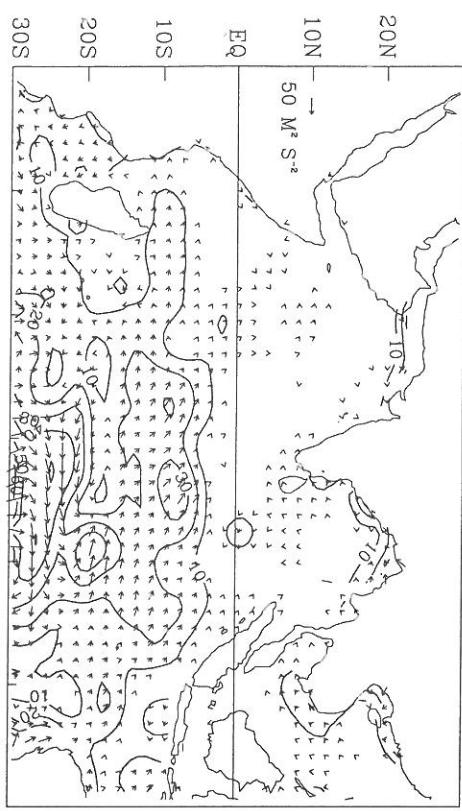
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



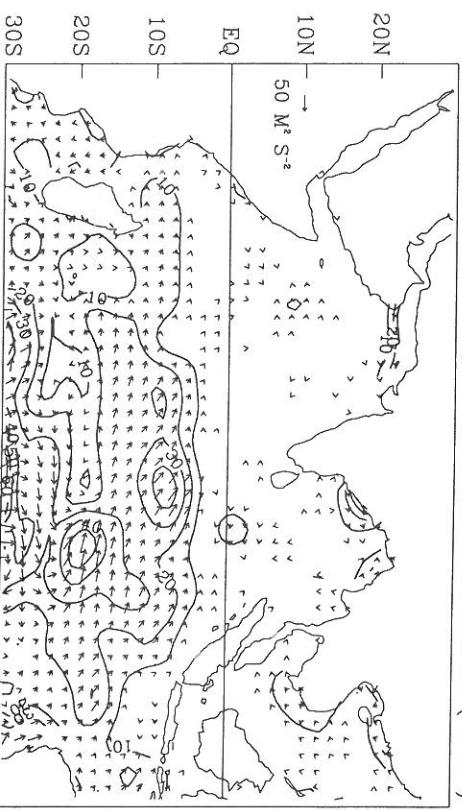
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



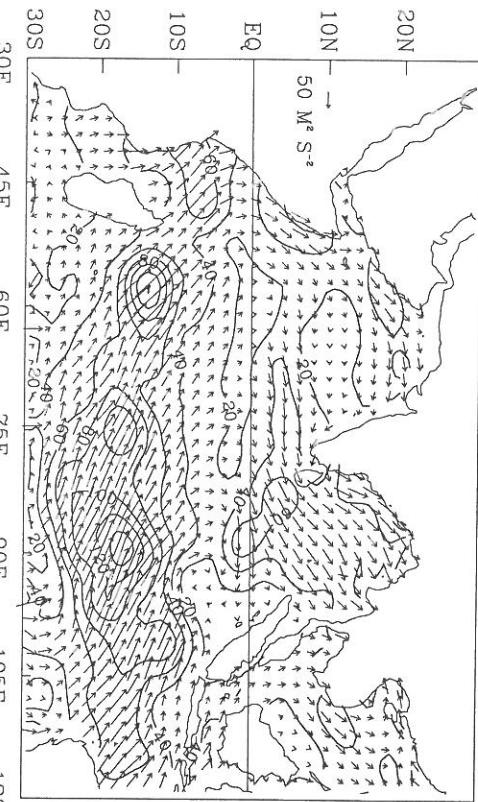
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



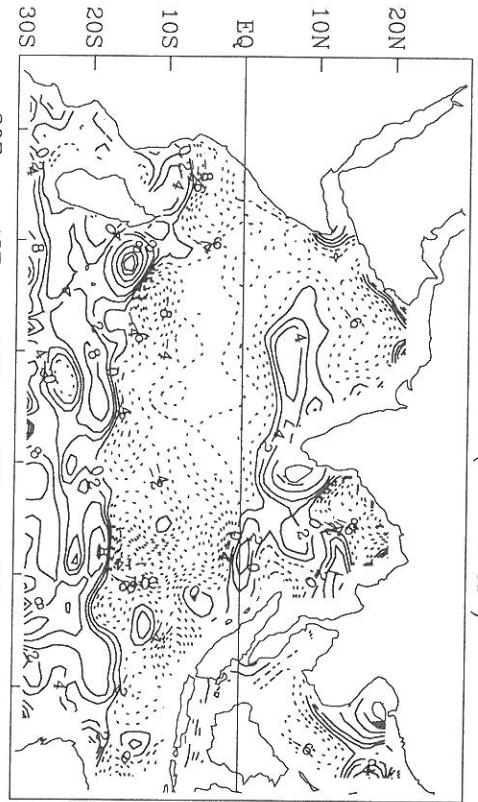
April 1986

May 1986

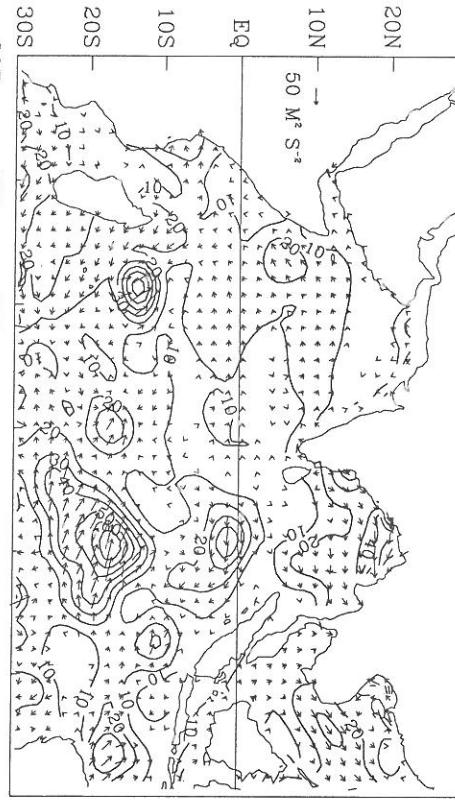
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



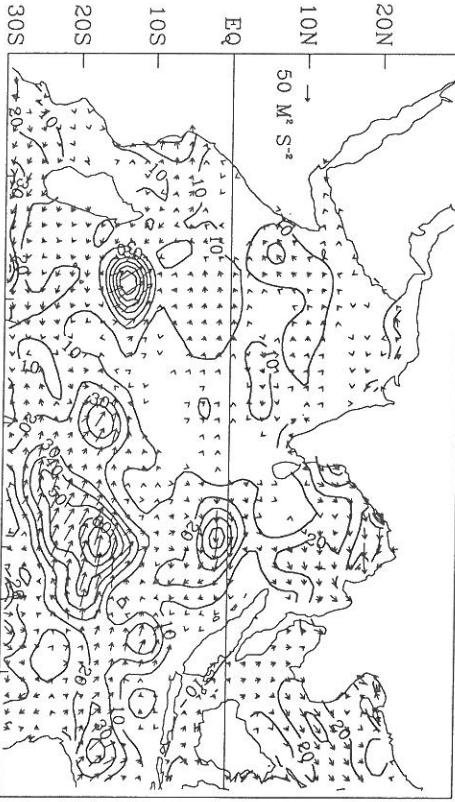
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



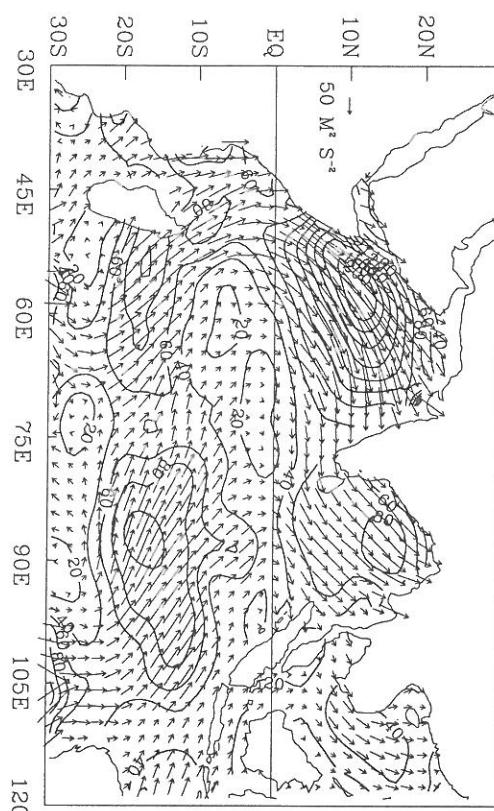
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



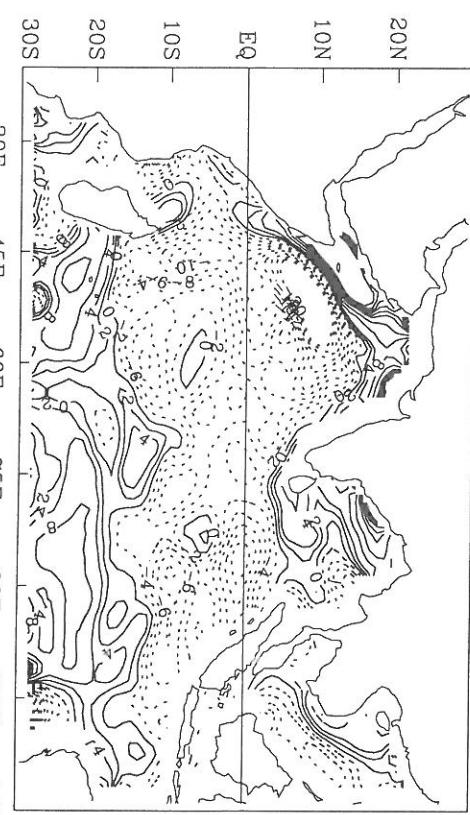
May 1986

June 1986

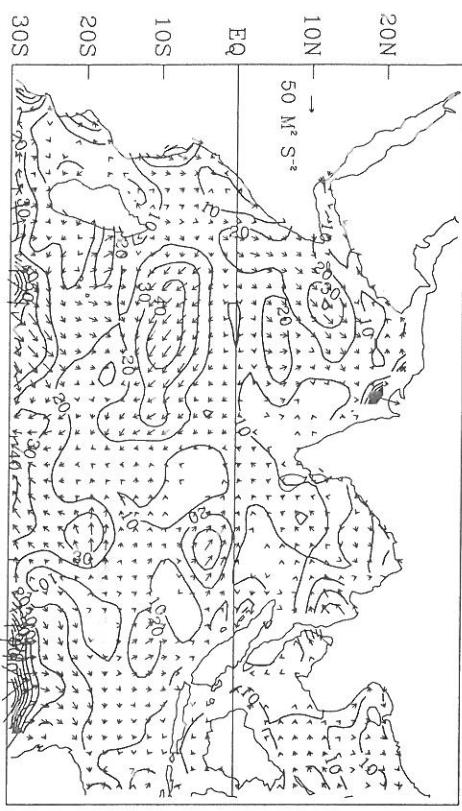
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



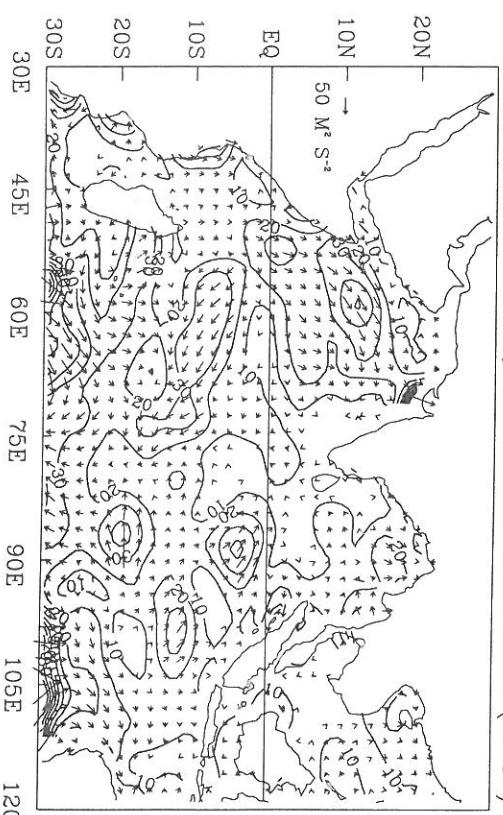
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



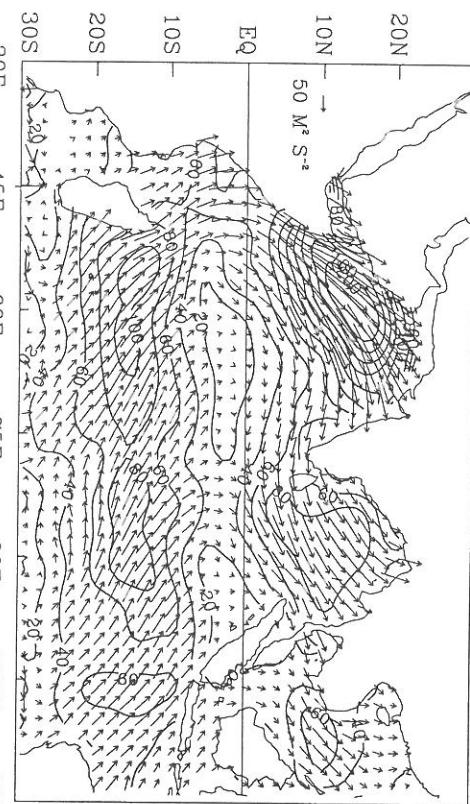
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



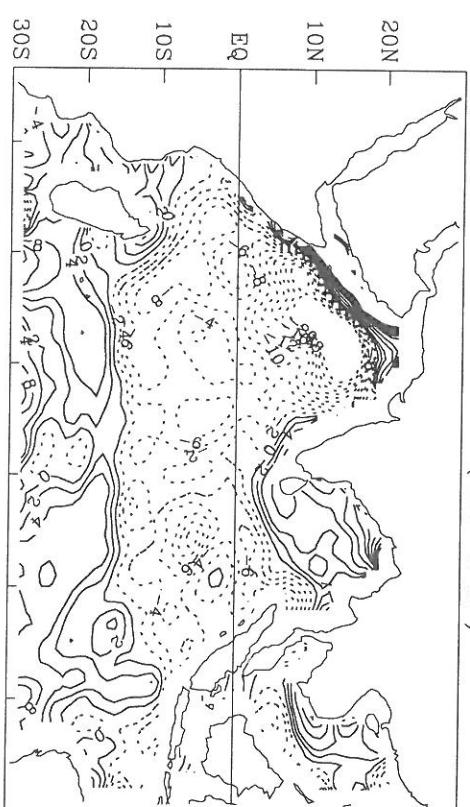
June 1986

July 1986

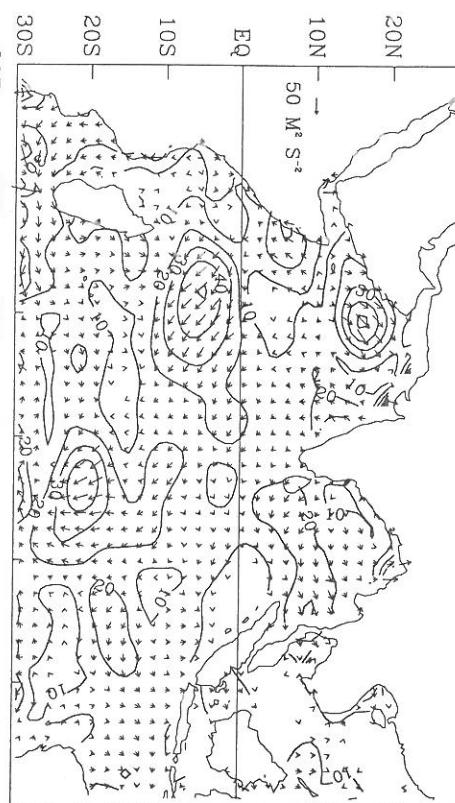
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



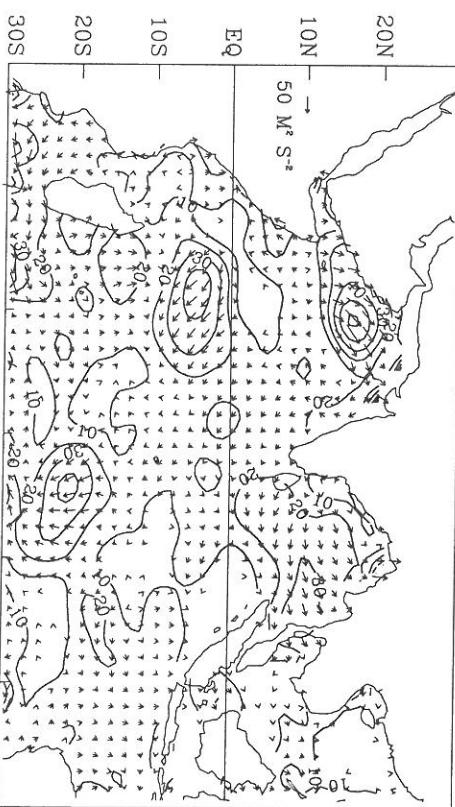
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



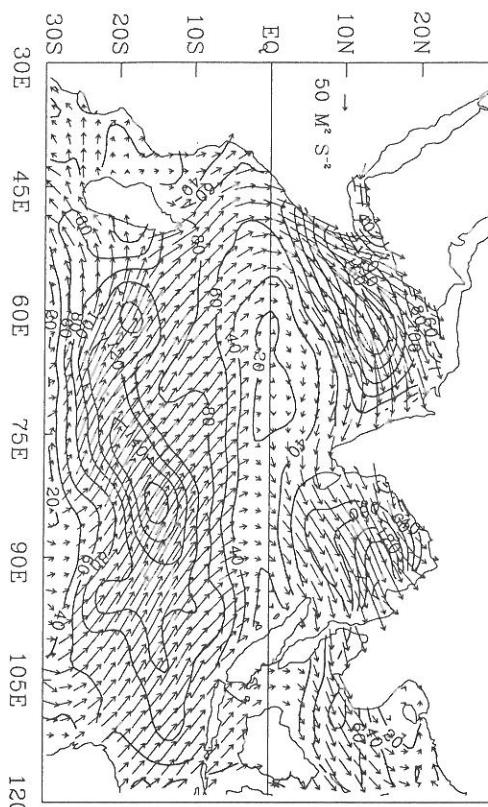
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



July 1986

August 1986

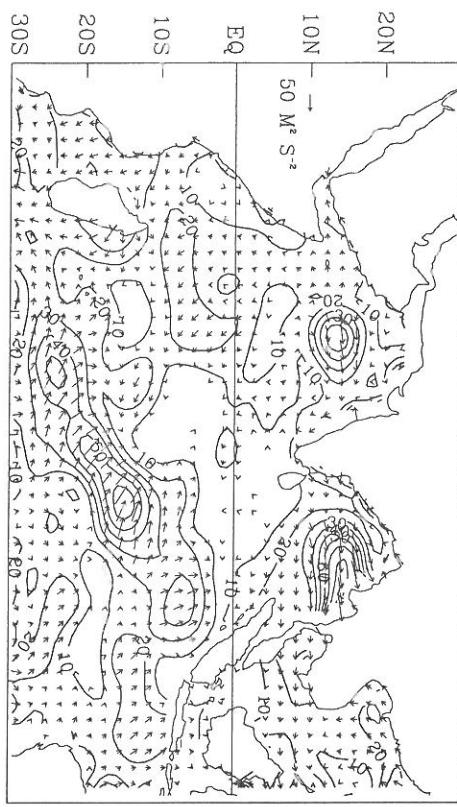
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



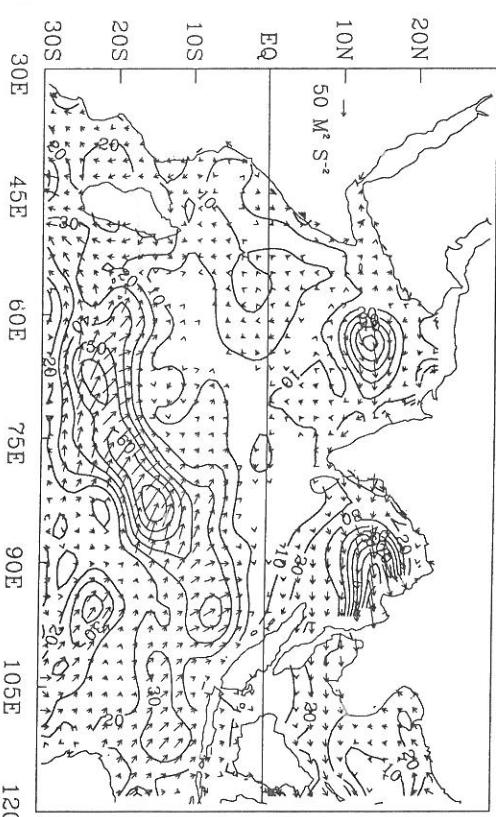
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



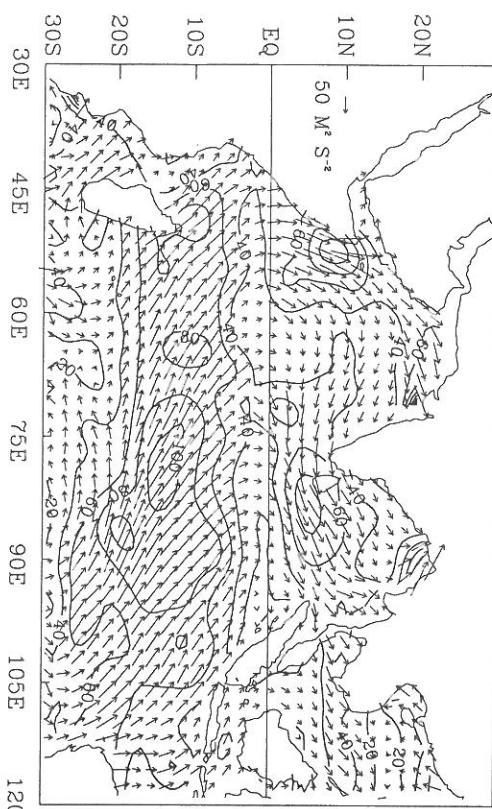
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



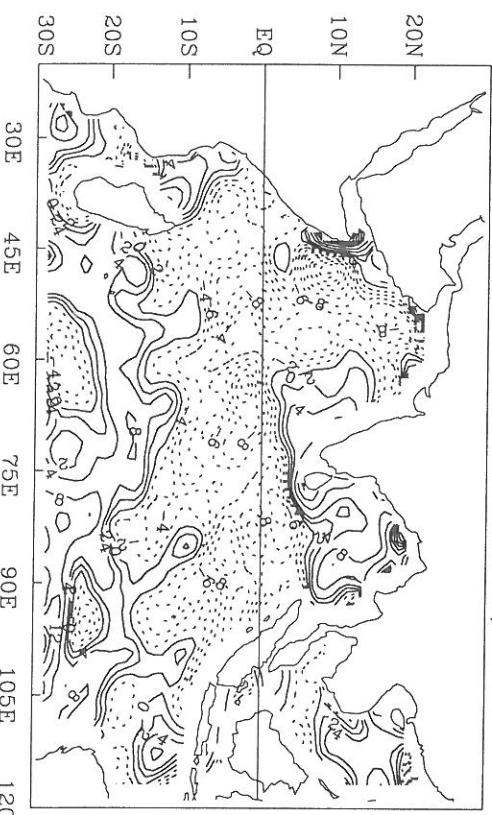
August 1986

September 1986

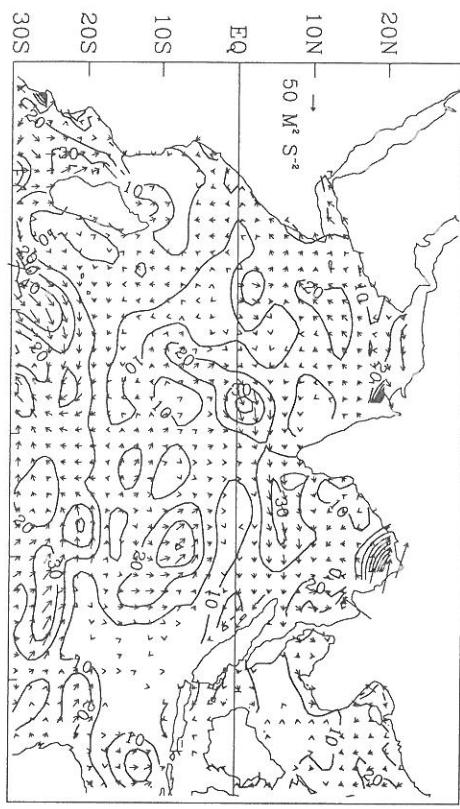
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



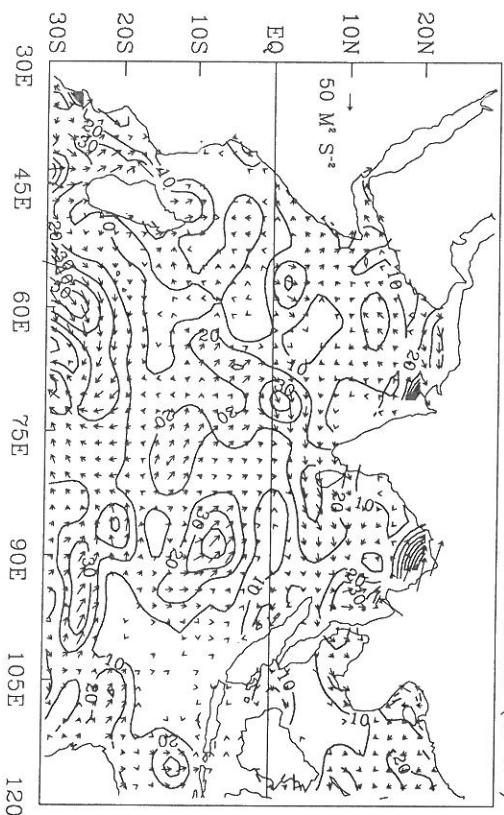
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



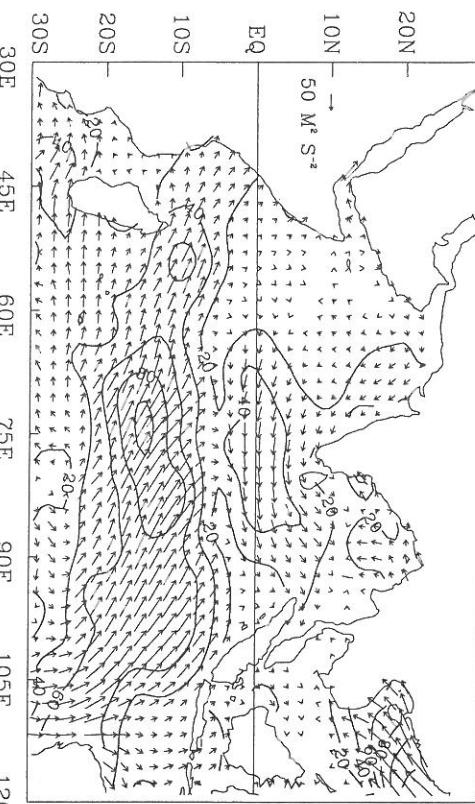
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



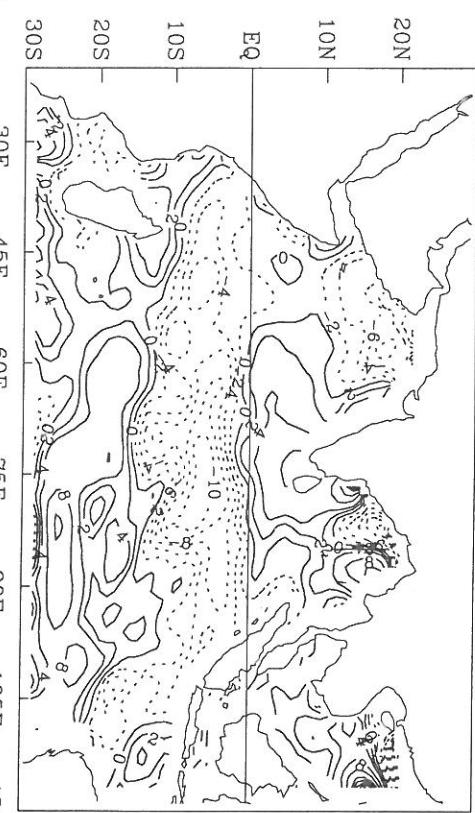
September 1986

October 1986

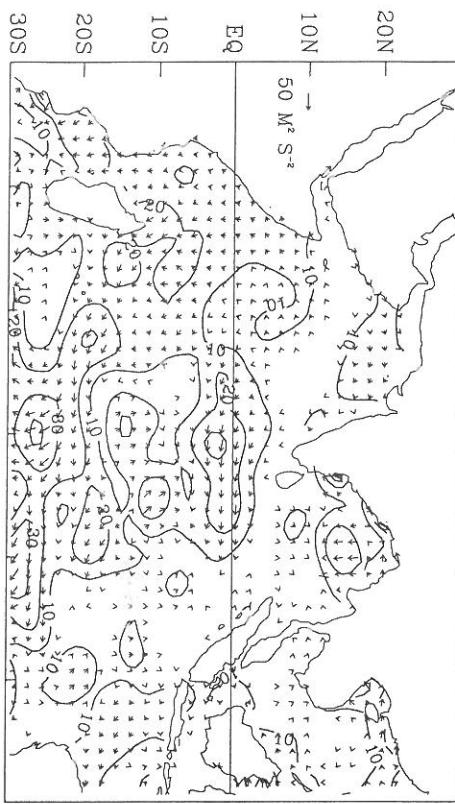
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



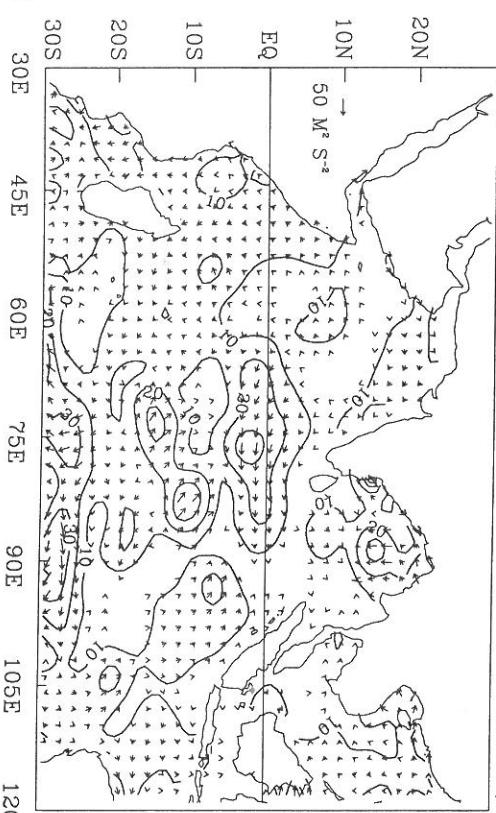
Wind Stress Curl ( $\times 10^{-9} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



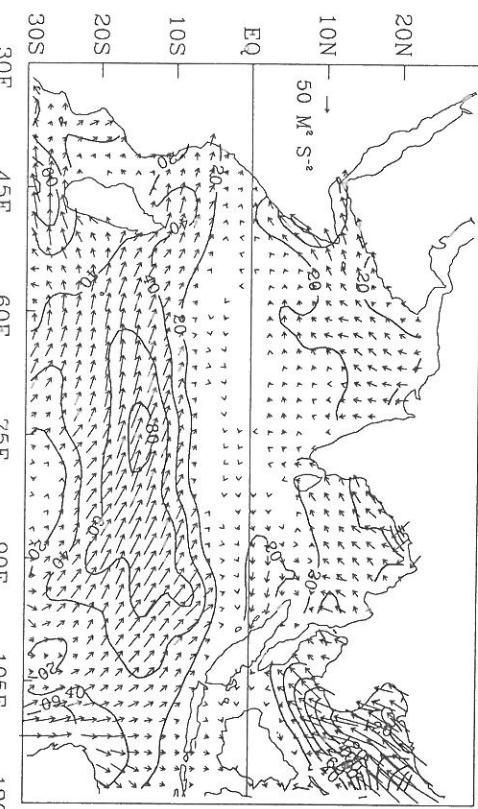
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



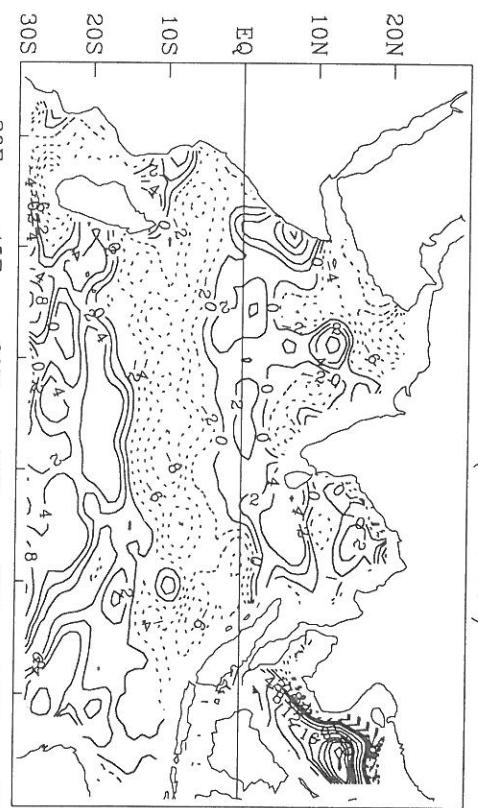
October 1986

November 1986

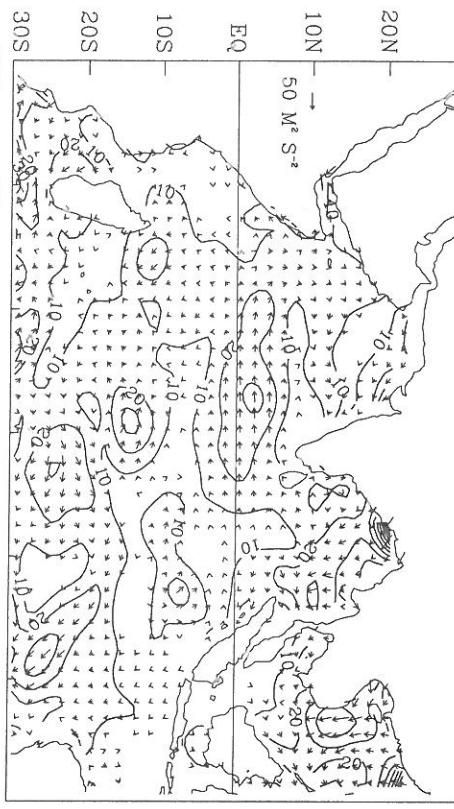
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



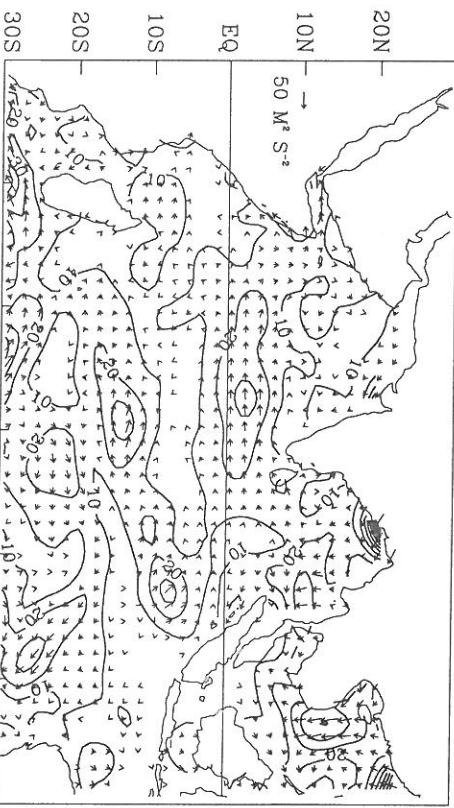
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )

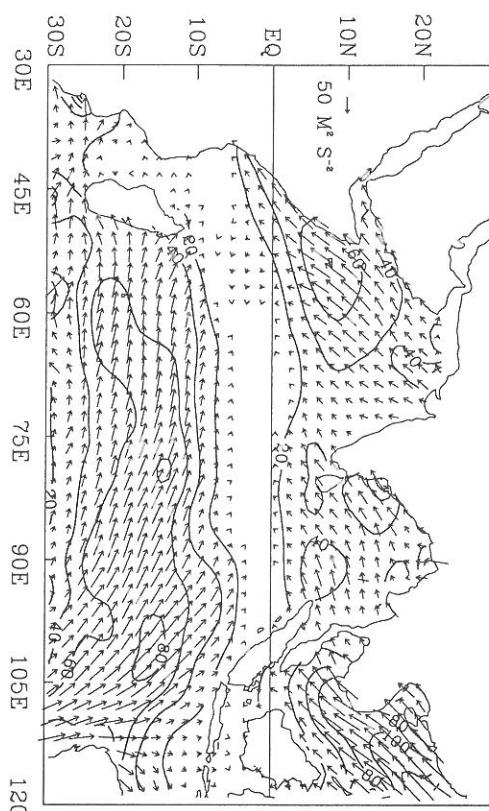


30E 45E 60E 75E 90E 105E 120E

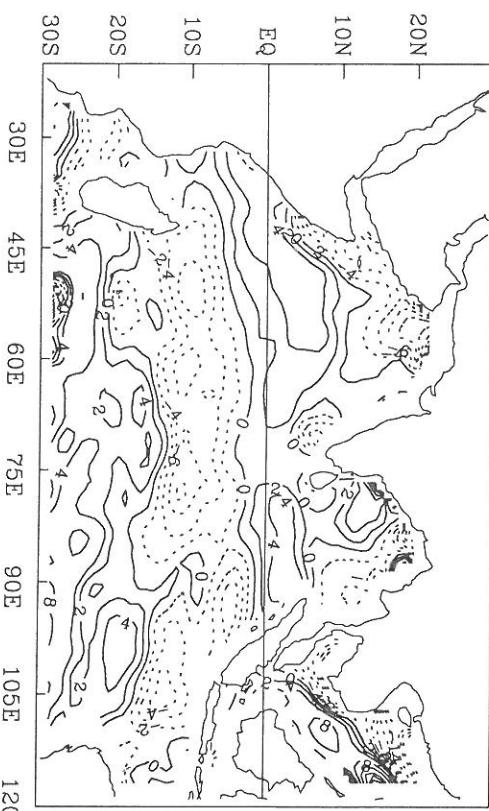
November 1986

December 1986

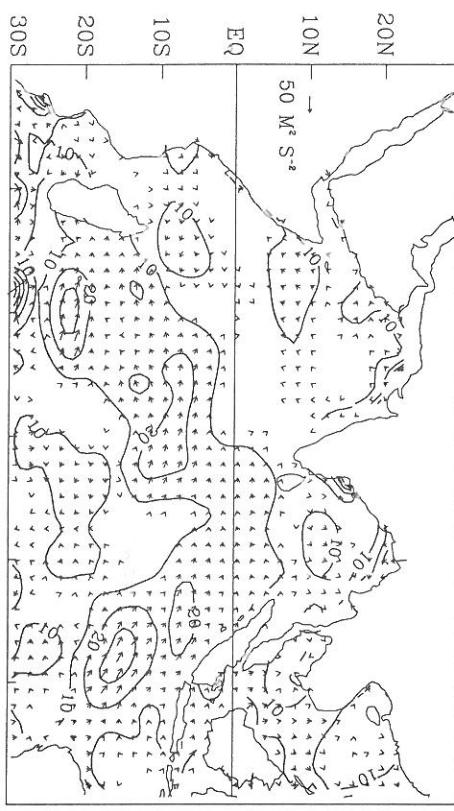
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



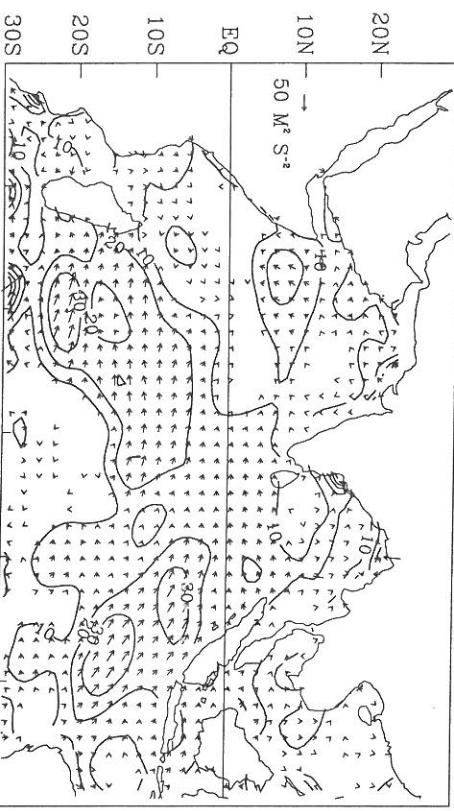
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



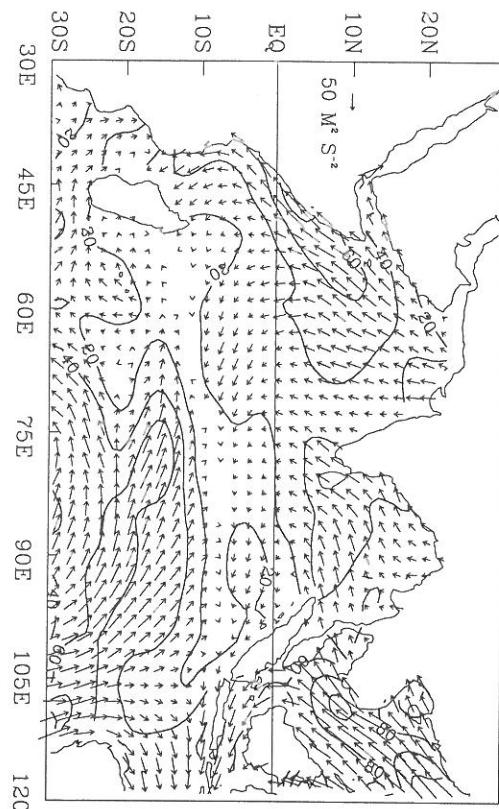
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



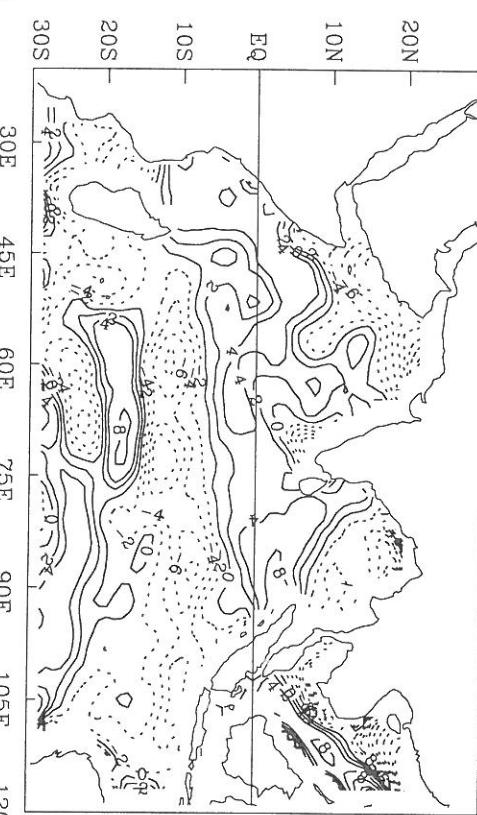
December 1986

January 1987

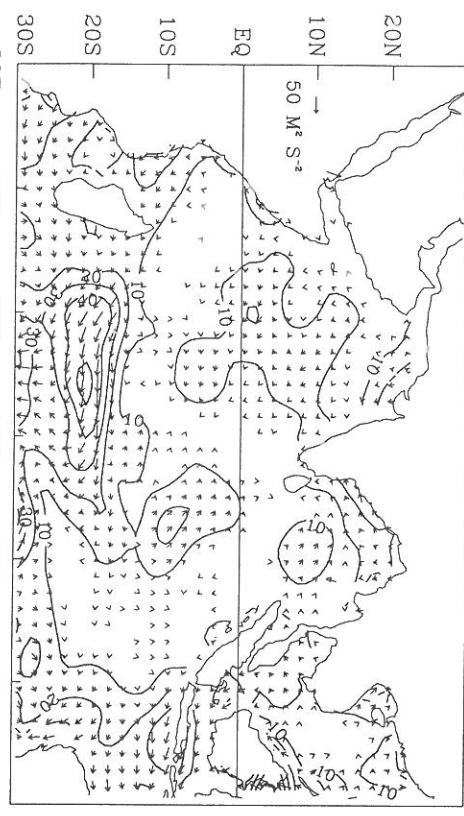
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



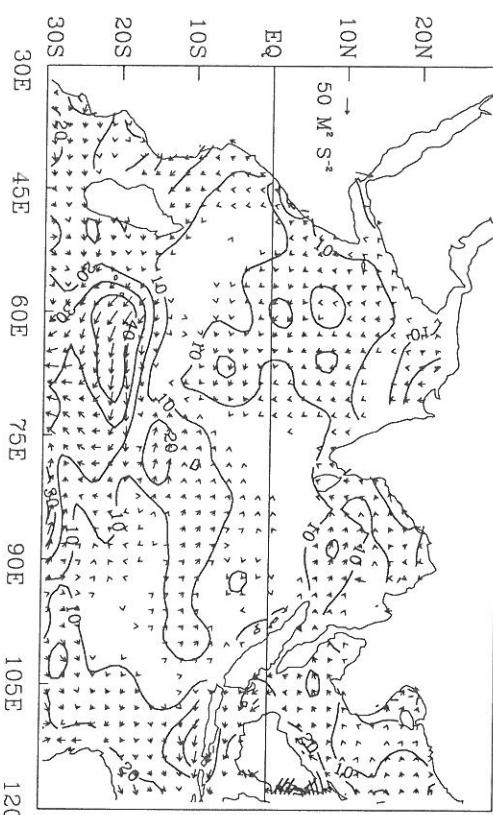
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



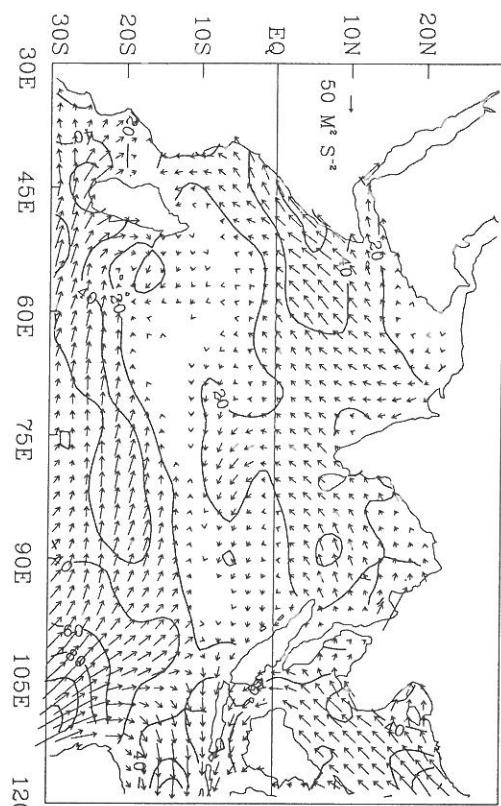
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



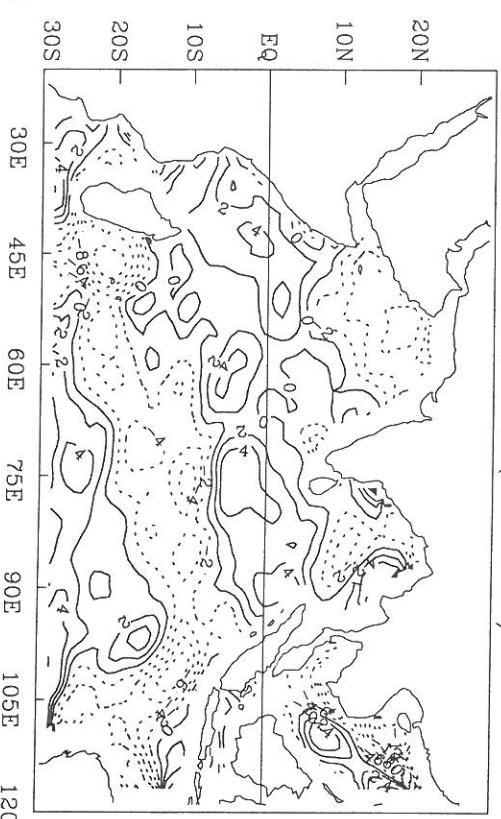
January 1987

February 1987

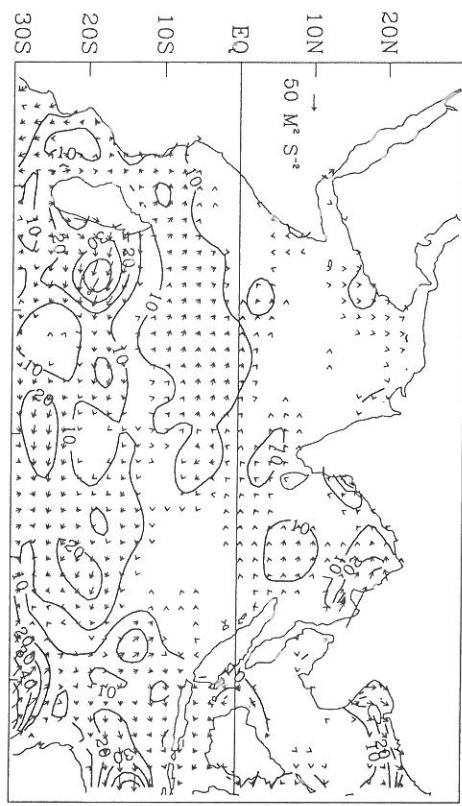
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



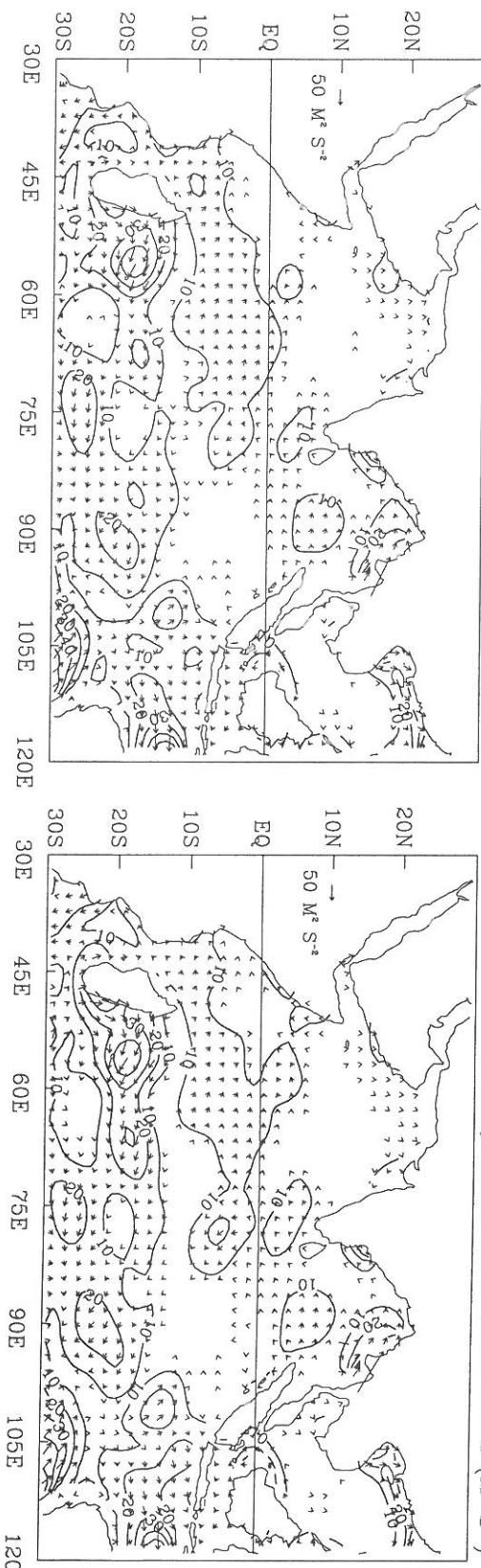
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



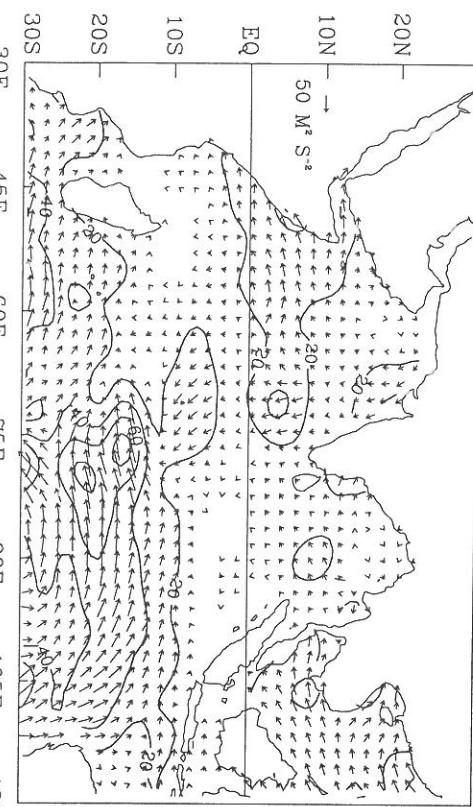
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



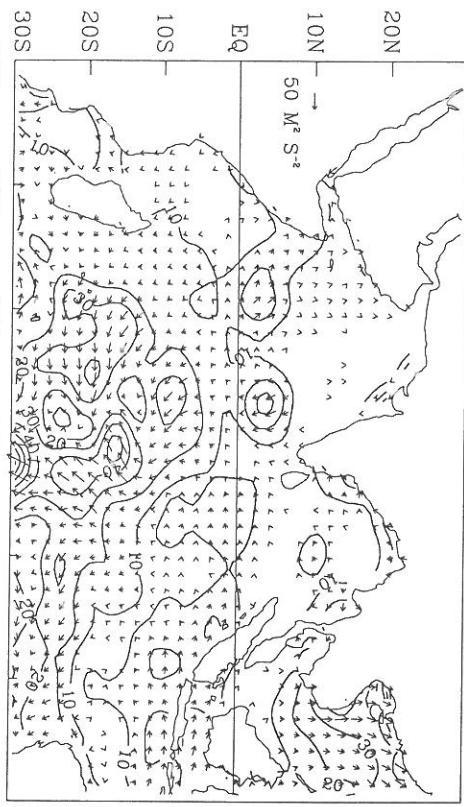
February 1987

March 1987

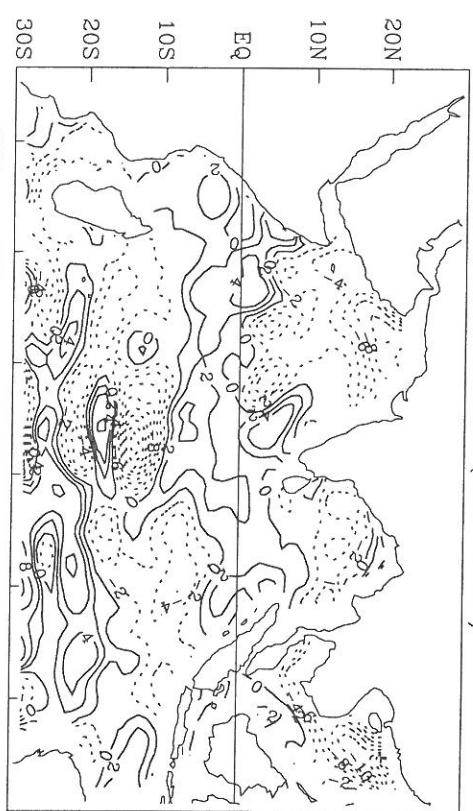
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



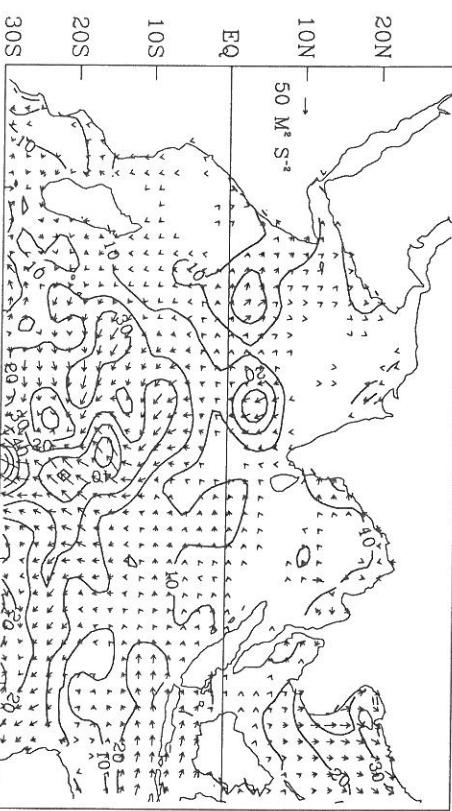
Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



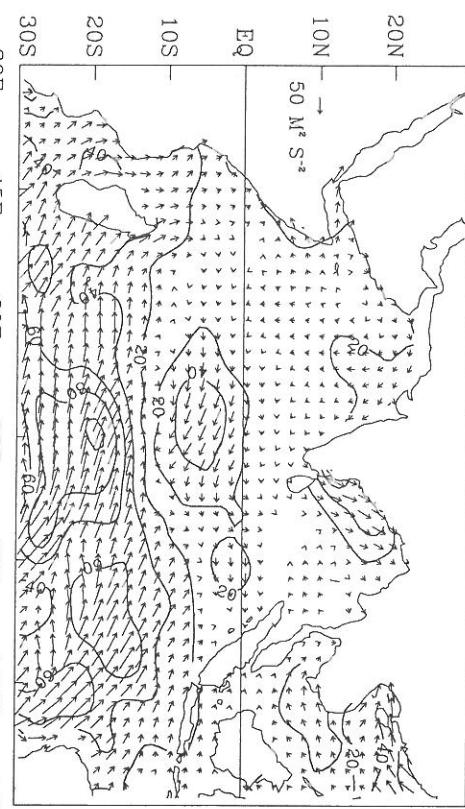
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



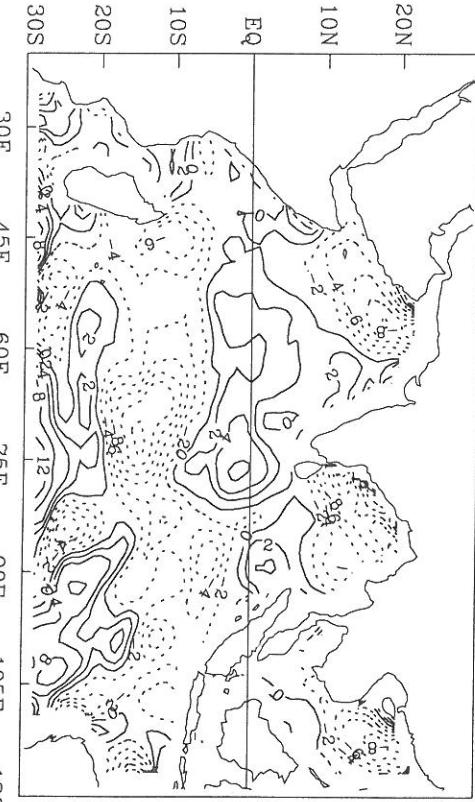
March 1987

April 1987

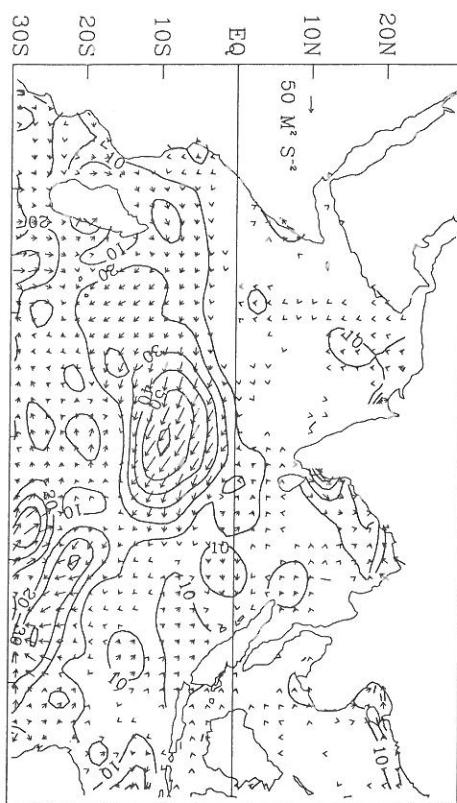
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



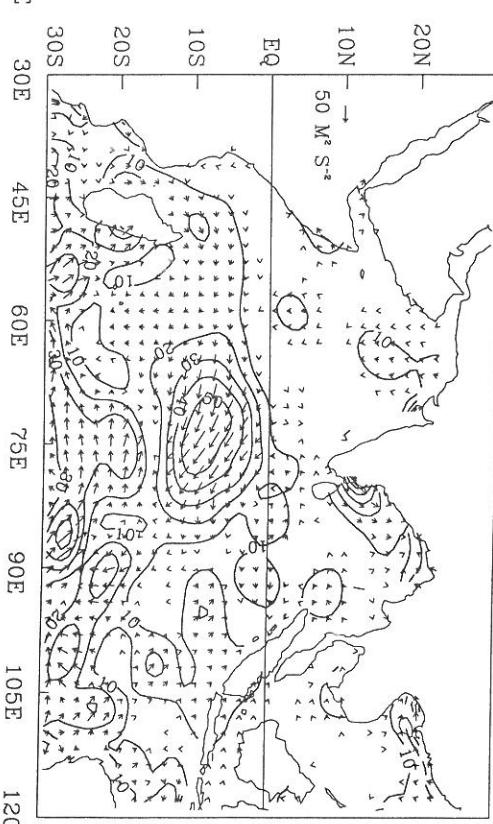
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



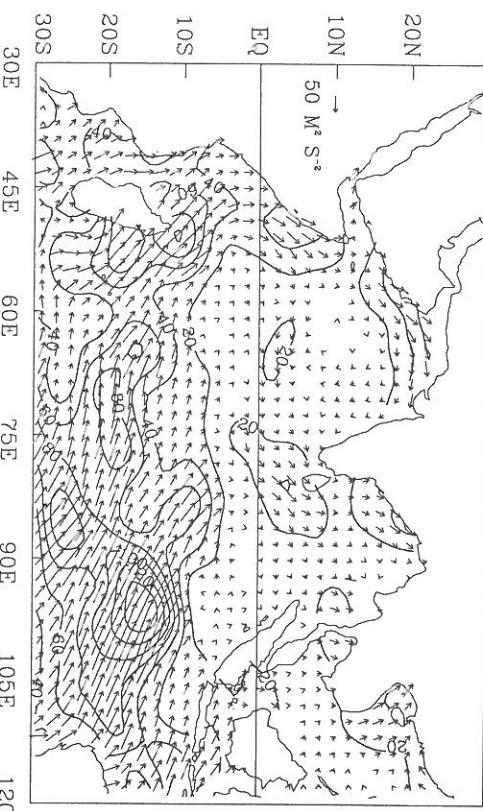
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



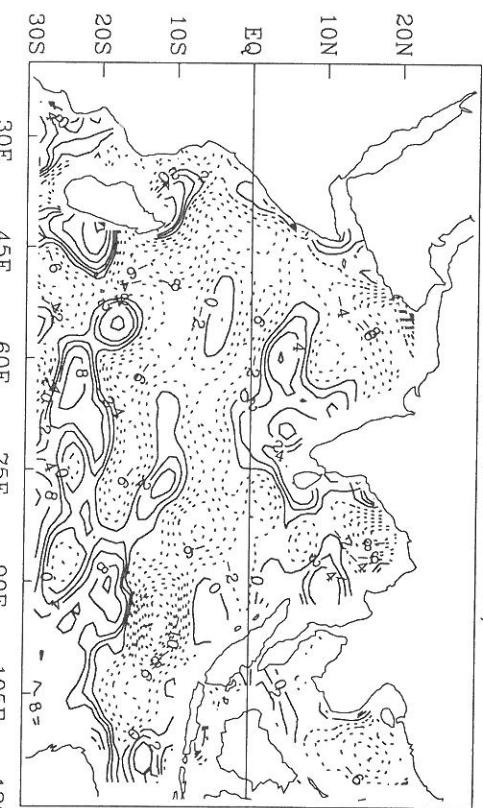
April 1987

May 1987

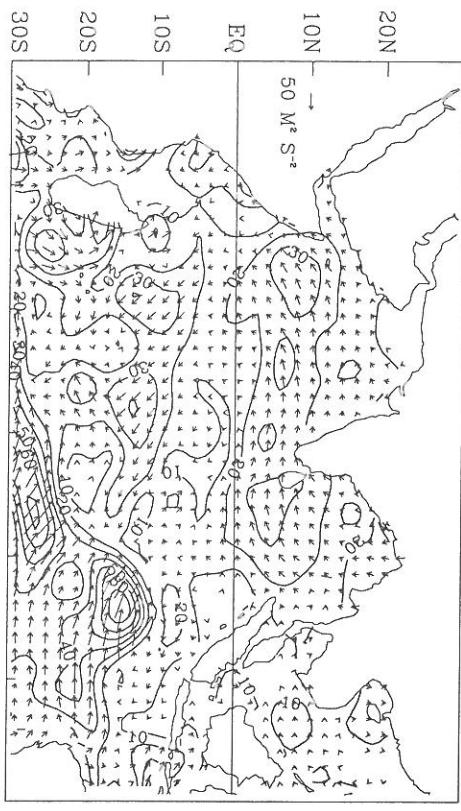
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



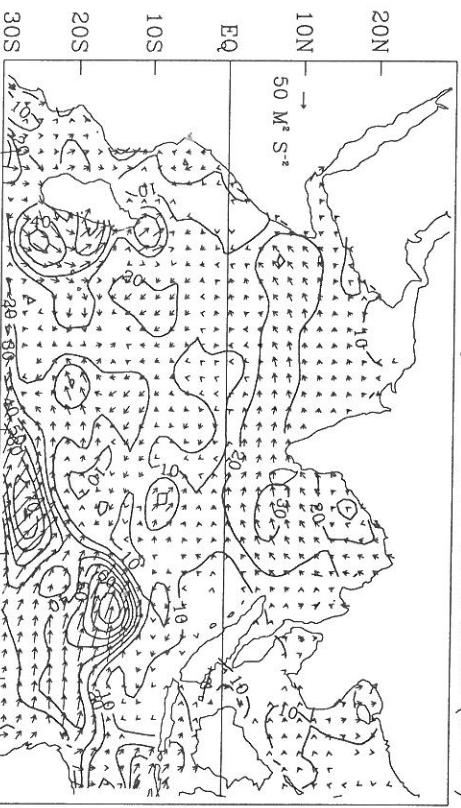
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )

