

THE TECHNICAL ADMINISTRATION OF ROADS OF THE CITY OF PRAGUE
Department of Transportation Engineering

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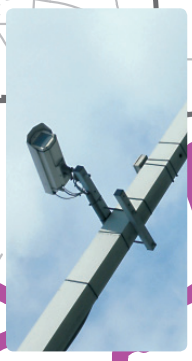
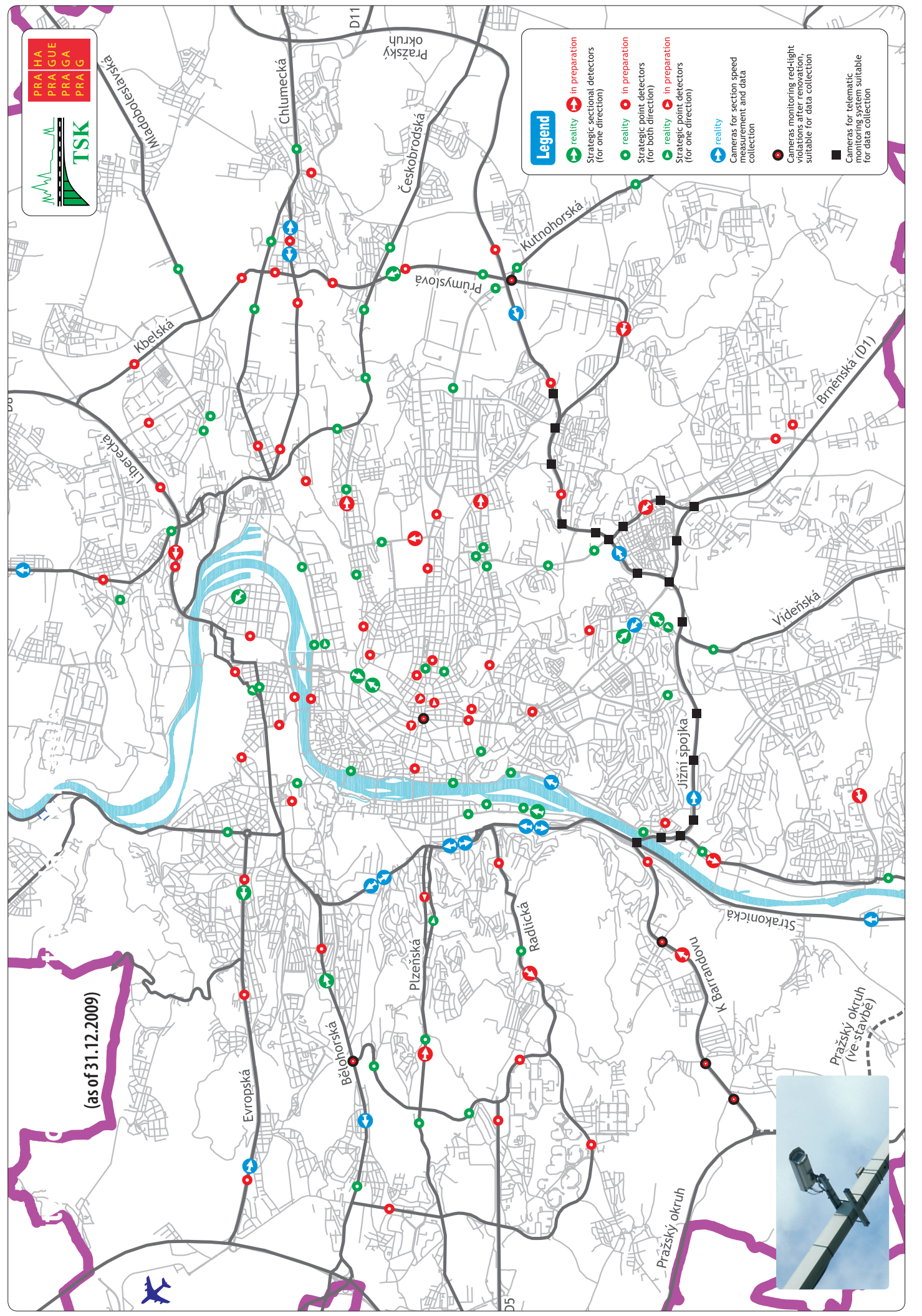
**THE YEARBOOK OF TRANSPORTATION
PRAGUE 2009**



(as of 31.12.2009)

Legend

- reality ➔ in preparation
Strategic sectional detectors (for one direction)
- reality ● in preparation
Strategic point detectors (for both directions)
- reality ➔ in preparation
Strategic point detectors (for one direction)
- ➔ reality
Cameras for section speed measurement and data collection
- Cameras monitoring red-light violations after renovation, suitable for data collection
- Cameras for telematic monitoring system suitable for data collection



Pražský okruh (ve stavbě)

THE TECHNICAL ADMINISTRATION OF ROADS OF THE CITY OF PRAGUE
Department of Transportation Engineering



THE YEARBOOK OF TRANSPORTATION PRAGUE 2009



Dear readers,

You are now holding in your hands the Prague Transportation Yearbook, which comes out every year to inform the general public about the state of transportation in the city and the changes that have taken place in the past year – this time in 2009. It was put together by the Department of Transportation Engineering at the Technical Administration of Roads of the City of Prague, with contributions from other city and state organisations and transportation operators on the city's territory.

The poor economic situation in 2009 was felt around the world, and the Czech Republic and its capital were no exception, although its ramifications were of a lesser scale in Prague compared to the other regions of the Czech Republic. Nevertheless, as you will see looking at this yearbook, these ramifications were reflected

in the volume of both passenger and freight transport. All forms of public transport also saw a reduction compared to 2008 (with the exception of the regional service of Prague Integrated Public Transport). The most marked drop was, however, in freight transport.

Even under these economic conditions, the city was successful in maintaining funding in its 2009 budget for the operation, maintenance and development of transportation at the same level as the preceding year. The amount for development investments even increased slightly, allowing for continued intensive work on the City Ring Road between the Strahov Tunnel and the north bridgehead of the Barikádníků Bridge, as well as on the Vysočany Radial Road between the Prague Outer Ring Road and Kbelská Street and other transport infrastructure projects important for the city.

Using funding from the Operational Programme "Transport", there was also marked development in transport telematics and traffic control equipment, for example the modernisation of the Urban Traffic Control Centre at the Na bojišti location. The newly installed traffic board and the large-scale wall screen depicting the traffic situation in selected city locations, along with other equipment, were installed in such a way that they could be transferred to the new Multifunctional Operational Centre at Malovanka. Two new Area Traffic Control Centres were constructed in 2009 (at Nové Butovice and Skalka), nearly 60 strategic detectors were installed, as were 25 new traffic-light controlled junctions and crosswalks, with 30 being refurbished. The number of intersections with tram right-of-ways increased by 12 and the number with bus right-of-ways increased by 23.

The preconditions are gradually being created in the city's transport system for it to serve the whole City of Prague in a high quality manner. The main contribution to this will be the completion of important transport infrastructure currently under construction, above all the south section of the Prague Outer Ring Road and the extension of the "A" Metro Line from Dejvice to Motol.

A handwritten signature in blue ink, appearing to read 'R. Šteiner', written in a cursive style.

Radovan Šteiner
City of Prague Transportation Councillor

Prague, 1 May, 2010

Dear readers,

We have assembled this 2009 Transportation Yearbook and are presenting it to you in order to inform you what is new in Prague transportation in 2009. It is primarily compiled from our own sources, but in order to provide a comprehensive picture we have solicited other necessary data from a range of municipal and national institutions, and above all from organisations that operate transportation within Prague. These are listed at the end of the yearbook and we thank them all for their contributions.

It is clear from the content herein that despite certain stagnation and often even reduction of transport operations, the tempo of transportation infrastructure development was maintained in 2009, particularly in terms of the Prague Outer Ring Road and the City Ring Road, and work commenced on extending the „A“ Metro Line from Dejvice to Motol. In Chapter 12 you will read about other transportation construction projects and important renovations that contributed to improving Prague transportation in 2009 or will do so in the coming years.

One great improvement to the quality of urban mass transit in 2009 came in the form of fleet renewal. Original old metro cars were fully taken out of service and the number of low-floor trams and buses was increased through purchases and modernisation. In order to facilitate travel for persons with limited mobility, special new minibuses were introduced, providing handicapped persons with free transportation for essential trips, and other trips at low costs. The new modern trains put into service on the suburban rail lines in 2009 and the increased number of connections on these lines led to an increase in the quality and attractiveness of rail transportation within the Prague Integrated Public Transport system.

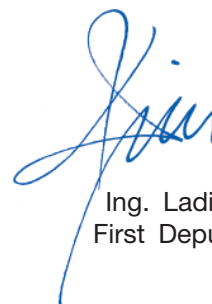
Thanks to transport organisation and management measures and traffic safety drives, including traffic education, the impact of traffic accidents on the health of those involved has been successfully reduced over the past four years.

We are glad that the Technical Administration of Roads of the City of Prague has had a not insignificant role in achieving these results in Prague transportation in 2009 and we trust that our work in traffic engineering and administering the transportation property of the City of Prague will continue to benefit the capital's residents and visitors in the future.

Prague, 1 May, 2010



Ing. Luděk Dostál
Director



Ing. Ladislav Pivec
First Deputy Director

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BASIC DATA

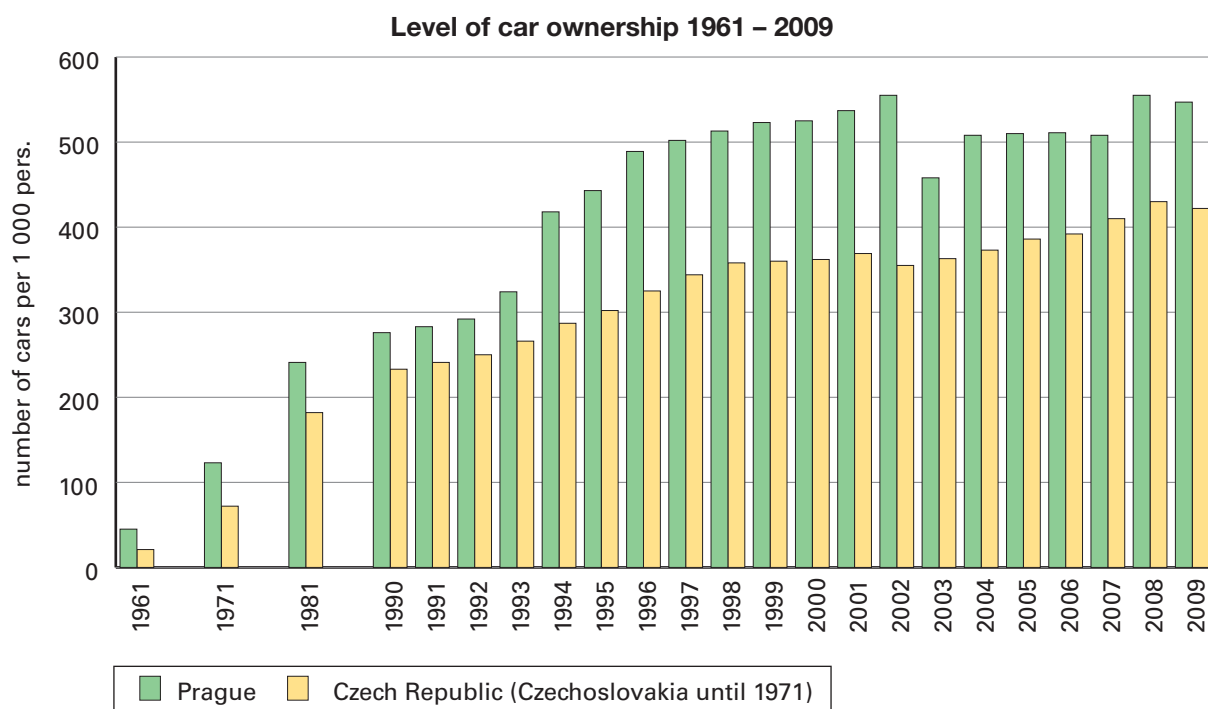
1.1 City of Prague

Selected data on the City of Prague as of 31 December 2009

Land area	496 km ²
Number of inhabitants	1 249 026
Total length of road network	3 874 km
of which motorways within the city	10 km
other motor roads	76 km
Number of bridge structures in the road network	598
of which bridge structures across the Vltava	27
grade separated crossings	218
underpasses	123
Number of road tunnels (total length 4 630 m)	7
Number of motor vehicles	914 224
of which number of passenger automobiles	683 295
Vehicle ownership	
vehicles per 1 000 inhabitants	732
Automobile ownership	
passenger automobiles per 1 000 inhabitants	547
Length of metro network (operational)	59.1 km
Length of tram network	141.6 km
of which dedicated track bed	52 %
Length of public transport bus network	683 km
Number of traffic signals	554
of which separate pedestrian crossings	96
Vehicle kilometres travelled (VKT) on whole road network	
average workday (million VKT)	21.2
annually (billion VKT)	7.0
Modal split – motor transport (by number of trips on city territory over the whole workday)	
public transport	57 %
automobile transport	43 %
Modal split – motor and non-motor transport (by number of trips on city territory over the whole workday)	
public transport	43 %
automobile transport	33 %
cyclists	1 %
pedestrians	23 %
Number of traffic accidents recorded by the police	15 583
Number of traffic accident injuries:	
fatal	40
serious	347
minor	2 082
Relative accident rate (number of accidents per 1 million VKT)	2.2

1.2 Comparison of Prague and the Czech Republic

As of 31 December 2009		Prague	Czech Republic	Prague/CZ (%)
Land area (km ²)		496	78 864	0.6
Population (millions)		1.249	10.507	11.9
Number of motor vehicles (thousands)		914	5 945	15.4
	of which passenger cars	683	4 435	15.4
Vehicle ownership	(motor vehicles per 1000 persons)	732	566	-
	(persons per 1 motor vehicle)	1.4	1.8	-
Car ownership	(passenger cars per 1000 persons)	547	422	-
	(persons per 1 passenger car)	1.8	2.4	-



(Prague data for the years 2003 – 2007 affected by an error in the vehicle registry)



Vinohradská Street in Prague



Břežská Street in Brno – Pisárky Tunnel

Vehicle kilometres 1990 – 2009 (millions of VKT/avg. workday 0:00-24:00)

Year	1990	2000	2005	2006	2007	2008	2009	Index 09/90 (%)	Index 09/08 (%)
Prague*	7.3	16.6	19.9	20.3	20.9	21.0	21.2	291.0	100.9
CZ+	80.9	131.2	148.5	156.6	162.4	167.6	169.3**	209.3	101.0

* whole road network + motorways + class 1, 2 and 3 roads, including segments within Prague ** preliminary data

AUTOMOBILE TRANSPORT

2.1 Development of vehicle and car ownership

The total number of motor vehicles registered on the territory of Prague increased dramatically up until 1999, after which the growth slowed. As of the end of 2009, there was one passenger car per 1.8 inhabitants in Prague.

Number of registered motor vehicles 1961 – 2009

Year	PRAGUE					Czech Republic (until 1971 Czechoslovakia)				
	Inhabitants	Motor vehicles		Passenger cars		Inhabitants	Motor vehicles		Passenger cars	
	(in 000s)	total	%	total	%	(in 000s)	total	%	total	%
1961	1 007	93 106	22	44 891	13	13 746	1 326 801	-	291 680	-
1971	1 082	203 519	48	133 129	40	14 419	2 931 629	-	1 041 137	-
1981	1 183	367 007	86	284 756	85	10 306	3 449 300	85	1 872 694	79
1990	1 215	428 769	100	336 037	100	10 365	4 039 606	100	2 411 297	100
1995	1 210	641 590	150	535 805	159	10 321	4 728 859	117	3 113 476	129
2000	1 181	746 832	174	620 663	185	10 267	5 230 846	129	3 720 316	154
2005	1 180	749 786	175	602 339	179	10 247	5 401 917	134	3 954 769	164
2006	1 188	761 071	178	605 774	180	10 287	5 613 943	139	4 098 114	167
2007	1 212	780 738	182	612 879	182	10 381	5 882 312	146	4 269 231	177
2008	1 233	906 571	211	678 056	202	10 468	5 943 953	147	4 423 370	183
2009	1 249	914 224	213	683 295	203	10 507	5 945 373	147	4 435 052	184

100 % = the year 1990

Prague data for the years 2005 – 2007 affected by an error in the vehicle registry.

2.2 Volume of automobile traffic on workdays

The growth of automobile transportation and its ramifications began to be felt in Prague as early as the 1930s. Automobile traffic in the city was diminished for a time as a result of World War II and post-War developments (for example, the level of car ownership from 1937, when there was 1 passenger vehicle for 32 inhabitants in Prague, was only reached again in 1959, after having dropped off during and after the War). Starting in the 60s, the number of motor vehicles in Prague began to climb substantially, which led to traffic problems consisting primarily of insufficient capacity at key intersections. Until the end of the 80s, however, these problems were generally felt only at a limited number of intersections, predominantly in the city centre, and largely occurred only during rush hour. The explosive growth of automobile transportation in the 1990s resulted in a new situation, particularly in the period from 1992 to 1997. Only in recent years has the situation levelled out and year-on-year growth is now next to insignificant.

The capital city of Prague occupies a unique position in automobile transportation in the Czech Republic, which manifests in the exceptionally high volume and vehicle kilometres travelled in comparison with other Czech cities or with motorways and roads in rural areas.

The base aggregated indicator for the development of automobile traffic in Prague is traffic volume (vehicle kilometres travelled) on the whole road network, which has been monitored since 1978. Alongside this data, another method of determining trends in Prague's automobile traffic is "cordon monitoring", meaning periodic traffic counts at sites that form a connected cordon of important entrance roads into the designated zone. The development of inner-city traffic is monitored at the "central cordon", while peripheral traffic is monitored at the "outer cordon". Time data for both cordons are available back to 1961.

Note: all data on vehicle kilometres travelled relate to the period from 0:00-24:00 on an average workday; all data on automobile traffic are given excluding public transport buses.

The traffic counts performed reveal that the annual growth in automobile traffic recorded within the city in the period following 1990 practically ceased in 2008 and 2009. Overall, automobile traffic within the City of Prague, as measured by vehicle kilometres travelled on the whole road network, rose on average by a mere 0.9 % in 2009 over the previous year. Of this amount, passenger car traffic rose 1.8 %, while truck and bus traffic fell 7.9 %. In the period 0:00-24:00 of an average workday, motor vehicles travelled a total of 21.231 million vehicle kilometres on the territory of Prague. Of this amount, passenger automobiles made up 19.481 million vehicle kilometres, or 92 %. Compared with the preceding year, this means that motor vehicles travelled 191 000 vehicle kilometres a day more in 2009 than in 2008 in Prague.

In the greater city centre, based on the counts done at the central cordon, which expresses the two-way volume of traffic at the entrances to the greater city centre, automobile traffic increased by 1.4 % compared to the preceding year. Over the 24 hours of an average day in 2009, 311 000 vehicles drove into the greater centre of the city, of which 298 000 were passenger cars.

In the middle zone of the city, traffic increased constantly and markedly in the years 1990 – 2007. In 2009, however, it only rose by less than 1 % over the previous year.

In the outer zone of the city (based on counts done at the outer cordon, which expresses the two-way volume of traffic at the entrances from the main arterial roads and motorways into the continually settled area of the city), the volume of automobile traffic fell in 2009 compared to the previous year (by 1.2 %). Over the 24 hours of an average day, 278 000 vehicles entered Prague across the boundary of the outer cordon, of which 245 000 were passenger cars. Automobile traffic in the outer range of the city underwent constant growth from 1990 until 2008, with 2009 registering the first drop on record.

The most heavily trafficked sections on the Prague road network in 2009 were

- Barrandov Bridge, traversed by 134 000 vehicles per day (0:00-24:00)
- Jižní spojka in the section 5. května – Vídeňská (127 000 vehicles per day)
- Brněnská (D1 motorway) in the section Chodovec – Chodov (114 000 vehicles per day)
- 5. května in the section Jižní spojka – Chodovec (111 000 vehicles per day)
- Strakonická in the section Dobříšská – Barrandov Bridge (110 000 vehicles per day)

The most heavily trafficked interchanges in 2009 were

- 5. května – Jižní spojka (215 000 vehicles per day)
- Strakonická – Barrandov Bridge (181 000 vehicles per day)
- Jižní spojka – Vídeňská (157 000 vehicles per day)
- Jižní spojka – Chodovská (157 000 vehicles per day)
- Jižní spojka – Průmyslová (139 000 vehicles per day)

The most heavily trafficked grade intersections in 2009 were

- Poděbradská – Kbelská (74 000 vehicles per day)
- Anglická – Legerova (71 000 vehicles per day)
- Černokostelecká – Průmyslová (71 000 vehicles per day)
- Žitná – Mezibranská (70 000 vehicles per day)
- Argentinská – Plynární (68 000 vehicles per day)



Legerova-Vinohradská intersection



Brněnská Street (D1) at Chodov

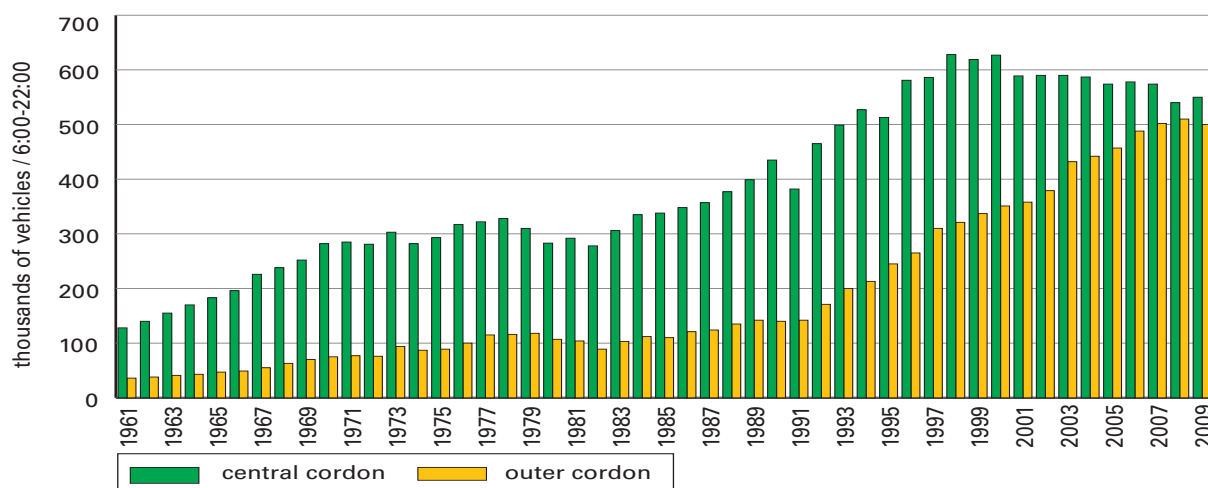
Traffic volume at central and outer cordons 1961 – 2009

Workday, both directions total, period from 6:00-22:00

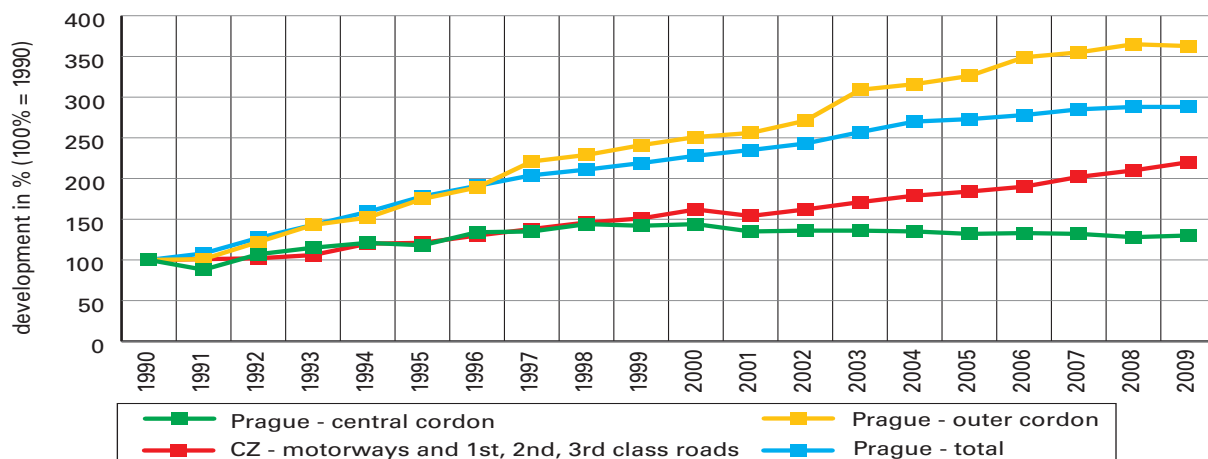
Year	Central cordon						Outer cordon					
	Passenger		Freight		Vehicles total		Passenger		Freight		Vehicles total	
	number	%	number	%	number	%	number	%	number	%	number	%
1961	69 000	18	32 000	82	128 000	29	14 000	14	14 000	41	36 000	26
1971	241 000	63	38 000	97	299 000	69	50 000	50	23 000	68	77 000	55
1981	247 000	64	39 000	100	292 000	67	67 000	66	31 000	91	104 000	74
1990	385 000	100	39 000	100	435 000	100	101 000	100	34 000	100	140 000	100
1995	474 000	123	31 000	79	513 000	118	204 000	201	36 000	106	245 000	175
2000	594 000	154	23 000	59	627 000	144	304 000	301	43 000	126	351 000	251
2005	547 000	142	17 000	44	574 000	132	394 000	390	56 000	165	457 000	326
2006	551 000	143	15 000	38	578 000	131	421 000	417	60 000	176	489 000	349
2007	547 000	142	15 000	38	573 000	132	438 000	434	59 000	173	504 000	360
2008	530 000	138	15 000	38	558 000	128	445 000	441	58 000	171	512 000	366
2009	541 000	141	14 000	36	566 000	130	446 000	442	53 000	156	506 000	361

100 % = the year 1990

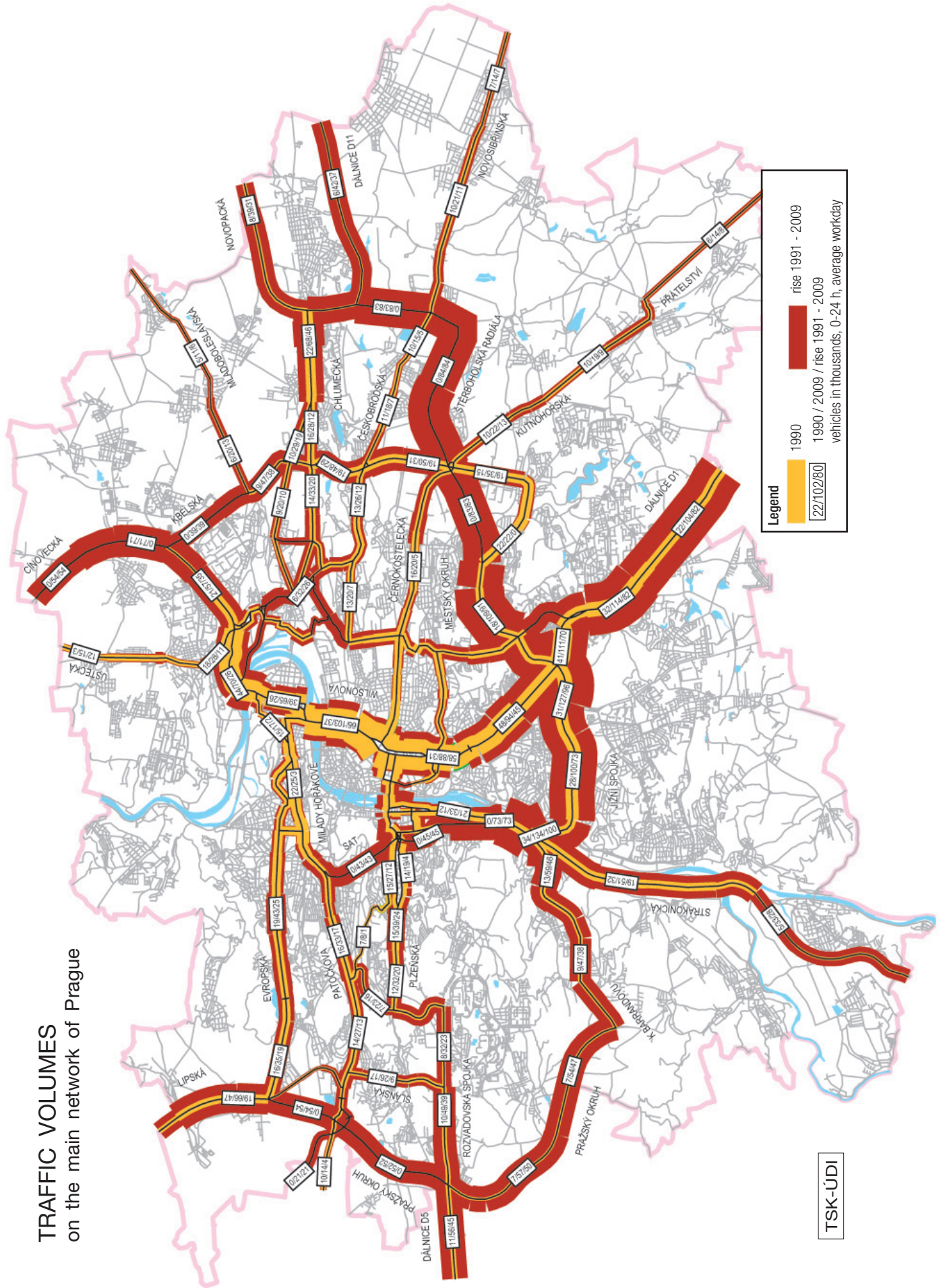
Traffic volume at central and outer cordons 1961 – 2009
average workday, both directions total, period from 6:00-22:00



Development of traffic volume in Prague and Czech Republic 1990 – 2009
average workday



TRAFFIC VOLUMES
on the main network of Prague



TSK-ÚDI

The rate of VKT growth in Prague after 1990 in comparison with the 80s was highest in the first half of the 90s.

