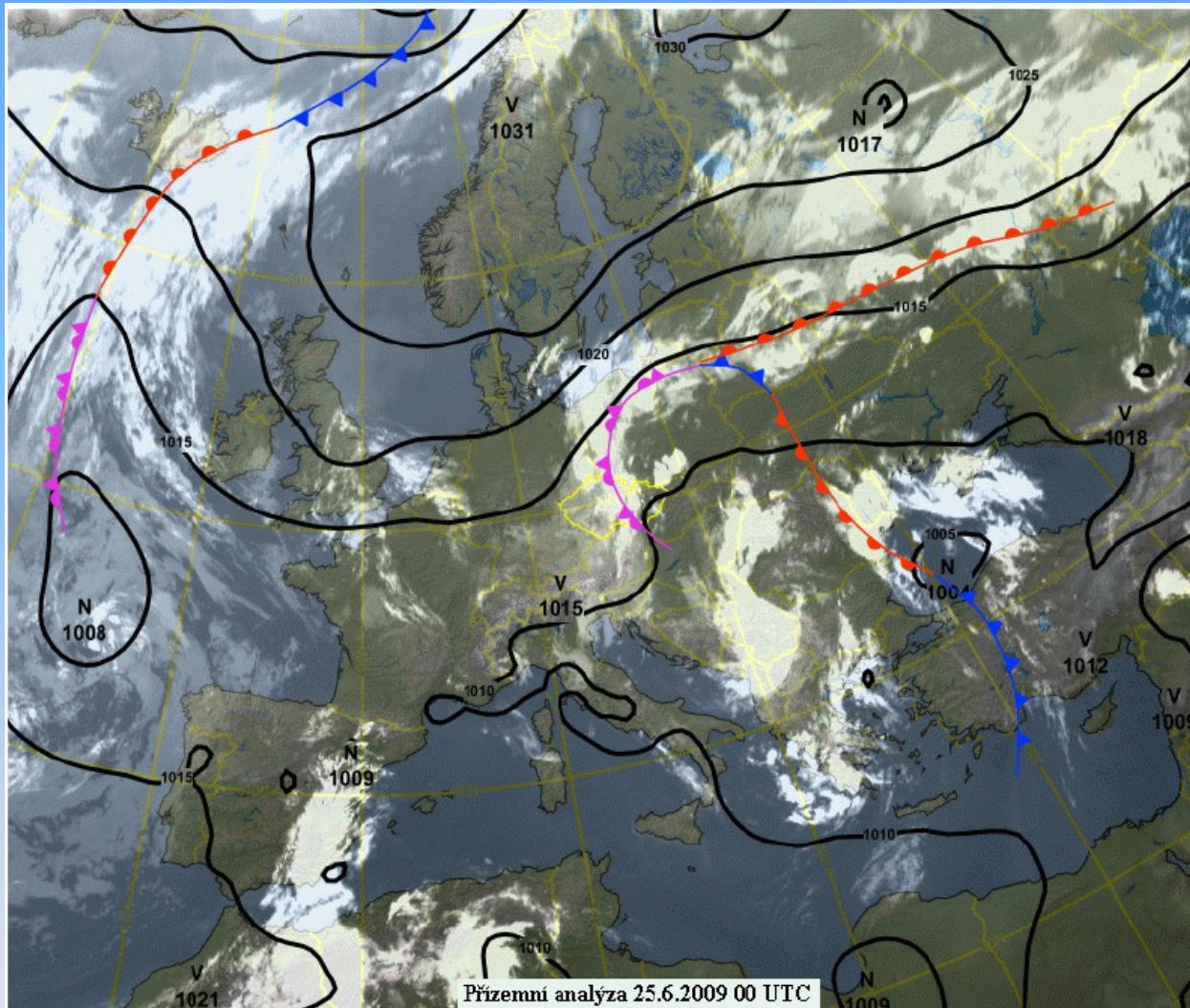


FLASH FLOODS IN NE MORAVIA IN JUNE 2009

SYNOPTIC SITUATION



- Eastern cyclonic circulation
- Position and stacionarity of preasure systems, high temperature, high relative humidity

