

Variability of surface air temperature and atmospheric circulation indices with height over the Asian territory of Russia

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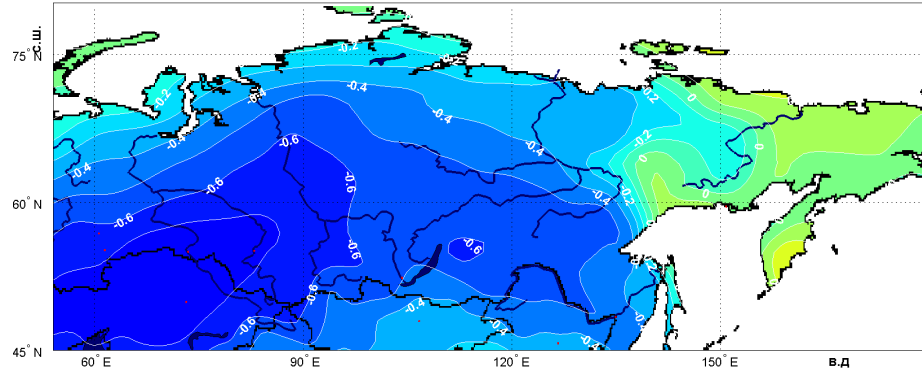
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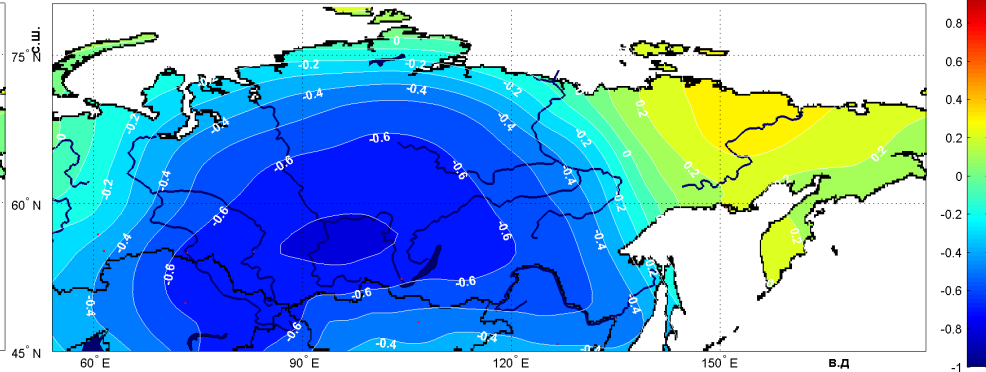
Teleconnection indices:

- **SCAND** - Scandinavian Pattern (describes variability of geopotential H700 height anomalies over Scandinavia, north Mongolia and southwest Europe)
- **SOI** - South Oscillation Index
- **NAO** - North Atlantic Oscillation
- **AO** - Arctic Oscillation