Average year-on-year growth in vehicle kilometres travelled on the whole road network:

1981 – 1990	year-on-year	+ 192 000	VKT/day
1991 – 1995	year-on-year	+ 1 134 000	VKT/day
1996 – 2000	year-on-year	+ 736 000	VKT/day
2001 – 2005	year-on-year	+ 652 000	VKT/day
2006 – 2009	year-on-year	+ 333 000	VKT/day

The majority of the increase in automobile traffic in Prague after 1990 was caused by passenger vehicles. In the period 1991 – 2009 the automobile traffic volume in Prague increased as follows, by type of vehicle:

passenger automobiles	+ 233 %
freight vehicles and buses	+ 21 %
vehicles overall	+ 191 %

The level of traffic growth varied in the different city zones. In 1991 – 2009 automobile traffic increased as follows:

average in the whole network	+ 191 %
in the greater city centre	+ 30 %
in the outer zone	+ 261 %
in the middle zone	+ 100 to + 300 %

Automobile traffic volume in Prague 1961 – 2009

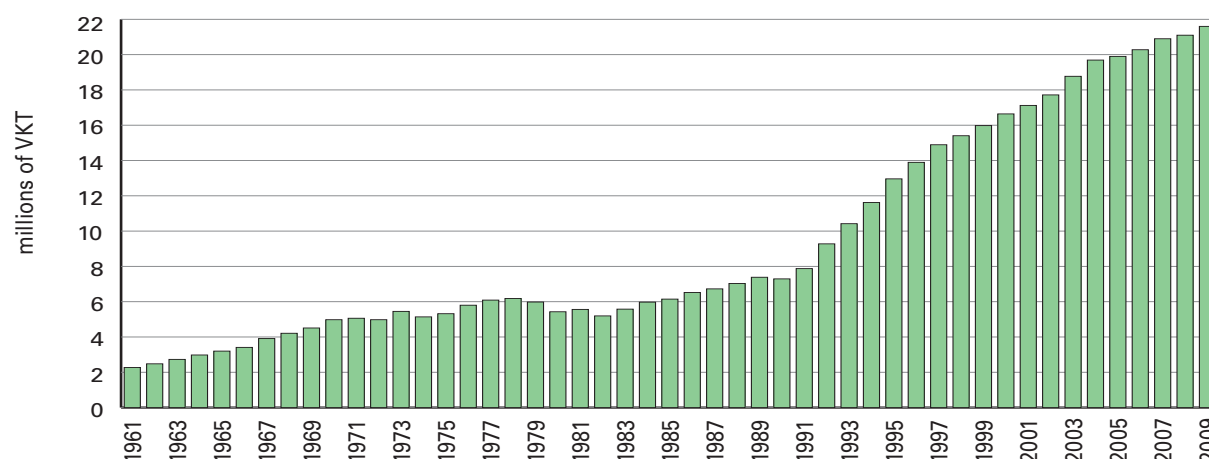
Whole road network, average workday, 0:00-24:00

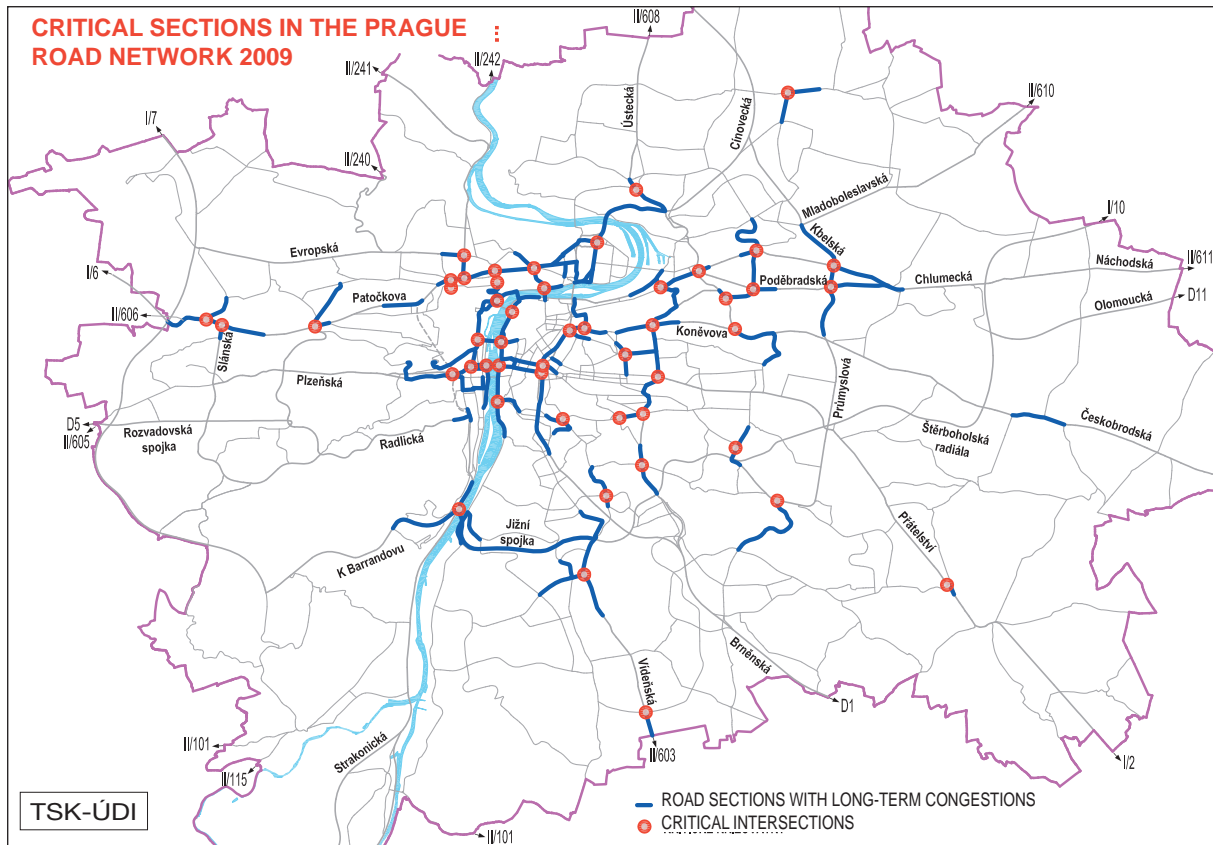
Year	Motor vehicles total		Passenger vehicles		Contribution of passenger vehicles to overall output (%)
	millions of VKT	%	millions of VKT	%	
1961	2.273*	31	1.273*	23	56
1971	5.061*	69	3.543*	65	70
1981	5.562	76	4.338	79	78
1990	7.293	100	5.848	100	80
1995	12.961	178	11.509	197	89
2000	16.641	228	15.131	259	91
2005	19.899	273	18.023	308	91
2006	20.278	278	18.330	313	90
2007	20.929	287	19.016	325	91
2008	21.040	288	19.139	327	91
2009	21.231	291	19.481	333	92

100 % = the year 1990

* estimate based on traffic volume trends at the central and outer cordon (traffic volume in Prague has only been monitored since 1978)

Automobile traffic volume in Prague 1961 – 2009
whole road network, average workday, period from 0:00-24:00





Average occupancy of passenger automobiles (persons per vehicle)

Year	Centre (central cordon)	Outer zone (outer cordon)	Prague total
1990	1.57	1.90	1.71
1995	1.45	1.60	1.50
2000	1.37	1.49	1.44
2005	1.35	1.42	1.40
2006	1.35	1.40	1.38
2007	1.35	1.39	1.38
2008	1.33	1.37	1.36
2009	1.31	1.32	1.31

2.3 Workday vehicle mode share

The mode share of traffic is dominated by passenger automobiles. In 2009, the average proportion of passenger vehicles in the traffic flow over the whole network was 92 %. In terms of territorial breakdown, the rate increases toward the centre of the city.

Mode share 1961 – 2009 (as a percentage)

Workday, both directions, period from 6:00-22:00

Year	Central cordon				Outer cordon			
	Passenger vehicles	Motorcycles	Freight vehicles	Buses (excl. public transit)	Passenger vehicles	Motorcycles	Freight vehicles	Buses (excl. public transit)
1961	53.7	19.4	29.4	2.0	38.6	22.1	34.4	4.9
1971	79.3	5.6	13.3	1.8	63.2	8.6	25.1	3.1
1981	84.3	0.4	13.2	2.0	65.1	0.6	30.3	4.0
1990	88.6	0.7	9.1	1.6	72.1	0.5	24.0	3.4
1995	92.4	0.3	6.0	1.3	83.4	0.2	14.7	1.7
2000	94.7	0.6	3.7	1.0	86.5	0.2	12.1	1.2
2005	95.4	0.7	2.9	1.0	86.2	0.4	12.2	1.2
2008	95.0	1.1	2.7	1.2	87.0	0.5	11.3	1.2
2009	95.5	1.2	2.4	0.9	88.0	0.5	10.4	1.1

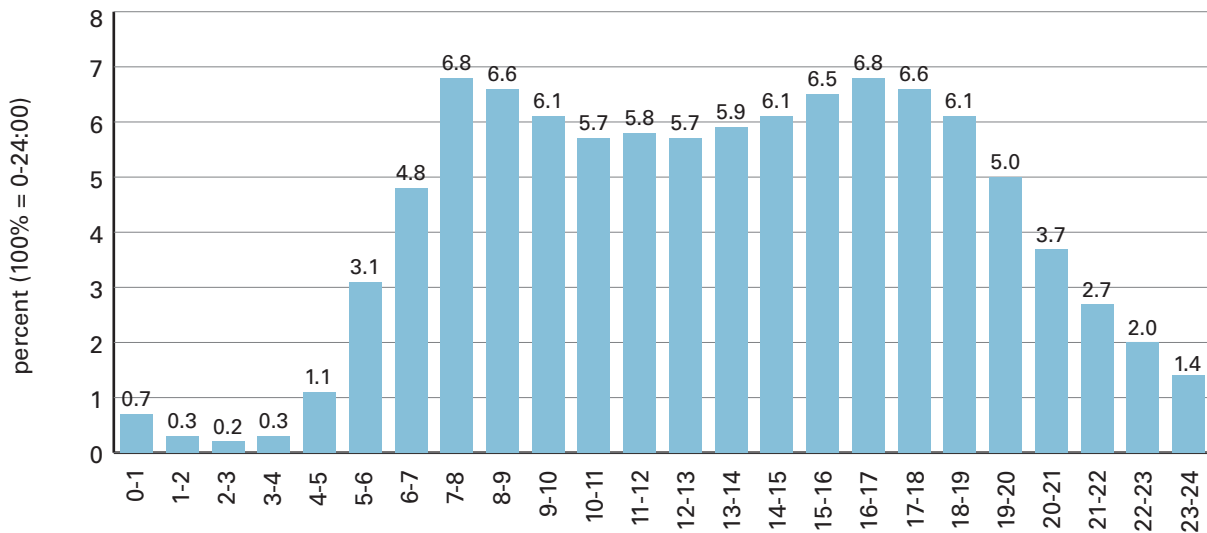
2.4 Temporal traffic patterns

The daily variation in automobile traffic volume on workdays is characterised by the following facts.

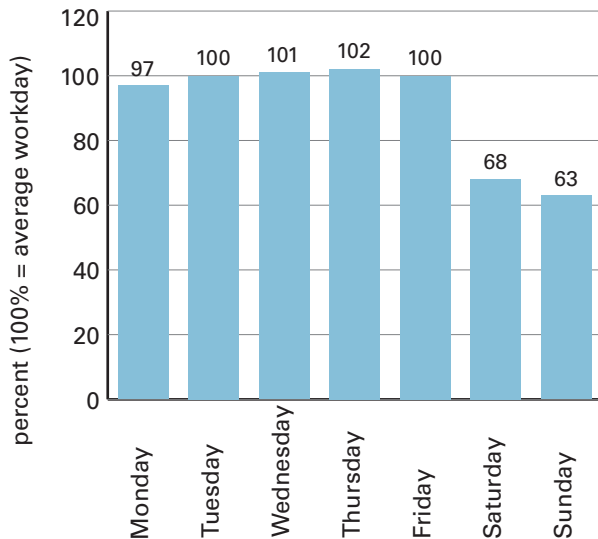
- The majority of traffic volume for the whole day takes place during the daytime period (73 % for 6:00-18:00), with the period 6:00-22:00 accounting for approx. 91 %.
- After 18:00, traffic volume begins to drop off sharply and evenly.
- The morning peak is at 7:00-8:00; the afternoon peak is 16:00-17:00.
- The volume of the morning peak hour makes up 6.8 % of the total; the afternoon peak also contributes 6.8 % (100 % = 0:00-24:00).
- The difference between the peak hours and the noon sag are not very pronounced. The noon hour (12:00-13:00) represents 5.7 % of the whole day.

Over the last five years, the temporal patterns have remained largely the same.

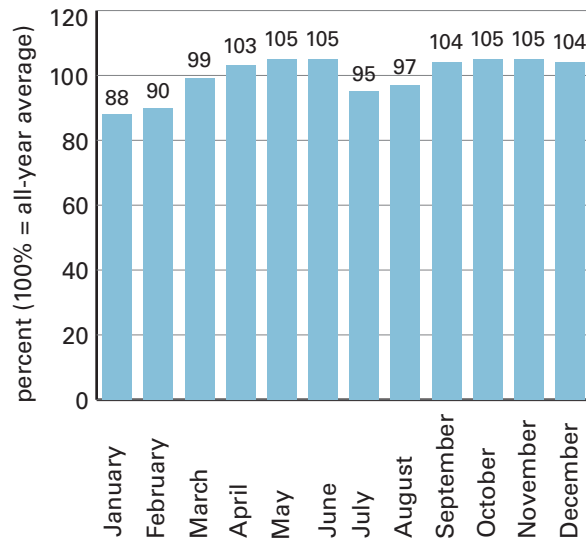
Daily variation 2009 – Prague, whole network



Weekly variation 2009 – Prague, whole network



Annual variation 2009 – Prague, whole network



PUBLIC TRANSPORT

3.1 Prague Integrated Public Transport (PID)

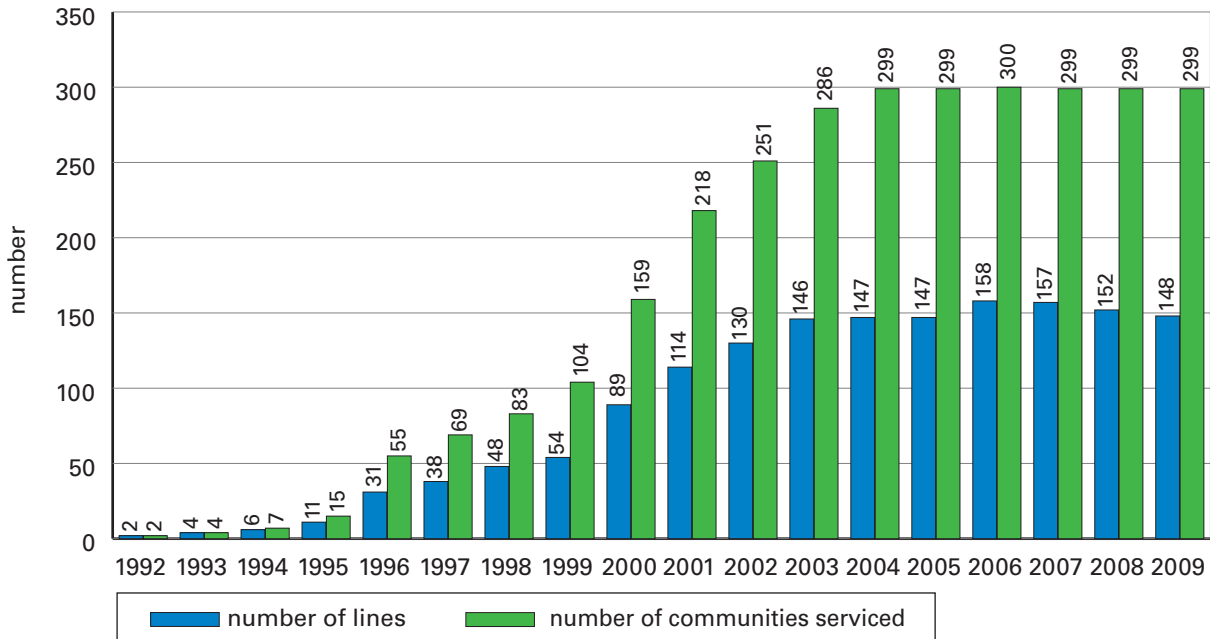
3.1.1 Basic information and development of the PID system

The PID system is a modern integrated system for the public transport of passengers and is primarily located within the City of Prague, along with adjacent areas in the Central Bohemian Region that have important transportation relations to the capital.

Prague Integrated Public Transport includes the metro, trams, urban and suburban bus lines, railroads, ferries and the Petřín funicular. The possibility of using one ticket regardless of the mode of transport or carrier is an important instrument for giving a competitive edge to public transport over individual transport. The key criteria for the attractiveness of the integrated system are time, price, comfort, reliability and safety.

The beginnings of the integrated public transport system in Prague date back to 1991, when an agreement to integrate the first two external bus lines was signed. A year later, the railways joined the PID system. In 1993, the City of Prague founded the publically subsidised Regional Organiser of Prague Integrated Transport (ROPID) in order to coordinate the creation and operation of the PID system. On 1 June 1996 a zone-based tariff system was introduced, and since then there has been steady growth in the number and length of suburban bus routes, the territorial reach of the service, the number of municipalities included, and the number of tariff zones. In recent years the number of municipalities served by PID buses has levelled off at 299.

Development of PID suburban bus lines





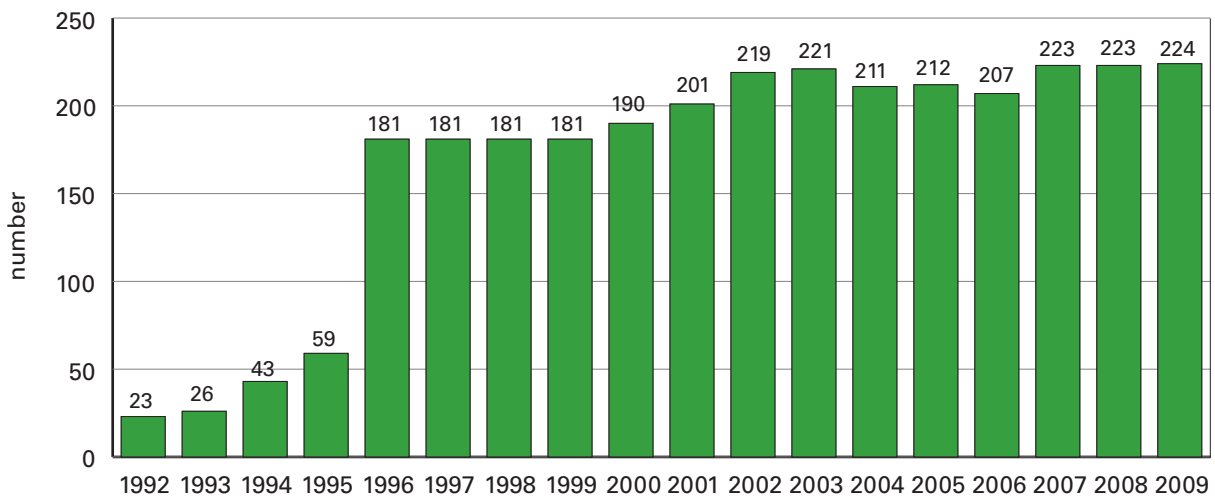
PID suburban line on Strakonická Street



PID suburban lines at the Zličín terminal

The amount of railway track and number of stops under PID has gradually increased. The first stations around the centre of Prague were integrated in 1992, followed by all railway stations on the territory of Prague two years later. After the outer tariff zones were created, the expansion of stations and stops included continued beyond the city limits. As of the end of 2009 there were a total of 224 railway stations and stops under the PID system.

Number of railway stations and stops under PID



In 2007, suburban rail routes were market with an “S” and a system of 10 “S” rail lines was introduced. With growing ridership and the completion of the tunnel under Vítkov, the number of such lines in Prague grew to 12 in December 2008 and three new express routes marked with the letter “R” were created. In 2009 this system was expanded to include a new S20 line: Praha Masarykovo nádraží-Milovice.

The City of Prague and a number of other municipalities contribute to the operation of public transport lines, as does the Central Bohemian Region. The primary carriers under PID are the Prague Public Transport Company, which operates the metro, trams, funicular and most of the bus lines within the city and Czech Railways, which is in charge of rail transport. A further 14 private carriers take part in operating bus lines. Also included in the integrated public transport system are six river ferries. The total number of operators contributing to PID is 18.

As of the end of 2009, the dominant carrier in the city was the Prague Public Transport Company with 147 bus lines. Within the region the most lines were operated by Veolia Transport Praha s.r.o. (38 lines) and ČSAD Střední Čechy, a. s. (30 lines).

Basic information about Prague Integrated Public Transport 1999 – 2009

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Number of municipalities serviced by PID suburban buses	104	159	218	251	278	299	299	300	299	299	299
Number of railway stations and stops included in PID	181	190	200	219	221	211	212	207	223	223	224
Number of PID suburban bus lines	54	89	114	133	146	147	147	158	157	152	148
Traffic volume of PID suburban bus lines (millions of VKT)	7.99	9.36	12.91	15.79	18.48	20.20	22.2	22.4	23.6	24.3	24.6
Traffic volume of all PID lines excluding rail (mil. of VKT) (metro+trams+urban and suburban buses)	156	157	163	161.6	172.9	177.8	178.9	187.1	188.6	194.3	193.1
Percentage of passengers using PID travel documents on railways included in PID	37.2	39.2	43.0	52.1	56.5	57.7	59.7	60.4	63.3	63.8	66.6



R5 express line at Praha-Dejvice station



Lines S41 and S4 at Roztoky u Prahy station

At the end of 2009 there were three metro lines, 24 day and 9 night tram lines and a total of 164 bus lines in operation with routes only inside the city limits. Of this last number, 13 were night lines, 19 school lines and 2 were lines for persons with limited mobility. In addition to this, there were 148 regional bus lines included in the PID system, of which 87 lines provided transportation between the city and the region (80 day lines and 7 night lines) and 61 lines operated only in the region outside the city limits.

Number of PID bus lines operated (including night lines, school lines and lines for persons with limited mobility)

Carrier	Within the city	In the region
Prague Public Transport Company	147	18
Other operators	17	130
Total	164	148

PID ridership within City of Prague 2009

Carrier, mode of transport	thousands of persons/year
Prague Public Transport Company metro	584 880
trams	349 286
buses	290 970
funicular	1 805
Contracted carriers buses	60 755
Czech Railways (with a PID ticket)	17 751
Ferries	337
Total	1 305 784

3.1.2 Urban public transport (PT)

The **metro** forms the backbone of the public transportation network. It has three lines with a total operating length of 59.1 km and 57 stations (including three transfer nodes, each of which is counted as two stations).

The average travelling speed of the metro trains is 35.5 km/h and the average distance between stations is 1 094 m. The metro accounted for 44.8 % of the total number of passengers transported under PID on city territory in 2009.



Rush hour at Muzeum station on "C" Line



Glowing blue line at metro station

According to the results of a transportation study done on the metro in November 2008, the most frequented stations are Můstek on the "A" Line, with a turnover of 188 081 passengers a day (including transfers), and Muzeum on the "C" Line, with a total turnover of 161 915 passengers a day (including transfers). A total of 569 000 passengers a day (including entry, exit and transfer) passed through all the metro transfer stations (Můstek, Muzeum and Florenc). The stations with the highest passenger turnover (total entry and exit) are I. P. Pavlova (118 647 persons/day), Dejvická (117 726 persons/day) and Anděl (101 451 persons/day).