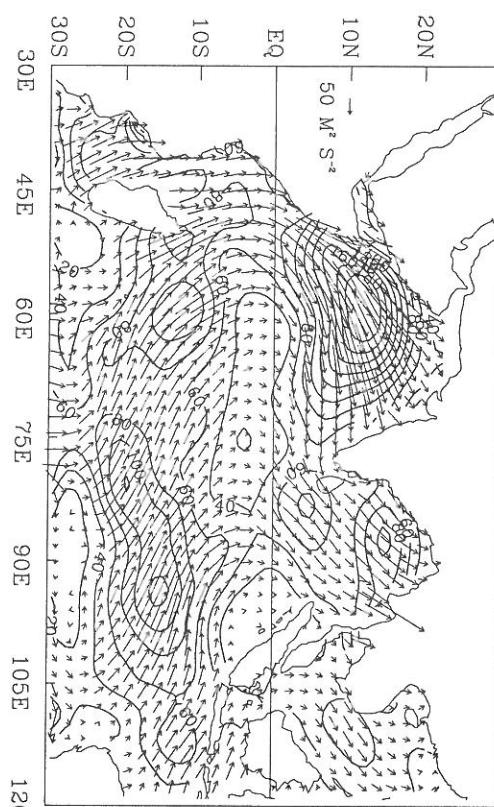


May 1987

30E 45E 60E 75E 90E 105E 120E 30E 45E 60E 75E 90E 105E 120E

June 1987

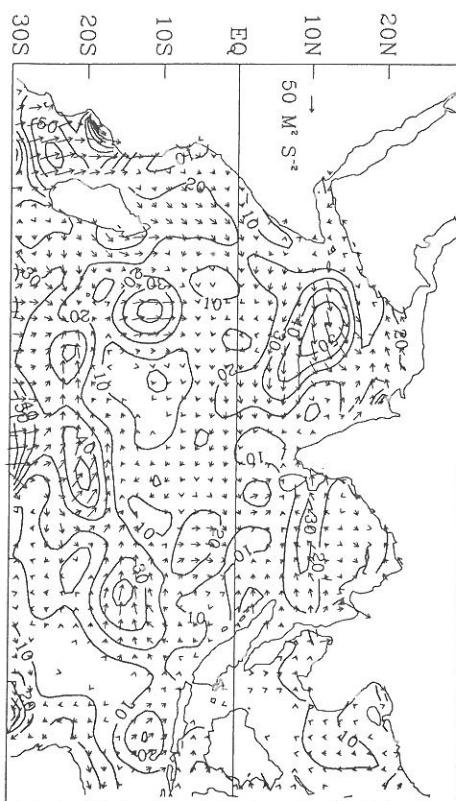
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



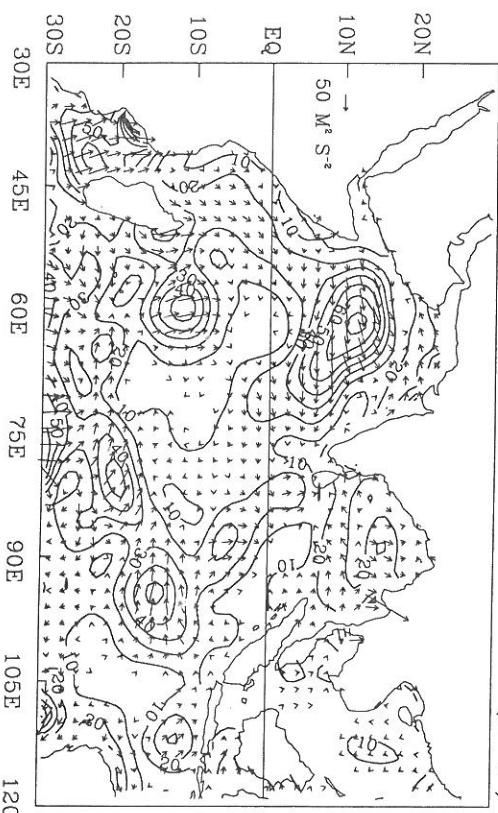
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



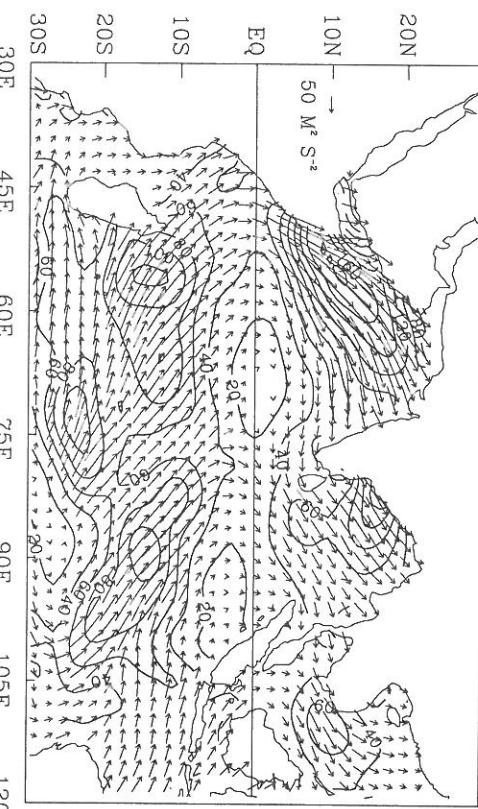
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



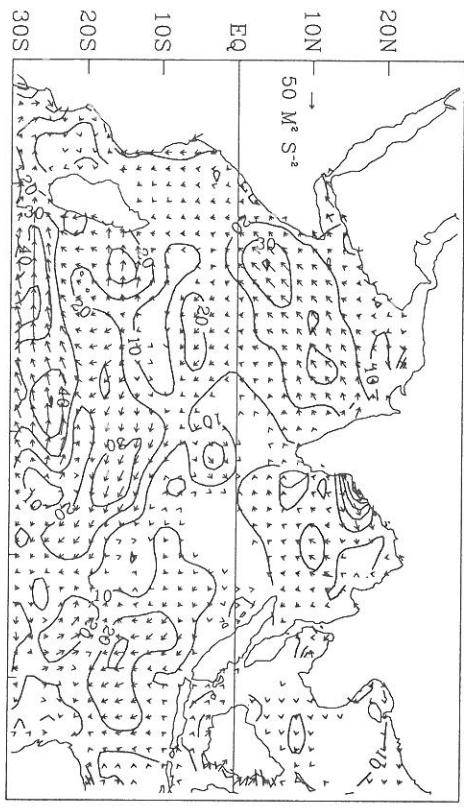
June 1987

July 1987

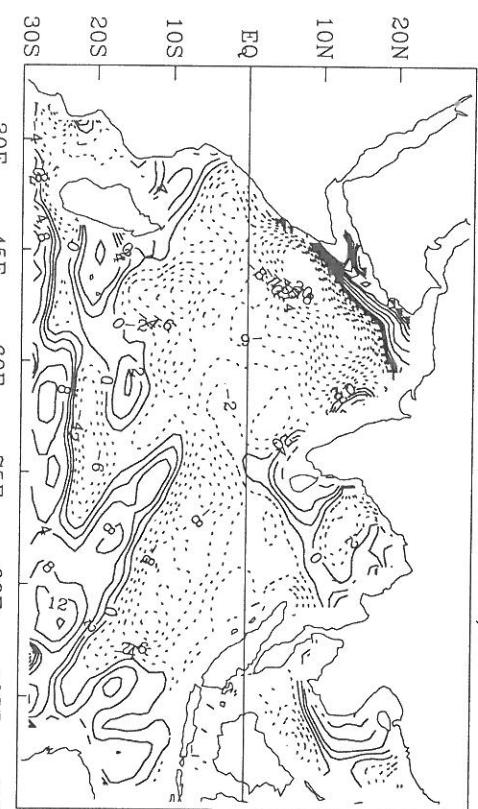
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



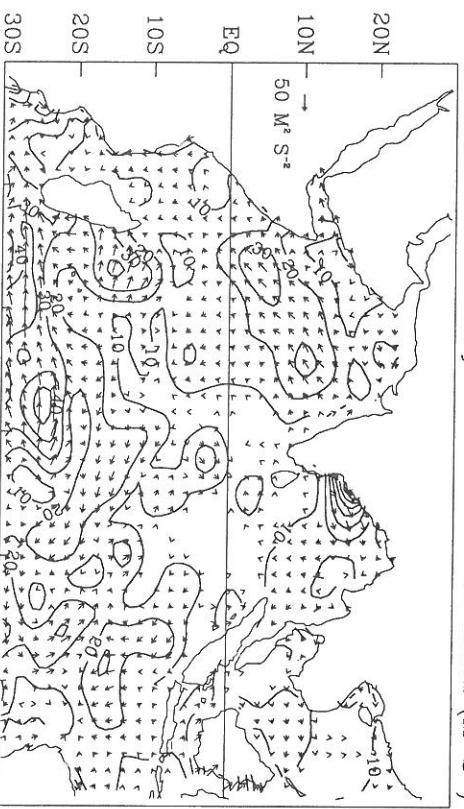
Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



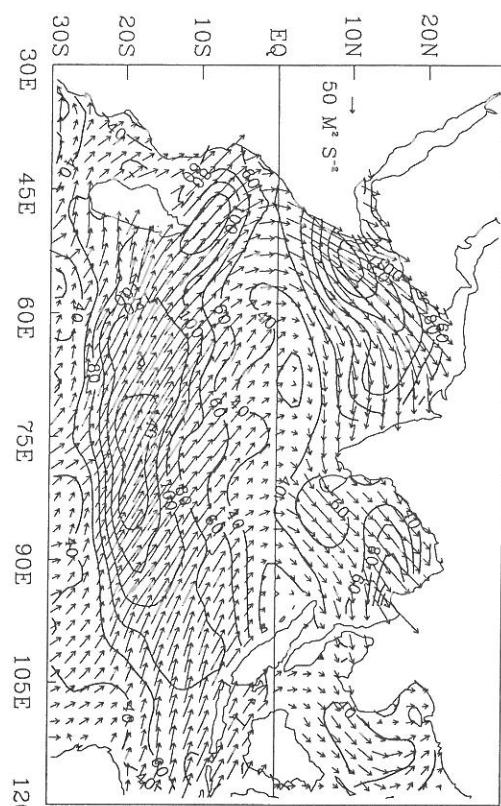
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



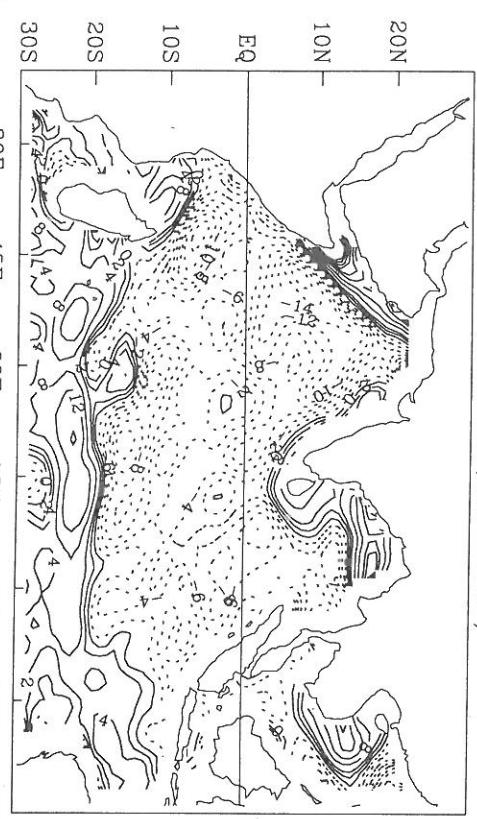
July 1987

August 1987

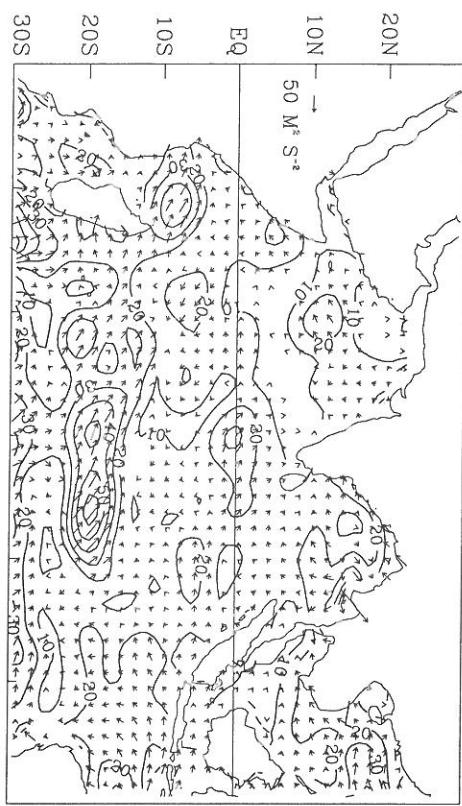
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



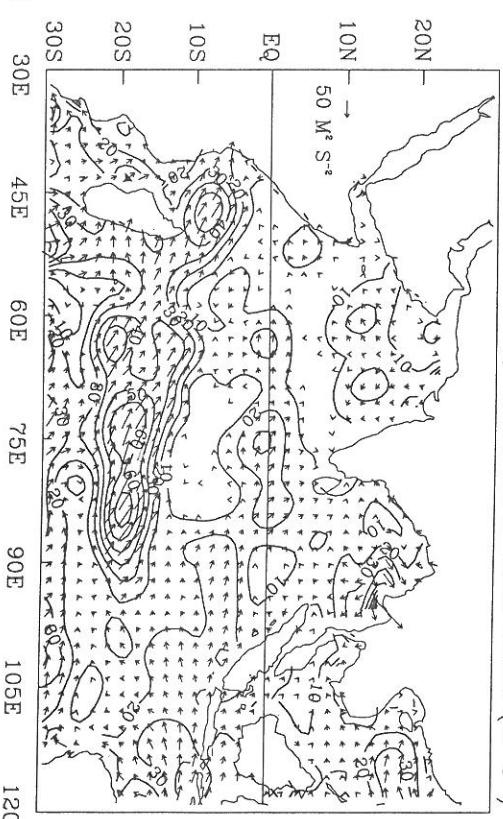
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



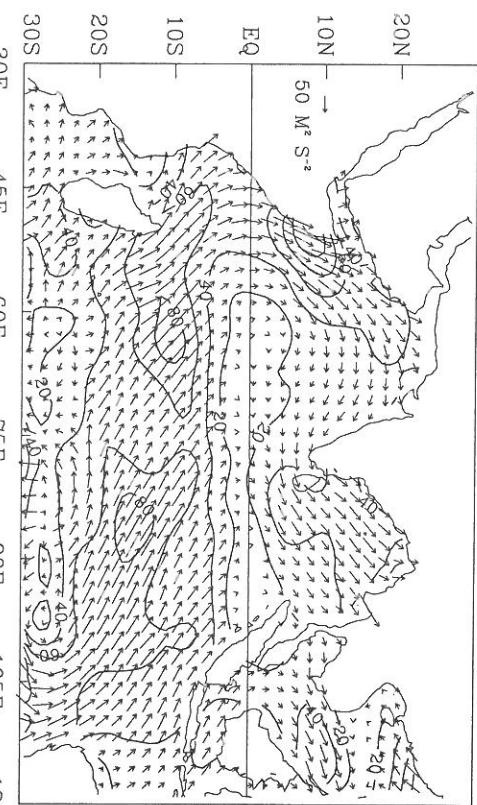
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



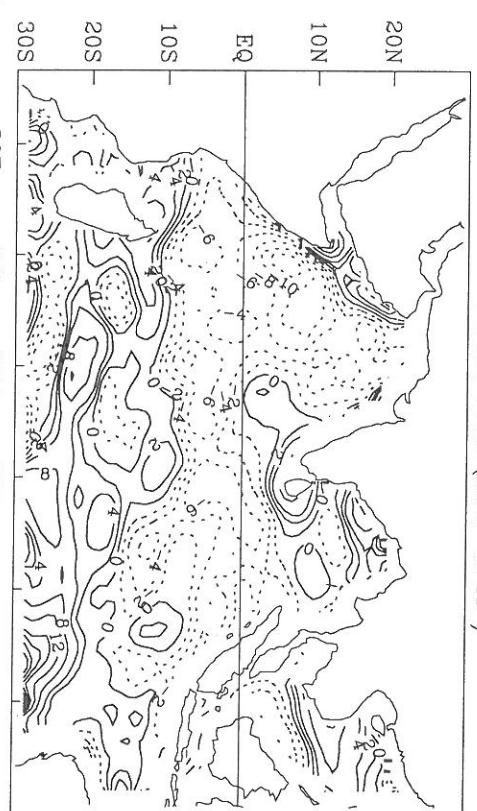
August 1987

September 1987

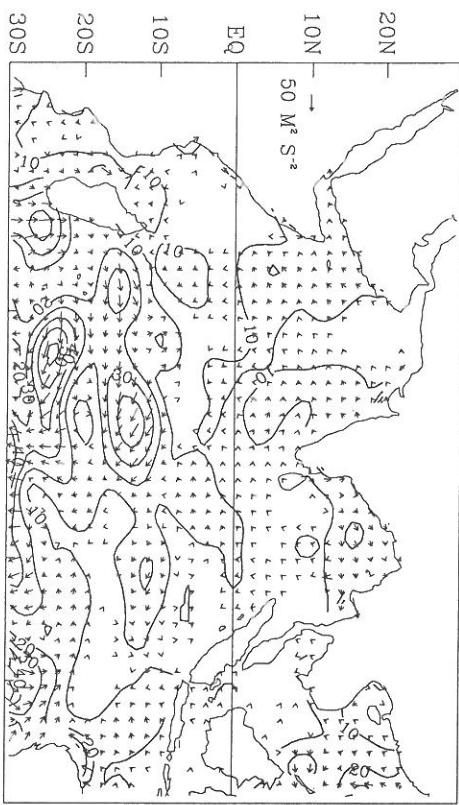
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



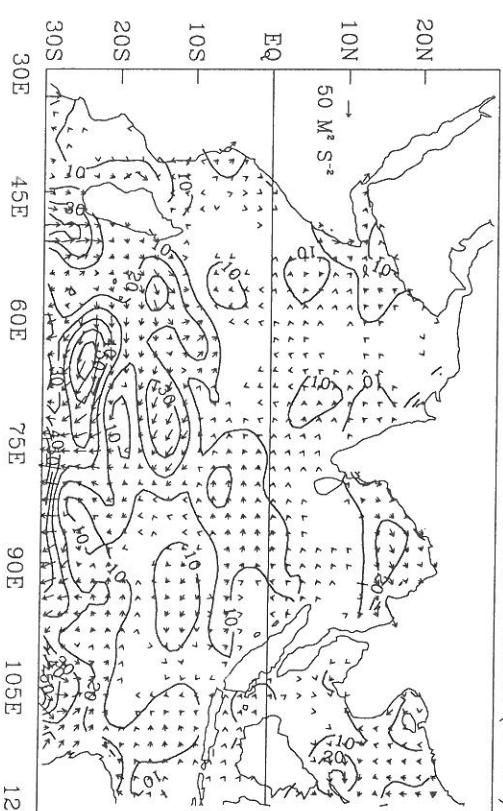
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



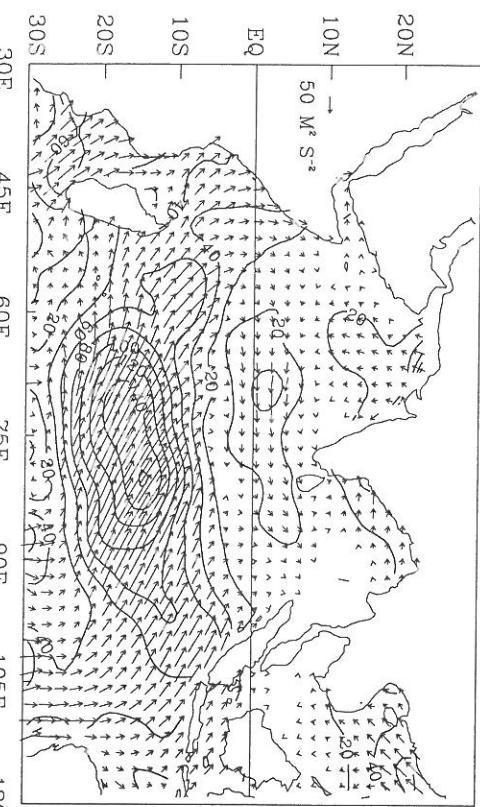
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



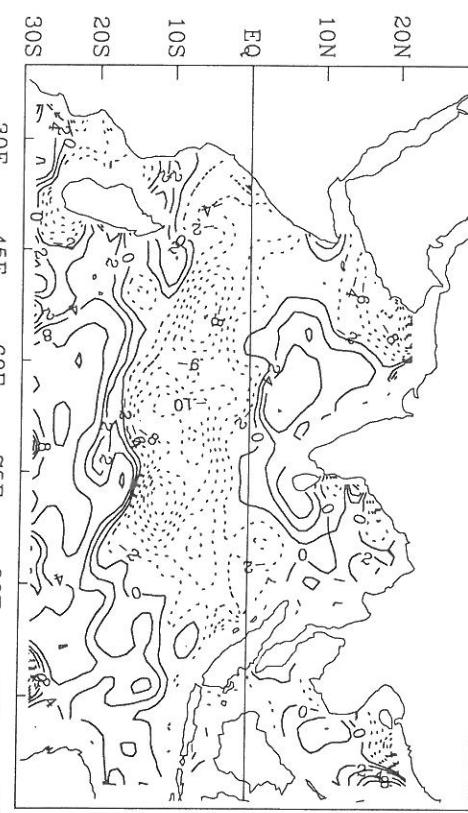
September 1987

October 1987

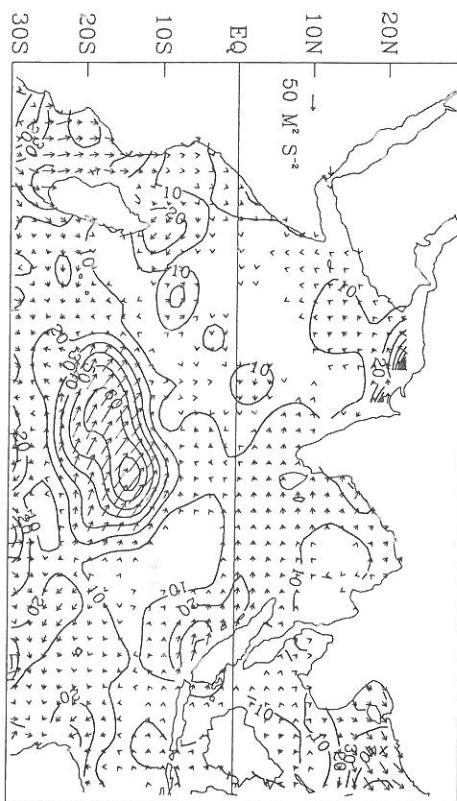
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



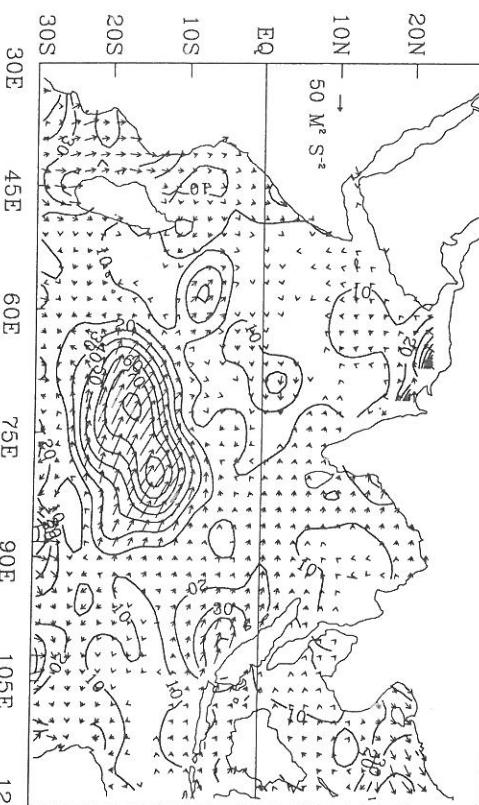
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



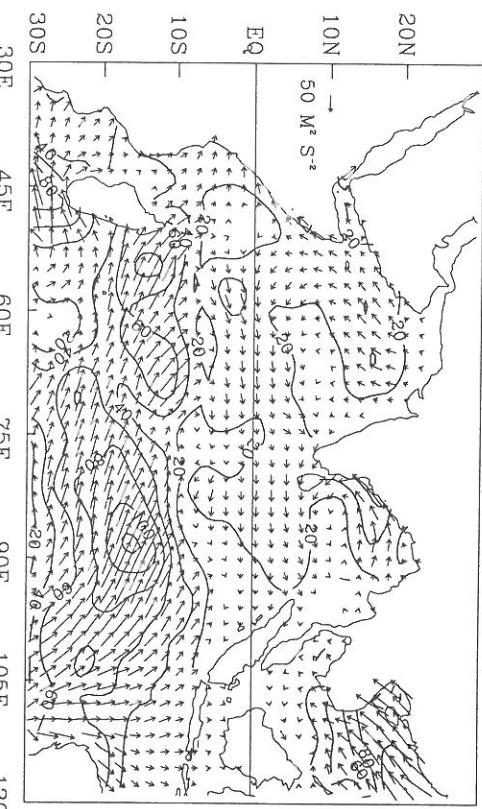
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



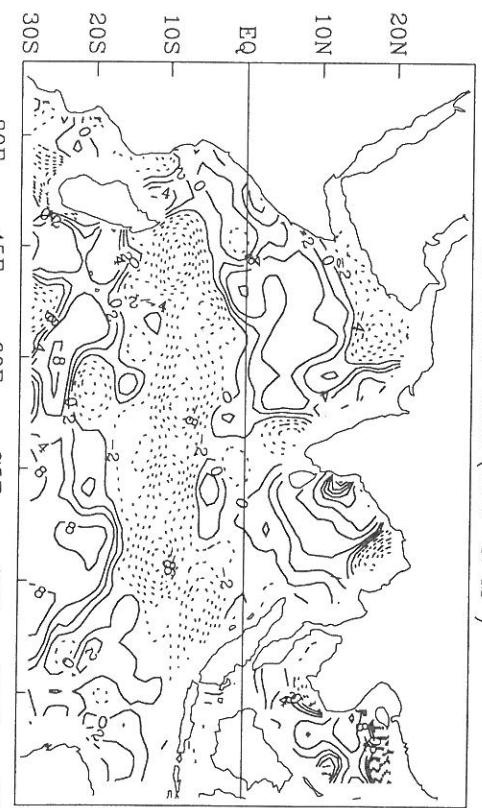
October 1987

November 1987

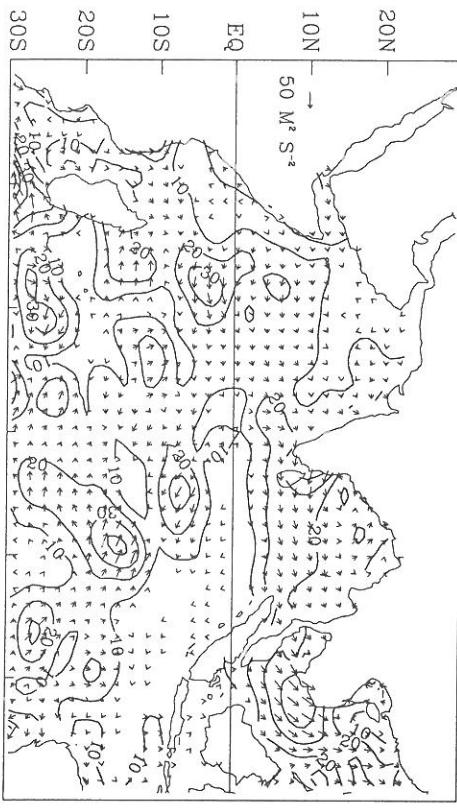
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



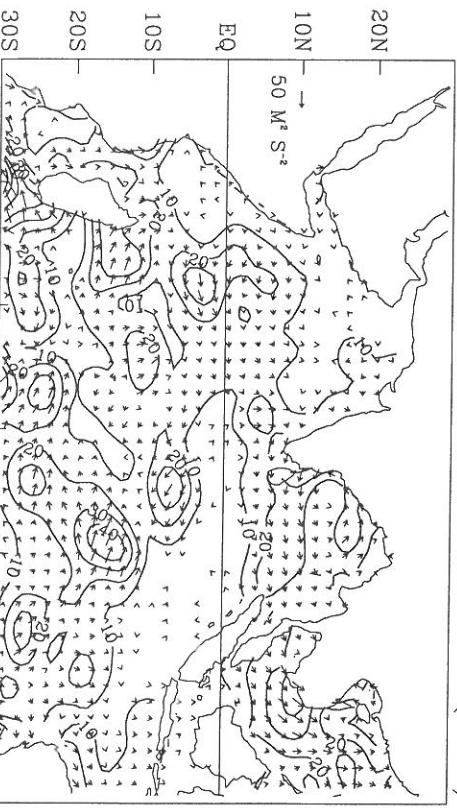
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )

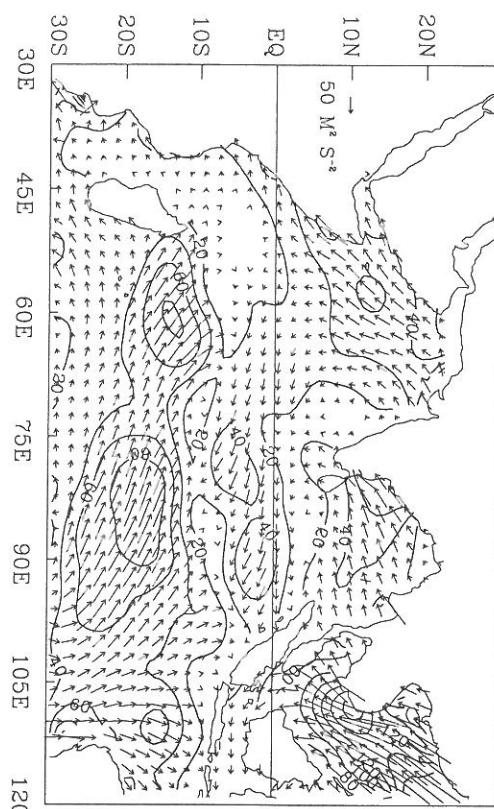


November 1987

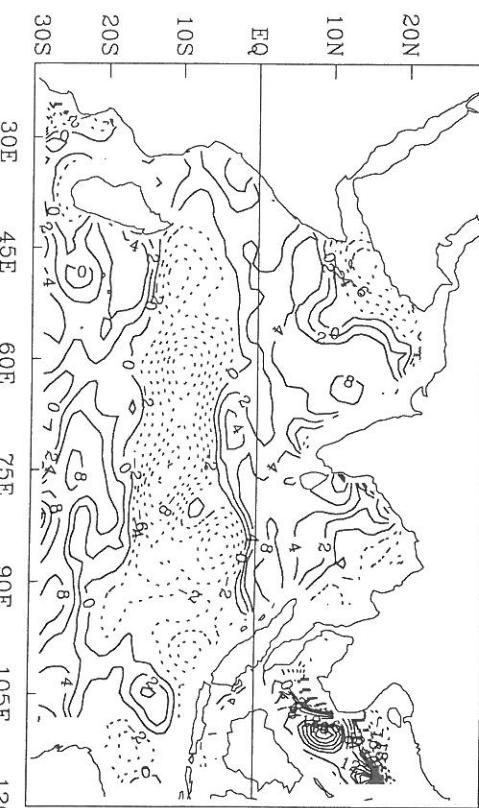
30E 45E 60E 75E 90E 105E 120E 135E

December 1987

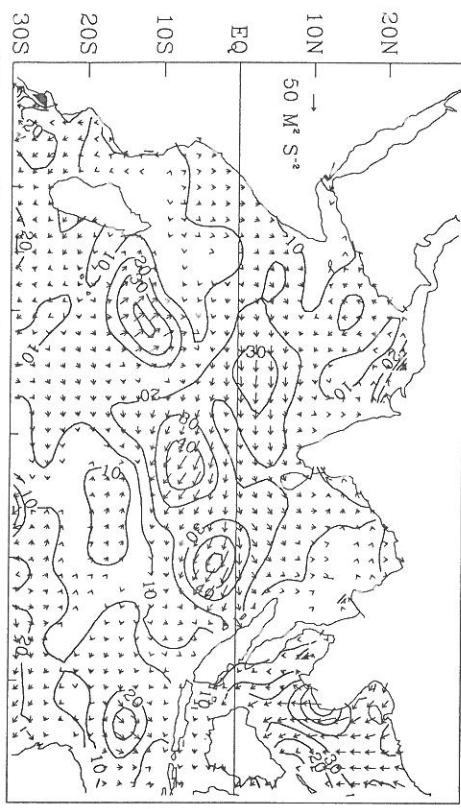
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



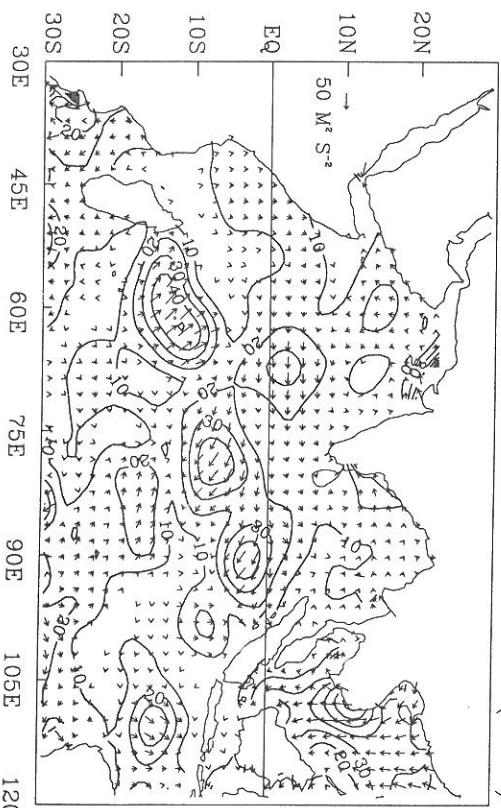
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



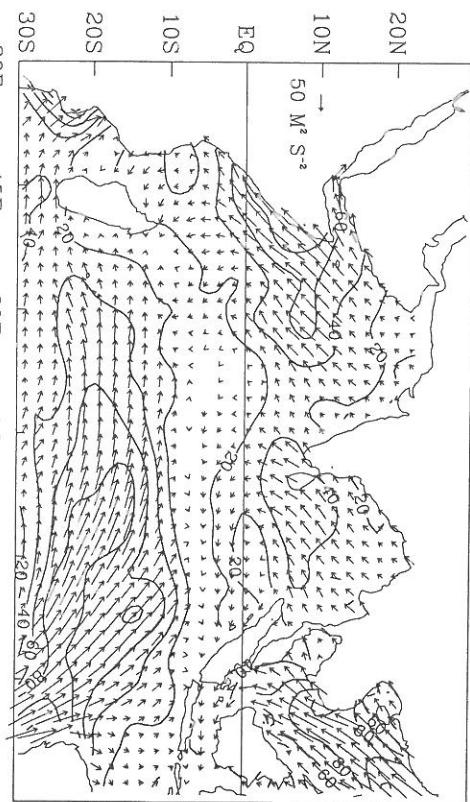
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



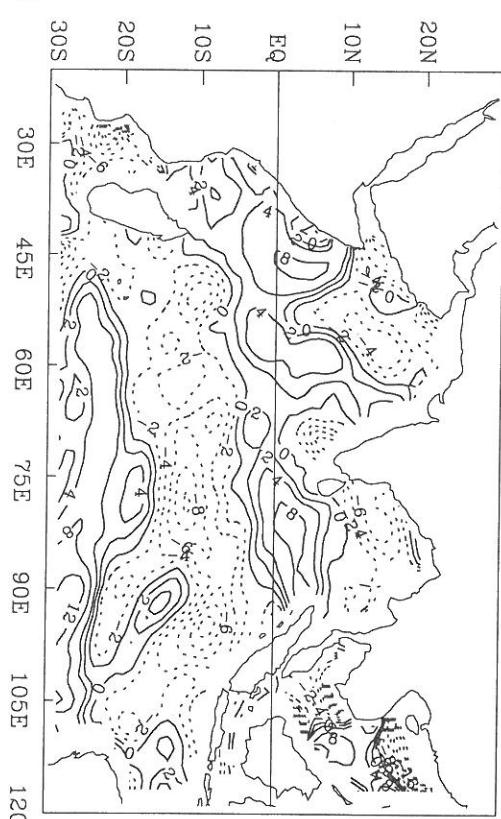
December 1987

January 1988

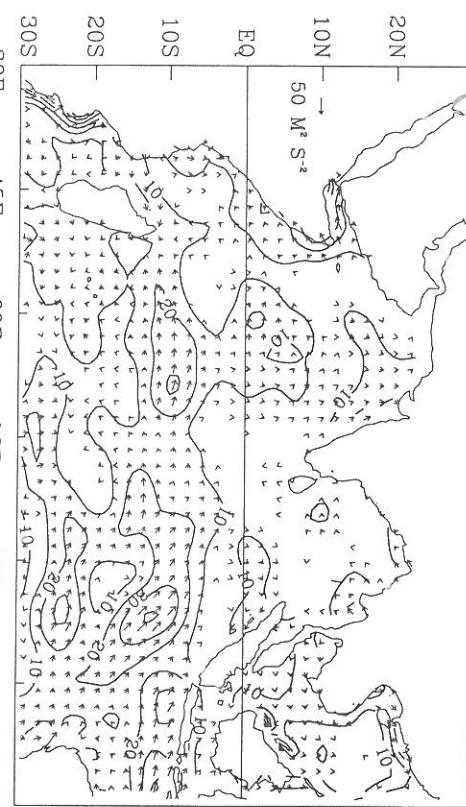
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



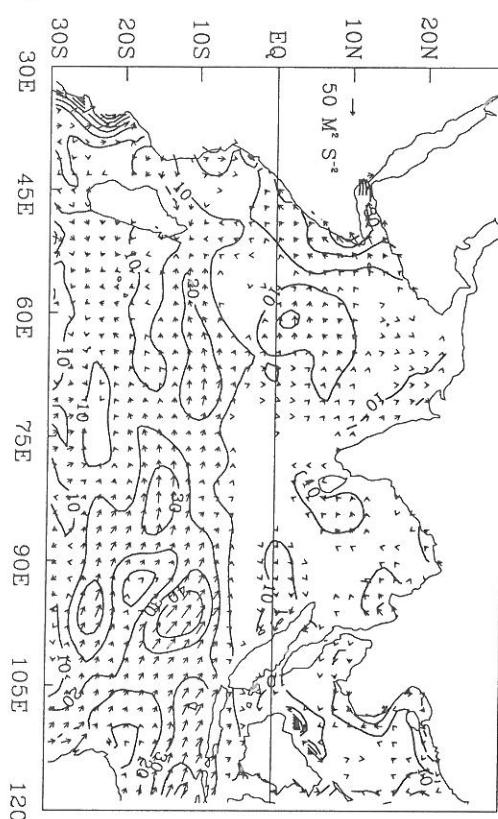
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



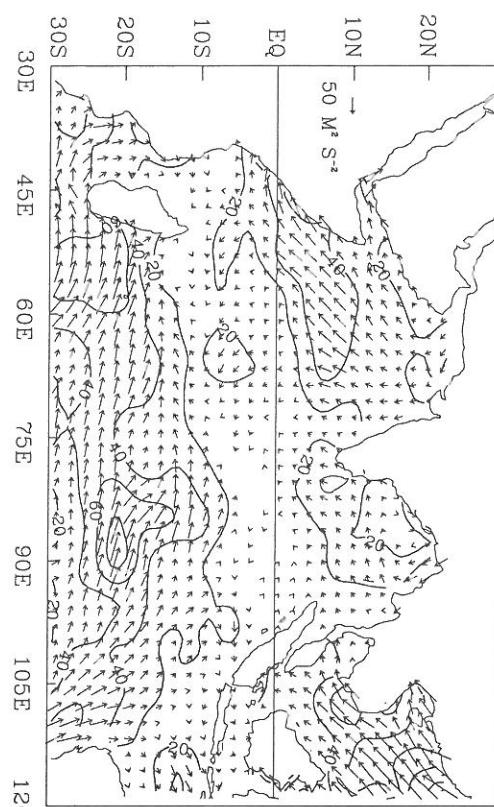
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



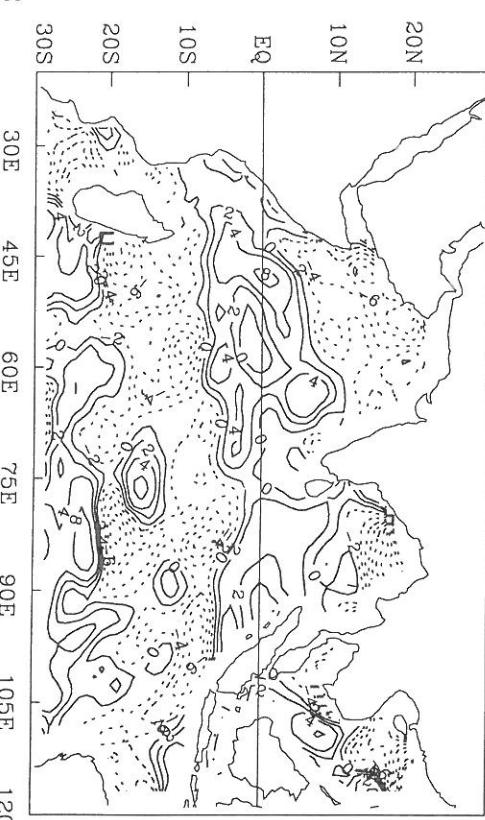
January 1988

February 1988

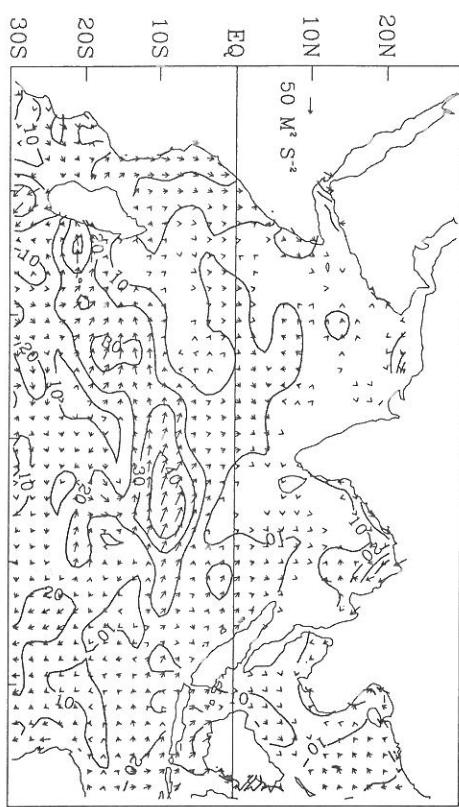
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



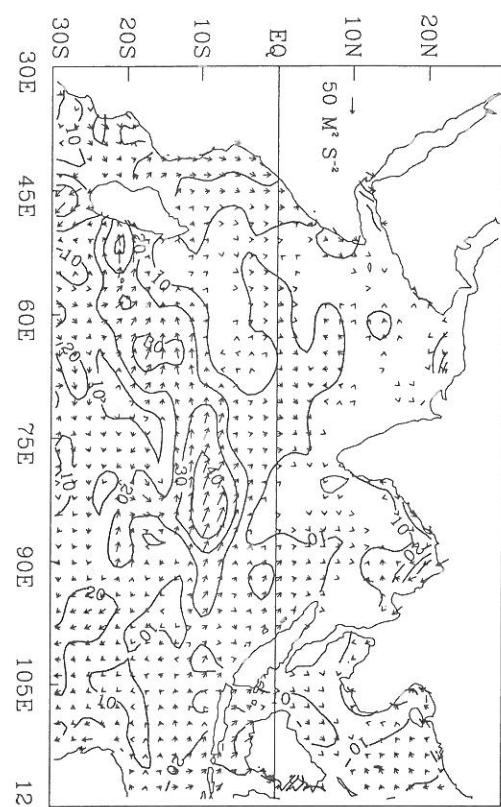
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )

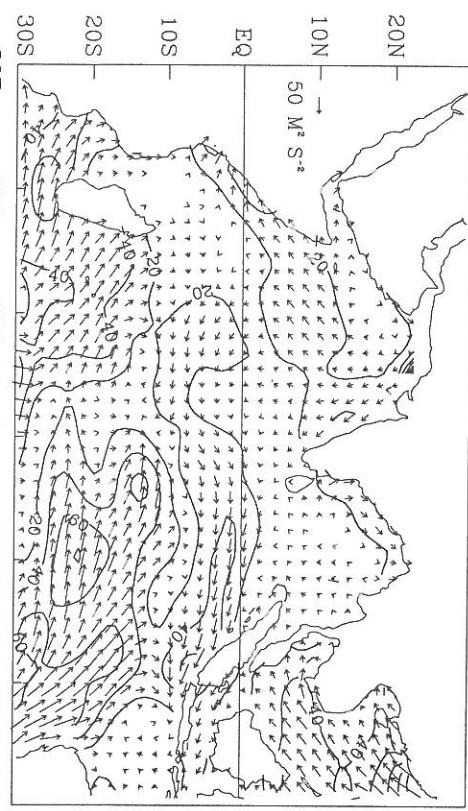


February 1988

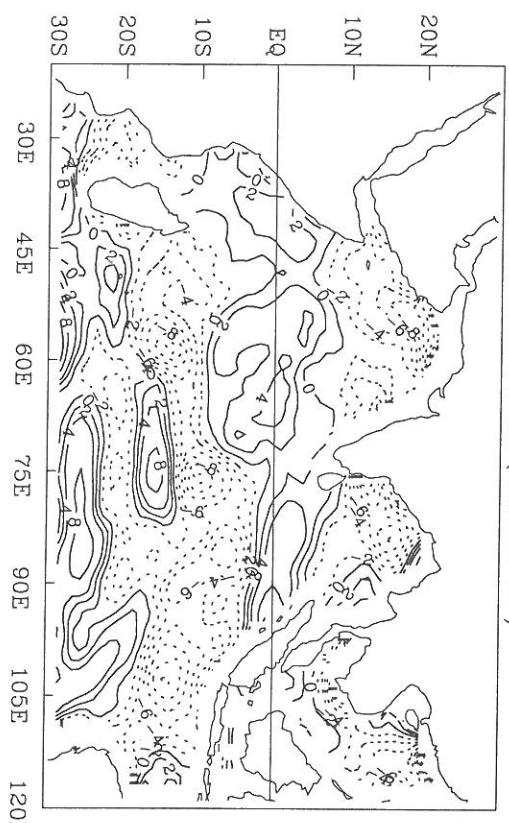
30E 45E 60E 75E 90E 105E 120E

March 1988

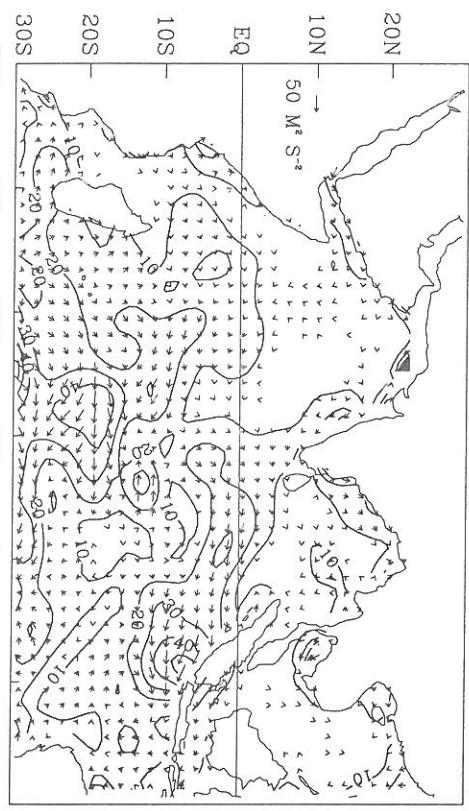
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



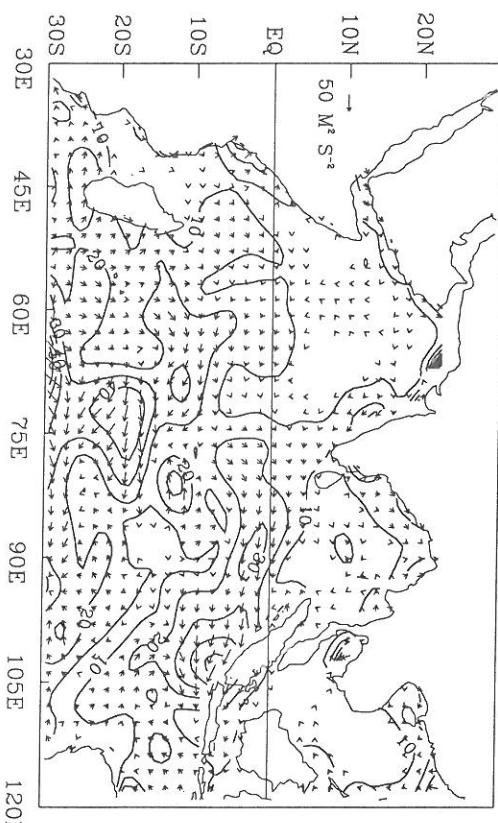
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



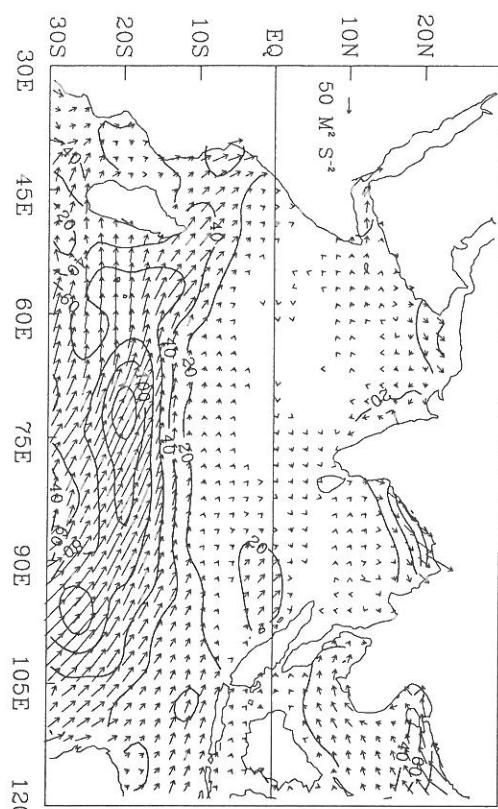
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



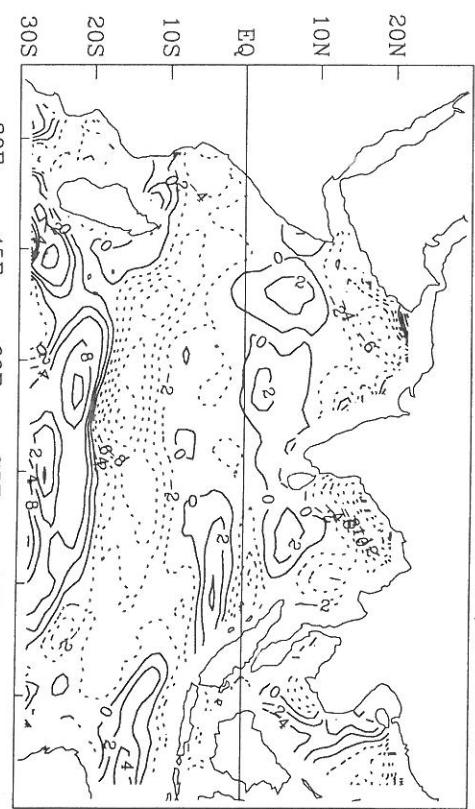
March 1988

April 1988

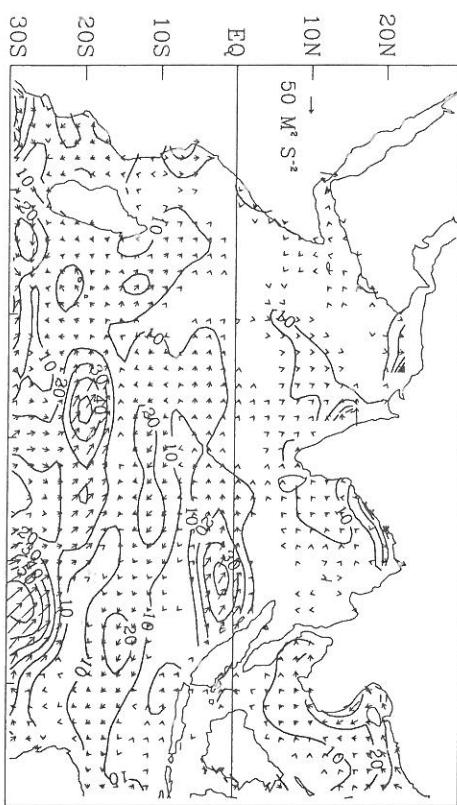
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



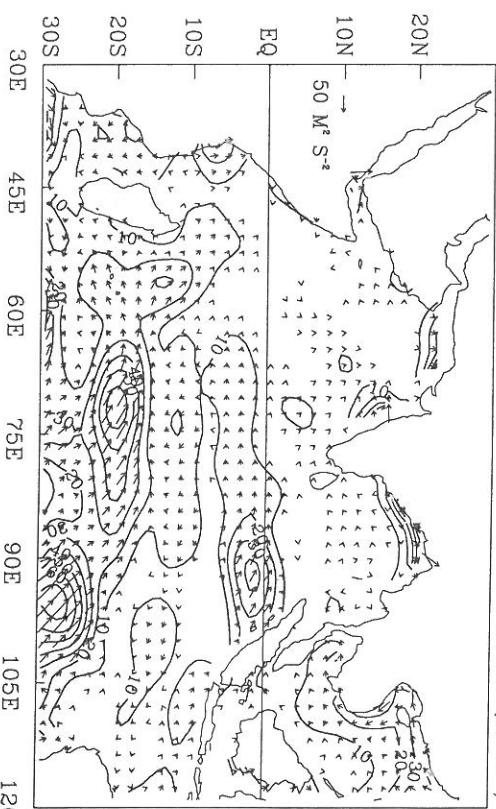
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



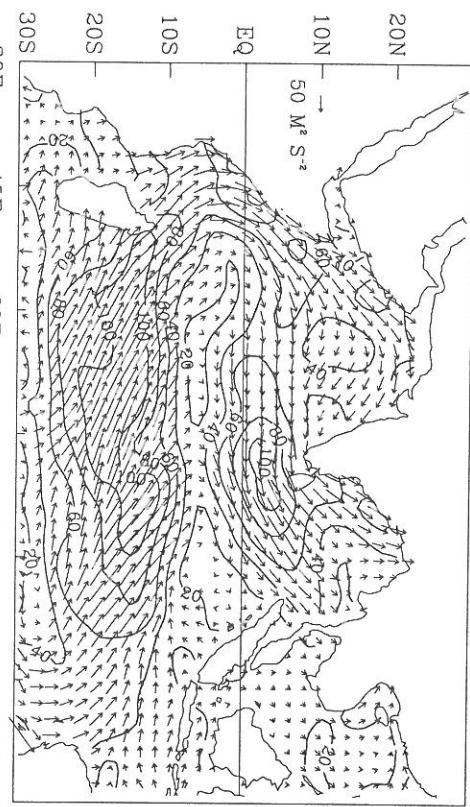
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



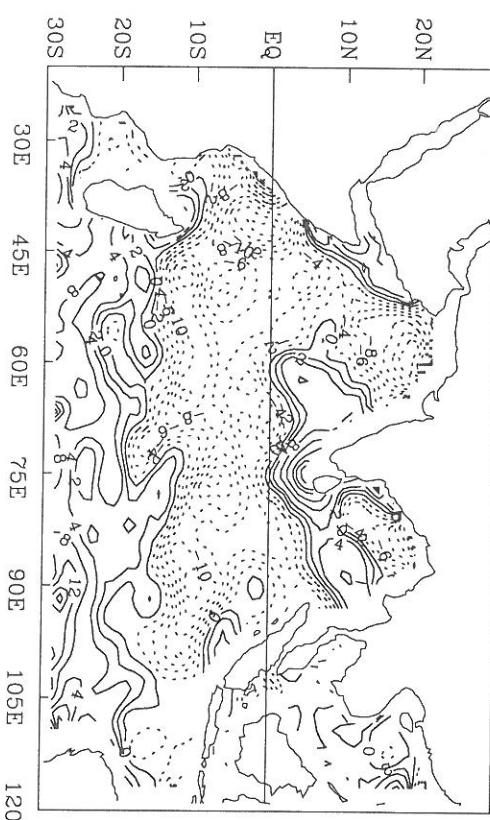
April 1988

May 1988

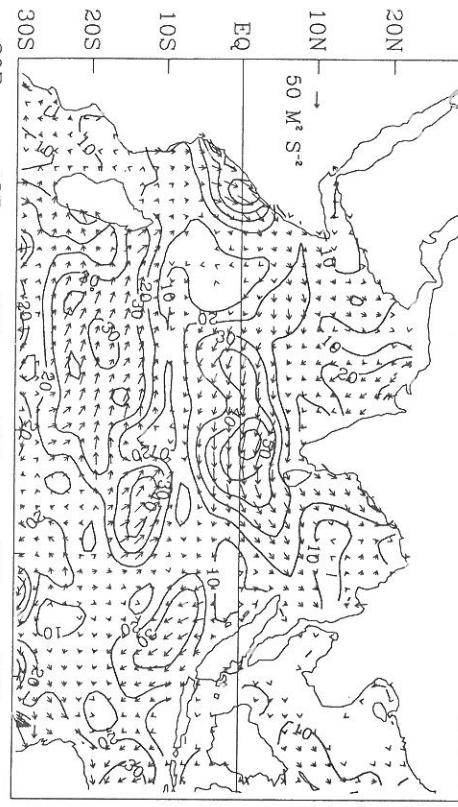
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



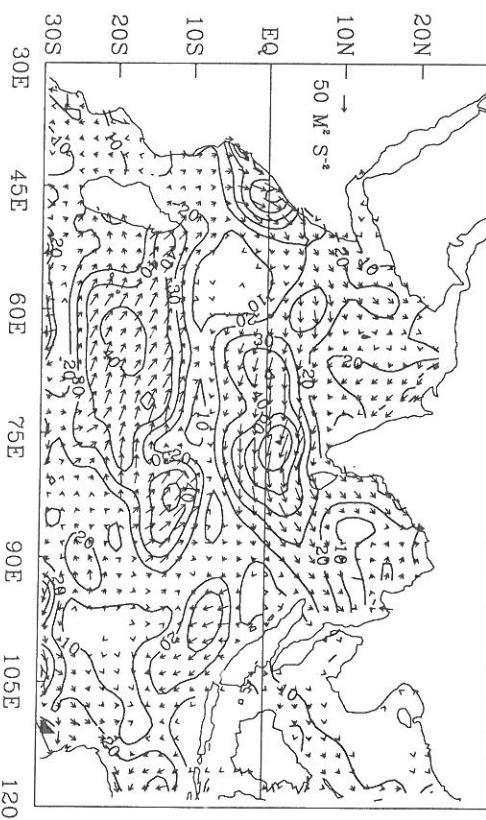
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



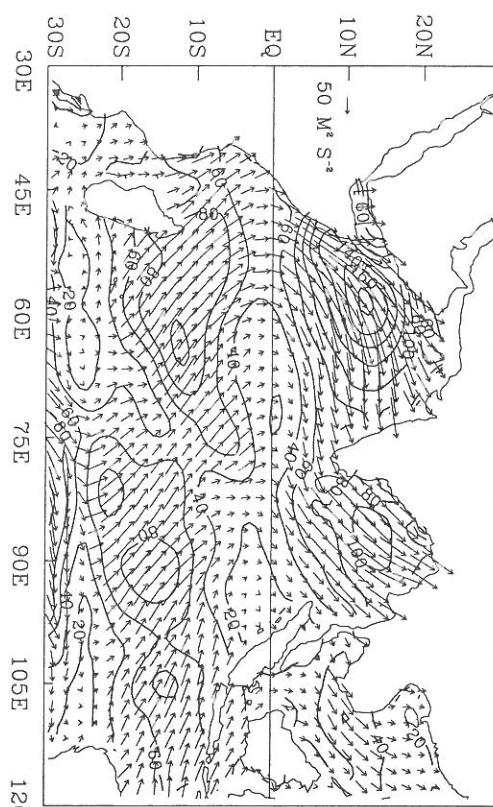
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



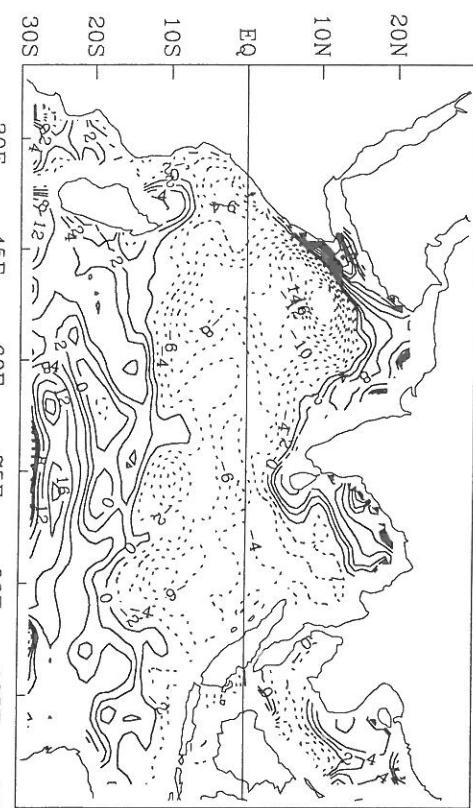
May 1988

June 1988

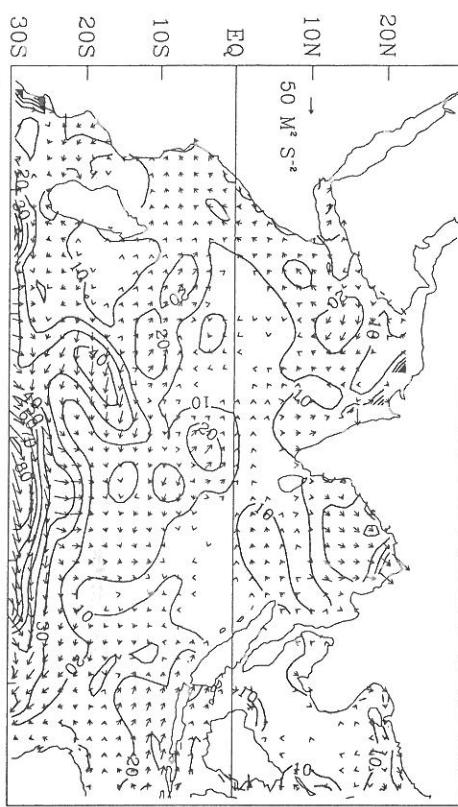
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



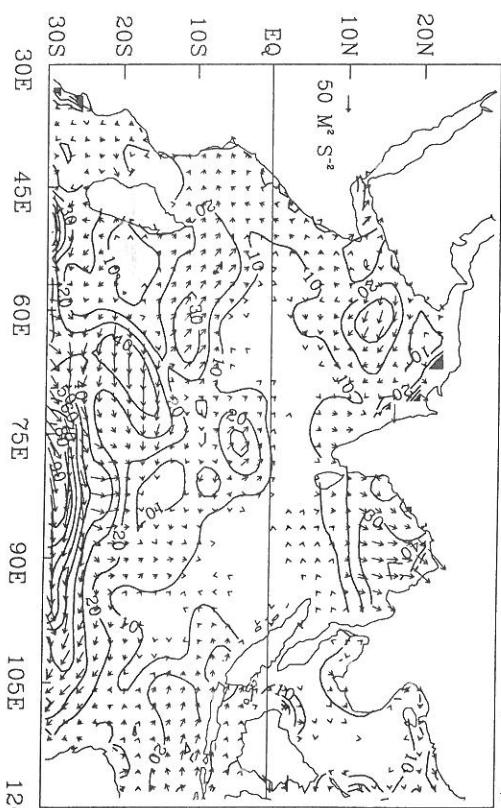
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



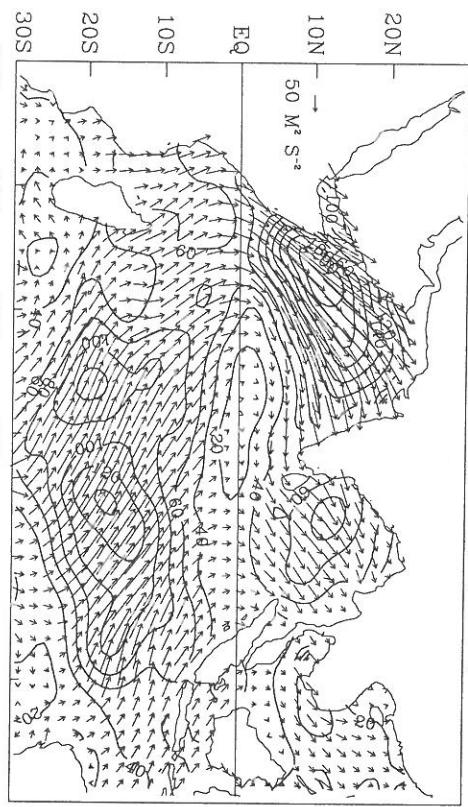
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



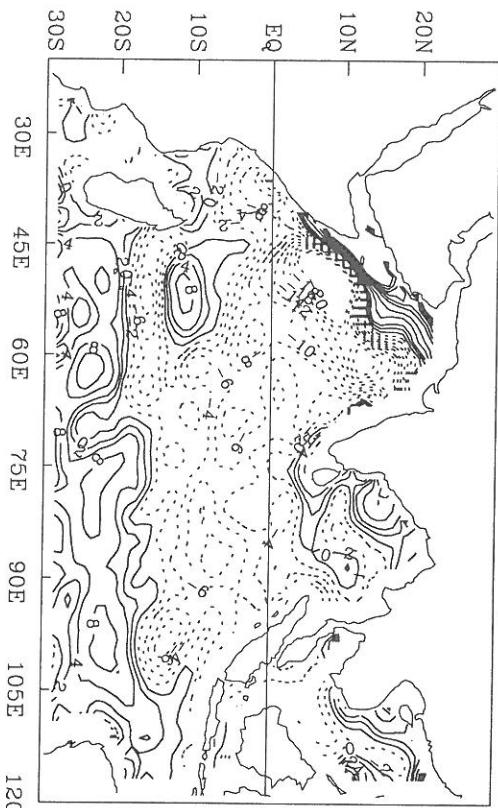
June 1988

July 1988

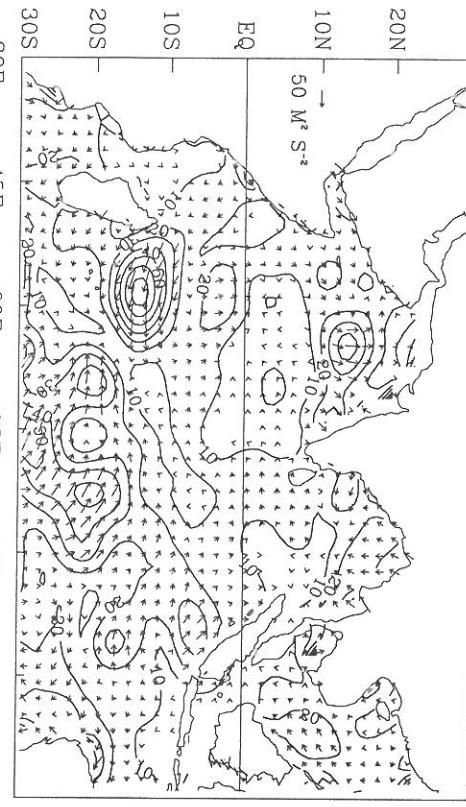
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



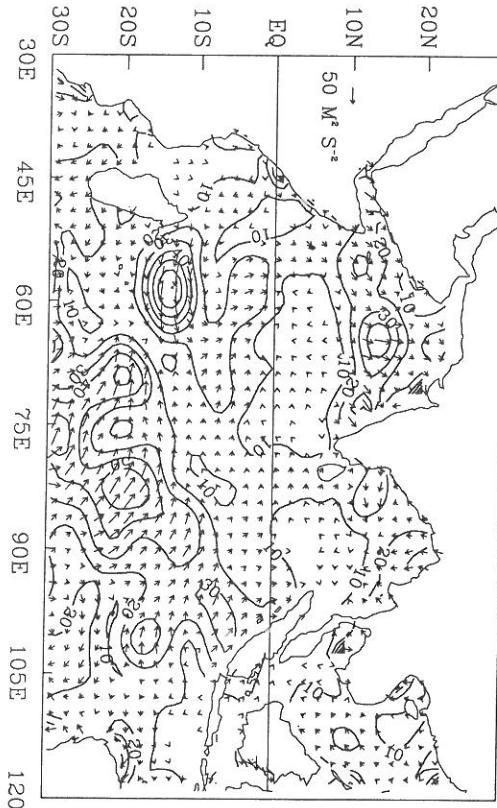
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