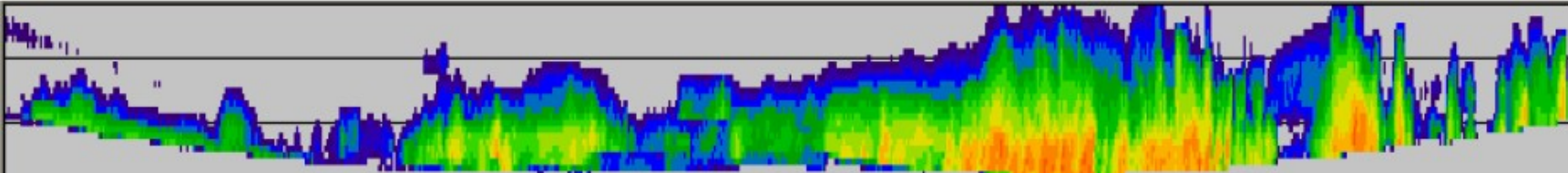
FLASH FLOODS

- Good conditions for creating convection
- Saturation of soil
- Low clouds enhancing the precipitation



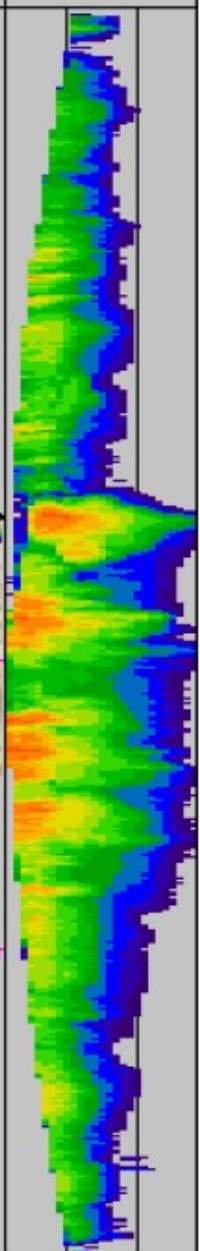
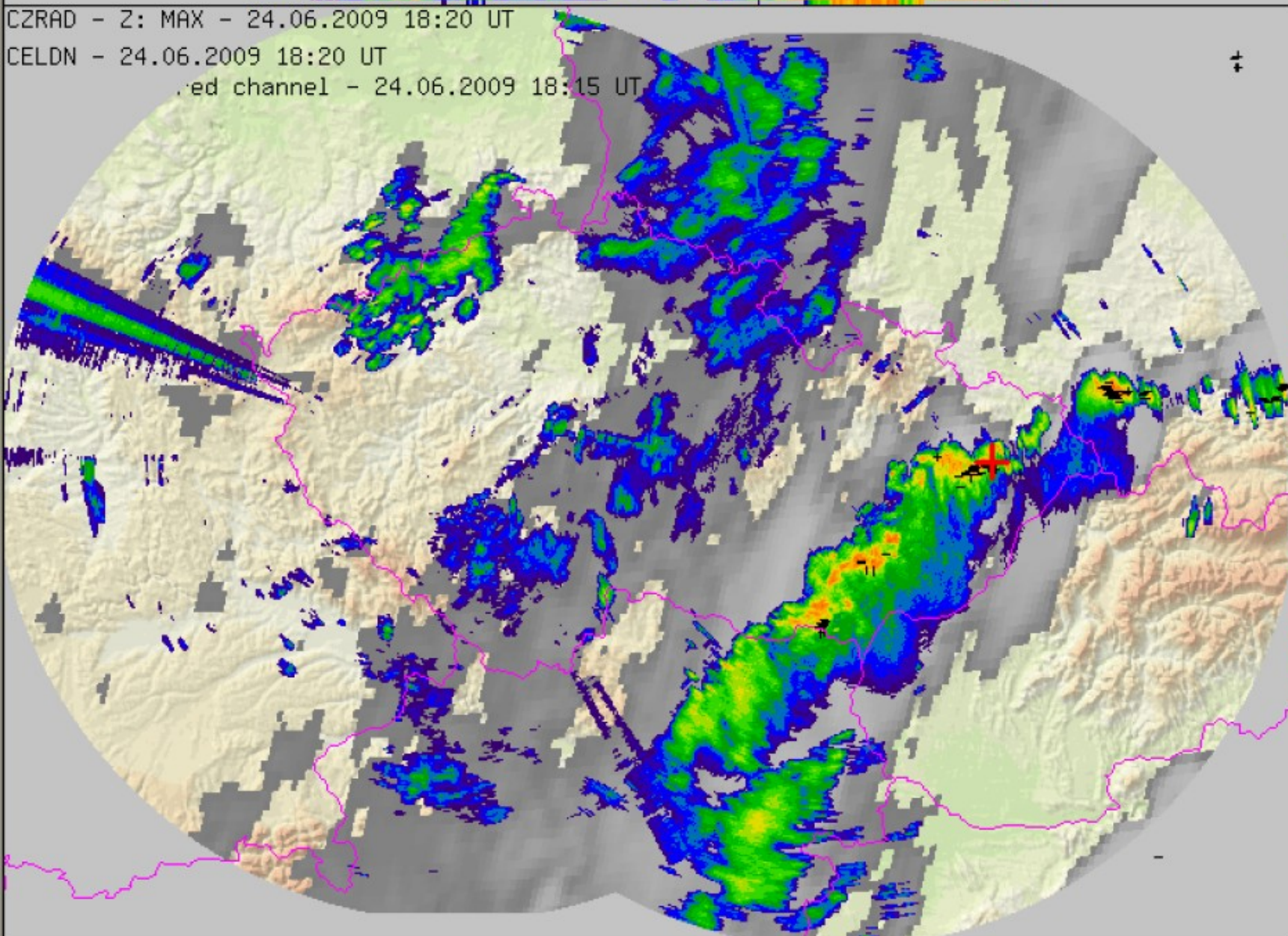
FLASH FLOODS NEAR NOVÝ JIČÍN