The most heavily frequented segment on the whole metro network is the section between I. P. Pavlova and Vyšehrad on the "C" Line, through which 292 000 passengers pass in a whole workday, counting both directions.

Barrier-free access by passenger elevator, stair lift platform or direct barrier-free entrance is possible at 32 stations. Other stations (Háje, Opatov, Roztyly and the south vestibule of Nádraží Holešovice) are accessible via modified freight elevators with personnel assistance. At the remaining 22 metro stations, barrier-free access is not possible.



Passenger elevator at Luka station on "B" Line



Stair lift at Nové Butovice station on "B" Line

Metro fleet as of 31 December 2009

Train type	Inventory	Operational
81 – 71	82	0
81 – 71M	395	370
M 1	240	240
Total	717	610

In 2009, 45 cars of the 81-71 type were modernised to 81-71M, thereby replacing the last original Russian-made units. The average age of operational metro cars is 4.9 years.



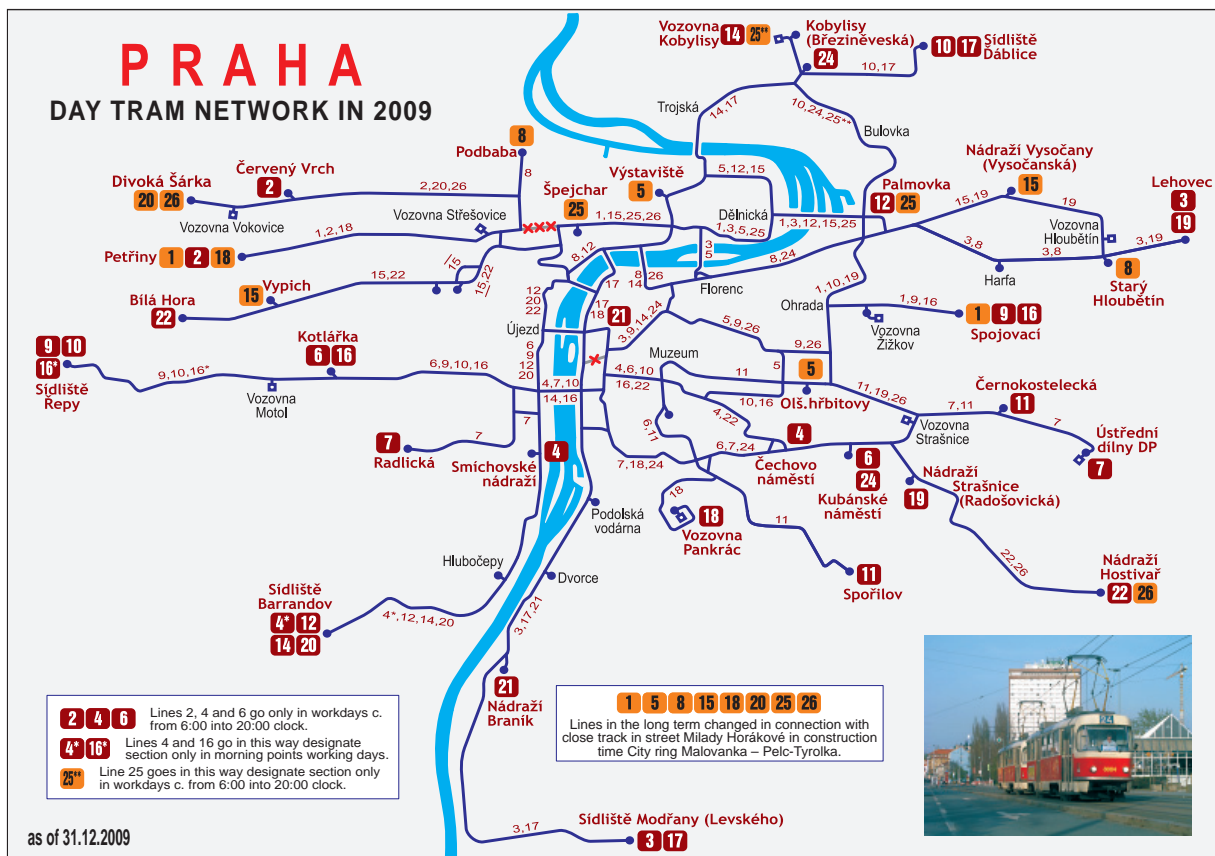
The last ride of an 81-71 train at the Anděl station



A retrofitted 81-71M train at the Nové Butovice station

The length of the **tram** network at the end of 2009 was 141.6 km. Of that amount, 52 % was dedicated track (in a raised tram lane on roads and in some places also on separate routes apart from the roads). The average distance between stops on the tram network was 534 m. Tram transport contributed 26.7 % of the total persons transported under PID on city territory in 2009.

The construction of the City Ring Road on Letná had a major influence on the operation of tram lines throughout 2009. This fact was reflected in long-term changes to eight lines.



As of 31 December 2009 there were 24 day tram lines in operation in Prague (operating from approx. 4:00 to approx. 0:30) marked with the numbers 1 through 26 (excluding 13 and 23) and 9 night tram lines (operating from approx. 0:30 to approx. 4:00) marked with numbers 51 through 59.



14T and 15T trams at the Smíchovské nádraží loop



The 25, 15 and 26 lines at the Špejchar tram loop

The Prague tram fleet was expanded in 2009 to include new low-floor trams of the 14T type, of which there were 60 as of 31 December 2009. There were 111 low-floor tram cars in operation. The average age of the operational tram fleet is 13.1 years. There are 19 historical tram cars.

In June 2009 a prototype of the 15T ForCity tram from the Pilsen-based company Škoda Holding a.s. was unveiled and loaned out for testing in Prague.

Tram fleet of the Prague Public Transport Company as of 31.12.2009

Car type	Inventory	Operational
standard (T3, T3M, T3R, T3R.PV, T6)	837	826
low-floor (T3R.PLF)	25	25
standard articulated bidirectional (KT8D5)	21	17
low-floor articulated bidirectional (KT8N2)	26	26
low-floor articulated unidirectional (14T)	60	60
Total	969	954

Since 2007 a system of “arterial lines” has gradually been being introduced in tram and bus public transport in Prague. These lines are characterised by short intervals, priority over automobile traffic and, where possible, the use of high-capacity cars for designated key routes. In November 2009, the existing 9 and 22 arterial tram lines were joined by the 17 line in the section Výstaviště – Sídlíště Modřany (on weekday peak hours with an interval of 4 minutes).

At the end of 2009, tram connections between Barrandov and the city centre were intensified. In connection with this there was a change in tram line routes, which included a rerouting of the 16 line to Kotlářka, extended to the stop Sídlíště Řepy during the morning rush hour. The 10 and 16 lines thus follow the same route between Žižkov and Kotlářka and their combined frequency corresponds to that of an arterial line.

New development around Poděbradská Street (Nová Harfa) also led to changes in the routes of the 8 and 15 lines.



The 10 line on Plzeňská Street



The 20 line at the Poliklinika Barrandov stop



A KT8N2 tram at Malostranské náměstí

According to the results of a transport study done on the tram network in March 2008, the most heavily trafficked segment on the tram network was between the stops I. P. Pavlova and Štěpánská (97 000 passengers/day in both directions) and the most frequented junction was Karlovo náměstí (turnover of approx. 110 700 persons/day).

Bus transport forms a supplementary network to the metro and trams, providing blanket service in some areas and many important tangential connections, particularly in the outlying areas of the city. The operating length of the bus network within the city is 683 km. The average distance between stations and stops is 628 m. The contribution of bus transport (urban and suburban) to the total number of transported persons under PID on city territory was 26.9 % in 2009.

There were 130 day bus lines (in operation from approx. 4:00 to approx. 0:30) operating solely within the Prague city limits as of December 2009, numbered between 100 and 291. There were 13 night bus lines (in operation from approx. 0:30 to approx. 4:00) also operating solely within the Prague city limits, numbered 501 through 513. At the end of 2009 there were also 19 school lines as well as two lines for persons with limited mobility and orientation marked with numbers 1 and 3.

The average age of buses operated by the Prague Public Transport Company as of 31 December 2009 was 8.65 years – 8.33 years for standard buses and 9.45 years for articulated buses. The number of operative buses older than 7 years was 819, of which 251 were articulated.

Prague Public Transport Company bus fleet as of 31 December 2009

Type	Inventory	Operational
standard	454	431
articulated	262	260
standard low-floor	403	394
articulated low-floor	85	81
midibus E91	6	6
Zeus M200E (electric)	2	0
Total	1 212	1 172

In 2008, the new bus types SORCITY NB 12 (standard) and SORCITY NB 18 (articulated) were put into operation. These are completely low-floor vehicles from the Czech manufacturer SOR Libchavy with diesel engines. As of the end of 2009 there were 90 of these buses in operation owned by the Prague Public Transport Company (of which 60 were standard and 30 articulated).

At the very end of the year, two new ZEUS M200E vehicles with electric motors were brought into the Prague Public Transport Company's inventory (they began operation in January 2010 on the 292 line to Nemocnice pod Petřínem).

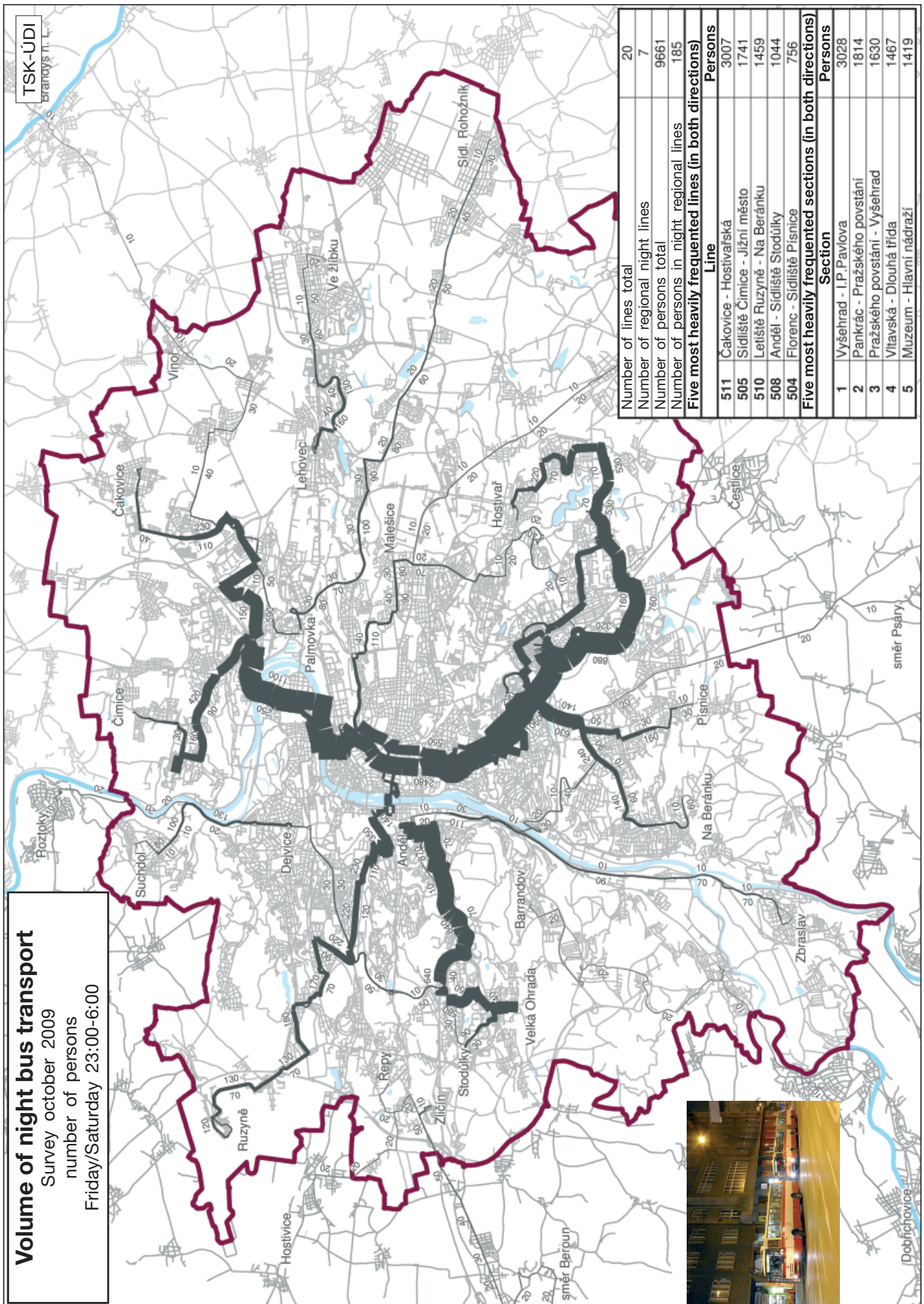


SORCITY NB 12 bus on Ke Štvanici Street



SORCITY NB 18 bus at the Michelangelova stop

Following an extensive rearrangement of the night bus routes in 2008, a network-wide transportation survey of this form of night transport took place in October 2009. According to the results, a total of 9 661 passengers were transported on all twenty night bus lines, of which 13 run solely within the city limits (the 500 series) and 7 also outside of Prague (the 600 series), on the night from Friday to Saturday (the heaviest night in the week). Of those, 185 used the 600 series. Compared to a survey from 2006, the number of passengers had increased by 20 % (by 100 % over 1998). The most heavily frequented sections and lines are displayed in the following illustration.



Volume of night bus transport
 Survey October 2009
 number of persons
 Friday/Saturday 23:00-6:00

TSK-ÚDI
 Bratislava 11. L.

Number of lines total	20
Number of regional night lines	7
Number of persons total	9661
Number of persons in regional lines	185
Five most heavily frequented lines (in both directions)	
Line	Persons
511 Čakovice - Hostivařská	3007
505 Sídliště Čimice - Jižní město	1741
510 Letiště Ruzyně - Na Beránku	1459
508 Anděl - Sídliště Stodůlky	1044
504 Florenc - Sídliště Pisnice	756
Five most heavily frequented sections (in both directions)	
Section	Persons
1 Vyšehrad - I.P. Pavlova	3028
2 Pankrác - Pražského povstání	1814
3 Pražského povstání - Vyšehrad	1630
4 Vltavská - Dlouhá třída	1467
5 Muzeum - Hlavní nádraží	1419



Night transport lines at Sídliště Stodůlky



236 midibus line on Pod Hrachovkou Street

The lack of an attractive mass transit connection between Bohnice and Troja was resolved with the introduction of a third midibus line in Prague, numbered 236. Since 1 April 2009 this line has been connecting the neighbourhoods of Zámky, Staré Bohnice and Sídliště Bohnice with the zoological and botanical gardens in Troja and with Podhoří. The line is in operation all week at intervals of 60 minutes, 30 minutes during the morning rush hour. There are connecting ferries at both ends of the line (P1 Sedlec–Zámky and P2 Podhoří–V Podbabě).

A significant change in the operation of bus lines in Prague was the September 2009 reorganisation and optimisation of the routing for PID buses in the south-eastern sector of Prague. The goal was to improve ridership levels and simplify the routes in the areas of Jižní Město (crossing over into the Hostivař–Malešice industrial zone) and in Prague 4 and Prague 10 (Vršovice, Krč, Lhotka, Libuš) while maintaining overall volume. The changes affected 24 bus lines, of which 9 were cancelled and 1 new line added, with the remaining lines changing their routes either entirely or partially. For some, the number of connections was increased. The measures were supported with the introduction of new right-of-ways for buses in order to make it easier to keep to the timetables during the morning and afternoon rush hours.



Lines 1 and 3 at the Florenc transfer stop



Dedicated bus lane on Vídeňská Street

During 2009, an evaluation was made of public transport between Smíchov and Radotín, and subsequently changes were made to the bus lines in this area. In order to allow for an alternative direct connection to this locale during periods with lower frequency on the S7 train line (evenings and weekends), the 224 line was renewed in March 2009 on the section Smíchovské nádraží – Sídliště Radotín. Aside from a fast train connection, the parallel 172 and 244 bus lines also provide an alternative and supplementary connection to the city centre for inhabitants of Radotín.

Basic data on urban mass transit – 2009 (operated by Prague Public Transport Company)

	Metro	Trams	Buses	Total
Operating length of network (km)	59.1	141.6	683.0	883.7
percentage on dedicated track bed (%)	100	52	-	-
Operating length outside Prague (km)	-	-	142.0	142.0
Average distance between stations and stops (m)	1 094	534	628	-
Average travelling speed (km/h)	35.5	18,5	26,0	-
Annual VKT in Prague (in thousands)	52 756	48 004	61 378	162 138
Annual VKT outside Prague (in thousands)	-	-	1 587	1 587
Passengers transported annually in Prague (000s)	584 880	349 286	290 970	1 225 136
Passengers transported annually outside Prague (000s)	-	-	11 337	11 337
Number of Prague Public Transport Company employees	11 408			
Fare revenues (CZK millions)	4 398			
Operating costs (CZK millions)	15 883			
Revenue to cost ratio (%)	27.7 %			

Development of selected PT characteristics (operated by Prague Public Transport Company)

Year	Operating length of network (km) ⁺			Average travelling speed (km/h)			Traffic and transportation volume on average workday	
	metro	trams	buses	metro	trams	buses	seat km (mil.)	passengers (000s)
1981	19.3	122.9	545.0	32.2	15.7	23.8	46.7	3 638
1990	38.5	130.5	607.3	34.6	18.7	23.7	57.6	4 189
1995	43.6	136.2	671.4	34.9	19.0	23.3	53.4	3 409
2000	49.8	136.4	812.4*	35.7	18.9	25.2*	56.0*	3 290 ⁺⁺
2001	49.8	137.5	806.8*	35.4	19.2	25.9*	56.8*	3 468 ⁺⁺
2002	49.8	137.5	818.0*	35.4	19.5	25.9*	56.4*	3 492 ⁺⁺
2003	49.8	140.9	819.8*	35.7	19.6	26.3*	58.3*	3 530 ⁺⁺
2004	53.7	140.9	822.1*	34.6	19.3	26.1*	61.3*	3 599 ⁺⁺
2005	53.7	140.9	810.6*	34.6	18.7	25.9*	62.8*	3 774 ⁺⁺ (3 628)
2006	54.7	140.9	817.0*	34.6	18.9	25.8*	63.1*	3 900 ⁺⁺ (3 747)
2007	54.7	140.9	820.2*	35.8	18.8	25.7*	63.0*	3 970 ⁺⁺ (3 783)
2008	59.1	141.6	822.0*	35.5	18.5	25.7*	66.9*	3 980 ⁺⁺ (3 820)
2009	59.1	141.6	825.0*	35.5	18.5	26.0*	67.0*	3 914 ⁺⁺ (3 719)

⁺ operating length is the total length of regularly operated routes available to passengers, measured along the track axis, for buses the street axis. For the metro it is the sum of the track between the centres of the end station waiting platforms.

* including PID suburban lines operated by PPTC

⁺⁺ persons transported within Prague (in brackets person transported only by PPTC)

The **funicular** provides a connection between Újezd, Nebozízek and Petřín. Two cable cars with a capacity of 100 persons move along a 510 m long track at an average speed of 6.12 km/h, covering a height of 130.45 m. The electricity-powered tow line has a diameter of 35.3 mm. In 2009 the funicular transported 1 805 000 passengers and accounted for 0.14 % of total number of persons transported under PID in the city that year.

River ferries across the Vltava have been an element of PID since 2005. In 2009 there were 6 such ferries in operation in Prague.

In 2009, the newest (labelled P6) began operating, connecting the banks of the Vltava at the southernmost point of the city. It set out on the Modřany–Lahovičky route for the first time on 18 September 2009 with ship's capacity of 12 persons. During its trial run (until 31 October) it transported 2 960 persons. The interval was set at 20 minutes with the possibility of extra trips based on the demand.



The P6 ferry boat at the Lahovičky pier



The Petřín funicular

Overview of Prague ferries operated in 2009 and their operating parameters

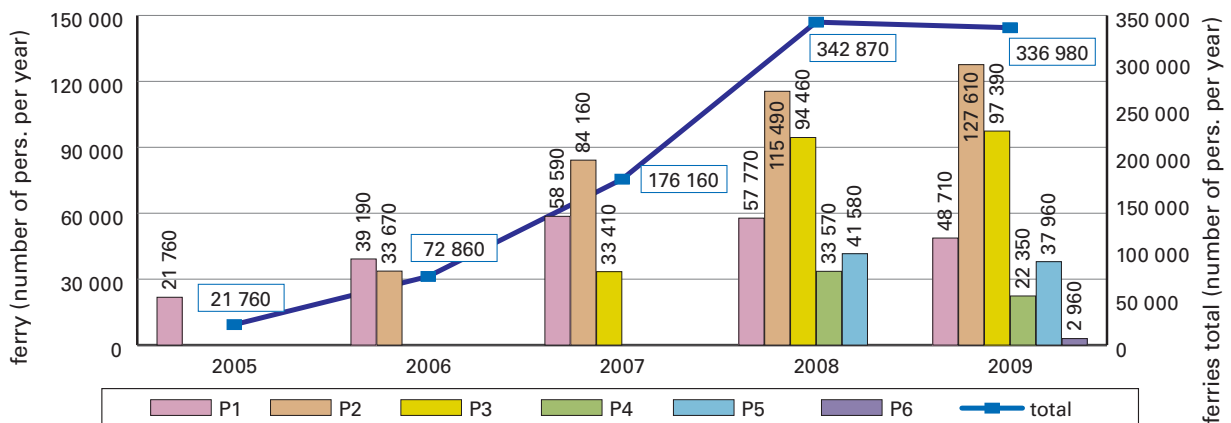
Name	Route	Launched	Season	Operating period	Boat capacity (in persons)	Persons transported in 2009
P1	Sedlec – Zámky	1.7.2005	year-round	Jan – Dec	11	48 710
P2	V Podbabě – Podhoří	1.7.2006	year-round	Jan – Dec	11	127 610
P3	Lihovar – Dvorce (Žluté lázně)	17.7.2007	seasonal	Apr – Oct	12	97 390
P4	Národní divadlo (Hollar) – Střelecký ostrov – Slovanský ostrov (Žofín) – Dětský ostrov	1.8.2008	seasonal	Apr – Oct	20	22 350
P5	Jiráskovo náměstí – Botel Admirál – Výtoň – Císařská louka	1.8.2008	seasonal	Apr – Oct	50	37 960
P6	Modřany – Lahovičky	18.9.2009	seasonal	trial	12	2 960*

* values for the trial period (September – October)

Ferries P1 and P2 are operational year-round according to the valid timetable. Further trips are also possible by request in between the planned trips, assuming they do not disrupt the planned trips listed on the timetable. The P3 ferry reduced the interval between trips during workday peak hours in 2009 by half compared to the previous year (10 minutes). Ferries P4 and P5 are of a seasonal nature and in light of the capacity of the boats and the length of the route, they only sail according to the timetable. Ferry P6 was in the trial phase in 2009.

The operator of the P3 ferry is the Vittus group s. r. o., while the operator of the other ferries is První Všeobecná Člunovací Společnost s. r. o.

Number of persons transported by PID ferries 2005 – 2009



In total, all Prague ferries transported nearly 337 000 persons in 2009, contributing 0.03 % to the total PID ridership within Prague. The most frequented ferries in terms of total number of passengers for the year were P2 and P3, together transporting approximately 225 000 persons. Calculated by daily average, the most frequented ferry in 2009 was the P3 seasonal ferry at around 480 passengers per day.

3.1.3 Suburban mass transit on the territory of Prague

Mass transit operated under PID in Prague that also extends beyond the city limits is provided by both the railways and buses. Approximately 153 000 people cross the city boundaries in both directions using both modes of transport on an average workday, with the railways accounting for 48 % and PID buses for 52 %. In 2009 railway transport on the territory of the city (only counting passengers with a PID ticket) contributed 1.4 % to the overall PID ridership within the city.

Development of number of passengers within Prague transported by rail on a PID ticket

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Ridership (000s)	10 048	14 932	15 700	16 032	15 998	16 584	16 531	17 192	17 278	17 751

Suburban rail transport is operated by Czech Railways on all 10 of the railway tracks that lead into Prague. Eight tracks are completely incorporated into the integrated transport system in Prague. Complete integration means that in addition to time-based passes it is also possible to use individual PID tickets (stations are equipped with ticket stamping machines). The length of railway track on the territory of Prague is 160 km, and there are 43 train stations and stops. The greatest rail transport volume has long been on the routes Prague – Kolín (track 011 / S1 line) and Prague – Beroun (track 171 / S7 line). The most important railway stations for suburban transport in terms of passenger turnover are Praha Masarykovo nádraží, Praha hlavní nádraží and Praha-Smíchov.



Train lines marked with the “S” symbol have been in operation since the end of 2007. This symbol demarcates train connections on urban and suburban passenger trains that predominantly run at regular intervals and easy-to-remember times and provide a fast and comfortable link between the Central Bohemian Region and Prague and vice versa. On the key arterial lines these trains are primarily made up of the modern CityElefant and Regionova cars. In some places the S lines reach beyond the integrated sections of PID or conversely do not cover the whole integrated track section.

A state-wide change of train timetables at the end of 2008 led to a significant increase in the number of trains in Prague and surrounding areas (by 33 %) and intervals on many routes were regularised. On 13 December 2009, further changes were made to the S lines and R express lines. The most significant was the addition of a new line S20 Praha Masarykovo nádraží – Milovice, a result of the completion of electrification on the Lysá nad Labem – Milovice track. The city of Milovice thereby acquired a regular direct link to the capital at regular intervals of 60 minutes on workdays. On weekends this line is not in service but travel from Prague to Milovice and back is possible via the S2 line from Praha Masarykovo nádraží with a transfer to the S22 line in Lysá nad Labem.