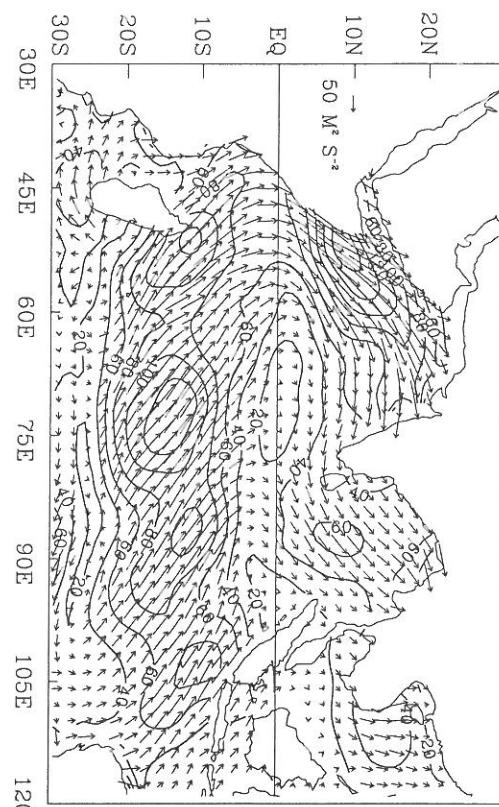
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



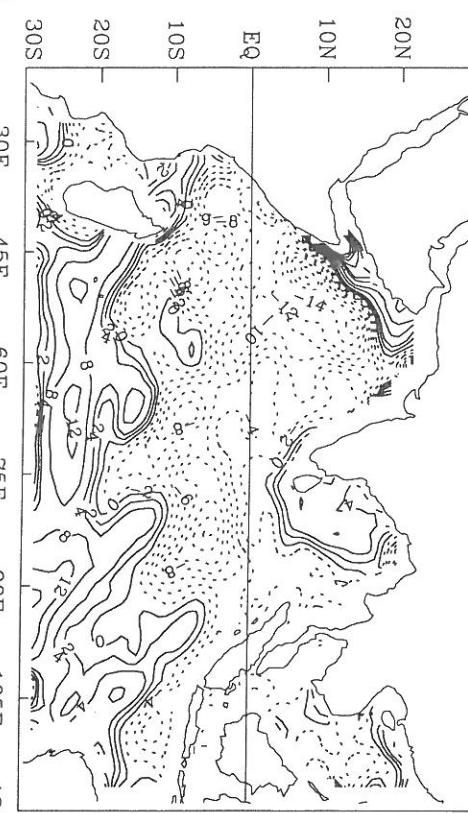
July 1988

August 1988

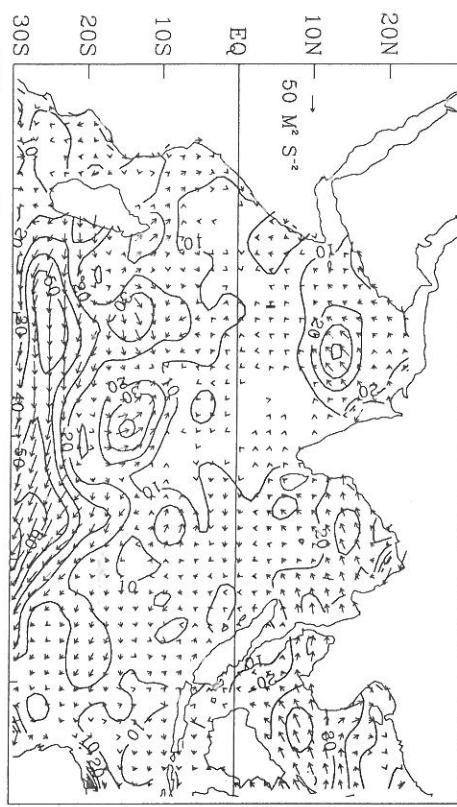
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



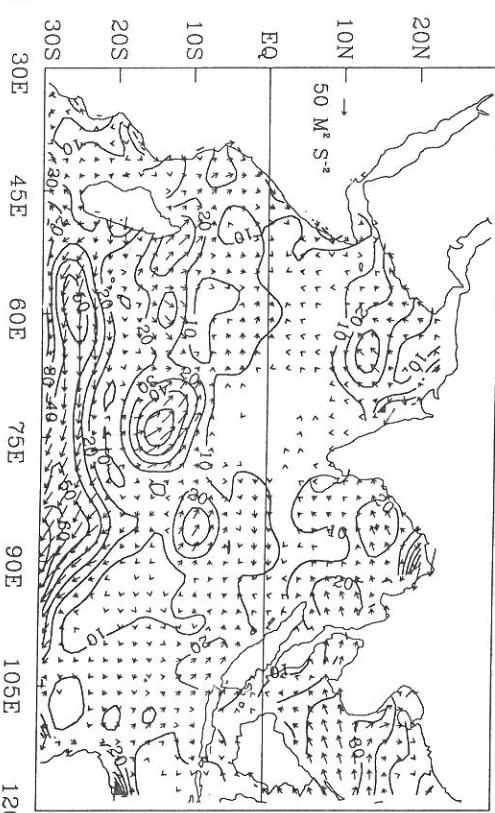
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



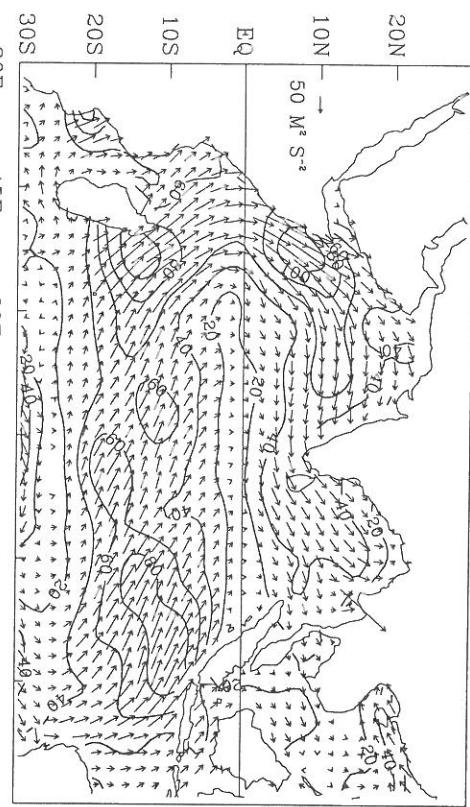
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



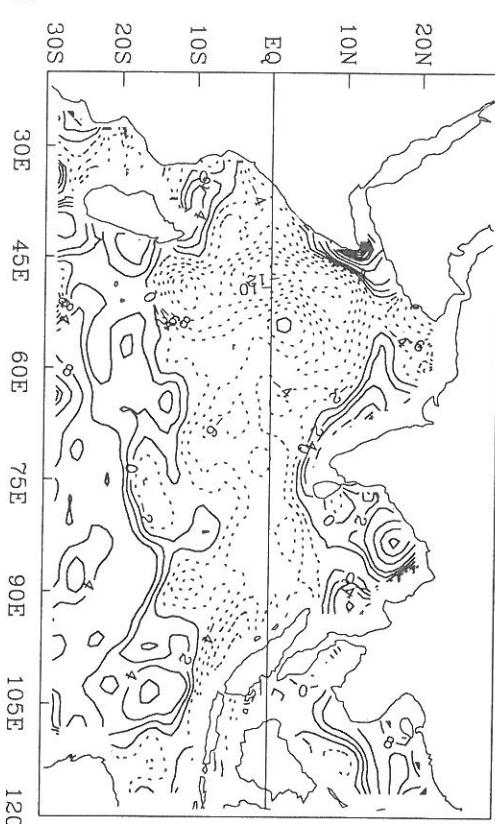
August 1988

September 1988

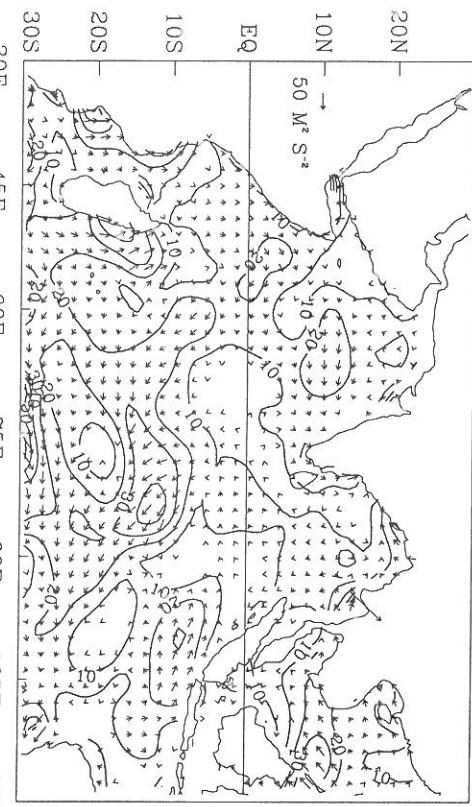
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



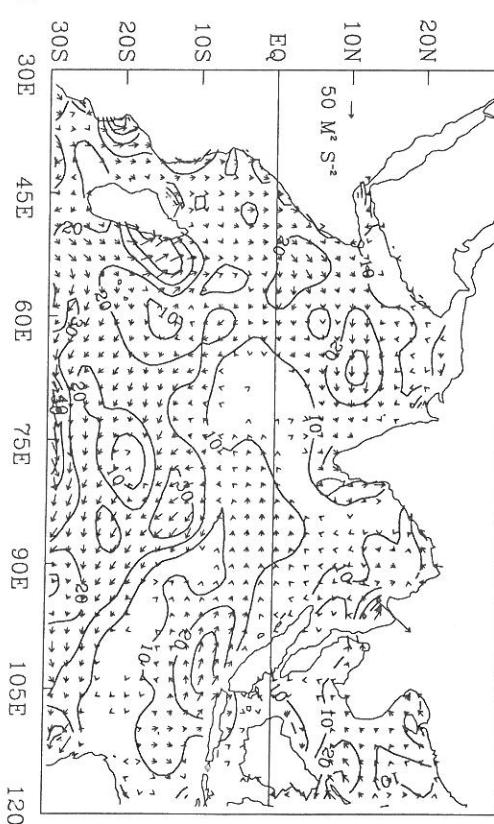
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



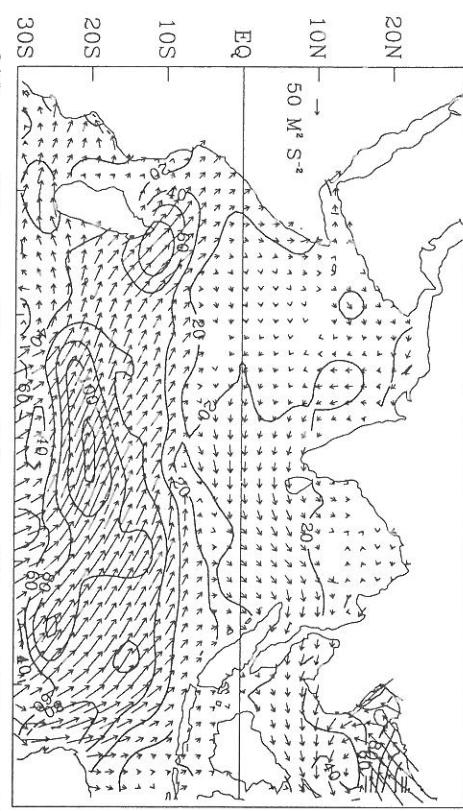
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



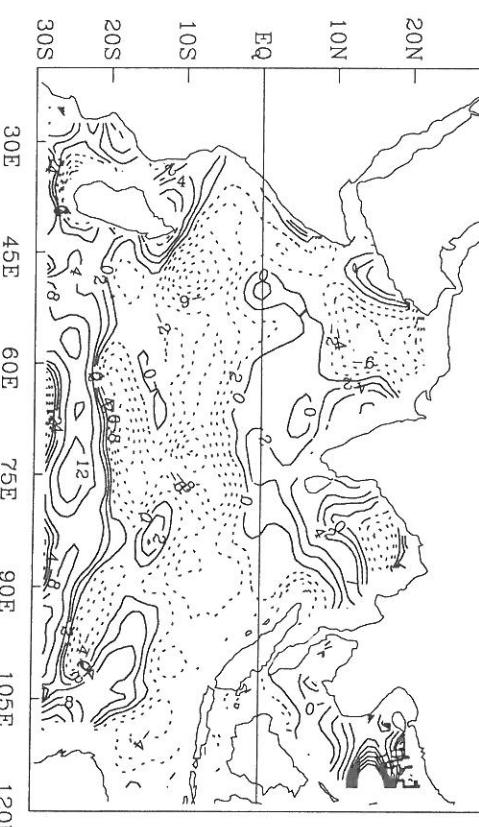
September 1988

October 1988

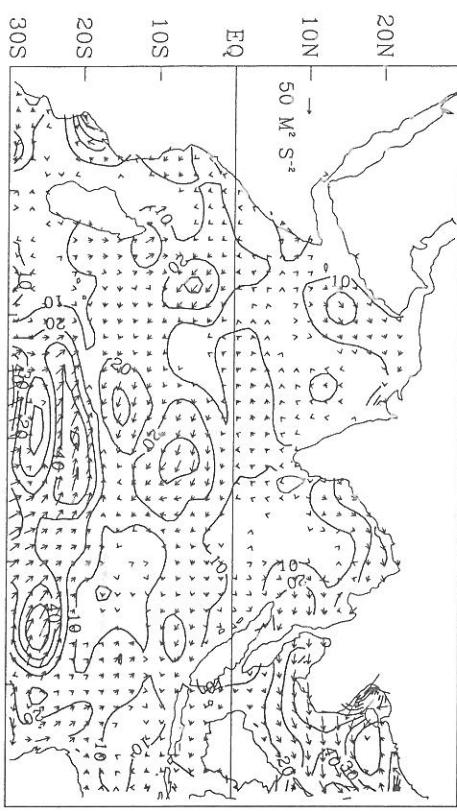
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



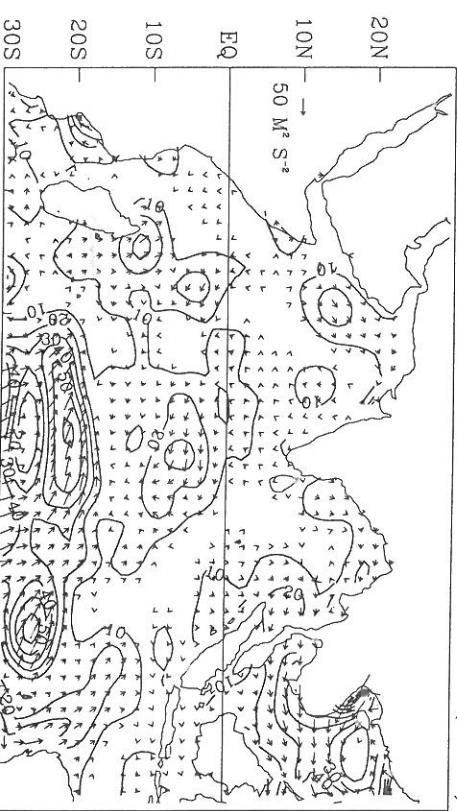
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



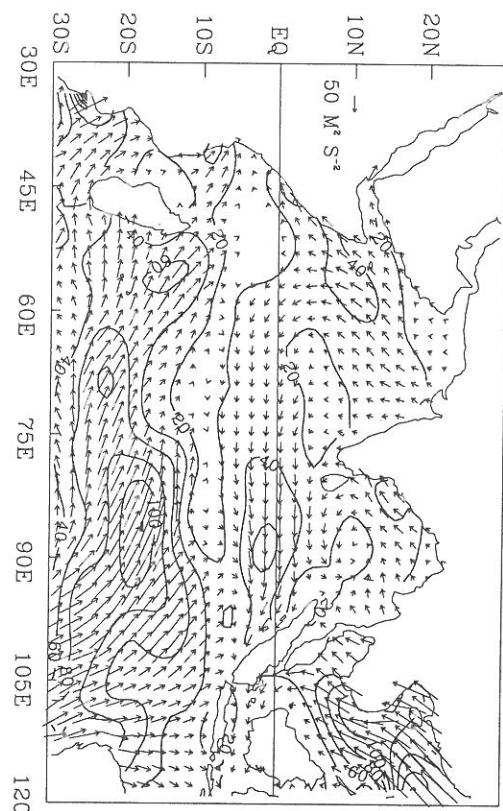
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



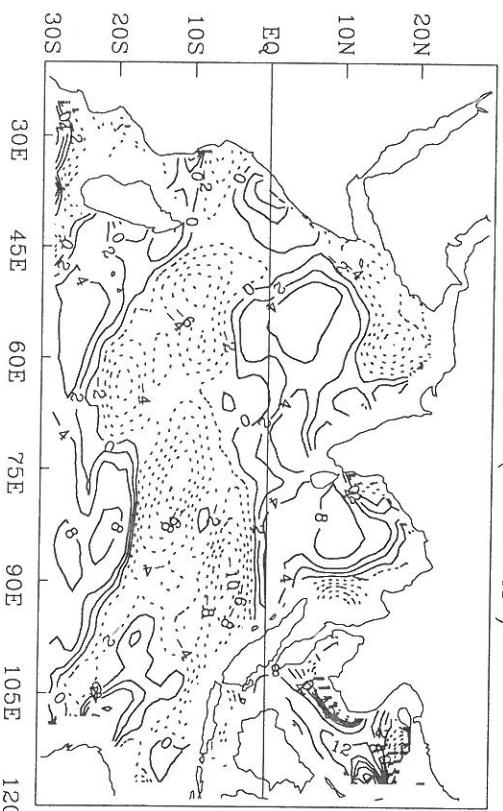
October 1988

November 1988

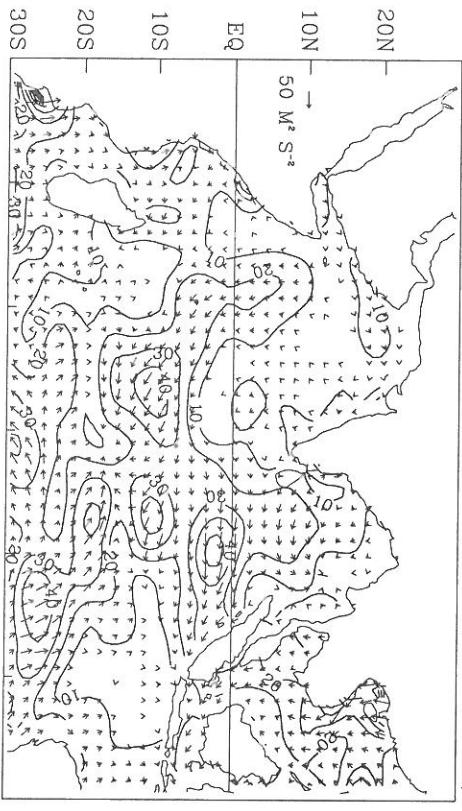
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



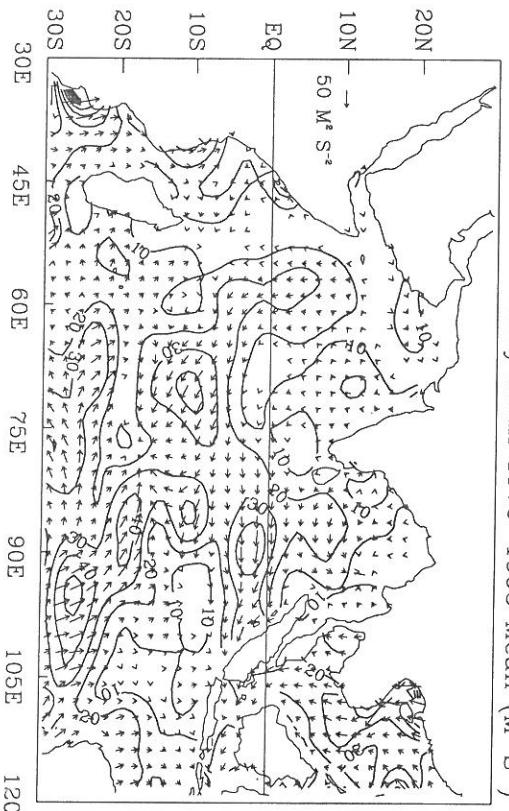
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



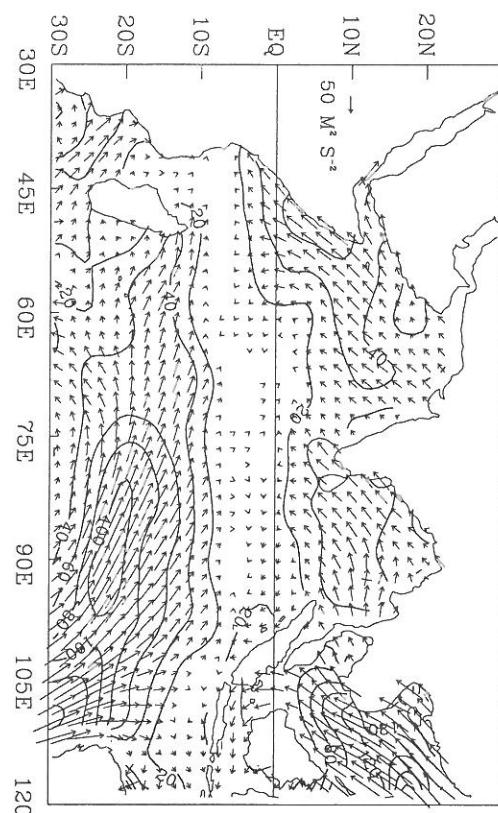
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



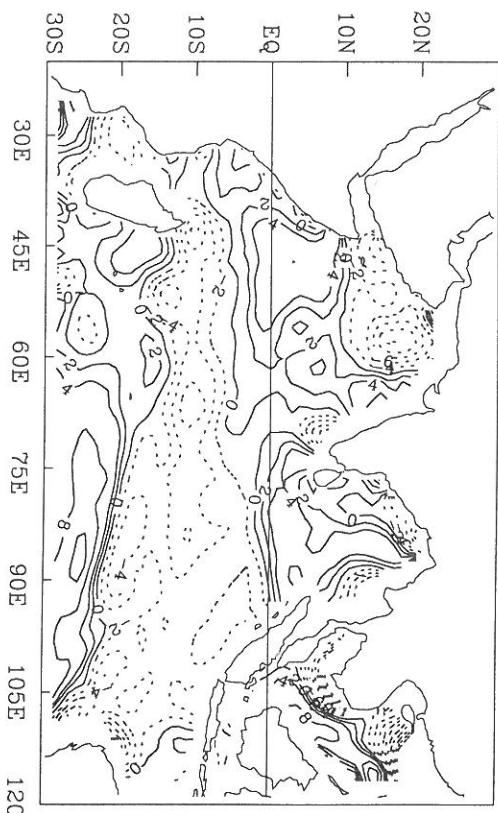
November 1988

December 1988

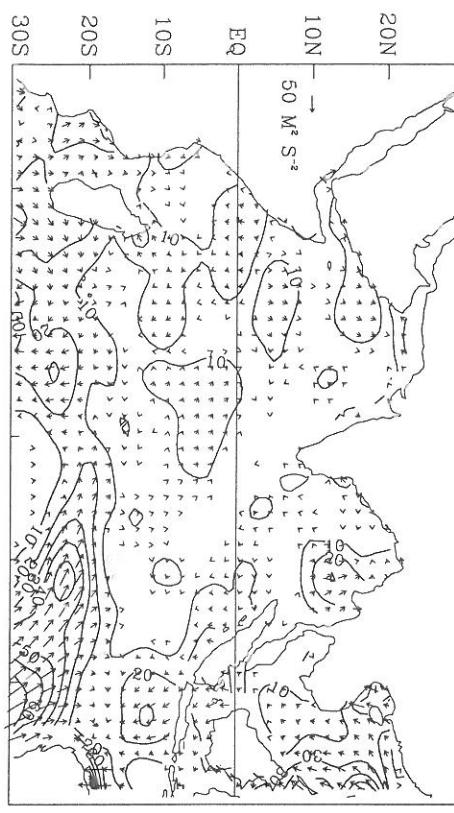
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



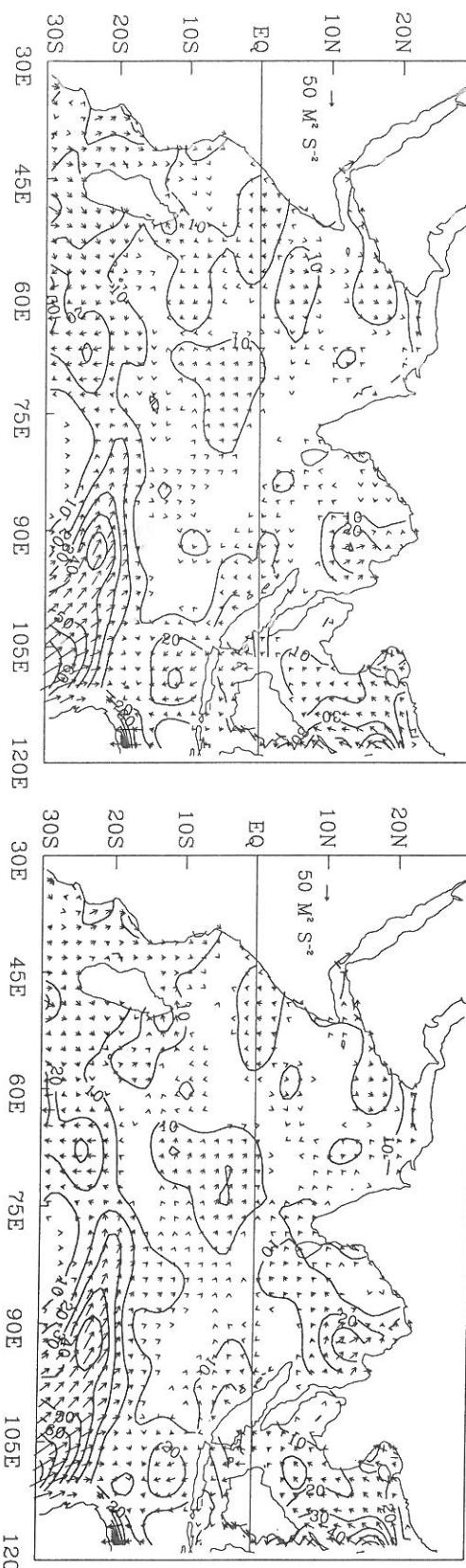
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



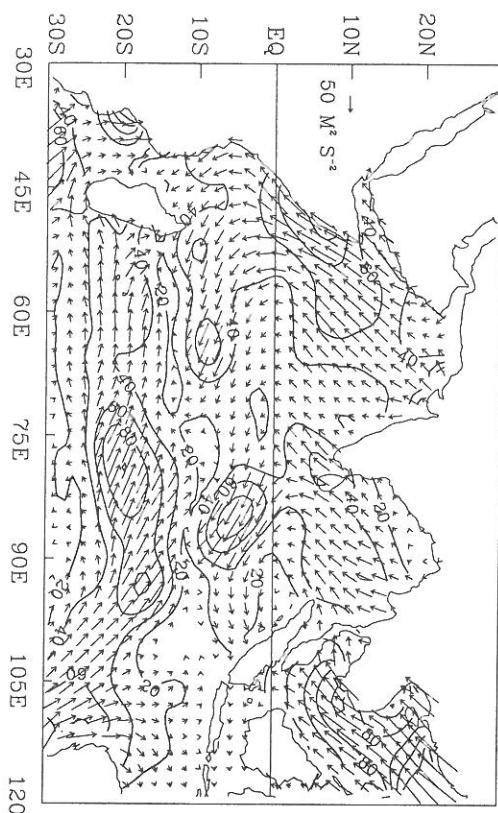
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



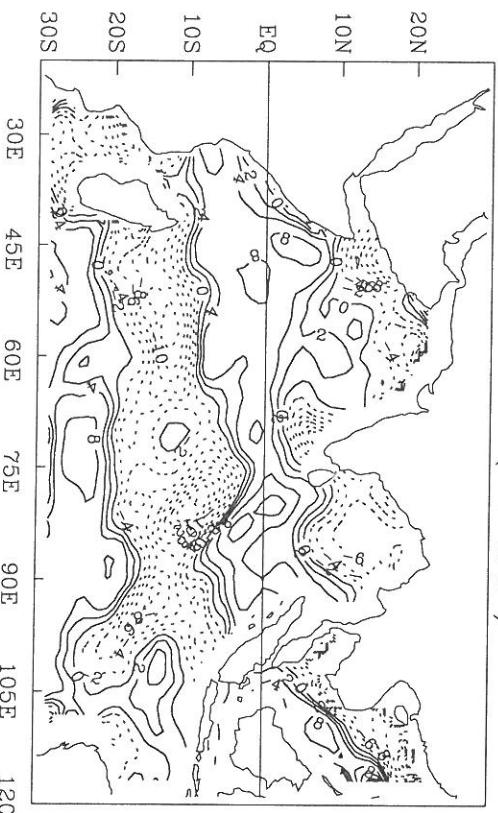
December 1988

January 1989

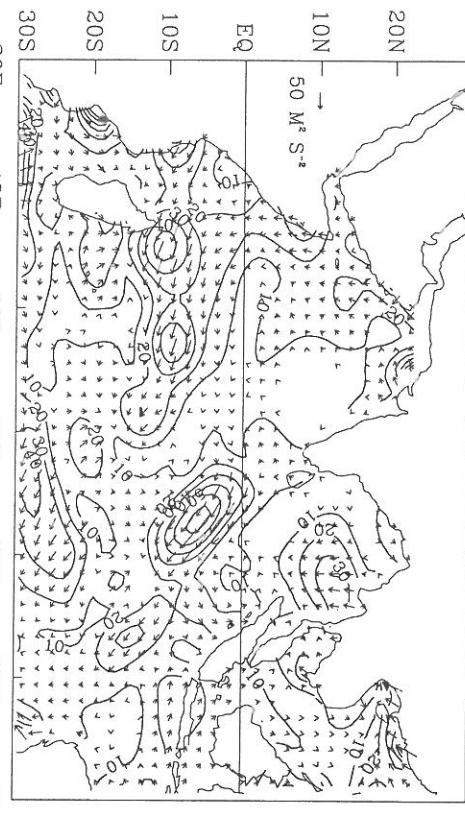
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



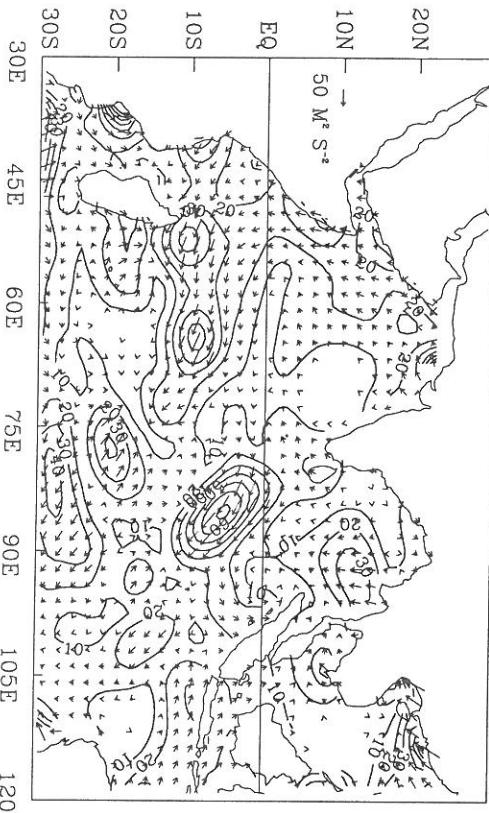
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



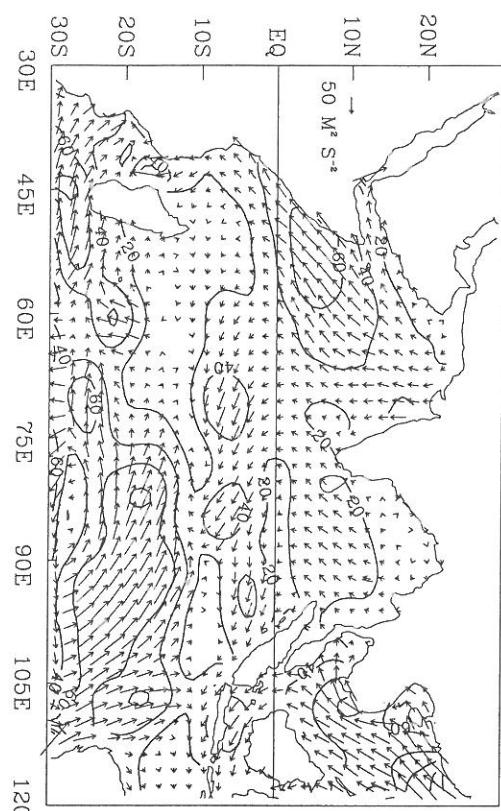
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



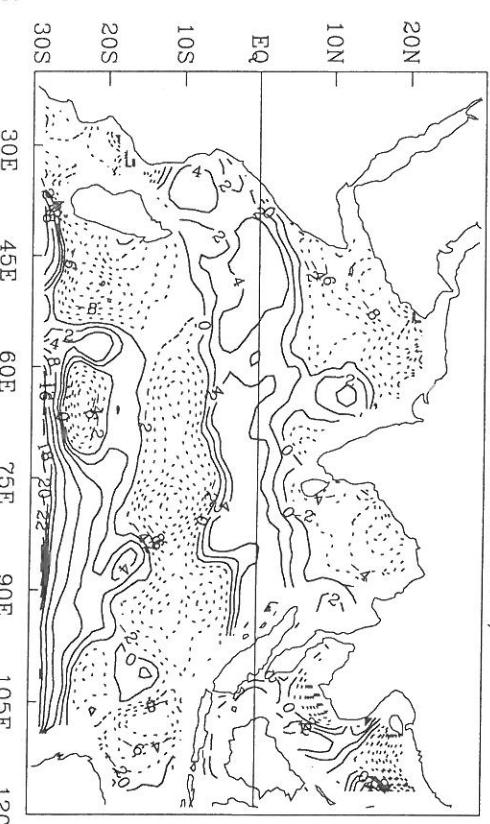
January 1989

February 1989

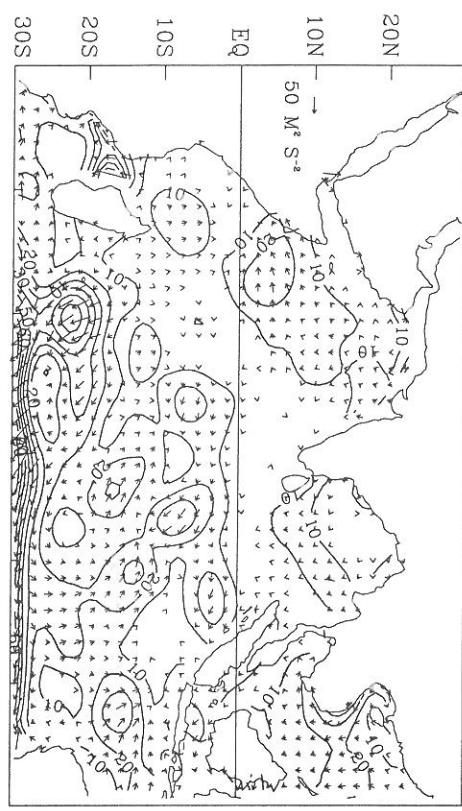
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



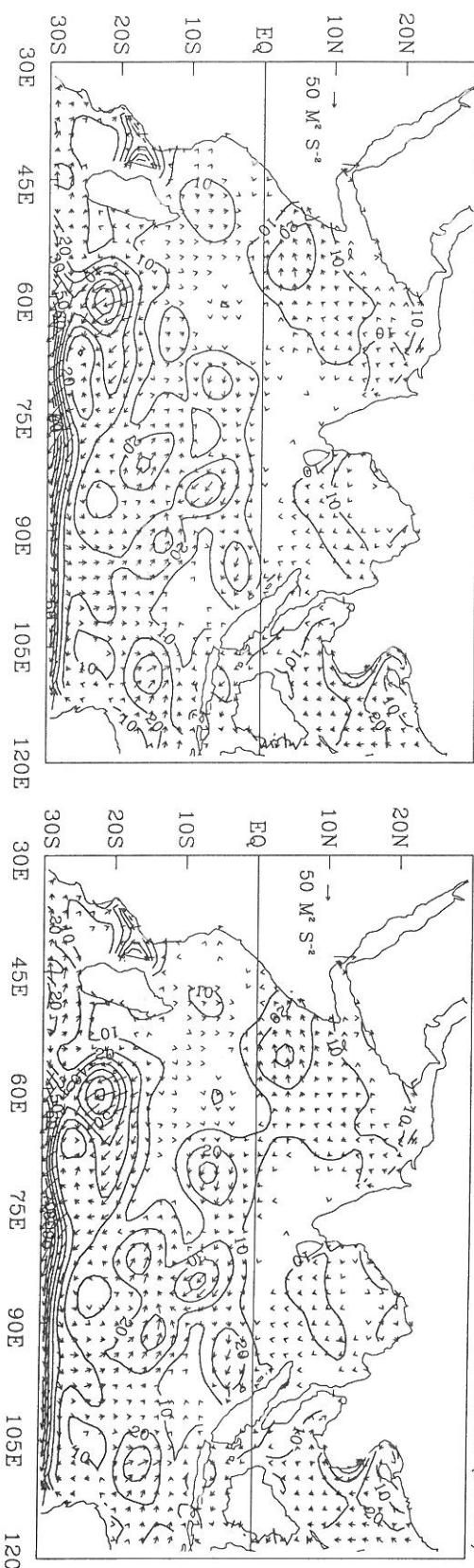
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



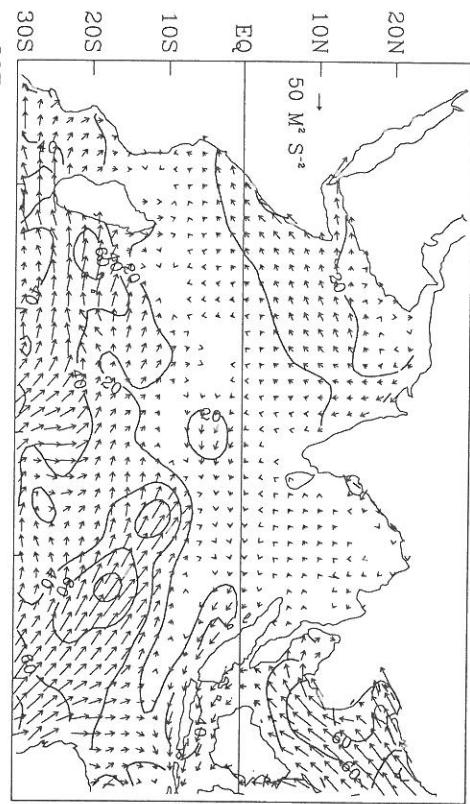
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



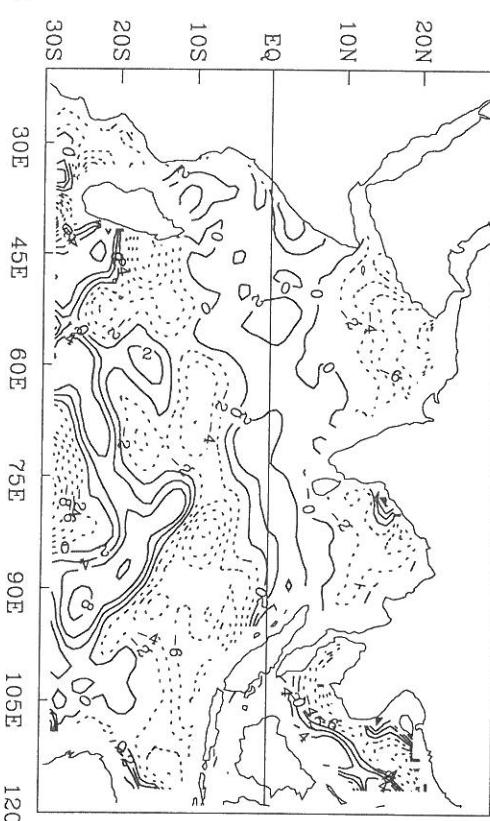
February 1989

March 1989

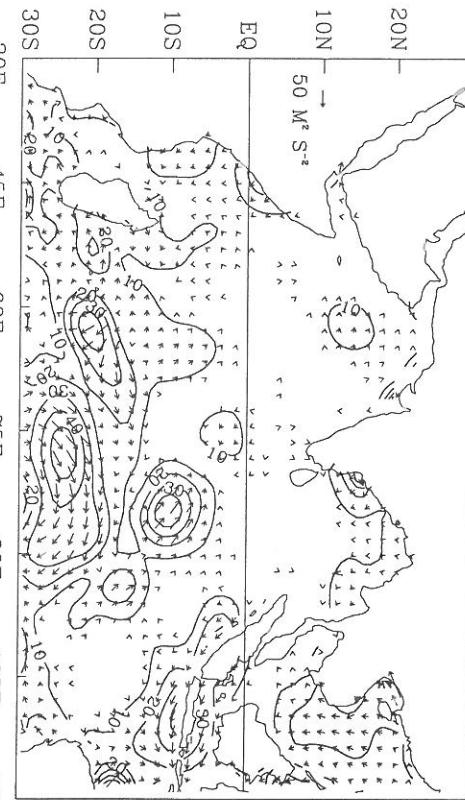
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



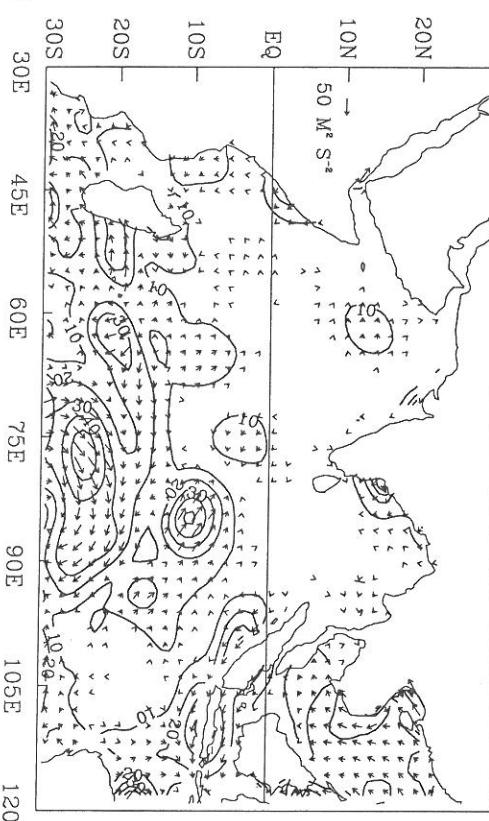
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



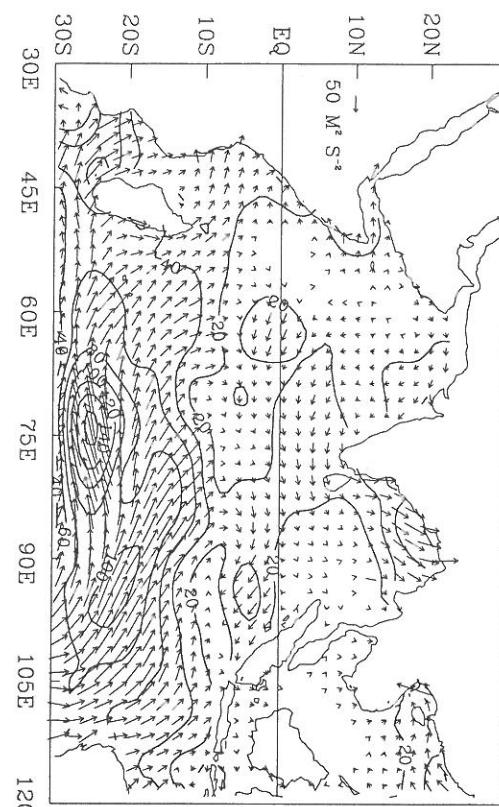
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



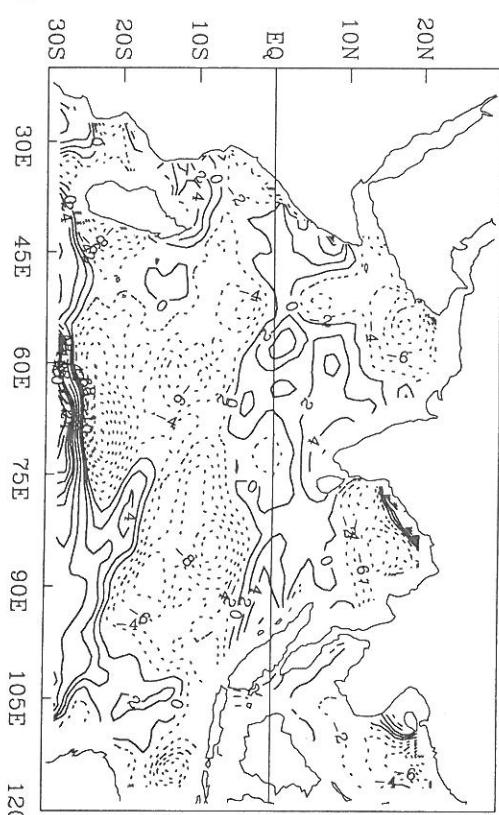
March 1989

April 1989

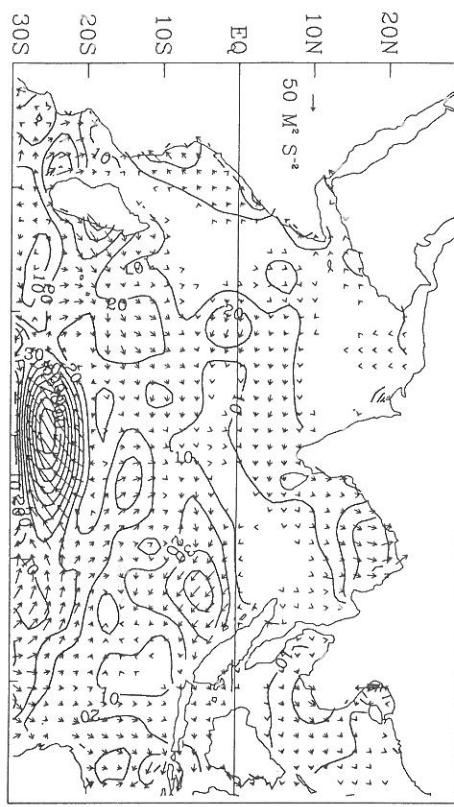
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



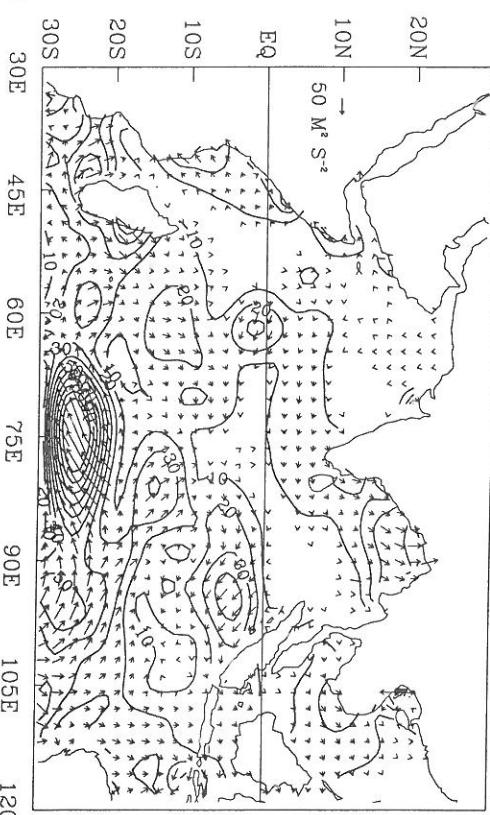
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



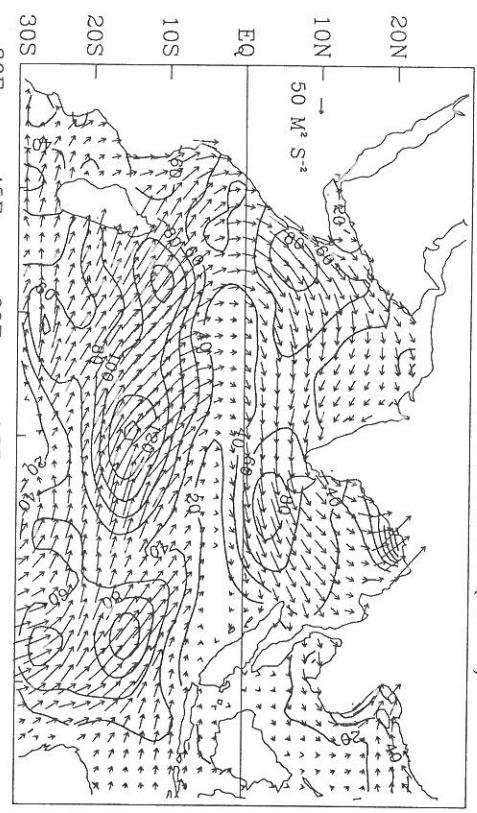
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



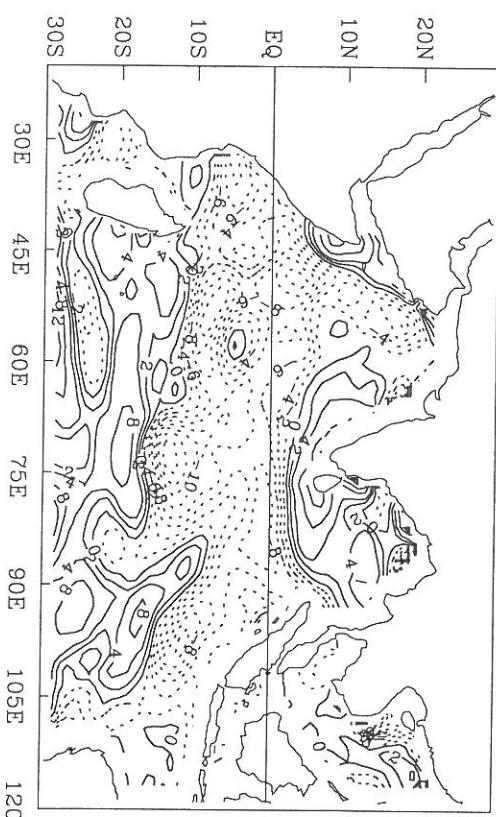
April 1989

May 1989

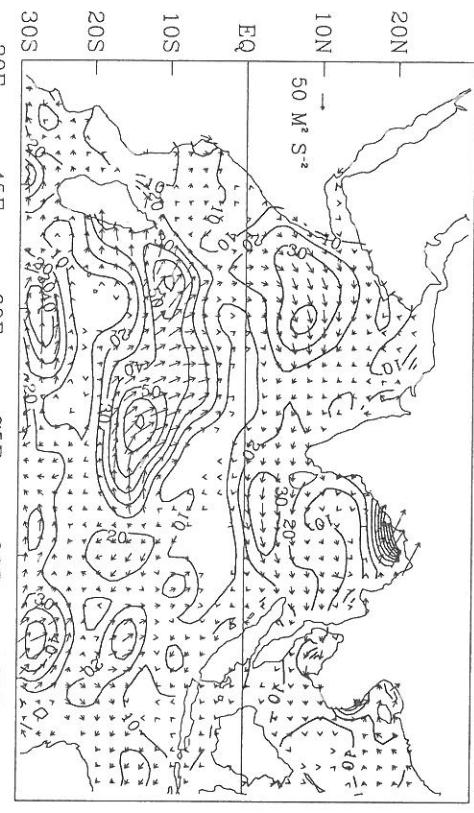
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



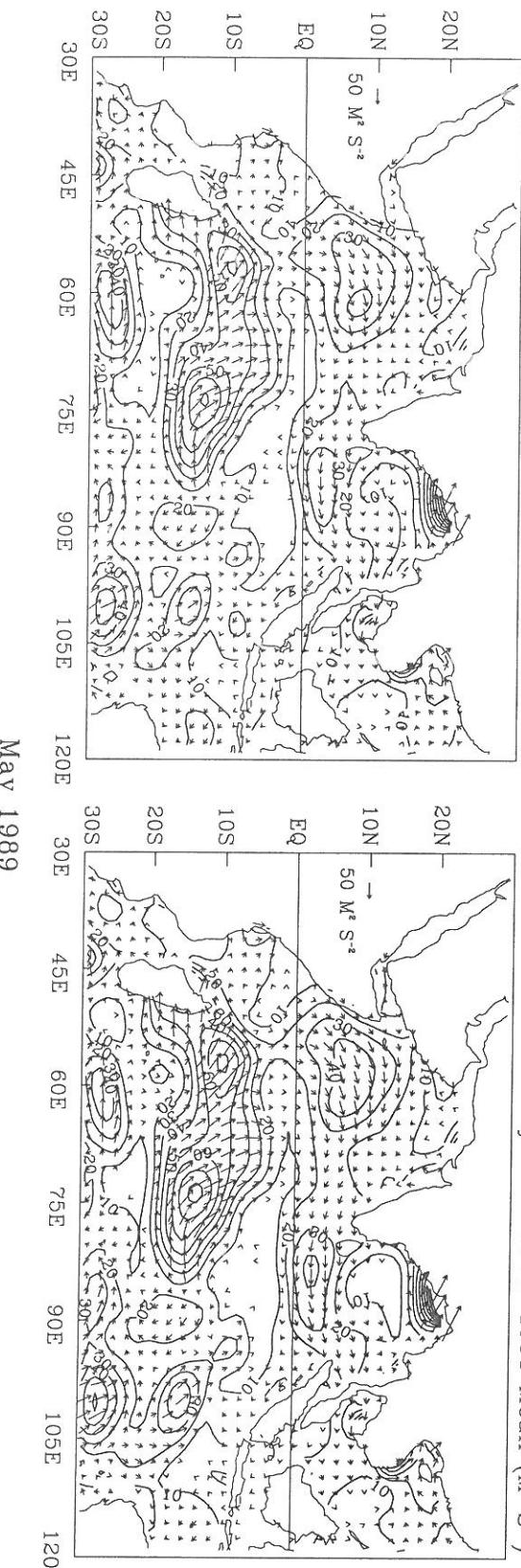
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



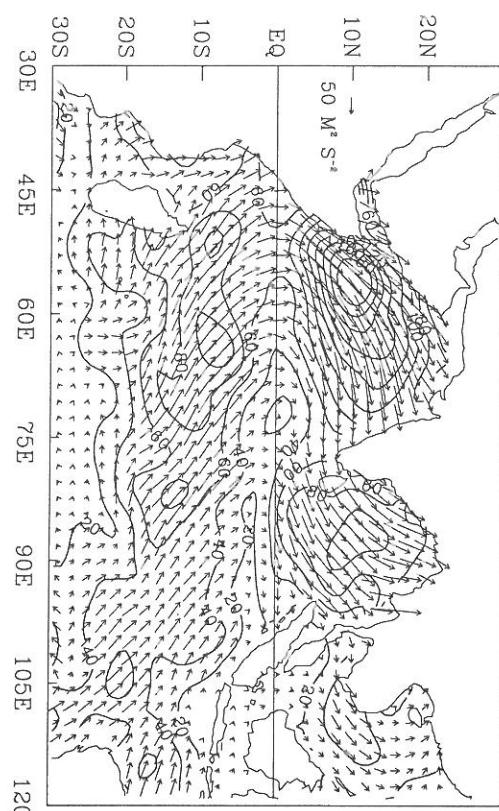
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



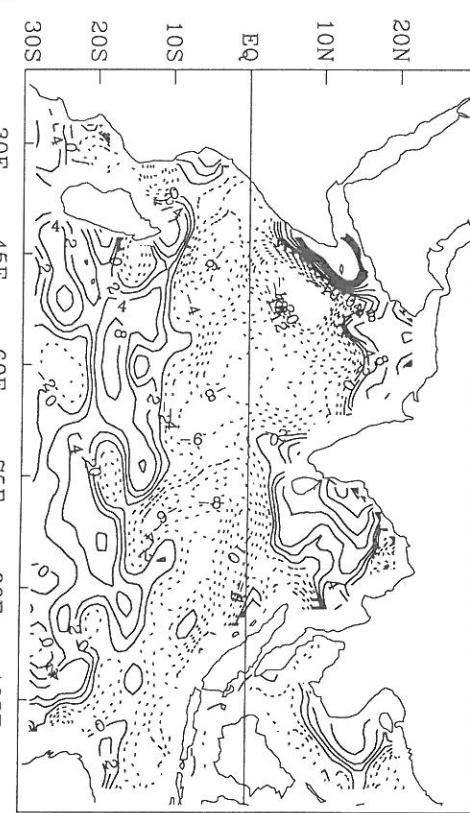
May 1989

June 1989

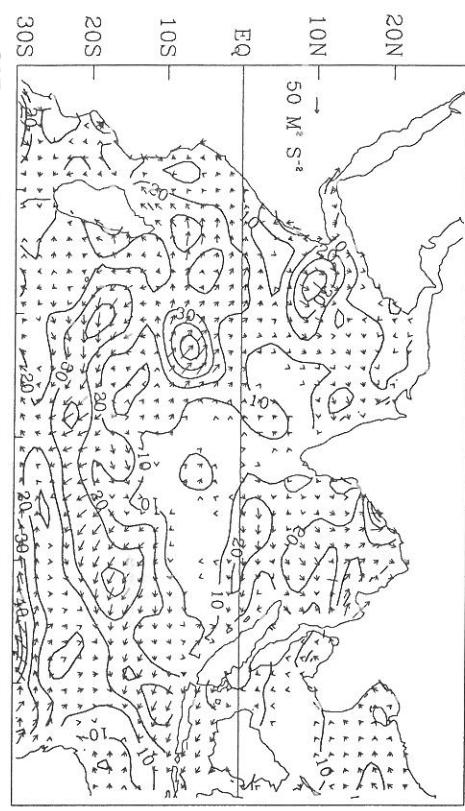
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



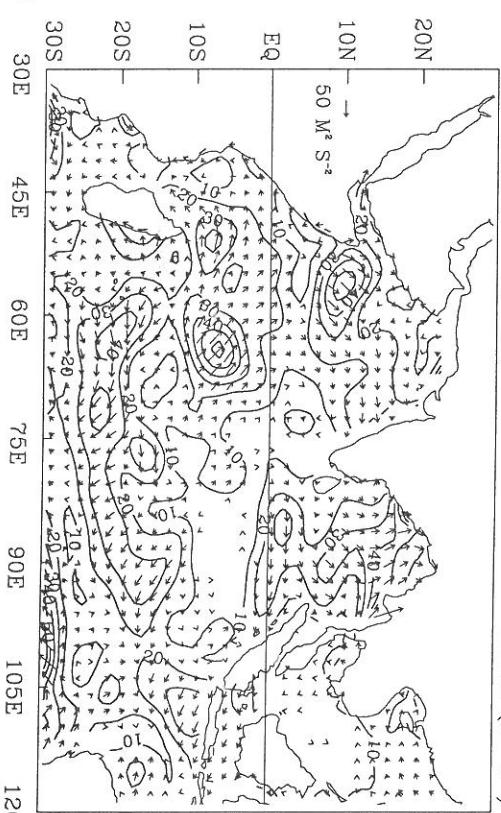
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



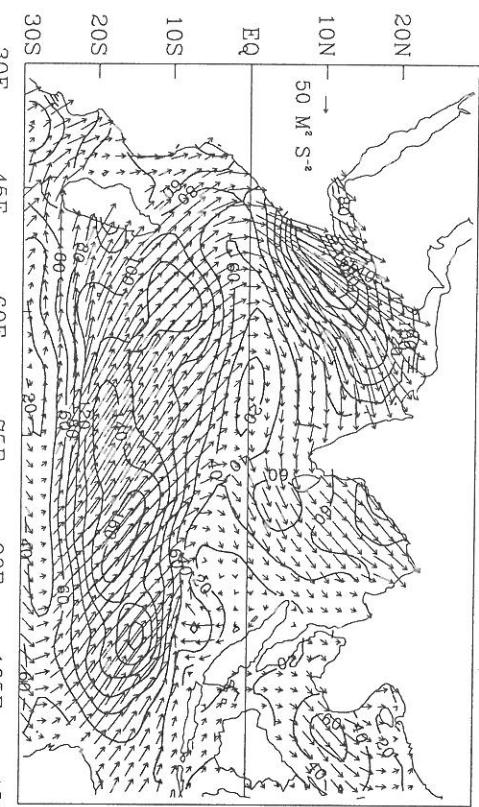
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



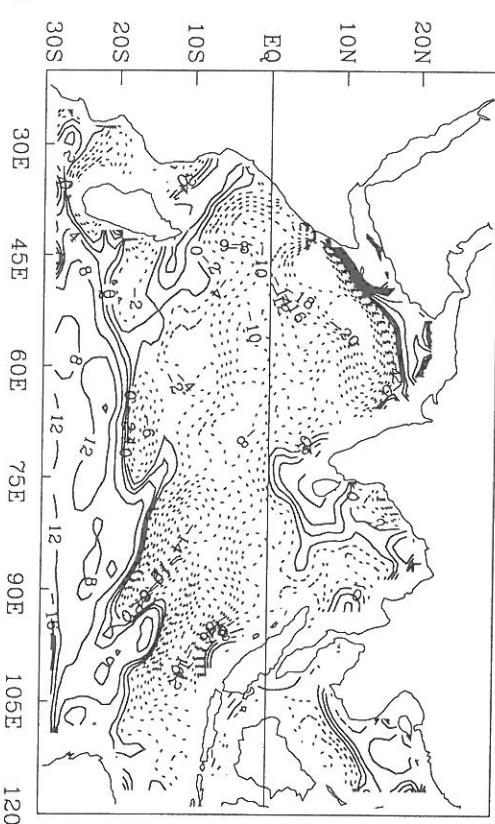
June 1989

July 1989

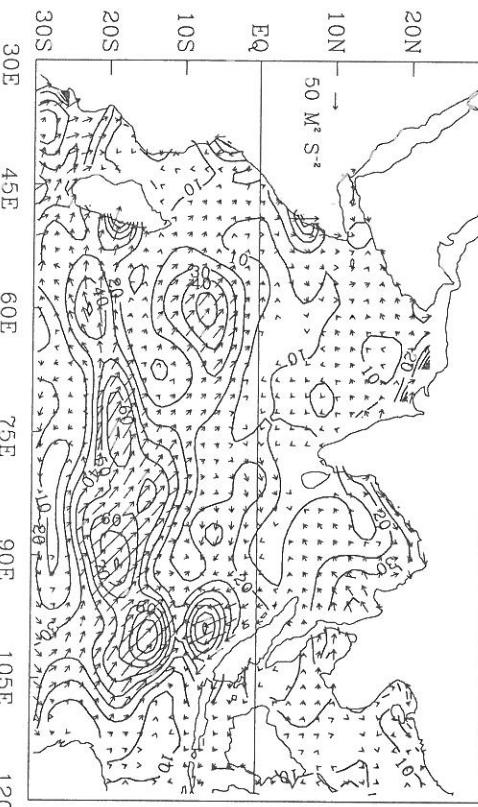
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



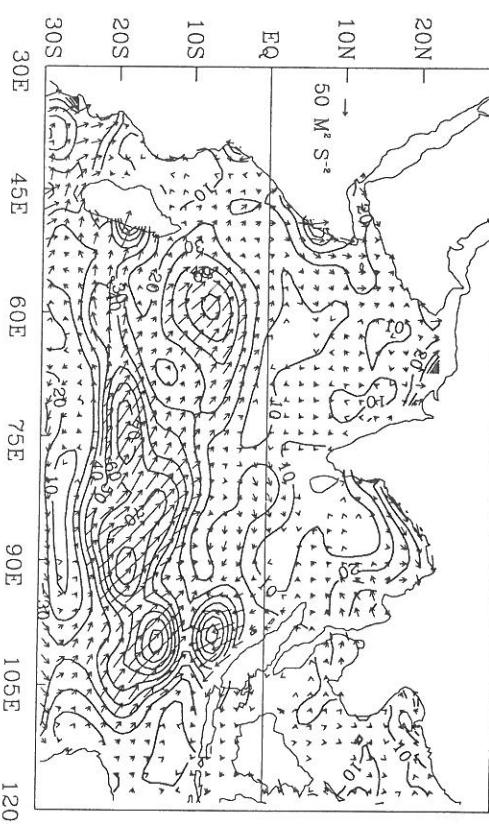
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



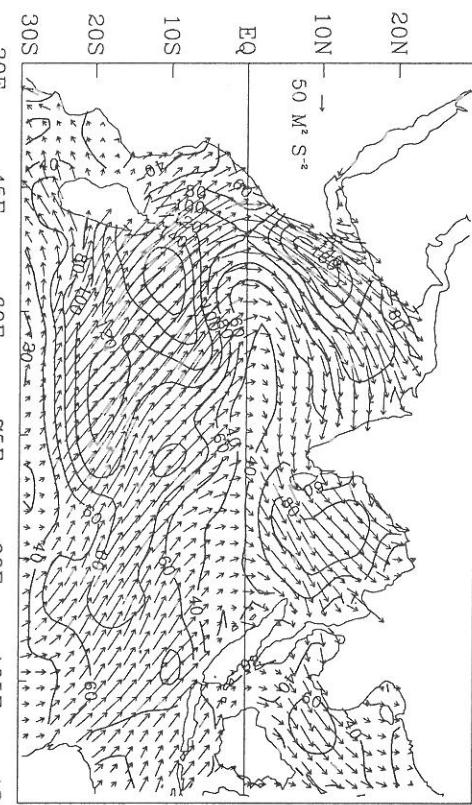
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



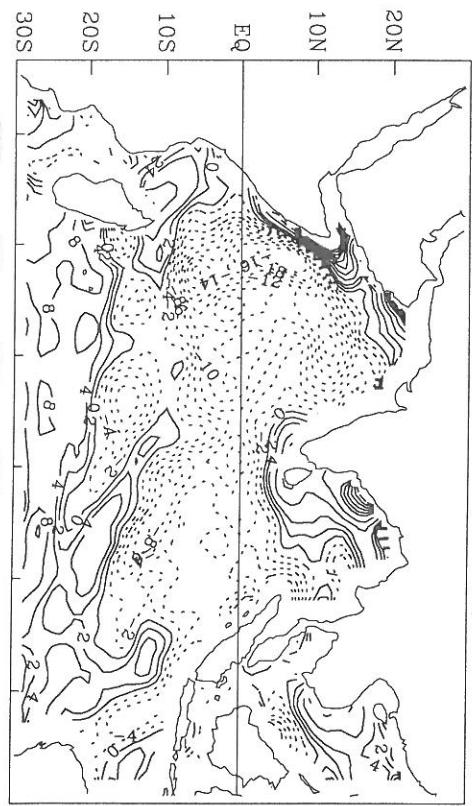
July 1989

August 1989

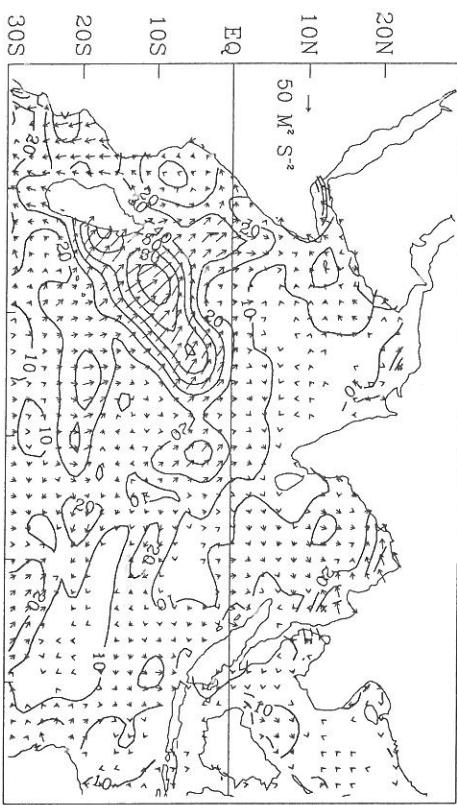
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



