



Institute of Monitoring of Climatic and Ecological Systems SB RAS  
Laboratory of Geosphere-Biosphere Interactions

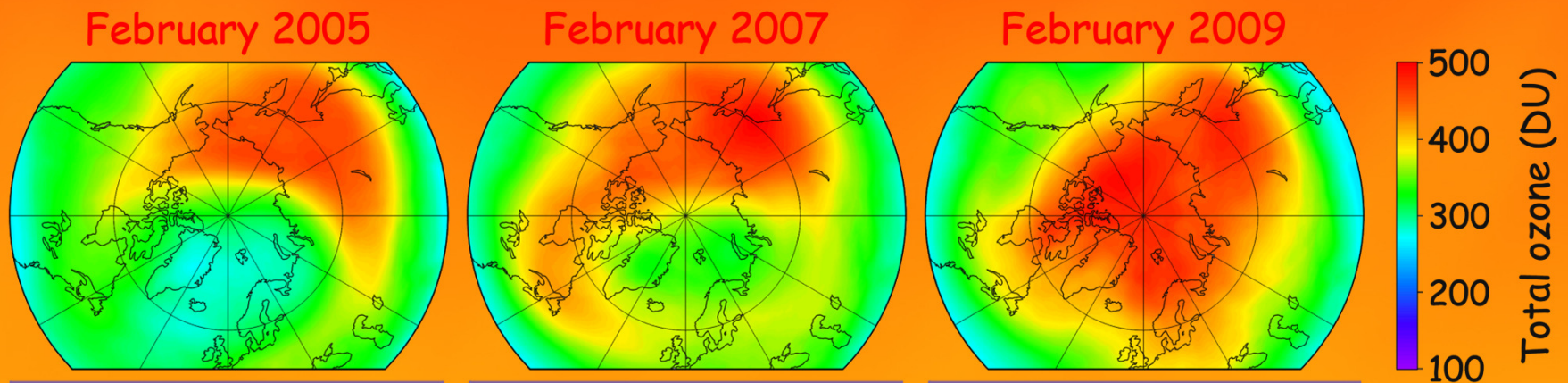
# Possible ways of the evolution of the Arctic polar vortex in the spring

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# Possible ways of the evolution of the Arctic polar vortex



## Arctic ozone depletion events

1982/1983  
1985/1986  
1986/1987  
1991/1992  
1992/1993  
1994/1995  
1995/1996  
1996/1997  
1999/2000  
2002/2003  
**2004/2005**  
2010/2011  
2015/2016

