

Symposium of the IAG Subcommittee for Europe
(EUREF)

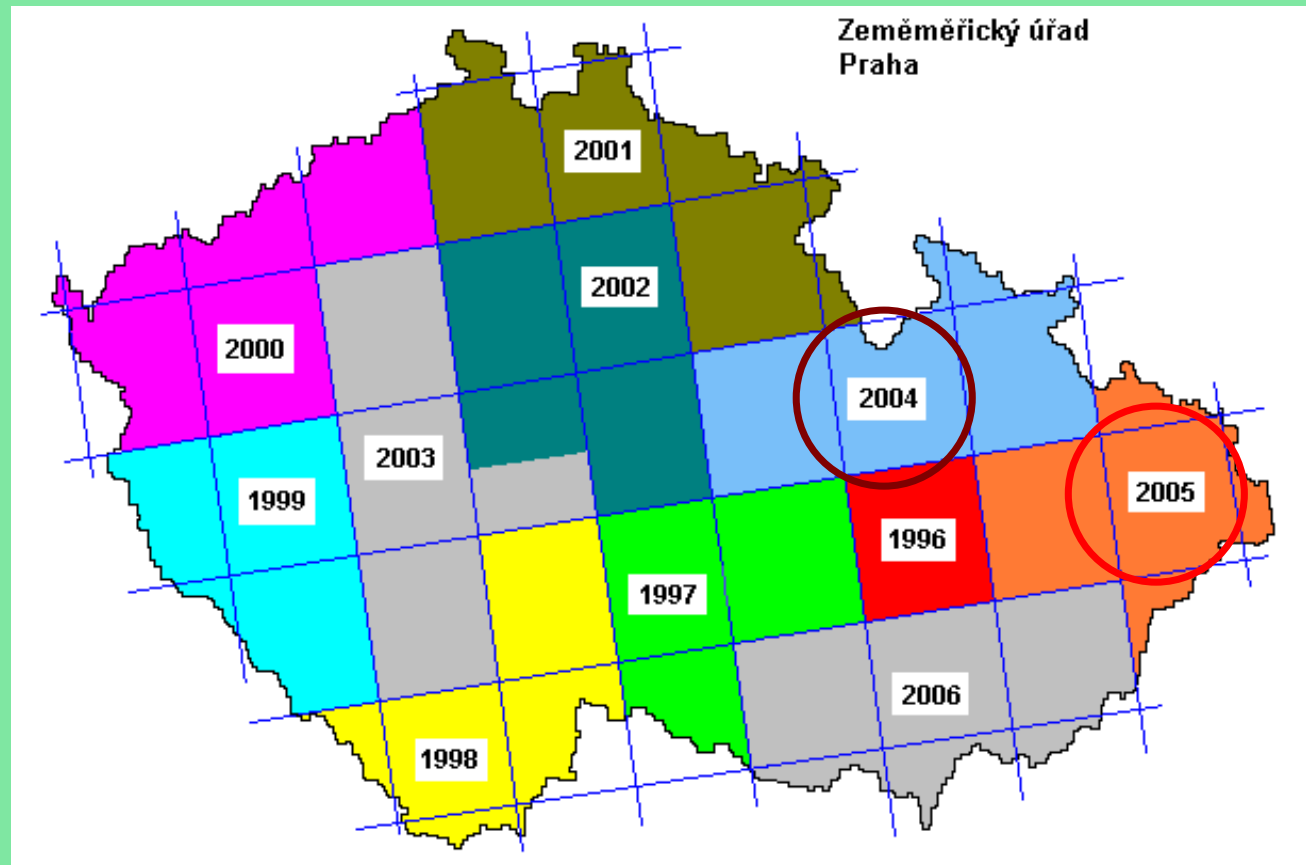
Vienna, Austria, 1 - 4 June, 2005

National Report of the Czech Republic
EUREF Related Activities in the
Czech Republic 2004 - 2005
National Report

presented by J. Šimek

Status of EUREF in the CR (1)

Progress of densification by „Selective maintenance“
performed by Land Survey Office