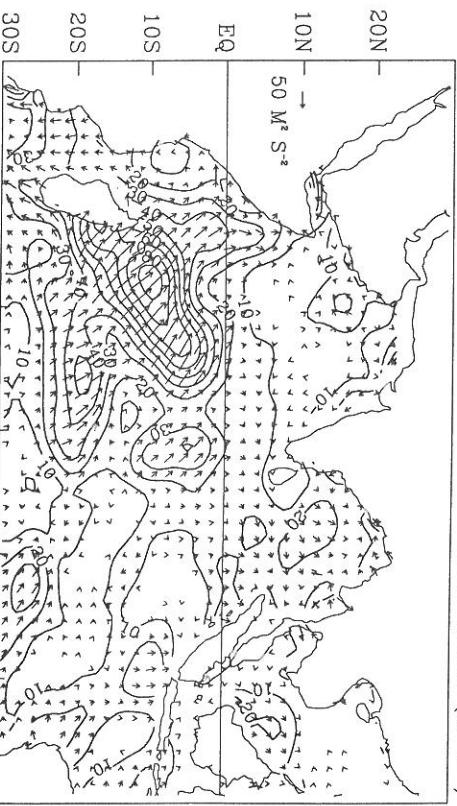
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )

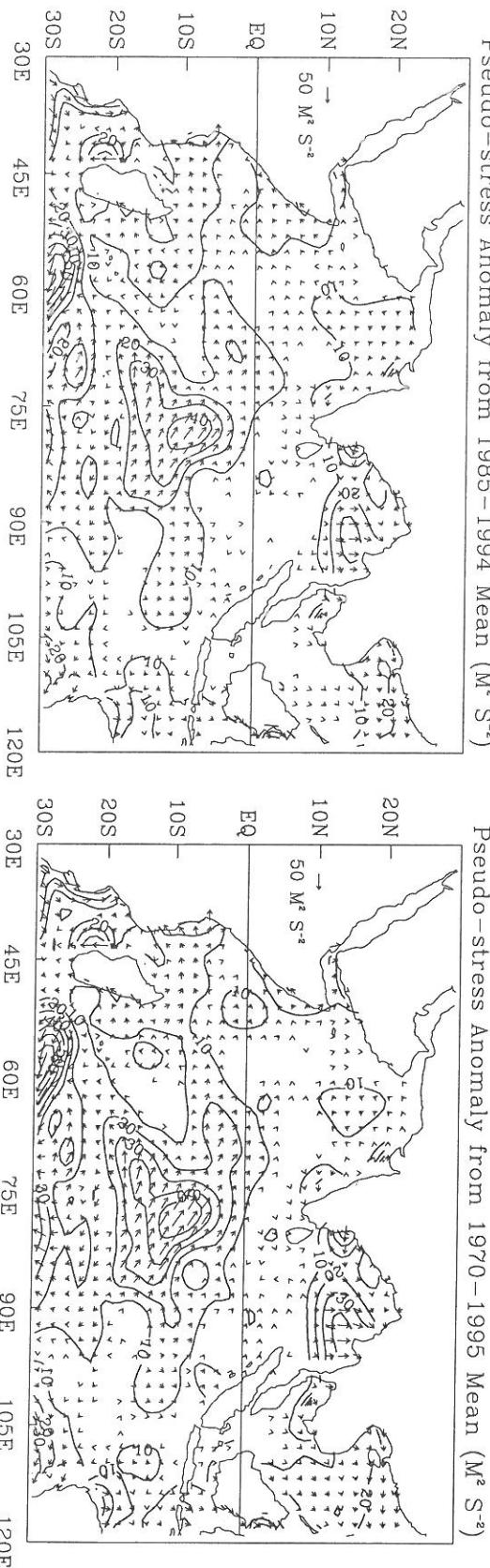
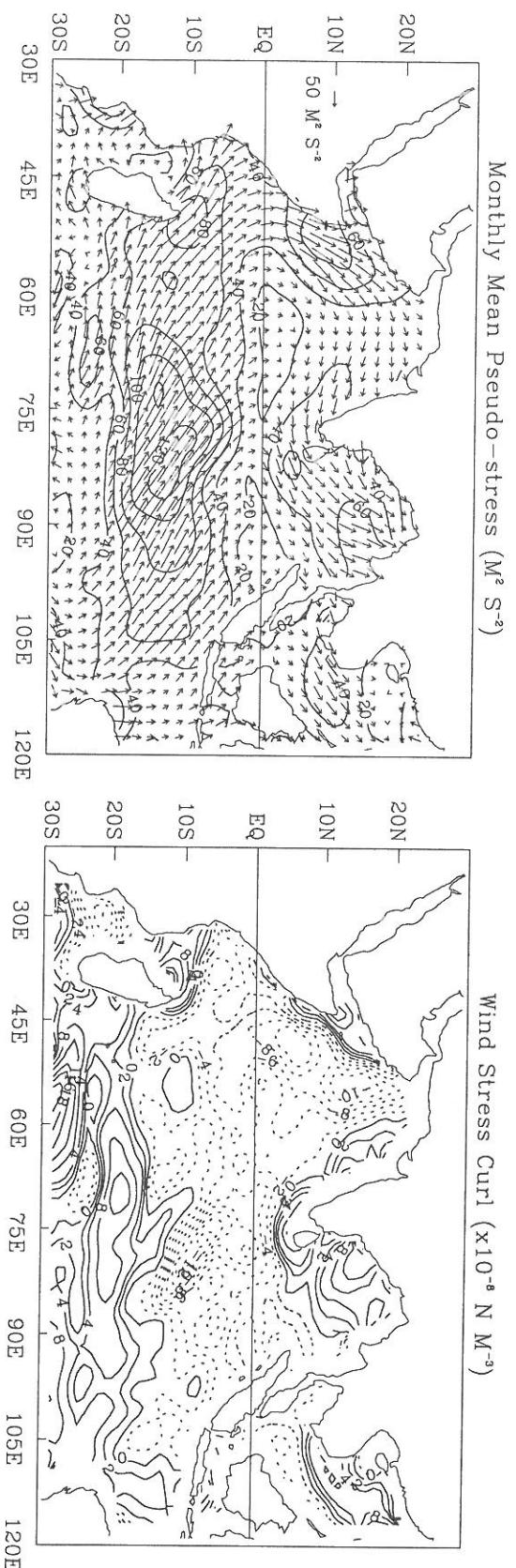


Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



August 1989

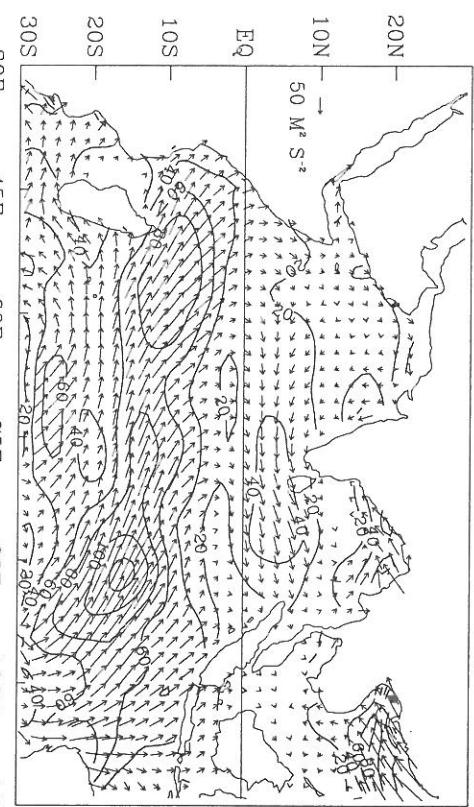
September 1989



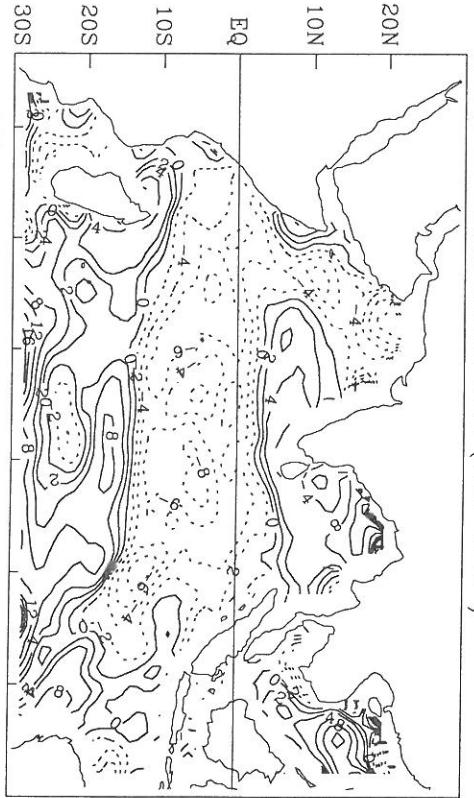
September 1989

October 1989

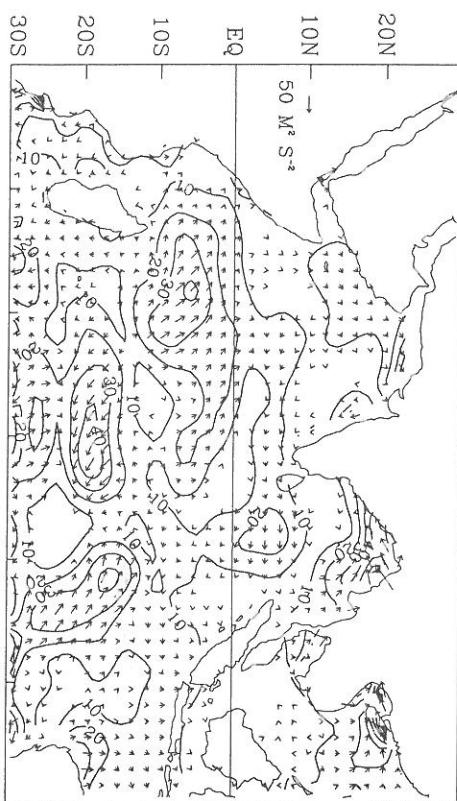
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



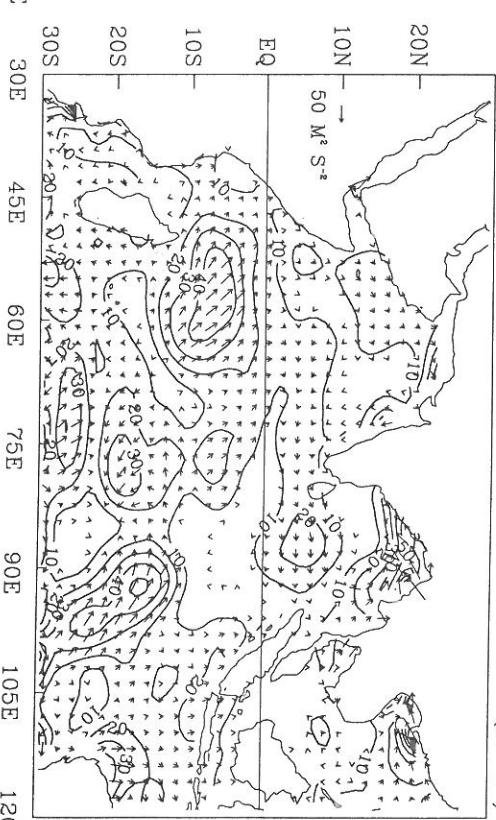
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



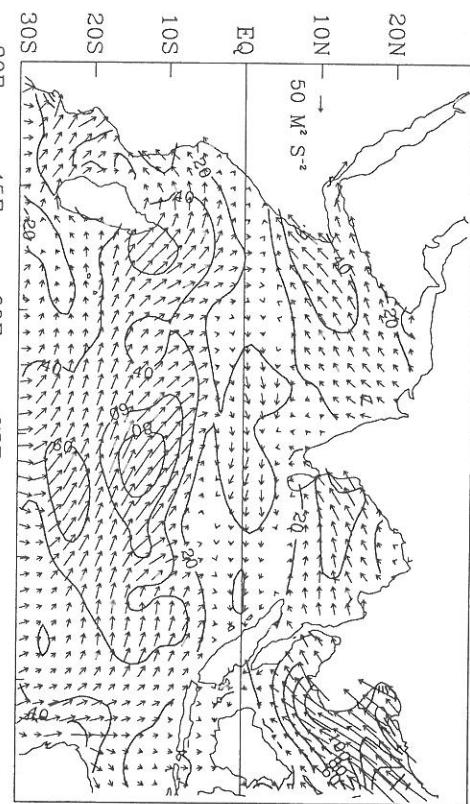
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



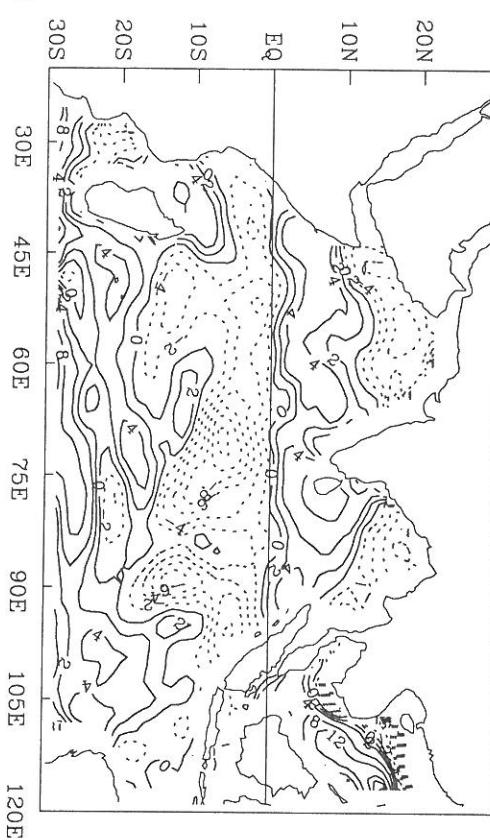
October 1989

November 1989

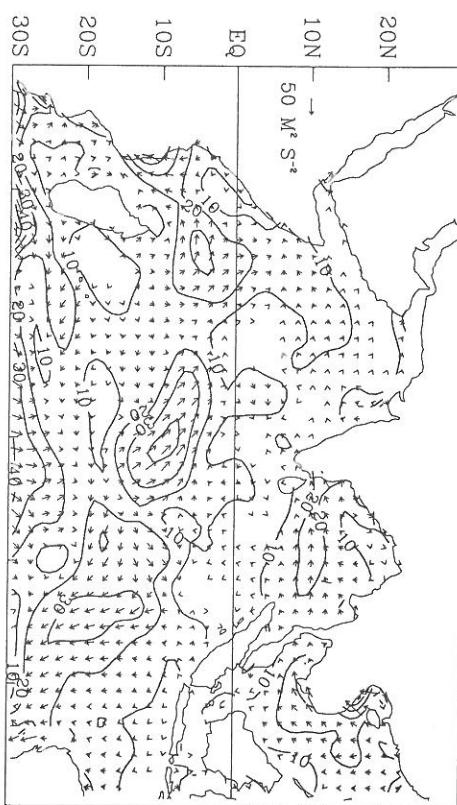
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



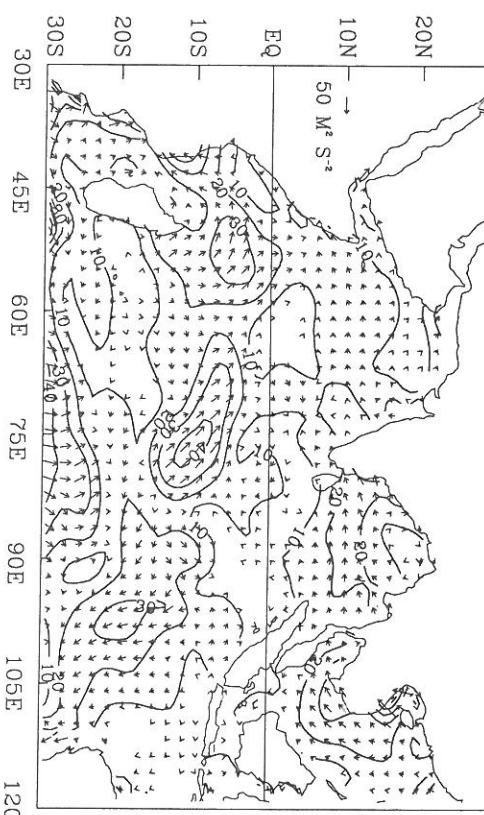
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



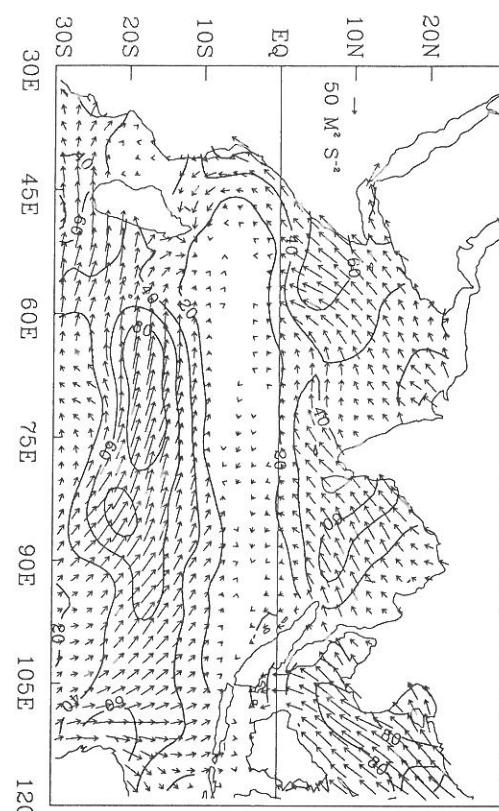
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



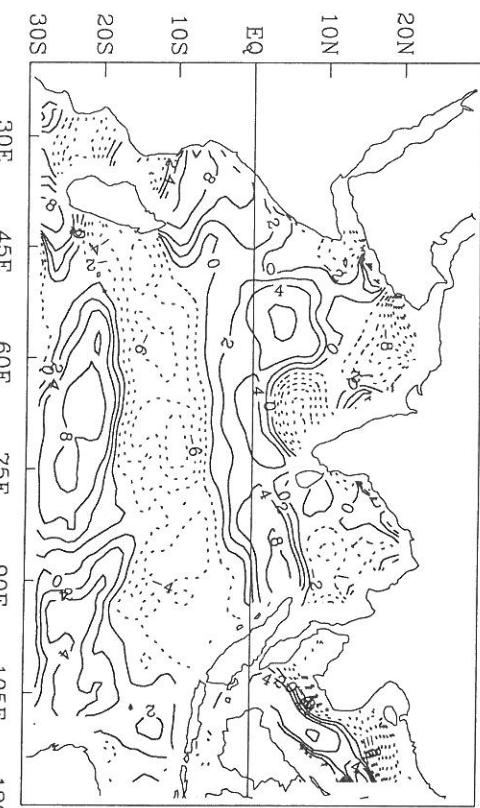
November 1989

December 1989

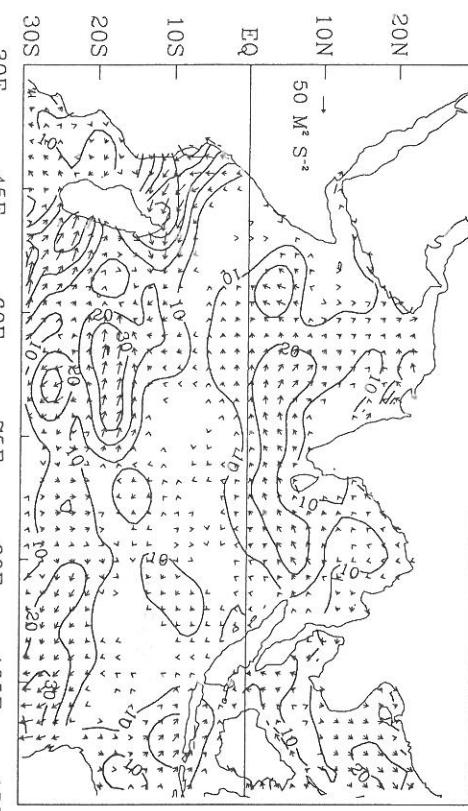
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



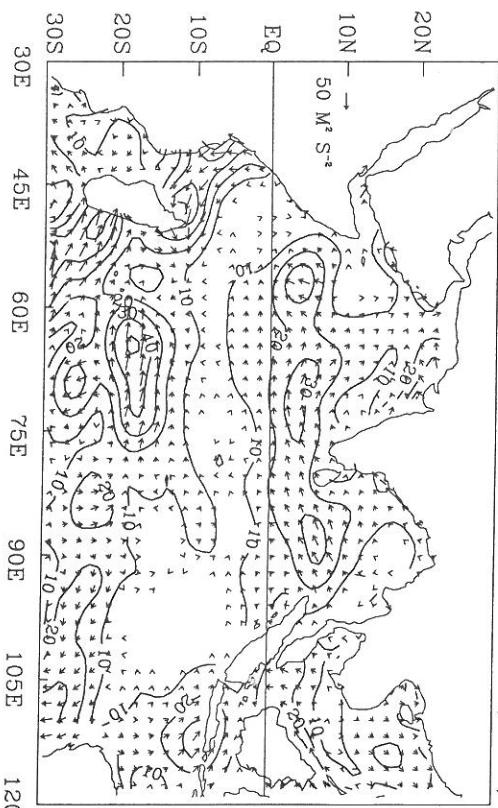
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



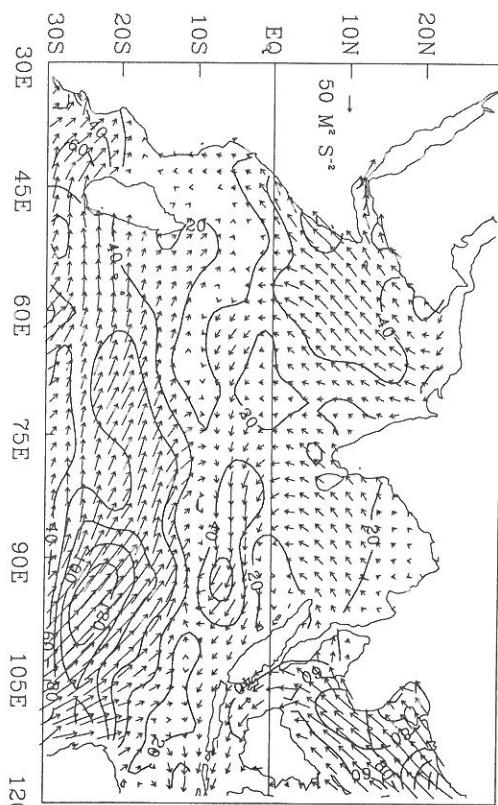
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



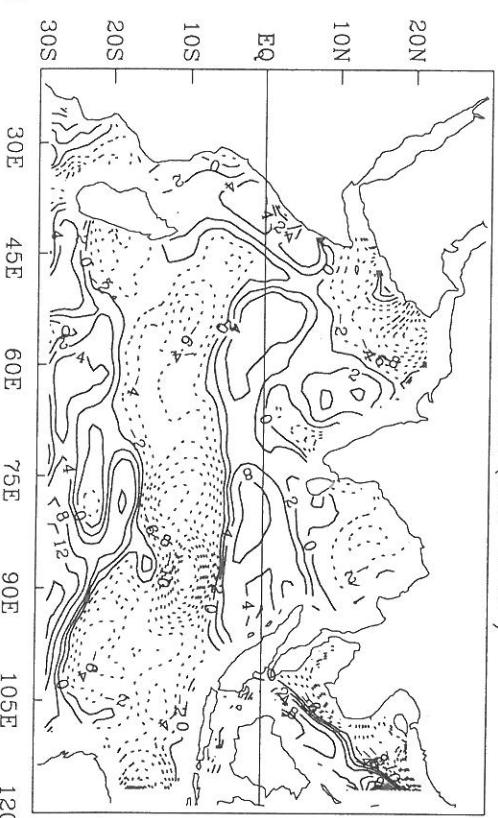
December 1989

January 1990

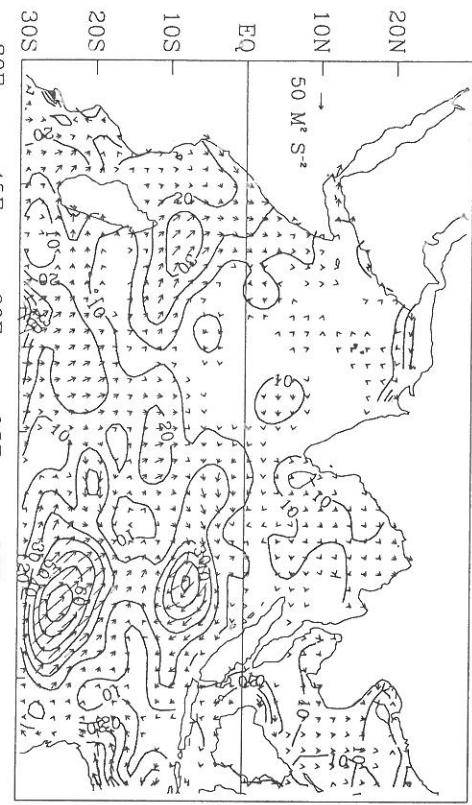
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



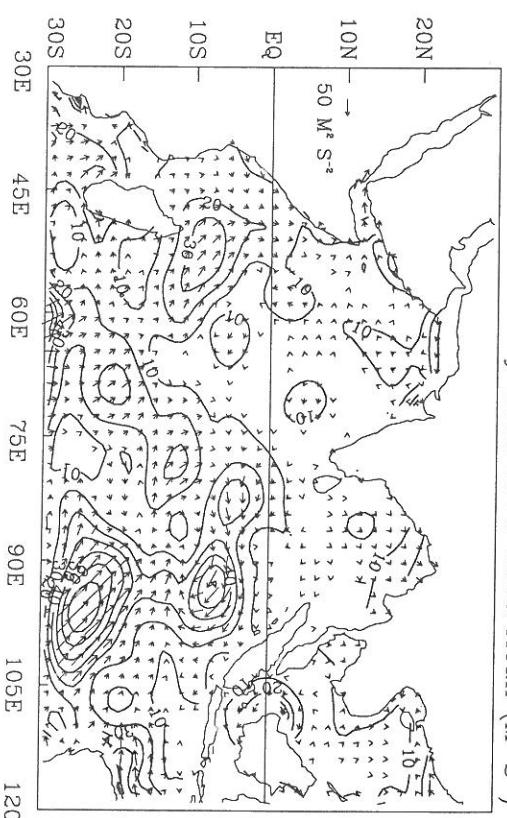
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



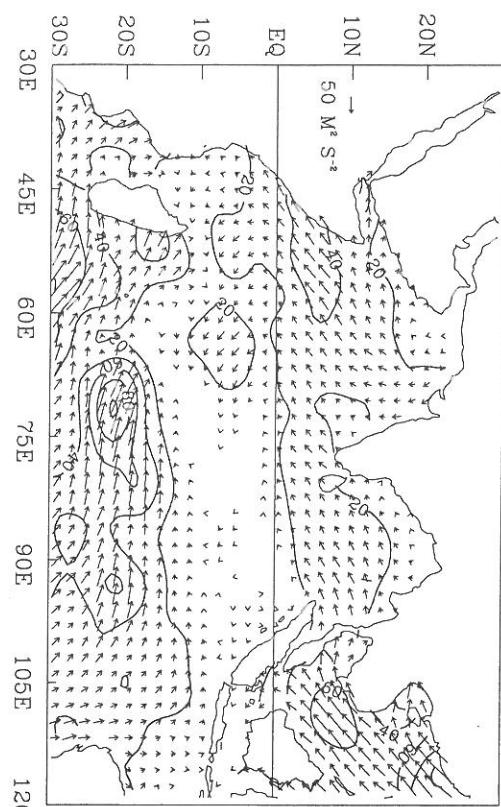
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



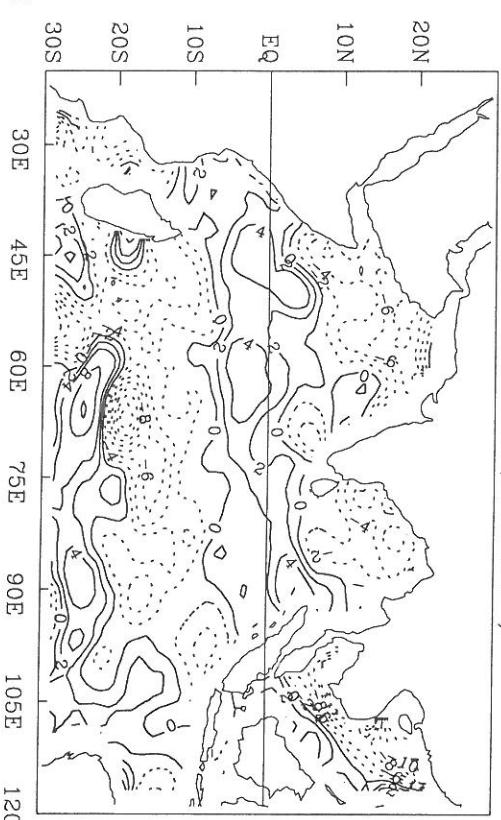
January 1990

February 1990

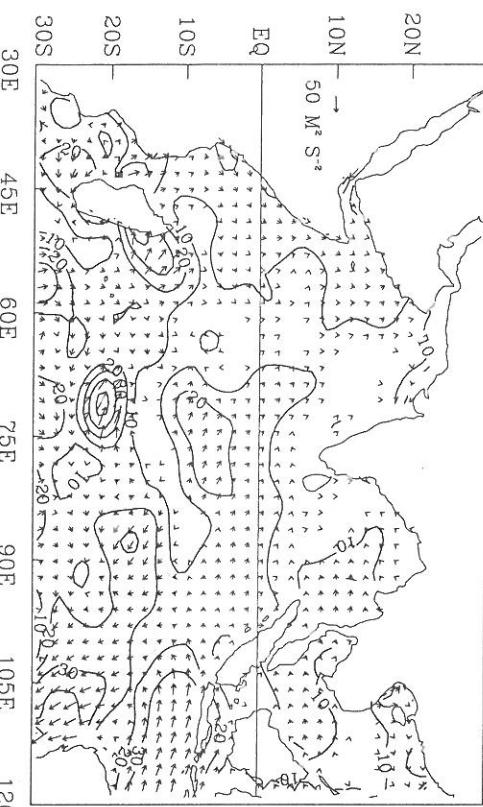
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



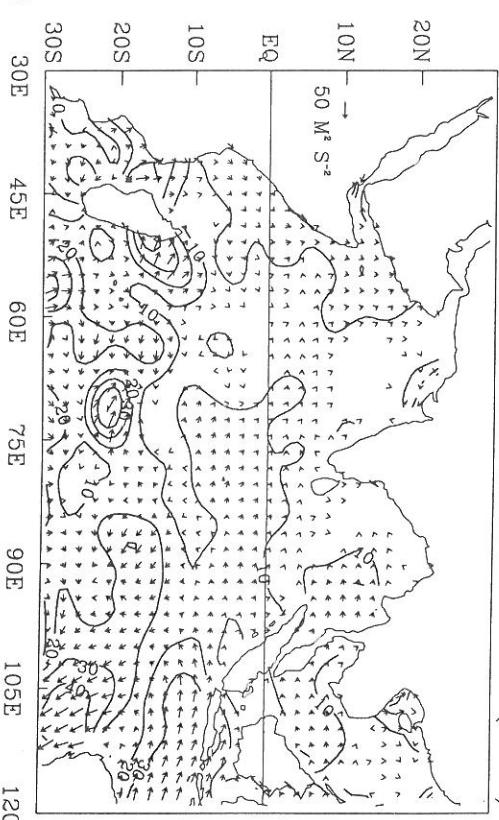
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



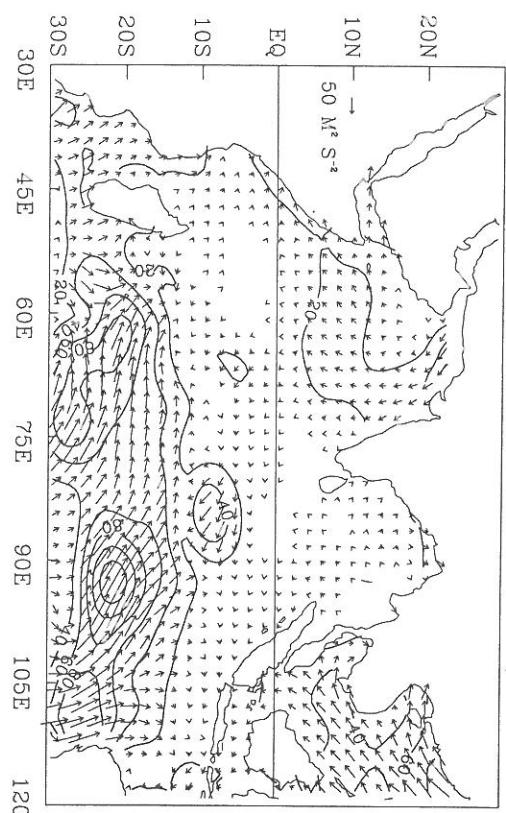
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



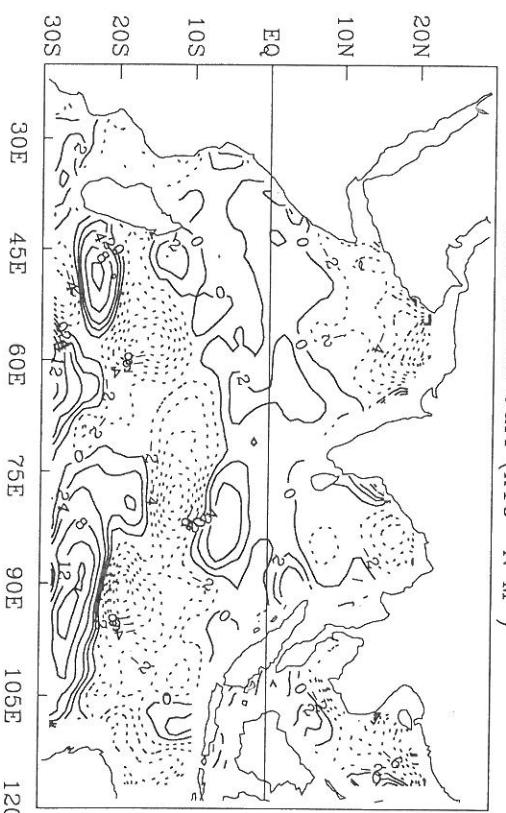
February 1990

March 1990

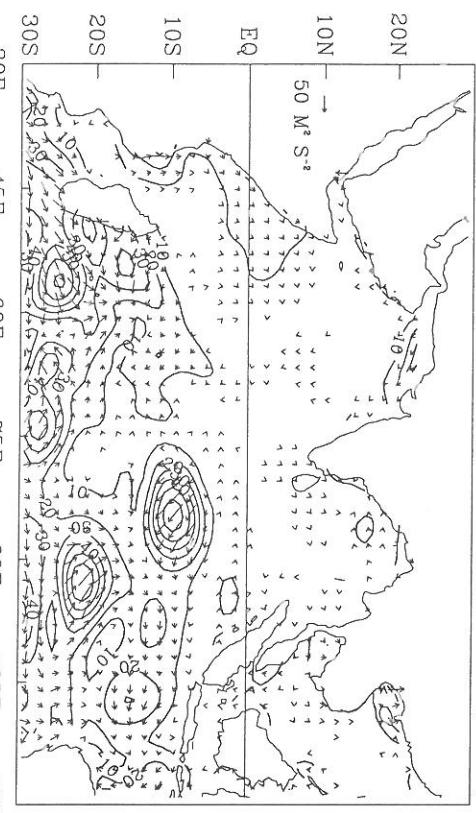
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



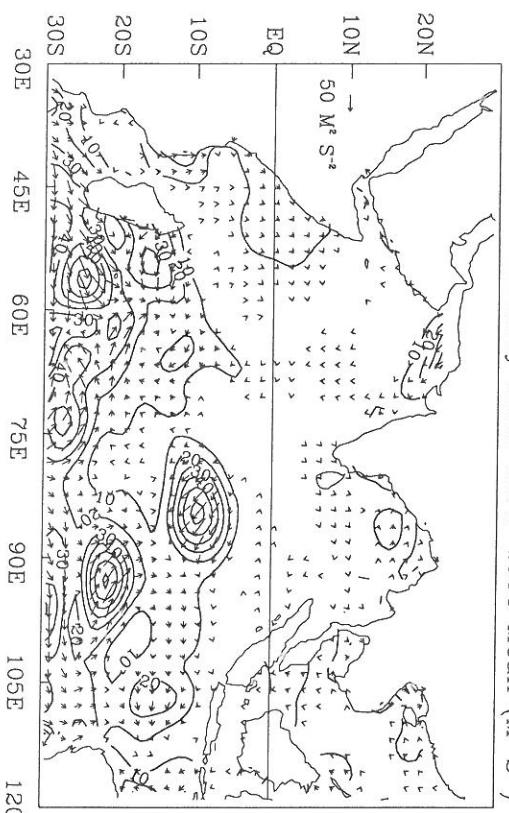
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



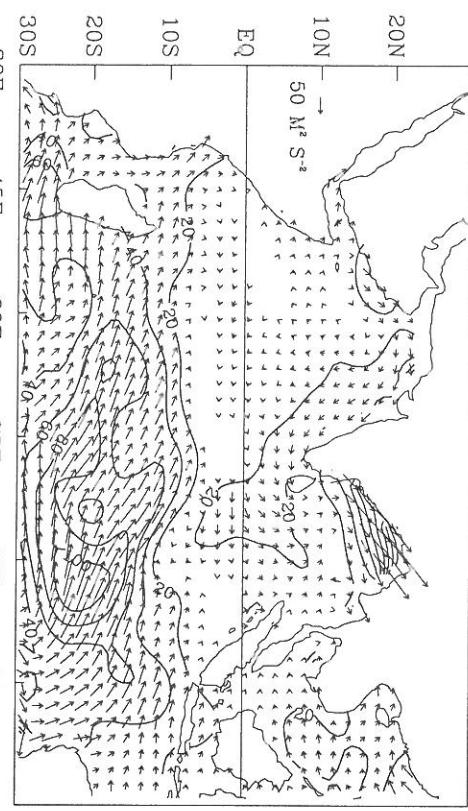
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



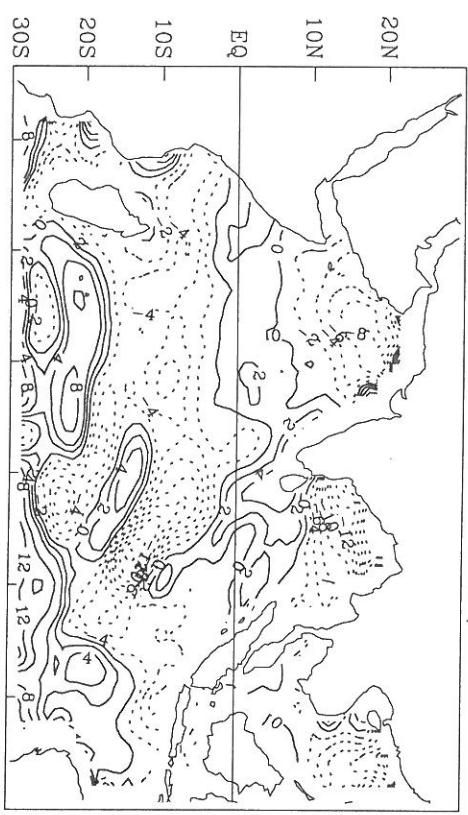
March 1990

April 1990

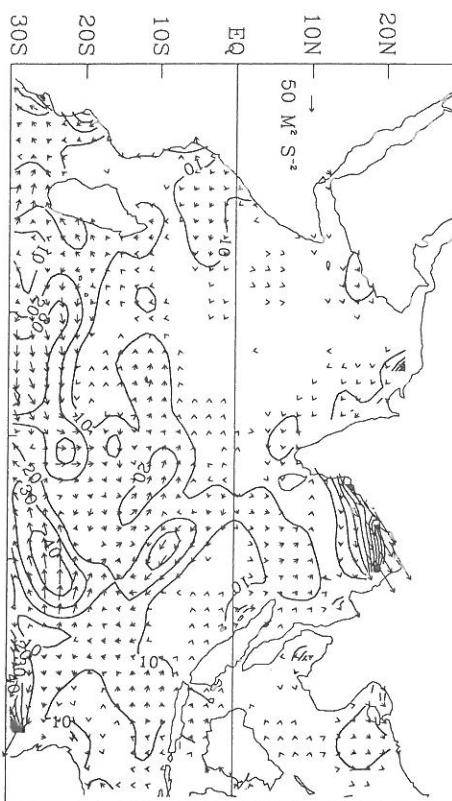
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



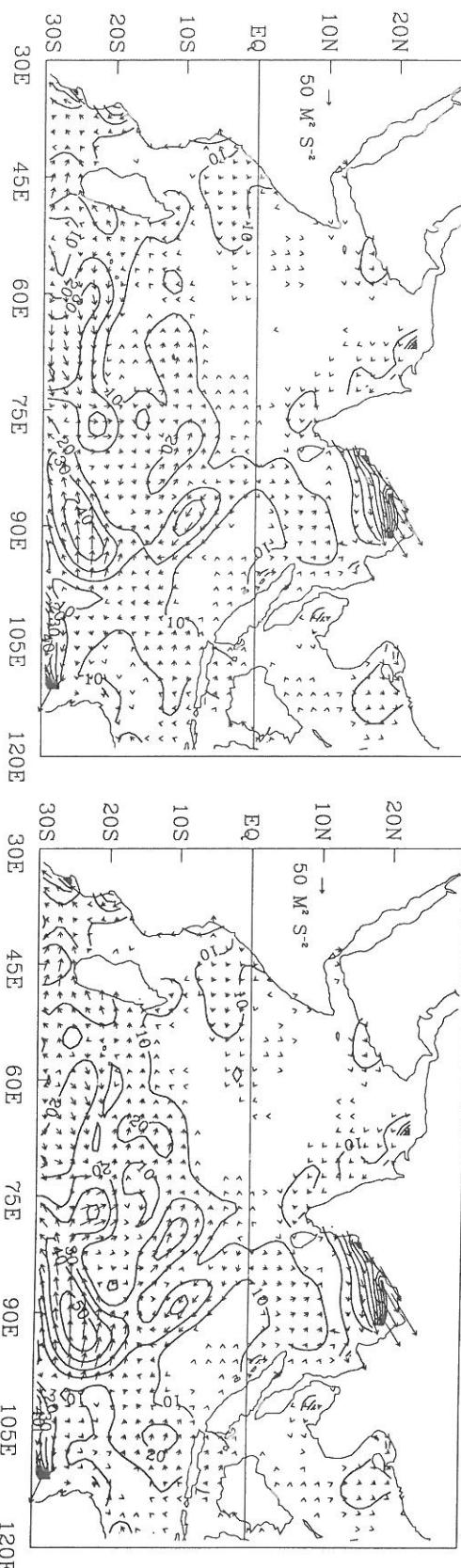
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



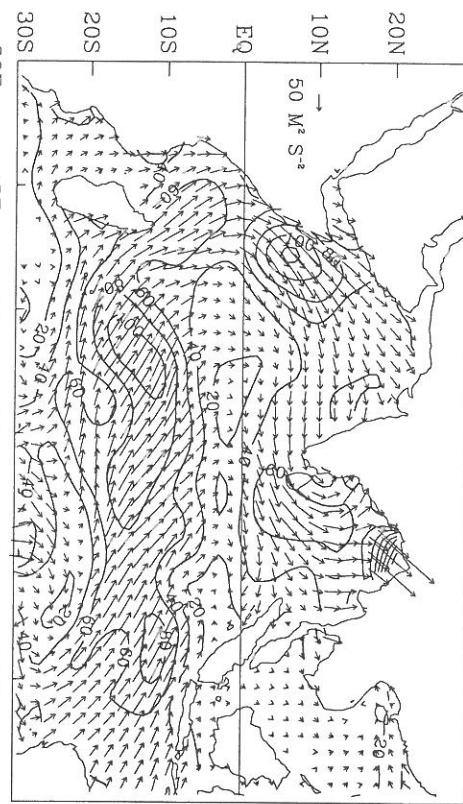
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



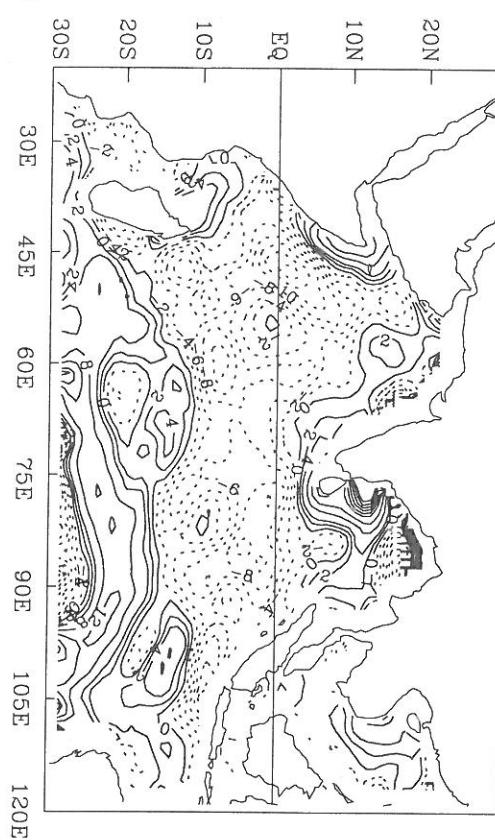
April 1990

May 1990

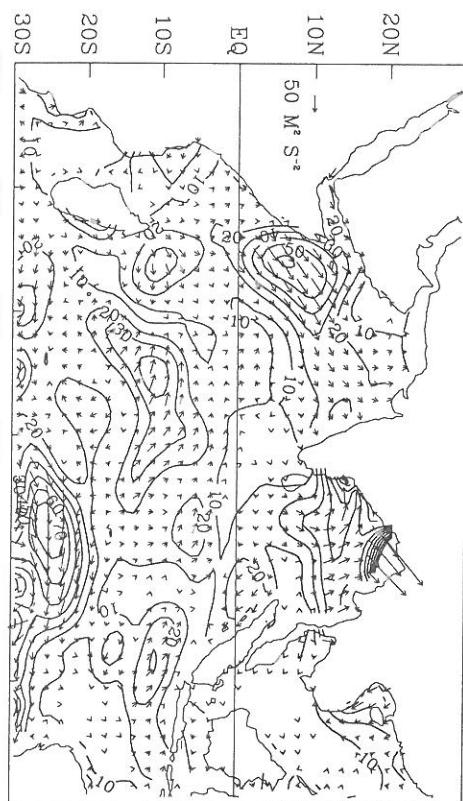
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



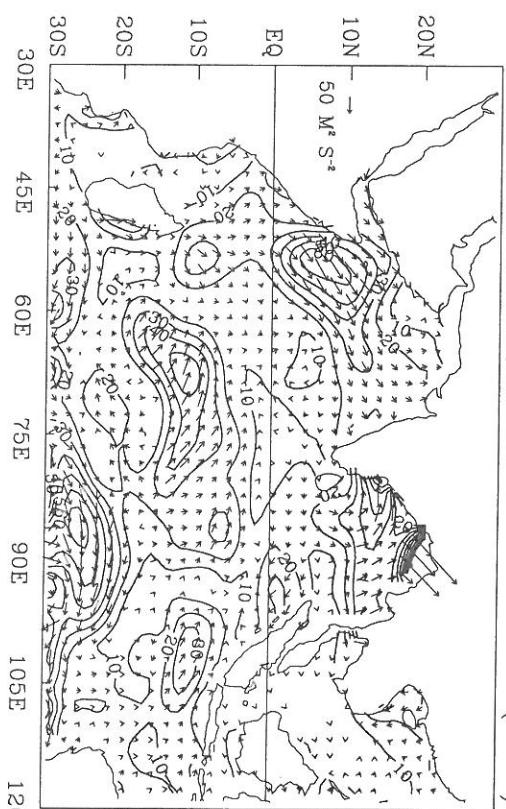
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



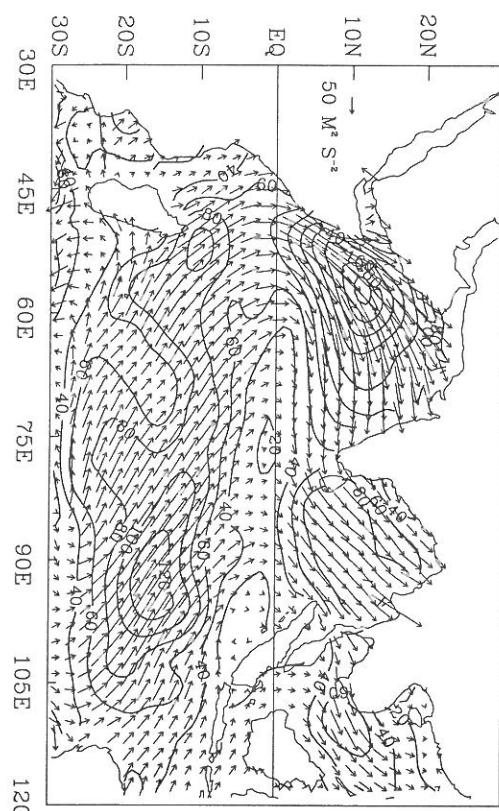
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



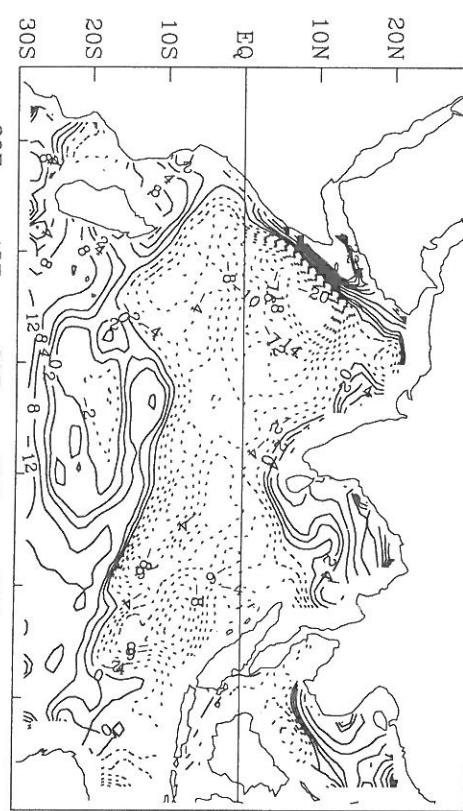
May 1990

June 1990

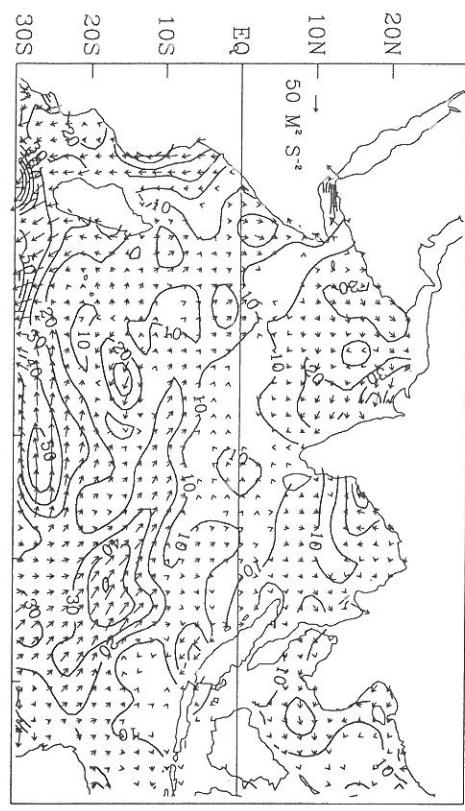
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



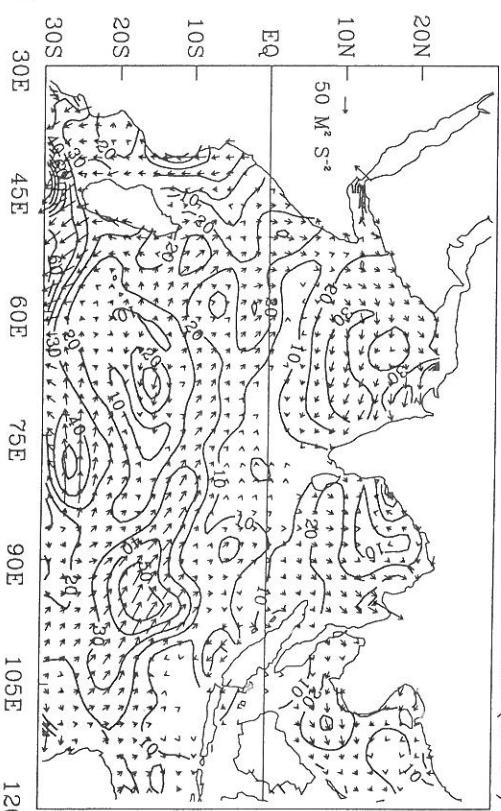
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



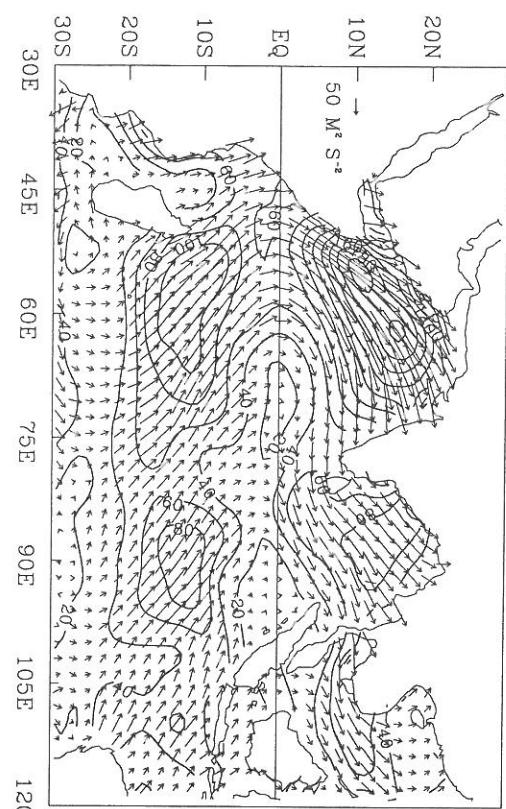
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



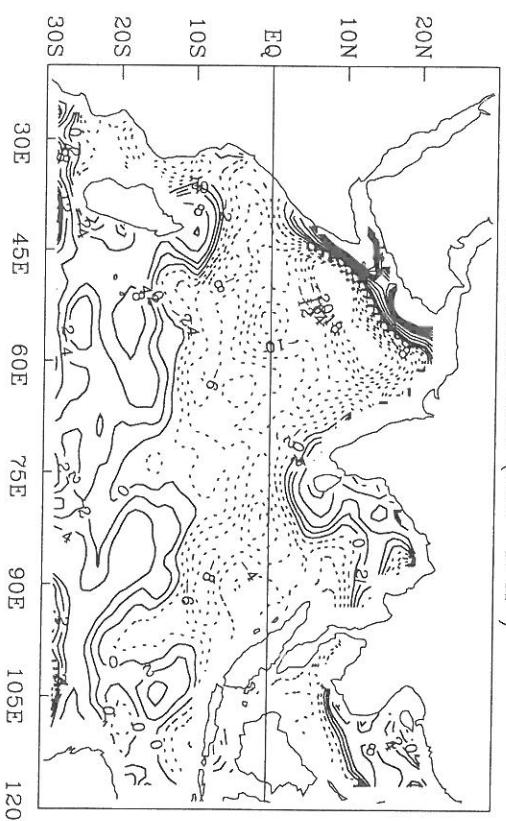
June 1990

July 1990

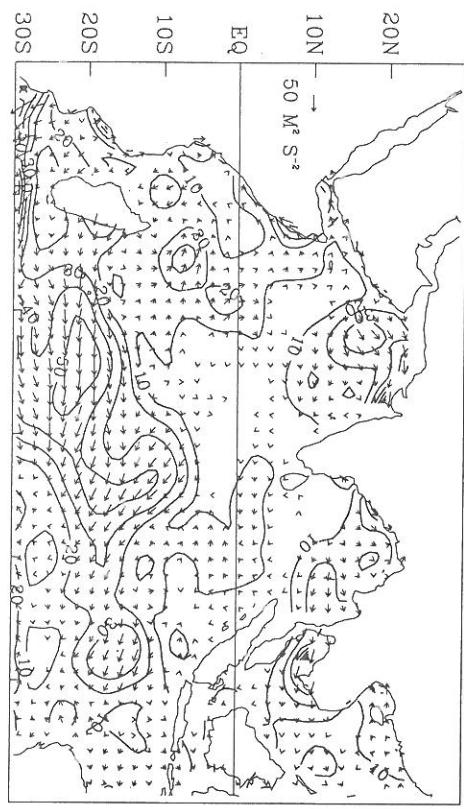
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



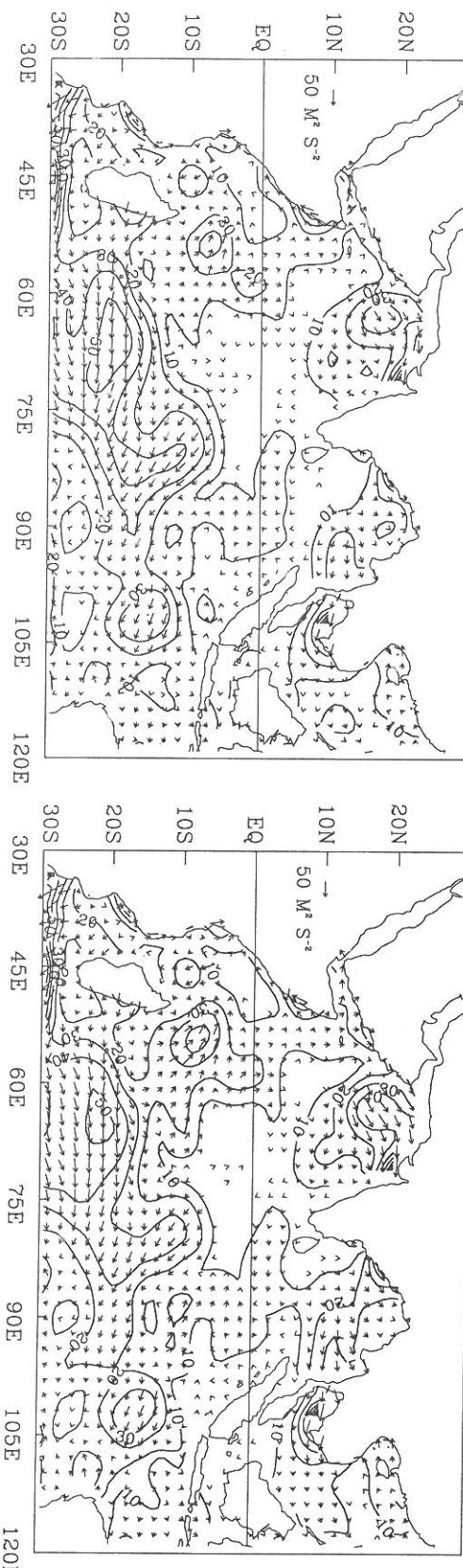
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



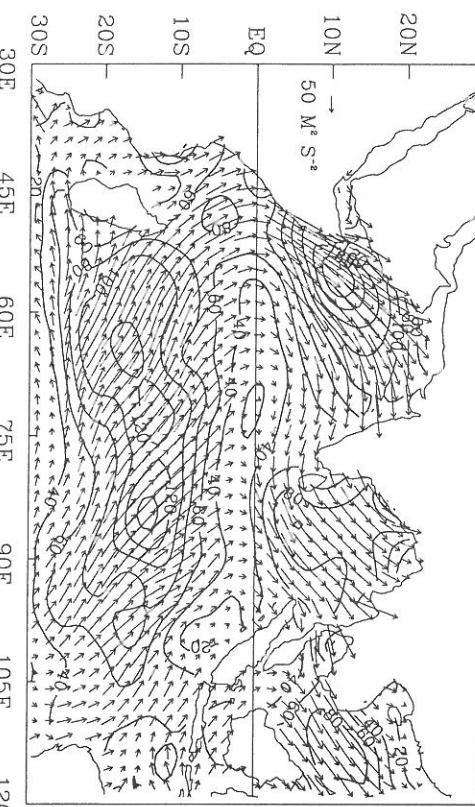
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



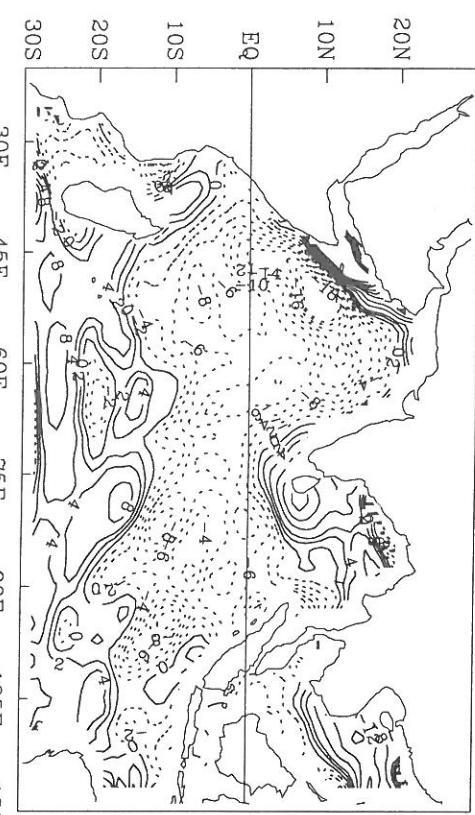
July 1990

August 1990

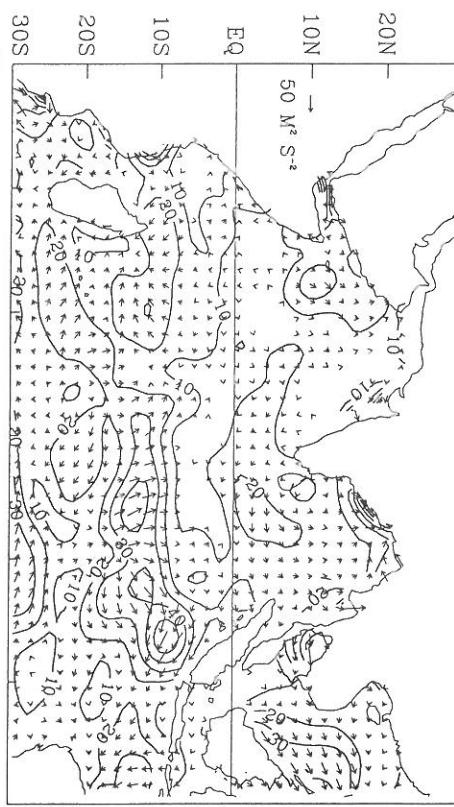
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



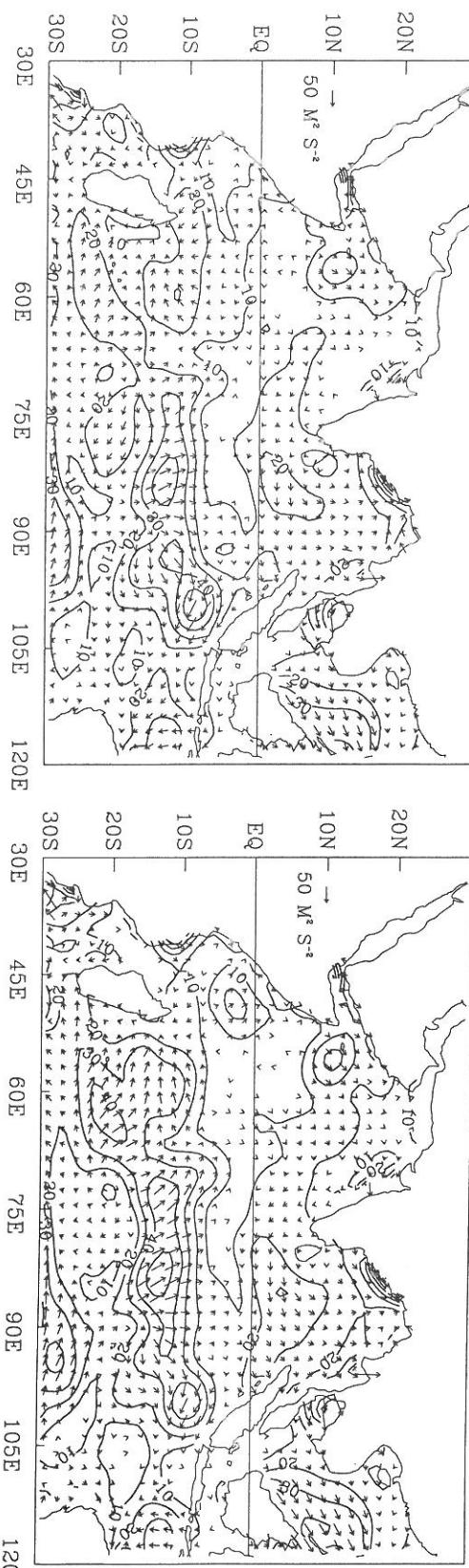
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



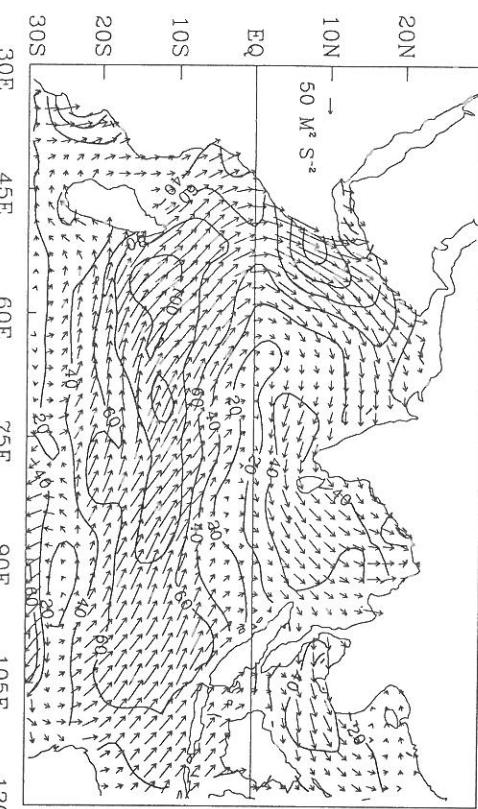
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