- THE CONVECTIVE CELLS - 50 Dbz
 - not too massive targets (50 dBZ)
 - problem 1: TRAIN EFFECT (renewation, movement to SW - along the convergence line)
 - problem 2: probably partially orographically

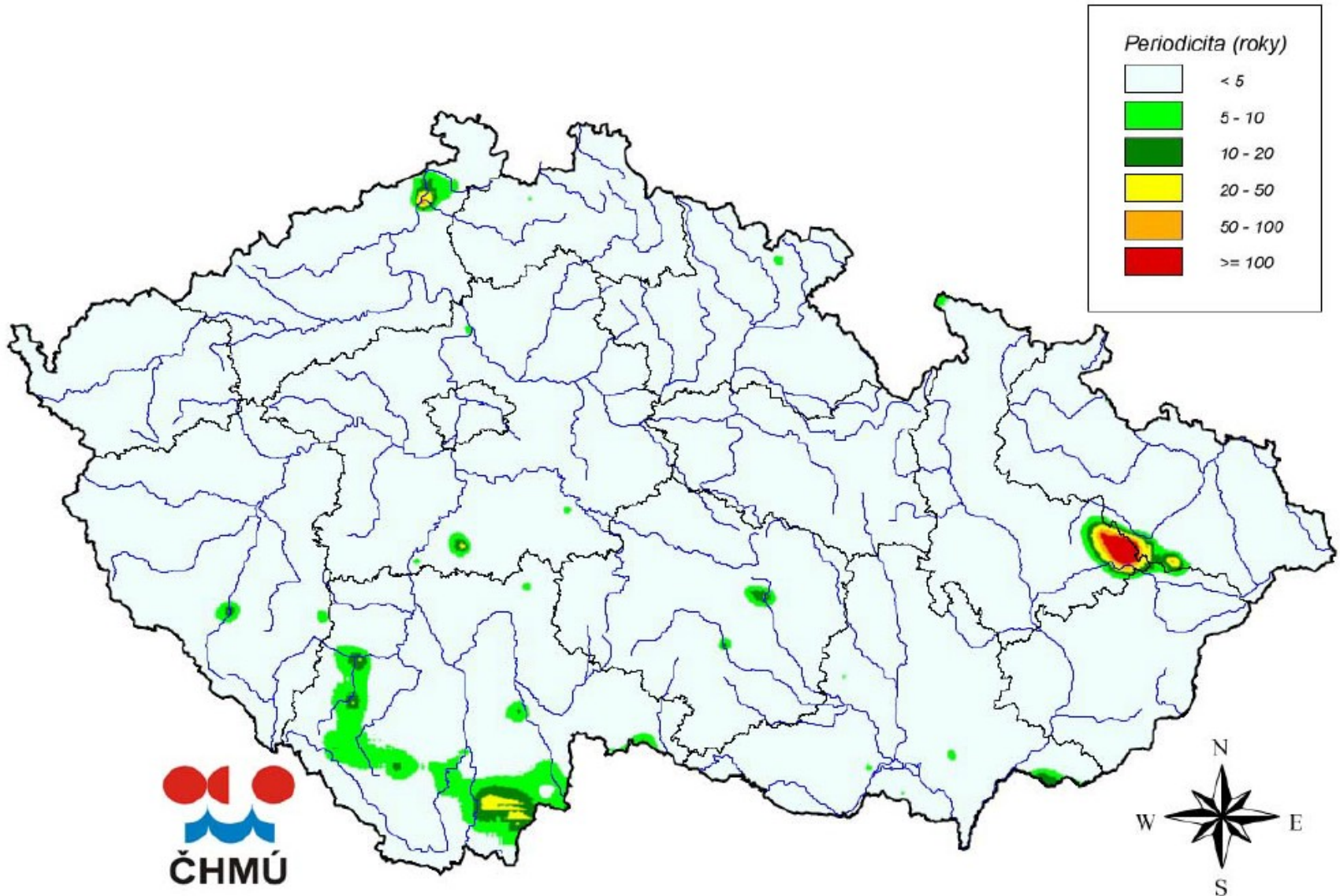


CG+	5
CG-	141
CC	13
SUM	159

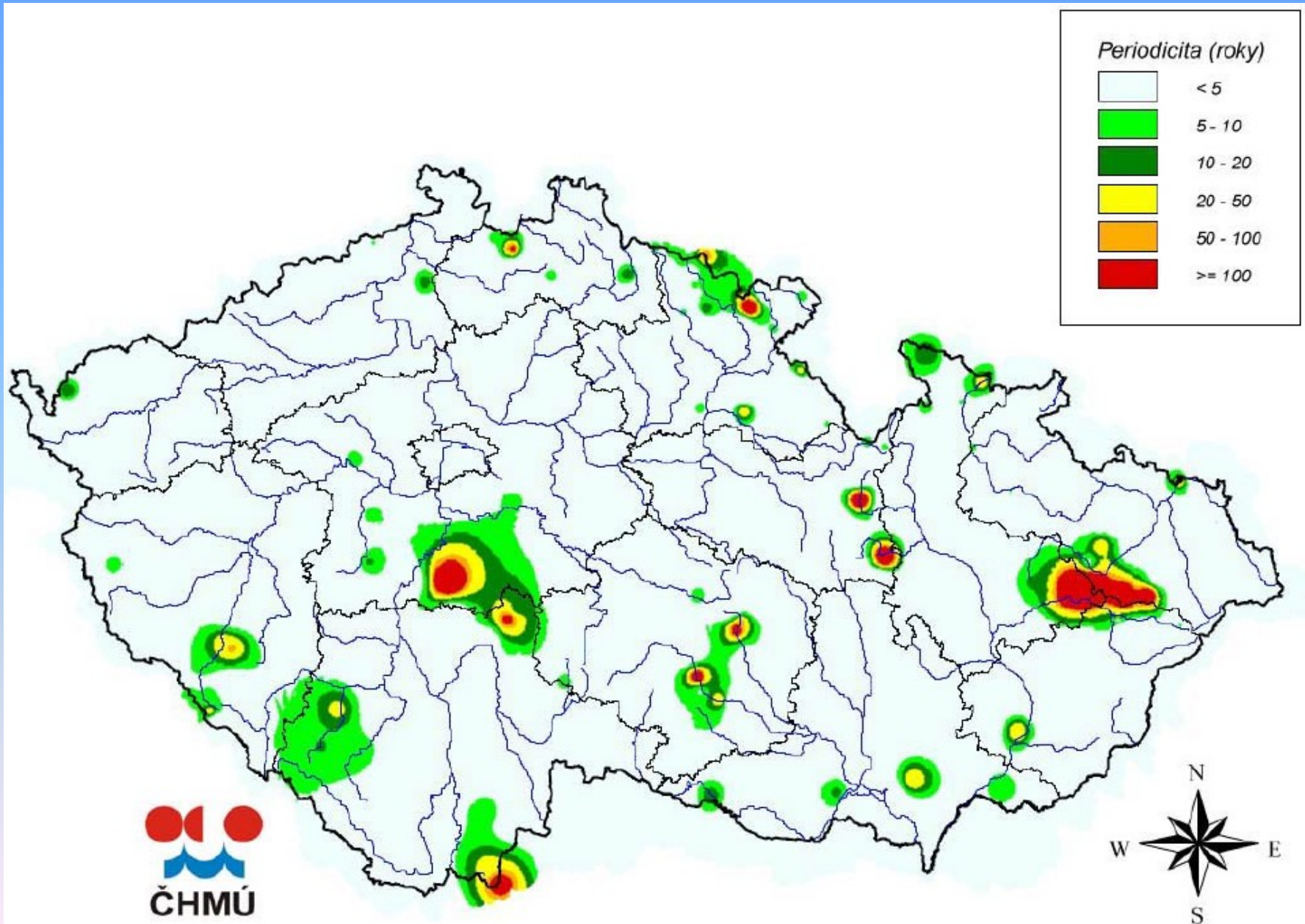
CZRAD - Z: MAX - 24.06.2009 18:20 UT
CELDN - 24.06.2009 18:20 UT
red channel - 24.06.2009 18:15 UT