## Years with PSCs in February

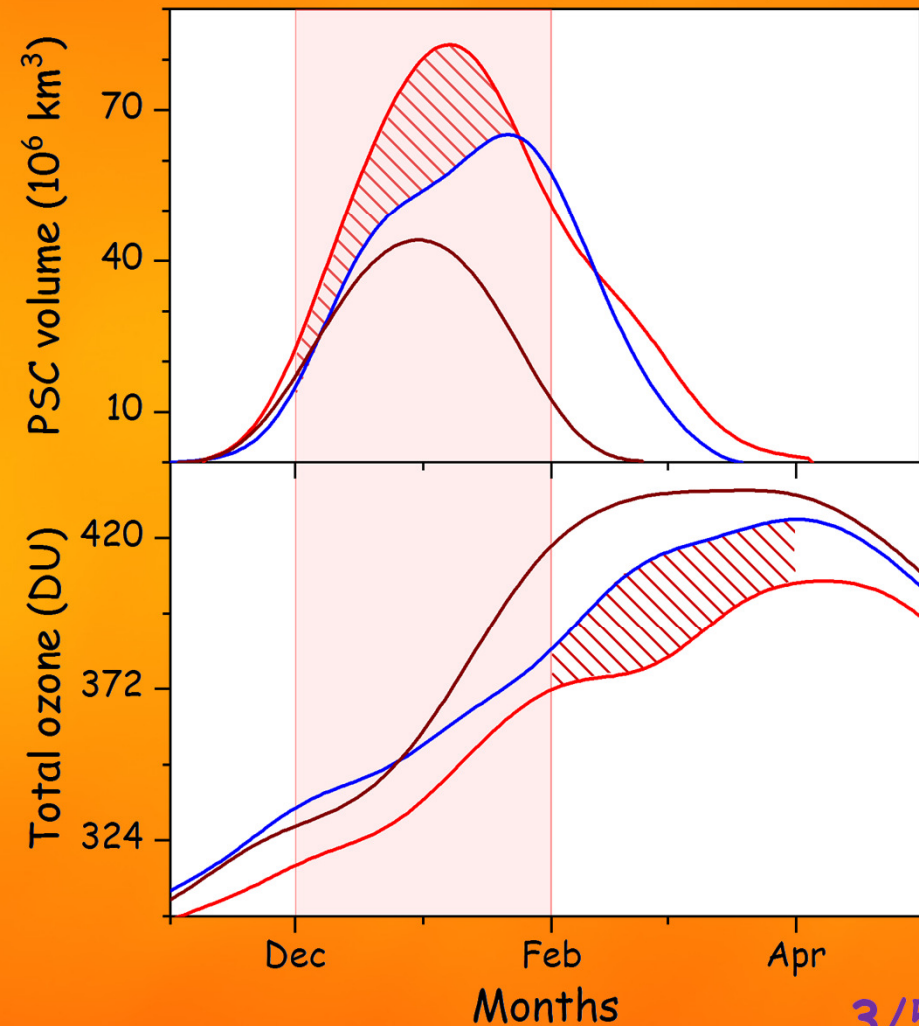
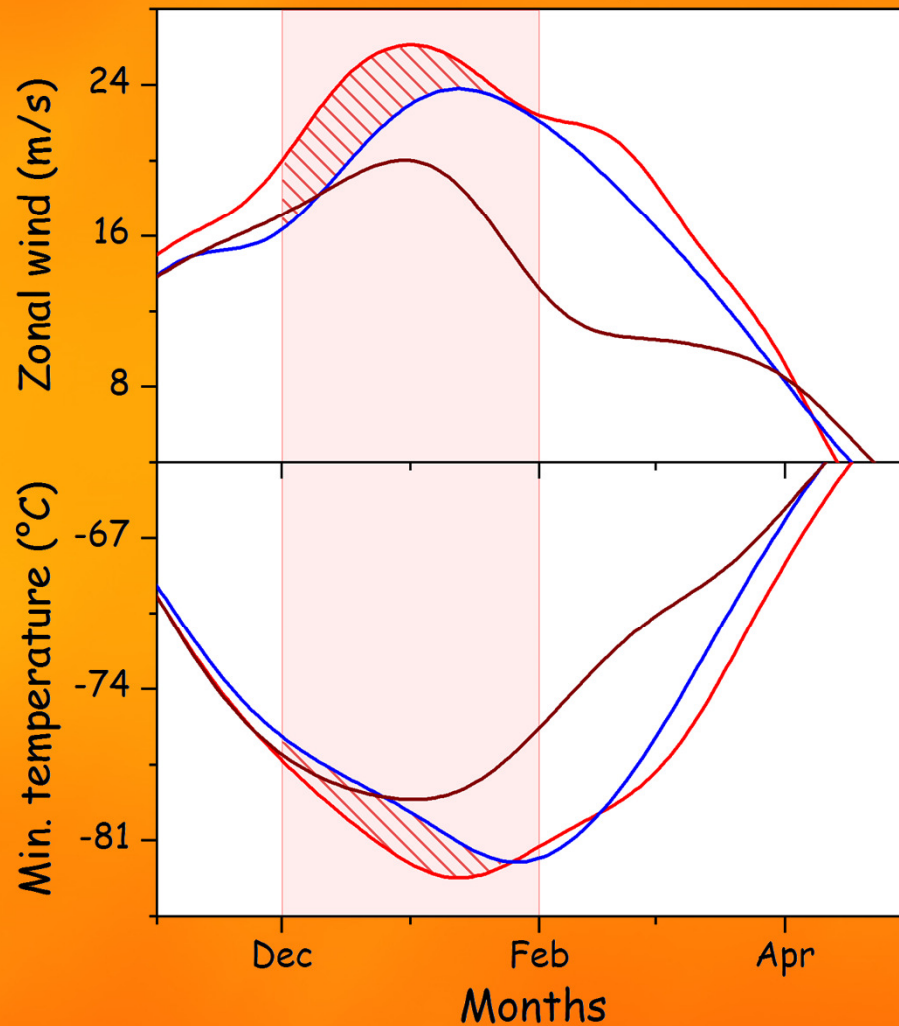
1979/1980  
1983/1984  
1987/1988  
1989/1990  
1993/1994  
1997/1998  
**2006/2007**  
2007/2008  
2013/2014  
2016/2017  
2017/2018