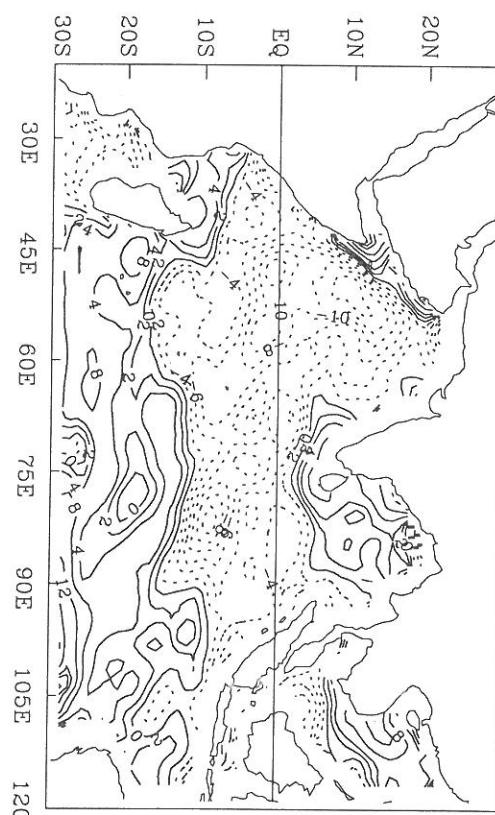
August 1990

September 1990

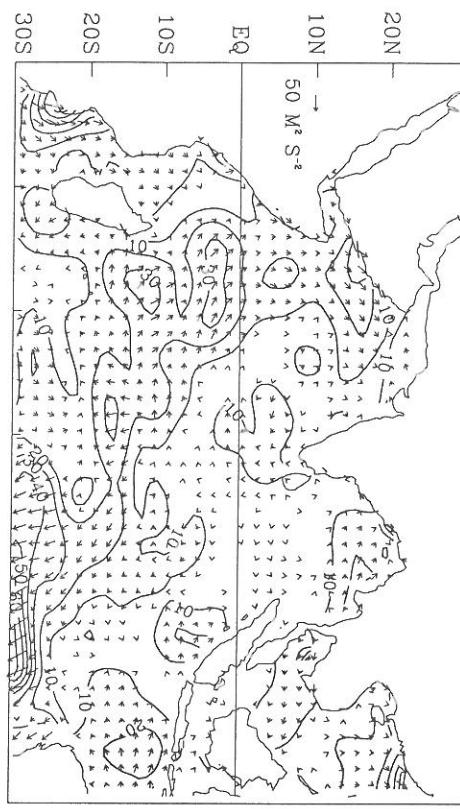
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



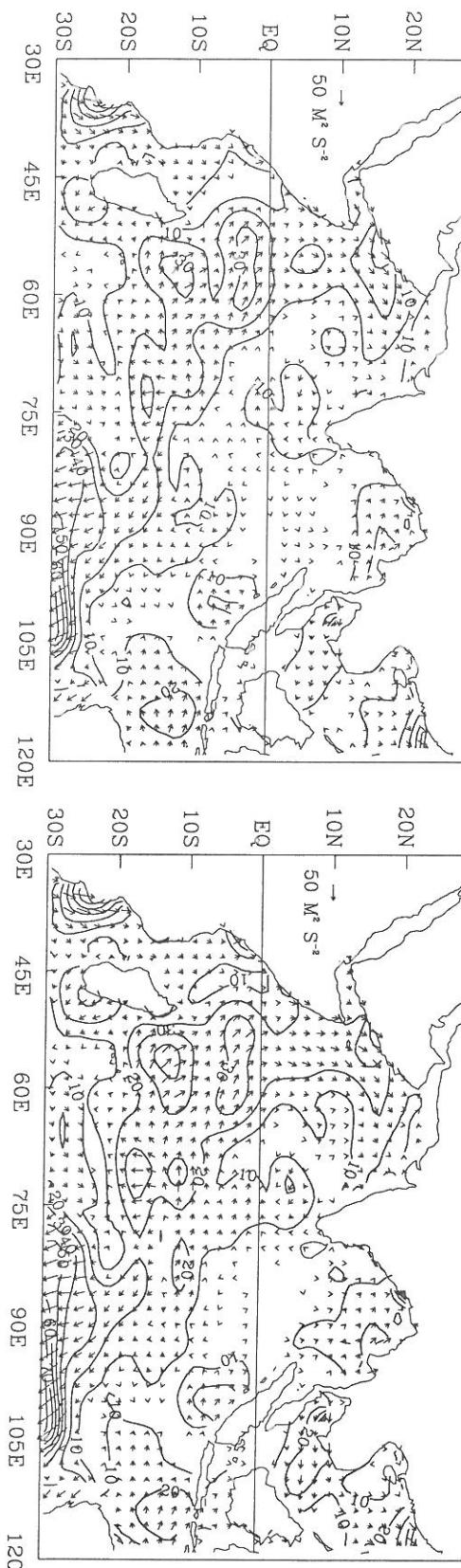
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



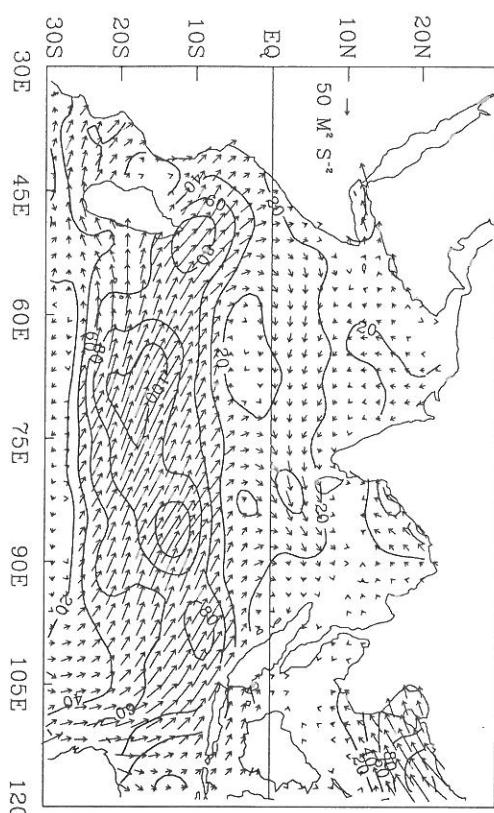
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



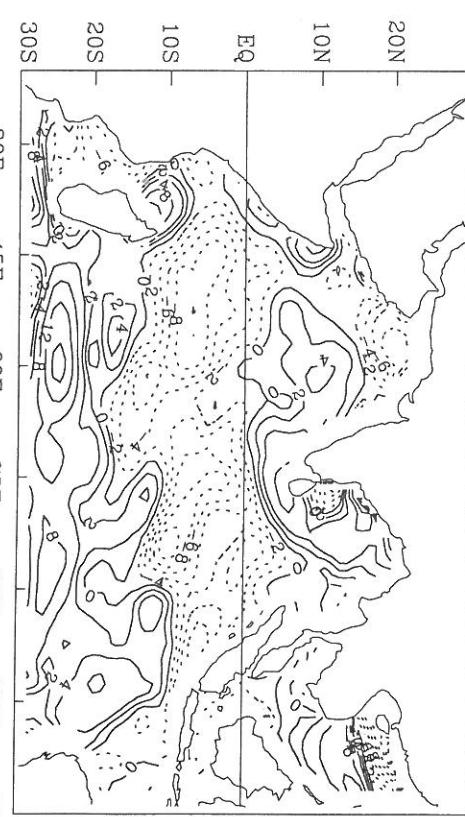
September 1990

October 1990

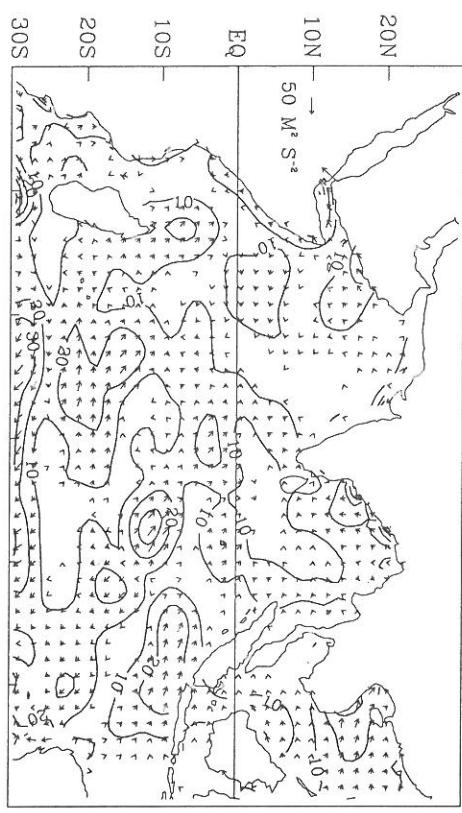
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



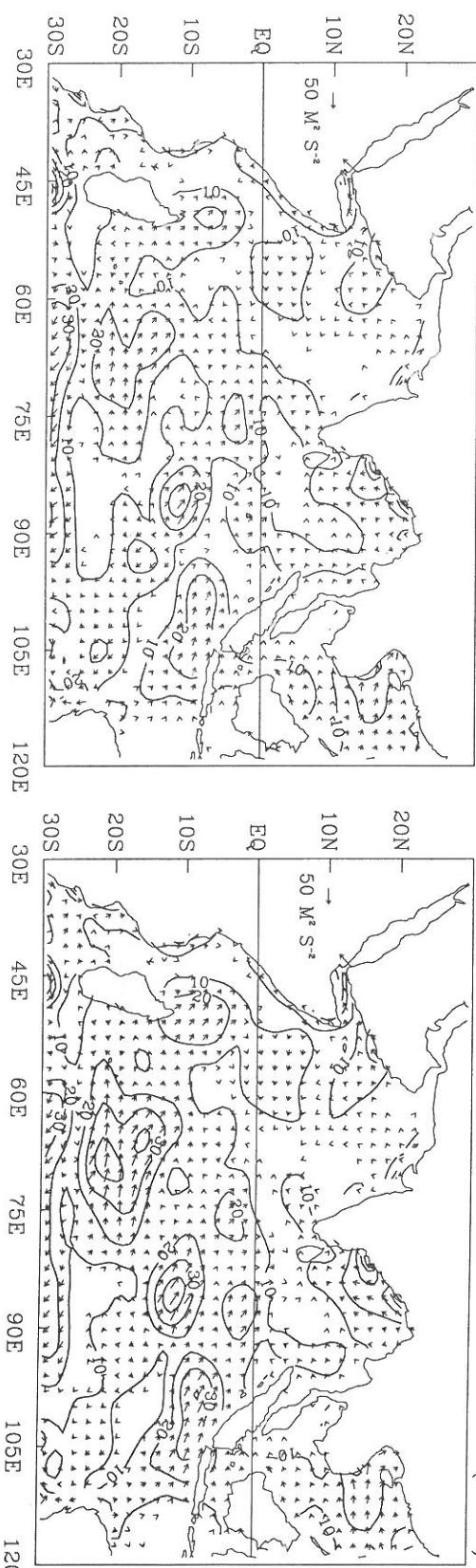
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



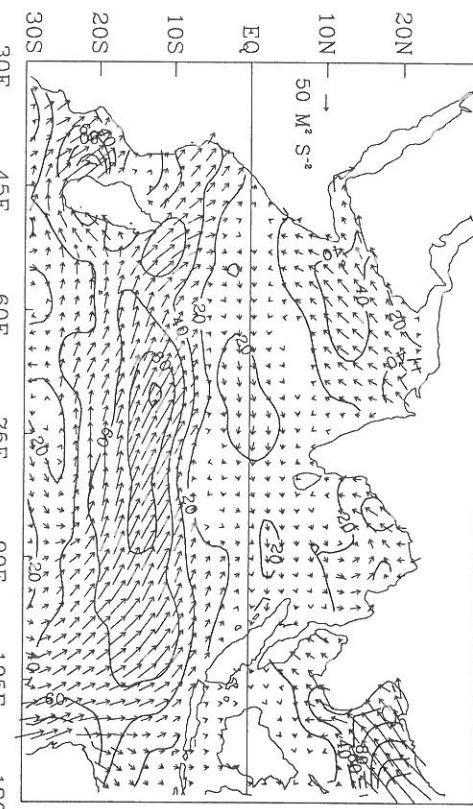
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



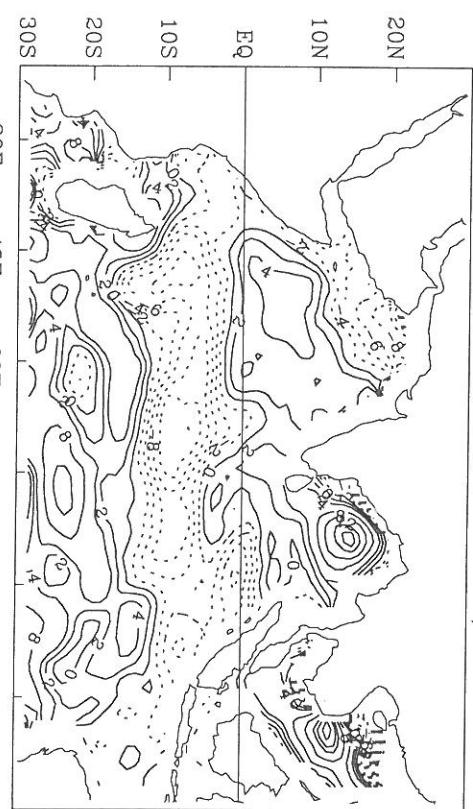
October 1990

November 1990

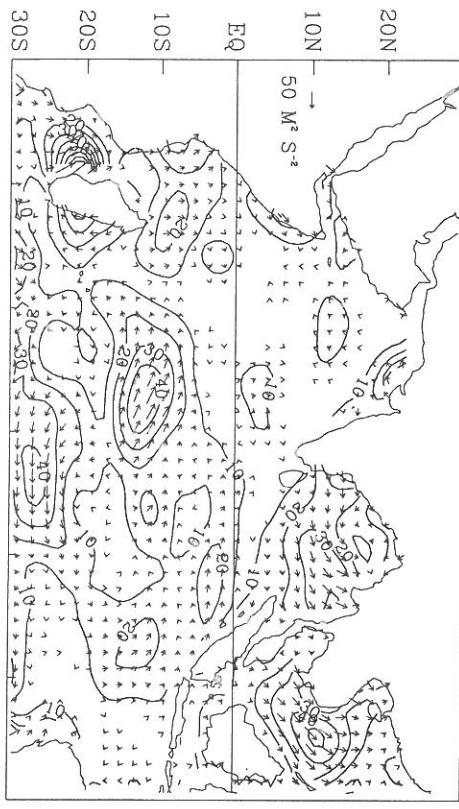
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



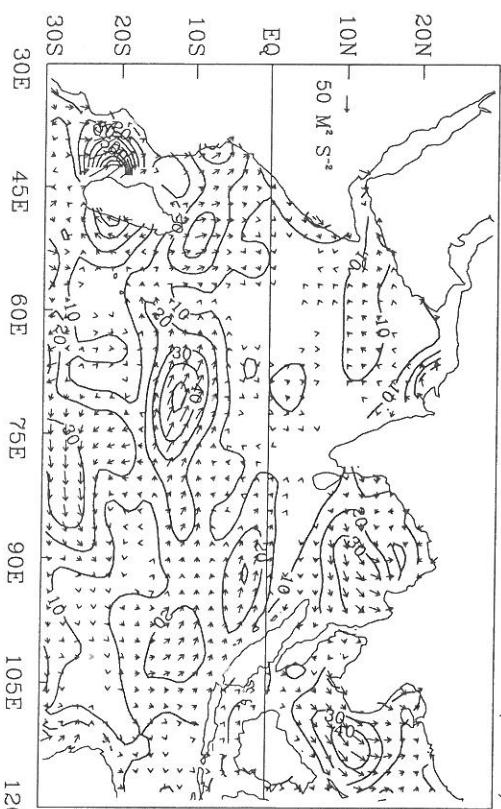
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



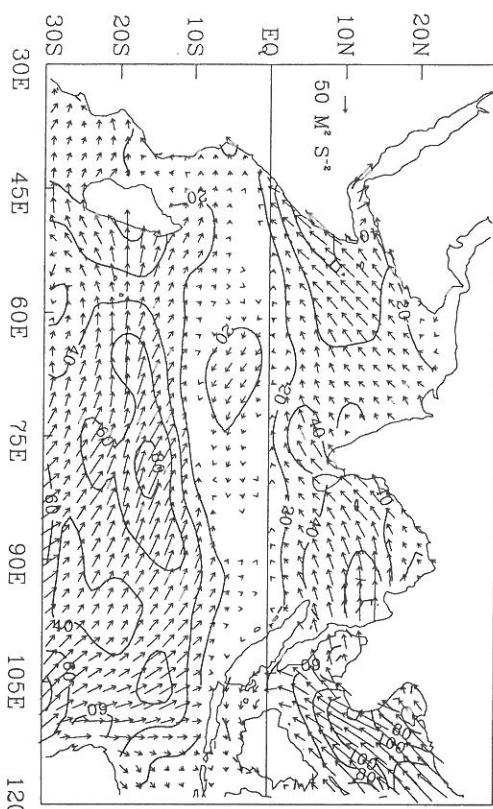
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



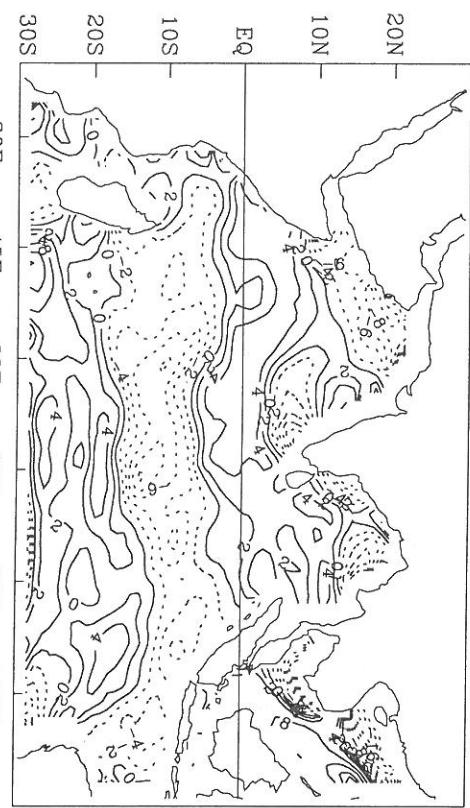
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December 1990

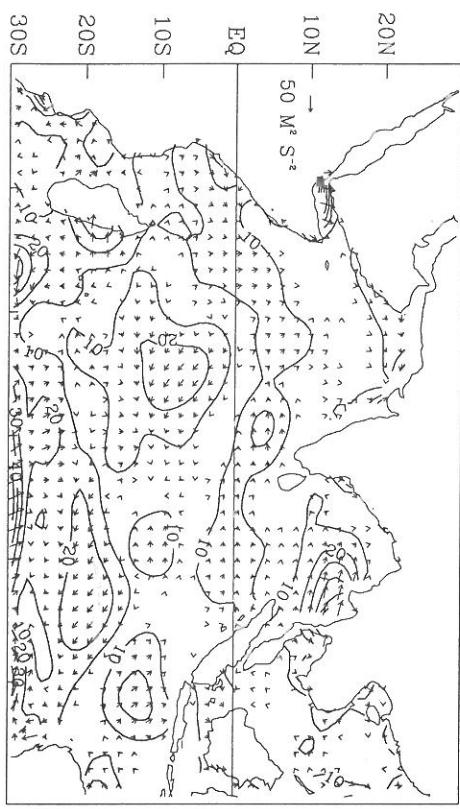
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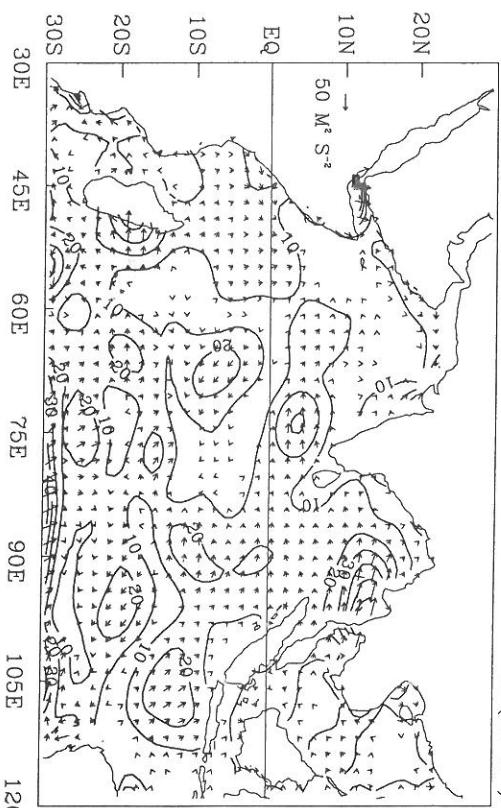
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



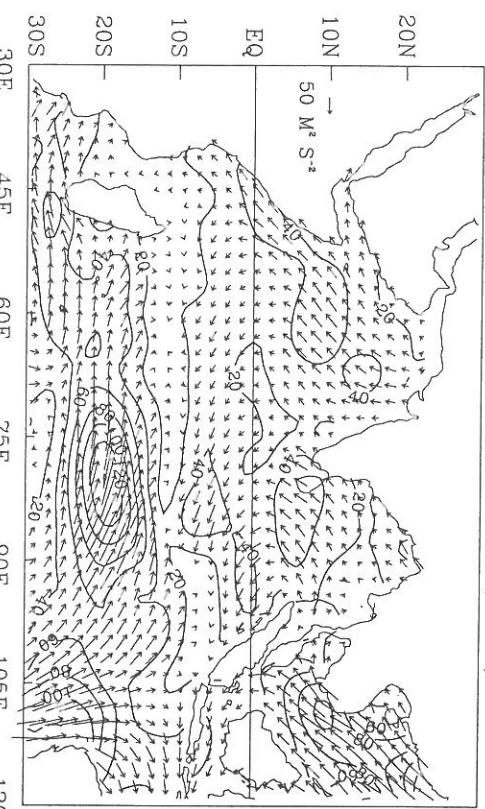
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



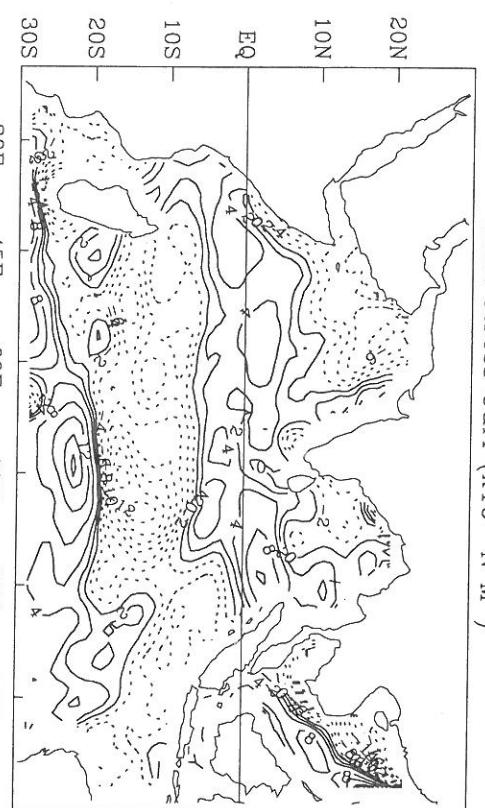
December 1990

January 1991

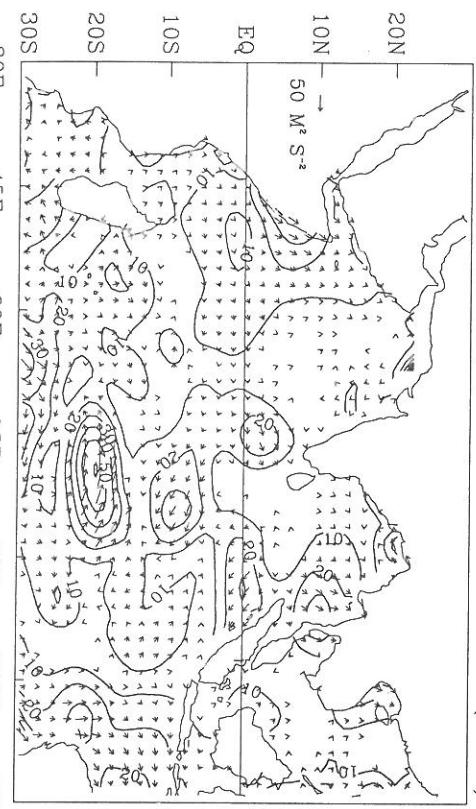
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



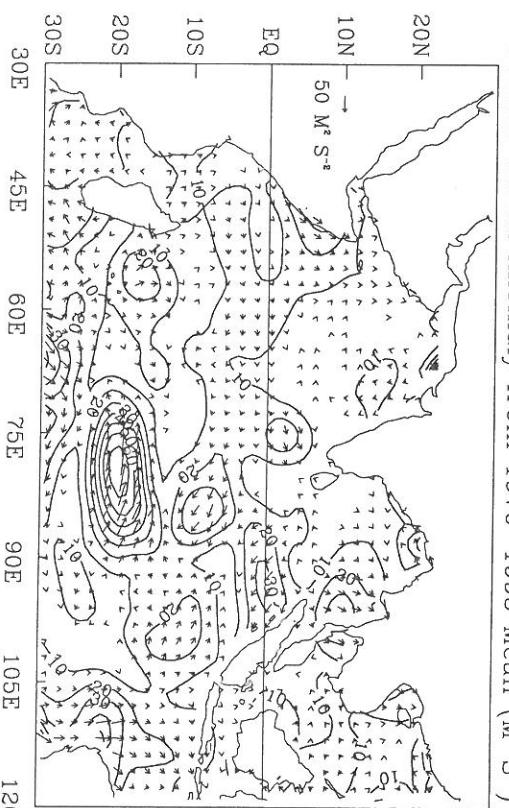
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



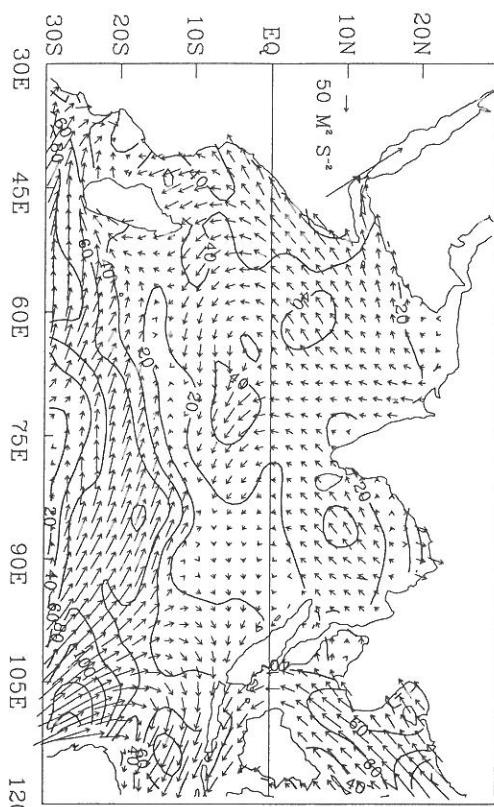
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



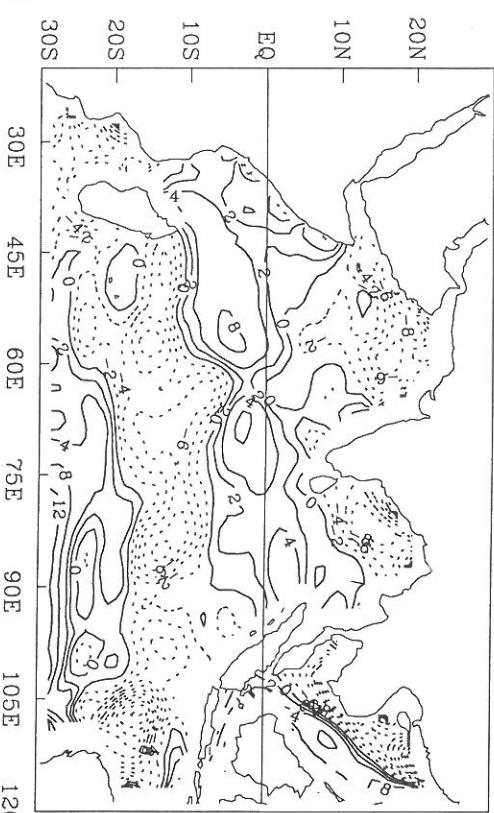
January 1991

February 1991

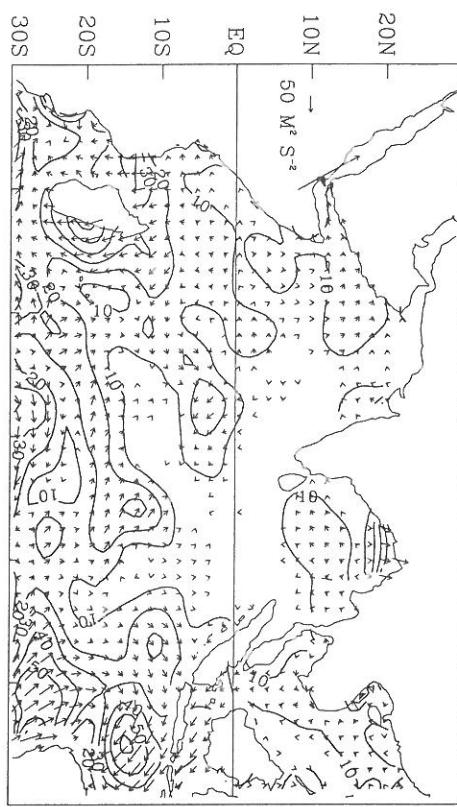
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



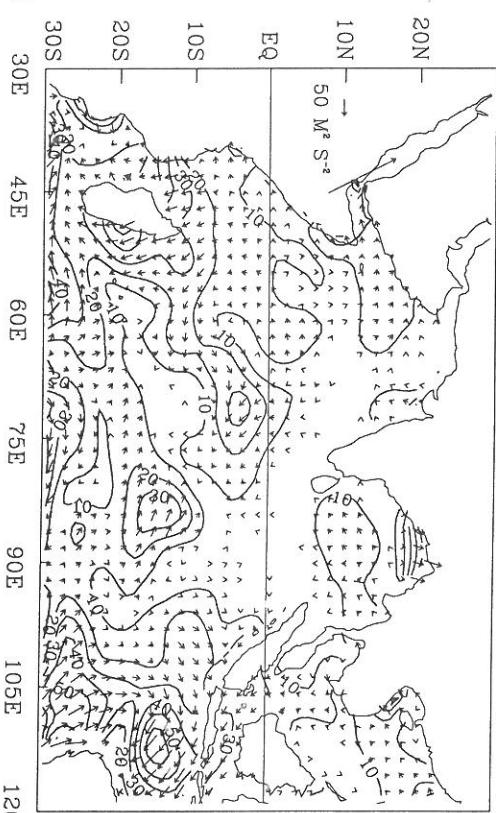
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



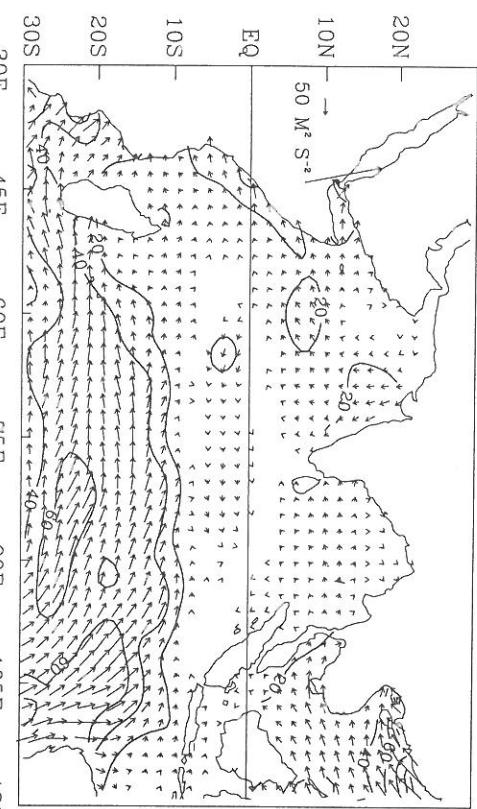
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



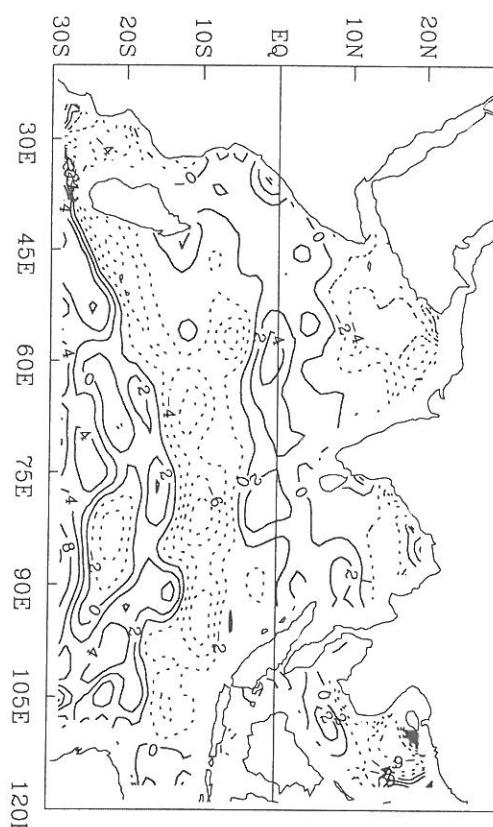
February 1991

March 1991

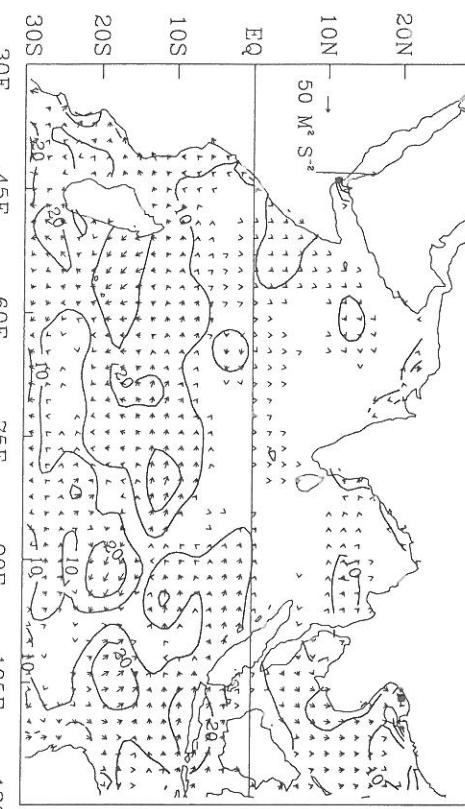
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



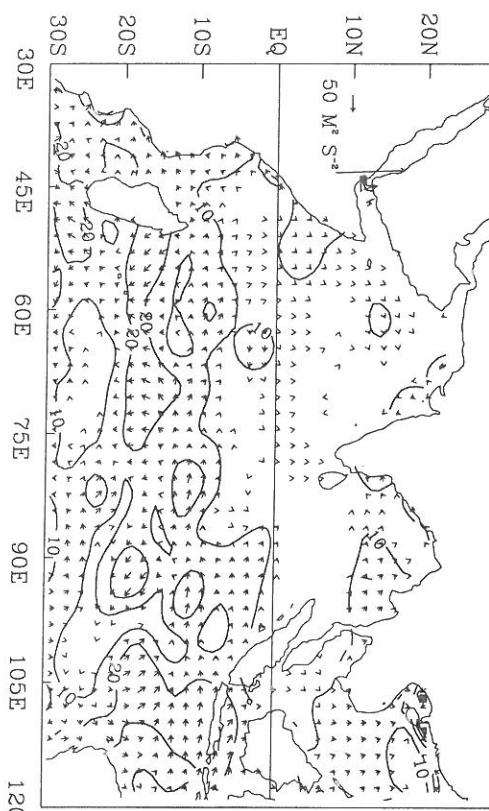
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



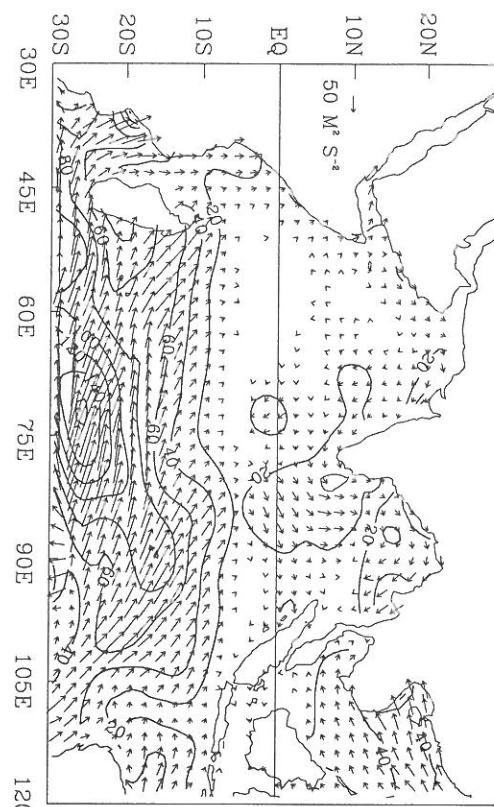
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



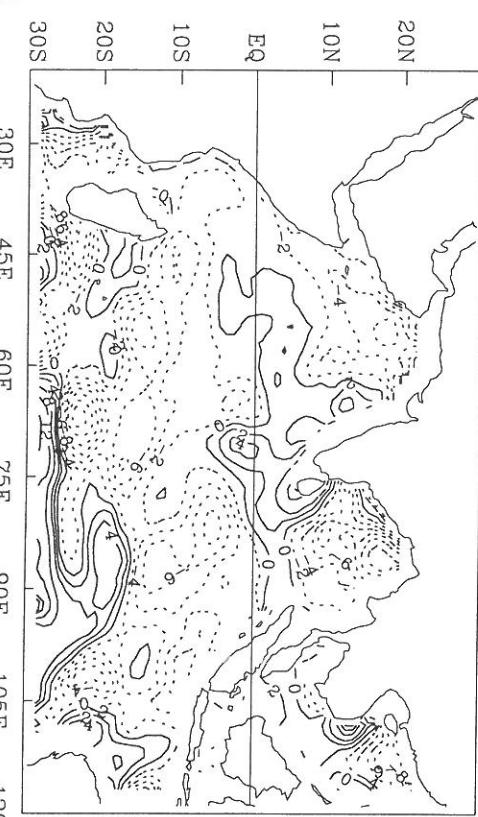
March 1991

April 1991

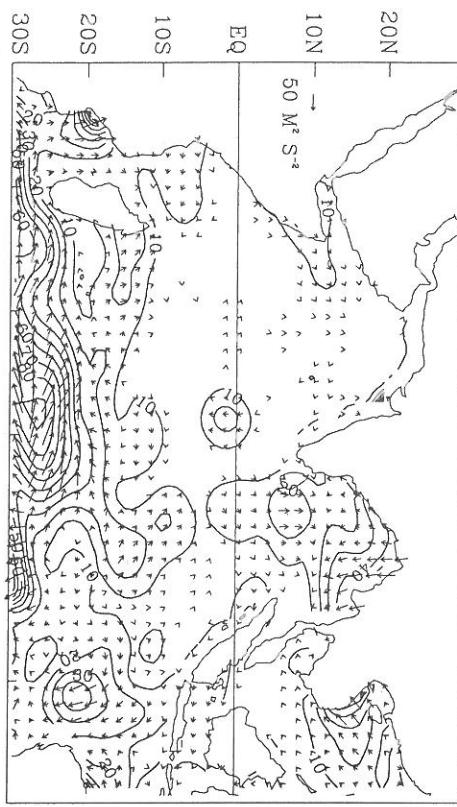
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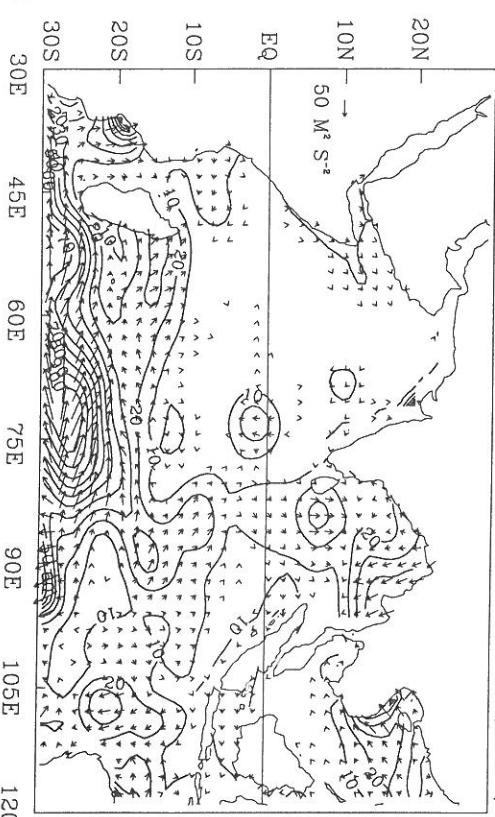
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



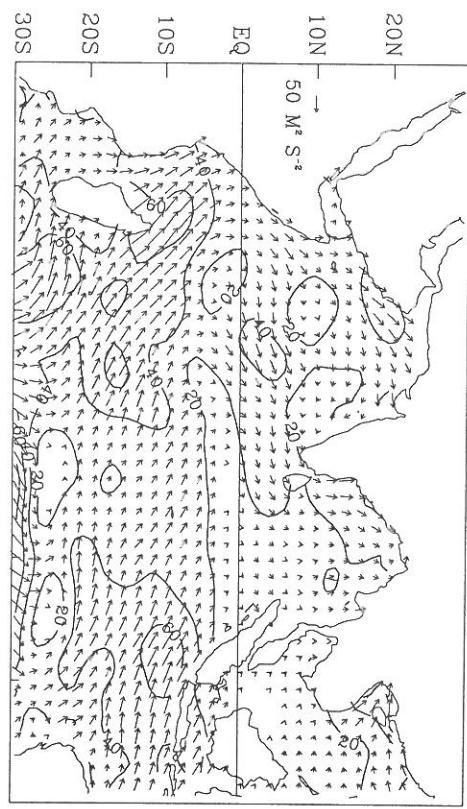
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



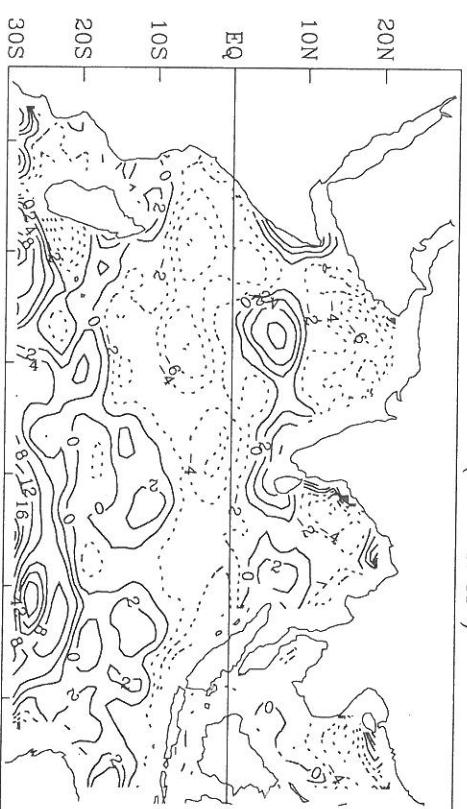
April 1991

May 1991

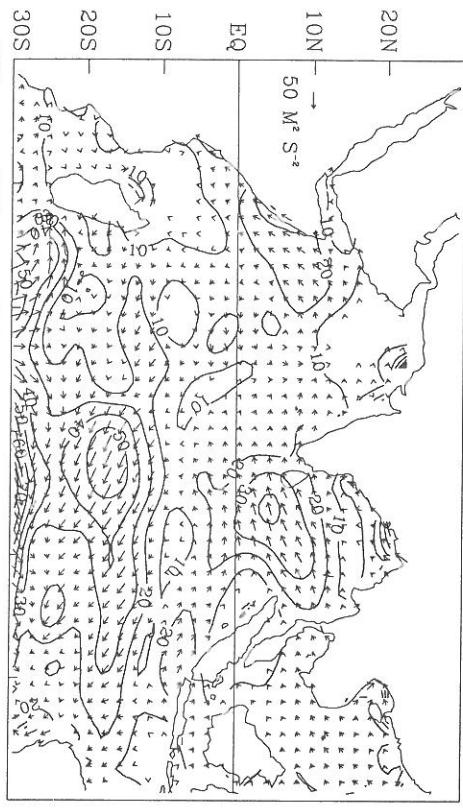
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



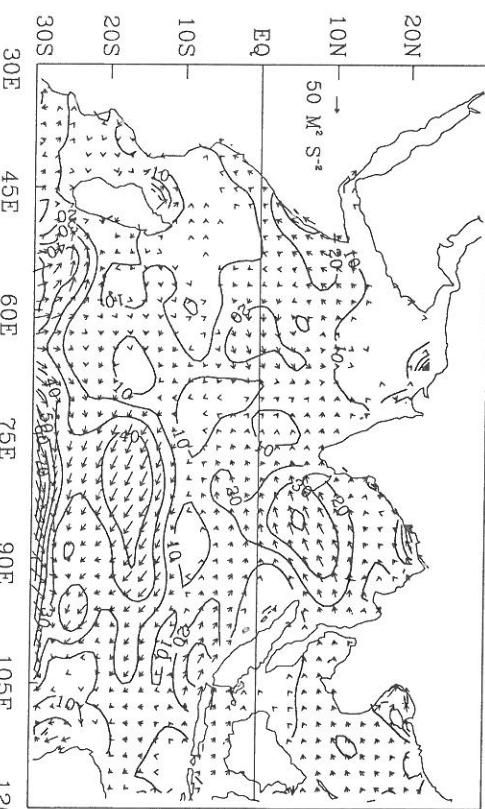
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Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



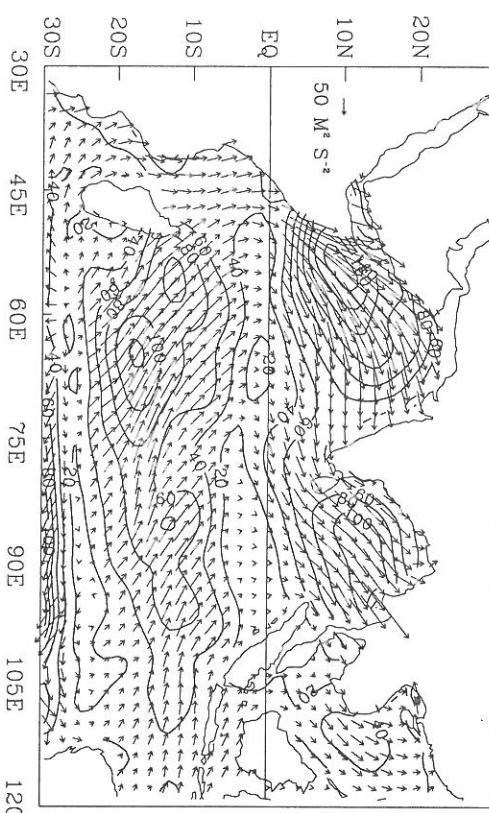
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



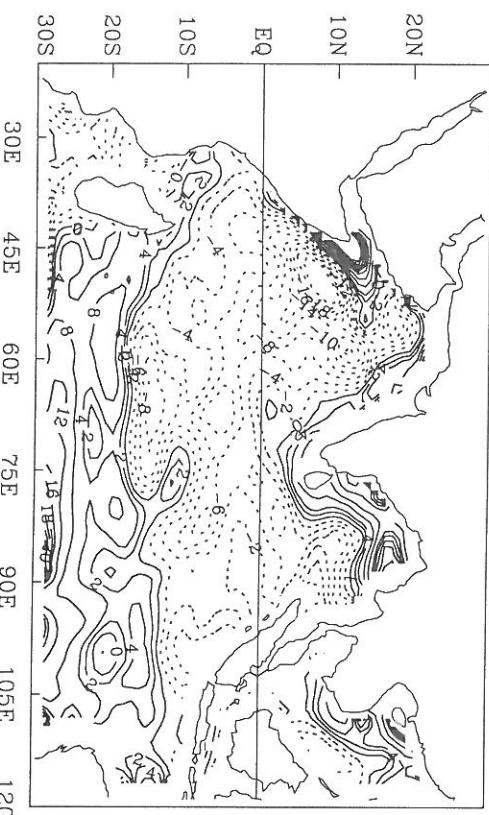
May 1991

June 1991

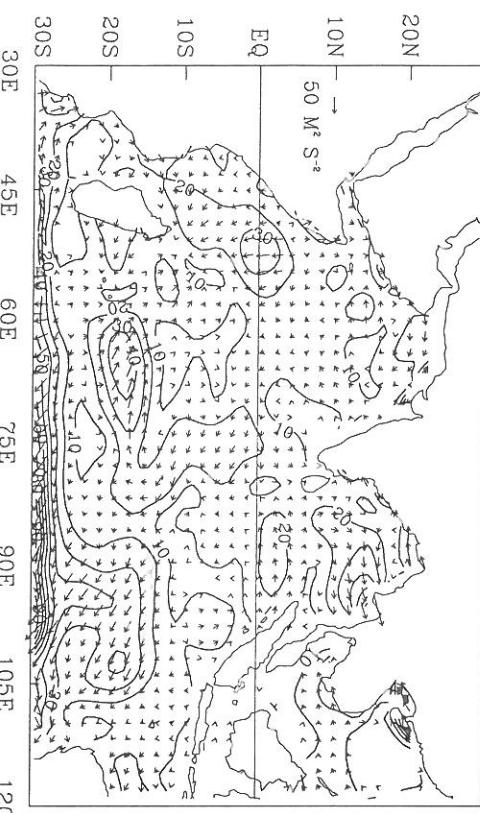
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



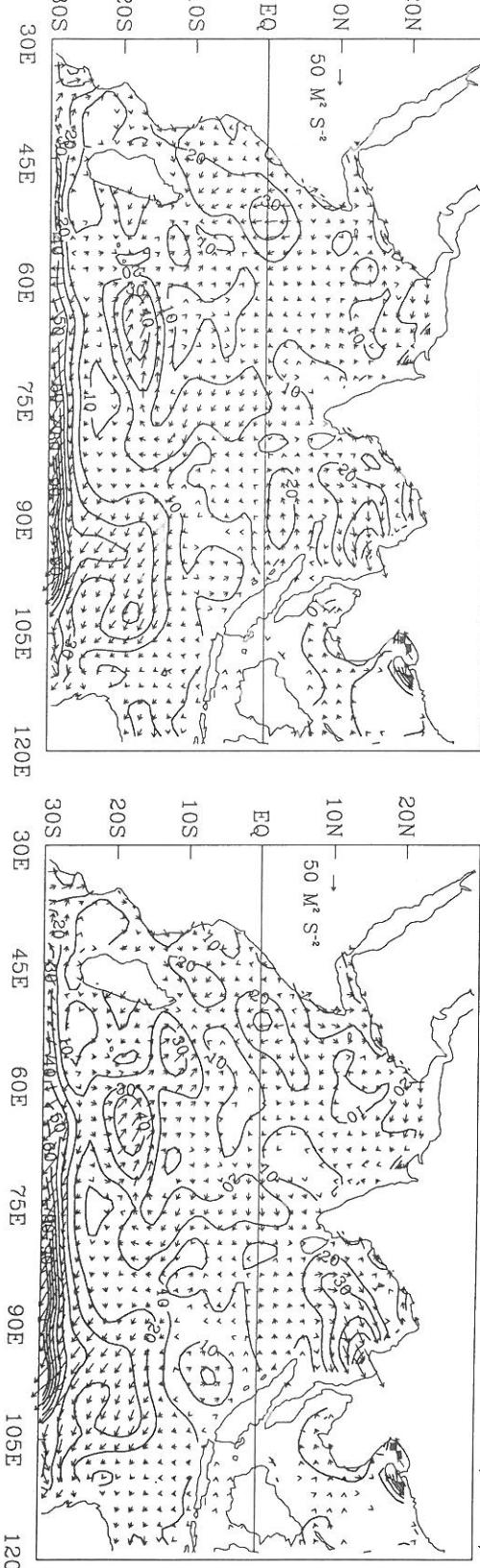
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Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



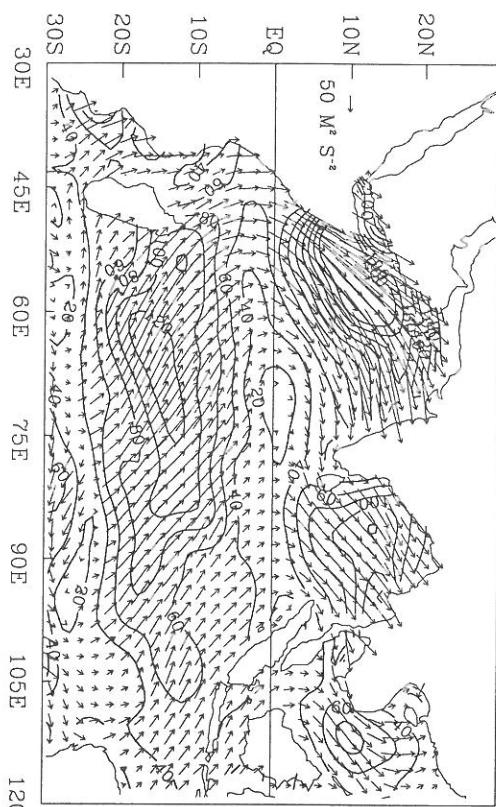
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



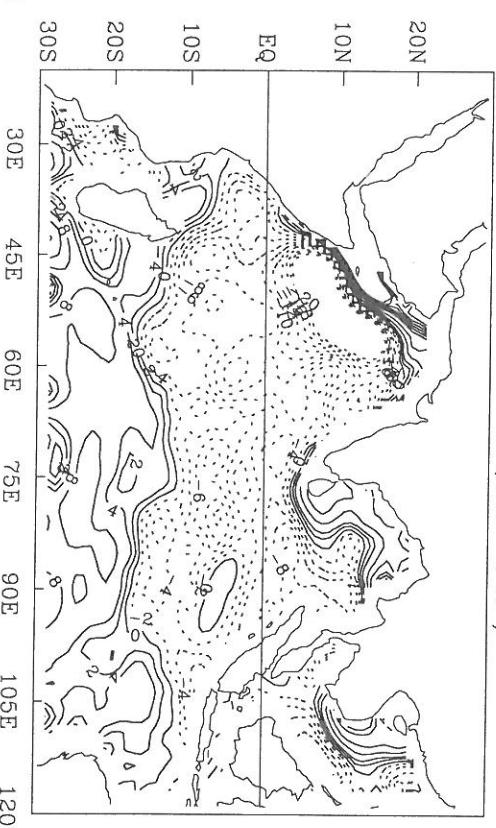
June 1991

July 1991

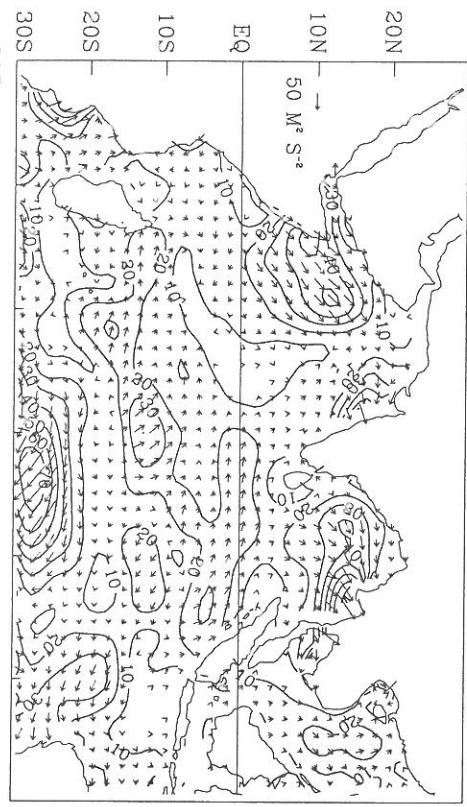
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



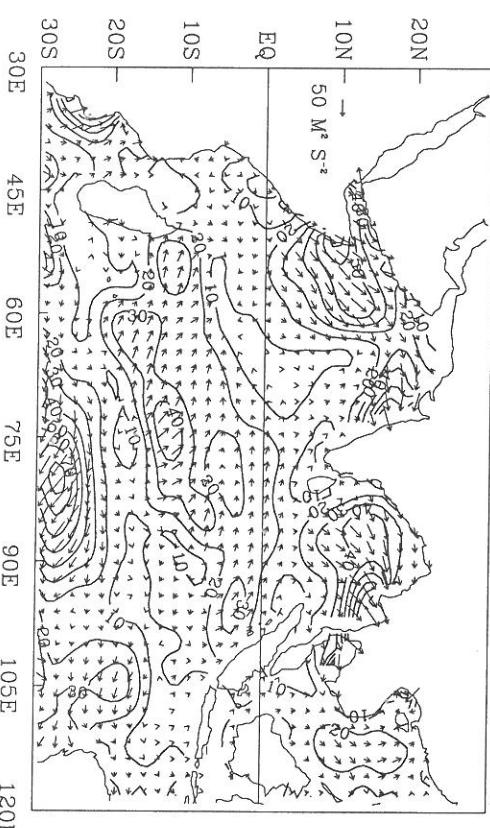
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



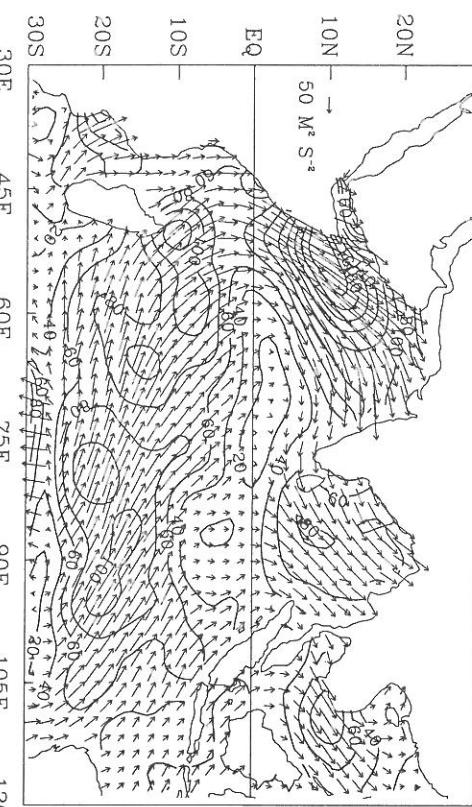
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



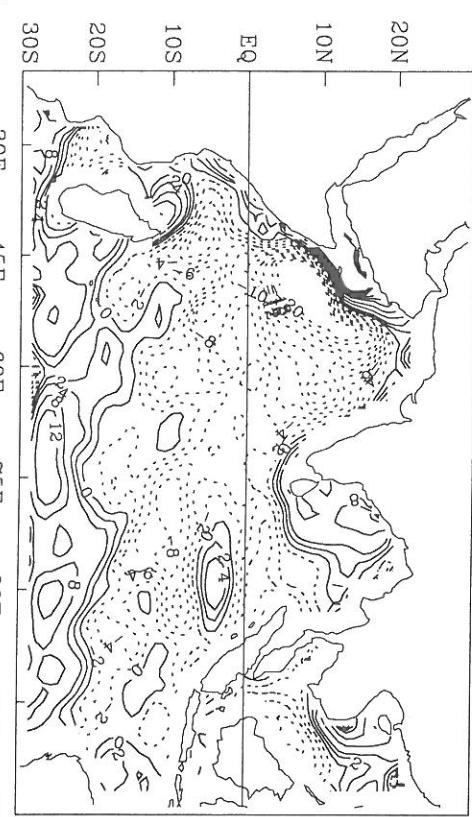
July 1991

August 1991

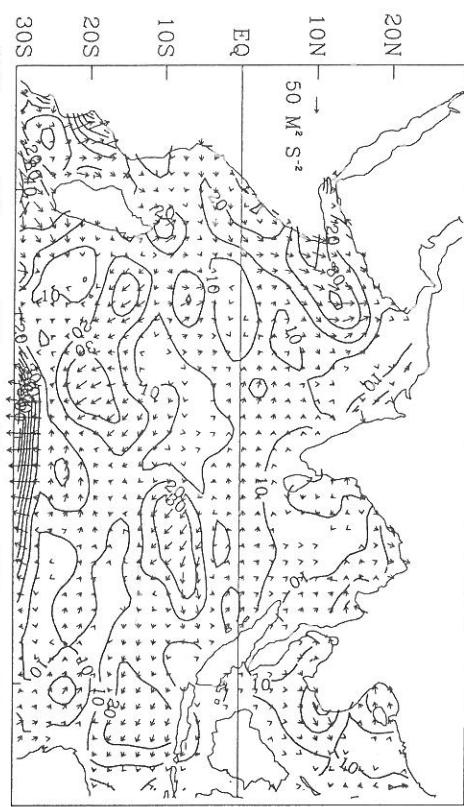
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



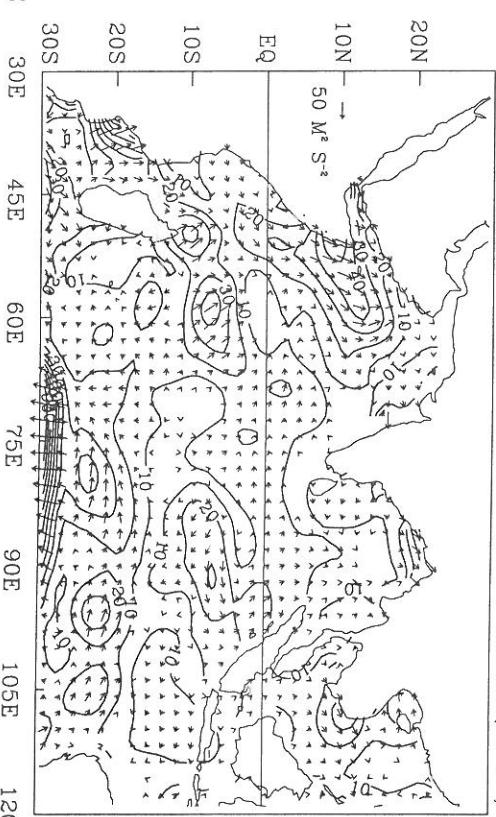
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



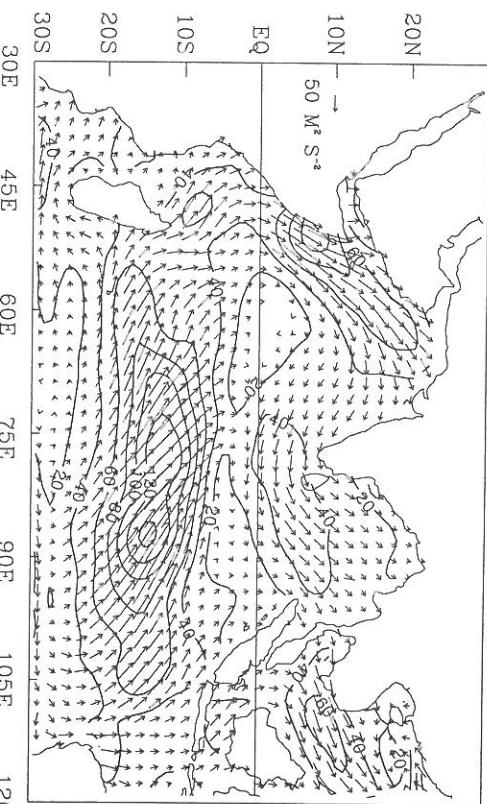
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



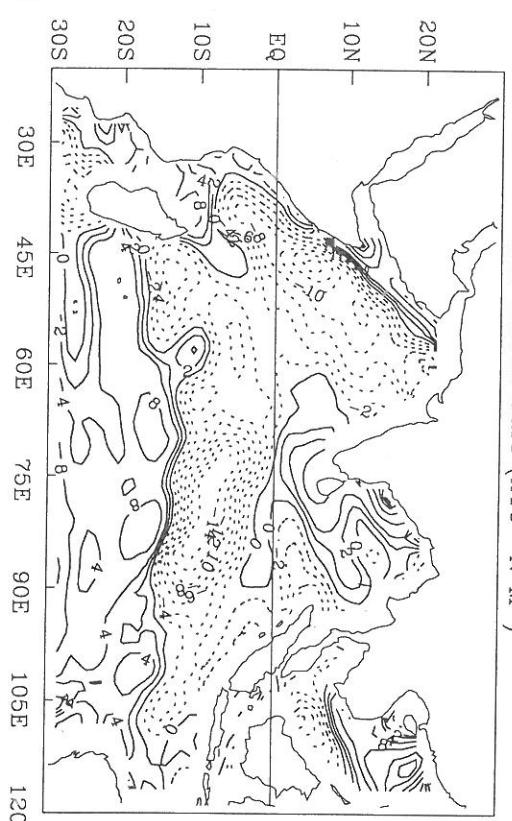
August 1991

September 1991

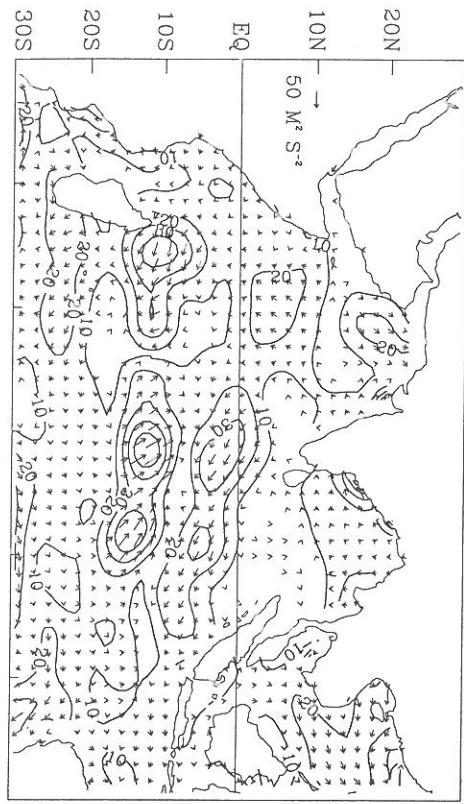
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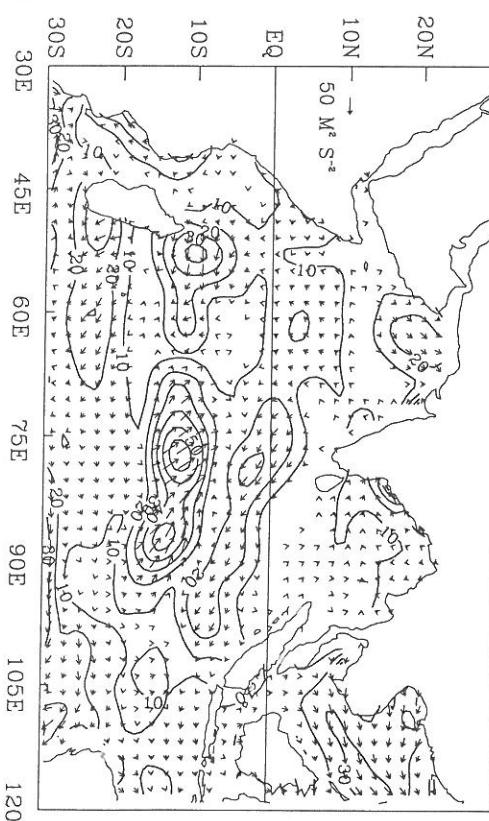
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Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