**1996 – 2004: 2399 new stations, accomplished
in 2006 by Land Survey Office**

UELN 2000 and UEGN 2002

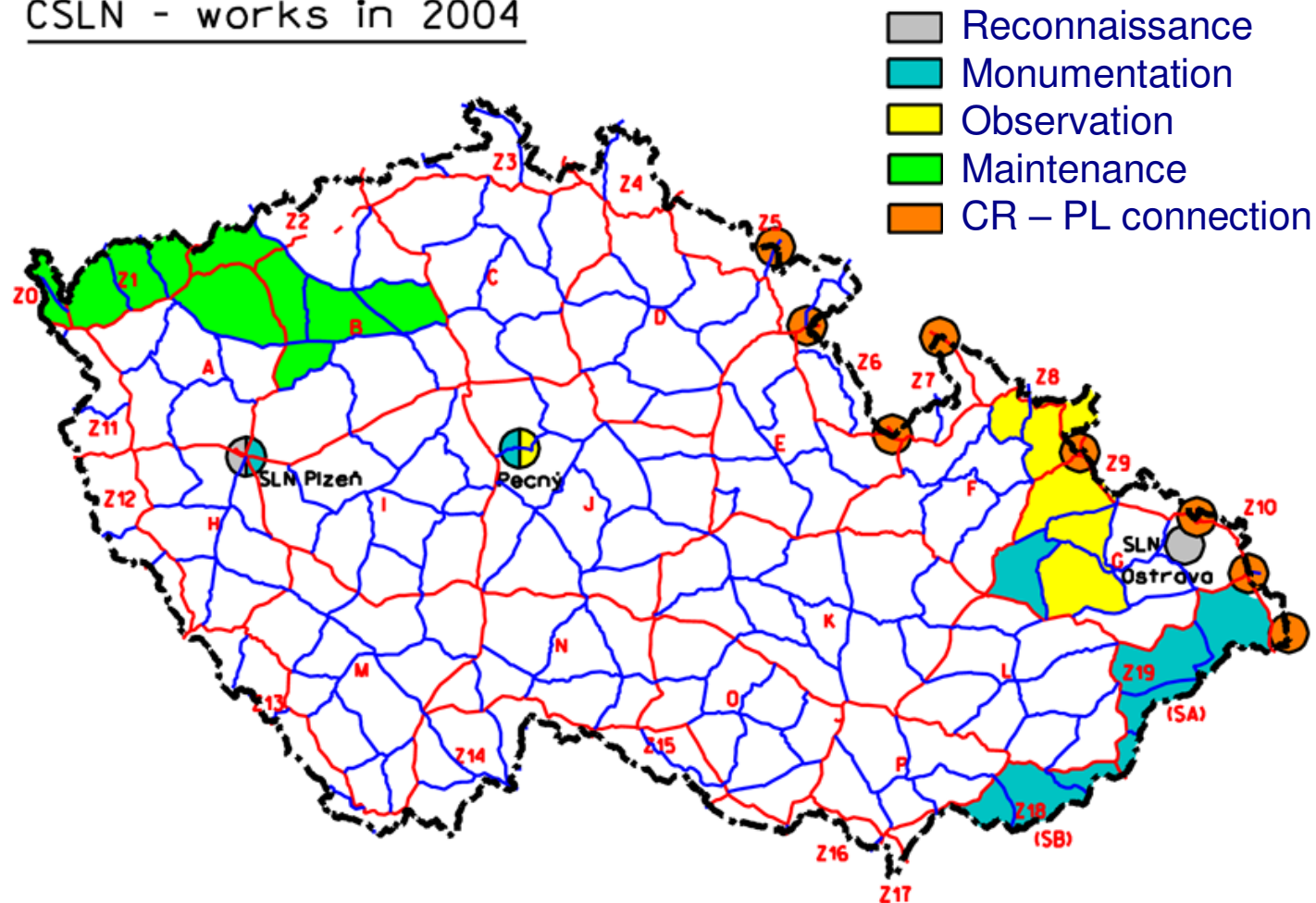
Related Activities (Land Survey Office)