## Years with strong SSW events

1978/1979  
1980/1981  
1981/1982  
1984/1985  
1988/1989  
1990/1991  
1998/1999  
2000/2001  
2001/2002  
2003/2004  
2005/2006  
**2008/2009**  
2009/2010  
2011/2012  
2012/2013  
2014/2015

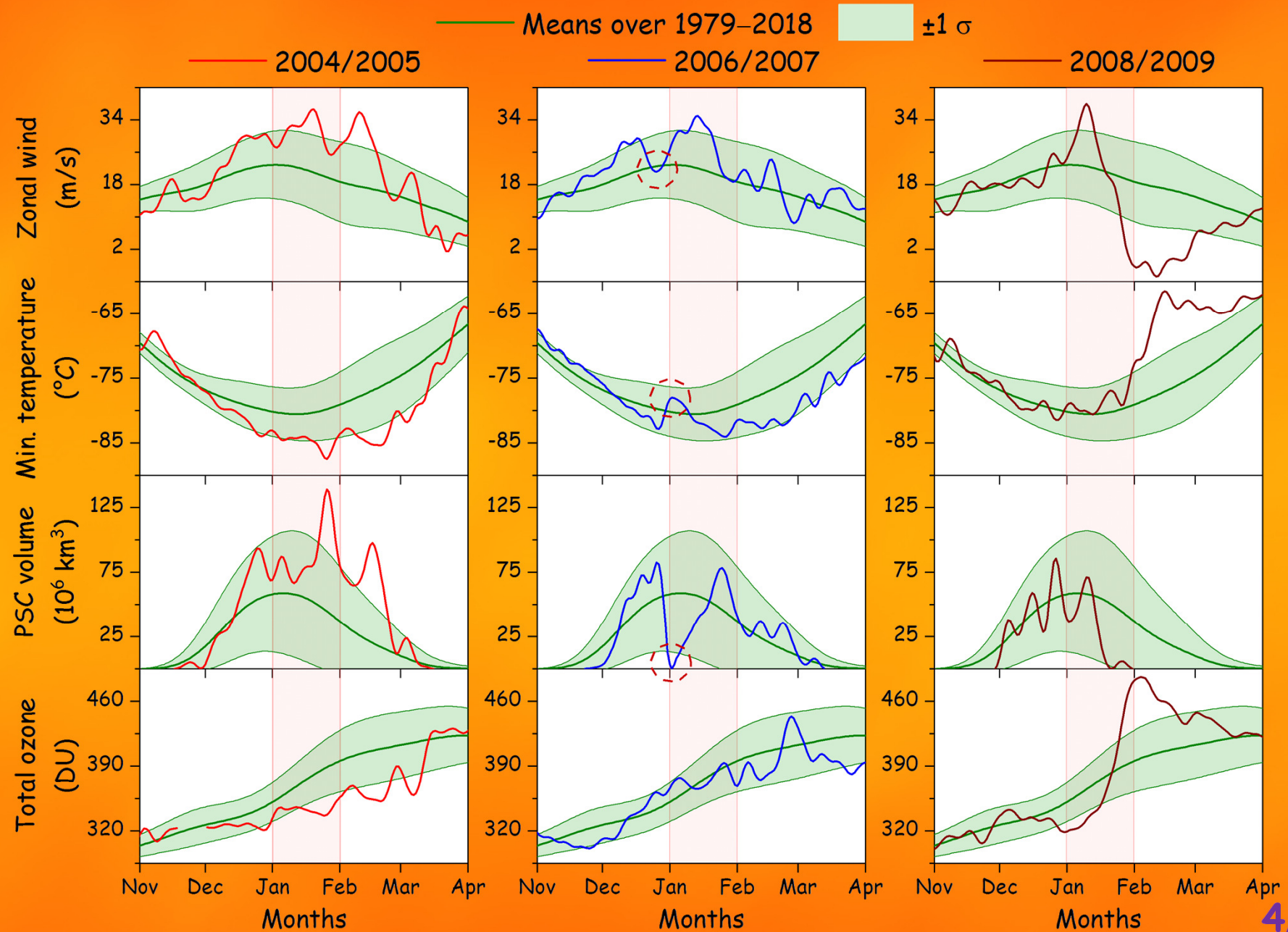
# The Arctic polar vortex dynamics in the selected years

- Mean over years with ozone depletion events
- Mean over years without ozone depletion but with PSCs in February
- Mean over years with selected SSWs from December to February