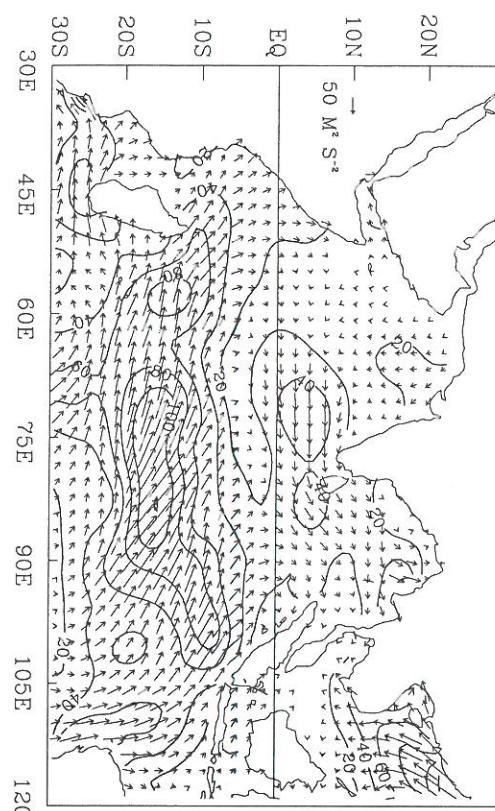
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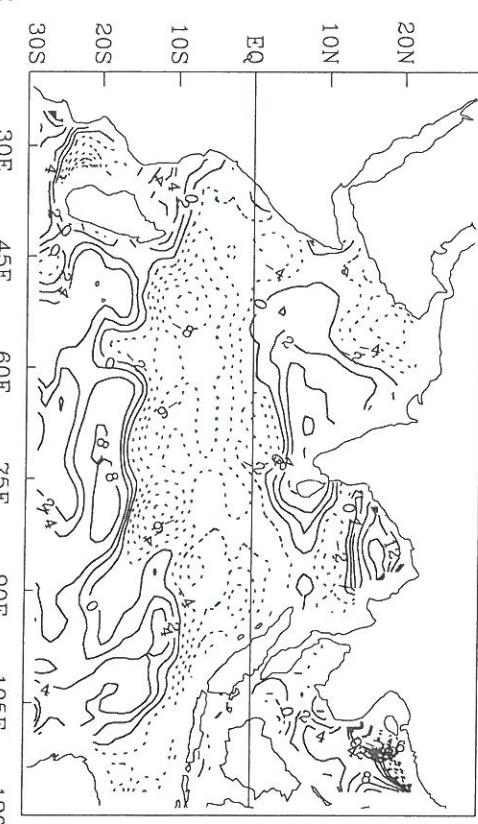
September 1991

October 1991

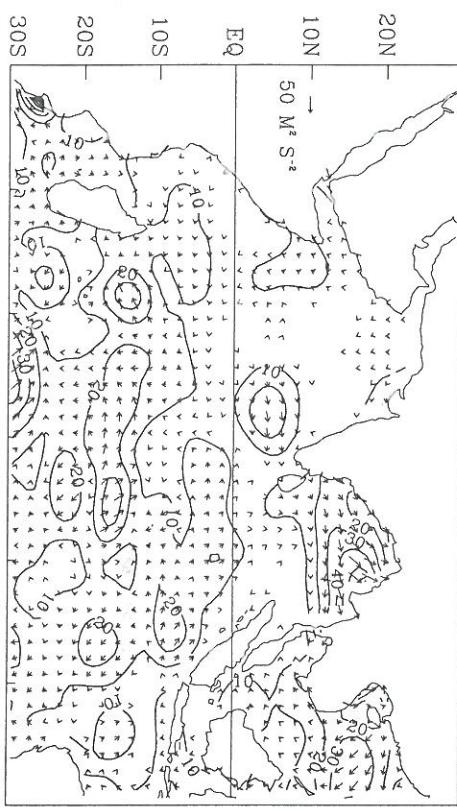
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



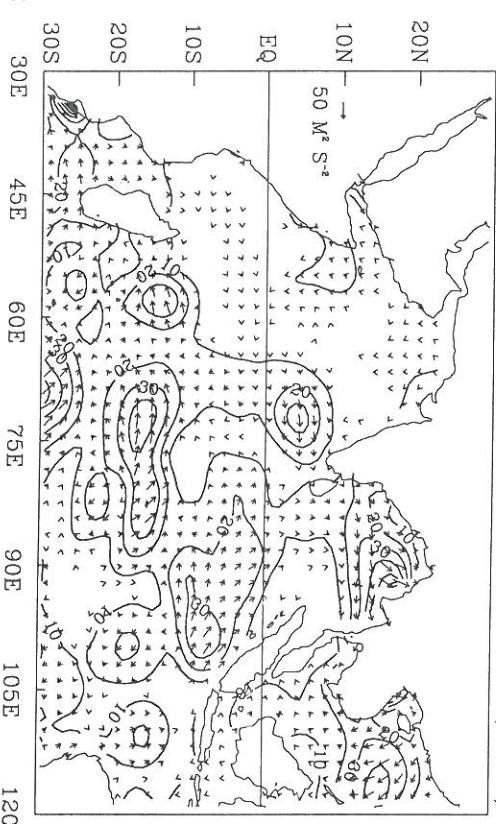
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



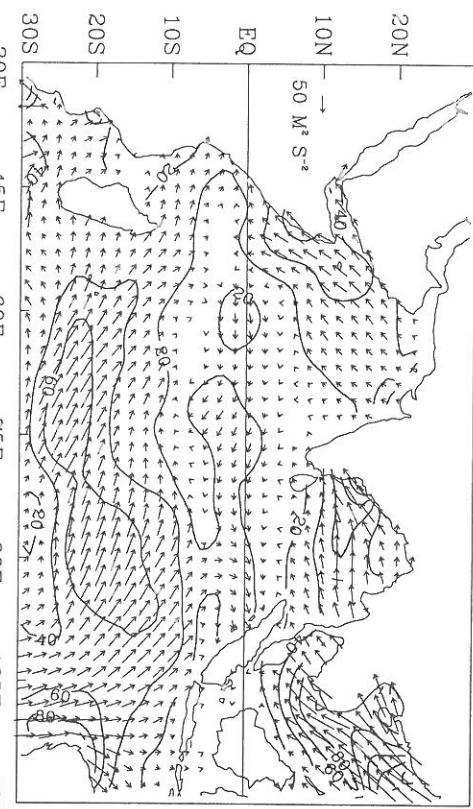
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



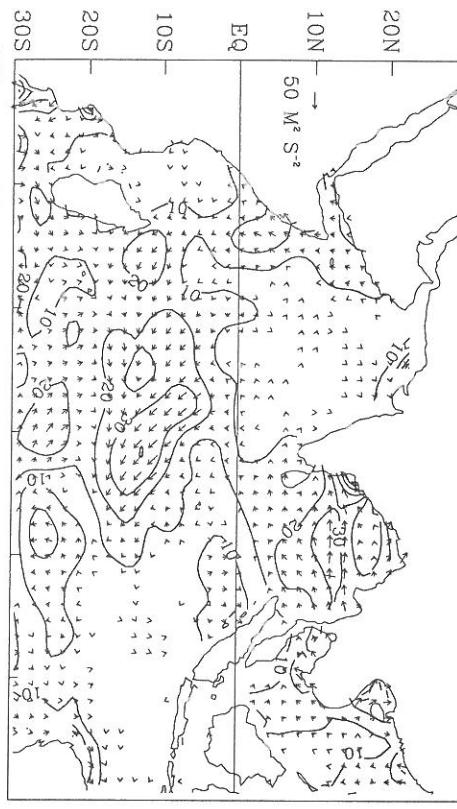
October 1991

November 1991

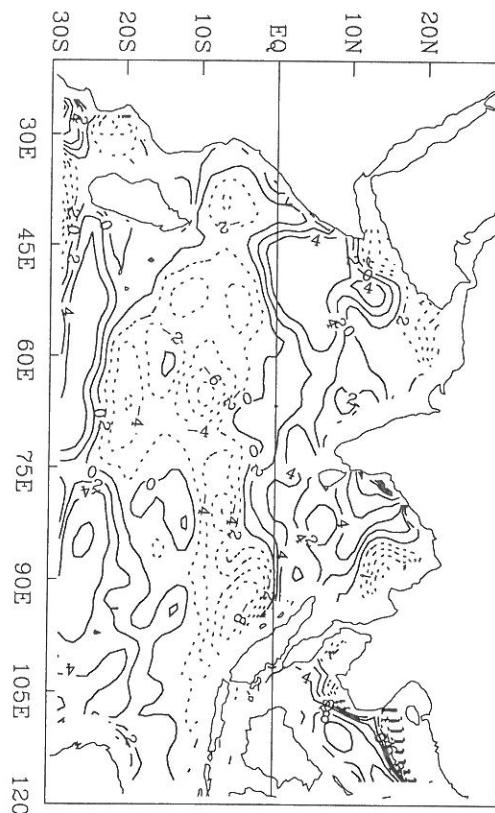
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



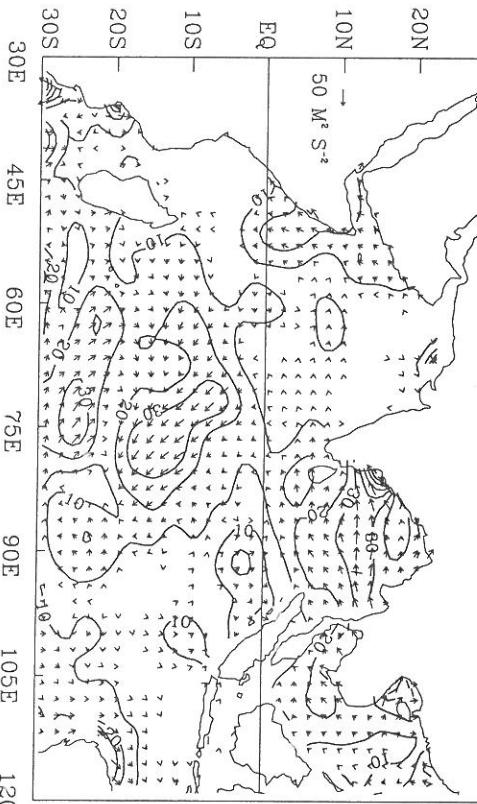
Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



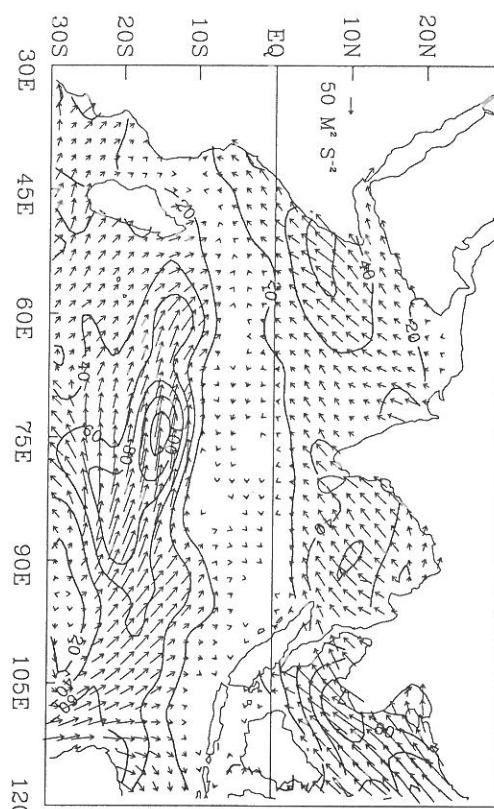
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



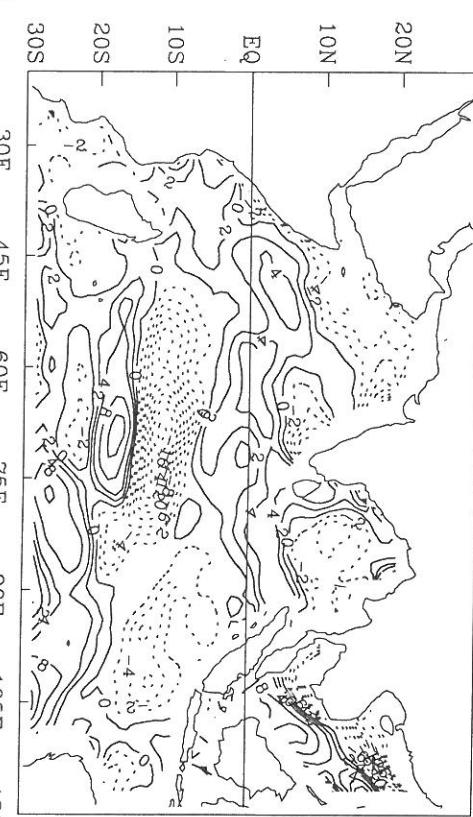
November 1991

December 1991

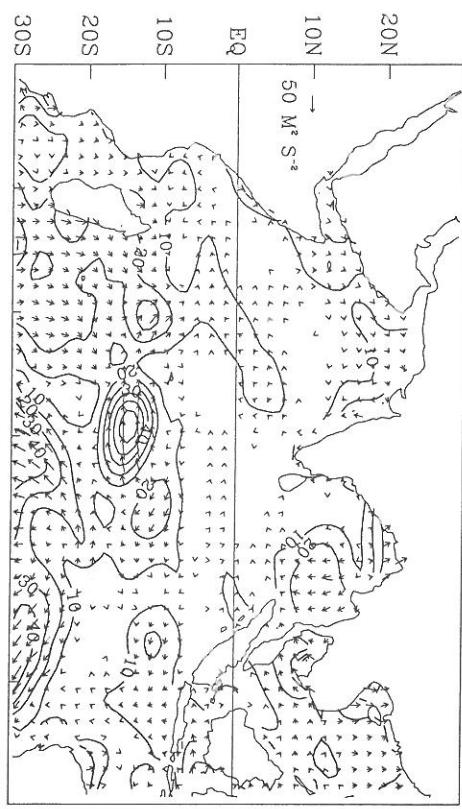
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



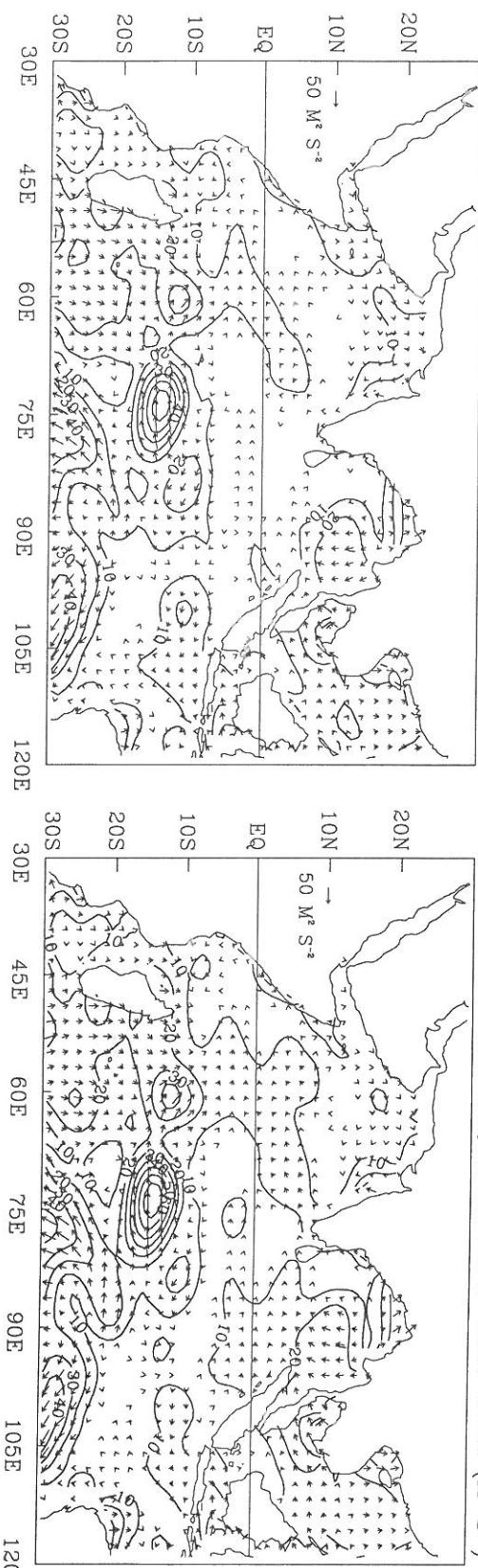
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



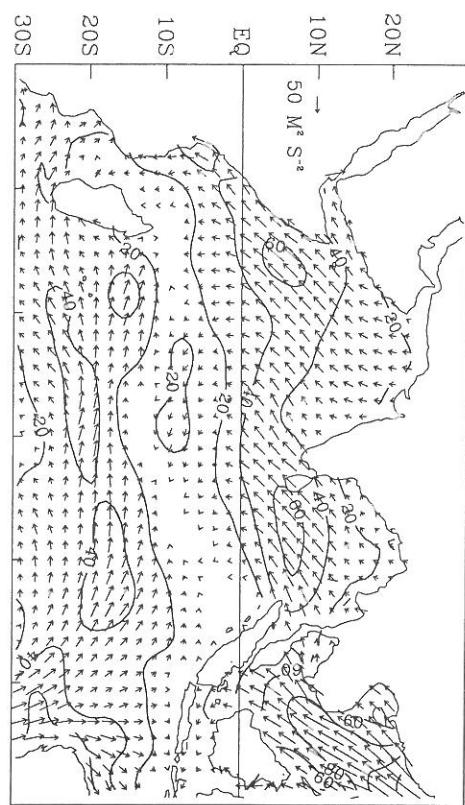
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



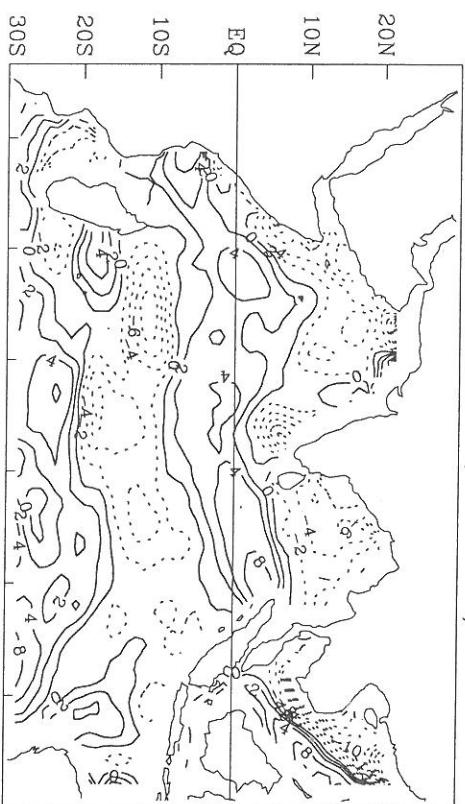
December 1991

January 1992

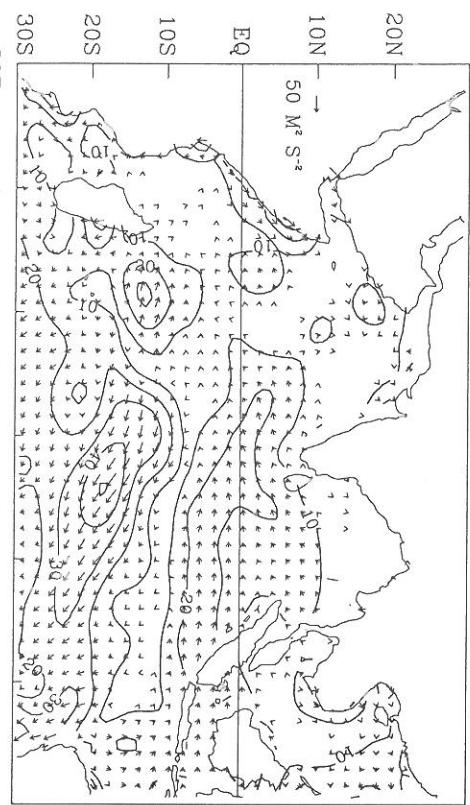
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



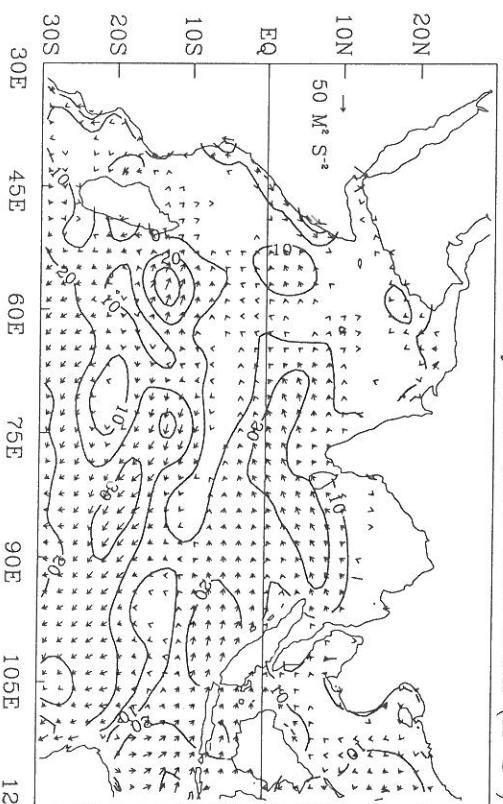
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



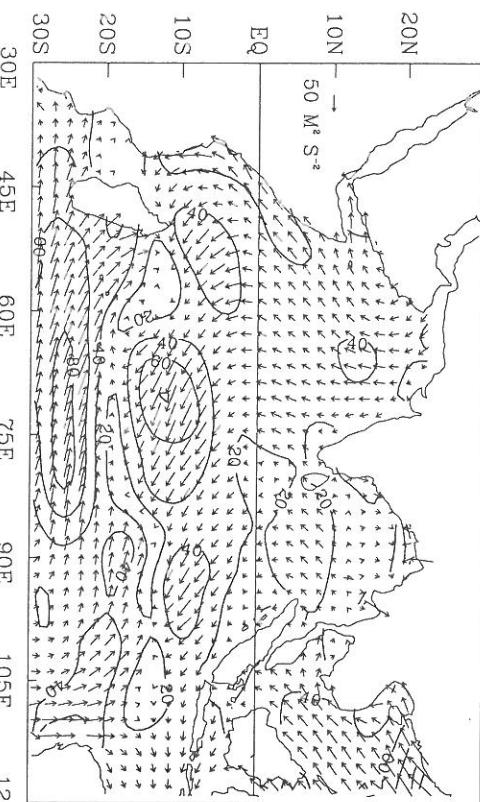
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



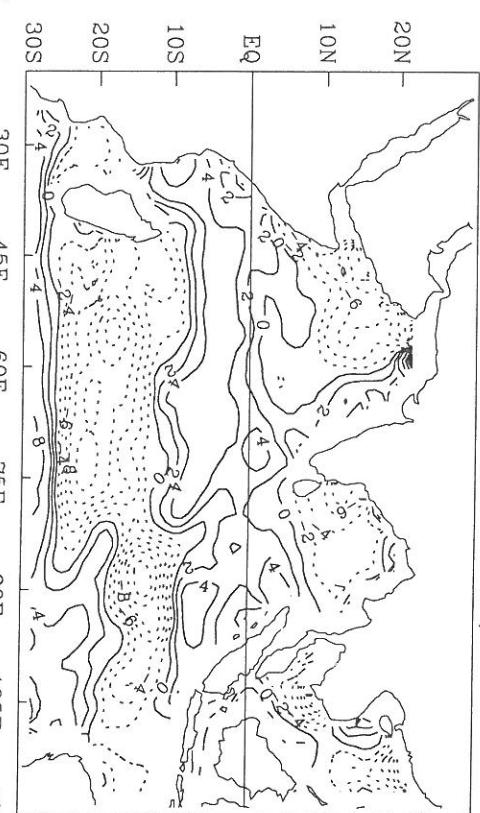
January 1992

February 1992

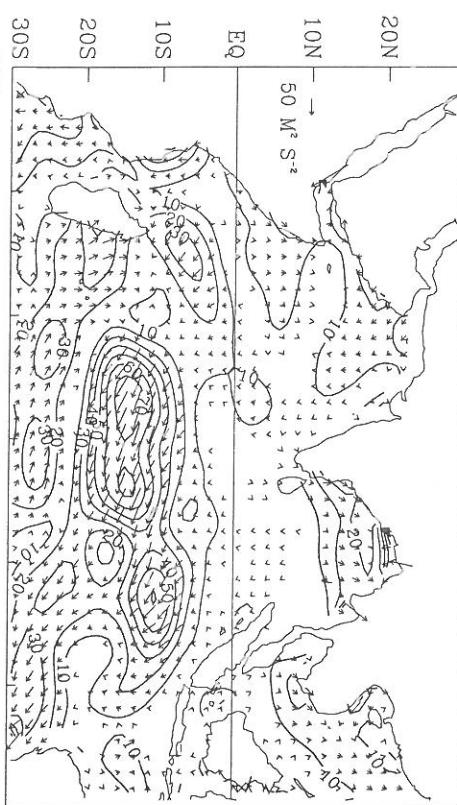
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



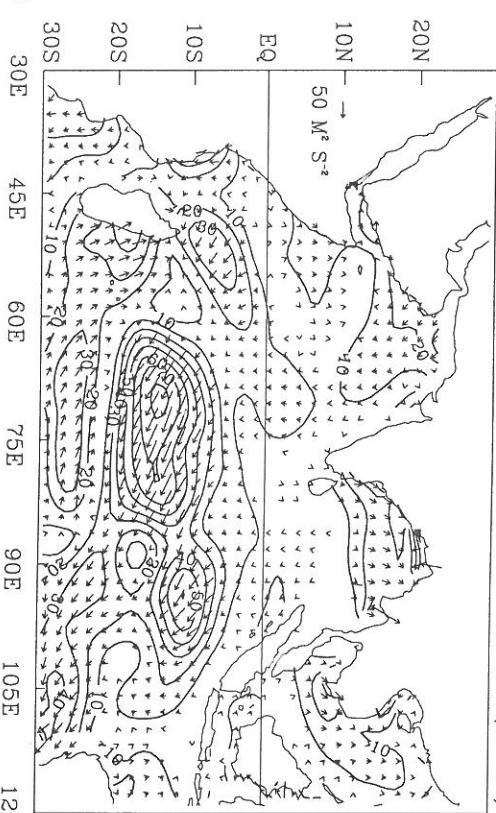
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



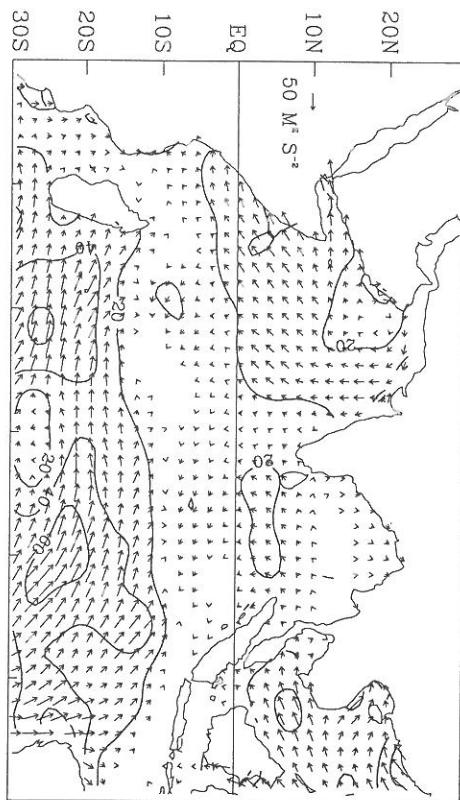
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



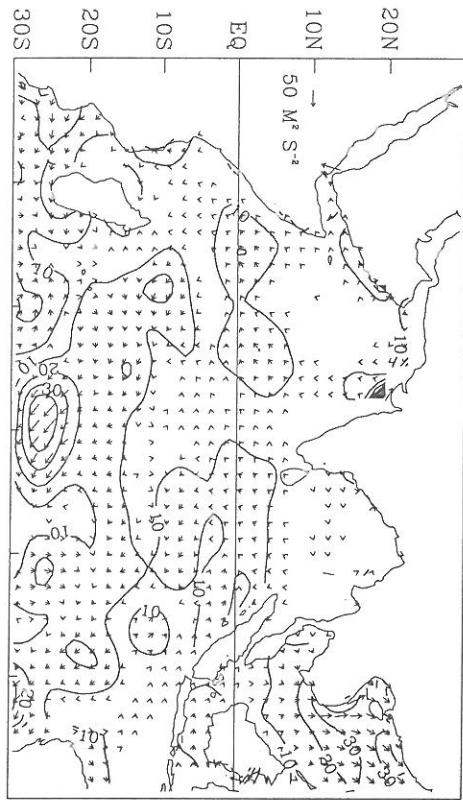
February 1992

March 1992

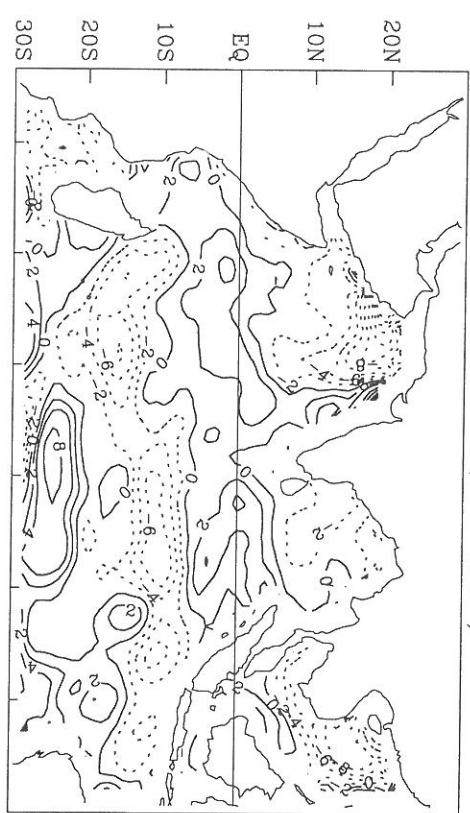
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



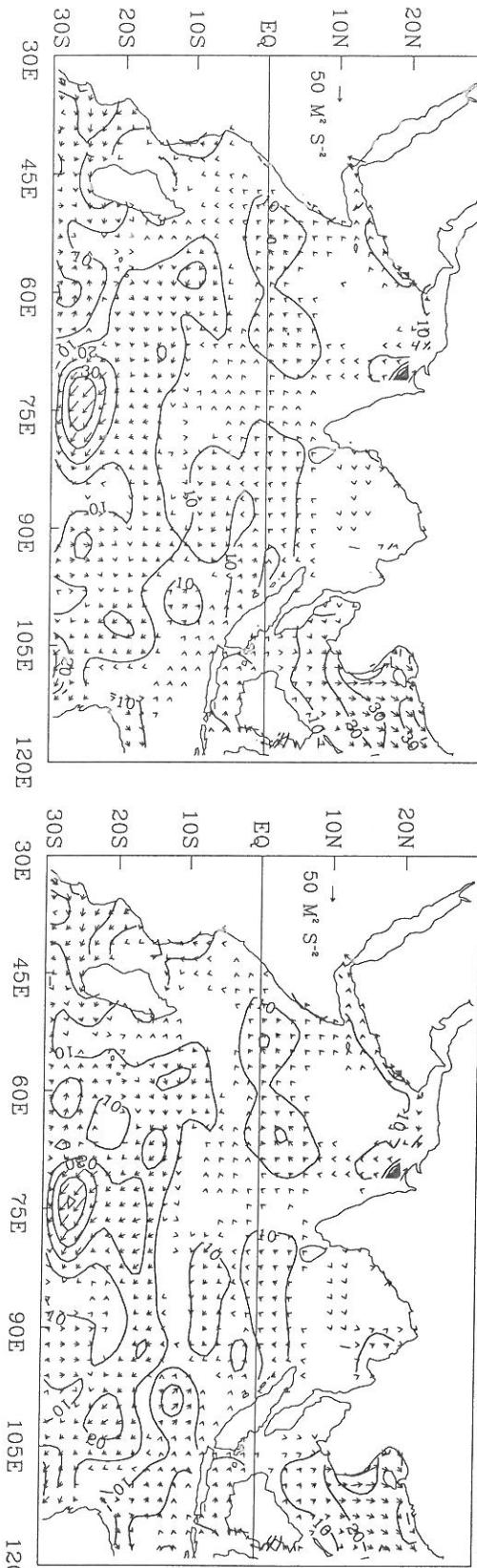
Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



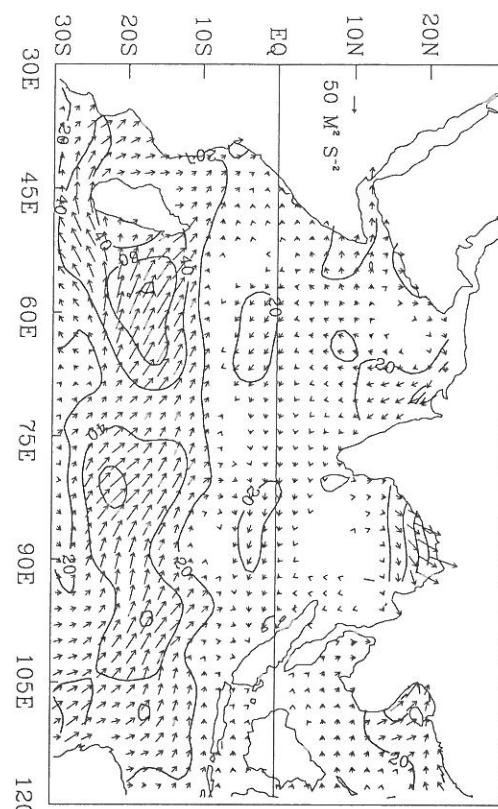
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



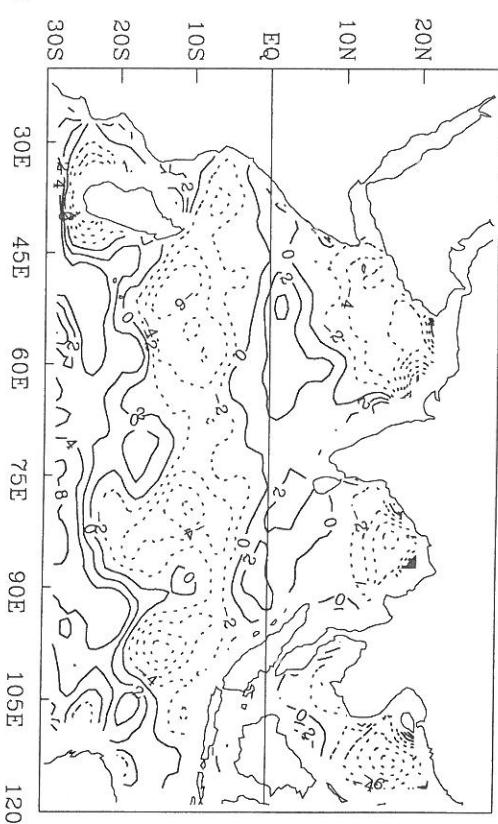
March 1992

April 1992

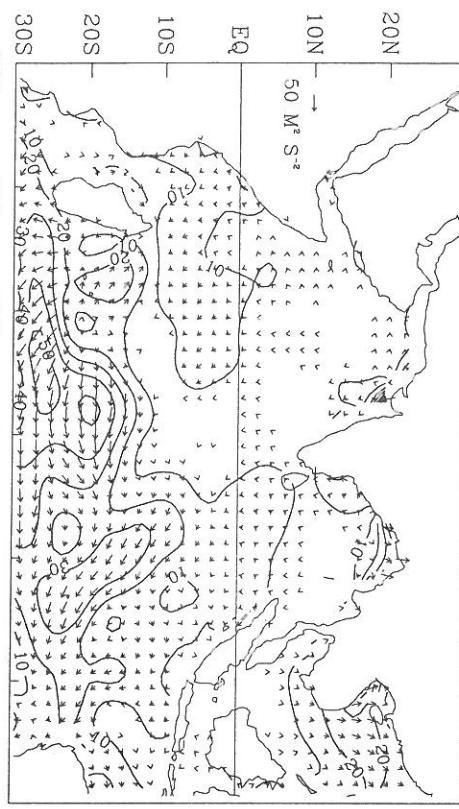
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



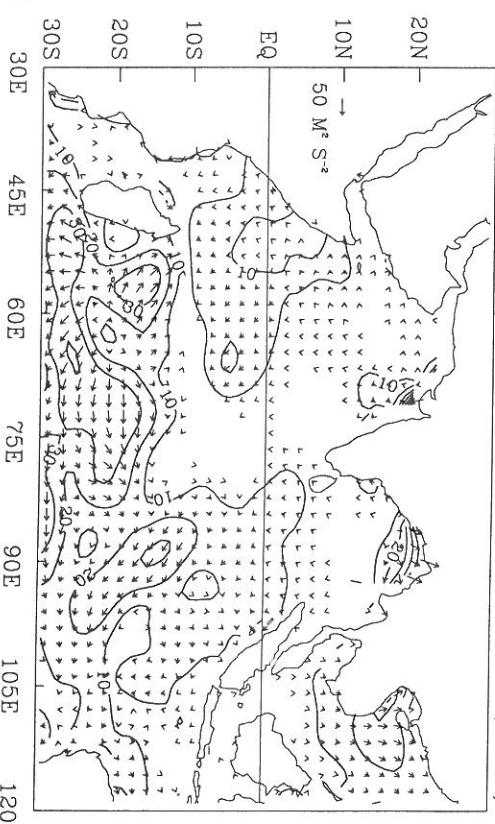
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



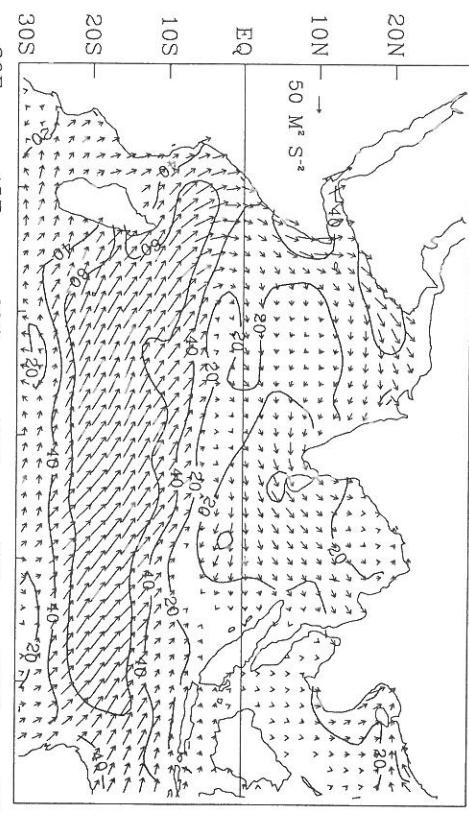
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



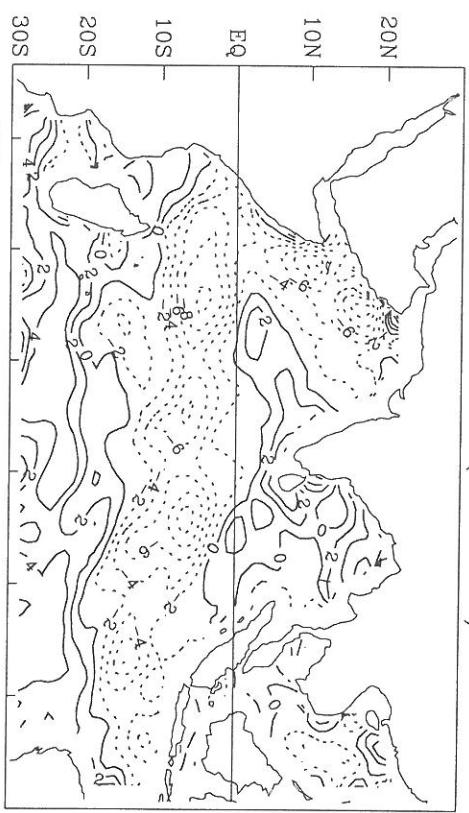
April 1992

May 1992

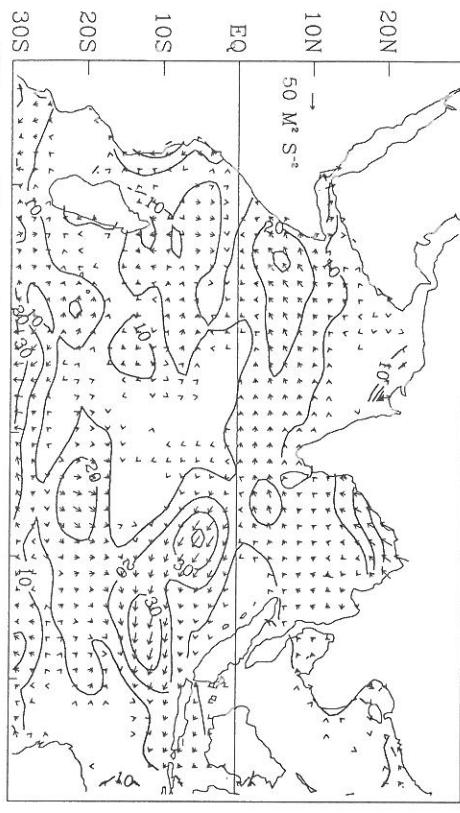
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



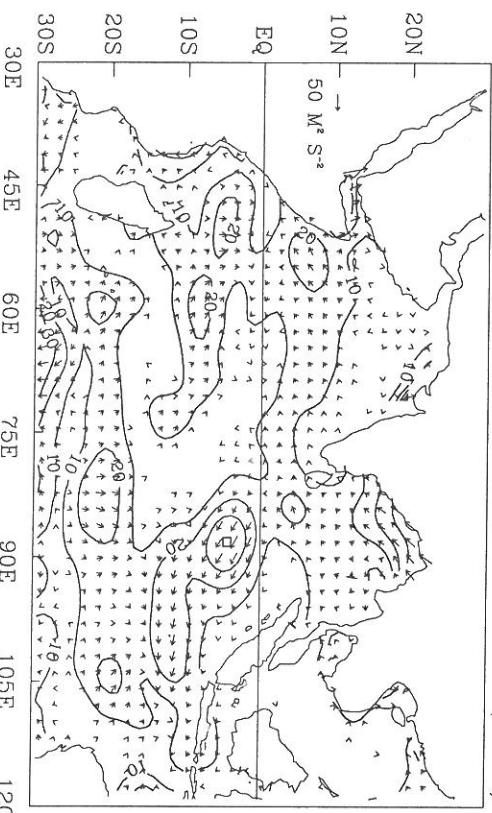
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



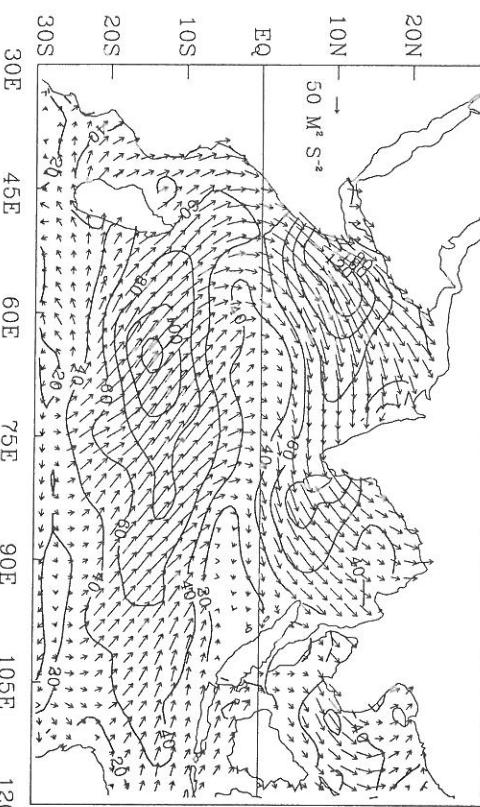
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



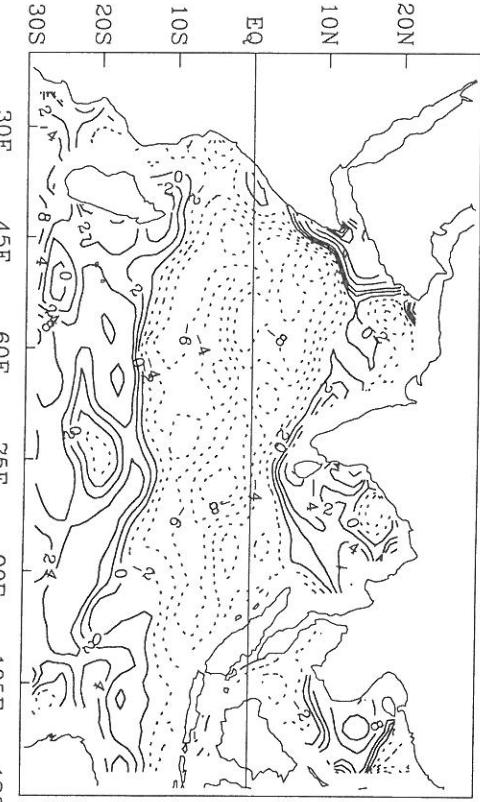
May 1992

June 1992

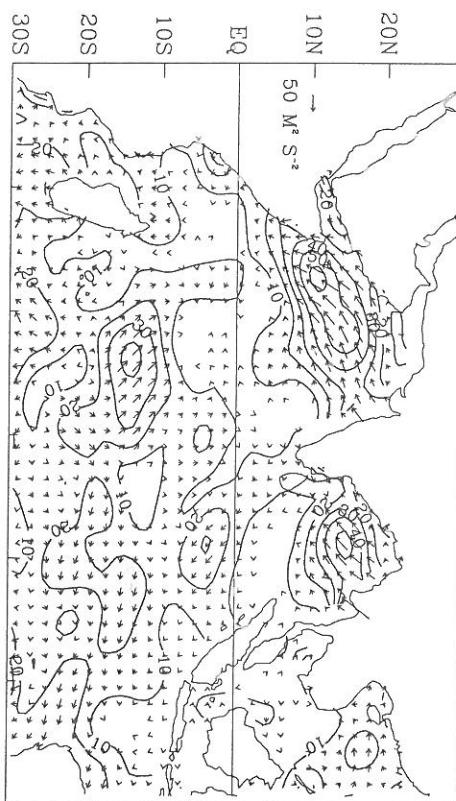
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



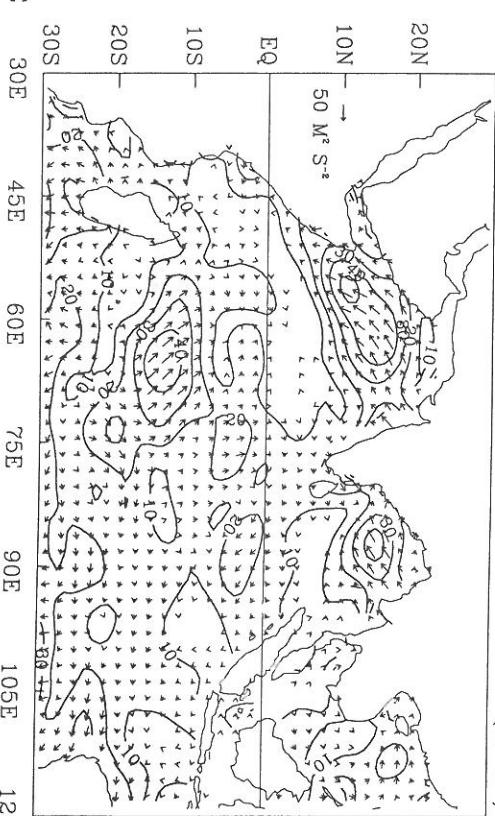
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



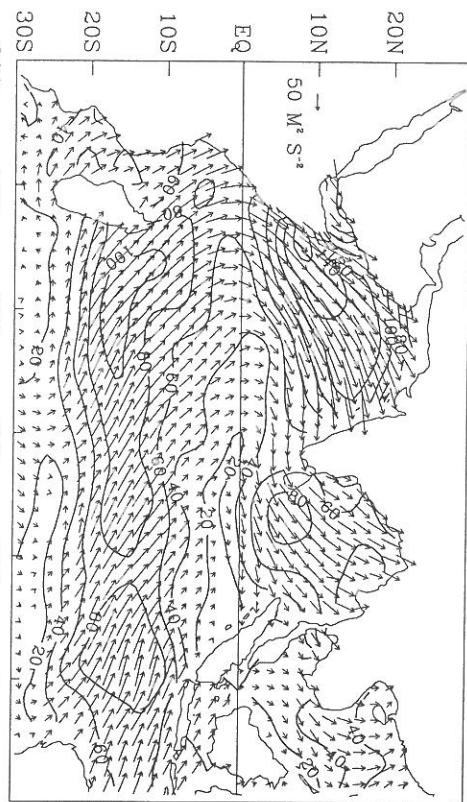
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



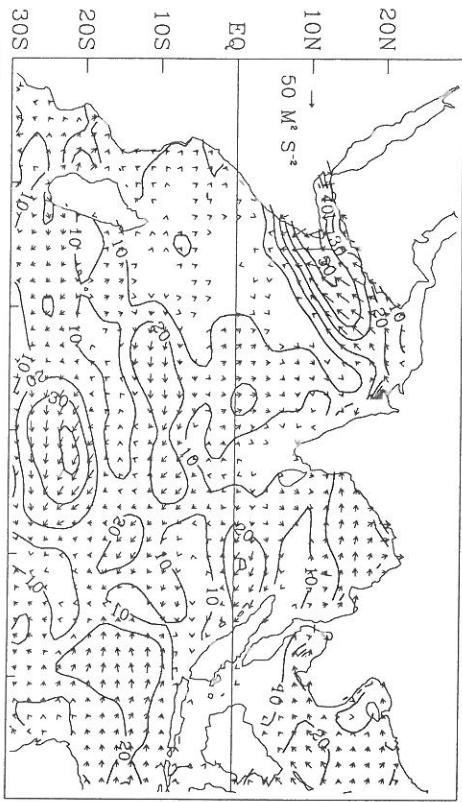
June 1992

July 1992

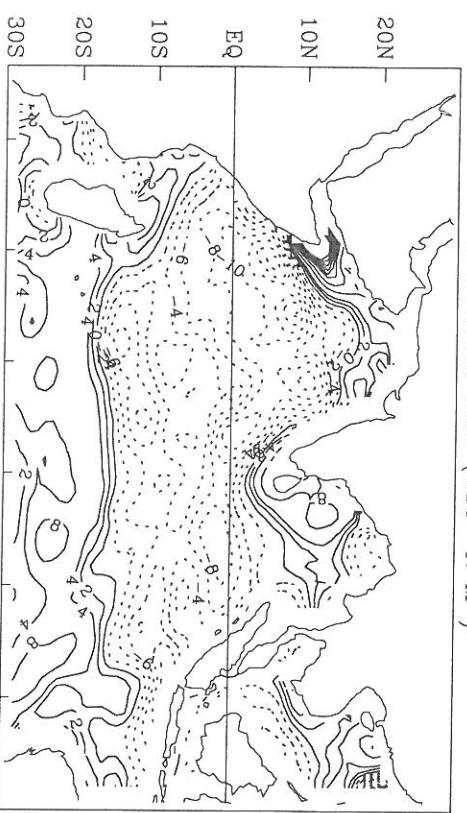
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



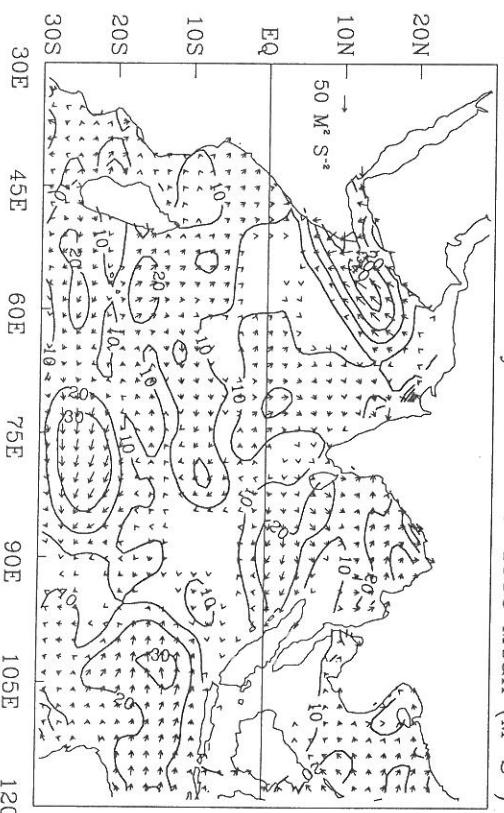
Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



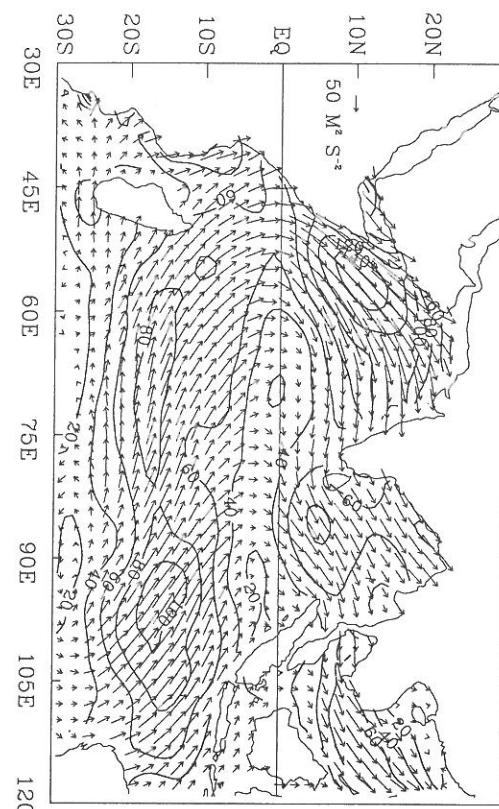
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



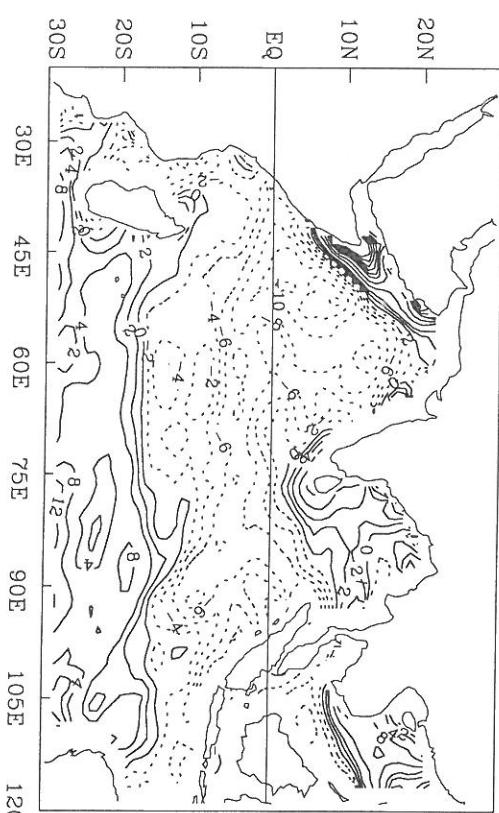
July 1992

August 1992

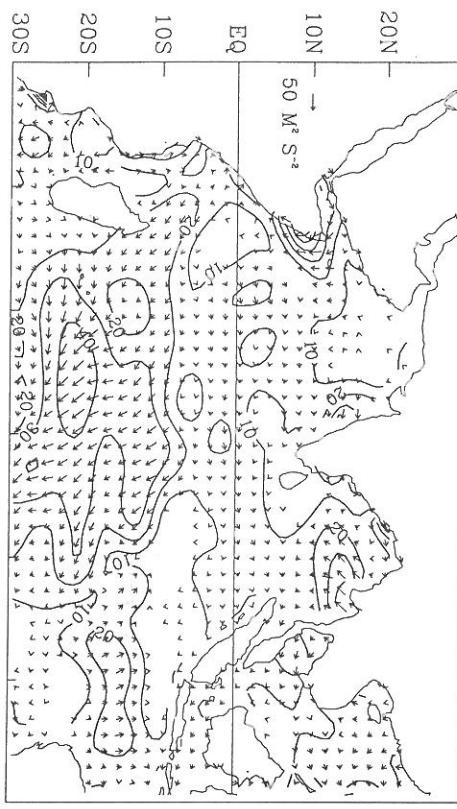
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



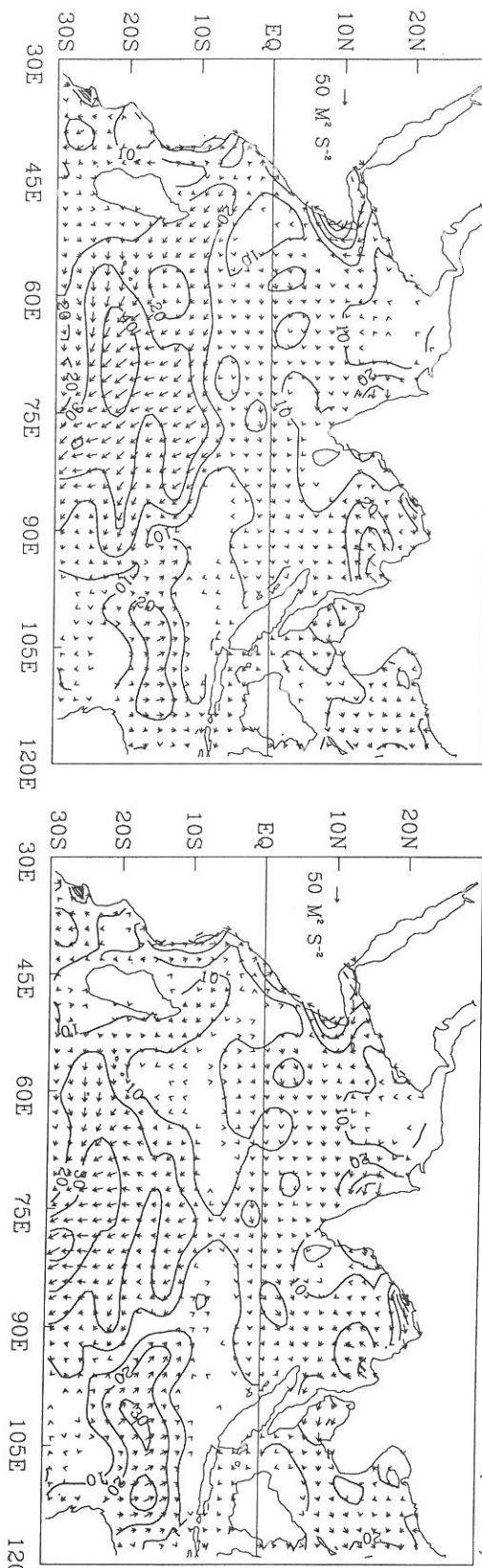
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



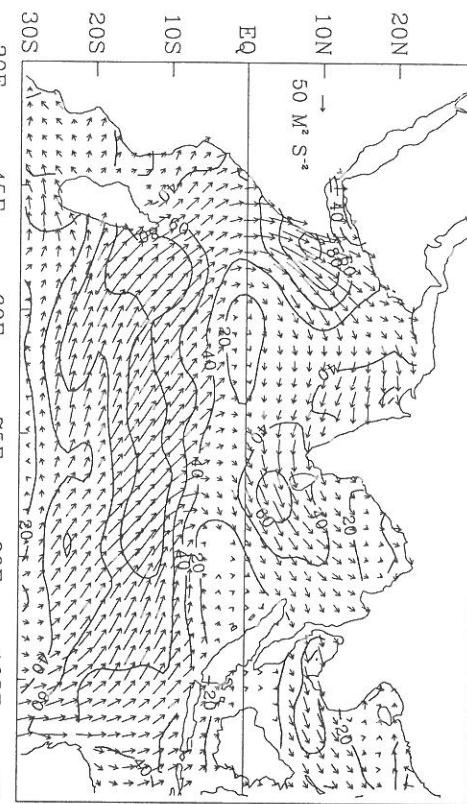
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



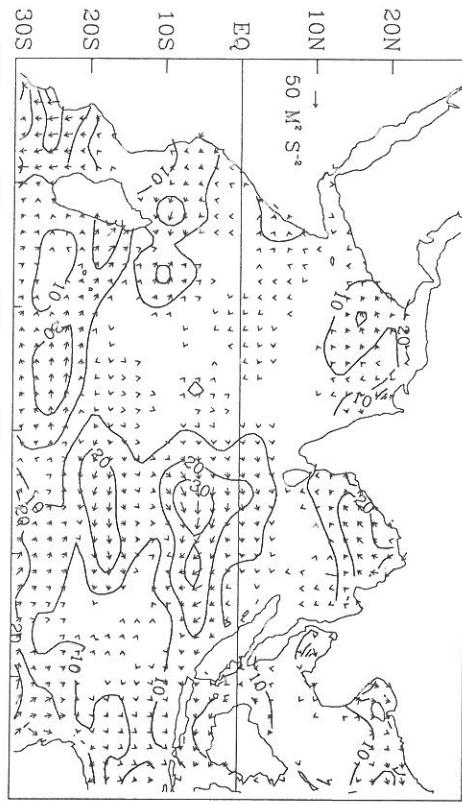
August 1992

September 1992

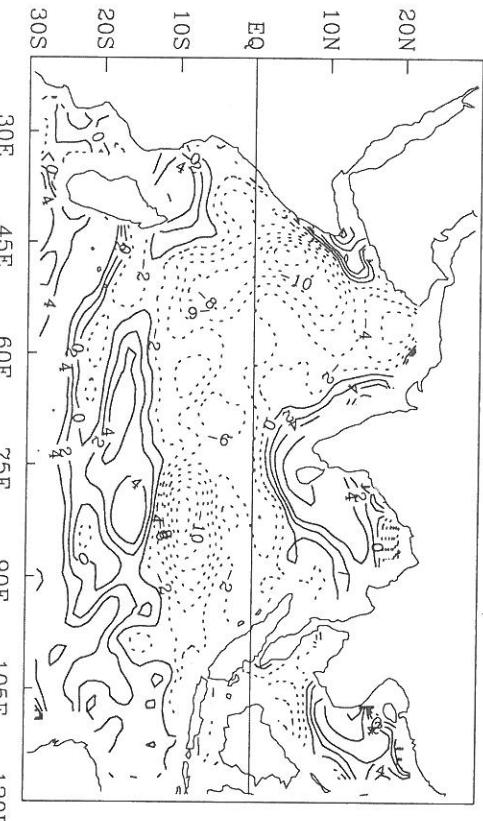
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



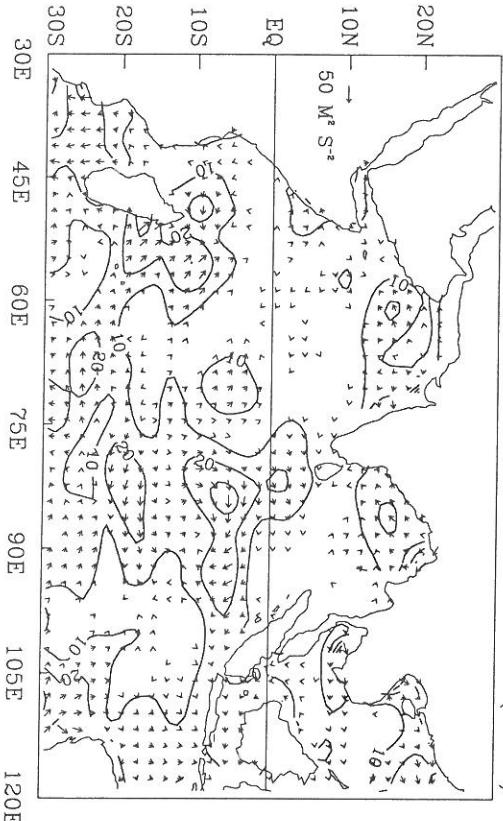
Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



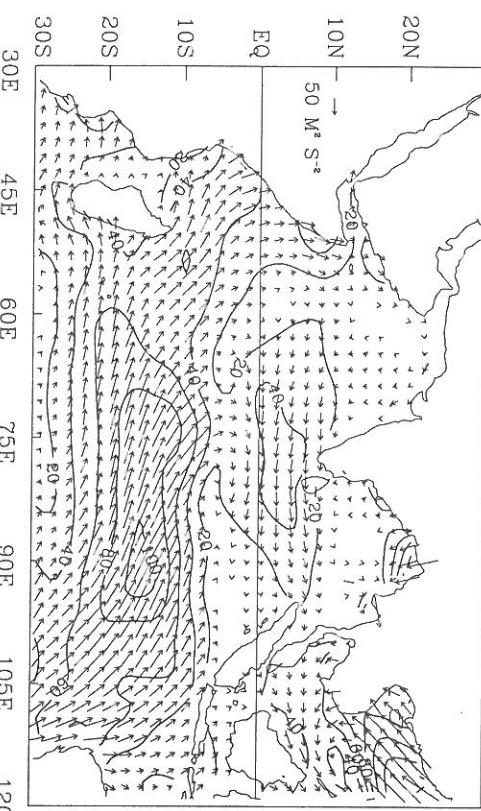
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



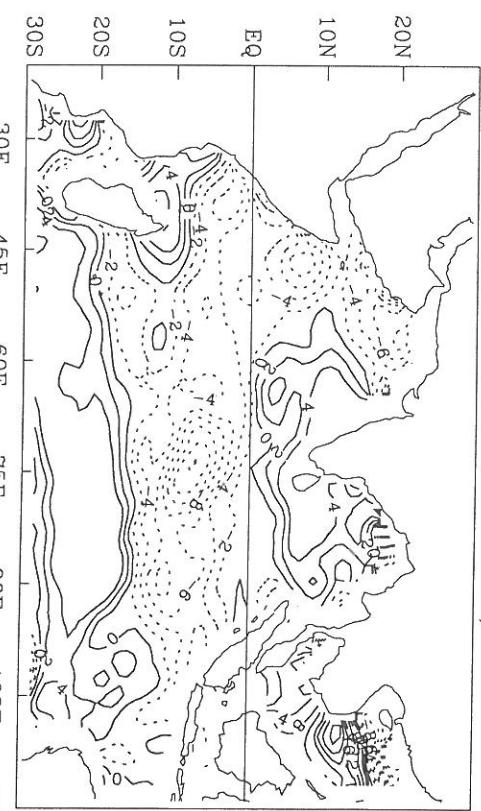
September 1992

October 1992

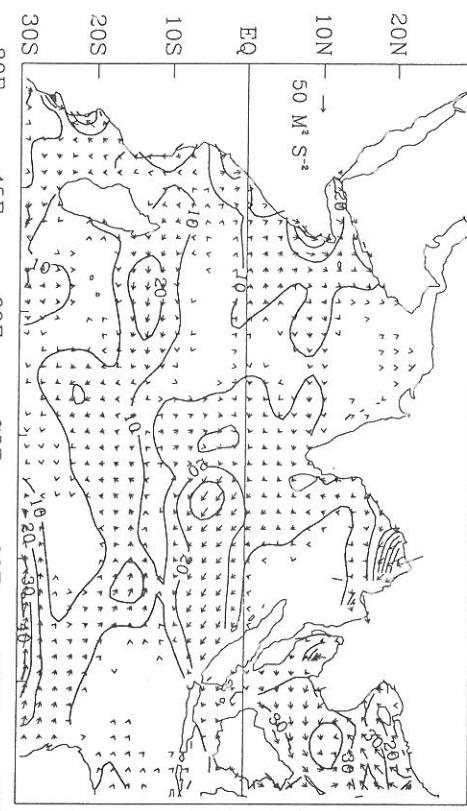
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



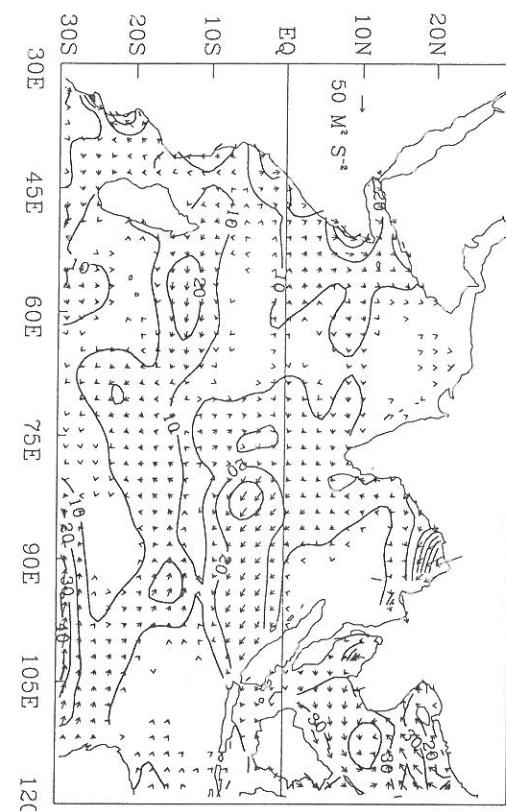
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