Kinematic levelling network in the Czech Republic

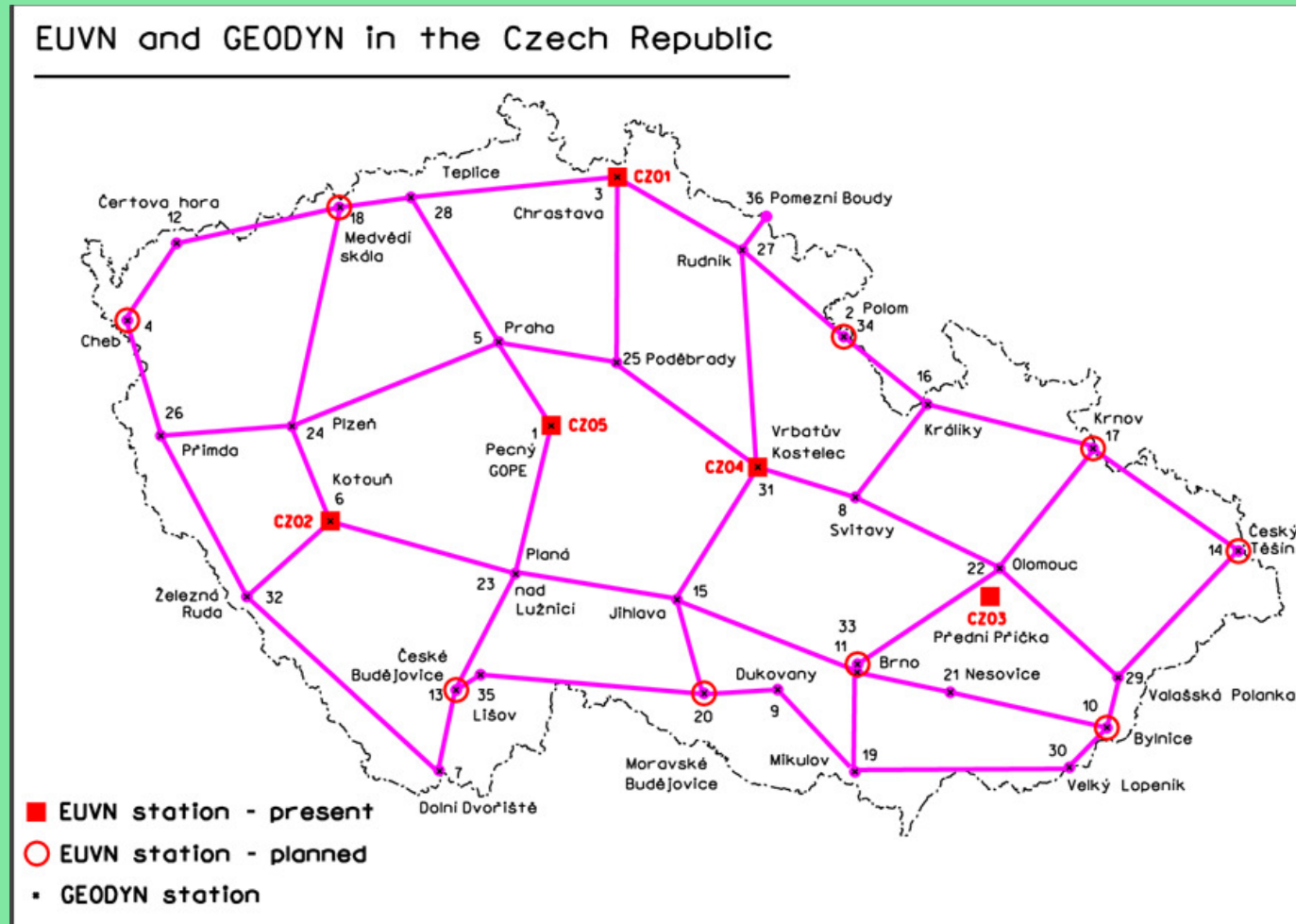
- 7 leveling connections CR – Poland (150 km), preparation of the connection with Slovakia
- remeasurement of the 3rd order levelling lines 500 km in 2004
- Special levelling networks (SLN): monumentation (Plzeň) and reconnaissance (Ostrava)

UELN 2000 – Related Activities (Land Survey Office)