The new line S20 at Praha Masarykovo nádraží

List of S and R railway lines crossing in to Prague (since 13 December 2009)

Linka	Trať	Trasa
S1	011	Praha Masarykovo nádraží – Praha-Libeň – <i>Praha-Klánovice</i> – Český Brod – Poříčany – Pečky – Kolín
S2	231	Praha Masarykovo nádraží – Praha-Vysočany – <i>Praha-Horní Počernice</i> – Lysá nad Labem – Stratov – Nymburk – Kolín
S3	070	Praha-Vršovice – Praha hlavní nádraží – Praha-Vysočany – <i>Praha-Čakovice</i> – Neratovice – Všetaty
S4	091+090	Praha Masarykovo nádraží – Praha-Bubeneč – <i>Praha-Sedlec</i> – Roztoky u Prahy – Kralupy nad Vltavou – Vraňany
S5	120	Praha Masarykovo nádraží – Praha-Dejvice – <i>Praha-Ruzyně</i> – Hostivice – Kladno
S6	173	Praha-Smíchov – Praha-Holyně – <i>Praha-Řeporyje</i> – Rudná u Prahy – Nučice – Beroun
S7	171	Praha hlavní nádraží – Praha-Smíchov – <i>Praha-Radotín</i> – Černošice – Řevnice – Beroun
S8	210	Praha hlavní nádraží – Praha-Vršovice – Praha-Braník – <i>Praha-Zbraslav</i> – Vrané nad Vltavou – Čerčany
S9	221	Praha hlavní nádraží – Praha-Vršovice – <i>Praha-Kolovraty</i> – Říčany – Strančice – Čerčany – Benešov u Prahy
S20	231+232	Praha Masarykovo nádraží – Praha-Vysočany – <i>Praha-Horní Počernice</i> – Lysá nad Labem – Milovice
S29	221	Praha-Vysočany – Praha hlavní nádraží – Praha-Vršovice – Praha-Hostivař – <i>Praha-Kolovraty</i> – Říčany – Strančice
S41	ML	Praha-Libeň – Praha-Holešovice – <i>Praha-Sedlec</i> – Roztoky u Prahy
S80	210	Praha hlavní nádraží – Praha-Vršovice – Praha-Braník – <i>Praha-Zbraslav</i> – Vrané nad Vltavou – Dobříš
R3	070	Praha-Vršovice – Praha hlavní nádraží – Praha-Vysočany – <i>Praha-Čakovice</i> – Neratovice – Všetaty
R4	091	Praha hlavní nádraží – <i>Praha-Holešovice</i> – Kralupy nad Vltavou
R5	120	Praha Masarykovo nádraží – <i>Praha-Dejvice</i> – Hostivice – Kladno

Stops marked in bold and black are the final stops of the line. Stops marked in italics are the last (first) on the territory of the City of Prague. Stations marked in colour and bold are stations where integration under PID stops.



R3 line on the Nové spojení [New Connection]



Provisional terminal stop Praha-Gymnasijní

Another change at the end of 2009 was the shift of the first/last stop of most connections on the R4 line from Praha Masarykovo nádraží to Praha hlavní nádraží (in connection with the completed modernisation of the main station's platforms) and the extension of the S8 and S80 lines from Praha-Vršovice, once again to Praha hlavní nádraží.

The ongoing construction of the City Ring Road in 2009 required extensive suspensions of service on the S5 and R5 lines on the 120 track to Kladno and in its second phase also led to the construction of a provisional railway stop called Gymnasijní in walking distance of the „A“ metro station Dejvická, since service was completely eliminated on the Praha-Dejvice – Praha Masarykovo nádraží section.



The S7 line at Praha-Radotín

Czech Railways fleet used for suburban rail transport on the territory of Prague (as of 13 December 2009)

Car series	Photo	Vehicle type	Accessibility	Year of manufacture*	Number in regular rotation	Number on record
451, 452		electric train unit	low-floor	1964 – 1973	23	44
471		electric train unit	low-floor	2000 – 2009	38	49
714		motor locomotive	-	1992 – 1997	3	8
810		motor car	standard	1975 – 1982	6	8
010, 012		connecting car	standard	1975 – 1982	21	26
854		motor car	standard	1997 – 2006	11	14
054		connecting car	standard	2005 – 2009	11	15
056		connecting car	standard	1998	2	2
954		steering car	standard	2006 – 2009	2	3
814		motor train unit	low-floor	2005 – 2009	12	12
Total					129	181

* for car series 814 and 854 the year of manufacture is the year of modernisation

With the introduction regular intervals and new connections under the S lines, railway transport is becoming more attractive as both a fast connection between the city and the region and as an alternative mode of transport within the city itself. The following table presents the travel time between the stop at the edge of the city boundaries and the centre, as well as the average interval during peak hours (in some cases different for morning and afternoon rush hours) on the six most important train routes.

Transport data on most important railway segments in Prague (since 13 December 2009)

Section (line)	Average peak frequency	Average trip time	Length
Praha-Klánovice – Praha Masarykovo nádraží (S1)	30 min	22 min	18 km
Praha-Kolovraty – Praha hlavní nádraží (S9, S29)	15 min	23 min	17 km
Praha-Radotín – Praha hlavní nádraží (S7)	10 min / 15 min*	18 min	13 km
Praha-Sedlec – Praha Masarykovo nádraží (S4)	30 min	13 min	9 km
Praha-Horní Počernice – Praha Masarykovo nádraží (S2, S20)	20 min / 30 min*	15 min	15 km
Praha-Ruzyně – Praha Masarykovo nádraží (S5)	30 min / 60 min*	25 min	13 km

* morning / afternoon peaks

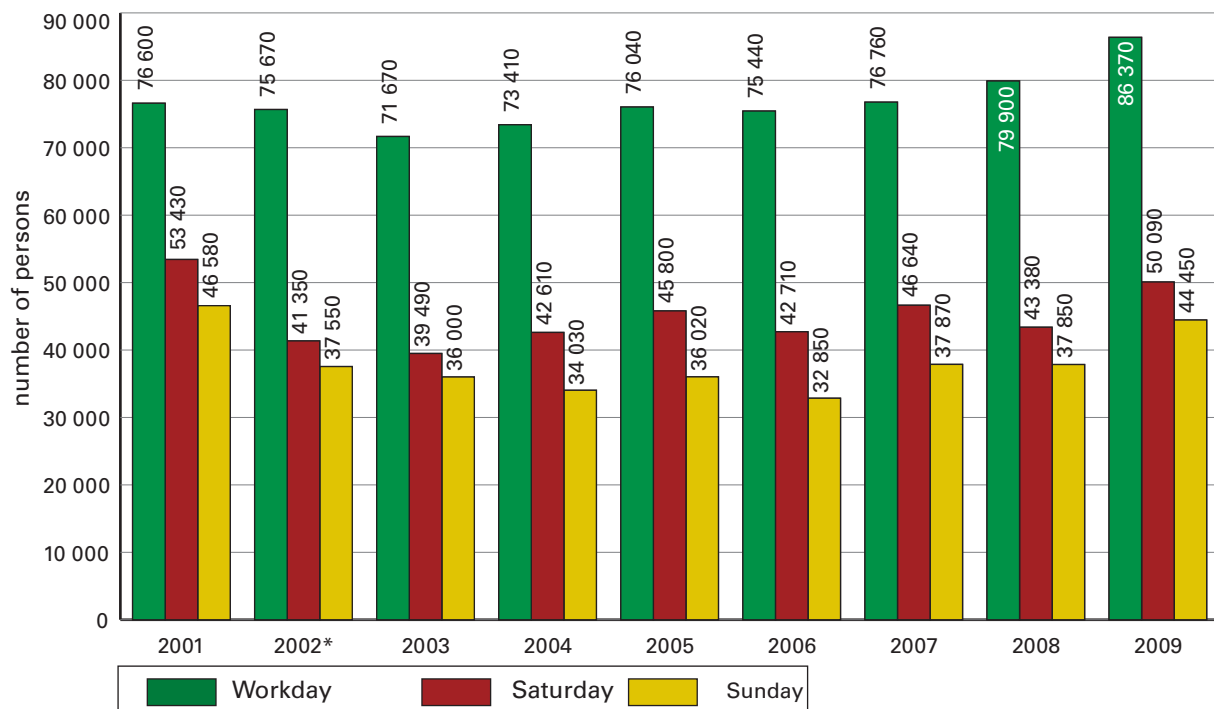
Number of persons transported in Prague (zones P+0+B) in 24 hours by track and line

Workday (average value from two PID surveys carried out in spring and autumn of every year)

Track (line)	2001	2002*	2003	2004	2005	2006	2007	2008	2009
011 (S1)	17 510	19 080	17 450	17 600	18 270	19 040	17 120	17 580	18 120
070 (S3,R3)	1 950	1 940	1 690	1 790	1 790	1 740	2 190	2 260	2 540
091 (S4)	9 120	7 810	6 990	8 640	9 100	9 700	9 410	10 030	7 830
120 (S5,R5)	5 010	4 980	4 350	4 170	4 520	4 500	3 920	4 310	5 620
122	200	130	320	290	240	190	210	200	230
171 (S7)	14 500	13 780	13 610	13 410	14 230	14 230	15 740	16 450	18 530
173 (S6)	420	430	490	330	350	390	420	510	690
210 (S8,S80)	2 820	2 000	2 450	2 410	2 200	2 070	2 090	1 830	1 950
221 (S9,S29)	16 490	15 380	14 760	15 290	14 390	12 420	12 810	13 780	15 650
231 (S2)	8 580	10 140	9 560	9 480	9 880	10 040	10 480	11 060	12 730
ML (S41)	0	0	0	0	1 070	1 120	1 750	1 890	2 480
Total	76 600	75 670	71 670	73 410	76 040	75 440	76 140	79 900	86 370

* data do not include shuttle transport operated due to floods

Number of persons transported in Prague (zones P+0+B) in 24 hrs by trains integrated into PID



* data do not include shuttle transport operated due to floods

In order to satisfy the transportation demand for one workday in 2009, 870 trains integrated into the PID system were sent out, of which 135 were express trains. These trains carried an average of 86 370 passengers (in the P, 0 and B zones). The heaviest load was on the 171 track connecting the capital to the region toward Beroun (18 530 person transported per workday) and track 011 Prague – Kolín (18 120 persons transported per workday).

On an average workday 113 590 passengers enter and exit PID trains at all stations and stops on the territory of Prague. The most heavily frequented stations in terms of turnover of PID passengers are Praha Masarykovo nádraží with an average workday turnover of 35 400, Praha

hlavní nádraží with 20 900 and Praha-Smíchov with an average workday turnover of 11 120. The fourth most frequented station is Praha-Radotín with a turnover of 6 450 passengers per average workday. Compared to the previous year, the number of passengers using this station rose by 36 %, largely due to the reorganisation of transportation in this part of Prague and the shift of passengers from PT buses to rail transport.



Train on the 122 track



The S9 line at Strančice



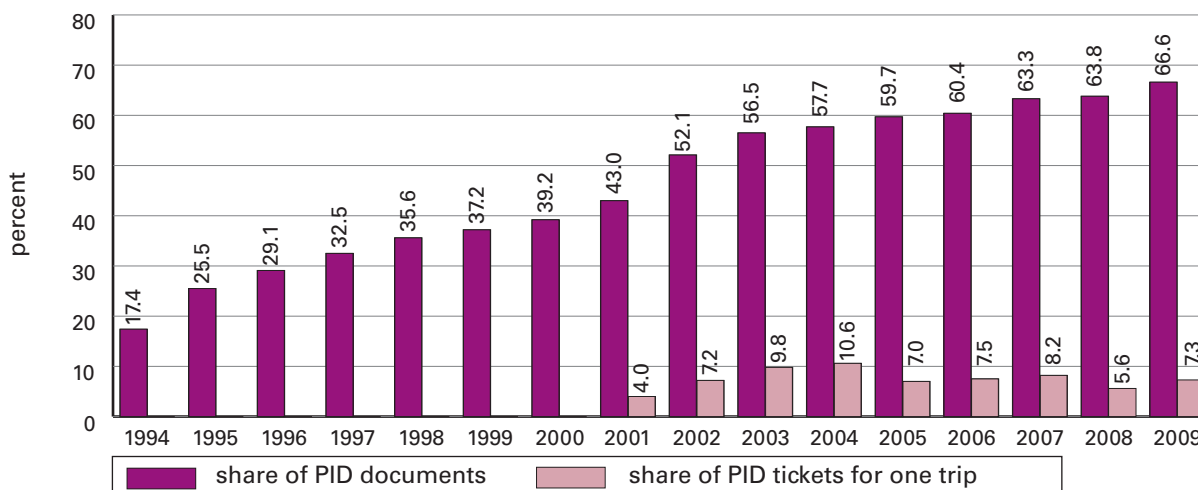
The S5 line at the mouth of the Praha-Dejvice station

The most frequented entrance points (at the boundary of Prague) according to a study from April 2009 were the sections:

- Úvaly – Praha-Klánovice (track 011 / line S1) – 13 960 passengers/day in both directions,
- Černošice – Praha-Radotín (track 171 / line S7) – 13 470 passengers/day in both directions,
- Zeleneč – Praha-Horní Počernice (track 231 / line S2) – 13 070 passengers/day in both directions

The above numbers of passengers are values for an average workday and only apply to trains included in the PID system.

Percentage of PID travel documents in railway transport in Prague



PID suburban bus transport was made up of 148 lines as of 31 December 2009, of which 87 linked the Central Bohemian Region and the City of Prague (the 300 and 600 series). On an average work day, these 87 lines crossed the city limits in both directions around 3 800 times, transporting approximately 80 100 passengers across the city's boundary. Just in the region (i.e. outside the territory of Prague) there were 61 PID bus lines in operation at the end of 2009, transporting approximately 21 400 passengers per workday.



The 380 suburban line at Zličín



The 428 suburban line at the stop Říčany náměstí

In 2009 PID suburban bus transport used a total of 22 locations on the territory of Prague as terminal stops for serving the outlying areas.

The most important terminals on the territory of Prague for PID suburban bus transport in terms of the number of connections and passengers transported in 2009 were the stops Zličín (12 lines, approx. 500 incoming and outgoing connections in 24 hours of an average workday), Černý Most (9 lines, approx. 410 connections), Dejvická (8 lines, approx. 430 connections), Letňany (7 lines, approx. 400 connections), Smíchovské nádraží (8 lines, approx. 300 connections), Opatov (9 lines, approx. 380 connections) and Budějovická (9 lines, approx. 320 connections).

In 2009 there were 1 750 buses and 14 carriers participating in the operation of suburban bus transport. These operators expanded their fleets by 136 new buses (8 %) in 2009, of which 107 were low-floor buses and 36 articulated buses. Due to the ongoing fleet renewal there were guaranteed low-floor connections on eight suburban lines and passengers could enjoy articulated buses on twelve arterial suburban lines.

Following an assessment of moving the end station of three PID suburban lines from Říčany from the Depo Hostivař terminal to the Háje terminal in December 2008 (in an attempt to increase the regularity of service), the remaining suburban line 382 was also redirected to the Háje terminal in March 2009. This served to harmonise the boarding point in the direction Říčany and Mukařov and to increase the frequency of all lines in the common segment Háje-Uhřetěves.

During 2009 a trial was done on suburban PID lines on the possibility of allowing passengers to board using all doors, though only in the direction toward the city and only on the territory of Prague. The goal was to speed up the boarding process and to make it more comfortable for Prague residents to use suburban lines to travel around Prague.

3.2 Non-PID public transport in Prague

Public transport that is not integrated into the PID system and which is financed from other sources is also operated on the territory of Prague. This primarily refers to bus transport to the Prague Ruzyně Airport (the AE line) and service to large shopping centres and complexes as well as other special lines.

The AE line (Airport Express) has been in operation since 2005. It offers a direct connection between air and long-distance rail transportation without the need to transfer to PT. Buses marked "AE" connect Prague's main train station Praha hlavní nádraží and the Praha-Ruzyně airport. The line also stops at the intermediate stops Dejvická and Masarykovo nádraží. The Masarykovo nádraží stop is only in the direction from the airport and only for disembarkment. The total ride time according to the timetable is 40 or 50 minutes (depending on the direction). Czech Railways travel documents are valid on the line or a one-time non-transfer ticket can be purchased from the driver. In 2009 the price was CZK 50.

The line is operated daily from approx. 5:45 to 22:00 at regular 30 minute intervals. Only low-floor buses are used, providing easy access for passengers and sufficient room for their baggage.



The AE bus at Prague Airport's Terminal 1



The 263 line at the Štěrboholy shopping centre

Bus lines that service large shopping centres and complexes can be used by passengers for free. They run according to the valid timetable and their operation is financed by the given shopping centre. At the end of 2009 there were 10 such lines in operation within the city, serving 5 shopping areas (Letňany, Zličín, Černý Most, Šestka-Ruzyně and Štěrboholy), with 400 connections on workdays.

During large events in 2009 a special free 751 bus line was operated between the Nádraží Holešovice – south terminal and the Výstaviště exhibition grounds in Prague-Holešovice. The connections of this line did not run according to a timetable but rather based on actual passenger demand. Likewise the 758 line for the segment Letňany – Výstaviště Letňany was occasionally operated. During large sporting events at the Evžen Rošický Stadium on Strahov a bus numbered 770 was operated (Na Knížecí – Stadion Strahov). Passengers could use the free 753 line from Smíchovské nádraží to get to the race track in Prague-Chuchle. The special Cool Tour line also offered a connection between selected museum exhibitions during 2009.

From April through September 2009 a special ZOO line was also operated (supplementary to PID line 112) to provide free transportation to visitors of the Prague Zoological Garden. The line ran on Saturday, Sunday and on holidays from approximately 9:00 until 18:00 along the route Nádraží Holešovice – Zoologická zahrada in intervals of 10 minutes.

There are also lines with regular timetables but not part of PID that serve companies or business centres and other areas that are poorly accessible by regular public transport.

In March 2009 a new service was created in Prague allowing holders of ZTP and ZTP-P cards for those with physical handicaps to travel around Prague with a new form of transport – minibuses that can be ordered. Trips are free for visits to the doctor's, public office, drop-in centre or social workshop, i.e. the bus serves to meet the basic needs of the disabled. For other purposes a ride can be ordered for the set price of CZK 5 per km for inside Prague and CZK 8 per km outside the city (CZK 20 per km abroad). The service was provided by 8 special minibuses in 2009 with 24-hour dispatching for taking orders. Two minibuses operated around the clock and 6 only on weekdays between 7:00 and 19:00. The minibuses supplemented the existing barrier-free PT bus lines, which were maintained.



The ZOO line to Prague Zoological Garden

3.3 External public transport

3.3.1 Rail transportation

Rail transport also provides transportation between Prague and other territories on trains that are not part of the PID system. These are primarily international and long-distance domestic trains (the categories SC, EC, IC, EN, Ex and R) and fast trains.

The primary station for long-distance international rail transport is Praha hlavní nádraží. Transit stations for such travel are Praha-Holešovice, Praha-Smíchov, Praha-Libeň and Praha-Vršovice (most trains stop here, but all continue on to Praha hlavní nádraží). Domestic long-distance trains also stop at Praha-Vysočany and some begin or end their trip at Praha-Vršovice. Praha Masarykovo nádraží serves primarily for suburban rail transport.

The transportation infrastructure is provided by the state organisation Railway Infrastructure Administration, while service is operated by Czech Railways.



The train SC Pendolino at Praha hlavní nádraží

The opening of the “Nové spojení” [New Connection], the completion of renovations on platforms I – IV at Praha hlavní nádraží and the gradual introduction of regularly spaced connections in 2009 resulted in a growing number of trains dispatched from Prague’s various train stations.

Number of trains dispatched from Prague railway stations 2002 – 2009

		2002	2003	2004	2005	2006	2007	2008	2009
Number of trains	starting	162 578	170 706	159 681	159 524	161 193	160 360	174 615	215 189
	ending	162 990	170 324	160 888	160 731	163 510	160 665	174 947	215 598
	total	325 568	341 030	320 569	320 255	324 703	321 025	349 562	430 787

Volume of the most important railway stations in Prague in 2009

	Boarding (000 persons/yr)	Disembarking (000 persons/yr)	Total (000 persons/yr)	Number of trains at various stations
Praha hlavní nádraží	9 658	8 684	18 242	120 445
Praha Masarykovo nádraží	6 098	4 339	10 437	52 767
Praha-Smíchov	2 020	1 971	3 991	73 266
Praha-Vršovice	842	984	1 826	106 299
Praha-Libeň	497	682	1 179	47 149
Praha-Vysočany	679	796	1 475	60 048
Praha-Holešovice	1 187	1 231	2 418	29 385

Extensive renovations of the main hall of Prague’s main station Praha hlavní nádraží have been underway since December 2006. In June 2009 the northern section was opened up for public use with new shops, restaurants, outlets, tourist information, and above all the Czech Railways ticket office. At the same time, the south part of the main hall was closed off, with renovations including underground walkways to the platforms to continue until 2011.

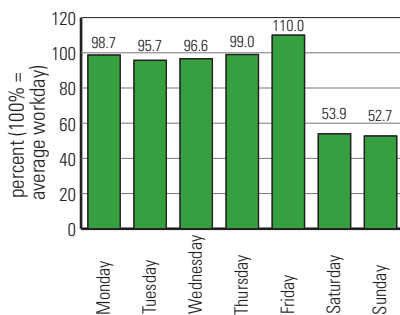


Renovated part of the Praha hlavní nádraží main hall and the new ticket office

From the following graphs of weekly and annual variation of rail transport it is clear that the workday with the highest number of persons transported is Friday, while on weekends the volume of rail transport falls to half. The highest volumes in the year are recorded in the months of April, May and October.

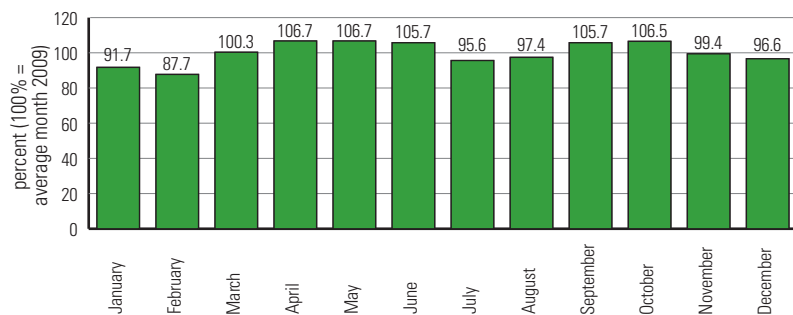
Weekly variation in passenger demand on railways 2009

coefficient from number of passengers



Annual variation of passenger demand on railways 2009

coefficient from connection by type of travel document



Since summer 2009, Czech Railways have joined the network of Deutsche Bahn bus connections under the name Expressbus, which make it easier to travel between important railway junctions where the train connections do not meet current standards. Six times a day, modern air-conditioned buses set out on the route Prague – Nuremberg, providing a fast link between the Czech metropolis and the western European railway network. The trip takes just under four hours and makes no stops.

In the Czech Republic this line is integrated into the SuperCity product offer and offers passengers the same range of services as on SC Pendolino trains. The comfort level is comparable to that of higher quality trains and there is both a first and second class, snack bar, toilet and other on-board services. In both Prague and Nuremberg the stops are directly at the main train station, which allows for easy transfer to trains.

3.3.2 Bus transportation

Public bus transportation between Prague and other areas in the region (excluding PID) and the whole country is operated by a number of carriers from the Czech Republic, and some international lines are also run by carriers from other countries.

On the basis of a detailed study last carried out in 2007, nearly 57 000 persons cross the boundaries of Prague in both directions on a workday on regular long-distance and regional bus lines (excluding PID connections).

According to the 2007 data, nearly 2 700 buses cross the border of Prague in the 24 hours of an average work day in both directions, of which roughly 1 450 are regional bus lines (excluding

PID), nearly 1 000 are long-distance connections and nearly 250 are international buses. 18.5 % of this total use the most heavily trafficked crossing on the D1 motorway.

The most heavily trafficked bus station for regular external bus transportation has long been the Florenc bus station (ÚAN Florenc). It primarily serves for international and long-distance travel. In 2009 a new main hall was completed at ÚAN Florenc. It was built on an area of 1 096 m², of which shops, restaurants and other facilities for passenger comfort take up 434 m², or 40 % of the total area. There are 20 new ticket windows available to passengers, as well as an infocentre on connections with a large-scale screen, a modern touch-screen infoboard for independent look-up of bus connections, a left luggage counter, fast food and modern washroom facilities. The hall is also equipped with navigational facilities for the blind, allowing them safe navigation of the station premises. The total costs for the construction of the new hall were in excess of CZK 70 million.



Interior of new main hall at ÚAN Praha Florenc

Development of selected characteristics of Florenc bus station 2003 – 2009

	2003	2004	2005	2006	2007	2008	2009
Connections per year	230 000	220 000	220 000	210 000	200 000	180 000	160 000
Connections per average workday	700	700	660	650	620	550	460
of which international	110	150	140	140	140	120	100
domestic long-distance	590	550	520	510	480	430	360
Number of carriers	100	95	90	90	90	85	93

Other connections are dispatched and concluded at bus stations at Černý Most, Dejvická, Hradčanská (leaving from Na valech Street and Dejvická and Zličín metro stations while the City Ring Road is being constructed), Nádraží Holešovice, Na Knížecí, Roztyly and Zličín.

Selected characteristics of bus terminals on the territory of Prague 2009 (excluding PID lines)

	Dejvická	Nádraží Holešovice	Černý Most	Na Knížecí	Zličín	Roztyly	Hradčanská	Total
Connections per year	145 100	104 500	93 700	89 100	54 900	43 700	22 800	553 800
Connections per workday*	499	367	275	283	184	128	77	1 813
international	0	0	0	1	0	10	0	11
domestic long-distance	100	111	186	77	75	70	10	629
intraregional	399	256	89	205	109	48	67	1 173
Number of carriers**	16	14	26	15	16	28	7	

* as of 13 January 2009

** as of January 2009

Regional suburban transport also includes those lines that connect Prague with its immediate surroundings, are not part of the Prague Integrated Public Transport system and in terms of fare belong to the Central Bohemian Integrated Transport (SID) system. This system began to be gradually implemented in 2005. SID lines departing from Prague are designated by the letters A (Kladno district), B (Rakovník district), C (Beroun district), D (Příbram district), E (Benešov district), F (Kutná Hora district), G (Kolín district) and a corresponding number. They generally arrive at the metro stations Dejvická, Roztyly, Nové Butovice, Anděl (Na Knížecí), Hradčanská, Černý Most, as well as to the Prague Ruzyně Airport, the Motol and Na Homolce hospitals, and one line also terminates at ÚAN Florenc (from Kutná Hora).

TRANSPORT TELEMATICS AND TRAFFIC MANAGEMENT

4.1 Telematics in transportation

Transportation telematics integrates information and communication technology with traffic engineering in order to optimise the performance of the existing, often overburdened, infrastructure, to improve traffic safety and to increase the quality of transportation. In recent years transportation telematics has gradually come to encompass a number of formerly independent activities, such as central traffic management, the functioning of traffic signals, and supervision, warning and information systems. Its application is increasingly felt in all sectors of transportation (individual and mass).

The development of telematics in the City of Prague continued according to the valid “Principles for the Development of Transport Telematics” in 2009. Of eleven areas laid out in these principles, the area that was developed most in 2009 was Area 1 (Road traffic management) due to the ongoing modernisation of the Urban Traffic Control Centre (UTCC) and the installation of new traffic signals. In Area 2 (Traffic and travel information) a tender was issued for new variable information signs (PIT). Area 5 (Supervision and warning systems) developed with the installation of comprehensive telematic monitoring cameras on the Jižní spojka and in Area 10 (Data collection and management) delivery and installation of strategic detectors onto the streets of the capital took place over the course of 2009.