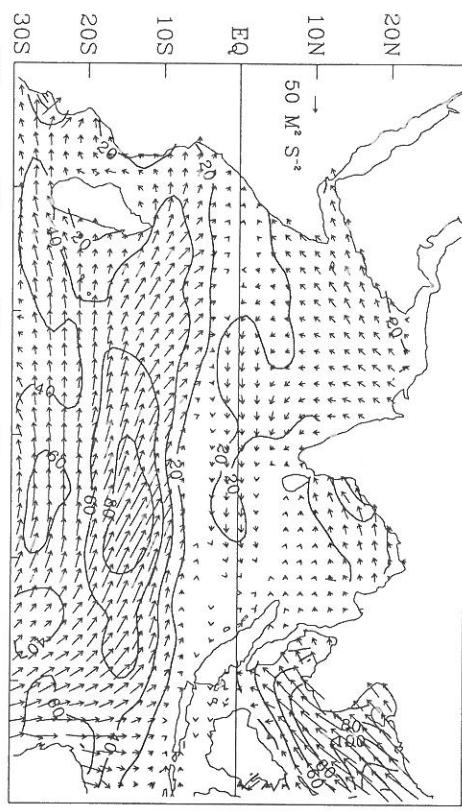
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



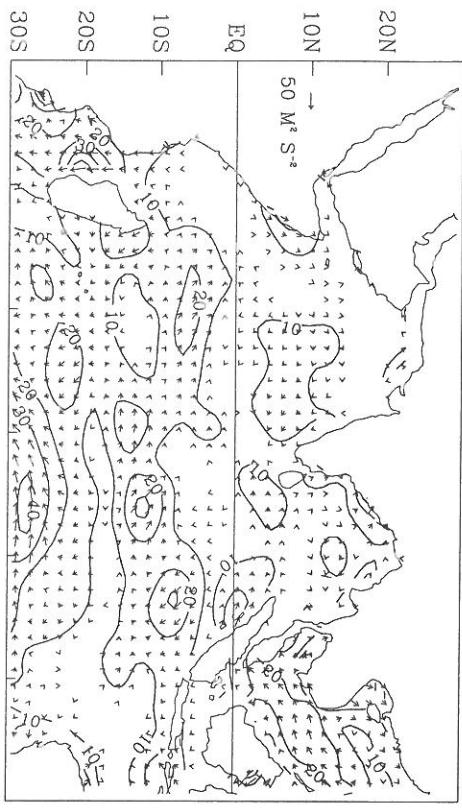
October 1992

November 1992

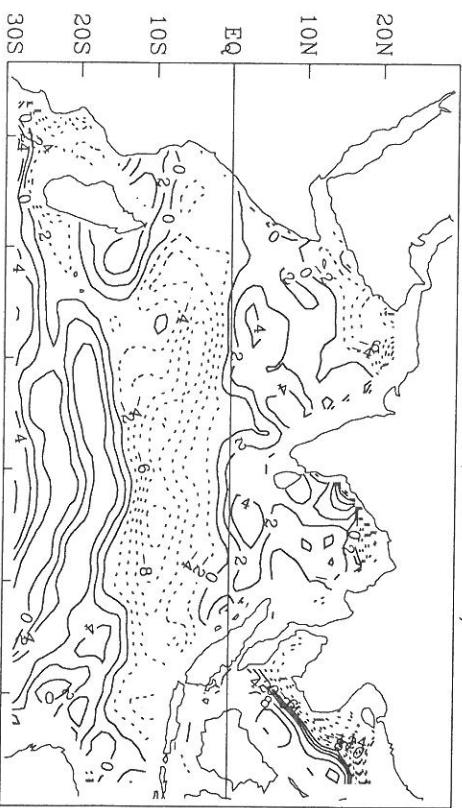
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



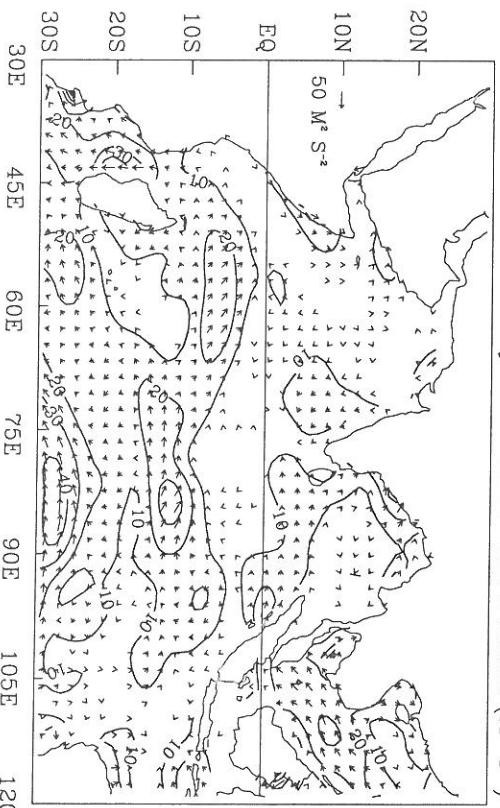
Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



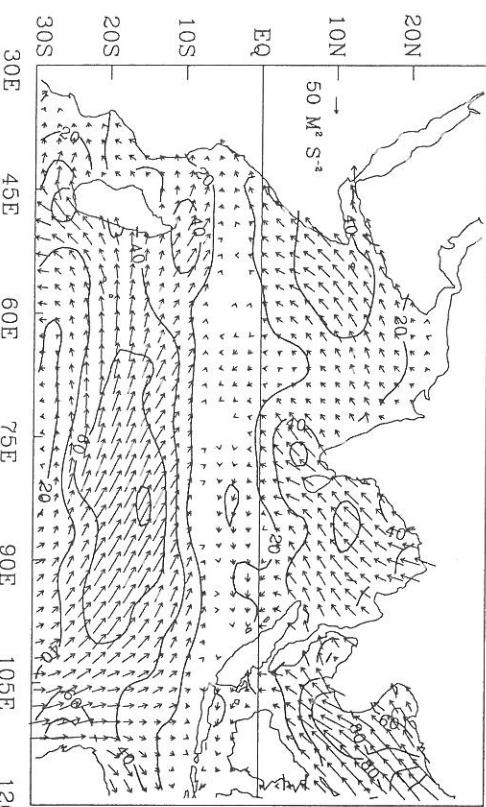
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



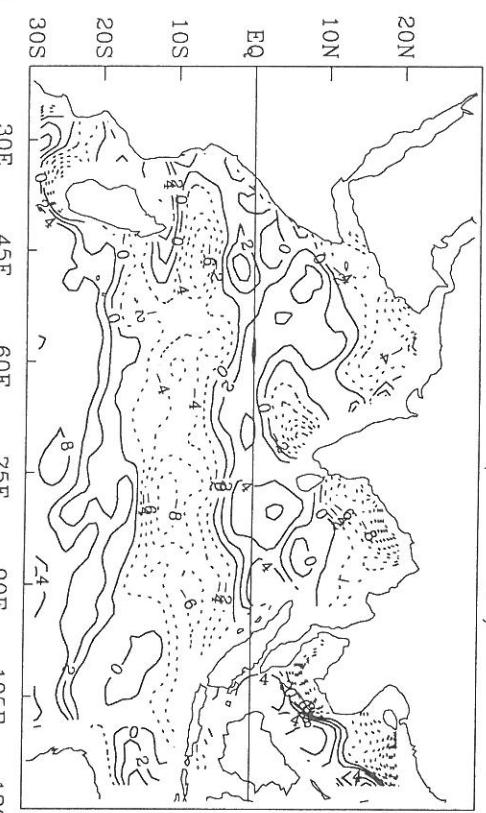
November 1992

December 1992

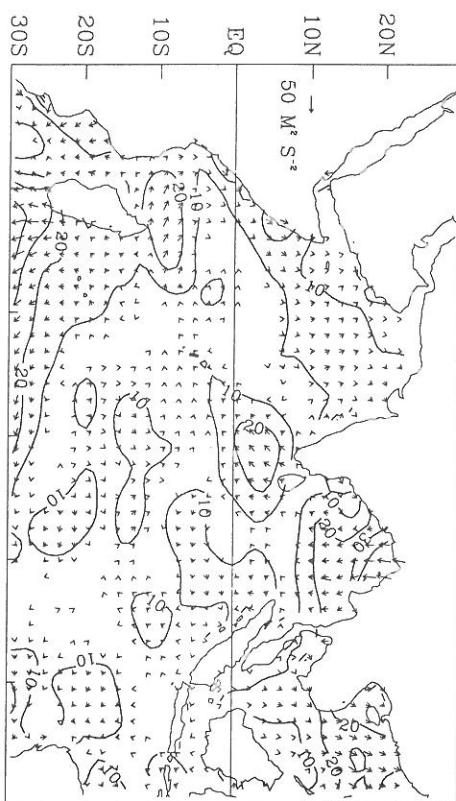
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



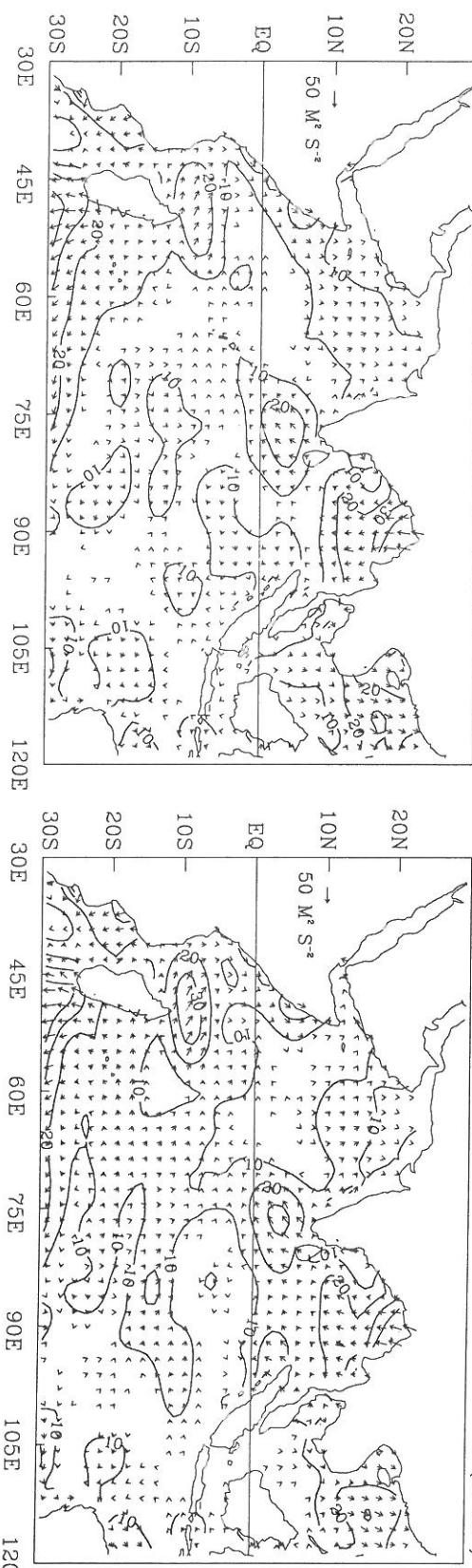
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



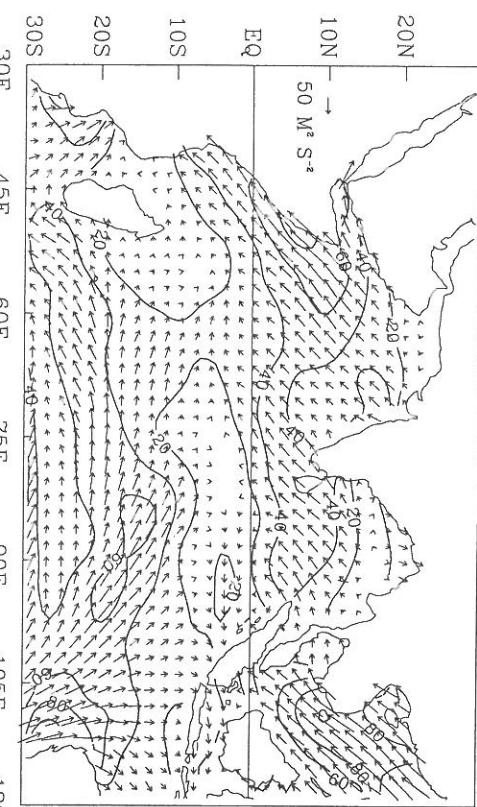
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



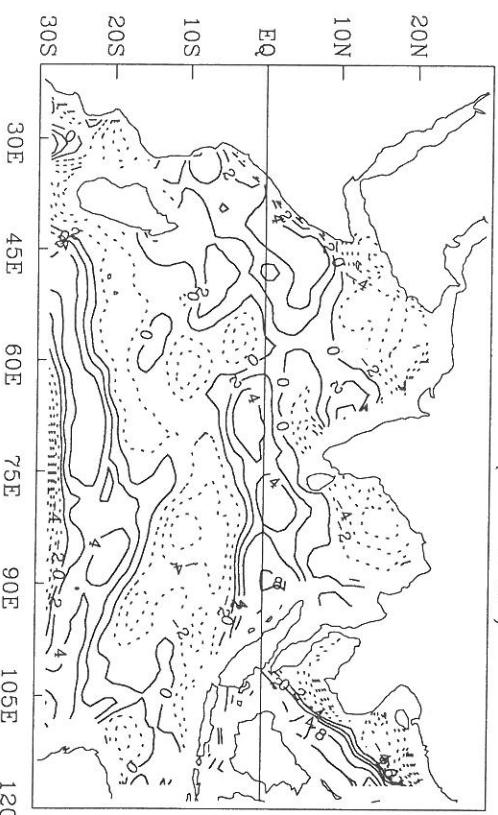
December 1992

January 1993

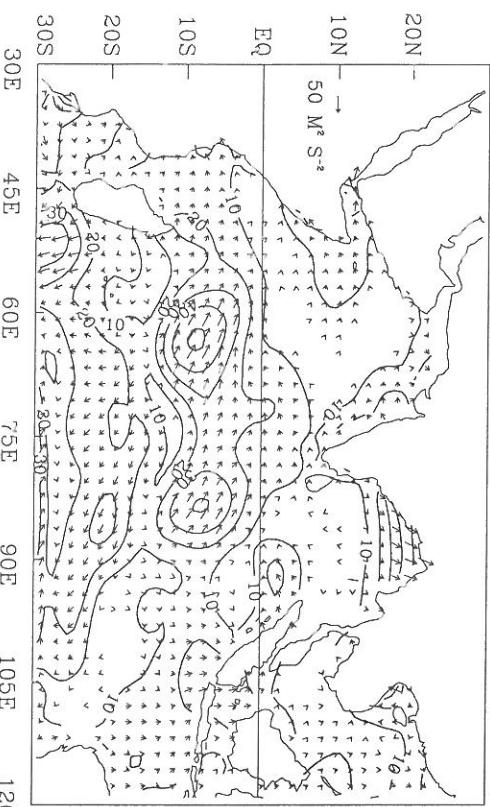
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



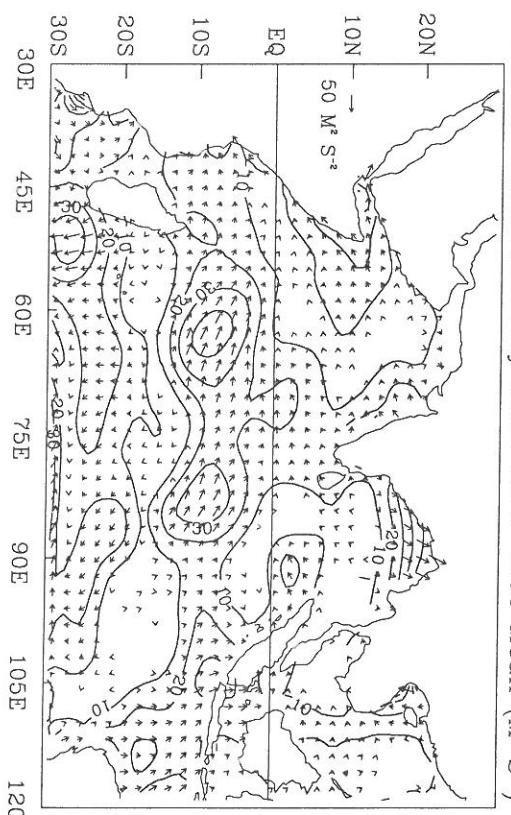
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



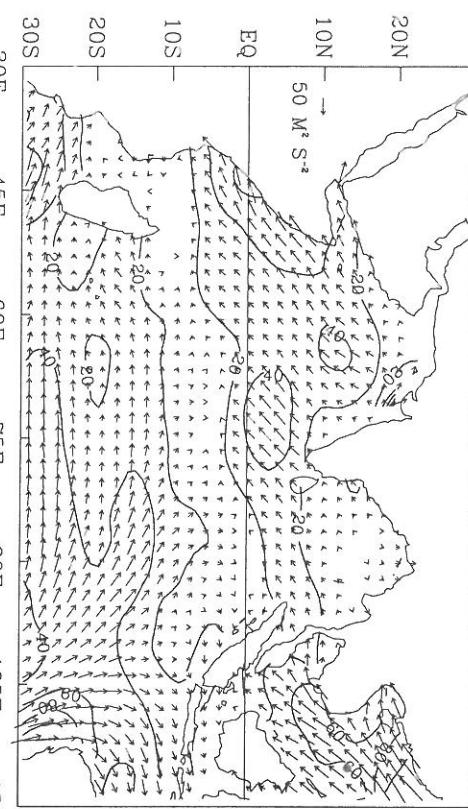
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



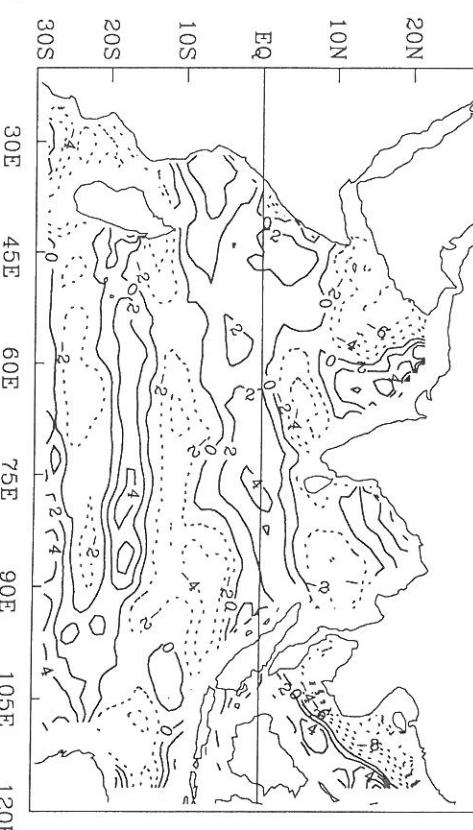
January 1993

February 1993

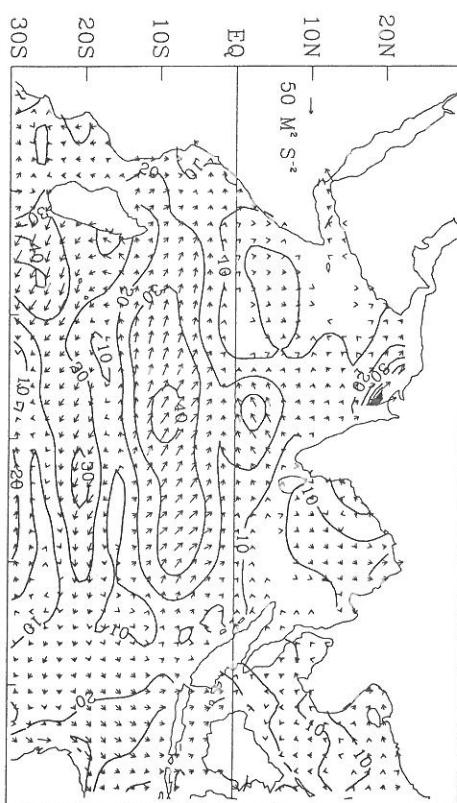
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



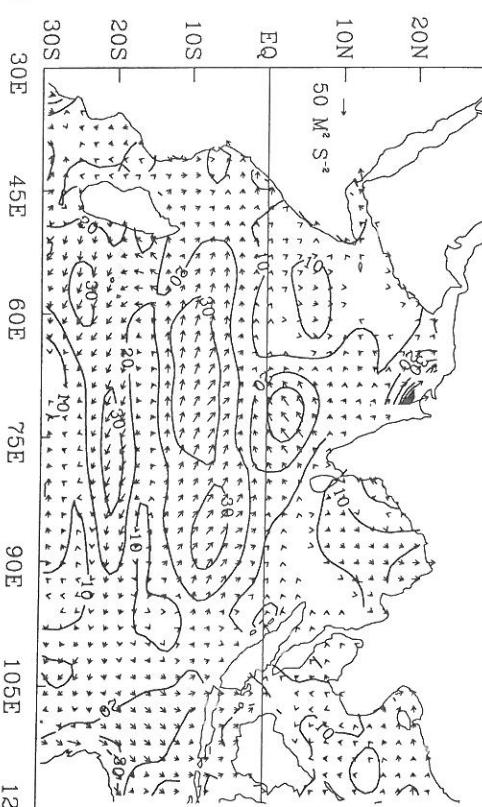
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Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



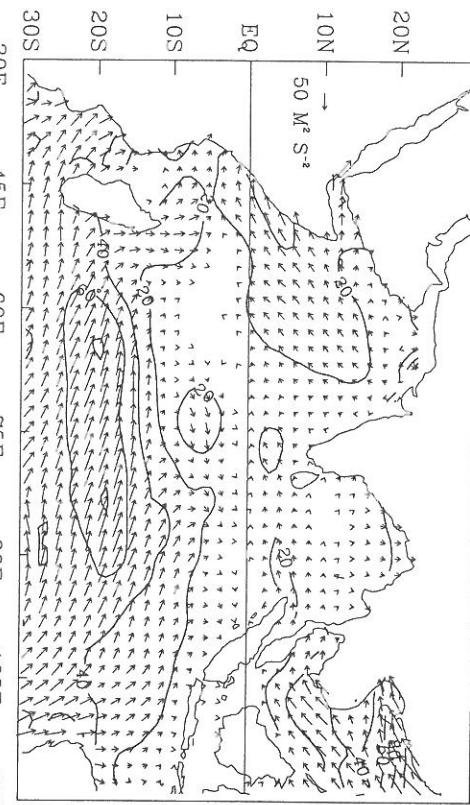
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



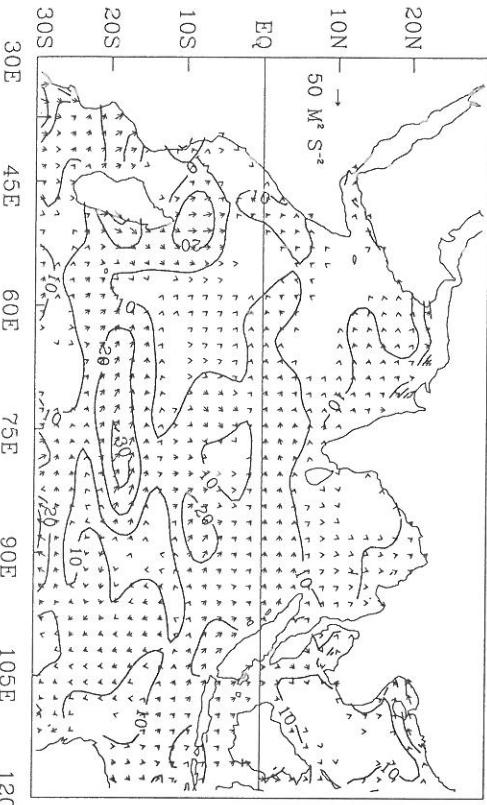
February 1993

March 1993

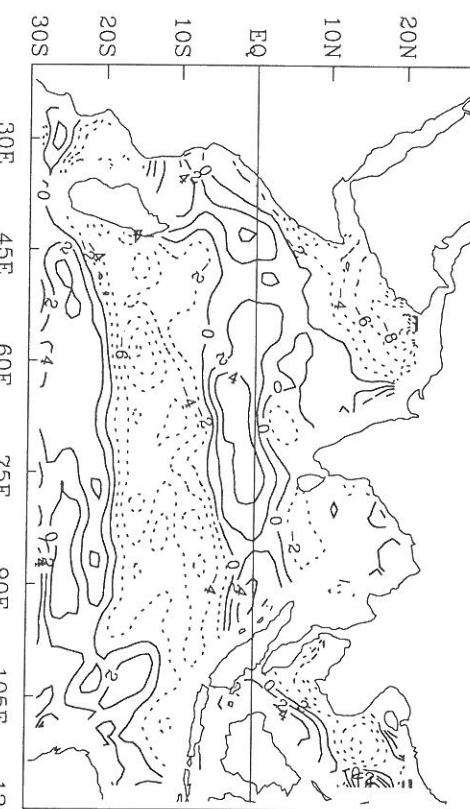
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



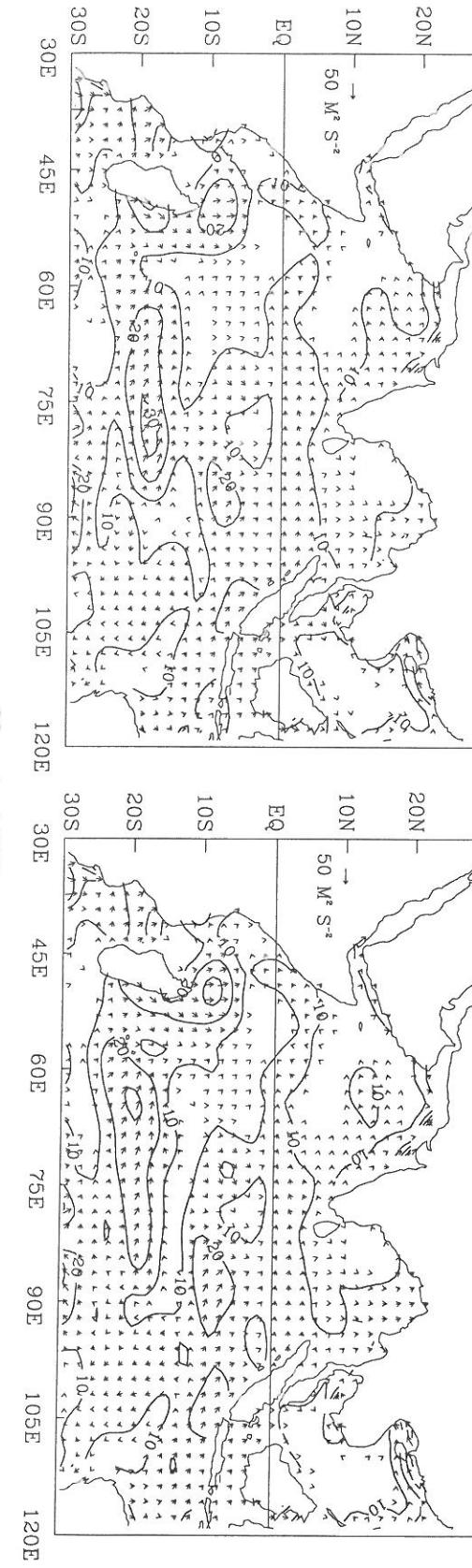
Pseudo-stress Anomaly from 1985-1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



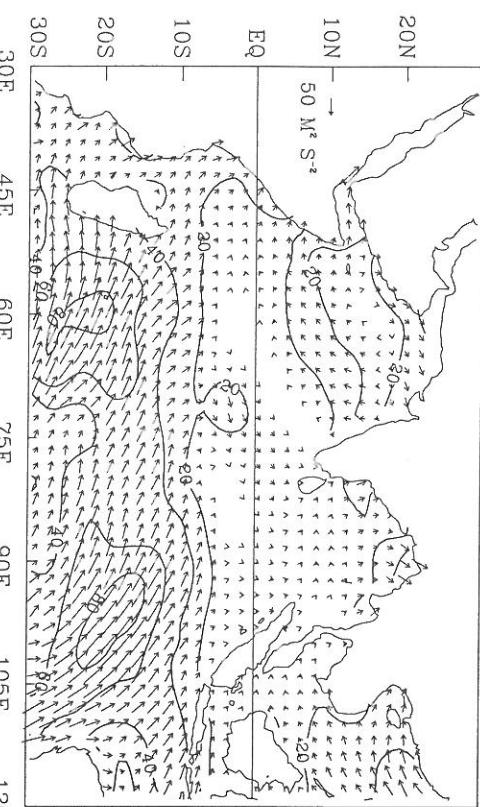
Pseudo-stress Anomaly from 1970-1995 Mean ( $M^2 S^{-2}$ )



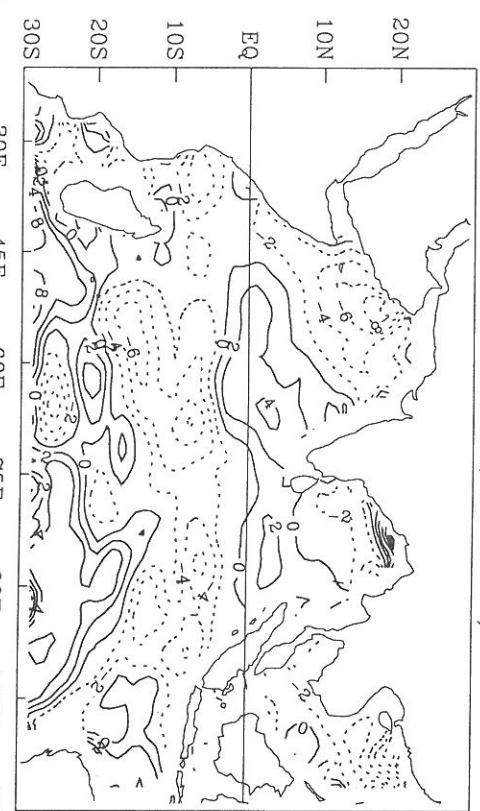
March 1993

April 1993

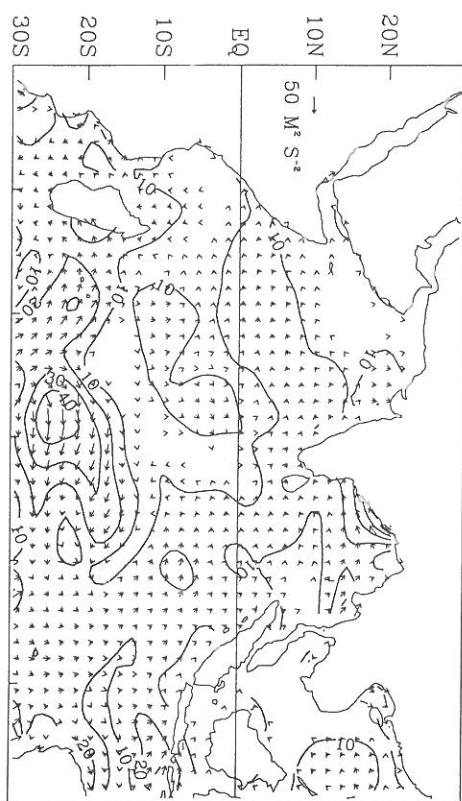
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



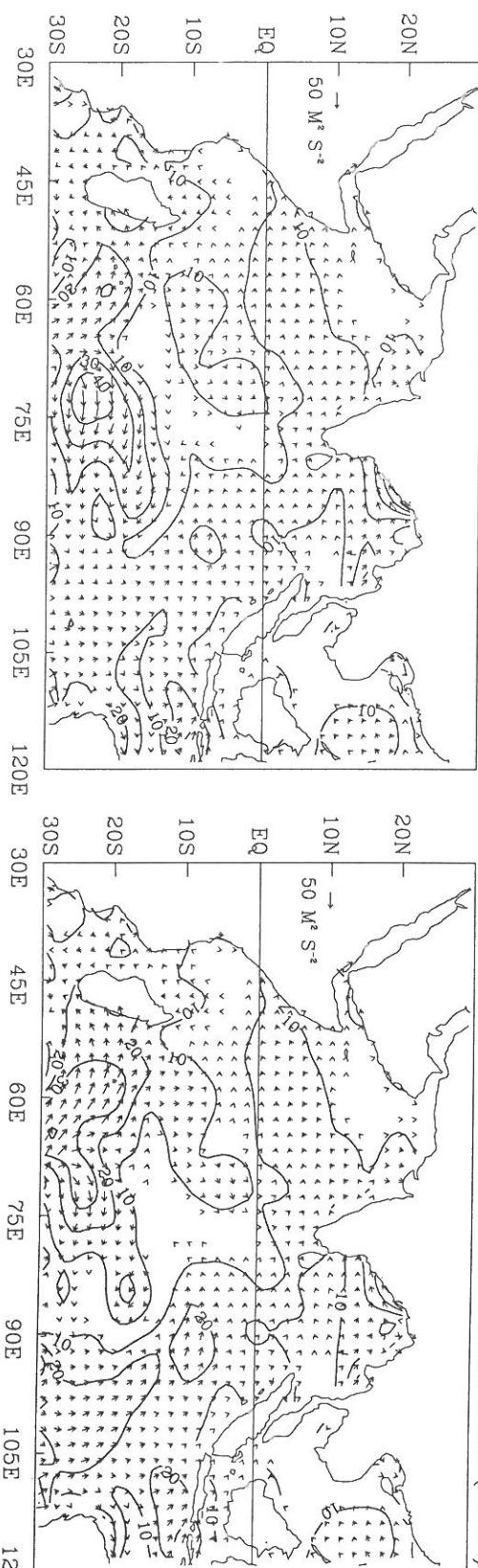
Wind Stress Curl ( $\times 10^{-3} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



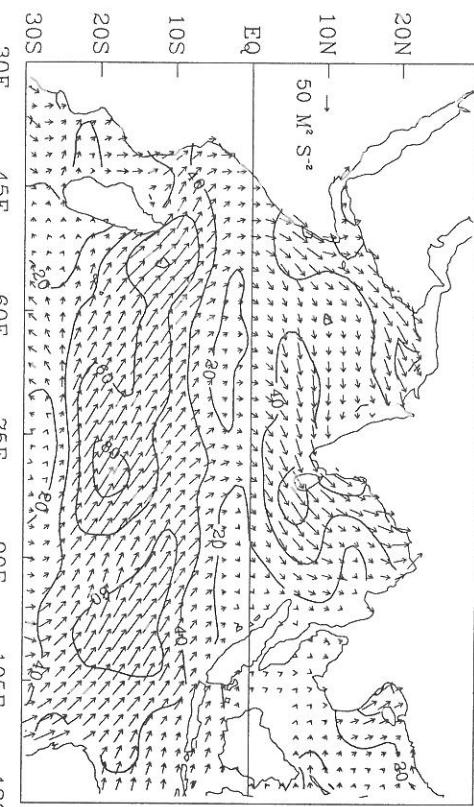
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



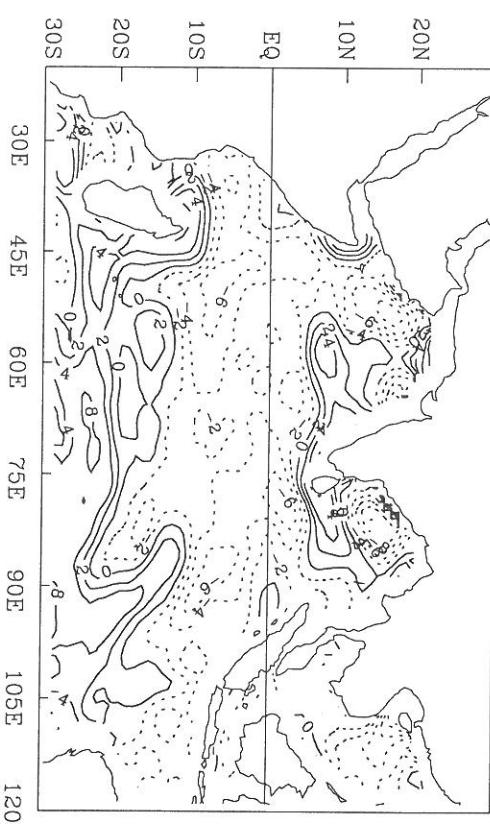
April 1993

May 1993

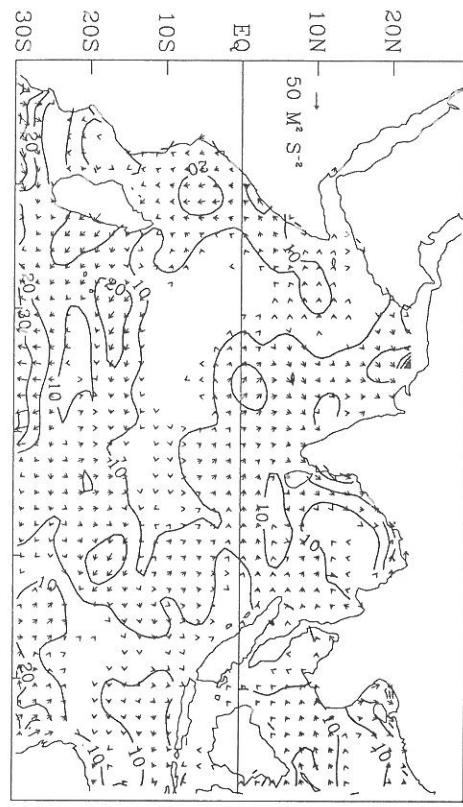
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



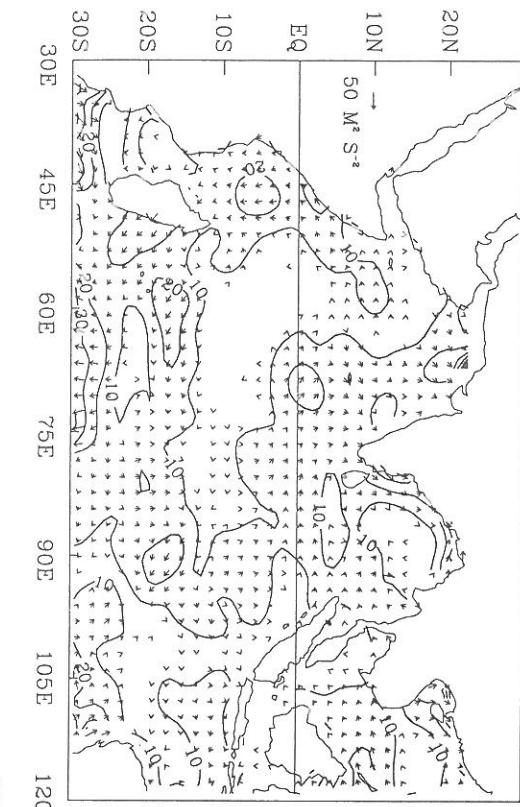
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



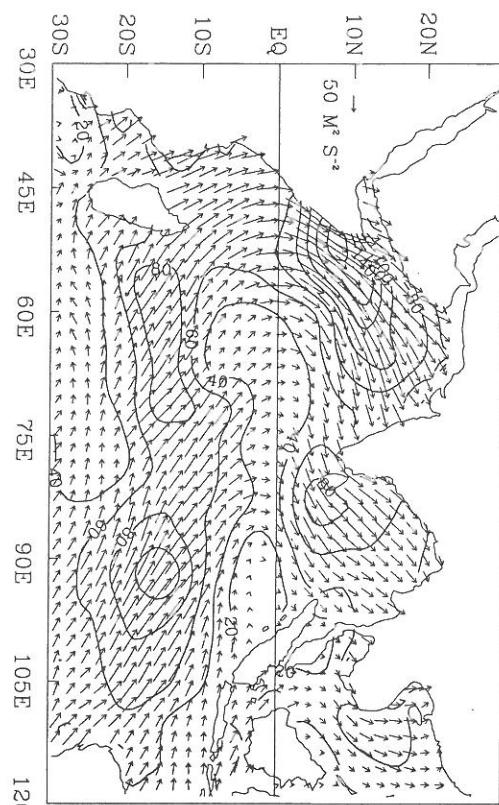
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



May 1993

June 1993

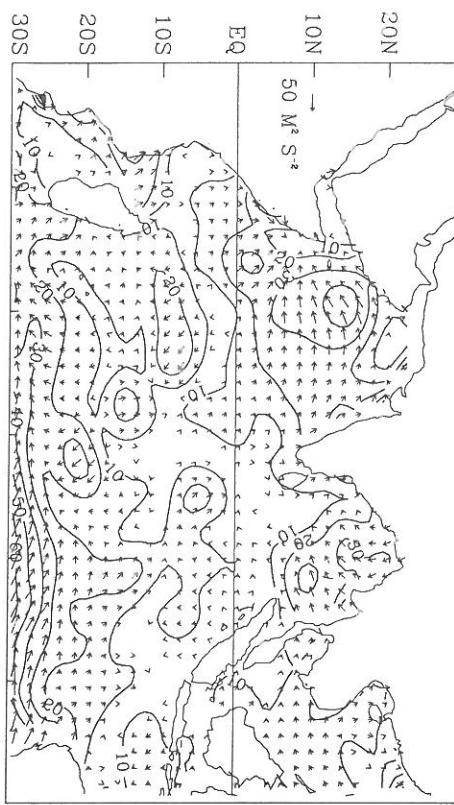
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



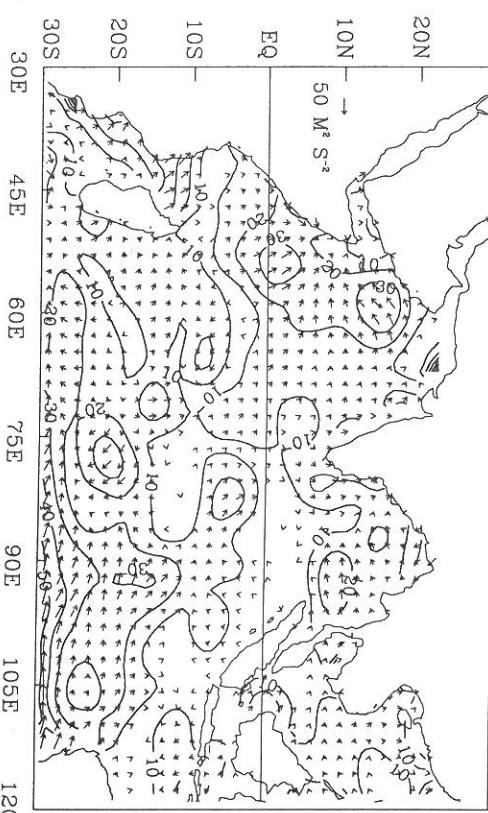
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



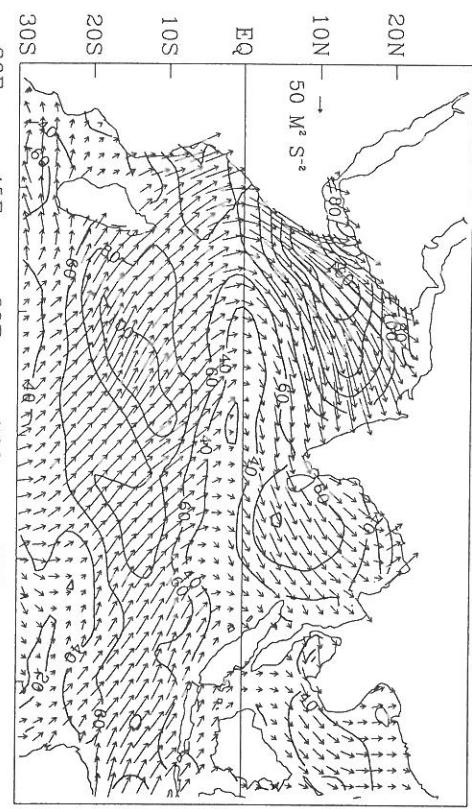
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



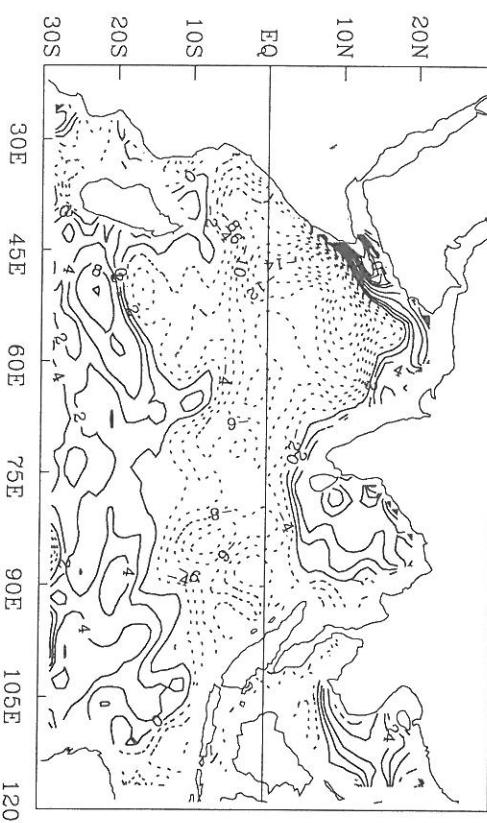
June 1993

July 1993

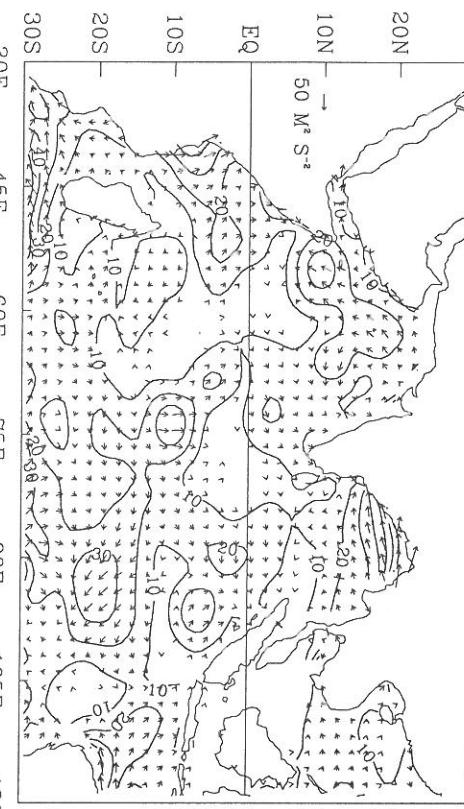
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



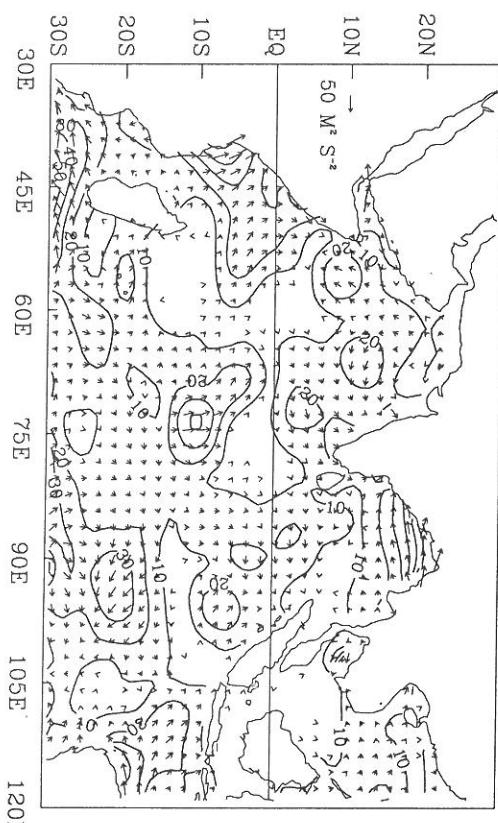
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



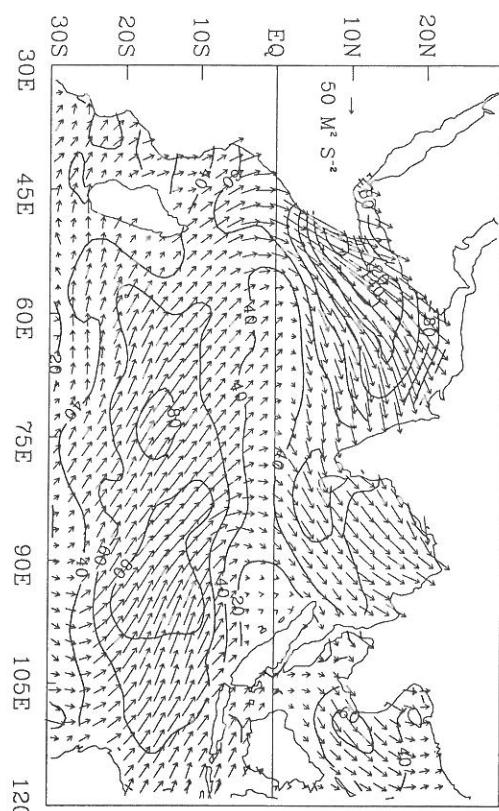
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



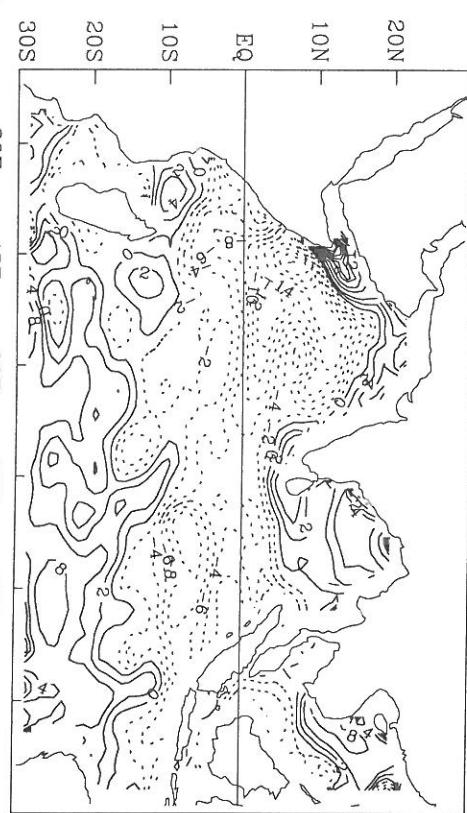
July 1993

August 1993

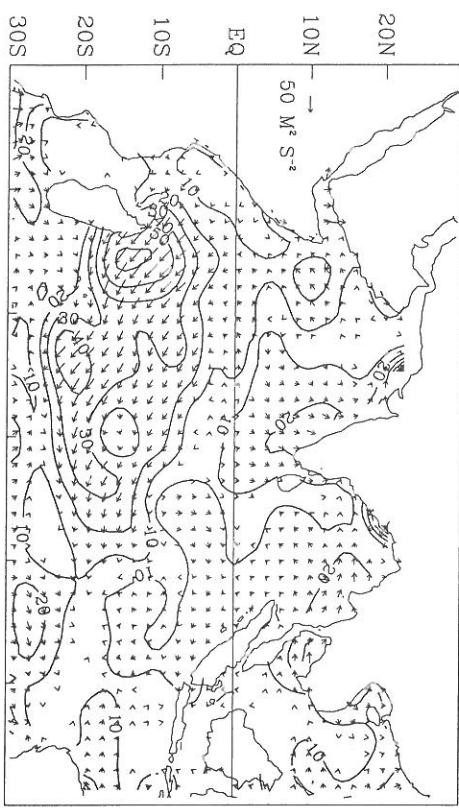
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



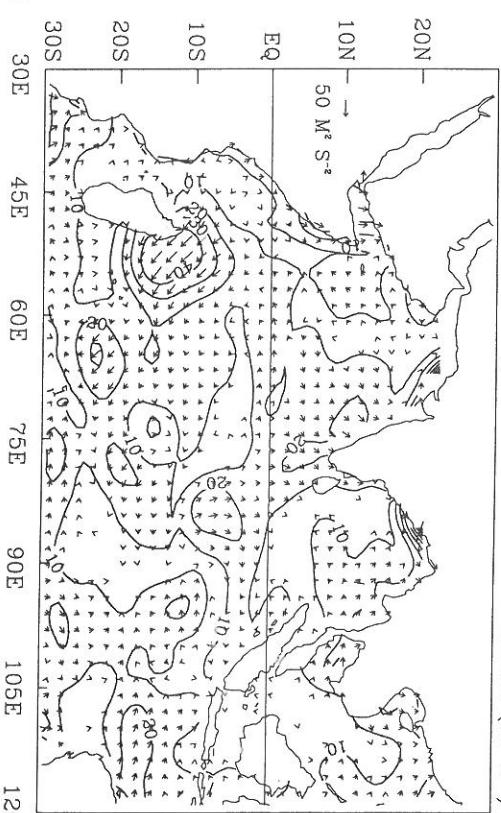
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



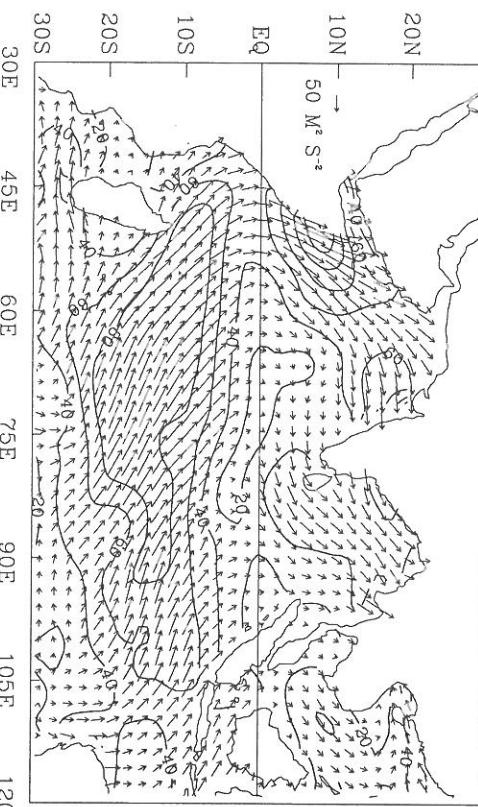
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



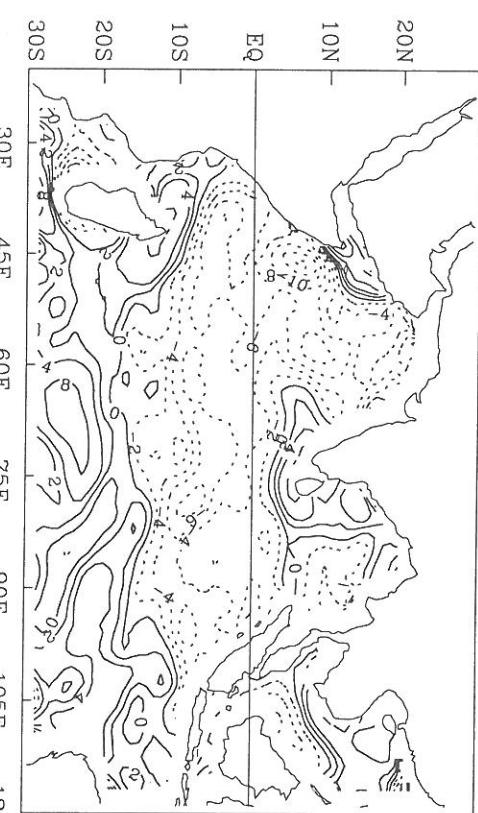
August 1993

September 1993

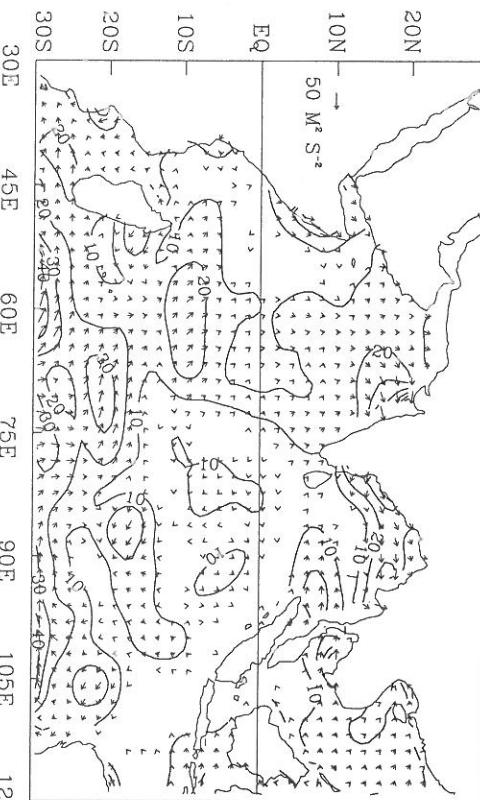
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



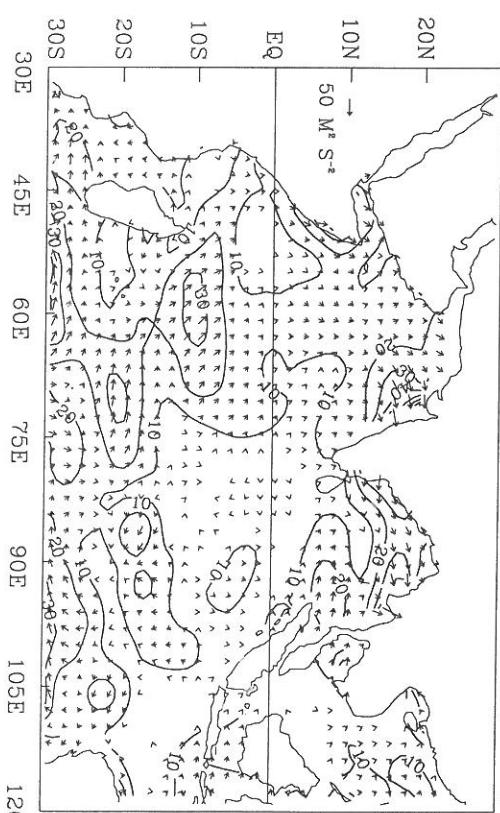
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



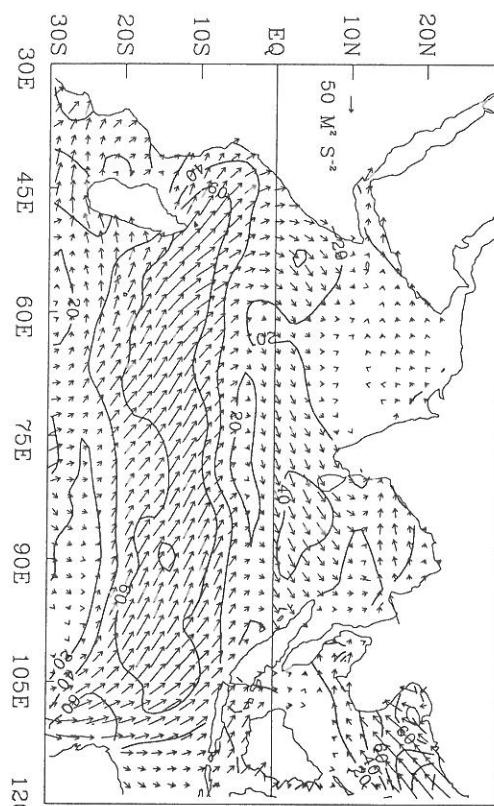
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



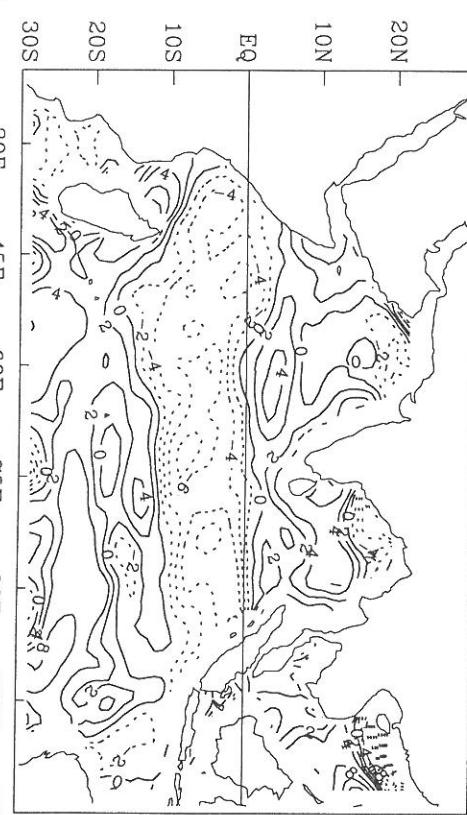
September 1993

October 1993

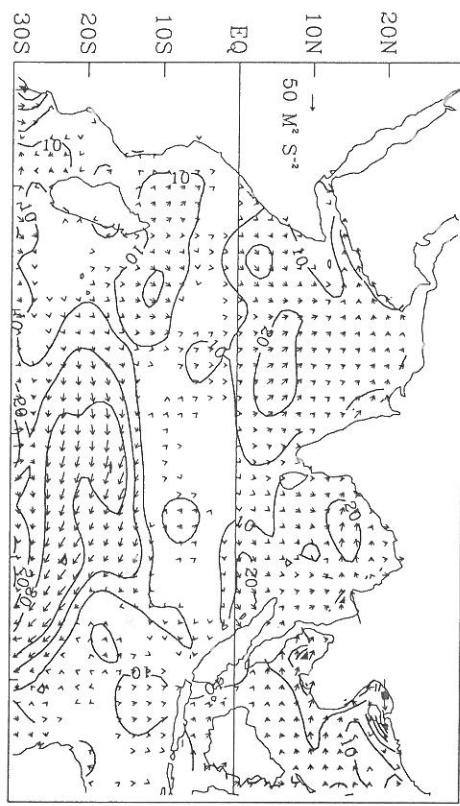
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



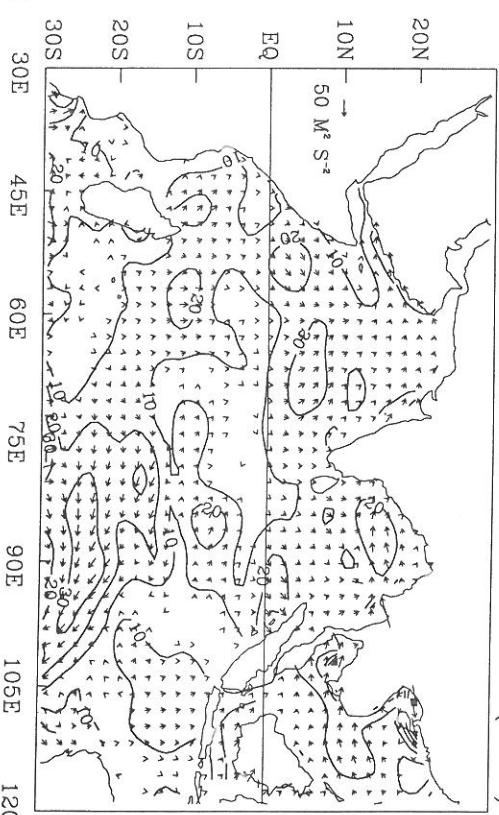
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



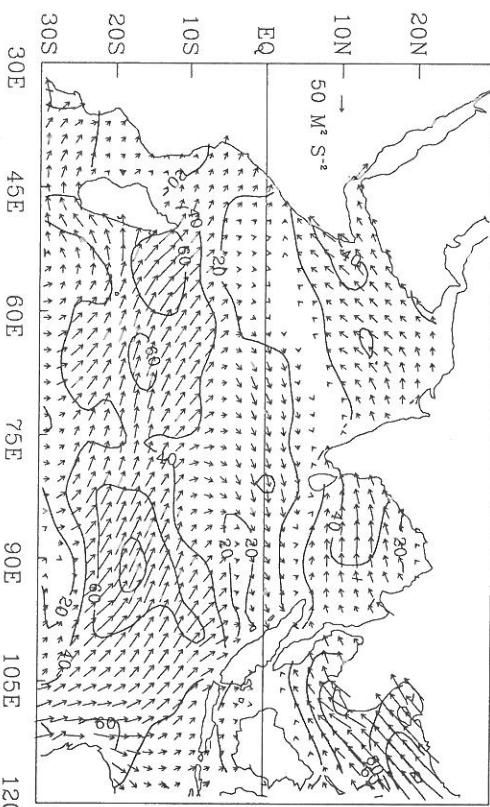
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



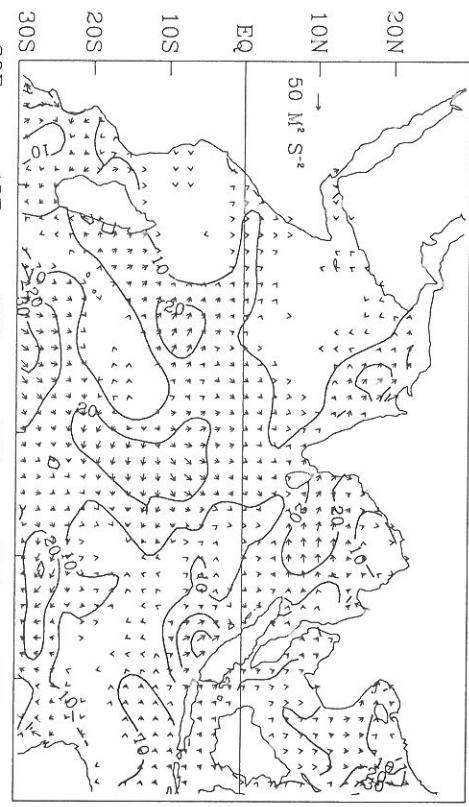
October 1993

November 1993

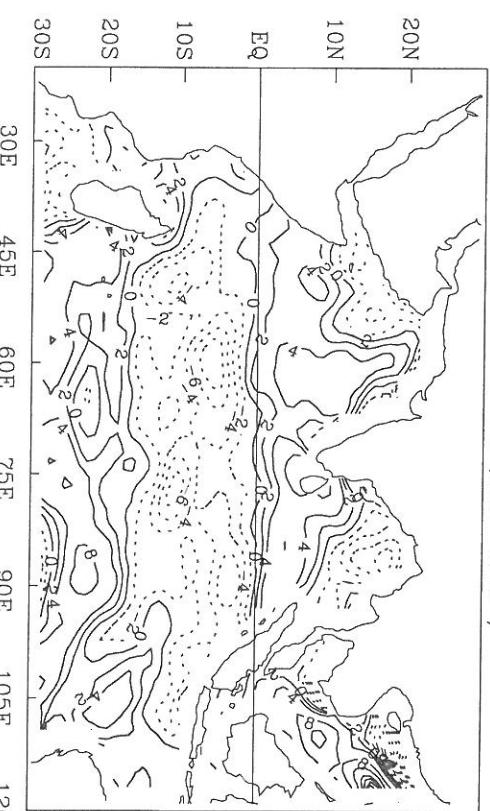
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



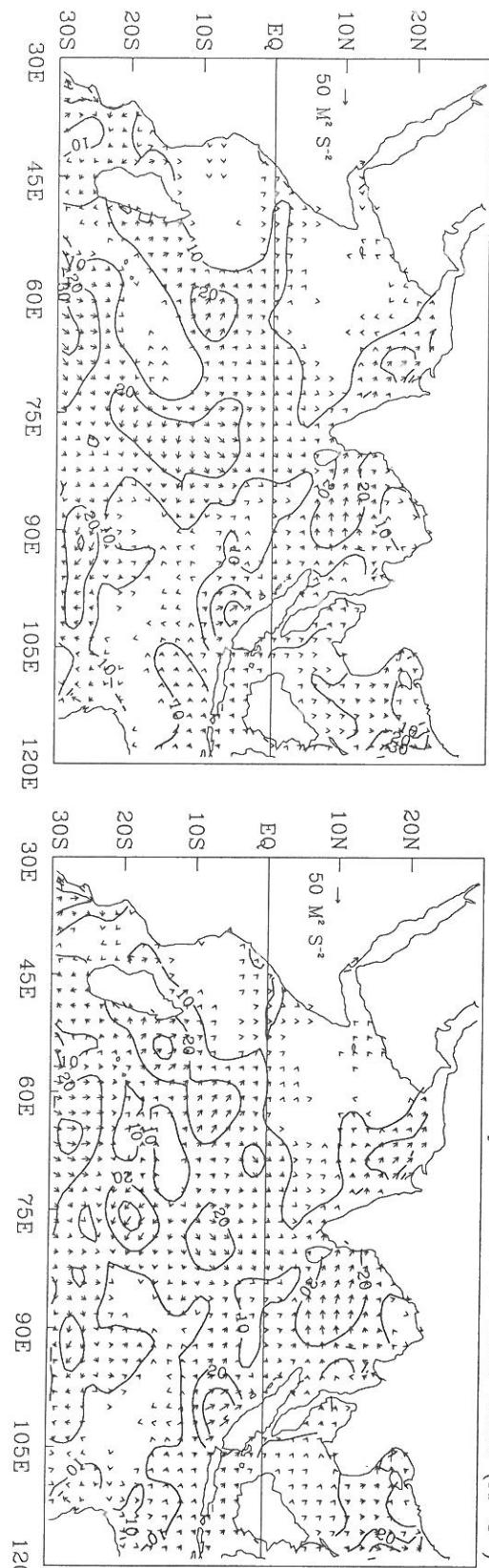
Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