CSLN - works in 2004

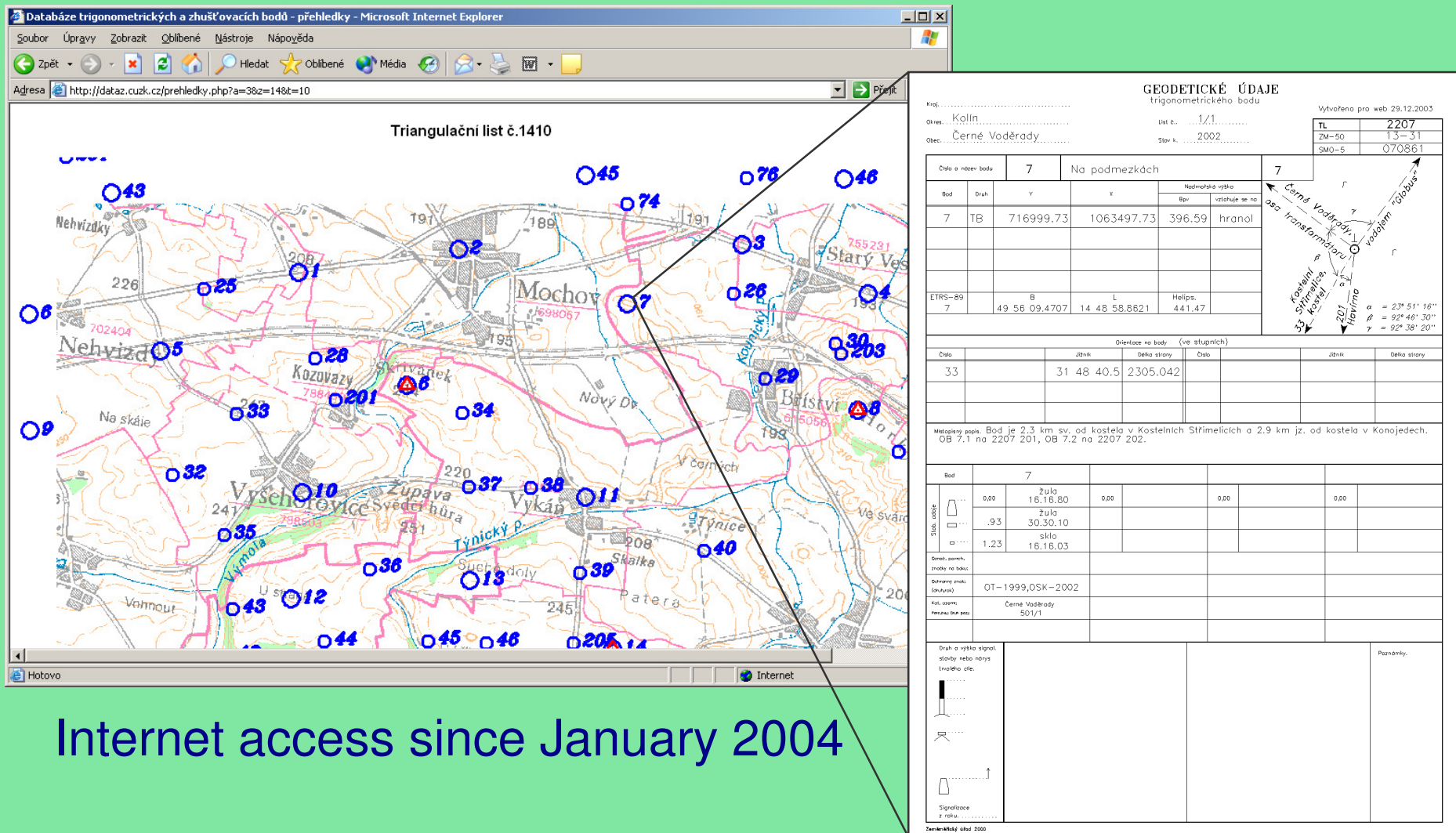


EUVN – Related Activities (RIGTC and Land Survey Office)



GEODYN - new forced centering monumentation at 6 stations

Database of Triangulation and Densification Points



Database of Levelling Bench Marks

Nivelační údaje - seznam vyhledaných bodů - Microsoft Internet Explorer

Adresa: cuzk.cz/Nivela/seznamVyhledanychBodu.aspx?id=0qY5A%W27%2F2Hgs%MsUna0LL%2BU4QudGP7QqOdhyHE1xOfmH5Mg3o%2FpX9UeYcPK7edJ3GAAzbtKQsv1mVuQ%3d%3d

ZEMĚMĚŘICKÝ ÚŘAD
ODBOR NIVELACE A GRAVIMETRIE
Pod Sídlištěm 9, 182 11 Praha 8

ZÁKLADNÍ INFORMACE | DATABÁZE ČSNS | KONTAKTY | NÁPOVĚDA

Počet nalezených záznamů: 58 | Základní

Pořad	Číslo bodu	Popis bodu	SMO-5	Datum stab.
ZNB/23	XXIII.ZNB	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	1962
ZNB/23	XXIII.ZNB-1	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	1962
ZNB/23	XXIII.ZNB-2	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	
ZNB/23	XXIII.ZNB-3	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	
ZNB/23	XXIII.ZNB-4	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	
ZNB/23	XXIII.ZNB-5	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	
ZNB/23	XXIII.ZNB-6	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	
ZNB/23	XXIII.ZNB-7	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	
ZNB/23	XXIII.ZNB-8	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	
ZNB/23	XXIII.ZNB-9	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	
ZNB/23	XXIII.ZNB-10	Ondřejov, skála	UHLÍŘSKÉ JANOVICE 7-2	

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Hotovo

Nivelační bod - Microsoft Internet Explorer

Adresa: <http://nivela.ce.cuzk.cz/Nivela/outPut.aspx?id=mQtwpaZvOta0%2brs5eV65%2BU%2bdK8cCMYEOIMZAZRfUR1GUB2hSpuWPzdOCUvWpRvguPdlbXUPSH0%3d>

NIVELAČNÍ ÚDAJE

Nivelační pořad: ZNB/23 Základní nivelační bod XXIII.Pecný

Předchozí bod	Nivelační bod	Délka v km		Nadmožská výška Bpv	Výška z roku
		oddílu	od počátku		
Jac-70	XXIII.ZNB	0.056	0.056	543.401 m	1969

Místopisný popis:
Ondřejov, skála

Místopis:

Poznámky:
1. Chráněn žulovou krycí deskou, možno použít jen se svolením ZÚ

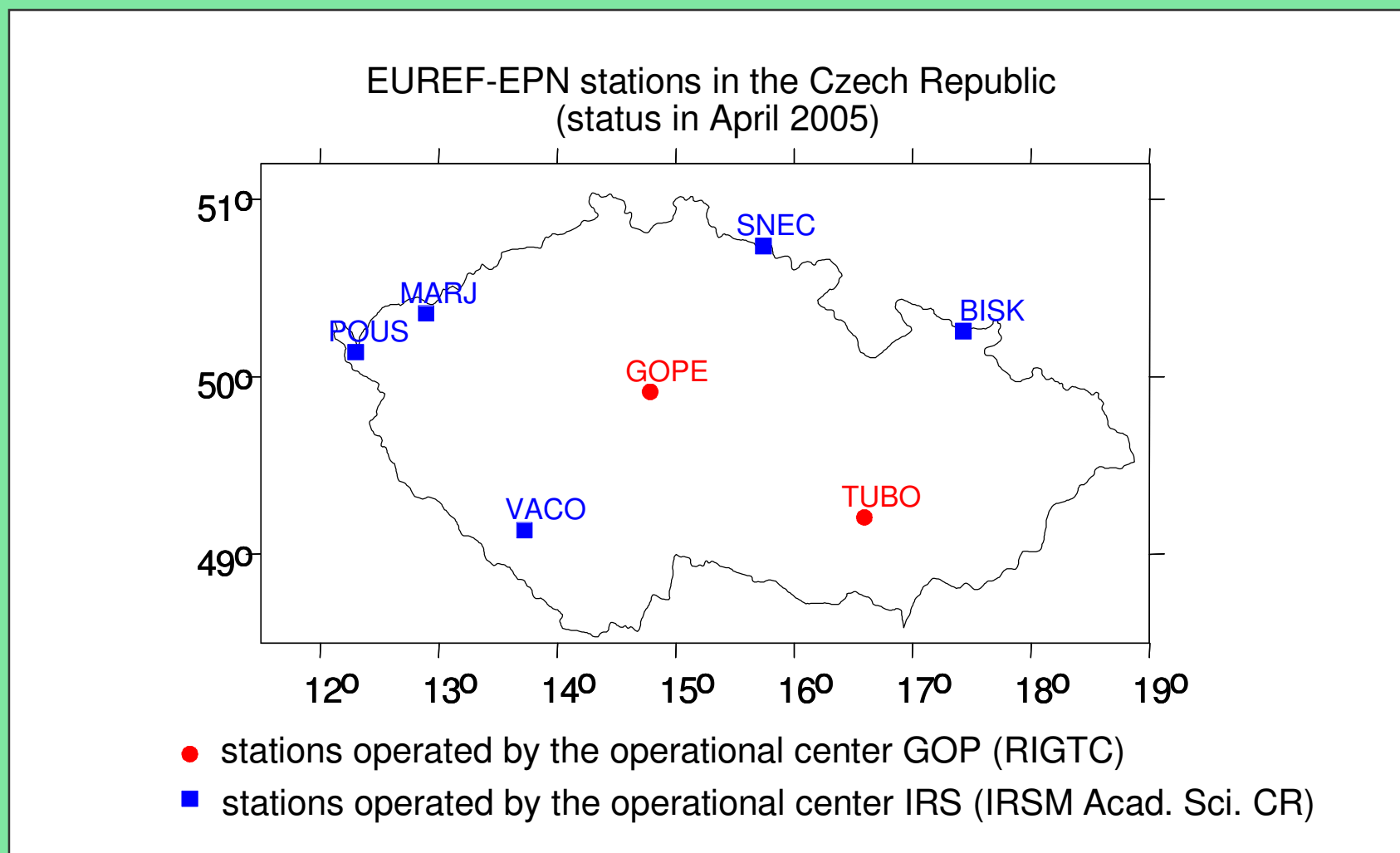
Stav a stáří objektu:
značka shora, obezděna a chráněná kamennou krycí deskou obetonovaná rostlá skála křemíty konglomerát

Úz. jednotka: 320906301
Okres: Praha - východ
Vlastník:

Hotovo

Internet access since January 2004

Permanent GPS Observations (1)



The new EUREF-EPN stations: realization 2001 – 2005 by IRSM

Permanent GPS Observations (2)



