The relation between the increasing of the temperature and a large-scale atmospheric circulation in spring over Siberia

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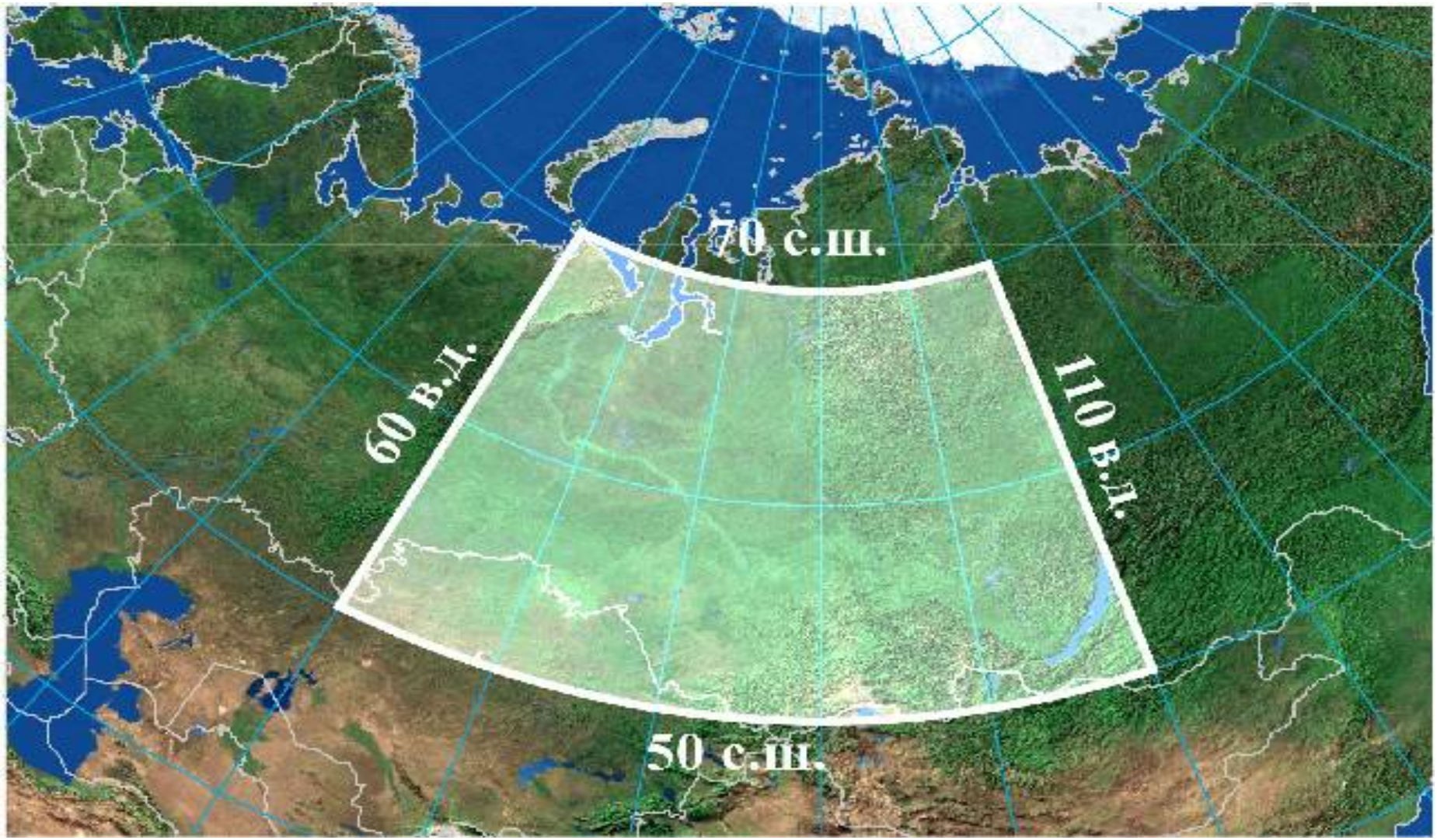
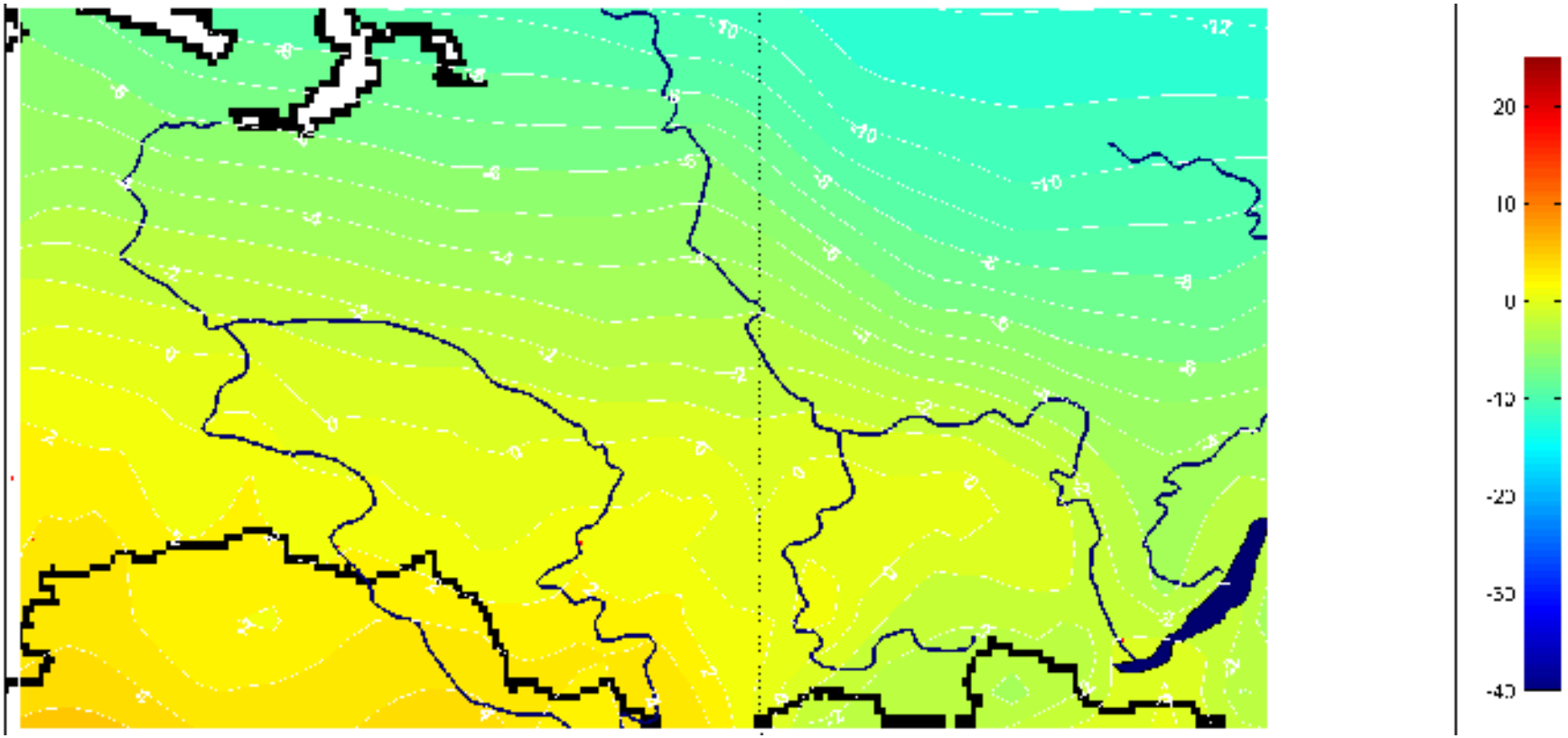
The territory of the study