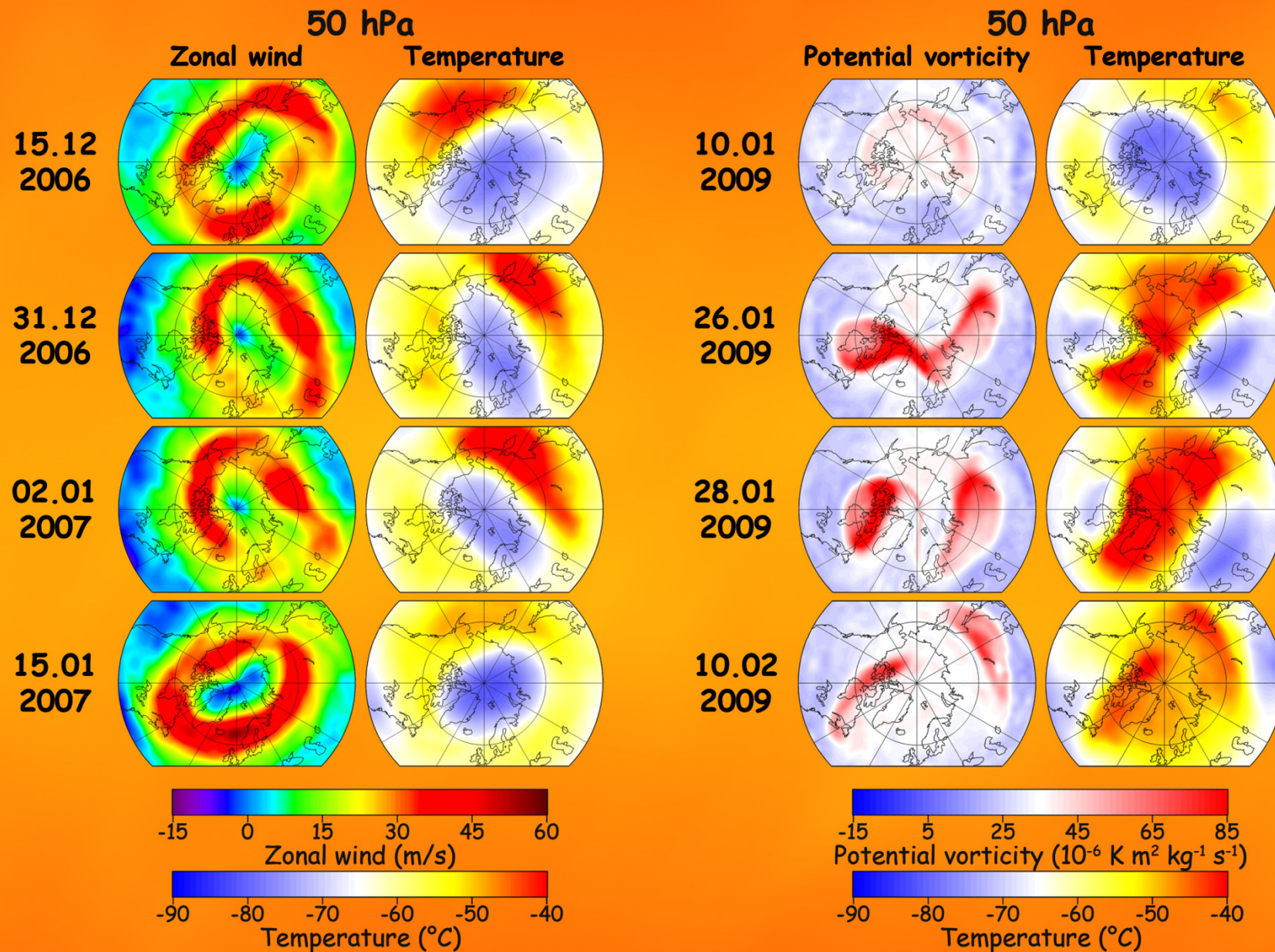




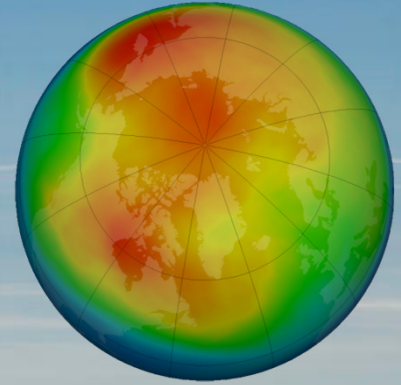
# The polar vortex dynamics in 2004/05, 2006/07, 2008/09



# The weakening and splitting of the polar vortex







Thank you for  
attention!