SNEC station

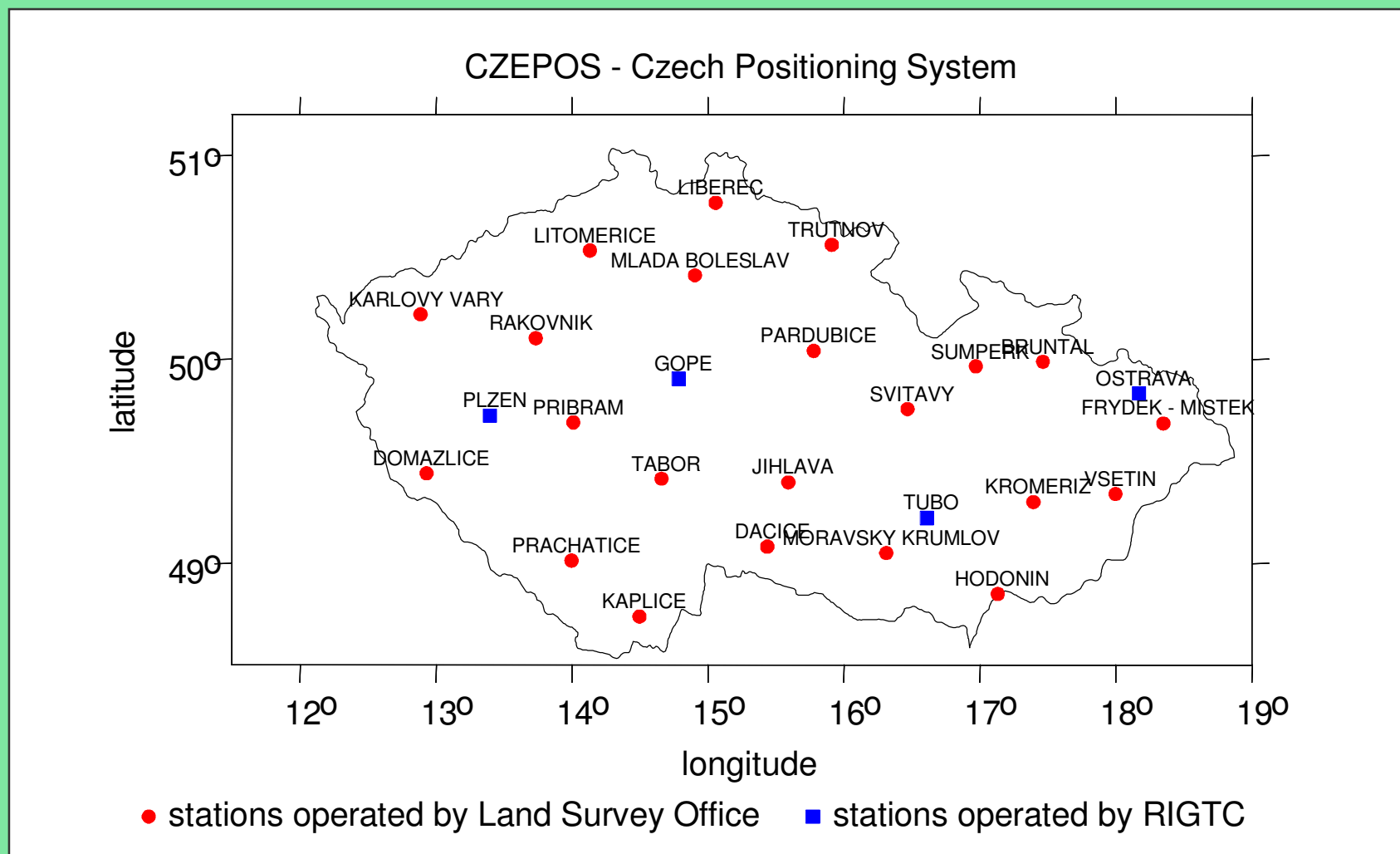
BISK, POST, MARI,
VACO stations

Established by IRSM,
Academy of Sciences CR



The new EUREF-EPN stations: realization 2001 - 2005

Permanent GPS Observations (3)



CZEPOS – multifunctional GPS permanent network established by Land Survey Office and RIGTC: realization 2005 - 2006

Permanent GPS Observations (4)