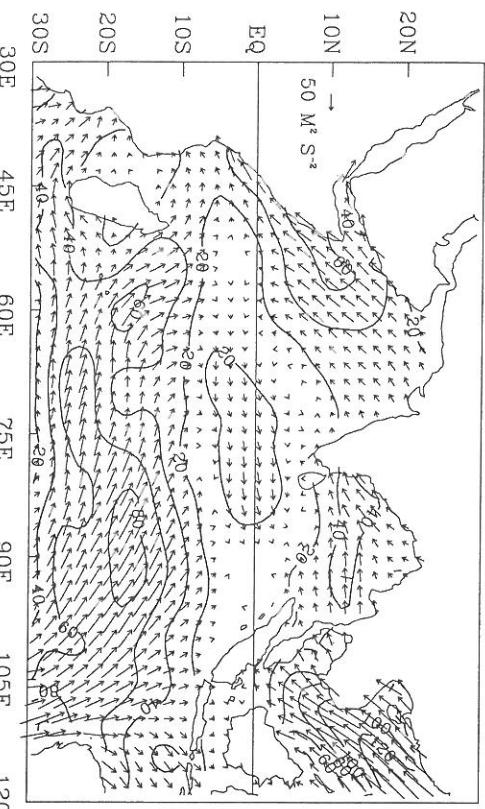
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



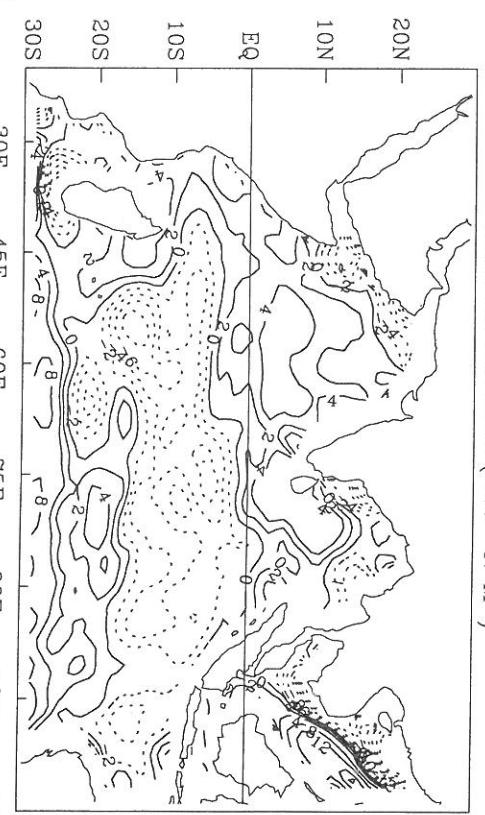
November 1993

December 1993

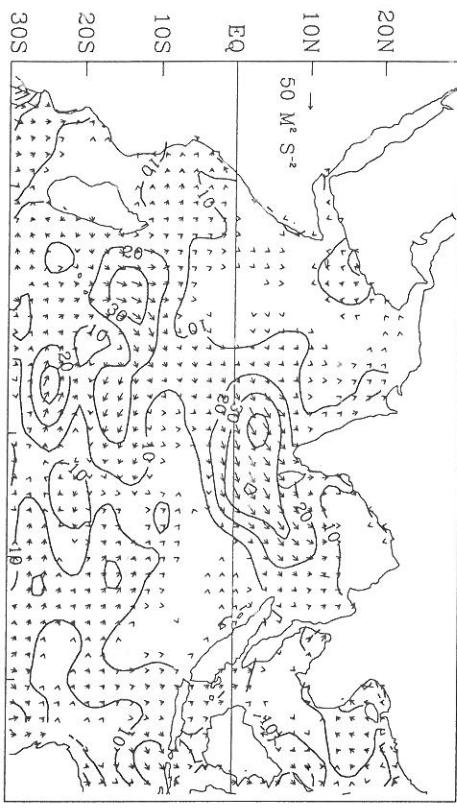
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



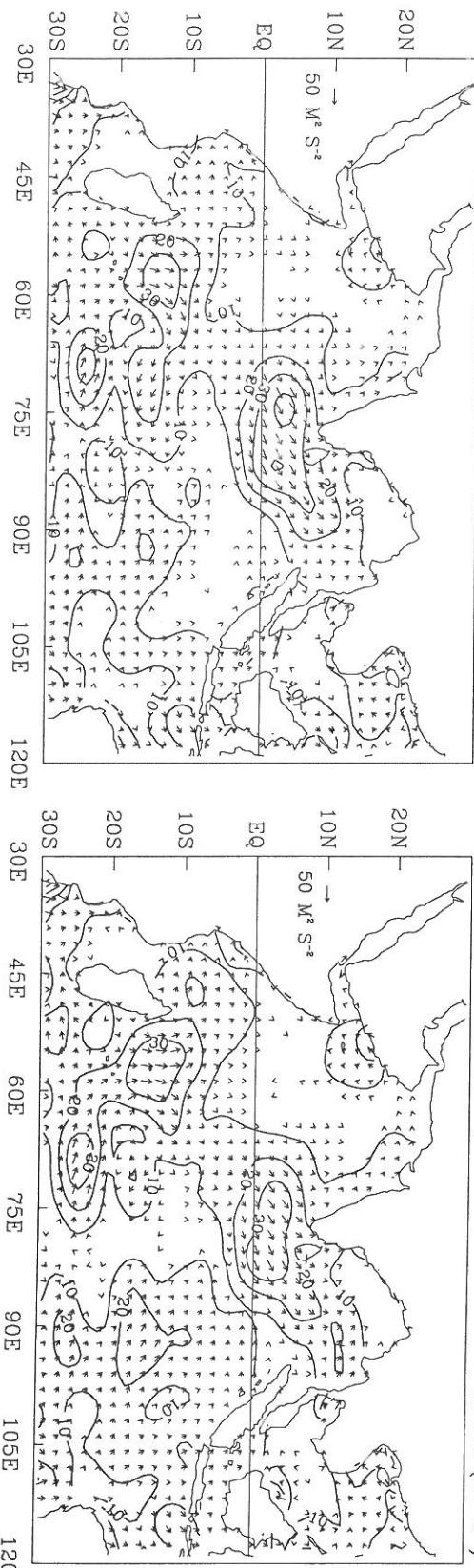
Wind Stress Curl ( $\times 10^{-9} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



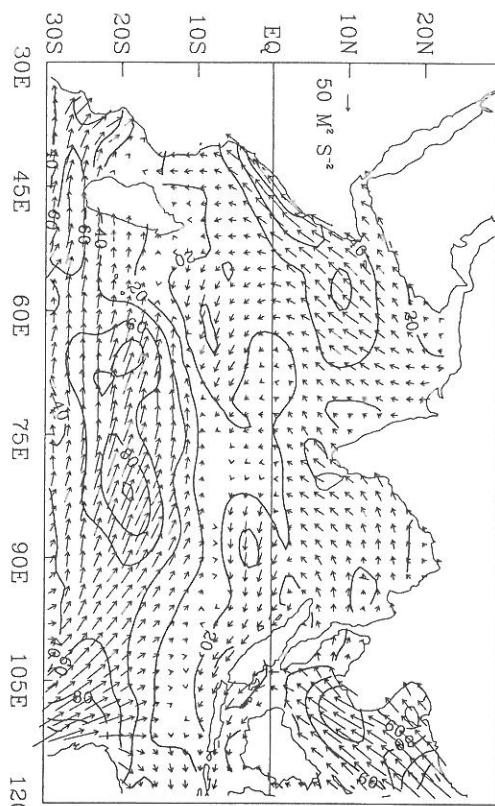
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



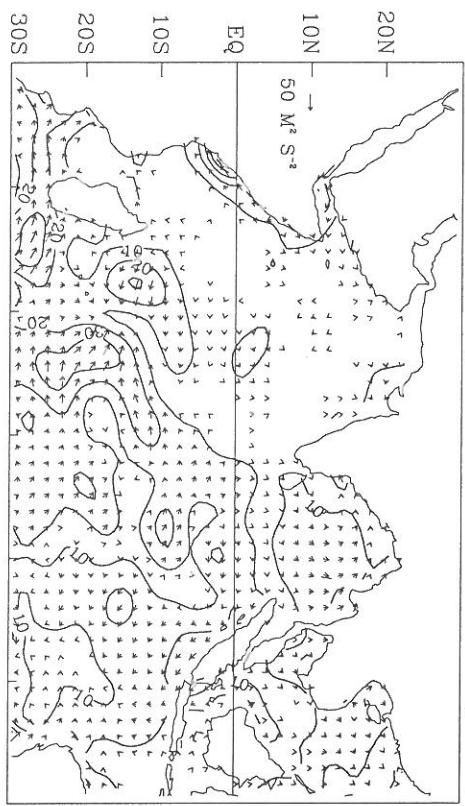
December 1993

January 1994

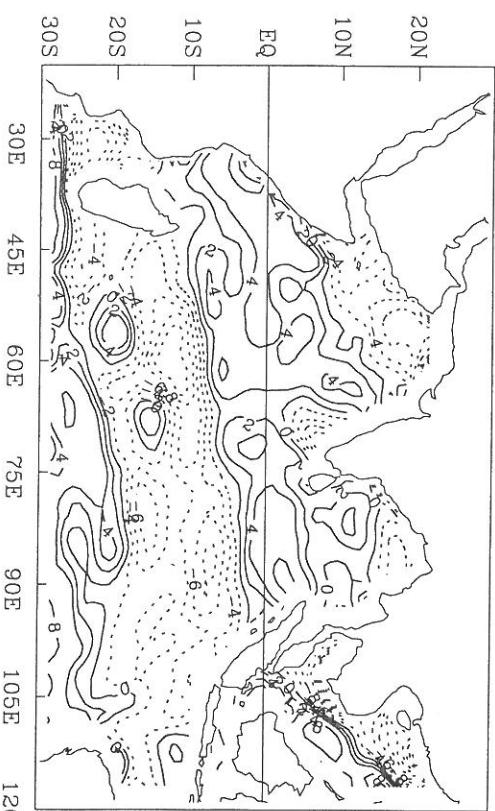
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



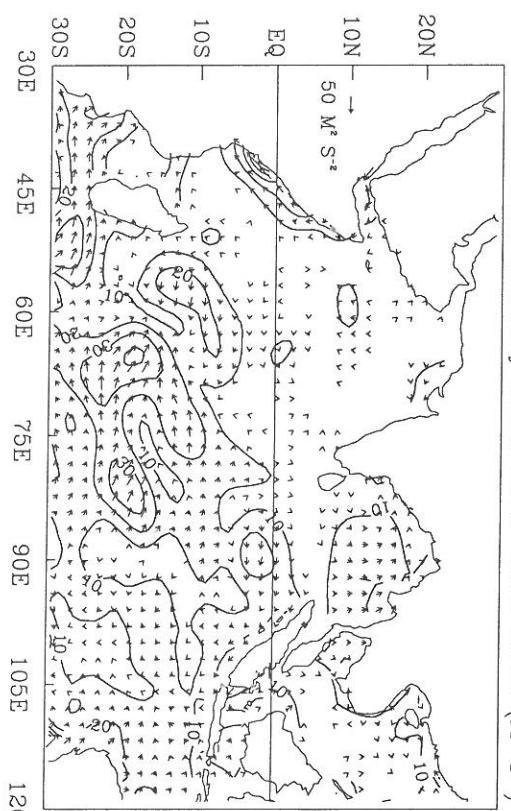
Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



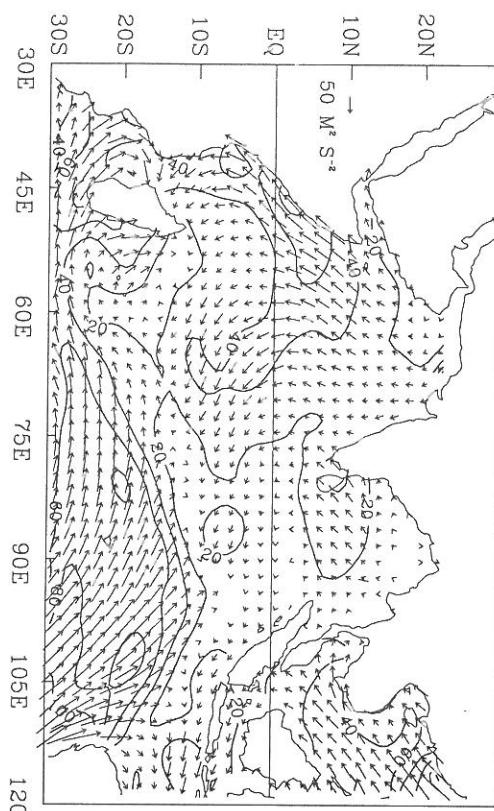
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



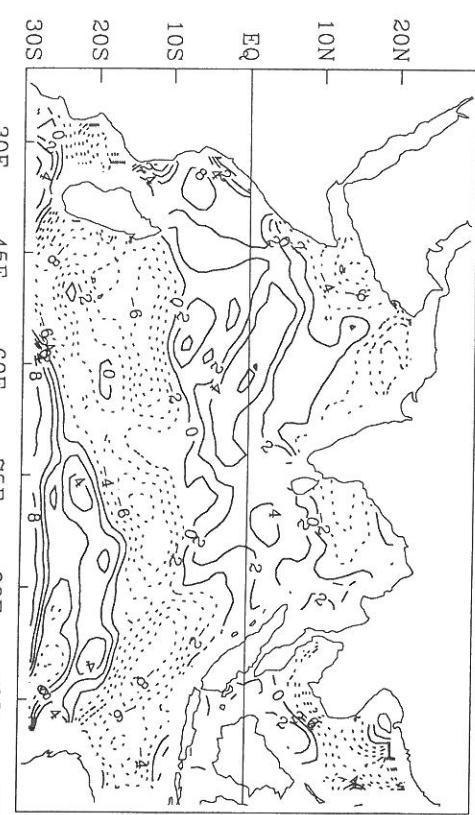
January 1994

February 1994

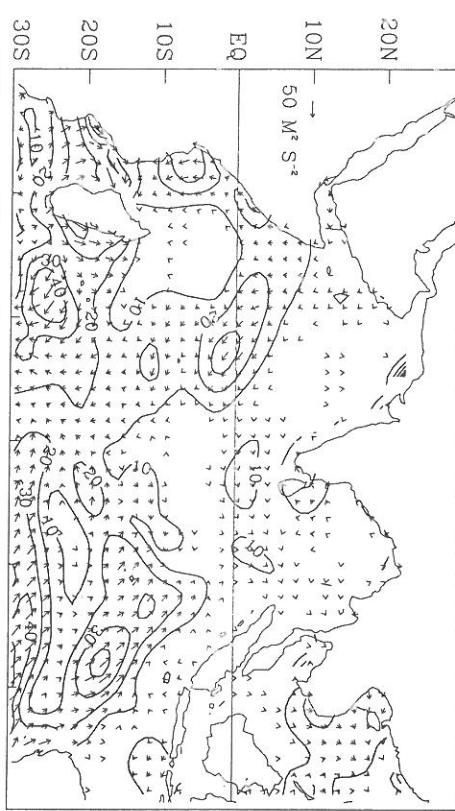
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



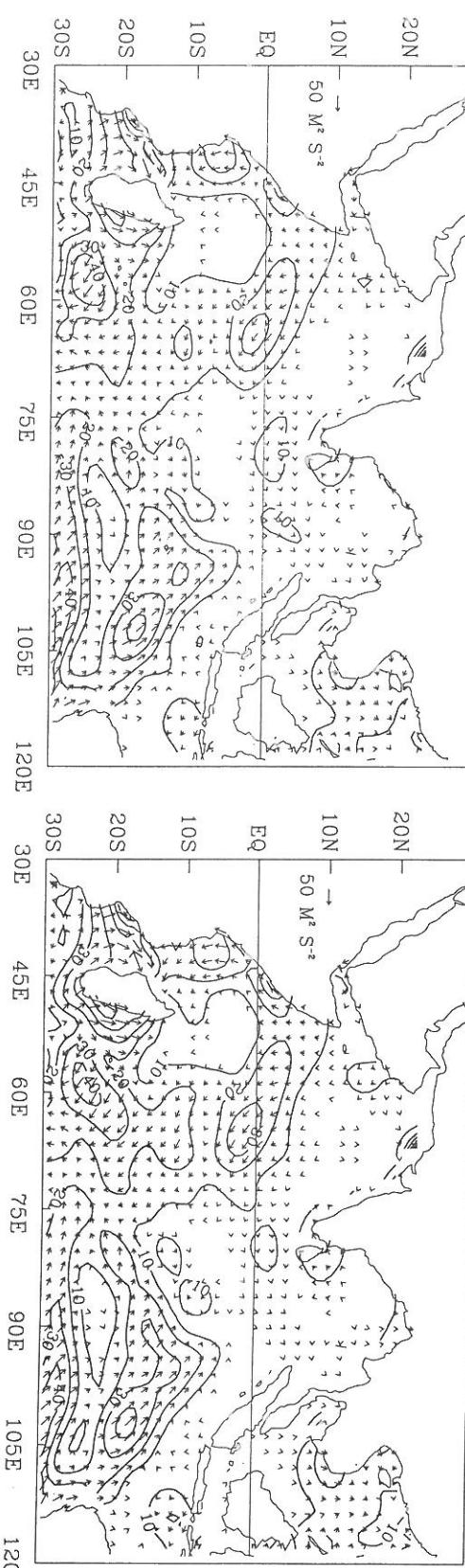
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



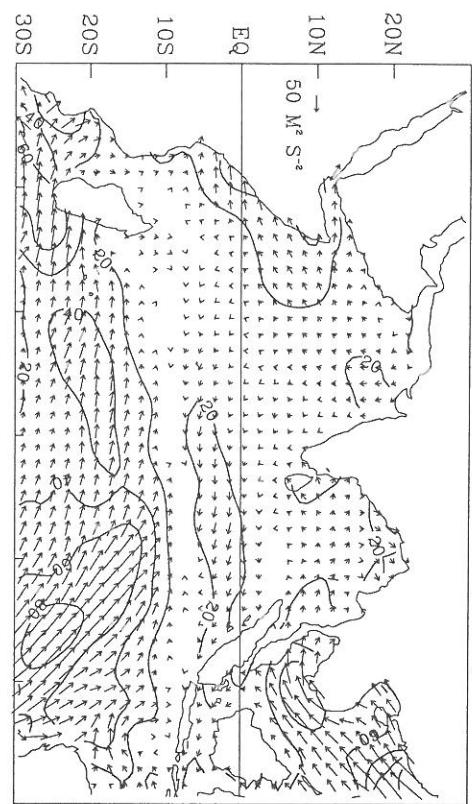
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



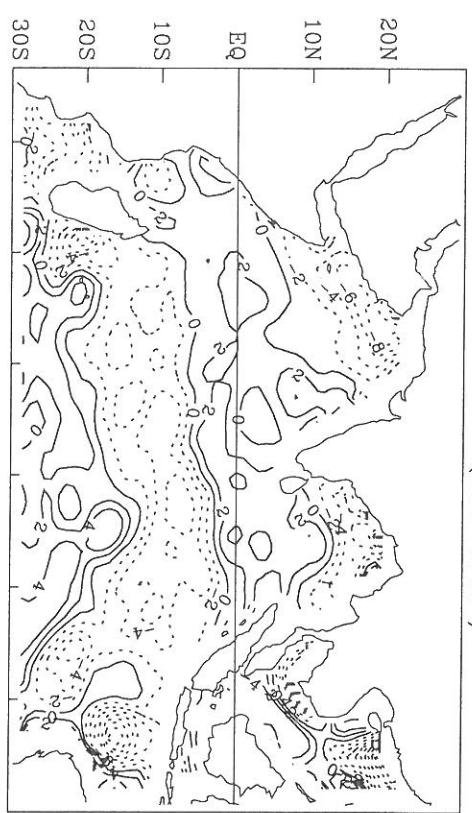
February 1994

March 1994

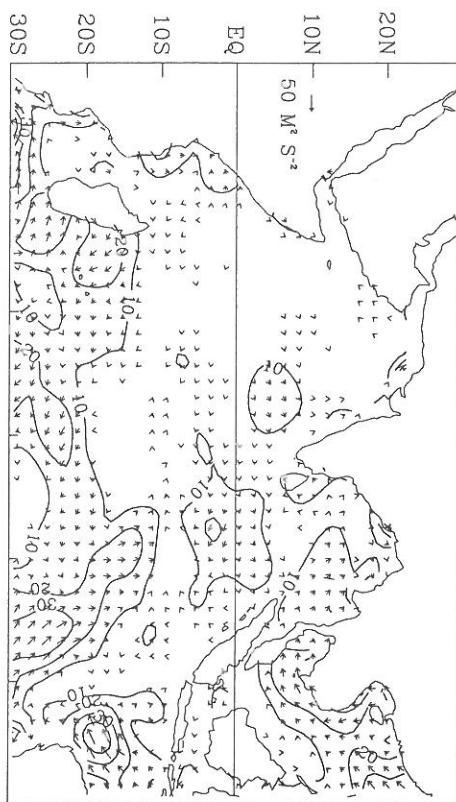
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



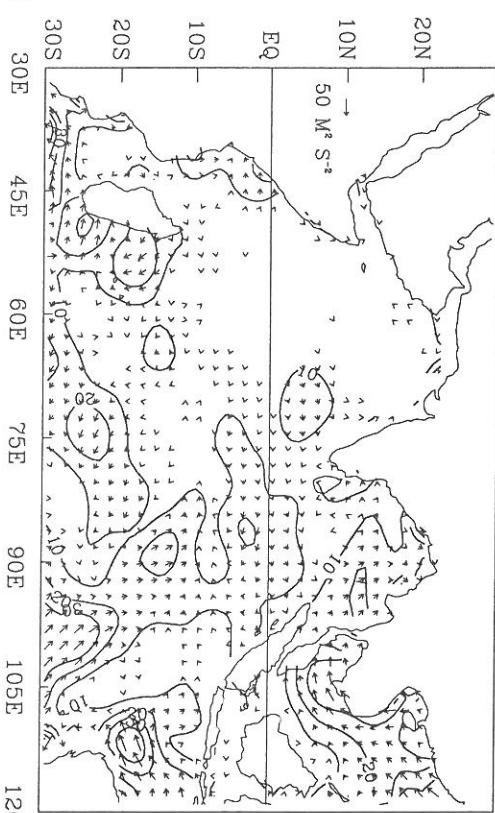
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



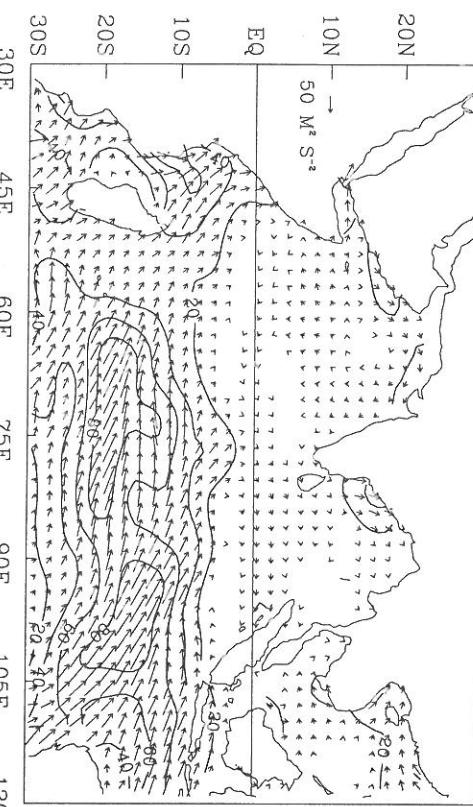
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



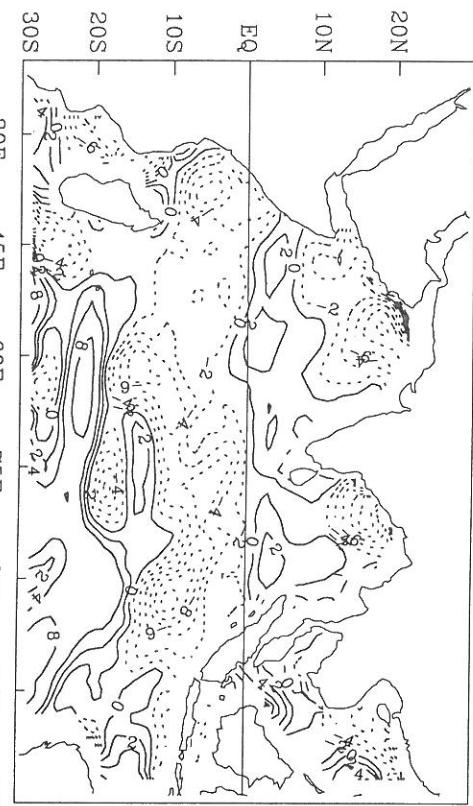
March 1994

April 1994

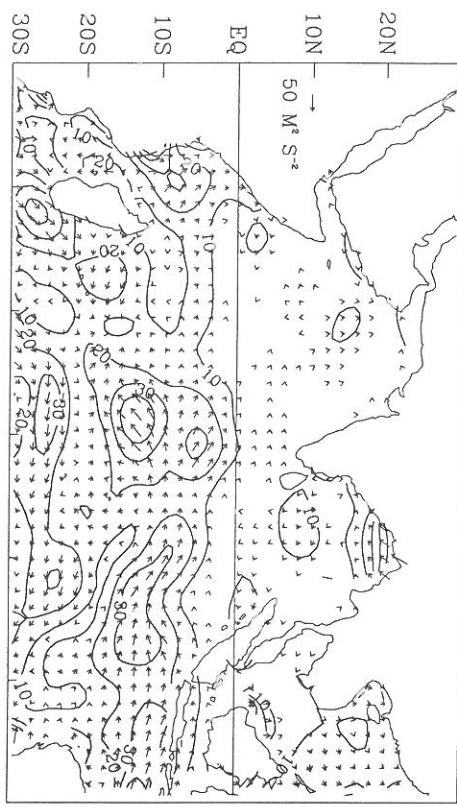
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



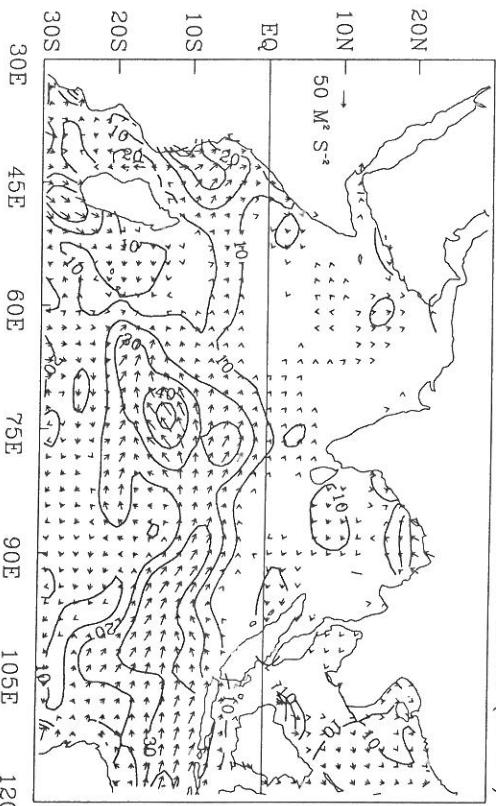
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



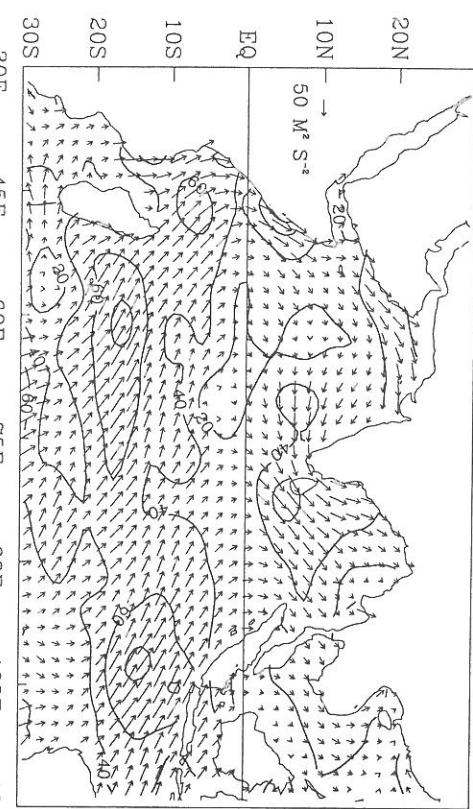
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



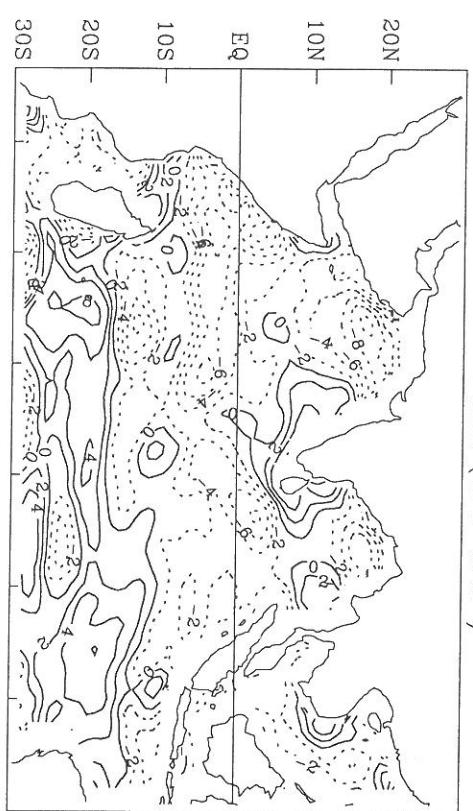
April 1994

May 1994

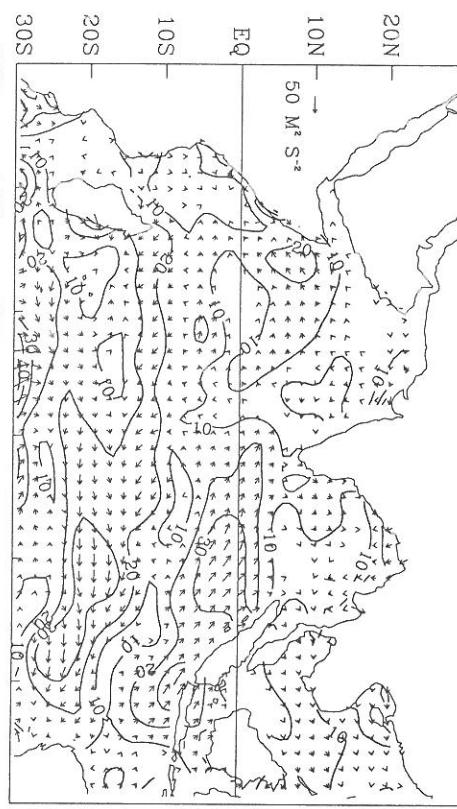
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



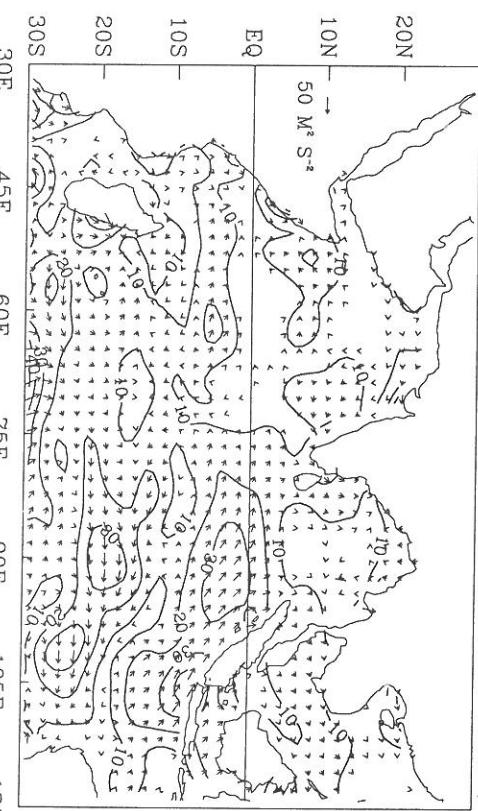
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



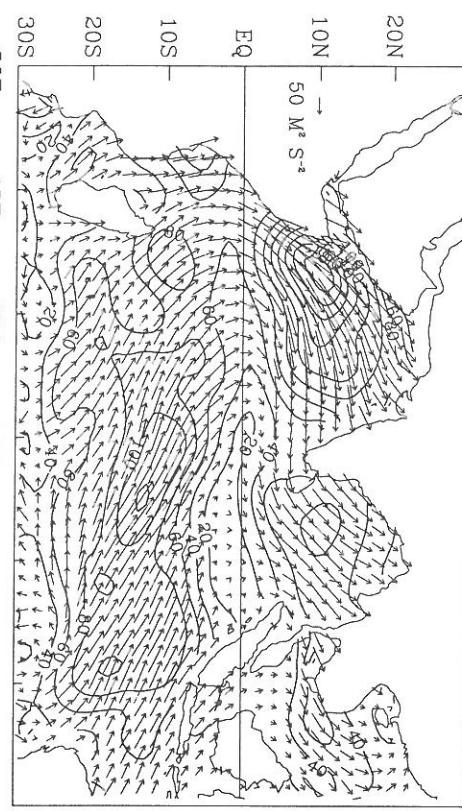
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



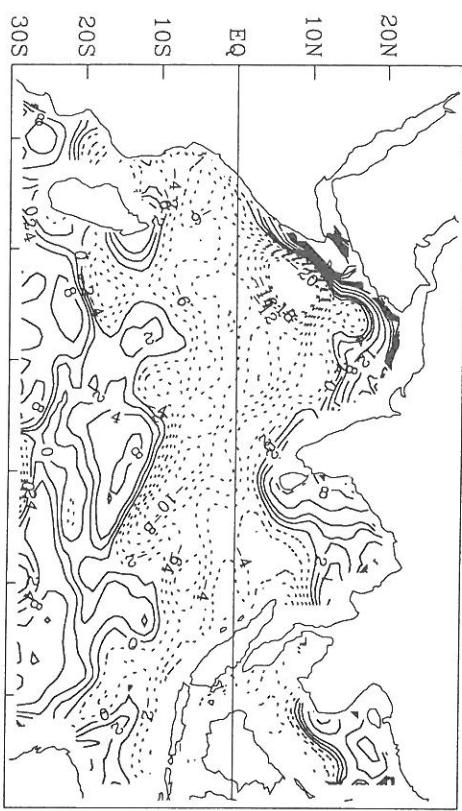
May 1994

June 1994

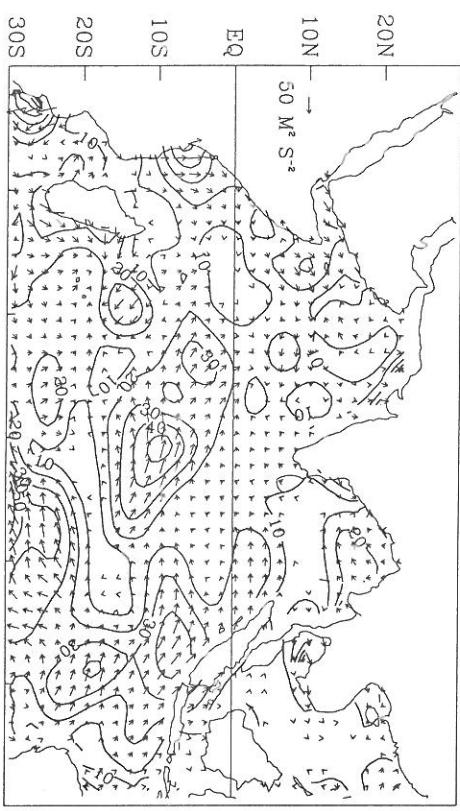
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



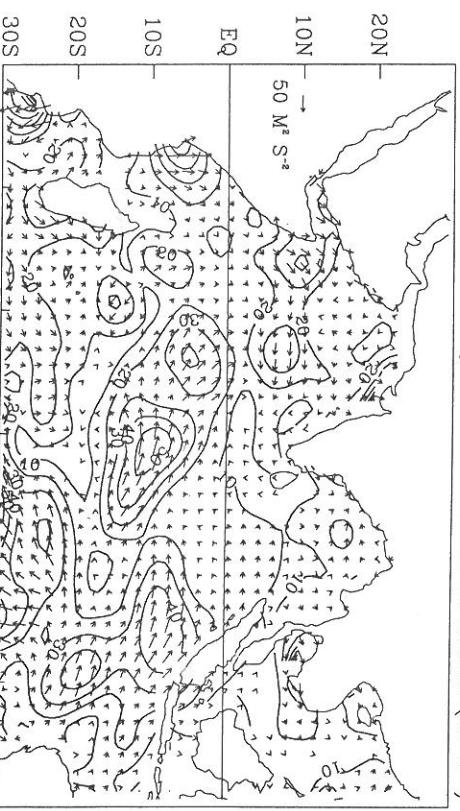
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



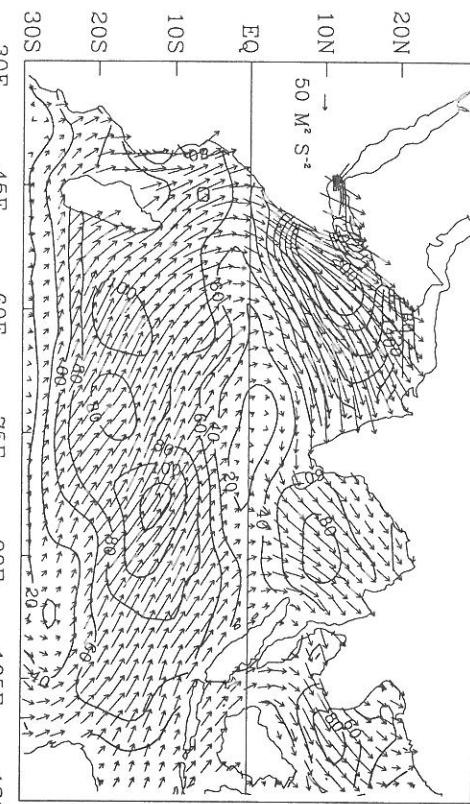
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



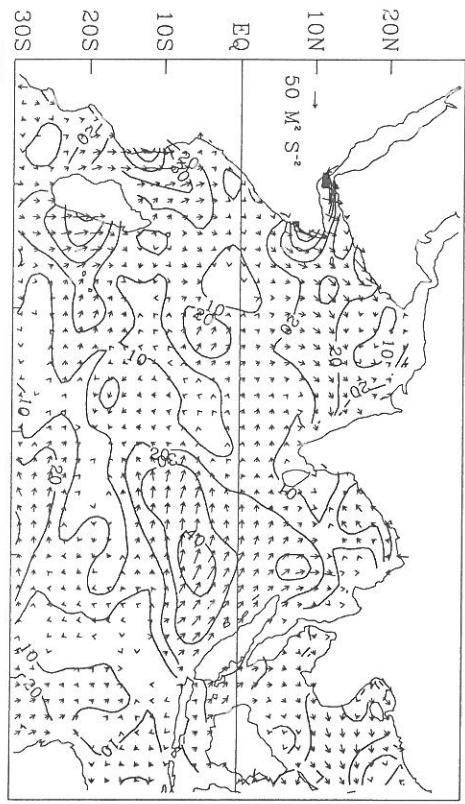
June 1994

July 1994

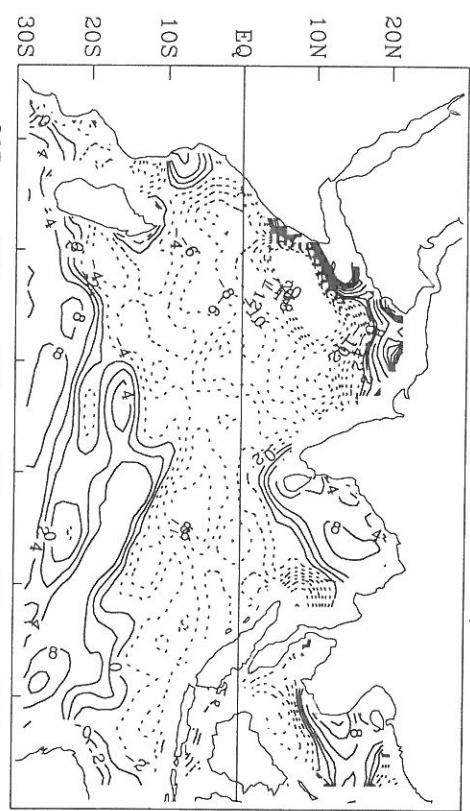
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



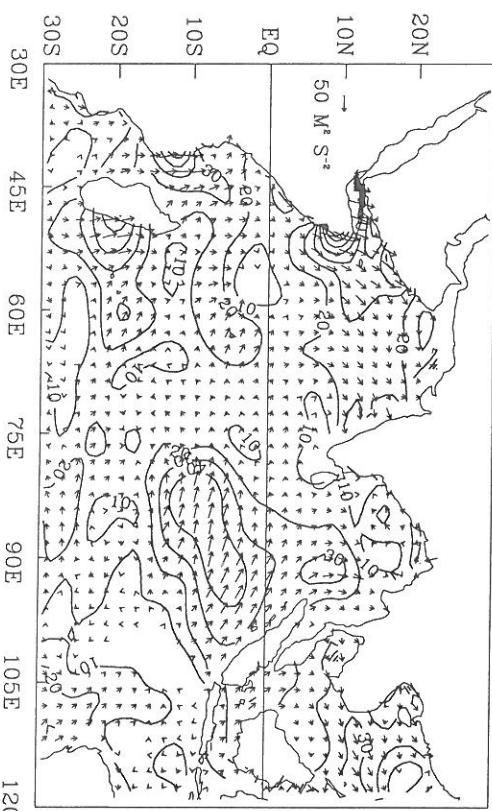
Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



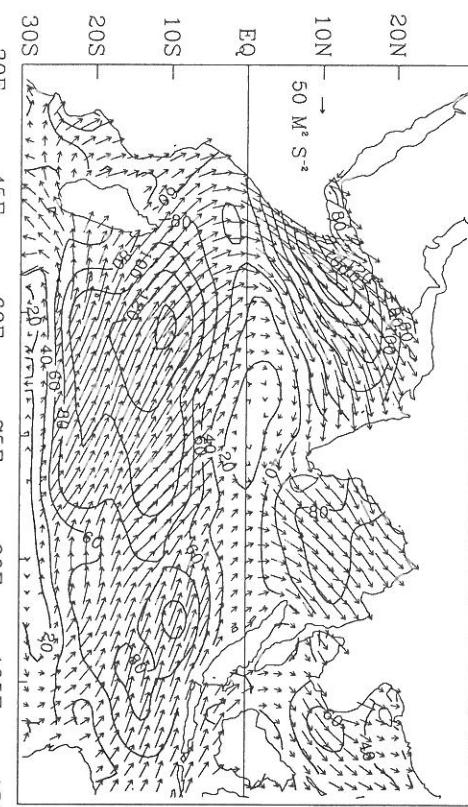
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



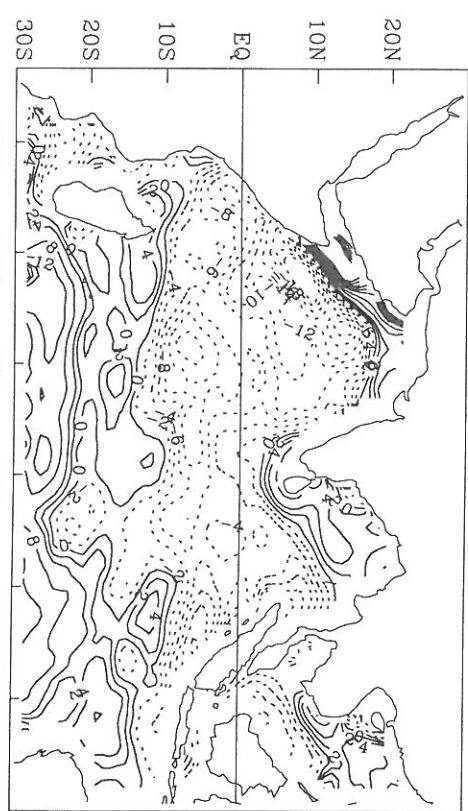
July 1994

August 1994

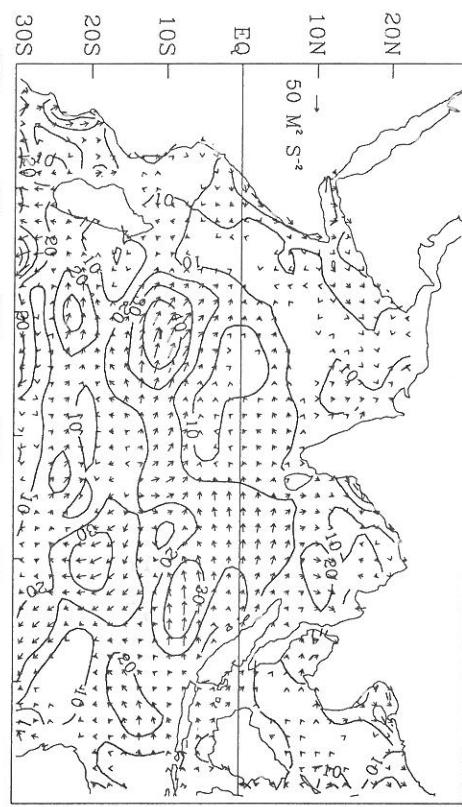
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



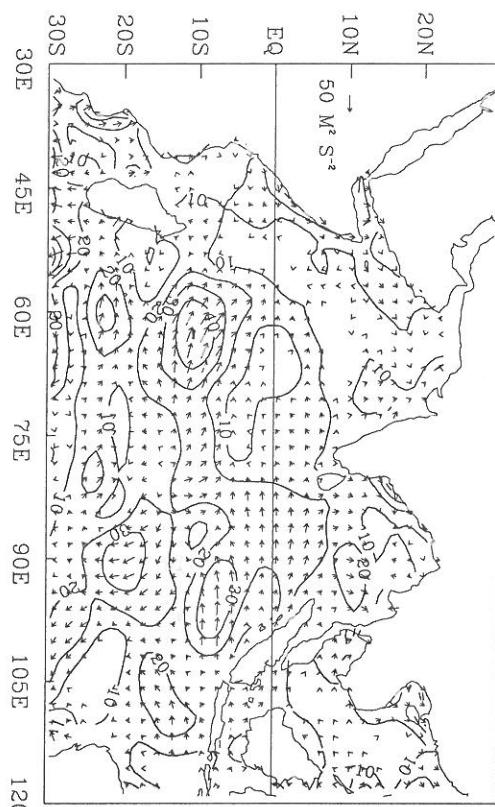
Wind Stress Curl ( $\times 10^{-8} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



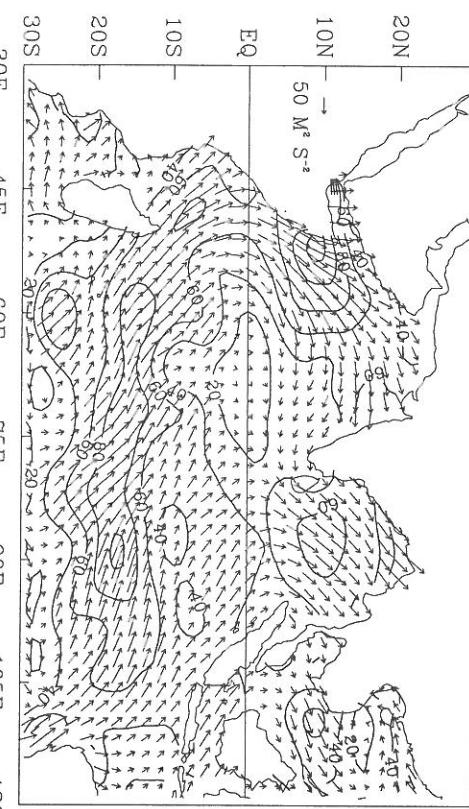
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



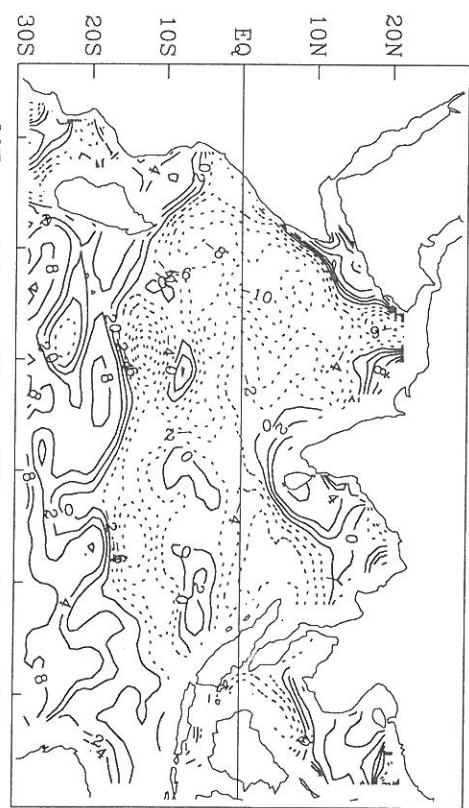
August 1994

September 1994

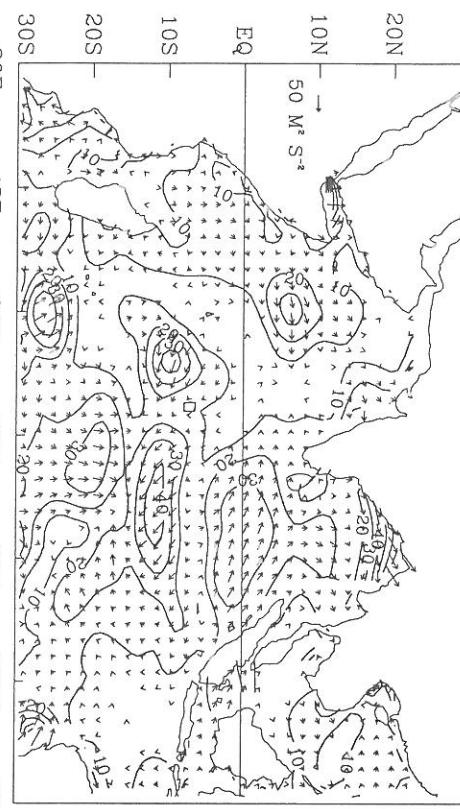
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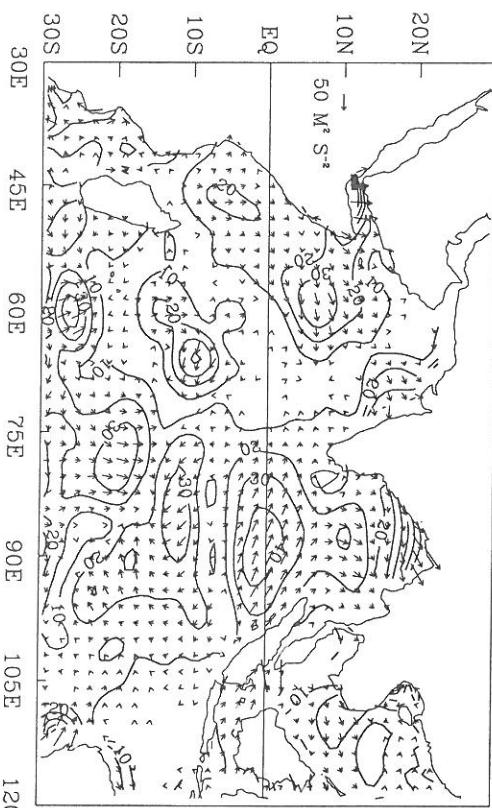
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Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



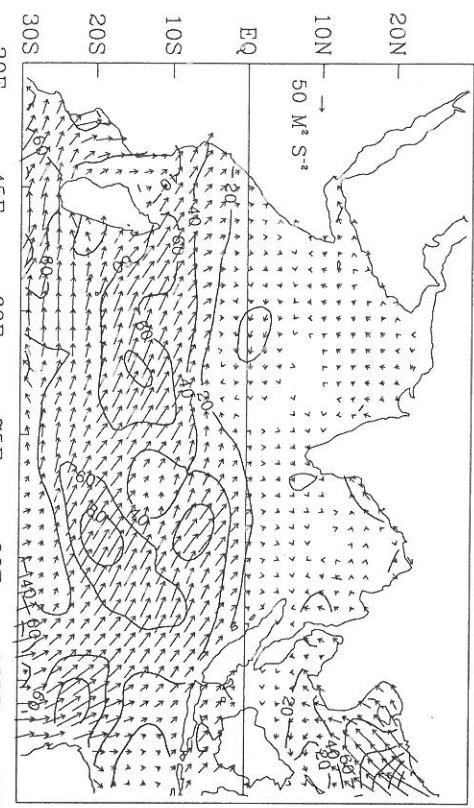
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



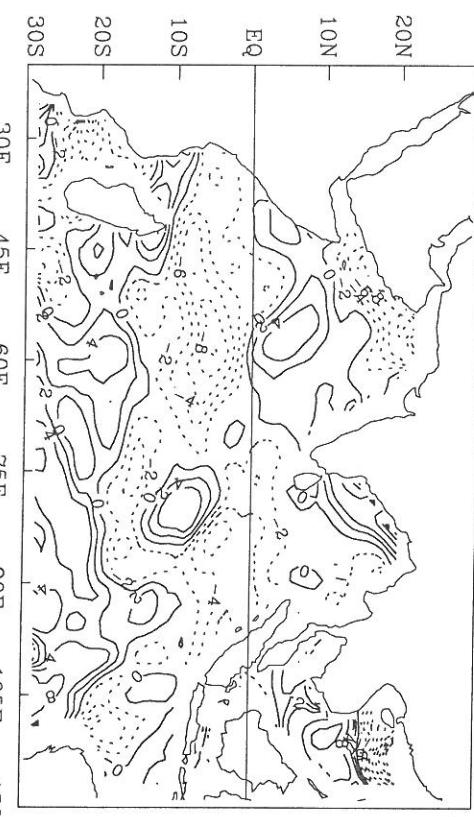
September 1994

October 1994

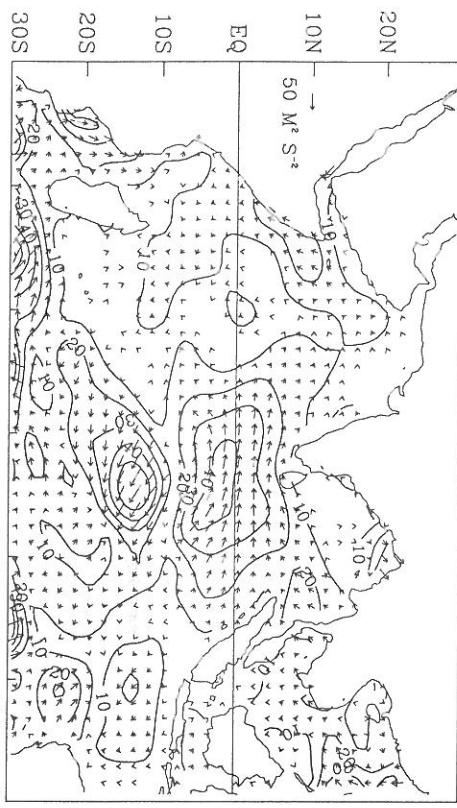
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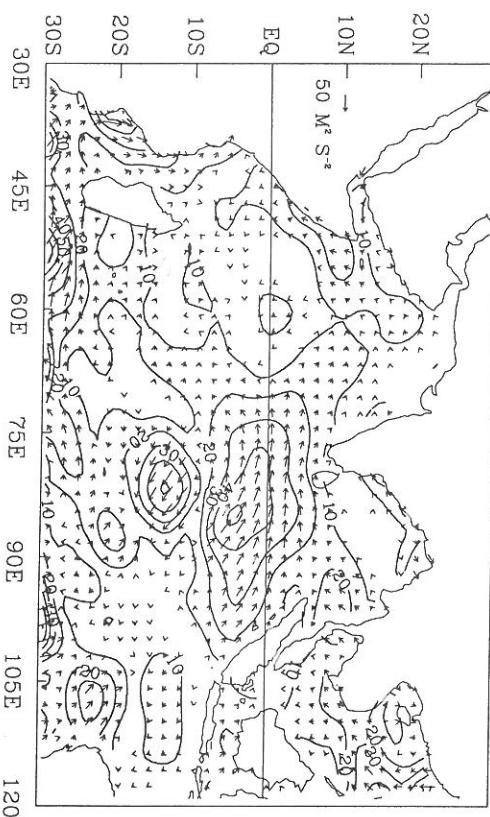
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



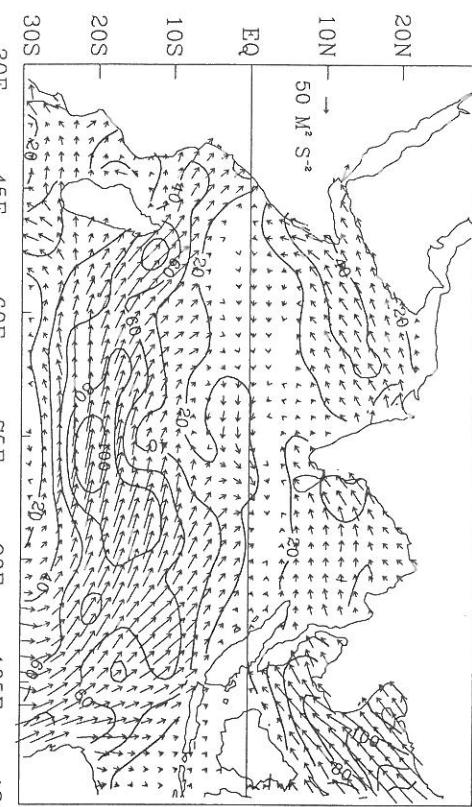
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



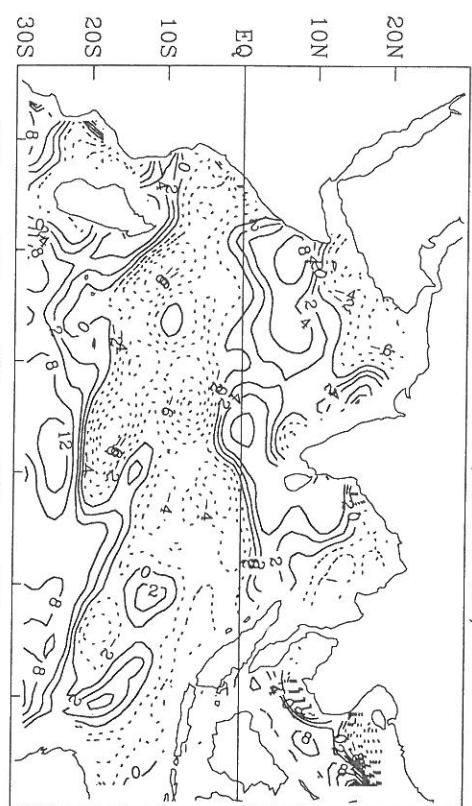
October 1994

November 1994

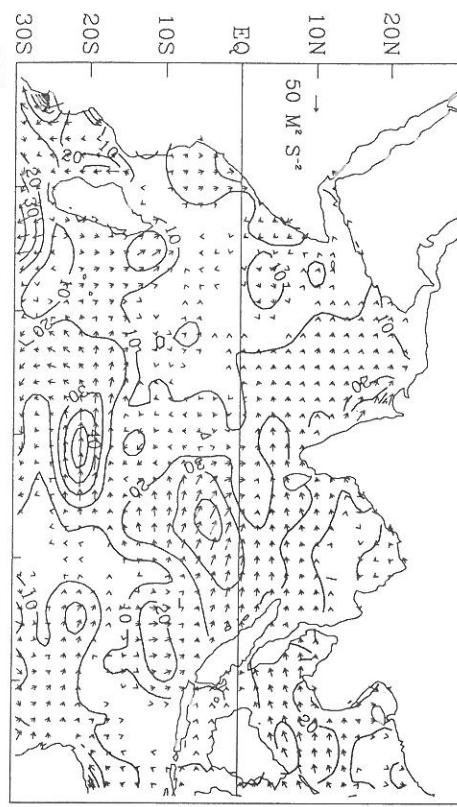
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



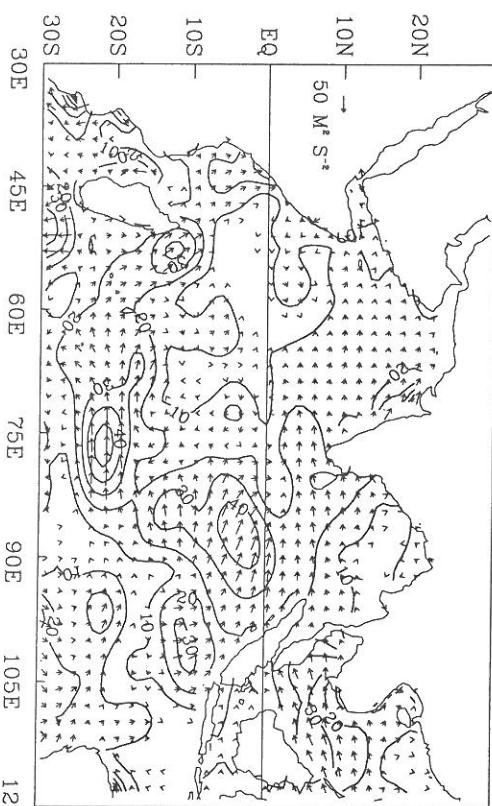
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



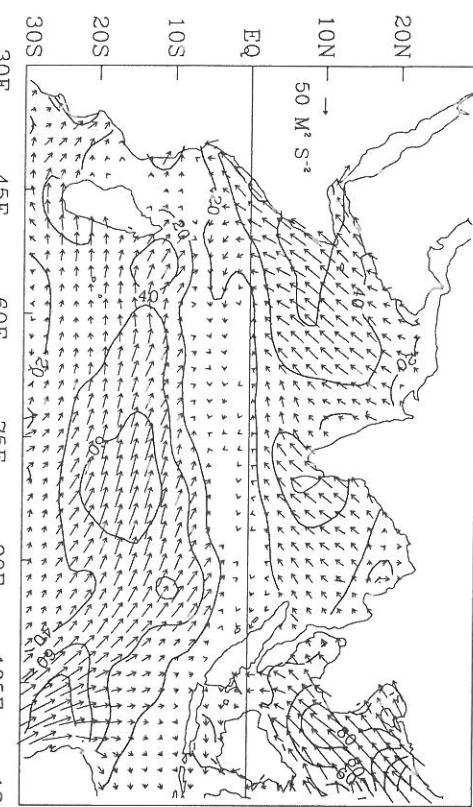
Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



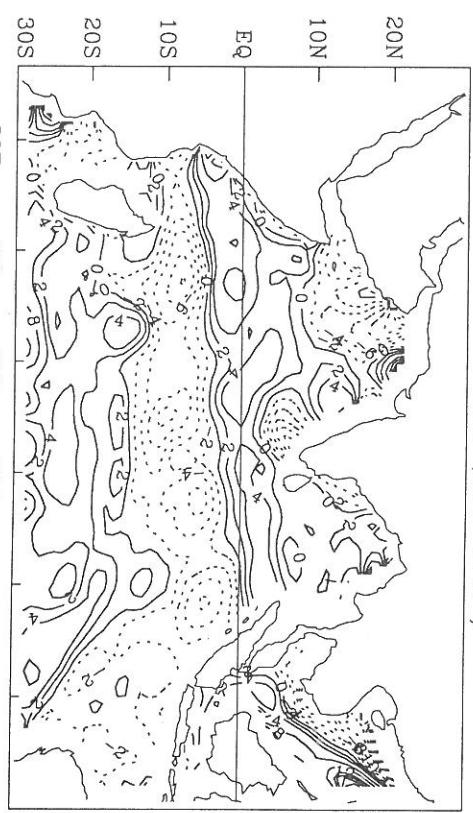
November 1994

December 1994

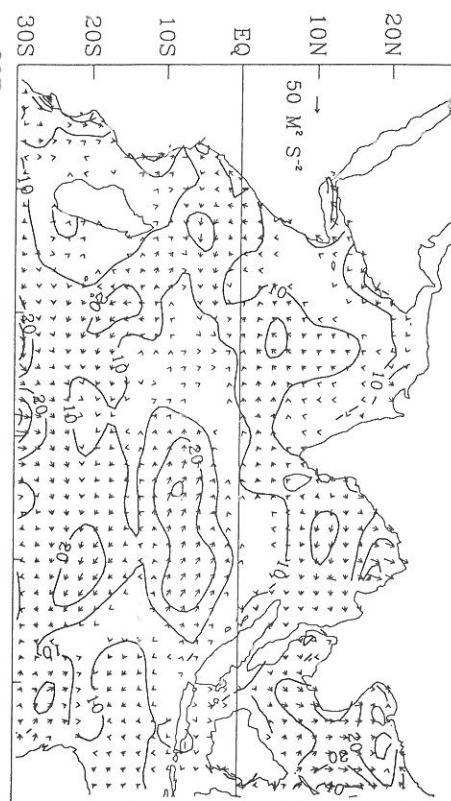
Monthly Mean Pseudo-stress ( $M^2 S^{-2}$ )



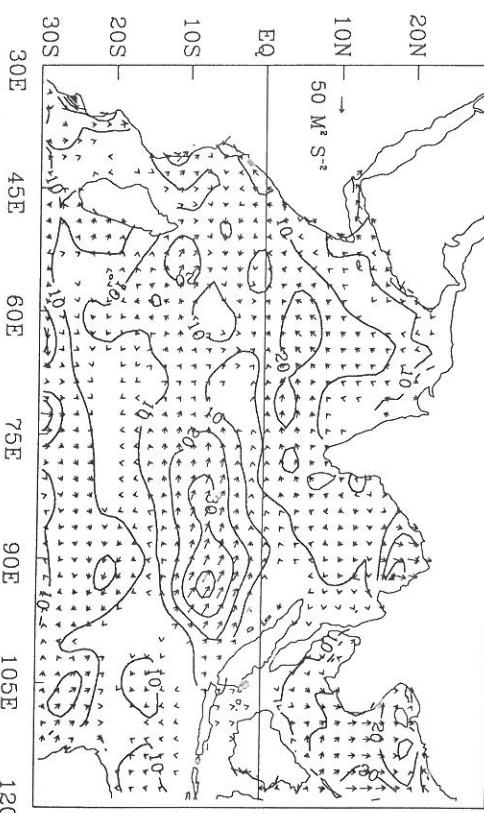
Wind Stress Curl ( $\times 10^{-6} N M^{-3}$ )



Pseudo-stress Anomaly from 1985–1994 Mean ( $M^2 S^{-2}$ )



Pseudo-stress Anomaly from 1970–1995 Mean ( $M^2 S^{-2}$ )



December 1994