4.2 Construction and renewal of traffic signals

The installation and renewal of equipment for directing traffic in the City of Prague continued in 2009 on the basis of the conditions laid down in a 2006 selection procedure. Aside from maintenance and supplying new traffic signals, the company Eltodo DS and its sub-contractors also installed two new Area Traffic Control Centres (ATCC) for zones SE (located in the Skalka metro station) and SW (located in the Nové Butovice metro station). A total of 12.5 km of new coordination cable connecting individual light-controlled intersections was installed in 2009.



Traffic signal 6.153 Plzeňská – Makovského



Traffic signal 4.061 Sekaninova – Křesomyslova crossing

As of 31 December 2009 there were a total of 554 traffic signals in Prague. Over the year, 25 traffic signals were installed. One traffic signal was permanently removed on Milady Horákové Street; two were temporarily removed due to construction of the City Ring Road. Thirty traffic signals were refurbished (including structural modifications of pedestrian crossings and curbs).

At the end of 2009 there were 96 dedicated signals for pedestrian crossings. Ten new dedicated crossings have been newly added.

There were 217 traffic signals on the tram network in 2009. At 133 of them (61.3 %) trams have the right-of-way, and at 57 of those (26.3 % overall) the right-of-way is absolute. At a total of 104 traffic signals, PT buses can also use a right-of-way.

Traffic signals in Prague 1961 – 2009



Basic data on traffic signals 1961 – 2009

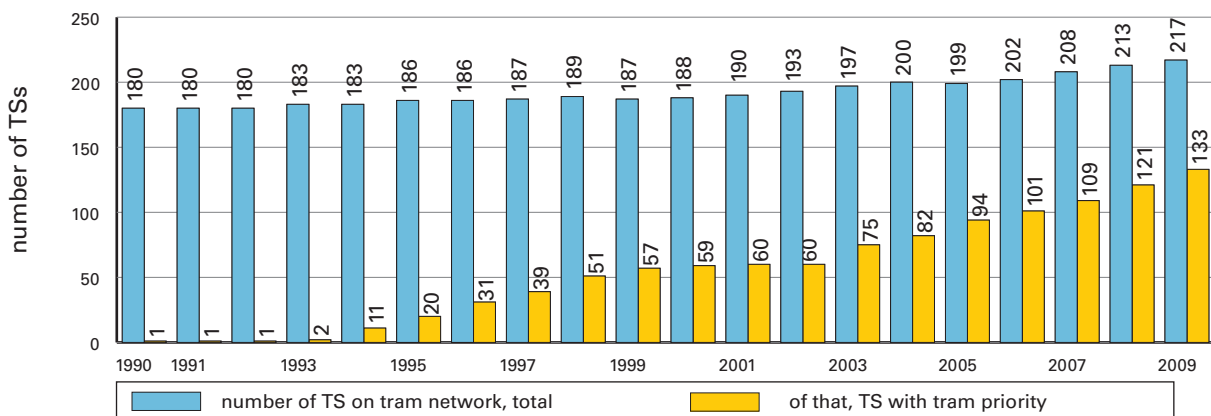
	1961	1971	1981	1990	2000	2005	2006	2007	2008	2009
Total traffic signals (from 2005 number of controllers)	33	76	339	348	398	473	491	504	532	554
Dedicated pedestrian crossings	-	9	37	45	57	72	76	78	86	96
Traffic signals with tram right-of-way	-	-	-	1	59	94	101	109	121	133
Traffic signals with bus right-of-way	-	-	-	-	-	8	20	53	81	104

4.3 Priority for PT vehicles at traffic signals

New and refurbished traffic signals are equipped with technology which, aside from dynamically managing traffic on the basis of vehicle and pedestrian demand, allow the right-of-way to be given to public transport vehicles. PT vehicles thus have the option of first choice and extended green lights in real time according to their needs, in order that they can pass through controlled intersections without stopping where possible, or with only a minimum of delay.

The implementation of preference for PT vehicles, which has been ongoing in Prague since the beginning of the 1990s, significantly contributes to increasing the fluidity of mass transit and meeting the standards of quality in public transport, as well as helping maintain a positive ratio in the number of persons transported by public and individual transport.

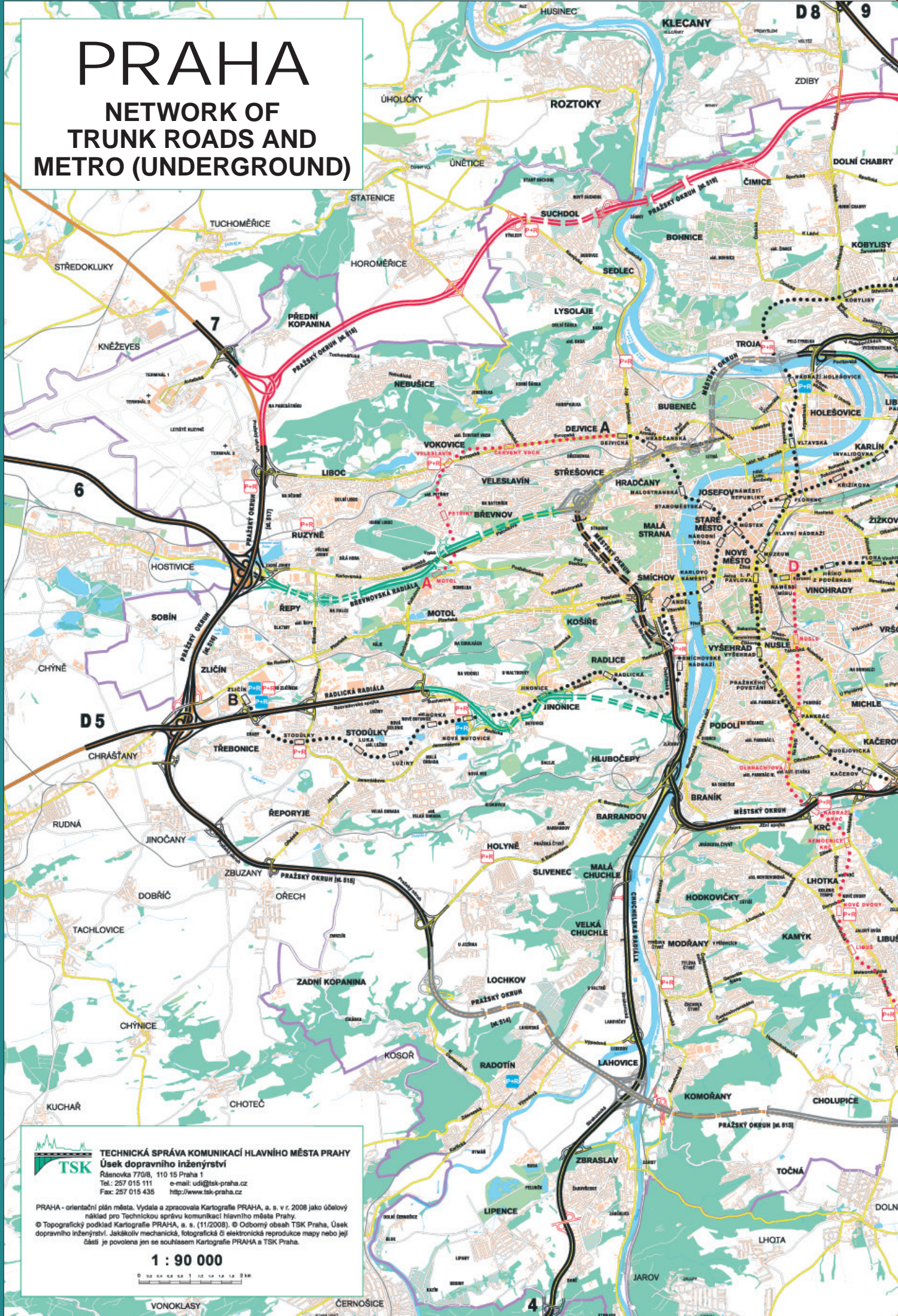
Traffic signals on the tram network 1990 – 2009



During 2009 the number of traffic signals with **tram priority** increased by 12. Seven new traffic signals were installed on the tram network. With the exception of one, where priority was conditional, all new signals gave absolute priority. As of 31 December there were a total of 217 traffic signals on the tram network, of which 133 gave the right of way to trams (61.3 %) At 57, the priority was absolute.

PRAHA

NETWORK OF TRUNK ROADS AND METRO (UNDERGROUND)

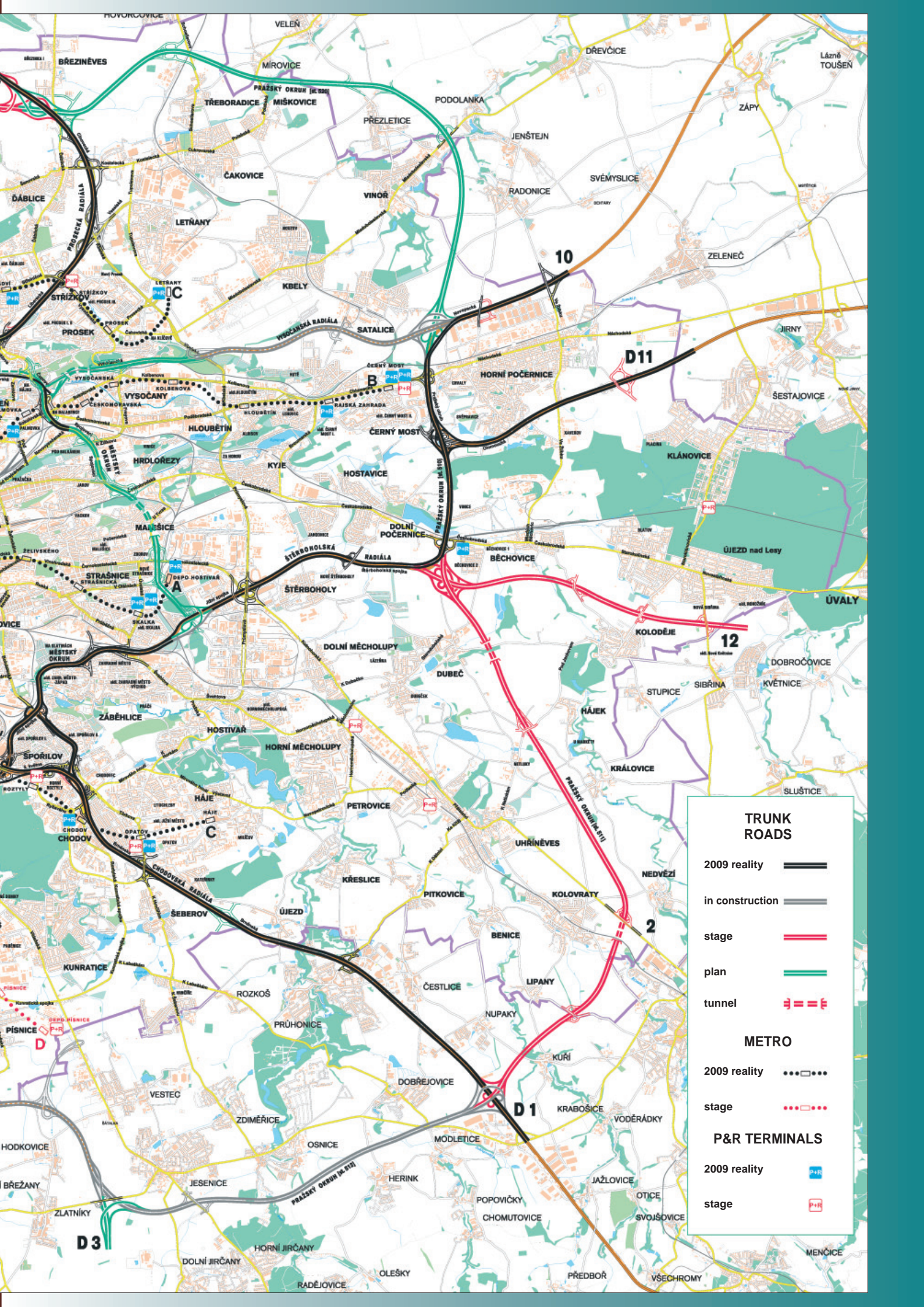


TSK TECHNICKÁ SPRÁVA KOMUNIKACÍ HLAVNÍHO MĚSTA PRAHY
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1 : 90 000
 0 0,2 0,4 0,6 0,8 1 1,2 1,4 1,6 1,8 2,0 km

VONOKLÁSY ČERNOŠICE



TRUNK ROADS	
2009 reality	
in construction	
stage	
plan	
tunnel	
METRO	
2009 reality	
stage	
P&R TERMINALS	
2009 reality	
stage	

Bus priority was introduced at the first two intersections over the course of 2003 as part of the city's participation in the Trendsetter project. Between 2004 and 2007 modifications allowing bus priority at traffic signals were primarily implemented around the gradually expanded "C" metro line from Holešovice to Ládví and thereafter to Letňany. As of 31 December 2009, 104 traffic signals allowed the right-of-way to be granted to buses, of which 97 worked on active detection and 7 on passive detection.

Buses are detected passively on a dedicated lane with a classic vehicle loop detector or by video detection with an inductive loop function. The active detection system for bus priority works on the basis of radio communication between the vehicle and the traffic signal controller. An infrared detector placed an appropriate distance ahead of the stop line is used to locate the vehicle approaching the intersection. When a bus is approaching an equipped traffic signal, the device in the vehicle sends a request for priority to the controller, which is then ranked according to the current position of the bus in relation to the timetable. Considerably higher priority is given to late connections.



Bus priority at the traffic signals Bělocerkevská – 28. pluku and Dvořákovo nábřeží – Kozí crossing

4.4 Control centres

The system of central traffic management in the city is administered by the Technical Administration of Roads of the City of Prague – Department of Transportation Engineering. The Urban Traffic Control Centre (UTCC) is located in the building of the PT Central Dispatching on Na bojišti Street in Prague 2. It continued to undergo modernisation in 2009. Modifications were made to the power supply and cooling systems and above all a new large-scale wall display was installed (Barco wall). The mechanical traffic control board was replaced with a software application. In the second half of the year, work took place on the new software modules for communicating within the UTCC. At the same time, traffic scenario concepts were drafted to be used in dealing with standard and exceptional traffic situations in the city once the modernised control centre is fully launched.

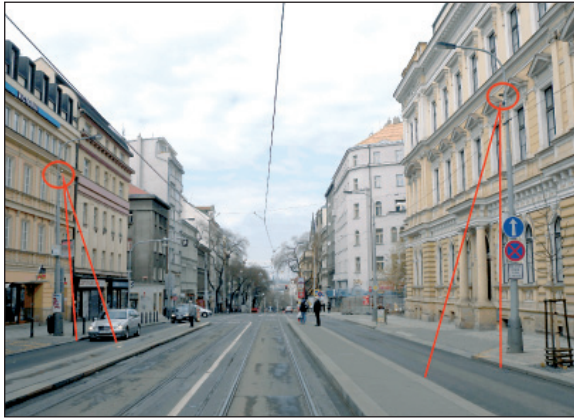
The UTCC modernisation is being carried out in such a way that the majority of the new elements will also be useable in the future following the planned relocation to the multifunctional operating centre at the Malovanka site. The preparation of documentation for a building permit to construct that centre was its final phases at the end of 2009.

As of 31 December 2009, a total of 236 traffic signals were connected to the UTCC Prague via the various Area Traffic Control Centres (ATCC). The systems VRS 2100, MIGRA and SCALA are in use at the UTCC. The newest system, SCALA, includes 56 traffic signals from the Vinohrady, Vršovice and Nové Město districts and 21 traffic signals from Evropská Street (in the future these traffic signals will fall under the Northwest control centre). So far no traffic signals have been connected to the newly completed ATCCs for the SE (Skalka) and SW (Nové Butovice) districts.

State of traffic signals connected to UTCC via ATCCs at the end of 2009:

- district C1 (Centre 1 – right bank) – 108 traffic signals
- district C2 (Centre 2 – left bank) – 65 traffic signals
- district C3 (Centre 3 – Holešovice) – 27 traffic signals
- district E (East) – 33 traffic signals
- district N (North) – 3 traffic signals

In order to improve the quality of the UTCC activities, the ability to collect traffic information must be constantly expanded. To this end, a delivery of 23 sectional and 108 spot strategic traffic detectors was begun in 2009. The first two spot strategic traffic detectors were installed at the end of June 2009 and another 51 spot and 8 sectional detectors had been installed by the end of the year, serving to acquire data on traffic volume and vehicle occupancy, detect congestion, determine the composition of traffic and the like. All detectors are set up without interfering with the carriageway on the principle of video detection.



Spot strategic detectors on Francouzská Street and sectional strategic detectors on Wilsonova Street

4.5 Traffic Information Centre (TIC) Prague

Since 1 July 2005 the TIC Prague has been offering information services in monitoring and classifying traffic levels, providing information on planned long-term closures and exceptional circumstances on the road network and providing output from the city's information database, primarily on its website. The source of data for the information provided are the UTCC Prague systems and a number of devices installed on the streets.

An important TIC Prague service for drivers is RDS-TMC (Radio Data System – Traffic Message Channel), which is able to display current traffic information on navigation maps inside vehicles and adapt routes to the current situation. The appearance of the messages (broadcasting is provided in cooperation with Czech Radio) is completely standardised according to the international ALERT C standards. RDS-TMC broadcasting was launched for the territory of Prague on 1 July 2005, the first place in the Czech Republic and in the whole former Eastern Bloc.

Current traffic information acquired from TIC Prague is used by City of Prague web traffic applications to create a traffic volume map, tables with traffic levels, to distribute screen captures from selected traffic cameras and to provide information about road restrictions (closures).

4.6 Television monitoring systems (TVD)

At the end of 2009 there were three camera monitoring systems in operation in Prague. The Technical Administration of Roads of the City of Prague (TSK) administers a TVD system that primarily monitors traffic. The centre for the TVD-TSK system is the Urban Traffic Control Centre on Na bojišti and it is primarily used by UTCC dispatchers and TIC Prague.

At the end of 2009 there were a total of 243 cameras connected to the TVD-TSK system. Of this number, 86 cameras located in Prague tunnels have a video detection function. Using software definitions of potential situations that could take place in its field of vision, these cameras can recognise a stopped vehicle and detect a traffic jam or oil spill in the tunnel.

In 2009, 18 cameras with a comprehensive telematic monitoring system were installed on the Jižní spojka between Barrandov Bridge and the Štěrboholy Radial Road. These cameras have a fixed position and primarily serve to count traffic on the basis of video detection. They can also detect traffic congestion and evaluate several other traffic situations.

The second camera system in the city is the Prague Public Transport Company's system, which consists of over 600 cameras, primarily on metro station premises and entrances. Only a small fraction of this number can be used to assess the traffic situation in the vicinity of the metro.

The most extensive television monitoring system in Prague is the Municipal Camera System (MCS), made up of approximately 500 cameras above all focused on monitoring the security situation in the city. The majority of cameras in this system are rotatable and high definition.

4.7 Variable information signs (VIS)

Variable information signs (VIS) are installed in Prague in order to display up-to-date information about the traffic situation on connected roads and on short-term and long-term closures, particularly in relation to the tunnels of the City Ring Road. As of 31 December 2009 there were 23 VISs in Prague.

Tender proceedings were drafted and issued under the Transport Operational Programme to renew the existing signs, which are technologically outdated, unable to display new graphic symbols and complicated to maintain, as well as to supply 30 new VISs. This tender had not been closed by the end of 2009.

4.8 Speed measurement and capturing red-light violations

Devices for **measuring speed** on a road section are made up of a pair of gates with cameras that take a picture of the vehicle at the beginning and end of the section. On the bases of vehicle identification from the licence plate, the length of the section and the time data, the average speed is calculated.

At the end of 2009, speed was determined in this manner at 19 sites in Prague (four in both directions are counted as two sections).



Section speed measurement on Bělohorská Street



Section speed measurement on Podolské nábřeží

Also falling into the category of devices for recording misdemeanours are 14 devices installed at intersections for detecting and **documenting the running of red lights** in the capital. In 2008, modernisation of the system for monitoring red-light violations at traffic signal 2.029 I. P. Pavlova – Sokolská was launched. Now, in addition to its basic function, the new technology can also provide data about the volume and composition of traffic, travel times between intersections, and several other types of data. Six traffic signals have now been updated in this way.

4.9 Travel time information

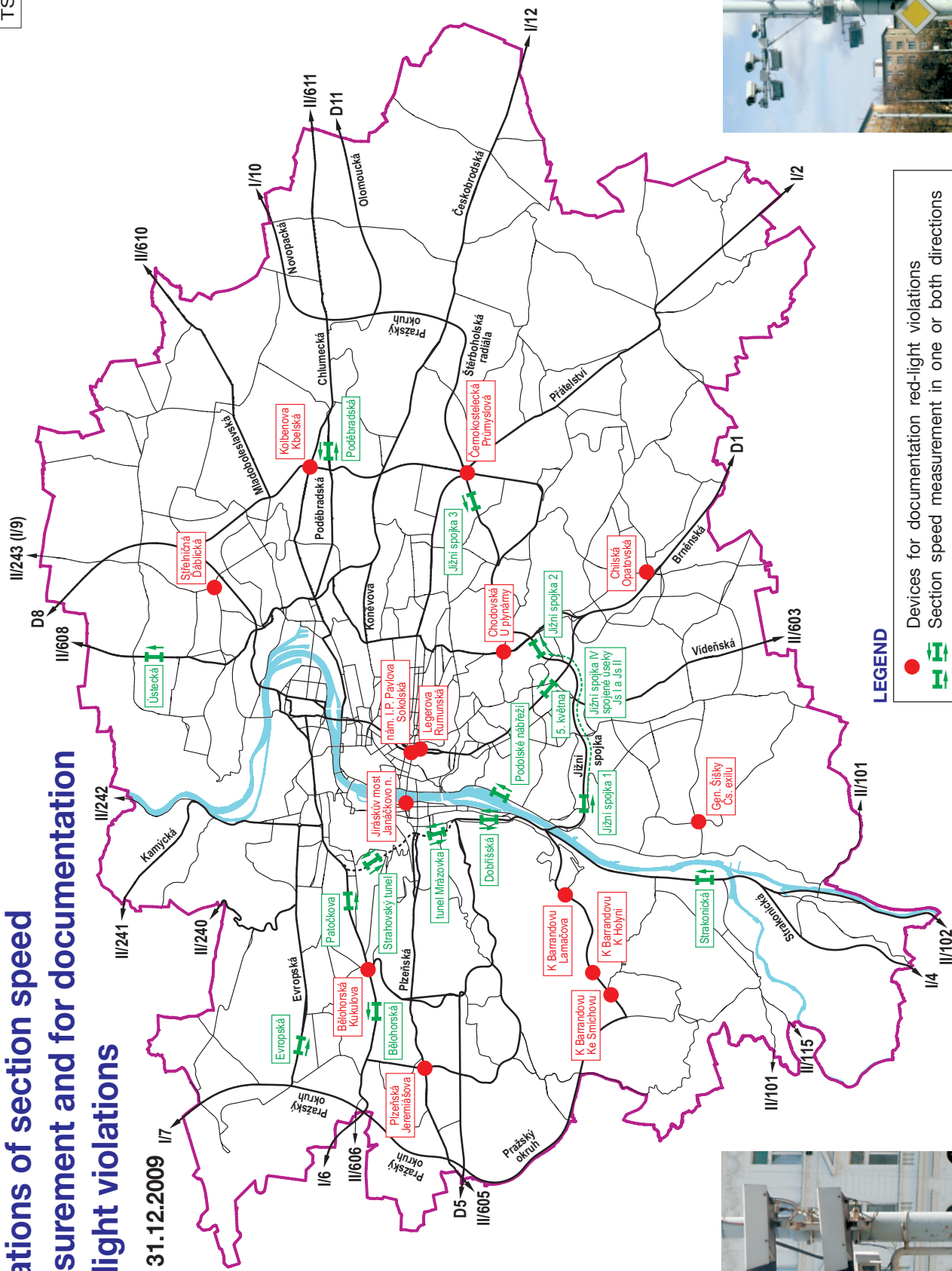
As of 31 December 2009 there were 5 segments in operation where drivers were provided with information on the actual trip time between two points. In 2009 two such sections were launched (on Karlovská and Strakonická streets).

The same camera technology is used to measure travel times as is to measure section speed and record the running of red lights. The travel time is recorded automatically through licence plate recognition without human intervention.

TSK-ÚDI

Locations of section speed measurement and for documentation red-light violations

- as of 31.12.2009



LEGEND

- Devices for documentation red-light violations
- 🚦 Section speed measurement in one or both directions



CHANGES IN TRAFFIC ORGANISATION

An important change in the organisation of traffic in 2009 was the launching of some parts of the Malovanka interchange as part of the construction of Strahov Tunnel 2B. The ramp between Patočkova Street and the Strahov Tunnel toward Vypich and the directional ramp into the Strahov Tunnel leading away from Letná were put into service mid-year. At the same time, traffic was rerouted in both directions on the new stretch of Patočkova Street. In the second half of the year the ramp between Strahov Tunnel and Patočkova Street in the direction toward Letná was opened.



Parts of the Malovanka interchange put into service in 2009

Much attention was devoted to the noise levels around high-traffic city roads in the second half of 2009. In an attempt to improve the noise conditions, the designation of 5. května Street as a road for motor vehicles was annulled and, based on City of Prague Council Resolution of 15 September 2009, an action plan to reduce noise came into effect at the end of the year, focused primarily on reducing the speed of automobile transport on city roads. A decision was made to reduce the speed limit on six motor roads to 50 km/h.

Predominantly minor adjustments to traffic organisation in the centre of Prague were made on certain roads in 2009. One major action was the narrowing of Legerova Street between Boženy Němcové and Tyršova streets from four to three lanes using concrete barriers, which was done at the request of the Prague 2 City District.



Legerova Street – assembly of concrete barriers

Temporary and sometimes longer-term changes in traffic organisation were put in place in connection with transportation construction projects in 2009. Among the most significant were the restrictions on car and tram traffic due to the construction of the City Ring Road and the Malovanka, Prašný most and Špejchar interchanges, which negatively affected the flow of traffic in the north-west sector of the city over the whole year. Local restrictions continued on Novopacká and Kbelská streets at the points where they connect to the Vysočany Radial Road, as well as on Kbelská and Veselská during the construction of the Letňany interchange.

Other traffic measures of note on important streets in Prague were the lane reductions on Strakonická in Lahovice due to construction of the Prague Outer Ring Road, the complete closure of Veletržní Street during work on the natural gas lines and at the end of the year the complete closure of Pod Královkou as part of preparations for the complete closure of Patočkova Street between the Strahov Tunnel and Myslbekova.