Dačice



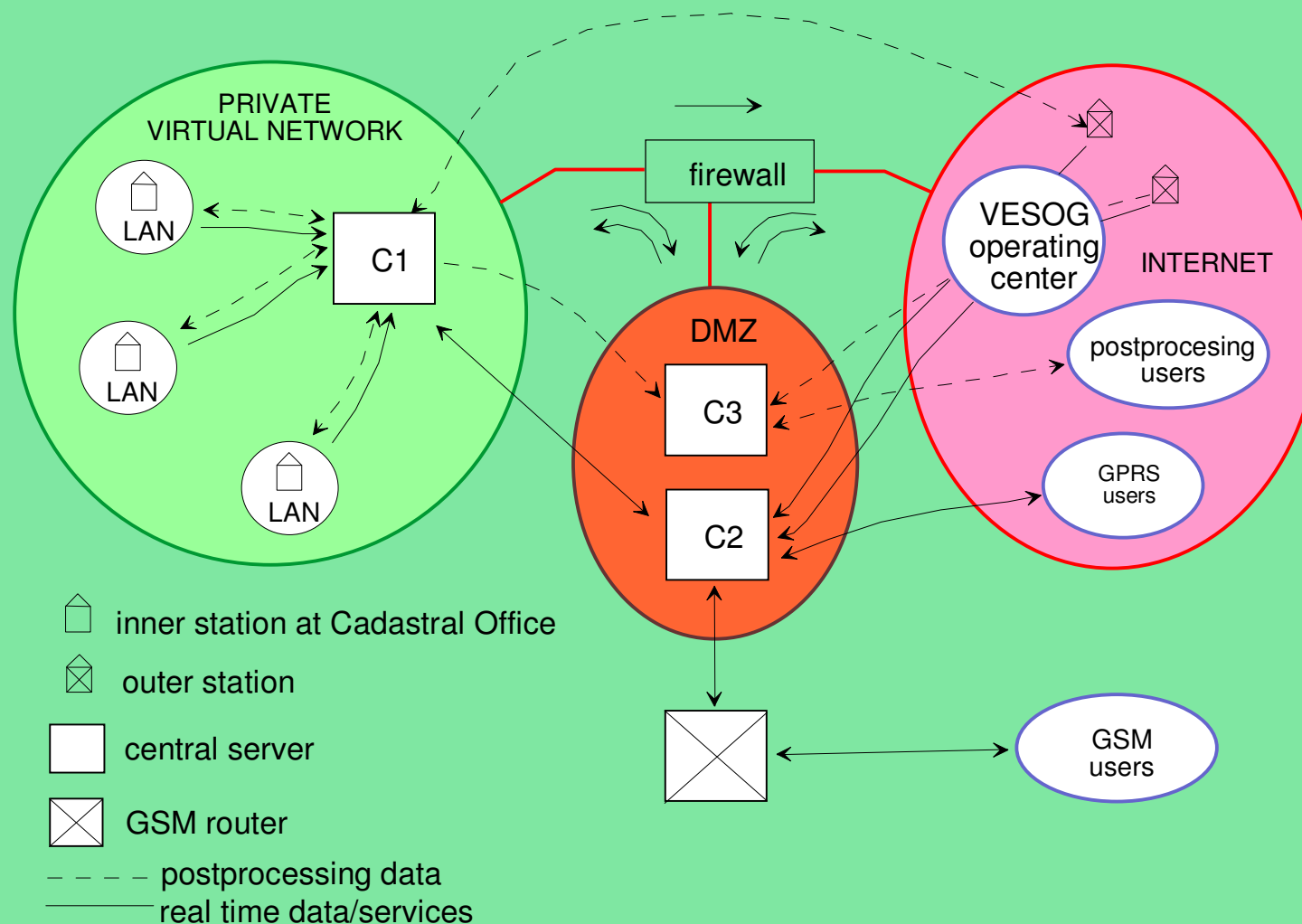
Jihlava



Svitavy

CZEPOS – multifunctional GPS permanent network established by Land Survey Office and RIGTC: realization 2005 - 2006

Permanent GPS Observations (5)



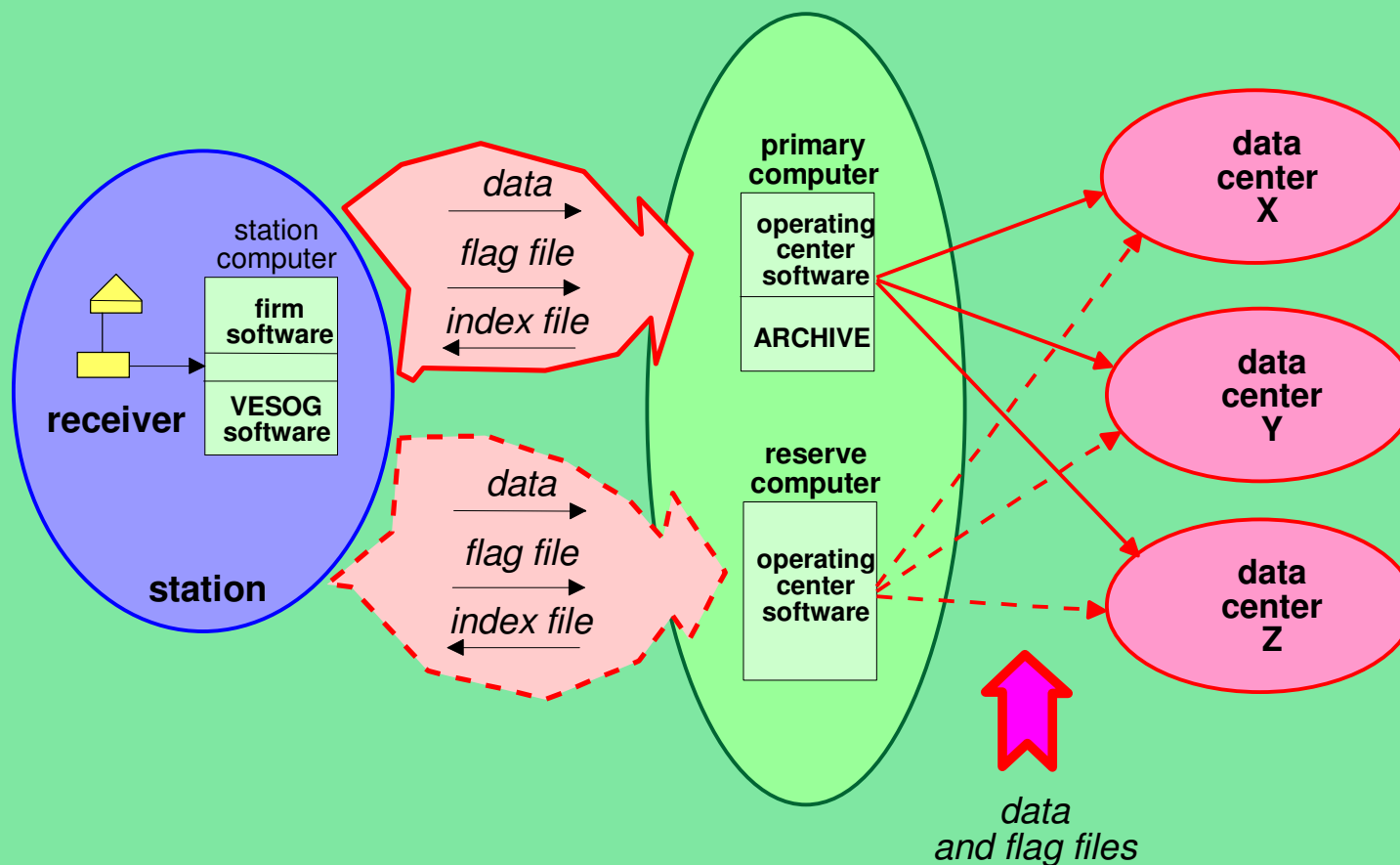
CZEPOS – multifunctional GPS permanent network: realization 2005 - 2006

