

(1)

(Arctic Oscillation)

El Nino/Southern Oscillation(ENSO) 가

1990 ENSO

Thompson and Wallace (1998)

(North Atlantic Oscillation) (Arctic Oscillation, AO)

zonal circulation

zonal circulation

60 N

polar vortex가

가 (Thomson and Wallace, 2000). , storm track

가 (Hurrel, 1995).

1900 가

(Hurrel, 1995; Thompson and Wallace, 1998).

가

50-60

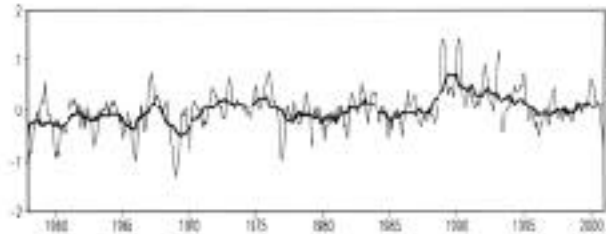
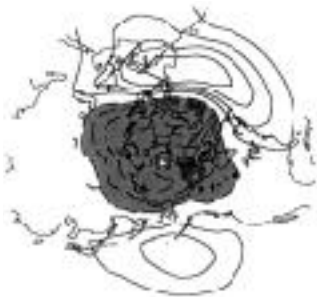


Fig 1.

(NCEP/NCAR, 1958 ~ 2000)

Holton, 2002).
(Eichelberger and

coupling

가

가

가

(Baldwin and Dunker-

ton, 2001).

가

가

(Gong et al., 2001; Gong and Ho, 2002a;
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