- Periodicity of maximal daily sums of precipitation
20. 6. – 6. 7. 2009

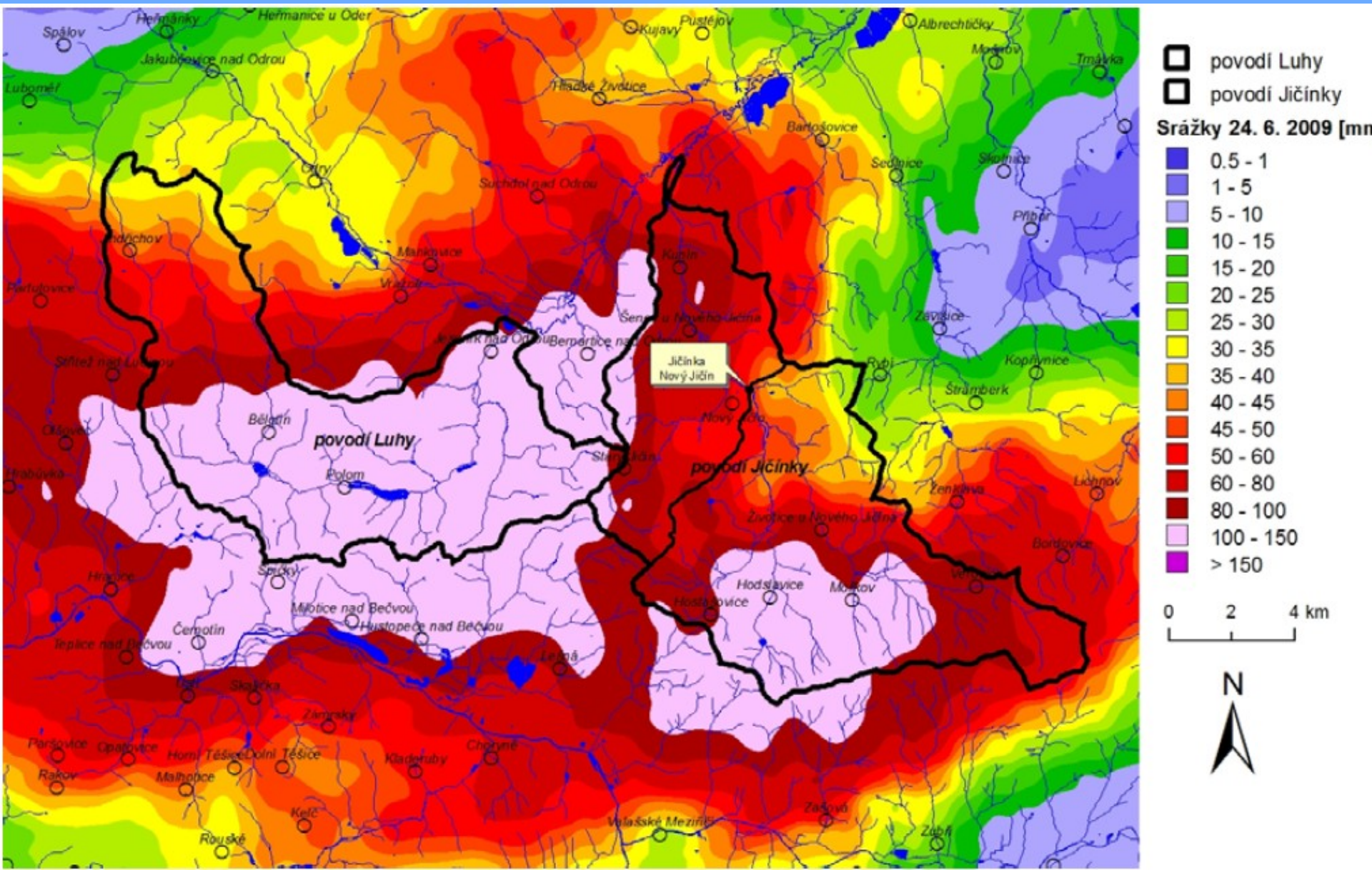


- Periodicity of 3-hour sum of precipitation
20. 6. – 6. 7. 2013



- Night 24th – 25th June 2009
- Catchments of the Jičínka creek and the Luha creek
- Jičínka (L = 25,8 km, A = 113,9 km²)
- Luha (L = 29,2 km, A = 95,6 km²)
- The catchments had been already saturated
- The precipitation fell on the middle segments of the catchments (max. 123,8 mm) → 24th June evening during 2-3 hours!

- Streams could not catch so much water...



- The Jičínka creek – in Nový Jičín – during 2 hours the water stage ca +500 cm !!!

Staničení:	9,20	[km]	Číslo hydrologického pořadí:	2-01-01-0770				
Plocha povodí:	75,84	[km ²]	Zeměpisné souřadnice:	180111 v.d. 493556 s.š.				
Nula vodočtu:	268,78	[m.n.m.]	Procento plochy povodí toku:	66,7				
Stupně povodňové aktivity:		[cm]		[m ³ .s ⁻¹]	Platnost SPA pro úsek toku:			
bdělost	190		19,4	Nový Jičín - ústí do Odry				
pohotovost	220		29,6	Kritické místo:				
ohrožení	260		47,9					
Průměrný roční stav:	86	[cm]	N-leté průtoky:	Q ₁	Q ₅	Q ₁₀	Q ₅₀	Q ₁₀₀
Průměrný roční průtok:	0,872	[m ³ .s ⁻¹]		20,7	61,4	85,3	156	194
Odesílatel zpráv:	Četnost hlášení SPA:		I.	1 x denně				
			II.	2 x denně				
			III.	min. 3 x denně				
Odesílatel podá zprávu:	Spojení na adresáta:	Příjemce dále vyrozumí:						

N = 500 years

Nejvyšší zaznamenané vodní stavy:

[cm]	V. - XI.	[cm]	XII. - IV.
609	24.06.2009	166	07.03.2009
324	07.09.2007		
188	11.11.2009		
184	21.05.2008		