ROAD TRAFFIC SAFETY

6.1 Traffic accidents

In 2009, 15 583 recorded accidents took place in Prague, with 40 casualties and 2 429 injuries. There were 675 accidents involving pedestrians, with 13 casualties and 626 injuries. Pedestrians themselves caused 304 accidents, in which 5 persons were killed and 269 were injured. The decisive majority of accidents were caused by drivers (96 %). The main causes of accidents caused by drivers were improper driving and failure to yield. The number of accidents where alcohol was detected in the culprit was 557.

Accidents, impact on health and main causes

	2007	2008	2009	diff. 09/08 (%)
Number of accidents	33 484	30 251	15 583	- 48
Number of fatal injuries	33	38	40	+ 5
Number of serious injuries	352	334	347	+ 4
Number of minor injuries	1 923	1 941	2 082	+ 7
Number of accidents with injury	1 943	1 909	2 094	+ 10
Number of accidents without injury	31 541	28 342	13 489	- 52
Number caused by the driver	32 650	29 530	14 968	- 49
of which failure to keep proper distance	8 918	7 777	2 555	- 67
lack of due care and attention	6 503	4 506	2 211	- 51
running red light	493	461	327	- 29
failure to yield in violation of traffic sign, when turning left, or when passing from lane to lane	6 015	5 544	2 697	- 51
failure to adapt to speed and density of traffic, vehicle condition, road condition, and exceeding the speed limit	1 870	1 681	1 398	- 17
Caused by road defect	115	77	72	- 5
Caused by pedestrian	311	326	304	- 7
Caused by cyclist	64	45	68	+ 51

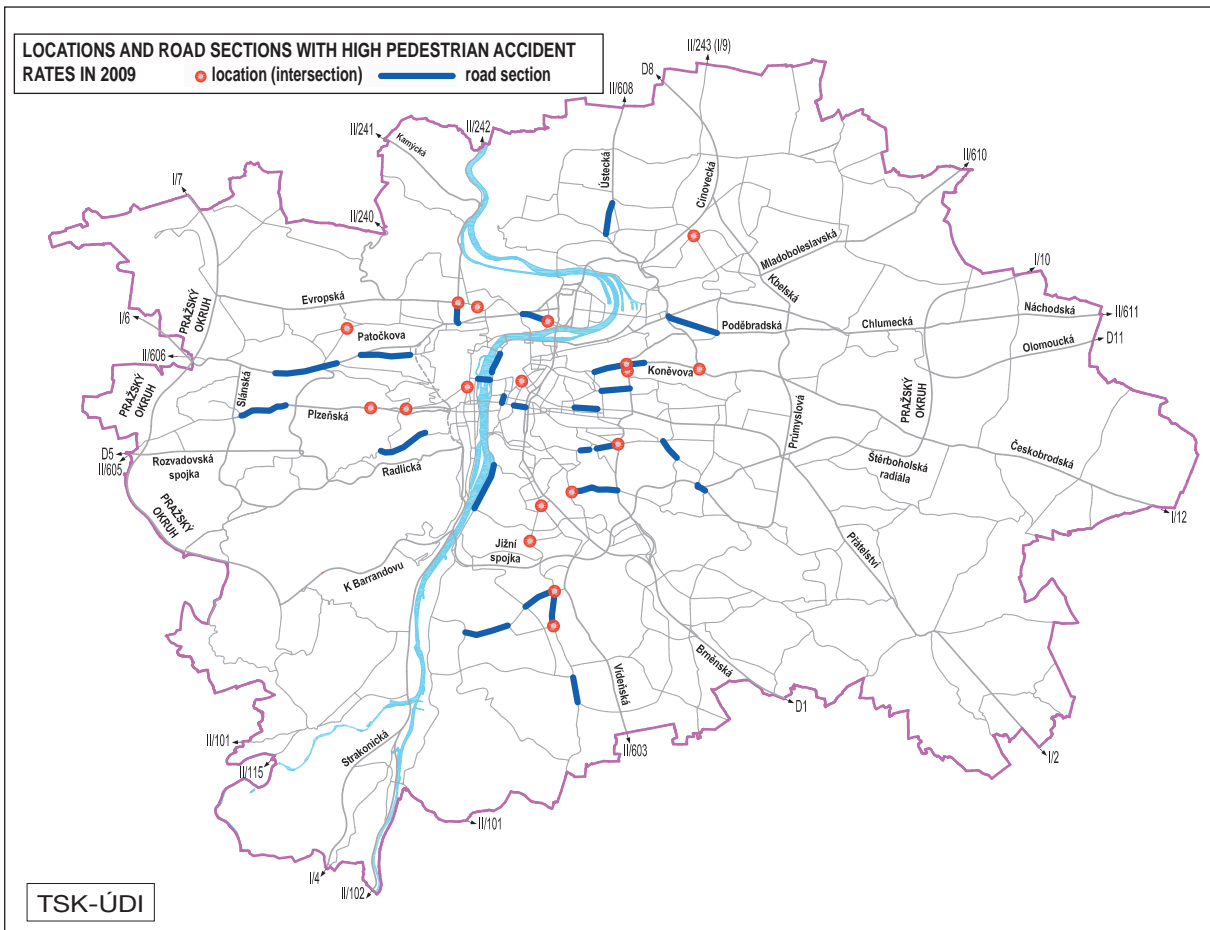
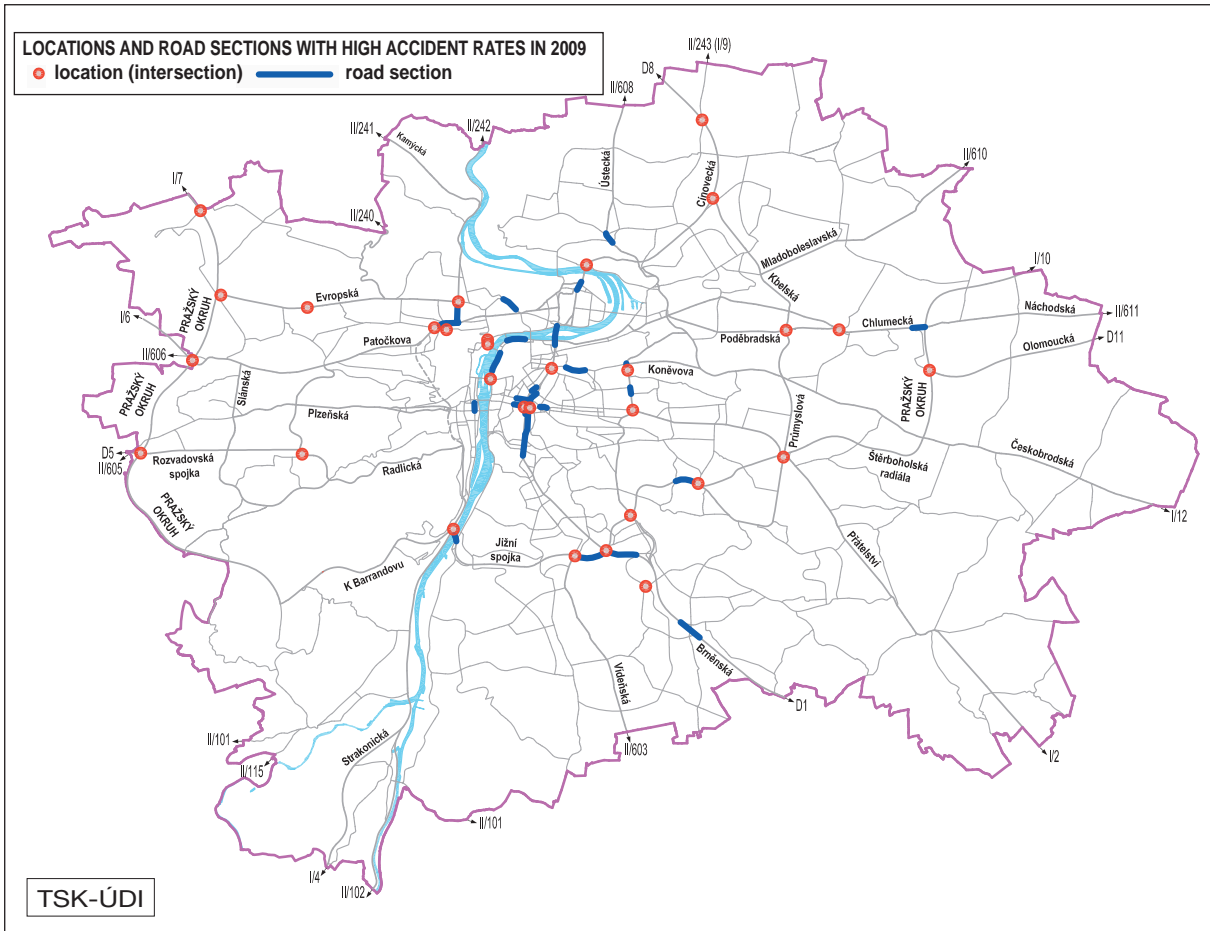
In assessing the long-term trends in accident rates it can be stated that from the 1960s through the 1980s, the long-term development of the accident rate was relatively positive, as the number of traffic accidents roughly corresponded to the development of traffic volume and increased at a slower rate than traffic volume. In the 1990s the general tendency of development reversed to become quite negative, as the number of traffic accidents started growing faster than the volume of traffic. This led to an increase in the risk of accident, expressed as a indicator of the relative accident rate (the number of accidents per million vehicle kilometres travelled).

Since 2001, the number of recorded traffic accidents has gone down despite ongoing growth of automobile traffic, thus the relative accident rate has also decreased (by 70 % in 2009 against 2000).

The provisions of Act No 361/2000 Coll. on road traffic and its subsequent amendments have also had an influence on the marked drop in the number of recorded accidents since 2001, having several times changed the obligation to report accidents to the police. Traffic accidents without injury or damage to a third party need only be reported where the material damage exceeds the following amounts:

- until end of 2000 CZK 1 000
- since January 2001 CZK 20 000
- since July 2006 CZK 50 000
- since January 2009 CZK 100 000

In 2009 the Prague-wide average was 2.2 recorded traffic accidents per 1 million vehicle kilometres travelled.



A positive trend in traffic safety is the reduction in the number of fatal, serious and minor injuries incurred in traffic accidents, despite the ongoing growth of automobile traffic in the city. The overall number of injuries in traffic accidents fell from 3 861 in 2000 to 2 469 in 2009, by 36 %, while in the same period automobile traffic in Prague rose 28 %.

Even more positive is a comparison of the long-term trend in the number of injuries with the volume of automobile traffic. Over the last 19 years, automobile traffic has risen by nearly three times 1990 levels (by 191 %), while the number of injuries in traffic accidents fell by 24 % (from 3 269 injuries in 1990 to 2 469 in 2009), covering all kinds of injury – fatal, serious and minor.

Numbers of traffic accidents, injuries and relative accident rate 1961 – 2009

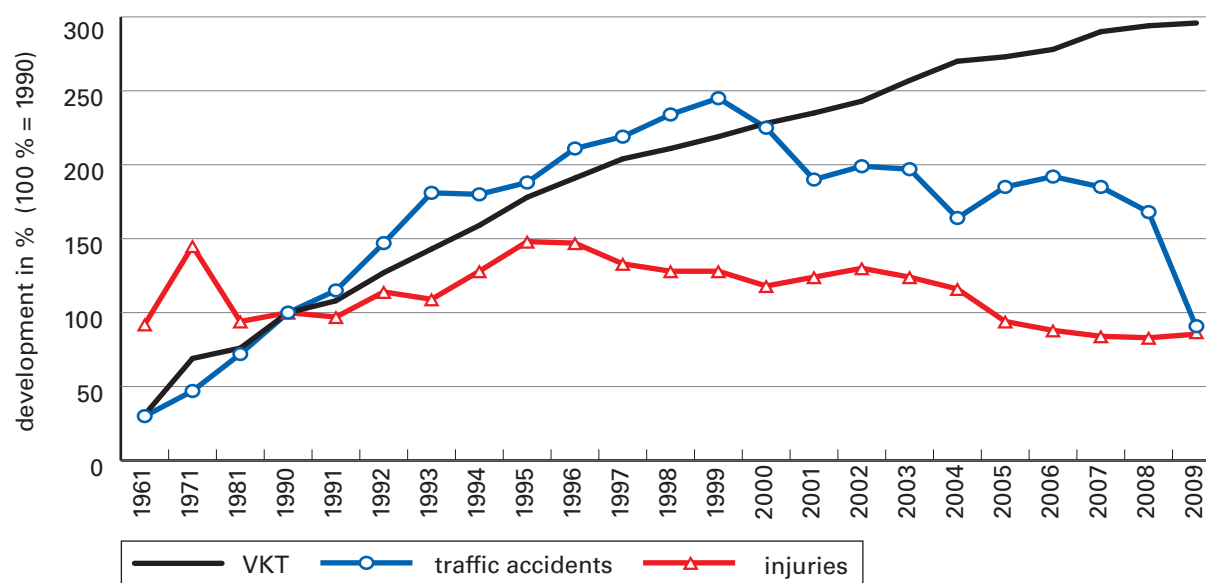
Year	Total accidents		Fatal injuries		Serious injuries		Minor injuries		Relative accident rate	Traffic volume %
	number	%	number	%	number	%	number	%		
1961	5 495	30	63	69	580	157	2 361	84	7.3	31
1971	8 496	47	123	135	567	154	4 046	144	5.1	69
1981	13 064	72	81	89	401	109	2 572	92	7.1	76
1990	18 024	100	94	100	369	100	2 806	100	7.5	100
1995	33 898	188	123	131	679	184	4 044	144	7.9	178
2000	40 560	225	80	85	521	141	3 260	116	7.4	228
2005	33 349	185	61	65	393	107	2 603	93	5.1	273
2006	34 689	192	56	60	357	97	2 047	73	5.2	278
2007	33 484	186	33	35	352	95	1 923	69	4.8	287
2008	30 251	168	38	40	334	91	1 941	69	4.7	288
2009	15 583	86	40	42	347	94	2 082	74	2.2	291

100 % = the year 1990

Relative accident rate = number of accidents per million VKT (average values, whole road network)

Traffic volume = vehicle kilometres travelled (VKT), whole road network

Accidents, injuries and traffic volume in Prague 1961 – 2009 whole road network, annual total



6.2 Traffic education

A number of child traffic education programmes were provided in 2009. Of particular note are the programme of systematic training at child traffic playgrounds (hereinafter CTPs), the programme for beginning cyclists (Young Cyclist Traffic Competition), traffic education programmes for children and youth, interactive theatre presentations for children with traffic education themes, and other events.

There were nine permanent CTPs in operation in Prague in 2009. A new CTP in Radotín at the Loučanská Elementary School began a trial run in April 2009.

Education at the child traffic playgrounds took place according to the traffic education thematic plan drawn up by the Ministry of Transport. This plan is primarily focused on 4th grade elementary school students, because these are beginning cyclists. In the case of extra room at the CTP, students of other elementary schools grades or nursery school children can also take part in the exercises. In 2009 a total of 27 861 elementary school students went through organised training at Prague CTPs. Taking part in the afternoon programmes were 9 630 children.

The programme for beginning cyclists – Young Cyclist Traffic Competition is held by the Ministry of Transport in cooperation with the Ministry of Education, Youth and Sport and is made up of four parts: tests on the rules of the road, a practical road test (in Prague these take place at CTPs), a road skill test (a practical ride around various obstacles) and first aid knowledge. This event is primarily focused on 2nd grade elementary school students and the winning teams move on through the district, city and national rounds to an international competition, which in 2009 took place in Finland. In 2009, 4 356 students from 47 schools took part in the first round and 198 students from 6 city districts took part in the district round.

Forty-six interactive theatre presentations of “The Fairytale Traffic Light” and “Aunt Berta’s Bike” were performed for the youngest age group at the Police Museum.

A number of safety drives took place for adult participants of road traffic as well in 2009 (spring and autumn skill drives for the driving public, events for handicapped and hearing impaired motorists, lectures on traffic safety, etc.).

Traffic education also includes the training for drivers that every employer is required to provide within the meaning of the Labour Code for employees that drive a business or personal vehicle of up to 3.5 t while carrying out their work.

6.3 Measures to increase traffic safety

In 2009 a total of CZK 48 million was spent under the BESIP (road traffic safety) budget to implement measures to increase safety on the road network in Prague. The current expenditures of CZK 15.2 million were primarily used to install assembled speed humps and highway mirrors, install and adjust crash barriers and railings, perform carriageway surface roughening, run the project “Safe route to school – pedestrian crossings” and other traffic safety measures. An amount of CZK 32.9 million was drawn for capital spending on construction of built-in speed humps, structural modifications to roundabouts, installing lighting for pedestrian crossings, and other structural and non-structural safety measures.

Long, structurally modified speed humps were completed in six areas in 2009, while short, assembled (not built-in) speed humps were installed at 44 locations at the request of local road authorities.

Concrete crash barriers, traffic safety railings and anti-parking bollards were installed in thirty cases. Road mirrors were installed in 7 areas and road surface roughening was performed on 4 stretches. To increase respect and observance of the speed limit, information panels displaying the speed travelled were installed on selected city streets in 2009.



Novodvorská – Gen. Šišky – Meteorologická roundabout

The conversion of the Novodvorská-Generála Šišky-Meteorologická intersection into a roundabout entailed construction costs of CZK 2.7 million.

An important element for increasing pedestrian safety at crosswalks is added lighting, which was installed at a total of 33 locations at a cost of CZK 9.8 million.

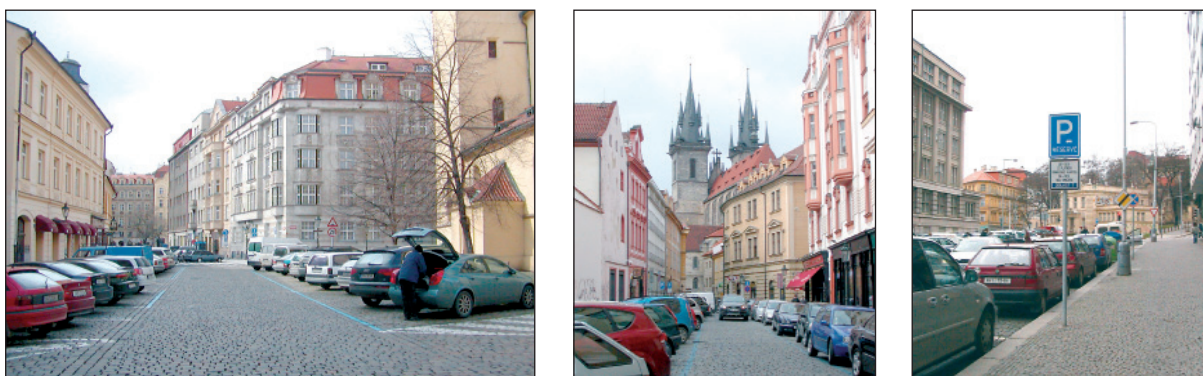
Approximately CZK 9.4 million was drawn for other non-structural traffic safety measures at 167 locations, in particularly near schools and at pedestrian crossings.

PARKING

7.1 The city centre

The core of the city centre is the Prague Conservation Area (PCA) with an area of 8.7 km², which is 1.7 % of the city's territory. This includes the city districts of Hradčany and Malá Strana on the left bank of the Vltava and Josefov, Staré Město, Nové Město and Vyšehrad on the right bank, meaning the whole of Prague 1, as well as a considerable portion of Prague 2 and smaller parts of Pragues 4, 5, 6 and 7. The PCA and the adjoining historical neighbourhoods of Smíchov and Holešovice on the left bank and Karlín, Žižkov and Vinohrady on the right bank comprise the city centre, where institutions and offices of both citywide and nationwide importance are concentrated, as is a significant portion of commercial buildings, facilities, shops, services and other amenities and the bulk of cultural-historical landmarks. As a result, there is a substantial quota of job opportunities here (around 200 000) along with a lively tourist industry.

In contrast, the number of permanent residents in this area is in steady decline (on the territory of Prague 1 and 2, for example, the number of permanent residents fell by 25 500 from 1991 – 2008). For this reason it has been a top priority of city planners and several segments of city administration to maintain and, if possible, increase the centre's functionality for living. One of the requirements for this is to secure at least a bare minimum of parking places for local residents. Under the current conditions, the local authorities have generally dealt with this problem by instituting paid parking zones (PPZ). In the central portion of the city PPZs are in place in city districts Prague 1, 2, 3 and 7.



*Streets packed with parked vehicles
(PPZ in Prague 1 – Haštalské náměstí and Štupartská Street, in Prague 7 – Na ovčínách)*

Number and proportion of parking types in PPZs at end of 2009

Type of parking	Prague 1		Prague 2		Prague 3		Prague 7		
	Number	%	Number	%	Number	%	Number	%	
Residents + subscribers (blue zone)	6 680	73	10 255	81	11 671	86	7 621	83	
Visitors	orange zone	1 000	11	1 230	10	970	7	430	5
	green zone	1 259	14	956	8	722	5	986	11
Handicapped parking	147	2	125	1	200	2	79	1	
Total	9 086	100	12 566	100	13 563	100	9 116	100	

Zone operators and city district representatives continue to monitor the functioning of PPZs. They assess the data acquired and adjust the function and operation of PPZs as required. The most significant change in 2009 was the decision to introduce “mixed zones” that allow more effective use of the parking space available on certain stretches of local roads. Mixed zones could be especially useful in areas where there had previously been blue zones for residents and subscribers, but could also be used in some areas where there are green and orange zones, but the demand for night-time resident parking is not satisfied. Parking meters will be installed in selected stretches of blue (resident and subscriber) zones and the signage will be adjusted, while in visitor zones it will only be necessary to adjust the signage. Mixed zones were not yet implemented in 2009.



Parking bays for resident parking in Malá Strana PPZ (Újezd – Karmelitská)

Subscribers, and to a lesser extent also residents, can also use unused space in mass parking lots and garages for long-term parking in the city centre. The problem, however, is the relatively high price for parking, which can reach as high as several thousand CZK per month (e.g. at the Anděl City parking garage CZK 4 500/month, Palladium around CZK 6 800/month, at the smaller Vojtěška garage at the edge of the centre in Prague 6 around CZK 3 000/month).

The concentration of amenities in the city centre and the method by which they are used requires high-quality transportation access. On the relatively large territory of the city centre there is therefore not only a high volume of local traffic, but also of inbound and outbound traffic. The conversion of residential buildings into offices and commercial facilities, in particular hotels and pensions, brings with it pressure from investors for the construction of garages and parking lots for passenger vehicles on these private properties (generally underneath them) or on the properties belonging to them. The number of such spaces is constantly rising. Data on the number of parking spaces in public mass lots and garages is known (see the table), but the number of spaces in garages or parking lots on private administrative and commercial property is not tracked centrally and is generally not known. The cost for one hour of parking for a visitor of public parking garages in the centre generally costs between CZK 40 and 50. For some large shopping centres the price of parking is discounted for the vehicles of shoppers.



Vehicle being towed from blue zone on Slezská Street



Slovan garages

Visitors to the centre of Prague can park their vehicles in parking garages and the orange and green zones, as well as in guarded surface lots. The majority of such parking lots are on local roads, on city-owned property, but some lots have also been established on property owned by other bodies. The cost for 1 hour of parking in these guarded parking lots ranges between CZK 20/hr (around Florenc) to CZK 50/hr (e.g. Malostranské náměstí).

Parking spots accessible to the public in the garages and parking lots of important buildings in the centre of Prague

City district	Name and address	Number of parking spots	
		garage	parking lot
Prague 1	Palladium (nám. Republiky)	900	-
	Rudolfinum/Parking Centrum (nám. J. Palacha)	460	-
	InterContinental (nám. Curieových 5)	190	-
	OD Kotva (Královská ul. entrance)	360	-
	Renaissance (V celnici 7)	90	90
	Millennium Plaza (V celnici 10)	440	-
	Wilsonova (Hlavní nádraží)	310	210 + 10 bus
	Opletalova (Opletalova 9)	90	-
	Slovan (Wilsonova 77)	470	-
	Radisson Alcron Hotel (Štěpánská 40)	70	-
	Boscolo Carlo IV. (Senovážné nám. 13)	30	30
National Theatre (Ostrovní 1)	220	-	
Prague 2	Václavské garáže (Václavská 18)	150	-
Prague 4	Congress Centre (5. května 65)	650	450 + 6 bus
	Corinthia Towers (Kongresová 1)	40	90 + 5 bus
Prague 5	Obchodní centrum (Kartouzská ul.)	2 500	-
	Anděl City (entrance from Radlická and Stroupežnického)	500	-
	Zlatý Anděl (Bozděchova ul.)	500	-
Prague 8	Hilton (Pobřežní 1)	150	280 + 17 bus
Total		8 120	1 150 + 38 bus

Note: Parking space numbers are rounded to the nearest ten.



Public paid parking lot by Hotel Hilton



Entrance to Hotel Elite garage on Ostrovní Street

7.2 The rest of the city

With the growing number of passenger vehicles in the residential areas outside the centre, the disproportion between the demands for parking and the existing ability to satisfy these demands is ever increasing. Residents living outside the centre, primarily those in high-rise apartment blocks, and their visitors can primarily take advantage of parking spots on local roads, and to a lesser extent also the existing parking garages or guarded surface lots. In areas with low-rise buildings, locals can park their vehicles on private property or in individual garages.

The administrative authorities of the city districts concerned are constantly searching for reserves on their property that can be used for parking. The need for short-term parking at important local amenity buildings is also growing.



Parking space Topolová – Macešková



"Orange zone" by Prague 22 Town Hall in Uhřetěves

The possibility of building mass parking garages for the vehicles of local inhabitants has only rarely been utilised. In 2009 the only garage construction project completed was the Lovosická – Jetřichovická garage in Prague 9 with a capacity of 327 spots.



Guarded parking on Doupovská Street



New Lovosická – Jetřichovická parking garage

Only some city districts keep track of public and in particular private mass and individual garages on city territory outside the centre, and these data are often incomplete. For this reason the exact number of such garages and the number of parking spaces inside them is not known. It is estimated that altogether there are approximately 200 000 parking spaces in these garages.

7.3 Park and Ride facilities (P+R)

The preparation, construction and operation of Park and Ride facilities is managed by the Technical Administration of Roads of the City of Prague (TSK). In 2009 the operating costs for the P+R system was in excess of CZK 20 million. TSK also provides current information about the occupancy of individual P+R lots on their web page.