It was found that the over annual air temperature in the studying area varies from -4,9º C in 1998 to -0,6º C in 1995, the average median value of -2,7º C. The air pressure at the surface varies from 1010 hPa to 1025 hPa with an average value of the territory of 1016,7 hPa.



The value of the average trend in the territory of 0,36º C/10 years, therefore, on average, for the 1976-2006 surface air temperature has increased by 1,1ºC

Intra-field characteristics of air temperature (ºC) and pressure (hPa) over Siberia in 1976-2006 years

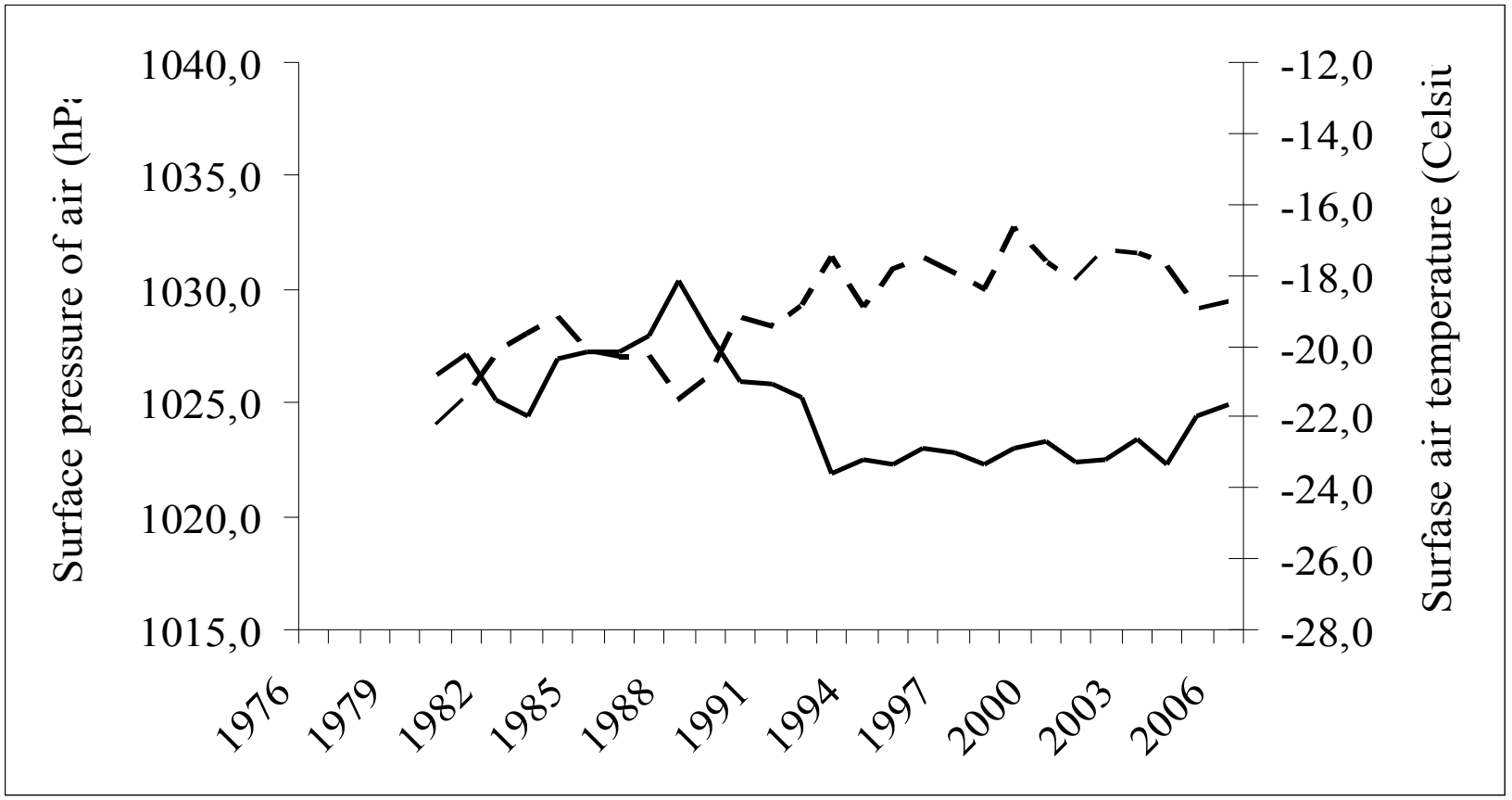
Months	The temperature characteristics of air				The pressure characteristics of air			
January	-22,23	5,86	0,19	0,53	1024,6	7,00	-0,46	0,29
February	-19,71	5,30	**0,83**	0,50	1024,1	5,61	-0,82	0,42
March	-10,79	4,94	**0,77**	0,34	1021,2	3,97	-0,88	0,73
April	-1,83	5,28	-0,01	0,41	1016,3	2,50	-0,34	0,47
May	6,64	4,66	**0,73**	0,27	1012,9	1,94	-0,01	0,56
June	14,23	3,13	0,30	0,25	1008,9	1,22	-0,53	0,19
July	17,52	1,99	0,29	0,30	1007,6	1,57	0,12	0,24
August	14,09	0,91	0,21	0,28	1009,8	1,54	0,17	0,26
September	6,94	2,17	0,01	0,16	1014,3	2,68	-0,11	0,44
October	-1,68	3,64	**0,60**	0,30	1016,5	4,83	0,02	0,76
November	-12,47	5,40	-0,26	0,51	1020,9	5,29	0,80	0,94
December	-19,38	5,64	0,04	0,32	1022,2	7,15	0,80	0,73
Year	-2,70	4,07	0,36	0,18	1016,7	3,40	-0,18	0,16

In the second column of the table are averaged over the area and throughout the time interval of temperatures for each month of the year, and in the third column - the corresponding dispersion. The fourth and fifth columns give the values defined in this way the linear trends of temperature and of their ariances. The same parameters are given for the pressure.