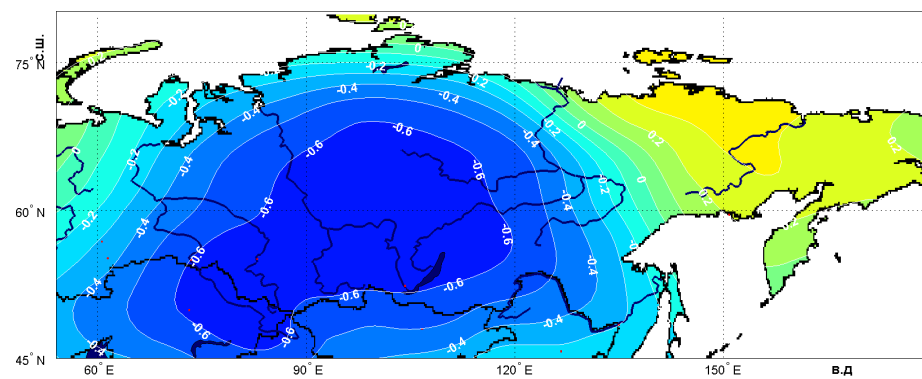
1000 hPa



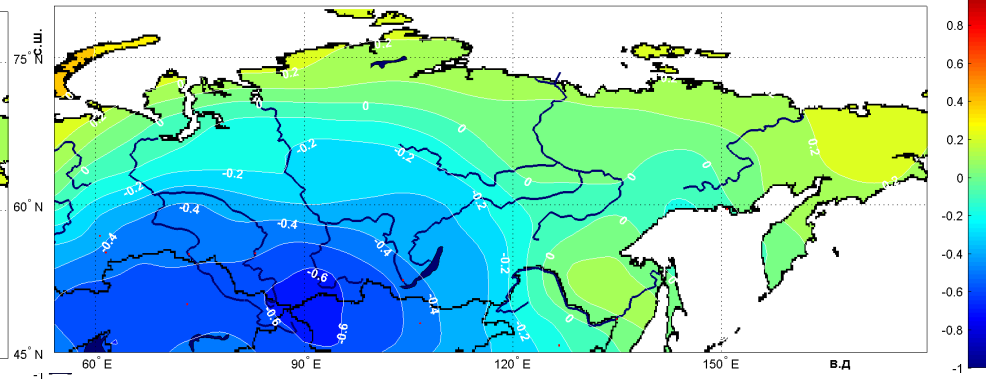
700 hPa



500 hPa



300 hPa

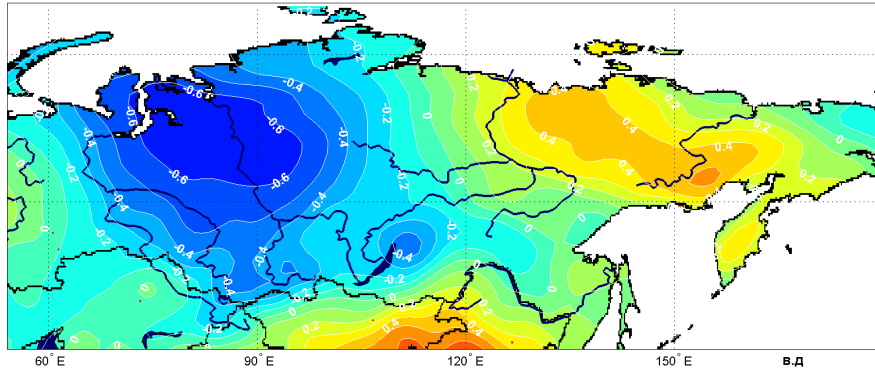


January

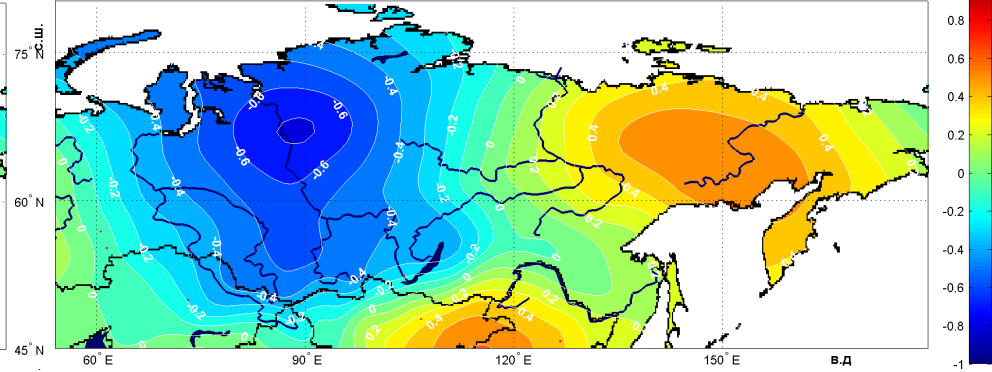
Correlations between surface temperature and SCAND index

Calculated by JRA-25 for the period of 1979-2008

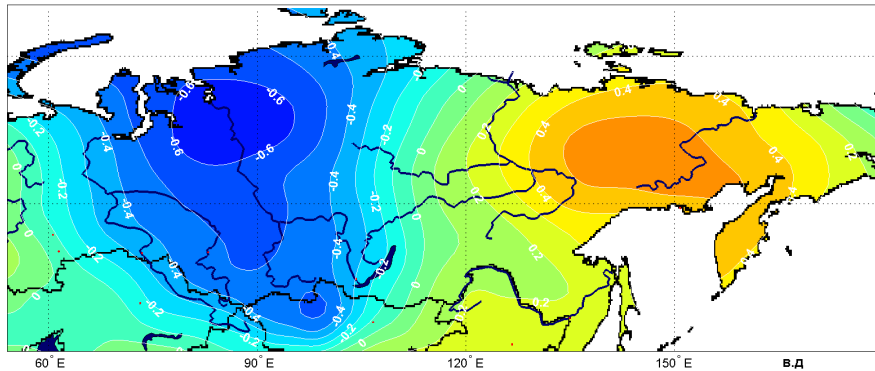
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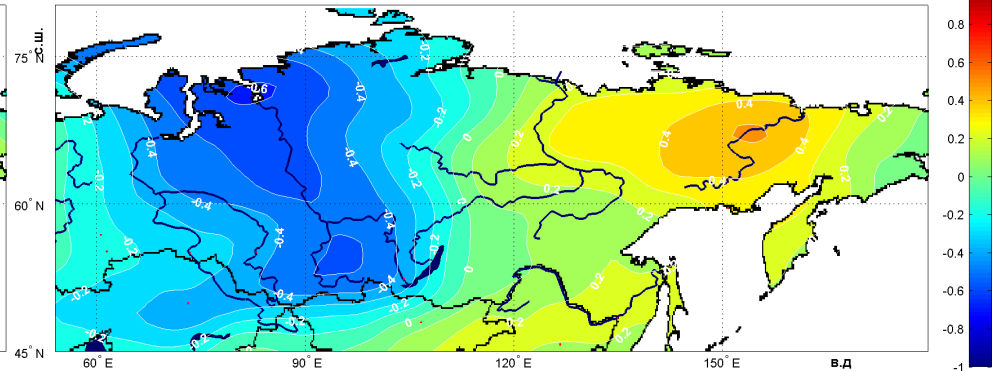
700 hPa



500 hPa



300 hPa



July

Correlations between surface temperature and SCAND index

Calculated by JRA-25 for the period of 1979-2008

Annual variability of relationship between surface temperature and global circulation indices

$$\delta T = \beta_1 \delta SCAND + \beta_2 \delta NAO + \beta_3 \delta SOI + \beta_4 \delta AO$$

Height, hPa	Jan	Febr	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
1000	0,47	0,41	0,37	0,53	0,03	0,33	0,35	0,50	0,52	0,65	0,28	0,53	0,41
700	0,36	0,31	0,61	0,50	0,18	0,45	0,24	0,52	0,62	0,50	0,28	0,42	0,42
500	0,29	0,19	0,52	0,43	0,20	0,47	0,23	0,49	0,54	0,53	0,37	0,33	0,38
300	0,31	0,18	0,00	0,23	0,16	0,05	0,32	0,38	0,42	0,30	0,31	0,14	0,23

Thank you for attention!