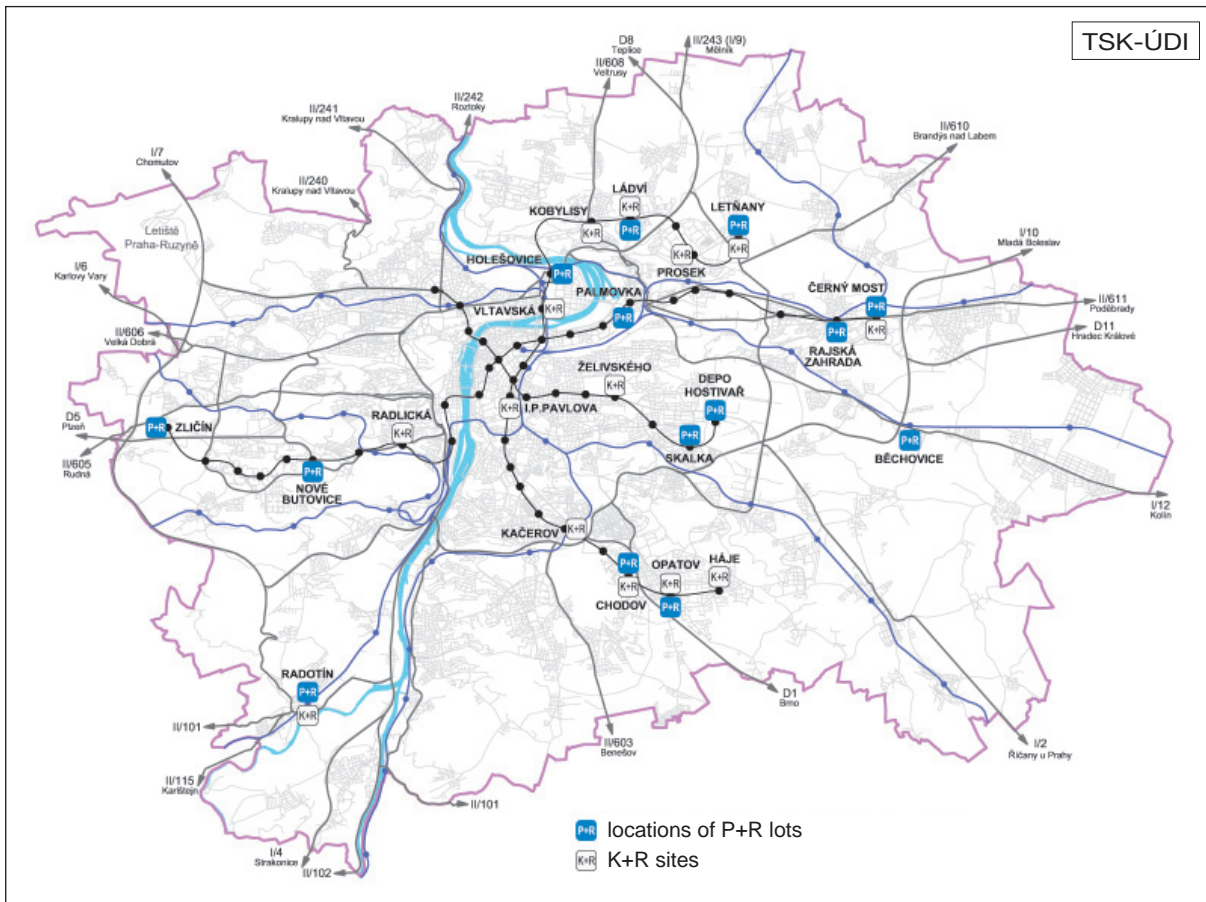
At all 17 Park and Ride facilities there were approximately 2 900 spaces available in the basic category for the P+R system. This does not include spaces reserved for the handicapped, for residents, and for other purposes.

The tariff for the P+R lots is integrated into the Prague Integrated Transport system through pre-paid tickets and reduced day passes and return tickets. The ticket prices connected with parking at the P+R lots are CZK 10 for parking and CZK 40 for a return transfer ticket or CZK 80 for a day pass.

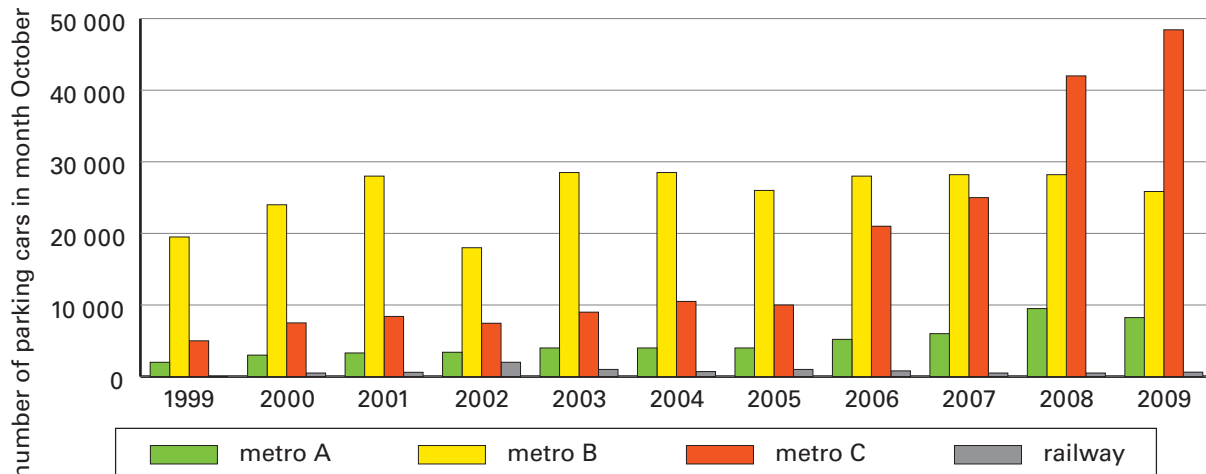
Number of parking spaces reserved for basic functioning of P+R system 2009

Běchovice	Černý Most 1	Černý Most 2	Depo Hostivař	Holešovice	Chodov
86	285	131	169	75	655
Ládví	Letňany	Nové Butovice	Opatov	Palmovka	Radotín
81	633	57	181	168	19
Rajská zahrada	Skalka 1	Skalka 2	Zličín 1	Zličín 2	Total
90	43	74	85	61	2 893

Locations of P+R lots and K+R sites in 2009



Development of the number of parked vehicles at P+R parking lots in Prague

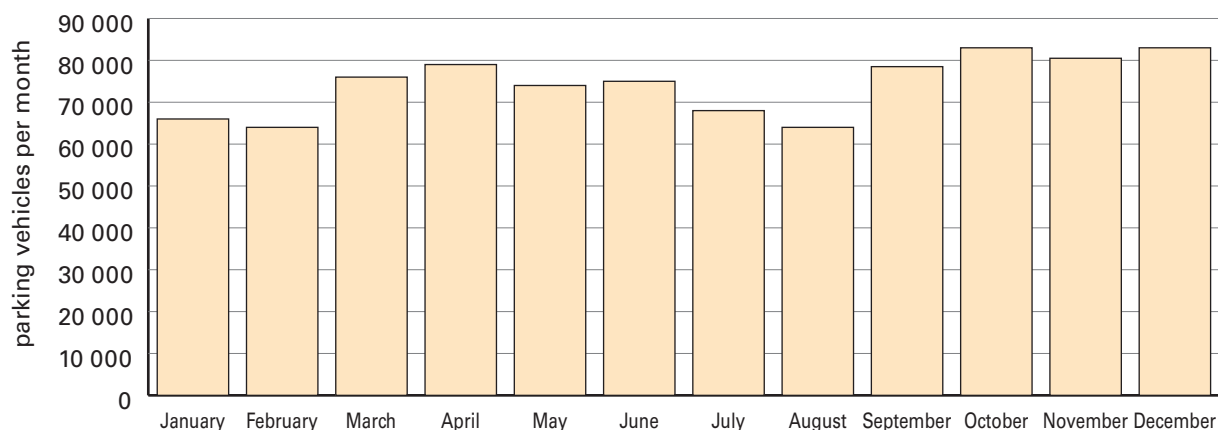


Number of vehicles parked at P+R parking lots in the month of October (1999 – 2009)

Parking lot	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Běchovice	-	-	-	1 498	180	140	597	307	173	215	191
Černý Most 1	7 785	9 649	10 716	3 481	9 818	9 714	9 226	10 610	11 727	11 294	10 942
Černý Most 2	-	-	-	-	2 042	2 934	2 555	3 631	3 281	3 482	2 912
Depo Hostivař	-	-	-	-	-	-	-	2 439	4 519	5 936	5 737
Holešovice	2 835	3 125	3 226	1 453	3 299	2 759	2 765	3 318	2 890	3 500	3 785
Chodov	-	-	-	-	-	-	-	9 856	12 857	17 607	19 763
Ládví	-	-	-	-	-	2 184	2 117	2 612	2 748	2 593	2 284
Letňany	-	-	-	-	-	-	-	-	-	12 456	16 567
Modřany	-	-	-	213	310	0*	192	-	-	-	-
Nové Butovice	2 313	2 608	2 572	1 689	2 136	1 988	1 866	2 165	2 264	2 346	2 164
Opatov	2 934	3 901	5 073	5 389	5 732	5 890	5 168	5 771	6 180	6 143	6 039
Palmovka	-	3 224	4 446	3 779	4 183	3 521	3 874	1 966	1 417	1 416	1 225
Radlická	1 274	1 391	1 272	948	1 169	1 003	-	-	-	-	-
Radotín	-	158	463	878	918	768	805	890	296	286	431
Rajská zahrada	1 976	2 345	2 837	409	2 697	2 626	2 701	2 919	2 595	2 920	2 805
Skalka 1	1 702	2 695	2 762	2 461	3 408	3 336	3 223	3 052	2 029	1 917	1 745
Skalka 2	-	-	-	-	-	-	-	332	318	731	757
Zličín 1	3 970	2 973	3 508	3 622	3 510	3 618	3 111	3 548	3 109	3 175	2 879
Zličín 2	2 006	2 085	2 111	3 432	2 505	2 609	2 240	2 508	2 735	2 746	2 924
Total	26 795	34 154	38 986	29 252	41 907	43 090	40 440	55 195	59 138	78 763	83 150

* parking lot was not in service due to work on adjoining road

Annual variation in number of parked vehicles at P+R facilities 2009



Additional services at P+R facilities

Bicycle storage (Bike & Ride)

This free service allows the storage of a bicycle against a returnable deposit during the operating hours of the P+R parking lot. The cyclist is not however entitled to a discounted ticket and if the bicycle is left in storage beyond the operating hours, the cyclist must pay a fine of CZK 100/night for violation of the regulations.

Long-term parking

The possibility of a monthly lease on a parking space at Park and Ride lots continued to be offered at P+R Běchovice, P+R Opatov, P+R Skalka 1, P+R Skalka 2 and P+R Radotín.

Night and weekend parking

The P+R Rajská Zahrada parking lot continued to offer regular parking of a personal vehicle during the time when the facility is less used for basic P+R functions. The period during which a vehicle can be left for a monthly fee is between 17:30 and 7:30 on weekdays and all day on weekends.

7.4 Kiss and Ride points (K+R)

In many cases it is desirable for passengers to be able to transfer from a car to public transport or conversely get in a car at a public transport station. The use of this type of combined transportation is frequent on trips to work, to school or for recreation when the passengers have various destinations or points of origin. This manner of transfer between automobile and mass transit is known as “Kiss and Ride” – K+R.

Spots providing the appropriate conditions for dropping off or picking up passengers have been marked K+R at metro stations in Prague since 2001. The spots are labelled with horizontal road markings with the text “K+R” and a vertical “Parking” sign with the text “5 minutes” and an added “K+R” panel, or with a vertical “No Parking” sign and an added panel with the text “K+R”.



B29 with E13



K+R at Želivského metro station



IP11 with E13

As of the end of 2009, the K+R drop-off spots listed in the following table were available at public transport stations (in brackets the location of the drop-off point is specified with a street name).

IP11 „Parking Lot“ with parking time limited to 5 minutes and the text „K+R“	
direction into centre	direction out of centre
Kobylisy (Nad Šutkou)	Černý Most (Chlumecká)
Ládví (Střelnická)	Chodov (Roztylská)
Letňany (Beladova)	Letňany (Beladova)
Prosek (Vysočanská)	Radlická (Radlická)
Prosek (Prosecká)	Radotín (Vrážská)

B29 „No Parking“ generally in combination with text „K+R“	
direction into centre	direction out of centre
I. P. Pavlova (Legerova)	Kačerov (Michelská)
Háje (U modré školy)	
Kačerov (Michelská)	
Opatov (Chilská)	
Radlická (Radlická)	
Vltavská (nábř. Kpt. Jaroše)	
Želivského (Vinohradská)	

Outside the K+R system there is also a marked short-term parking lot (“max. 15 min.”) for dropping off and picking up passengers by the Nádraží Holešovice metro station (Vrbenského, toward the centre).

BICYCLE TRAFFIC

New cycle routes were put into operation in 2009:

Elznicovo nám. – Kolčavka, Stage III (U Rokytky – Čuprova)

A cycle track opened at the end of 2009 considerably improved passage along the Rokytká brook in the section between U Rokytky and Čuprova streets. The cycle track is part of the A26 bike route, which links the eastern edge of Prague (Dolní Počernice and the surrounding area) with the arterial A2 route (Zámky – Zbraslav) and the centre. With the opening of this section a 14 km uninterrupted protected cycling route was created from Freyova Street all the way to Čimický brook at the northern boundary of Prague.

The regime of the track switches between shared and separate paths for pedestrians and cyclists based on the available width and the expected traffic. The construction consisted of 654 m of cycle track with a surface of interlocking pavement, related landscaping modifications, new public lighting, horticultural changes including planting new trees and a financially demanding new railing along the Rokytká.



Cycle track Elznicovo náměstí - Kolčavka

Cycle track along the Rokytká.

Cycle track Rokytká – Freyova – Hořejší rybník

This arterial path for cyclists is comprised of independent 3.5 m wide tracks for pedestrians and cyclists, has an asphalt surface and crosses the intersecting roads at a grade separation, in particular the high-traffic Freyova, Ocelářská, U Elektry and Poděbradská streets. These bridge constructions contributed to the high costs for the construction (CZK 140.1 million including EU subsidies). The route is 3.2 km long, links up to the already completed route leading to the Balabenka junction, uses an abandoned railway siding and leads across Vysočany toward Hloubětín and Hrdlořezy.



Cycle track Rokytká – Freyova – Hořejší rybník



Seifertova – Vítkov Tunnel – Balabenka cycle track under construction

Among the **further activities** realised during 2009 to improve bicycle transport were:

- The connection of Seifertova – Vítkov Tunnel – Balabenka for cyclists. This included building a new path for pedestrians and cyclists 4.5 km long. The route leads along former train tracks and is divided into three sections (expected completion in 2010).
- Completion of the last section of Stage I of cycle route A214 providing a connection between Kamýk and Libuš.

Cycle lanes

Bike lanes on Vinohradská Street between Flora and Želivského were created as part of the BESIP project, the primary focus of which was to increase pedestrian safety, particularly around tram stops on Vinohradská Street. The 830 m long reserved traffic lane for cyclists heading

toward the centre leads from the intersection of Želivského and Vinohradská to the Flora metro station. Due to the favourable width of the carriageway between the curbs it was possible to mark out the dedicated cycle lane in the optimal design parameters. In the opposite direction (from the centre) the cycle path was repaired.

In 2009 cycle lanes were added on Záběhlická Street (600 m in each direction), on a nearly kilometre long stretch of the streets U Uranie – Jankovcova and on a 750 m long section of the street Jugoslávských partyzánů. Further cycle lanes were installed on the streets Střešovická and Na Petřínách in a 2.1 km long section, as well as on Počernická, V Olšínách and Tupolevova streets.



Cycle pictocorridor on Koněvova Street



Cycle lane on Jugoslávských partyzánů Street

Cycle pictocorridors

In places where the width of the lane for vehicles does not allow for a separate traffic lane but where cyclists are frequent, a horizontal road marking (symbol V15) of a cycle pictocorridor can be used. This symbol informs drivers that there is an increased incidence of cyclists in the direction depicted by the arrows and at the same time cyclists are directed by the arrows so that their movement in the traffic lane is as safe and fluid as possible.

The first cycle pictocorridor was marked in May 2009 on Vršovická Street at a length of 300 m and others were later added on ten other streets.

Reserved bus-cyclo-taxi lanes

This dedicated lane that uses the V15 traffic sign and was previously used to give public transport buses priority on the roads has now been installed in several places in Prague to also be used by taxis and cyclists. The line is marked with both horizontal road markings and vertical signage. The ban on other motor vehicles using the reserved lane is often restricted only to weekday rush hours.



symbol V15 cycle pictocorridor



symbol V15 reserved lane



Reserved traffic lane for buses, cyclists and taxis on Bělocerkevská Street

In connection with the expansion of priority for buses, new reserved traffic lanes for buses, bicycles and taxis were designated in summer 2009. Of particular note are the new lanes on the route of the 213 line between Želivského and Háje, on the overburdened bus stretch on Vídeňská Street and on the 167 route between Kotlářka and Klamovka. The newly marked lanes have brought great improvement, not just for public transport but for cyclists as well – even despite the time limitations on their validity.

Promotion of cycling

On 16 March 2009, the educational exhibit "Cycling in Prague" was launched. The exhibit is

permanently located in Škoda Palace in the Prague City Hall building and also travels around metro station vestibules. Twelve panels show the elements of cycling infrastructure. Each panel contains definitions of the various terms, their interpretation and description from the perspective of various participants, as well as traffic solutions, illustrative photographs or pictures and quotes from the legal regulations. Detailed information can also be found on the website www.praha-mesto.cz under the section Cycling in Prague.

Cyclists on Prague Integrated Public Transport (PID)

Due to the gradually increasing number of low-floor trams in Prague Integrated Public Transport, the possibility of transporting bicycles on guaranteed low-floor connections was tested starting 1 September 2009. Persons in a wheelchair and strollers do however maintain priority over cyclists.

In April another season of the PID “cyclobus” was launched on the route Dobřichovice – Černolice – Řitka – Mníšek pod Brdy – Kytín, improving the accessibility of these attractive cycling destinations in the Brdy region. The line is serviced by a modified bus equipped to transport 25 bicycles secured on hooks. The PID tariff applies. To transport a bicycle on the cyclobus costs CZK 26 regardless of the distance, but if a valid Czech Railways document for the transport of the bicycle by train to Dobřichovice is presented, the cost is reduced to CZK 13. On Czech Railways trains a bicycle is counted as an accompanying piece of luggage and costs CZK 25.

From 28 March until 1 November 2009 a “cycle-train” was in operation on non-workdays along the route Praha Masarykovo nádraží – Praha Dejvice – Hostivice – Středokluky – Podlešín – Slaný. The second car of the train was always set aside for cyclists and was equipped with special spaces to transport bicycles with a reduced number of seats. Loading and unloading of bicycles must be performed by the passenger.

On all six ferries integrated into the PID system the transportation of a bicycle was free.

In order to increase the attractiveness of bicycle transport, TSK arranged for the installation of 843 bike stands throughout the city in 2009.

Bicycle traffic survey

From April to June 2009 a survey on the intensity of bicycle transport was carried out. As in previous years, the survey was carried out at 66 points on workdays (Monday through Thursday) in the period from 7:00 to 20:00 (at the Podolské nábřeží and Trojská lávka also outside the workday) always in both directions. Survey points were chosen on cycle tracks, at roads entering the greater city centre, and at all bridges across the Vltava. In comparing the results from 2008 and 2009 at the 66 comparable points, it was determined that bicycle traffic volume increased at 30 points, of which 19 showed an increase of less than 50 %, 7 between 50 % and 100 % and 4 more than 100 %. The most heavily trafficked points in both directions were Podolské nábřeží (1 921 cyclists in the period from 7:00-20:00), Trojská lávka (1 918 cyclists – weekend count) and Vltavanů in Modřany (1 585 cyclists).

Counters were installed at 10 important cycling points in order to automatically count cyclists, which allows data to be collected 24 hours a day and then processed and evaluated.

All the listed events to support bicycle transport in Prague led to a visible growth in the use of bicycles in the city and increased the importance of bicycle transport in the city.



Ascent to cycle bridge across Ocelářská Street

PEDESTRIAN TRAFFIC

Movement is a part of life and walking is an inextricable part of human existence. One must not forget that walking is not just one way to carry out a whole trip from start to finish, but that every trip by any kind of individual or mass transit begins and ends with walking.

The intensity of pedestrian traffic varies depending on one's location, the type of road and the time of day. In Prague, the greatest densities of pedestrian traffic (between 5 000 and 8 000 pedestrians per hour) are in the centre of the city on the so-called "golden cross" (Wenceslaus Square – Na můstku x 28. října – Na příkopě). Also among the most frequented pedestrian routes is the path between the attractive tourist sites the Prague Castle and Old Town Square, where the volume of pedestrian traffic on workdays reaches 3 000 to 4 000 pedestrians an hour. The intensity of pedestrian traffic here is another 15 – 20 % higher on weekends (particularly on Saturday) and other holidays. There are also high levels of pedestrian traffic on weekends on routes that lead through Prague's parks and forest parks that serve for short-term and mid-term recreation (Stromovka, Letná, Petřín, Šárka, Kunratic Forest, the area around Hostivař reservoir, etc.). In less attractive parts of the city, on the other hand, where the function is largely residential and pedestrian routes serve primarily to move from one place to another, the intensity of pedestrian traffic ranges from tens to hundreds of pedestrians per hour.



Wenceslaus Square



Masarykovo nábřeží

In 2009 pedestrian traffic was influenced by two events in particular. The first was related to the completion of the concept for an amendment to the City of Prague urban master plan and the second was marking pedestrian crossings across tram tracks.

In planning the city's development and renovations and design of new roads, it is necessary to pay particular attention to maintaining and developing pedestrian links and assign the corresponding space to the needs of pedestrians. For this reason the "Principles of development for pedestrian traffic on the territory of the City of Prague" were one of the background materials for drafting the amendment to the urban master plan. These principles set out the city's priorities in supporting pedestrians as well as the direction of development and solutions in the follow-up concept and project documents. The proposed principles were discussed by the Transportation Committee of the City of Prague Assembly on 11 June 2009 with the recommendation to adopt them.

The issue of pedestrian crossings came to a head in connection with Ministry of Transport Decree No 193/2006 Coll. coming into force, which stated that "zebra" crossings cannot be marked across local roads with tram traffic (particularly at the level of the carriageway), if this meeting of pedestrians and vehicles is not governed by a traffic signal. In light of the fact that there are over 800 such crossings in Prague, the situation was truly problematic. Some administrative authorities attempted to deal with this problem by eliminating pedestrian crossings across tram tracks if they were not governed by a traffic signal. There were about 80 such cases.

In an attempt to deal with this situation, negotiations took place between the Ministry of Transport and Prague City Hall. In the opinion of the Transport Ministry, where other vehicles also move along the tram tracks (even if only when passing or going around obstacles), it is not a tram zone within the meaning of the law and traffic marking V 7 (zebra crossing) can be placed across the tracks even if the crossing is not controlled by a light. The Transport Ministry

also considers it essential that pedestrians' attention be drawn to the fact that trams have the right of way with a suitable warning message.

The Ministry of Transport also promised that it will reassess the legal situation, including the specification of the rights and responsibilities of pedestrians on crosswalks and areas for crossing, including the specific execution of traffic signage, in particular the designation "place for crossing". The promised amendment had not however taken place by the end of 2009.

Nearly 50 pedestrians crossings had been renewed within the meaning of the agreement between the Ministry and City Hall by the end of 2009, and at least 16 further crossings are to undergo more demanding modifications during 2010.



Renewed crossing with added warning



New pavements on Trojská Street

The construction, renovation and repair of pedestrian paths improved conditions for pedestrian traffic in 2009, as did the implementation of local measures to increase pedestrian safety. In a number of areas new pavements were built and the required pavement repairs were carried out either in connection with general maintenance or as part of the "pavement programme". Modifications of barrier-free crossings also took place, with CZK 10.8 million set aside for this purpose in 2009.

Construction, refurbishment and repair of pedestrian routes was financed from the combined resources of TSK and the city districts in a total amount of approximately CZK 198.6 million. Funds assigned as part of the "Clean and Green Prague" project (CZK 51 million) also helped finance pavement repairs.

Greater freedom was provided to pedestrians at newly build residential zones in Prague 7, in Radotín and in Chuchle.



Residential zone at Řezáčovo náměstí



Residential zone on Chatová Street

AIR TRANSPORT

Passenger and freight air transport in Prague is primarily operated at Prague Airport, which lies on the north-west edge of the city. The other three airports situated within the city and its surroundings generally serve other, specialised ends.

Prague Airport has three take-off and landing runways, one of which has been out of operation for a long period. The total annual capacity of the runway system is about 200 000 aircraft movements/year. In 2009 the maximum hourly capacity was 46 aircraft movements (take-offs and landings) an hour. There are three terminals for processing passengers at the airport. In the north part of the airport are Terminals 1 and 2 (1 for flights outside the Schengen Area, 2 for flights to the Schengen Area), while Terminal 3 (general aeronautics) is situated in the south part. The total capacity of the passenger terminals is 15.5 million persons/year. There are two terminals for dealing with cargo, each with a capacity of 100 000 t/year.

In 2009 there were 51 carriers operating at Prague Airport, offering transportation to more than 130 destinations. The largest volumes of passengers were headed to the United Kingdom (1 411 000), Germany (1 025 000), Italy (869 000), France (818 000) and Spain (742 000). The majority of passengers (90.5 %) were headed to European destinations. Of the remaining 9.5 %, half (4.8 %) were headed to African destinations.

As a result of the economic crisis, there was a general drop in both passenger and freight air transport in 2009 compared to 2008. This decline affected nearly all parts of the world with the exception of the Middle East, where there was growth in both passenger and freight transport, and the Asia-Pacific region (including India), where passenger transport increased but freight transport decreased. Taken as a whole, European airports saw a fall of 5.6 % in passenger transport and 12.6 % in freight transport.

The international position of Prague Airport is evident from the following table. It is clear from the data presented that the majority of airports experienced a drop in passenger transport, not only against 2008 numbers, but also against the 2007 level.