Permanent GPS Observations (6)



Research and Experimental Network for GNSS observations (VESOG)
status April 2005

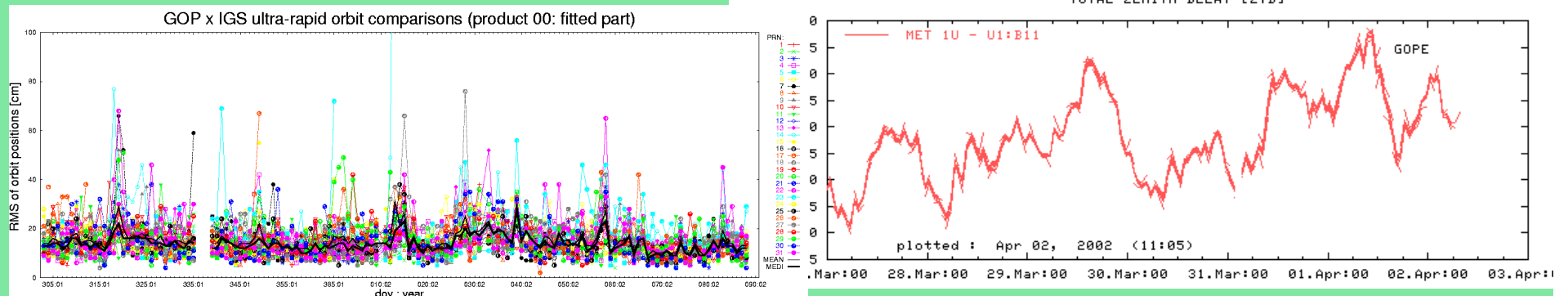
Permanent GPS Observations (7)



Examples of VESOG data flow

Activities of EUREF Local Analysis Center GOP

- data analysis from 47 EPN stations (April 2005)
- ground-based GPS meteorology – projects COST 716 and TOUGH – processing of 50 stations
- GOP ultra-rapid orbits accepted as IGS product for combination



Absolute Gravimetry in 2004 with FG5 No. 215 (RIGTC)

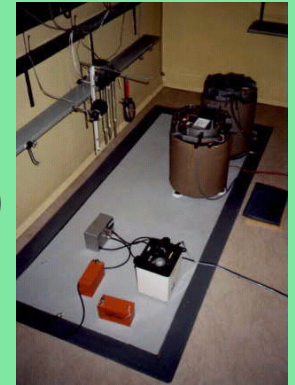
(cooperation with Land Survey Office, Prague,
Geodetic and Cartographic Institute, Bratislava, and STU Bratislava)

- Czech Republic and Slovakia
 - 4 stations in CR(Kraslice, Svitavy, Jihlava, Jeseník)
 - 5 stations in Slovakia (Žilina, Liesek, Hurbanovo, Modra, Vinosady)
- GO Pecný – Ondřejov – CR
 - International comparison of absolute gravimeters FG5 No. 215 (RIGTC) and FG5 No. 101 (BKG Frankfurt a/M) – difference $< 1 \mu\text{Gal}$



Tidal Gravimetry at GO Pecný and Environmental Effects

- gravity time series by Askania Gs15 No. 228 and by LCR 137
- calibration by FG5 No. 215 absolute gravimeter
- climatological station (of Charles University)
- meteorological parameters
- soil moisture
- ground water level



This Report is result of cooperation

- **Land Survey Office:** J. Provázek, J. Řezníček, M. Lederer, O. Nesvadba, L. Zajíček
- **RIGTC:** J. Douša, J. Kostelecký jr., J. Kostelecký, V. Pálinkáš, V. Filler, J. Šimek
- **IRSM:** V. Schenk, Z. Schenková, F. Mantlík, P. Kottnauer