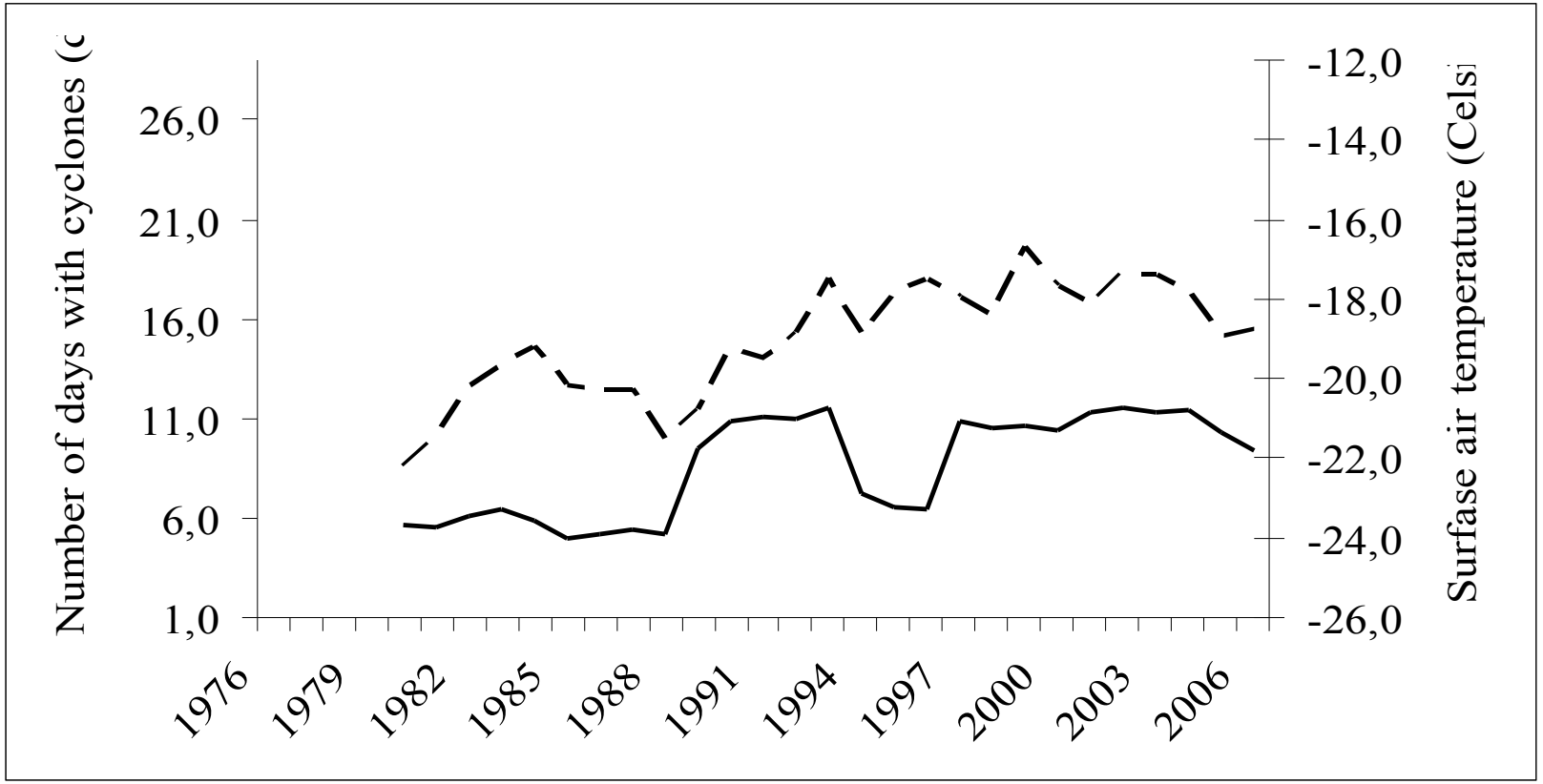
The average number of days with cyclonic and anticyclonic weather and the number of pressure systems over Siberia in 1976-2006 years

Types of cyclones and anticyclones	Average number of days from the cyclones and anticyclones over the study area (days)		Number of cyclones and anticyclones	
	February	March	February	March
Western Zn moving along 60-65 º N	7,3	5,3	6	13
Western Zn	5,5	6,3	17	15
South-west Zn	5,4	3,7	10	10
Northern Zn	8,2	6,4	22	25
Southern Zn	2,6	3,8	10	12
Local Zn	3,4	2,4	16	15
North-west Zn	7,7	7,7	35	39
Southeast Az	10,9	10,0	31	13
Northern Az	7,9	8,1	11	15
North-west Az	13,3	11,5	8	10
Western Az	11,2	8,3	18	25
South-west Az	5,3	8,2	18	12

Moving averages (5 years) of pressure on the territory in February (solid line) and surface air temperature in February (dotted line) over Siberia in 1976-2006 years



Moving averages (5 years) the number of days with cyclones in February (solid line) and surface air temperature in February (dotted line) over Siberia in 1976-2006 years



Thank you for your attention