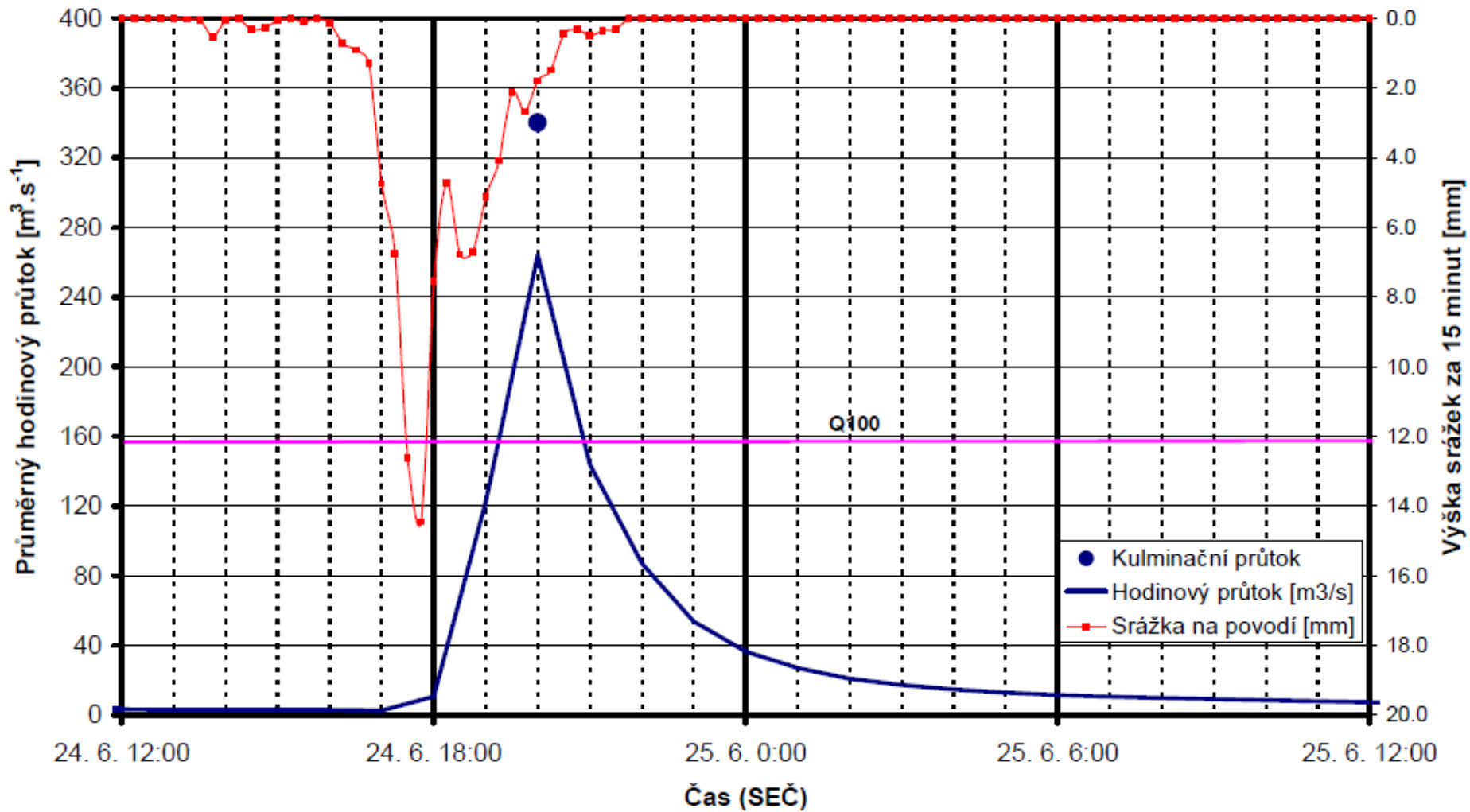
Mapa v měřítku 1:50 000 :



Popis umístění profilu :

Jičínka – Nový Jičín

Plocha povodí: 75.93 km²





- Lower down the stream the water empties into the Oder river which is somewhat greater and streams through wider floodplain with grasslands and forests (the Poodří landscape protected park) → transformation of the flood → max. Q in Ostrava one day later, $N=2$.





25.6.2009







Thank you for your attention!