Number of passengers processed at selected airports (millions/year)

Airport	2000	2007	2008	2009	09/08 (%)
Hartsfield-Jackson International (Atlanta)	80,2	89,4	90,0	88,0	97,8
O'Hare International (Chicago)	72,1	76,2	69,4	64,4	92,8
London Heathrow	64,3	67,9	66,9	65,9	98,5
Paris Charles de Gaulle	47,8	59,9	60,9	57,9	95,1
Frankfurt	49,0	54,2	53,5	50,9	95,1
Madrid Barajas	32,6	52,1	50,8	48,3	95,1
Amsterdam Schiphol	39,3	47,8	47,4	43,5	91,8
Roma Fiumicino	25,9	32,9	35,2	33,8	96,0
Copenhagen Kastrup	18,2	21,4	21,5	19,7	91,6
Vienna Schwechat	11,8	18,8	19,7	18,1	91,9
Brussels Airport	21,5	17,9	18,5	17,0	91,9
Stockholm Arlanda	18,3	17,9	18,1	16,1	89,0
Letiště Praha	5,8	12,4	12,6	11,6	92,2
Warsaw Frederic Chopin	4,3	9,3	9,5	8,3	87,4
Budapest Ferihegy	4,7	8,6	8,4	8,1	96,4
Bratislava M. R. Štefánik	0,3	2,0	2,2	1,7	77,3

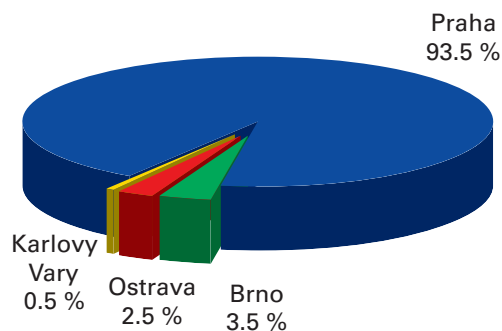
Source: Czech Ministry of Transport Transportation Yearbooks, The Chicago Department of Aviation, Fraport Group, ACI, airport websites

The total volume of passengers processed in 2009 at the four Czech international airports (Prague, Brno, Ostrava, Karlovy Vary) was 12.5 million, 8.1 % less than in 2008. The volume of transported cargo (goods and mail) fell by 3.2 % against 2008 and totalled only 53 900 tonnes.

Prague Airport's share of the overall passenger transport volume at the four listed domestic airports was 93.5 % (0.3 % more than in 2008), and in freight transport it was 78.8 % (7.1 % less than in 2008)

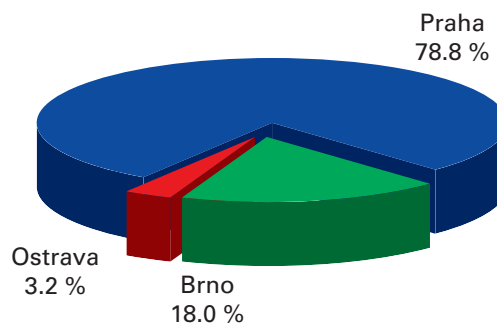
Share of airports in passenger transport volume

% of total volume of passengers processed



Share of airports in freight transport volume

% of total vol. of transported goods and mail



In 2009 a total of 11 643 400 passengers were processed at Prague Airport, a drop of nearly 1 million passengers (7.8 %) compared to 2008. Of the total 11.6 million passengers, 87.5 % were transported on regular lines and the remaining 12.5 % on special flights. The share of alliance carriers was 64.5 % and low-cost carriers accounted for 23.0 %. The proportion of transits and transfers increased to 23.7 % of the total 5.8 million departing passengers in 2009, 3.7 % more than in 2008. The most passengers were processed in August (1 339 900), and the least in February (616 100). In comparison with 2008, the monthly maximum achieved in 2009 was 4.4 % lower.



Prague Airport – north part



Main take-off and landing runway at Prague Airport

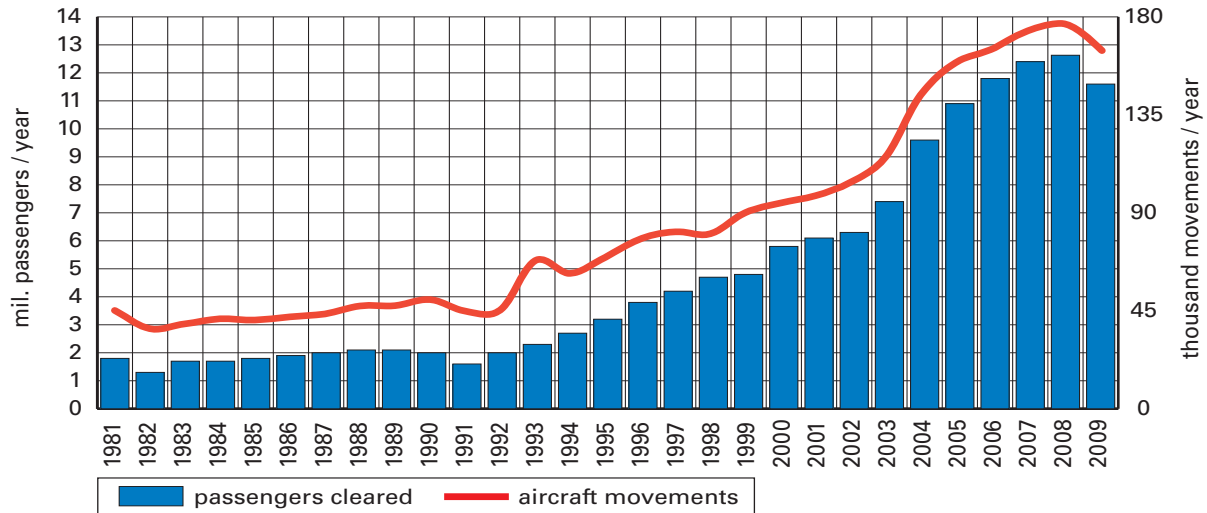
A total of 42 476.2 t of cargo was processed in air freight transport in 2009, 5 394.6 t less than in 2008 (a drop of 11.3 %). The most cargo was transported in December (4 267.7 t), the least in January (2 943.3 t). The monthly maximum was 6.5 % lower in 2009 than in 2008.

The number of take-offs and landings in 2009 was 163 816, which is 14 812 less than in 2008 (a drop of 8.3 %). The largest number of movements (16 017) was recorded in July; the lowest (10 871) in February. In comparison with 2008 the maximum number of movements was 6.3 % lower in 2009.

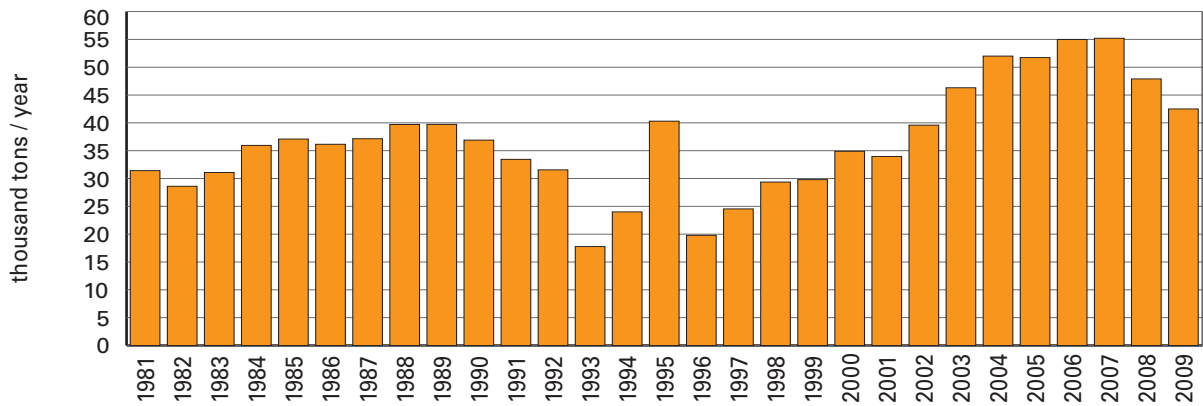
After 1991, which was the weakest year in passenger transport since 1982, the number of passengers processed began to sharply rise, and as early as 1993 the top values from the whole history of the airport (around 2.2 million passengers/year in 1978-79) had been exceeded. The number of plane movements also increased.

The long-term trend of growing air traffic volume was interrupted by the economic crisis at the end of 2008 and in 2009. The monthly numbers of passengers processed fell below the level of previous comparable periods and the overall passenger volume at Prague Airport practically fell to 2006 levels in 2009.

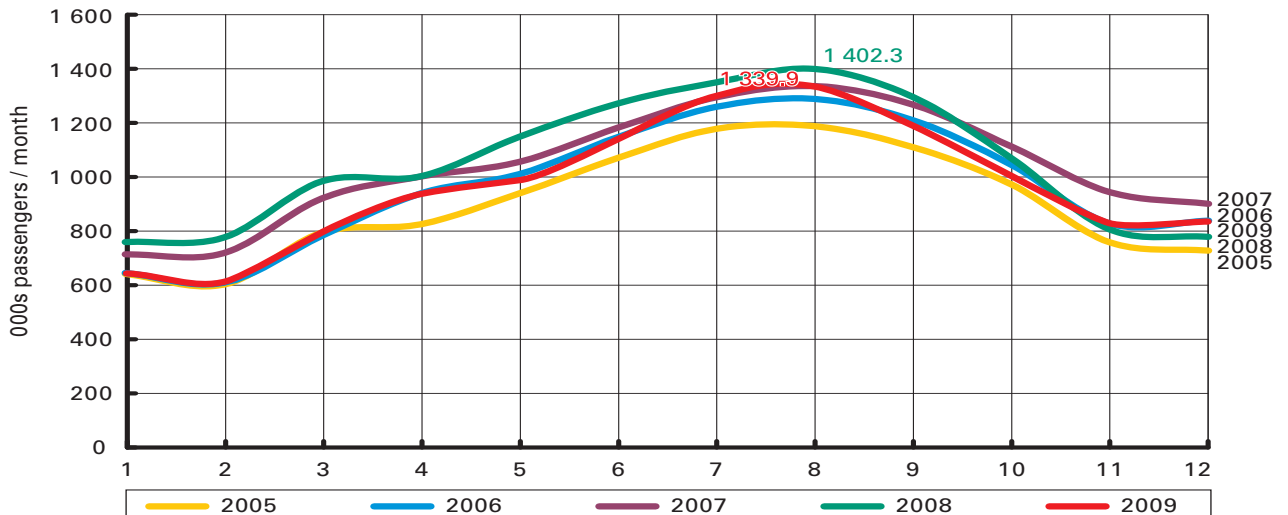
Development of passenger volumes and aircraft movements at Prague Ruzyně Airport



Development of cargo volume (goods and mail) at Prague Ruzyně Airport



Monthly passenger volumes at Prague Ruzyně Airport in 2005 – 2009

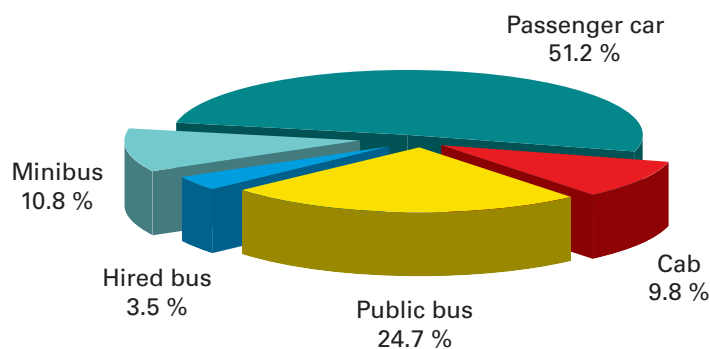


An ongoing long-term trend can be seen in the slight shift of passenger interest to the period outside the traditional summer tourist season. While in 1990 the two summer holiday months made up 25 % of the whole year's volume, in recent years this amount has hovered around 22 % (2009 – 22.8 %).

Cargo transportation at Prague Airport has also been growing since the mid-nineties and in 2005 the average volume exceeded the highest volume achieved in the past for the first time. In comparison with the years 1981-90, when the average annual volume was 35 400 t/year, the average for 2000 – 2009 (45.9 t/year) is 29.8 % higher, even despite the drop in 2008 – 2009.

Prague Airport is approximately 11 km from the centre of the city. Special bus service is provided for airline passengers, and the Airport Express line also connects to train service at the Praha hlavní nádraží railway station. The airport is also serviced by two express public transport bus lines from the end stations of the "A" and "B" metro lines in Dejvice (A) and Zličín (B). Other Prague Integrated Transport bus lines and a number of long-distance and regional bus lines also pass through. Taxi service is available with both passenger cars and minibuses and a number of car rental outlets also operate at the airport. Individual automobile transport is the predominant method of transporting persons between the airport and the city.

Modal split of trips to and from the airport
September 2009, workday, 6:00-22:00



In 2009, more than 7 200 stopping and parking spots were available to the public and airport employees in the north part of the airport complex, of which 600 places were located in the cargo zone. The largest number of parking spots (over 5 000) is available for the public and employees in parking sectors A, C, D and T1+2. The majority of spots are mid-term and long-term; 460 short-term spots are available for services.

In the south part of the complex are 110 parking spots for the public situated at Terminal 3. In this part of the complex there are also further spots for airport employees, organisations that have a relation to the airport and residents of the adjacent residential buildings.



Terminal 3 in the south part of Prague Airport



Cargo zone – Skyport terminal

WATER TRANSPORT

Water transport in Prague provides for the transportation of persons and cargo along the Vltava, of which 30.9 km flows within the boundaries of Prague. There are five locks in Prague (Modřany, Smíchov, Mánes, Štvanice, Podbaba). The capacity of the waterway is determined by the capacity of the Podbaba and Smíchov locks.

Number of boats passed through locks in Prague 1997 – 2009

Year	Lock				
	Modřany	Smíchov	Mánes	Štvanice	Podbaba
1997	2 164	18 581	1 273	3 529	2 237
1998	1 863	17 844	3 103	5 091	1 562
1999	1 897	20 305	3 919	4 794	1 649
2000	1 898	21 716	3 747	5 775	1 897
2001	1 852	22 291	3 434	5 732	1 851
2002	1 307	17 729	2 604	3 603	1 203
2003	1 785	21 617	2 878	4 118	1 415
2004	2 413	23 967	2 998	5 330	1 690
2005	2 530	24 576	2 329	7 740	1 799
2006	2 265	24 247	2 285	6 492	1 736
2007	2 633	26 879	2 571	7 209	2 735
2008	2 824	28 622	2 286	7 810	2 788
2009	2 685	26 221	2 854	6 596	2 383

Passenger boat transport along the Vltava is predominantly for tourist and social purposes. Several companies operate around the year, specialising in various types of sightseeing tours around Prague and a wide range of other services.

The largest operators of passenger boat transport include Pražská paroplavební společnost, a. s. (PPS), Evropská vodní doprava, s. r. o. (EVD), AQUAVIA Praha, s. r. o. and První všeobecná člunovací společnost, s. r. o.



Florentina hotel boat



The boat Czechie between Štefánik and Čech bridges

The oldest operator of water transport on the Vltava in Prague is Pražská paroplavební společnost a. s., which was founded in 1865. Currently this company operates 6 boats docking on Rašínovo nábřeží between Palacký and Jirásek bridges. The largest boat is the restaurant steamboat Vyšehrad with a capacity of 300 places; the other boats have capacities from 164 – 250 places.

The company operates several regular lines: Prague – Mělník (twice a year), Prague – Slapy (seasonally on weekends and holidays), Prague – Troja (three times daily during the season), Na Františku Hospital – ZOO (during the summer holidays every day on the hour, the rest of the season just on weekends). In addition it also organises a number of boat tours (the “Long Sail

through Prague” daily year-round and in the season also a “Short Sail through Prague”). In 2009 the company transported a total of 93 650 passengers on its regular lines and cruises, of which 27 420 were foreign visitors.

Another company operating passenger boat transport is Evropská vodní doprava, s. r. o.. This company runs 16 modern boats docking by Čech Bridge. The largest is the Vltava steamer, which was renovated in 2009 and has a capacity of 450 places. Another 12 boats have a capacity of between 150 and 350 places. In 2009 two small boats, Šárka and Libuše, were launched with a capacity of 12 persons, which the company rents out for tours around Malá Strana, the National Theatre, the Charles Bridge and the Čertovka stream. Alongside the hotel boat Florentina for 100 passengers, it organises 4 – 8 day trips according to the customer’s wishes. All boats are operated year-round, either at regular time intervals or according to the individual wishes of those ordering. In 2009 this company transported 146 800 passengers, of which 60 % were foreign visitors.

The company AQUAVIA Praha, s. r. o. organises social events on three boats. Czechie has the largest capacity at 250 persons. The company organises one- and two-hour cruises or according to the customer’s wishes. It docks at Na Františku.

První všeobecná člunovací společnost, s. r. o runs canal year-round cruises along the Vltava under the name “Prague Venice”. The parlour express boat Nepomuk with a capacity of 150 persons is used for private events. The company also operates four all wood covered boats with a capacity of 32 persons and 7 open boats for 11 persons. Some have now been constructed with flat bottoms and nearly vertical sides so that they can also sail through shallow areas. Boats leave the “Judita” and “Čertovka” docks every hour. The company also operates 5 ferries in Prague, which in 2009 transported nearly 240 000 persons. All ferries are integrated into the PID system (see chapter 3.1.2).



Quay on Dvořákovo nábřeží



Atlantida near Pelc-Tyrolka

In addition to these large companies there are also a number of smaller companies that operate tours and social events based on individual orders. There are docks for these companies on both banks of the Vltava in the centre of the city, for example Na Františku, Kampa and Dvořákovo nábřeží. Not only do the companies take orders for sight-seeing cruises around Prague, but they also organise trips to Slapy, Nelahozeves, Poděbrady, Mělník and Dresden.

Historical boats are also in operation – OLD TIME BOATS for 6-10 persons, motor boats – TAXI BOAT for 2-3 persons and a number of sight-seeing restaurant boats.

Various domestic and foreign operators also carry out **freight transport** on the river. One of the largest operators is Evropská vodní doprava, s. r. o., which runs domestic and international transport of bulk cargo, heavy loads, containers, liquids and the like. Their fleet includes 38 vessels and 1 tanker barge. The company also owns floating platforms for construction and other uses.

Volume of goods passed through locks in Prague 1997 – 2009 (goods transported in tonnes/year)

Year	Lock				
	Modřany	Smíchov	Mánes	Štvanice	Podbaba
1997	206 921	234 537	2 363	232 442	379 606
1998	136 407	196 487	1 320	191 624	403 840
1999	97 325	190 323	10	186 153	356 008
2000	108 168	197 740	238	201 712	370 037
2001	109 282	175 941	360	176 936	374 692
2002	71 136	126 206	7 251	117 296	214 173
2003	63 158	77 398	6 523	83 289	241 000
2004	86 254	130 404	4 018	126 295	293 027
2005	56 759	59 378	690	106 749	302 726
2006	12 482	33 109	545	54 743	236 344
2007	18 344	32 037	35	38 280	393 159
2008	15 968	19 403	757	20 048	309 259
2009	476	23 903	31	55 213	219 145

There are 4 harbours within the city – Radotín, Smíchov, Holešovice and Libeň (out of service since 2006), which serve for the transshipment of various types of cargo.

The operator is České přístavy, a. s. The users of the harbours are transportation, warehousing, transshipment and manufacturing companies.

In addition to the harbours it is also possible to handle cargo using temporary transshipment stations and mobile floating ramps.



Freight boat by Štvanice island



Smíchov lock

Volume of cargo at Prague harbours 2004 – 2009 (total transported cargo in tonnes/year)

Year	Ports			
	Praha-Radotín	Praha-Smíchov	Praha-Holešovice	Praha-Libeň
2004	58 961	19 642	31 311	14 236
2005	36 408	11 396	99 308	2 934
2006	13 932	559	114 462	0
2007	20 597	9 986	182 974	0
2008	10 068	4 016	84 792	0
2009	0	78 237	24 845	0

TRANSPORTATION INFRASTRUCTURE

Transportation infrastructure in Prague is primarily financed by the city (City of Prague budget) and the state (State Fund for Transport Infrastructure). The construction of transportation infrastructure is organised by the investors, which for municipal investments are principally the Municipal Investment Division (OMI), the Technical Administration of Roads of the City of Prague (TSK) and the Prague Public Transport Company (DPP). For state investments these are primarily the Road and Motorway Directorate of the Czech Republic (ŘSD) and Railway Infrastructure Administration (SŽDC).

The central theme of 2009 was continuing work on important infrastructure projects that, upon completion, will influence the whole transportation network in Prague (the south segment of the Prague Outer Ring Road, the north part of the City Ring Road, the Vysočany Radial Road).



City Ring Road – construction at Špejchar, Hradčanská

One of Prague's important investments is the construction of the **Malovanka – Pelc Tyrolka segment of the City Ring Road** (OMI), which includes the Blanka tunnel complex. The total length of this section of the City Ring Road is 6 382 m. It links up to the already functional western section of the ring road with the Zlíchov, Mrázovka and Strahov tunnels. After it is put into operation, which is expected in 2012, it will be the longest automobile tunnel in the Czech Republic. In 2009, construction work took place along the whole length of the new segment. At the Myslbekova site, construction work was launched under archaeological supervision and boring of the Brusnice tunnels began. In the area around the Prašný Bridge, excavation continued and construction of the Svatovítská bridge commenced. In order to accelerate the meeting up of tunnels under the Stromovka park, teams started digging in the direction from Letná to Troja in July 2009.

The whole length of the tunnel is divided up by direction into separate tubes with two to three lanes each, depending on the expected traffic volume, the incline, and the demands of the interchanges. The tunnel route declines steadily from the Malovanka intersection down to the Vltava, from where it inclines up to the surface at the Troja entrance. The maximum decline in the section under Stromovka is 5 %. The lane width is 3.5 m and the clearance is 4.8 m. The design speed limit is 70 km/h.

Construction of the **south section of the Prague Outer Ring Road** (ŘSD, total length 23 km) was among the largest and most crucial infrastructure projects in the Czech Republic in 2009. Following planned completion in 2010 it will relieve the city road network of external, primarily through traffic.

At construction site 512, which runs between the D1 motorway and the village of Jesenice, the earthworks were completed on the main body of the road, the lower and load-bearing bridge structures were installed and all other



Prague Outer Ring Road – construction near Cholupice

infrastructure lines were shifted away from the construction site. At the end of the year, work commenced on the D1 motorway bridge.

At construction site 513, which begins with an interchange connecting site 512 with the planned D3 motorway and road II/101 near Jesenice and ends with the large Strakonická interchange by Lahovice, bridge construction continued in 2009, in particular of a bridge over the Vltava, where the load-bearing structures were completed. The bored tunnels on the Komořany side have been completed structurally, and the installation of technical elements has begun. In the section between the Cholupice entrance and the start of site 512, the surface concrete has already been laid and work has begun on the final landscaping adjustments, including the median, slopes and green space.



Prague Outer Ring Road – bridges over the Berounka valley and Lochkov valley

The start of construction site 514 links up to the preceding section at the bridge over the Vltava, continuing with an approach span across the whole Berounka and Radotín valley. The total length of the approach span is 2 059 m. Also part of this site are the tunnels between the Radotín and Lochkov entrances, the bridges over the Slavičí and Lochkov valleys, and the interchange near Lochkov, beyond which it connects to the already functioning section of the Prague Outer Ring Road (site 515). During 2009 the steel bridge structure over the Lochkov valley was completed and the reinforced concrete bridge deck was installed. The final wall openings were completed in the tunnel tubes and technical features began to be installed. The rough structure of the bridge over the Berounka valley was completed and part of the Strakonická interchange was opened along the final carriageways.

The property conflicts that had been preventing the completion of the **Vysočany Radial Road** (OMI) were resolved in 2009. Construction work primarily continued on the section between the Kbelská and Budovatelská interchanges. The opening of the 5.6 km long radial road during 2010 will relieve Chlumecká, Kolbenova and Poděbrská streets of through traffic.



Construction on the Vysočany Radial Road by the intersection with Kbelská Street

Among the key renovations that were completed in 2009 was the redevelopment of **Karlovarská Street** in the section Slánská – Drnovská. Thanks to an investment of CZK 195 million, the unsuitable road was transformed into a modern four-lane route. The road received a new

bituminous asphalt concrete surface, new traffic signals at intersections, and a noise barrier was added. The investor was TSK, and financing was primarily covered by the State Fund for Transport Infrastructure (SFDI).



Karlovarská Street after renovation

In connection with the construction of the Kaufland Vypich shopping centre (open since September 2009), the Vypich intersection was completely renovated and **Bělohorská Street** was expanded in the section Kukulova – Bolívarova, as were Ankarská and Kukulova streets. The construction also included new pavements, an underpass walkway, bus stops and new traffic signal at the intersection of Bělohorská – Slezanů – entrance to the Kaufland shopping centre.

Renovations on **Francouzská Street** (TSK) took place from June to November 2009. Cobblestones were replaced with asphalt along the whole stretch from Blanická – Slovenská, which helped reduce the noise pollution in the surrounding area. The south pavement was also renovated, where asphalt concrete was replaced with mosaic cobblestones.

Other **road renovations** (TSK) also aimed to reduce noise levels, with cobble pavement being replaced by asphalt. In 2009 this included Moskevská, Budějovická and Terronská streets.



Surface replacement on Francouzská Street



Starochuchelská after carriageway and pavement renovations

Extensive renovations of the Jižní spojka suspension bridge (TSK) were completed in March 2009, with the final phase including installation of new reinforced concrete mouldings with a new method of anchoring, a new drainage system and the construction of noise barriers to reduce noise pollution in the area around the bridge. The cost of the renovation was over CZK 120 million. Systematic renovation work continued on the south part of the City Ring Road (Jižní spojka), mostly consisting of milling the carriageway and replacing the wearing course. This work was financed by the SFDI.

SFDI also helped finance repairs to the middle and inner lanes of the eastern carriageway of 5. května – Brněnská (TSK) in the section between the zero kilometre of the D1 and the ramp onto the City Ring Road, Liberecká Street (section Levínská – Vysočanská) and the Vychovatelna intersection (ramp V Holešovičkách – Zenklova, bridge).

TSK carried out further repairs from investment funds, such as at the intersection of Náměstí Míru – Anglická – Italská, Nábřeží E. Beneše (quayside wall between Čech and Štefánik bridges) and elsewhere.

Further renovation work was also carried out on city roads under TSK's current expenditures over the course of 2009. Among the most costly were repairs to the streets Vlastina, Starochuchelská, Ruzyňská and Benátská including the intersection with Viničná Street. The most important maintenance works were surface repairs (milling, new asphalt) on the streets Tupolevova, Střelničná, and Čsl. Exilu – Generála Šišky including the intersection.

The Prague Public Transport Company signed a contract on 22 December 2009 with a consortium of construction companies Metrostav and HOCHTIEF to construct the **5th operating segment of the "A" metro line** including 4 new stations (Červený vrch, Veleslavín, Petřiny, Motol). The costs for extending the metro by six kilometres will total more than CZK 16 billion before VAT.

Among the notable **tram track renovations** in 2009 were the renewal of BKV panels and replacement of rails on the tram track on Bělohorská Street between the stops Vypich and Bílá Hora (DPP). The renovation also included building a new Obora Hvězda tram stop with an underpass walkway under Bělohorská Street by the Vypich commercial centre.

Other important renovations of tram tracks also took place during 2009 (DPP). Complete repairs were performed on the tram track on Štefánikova Street between the stops Újezd and Anděl, and the track on Ďáblická Street from Třebenická to the Ďáblice loop was renovated. Also renovated were the trackage at the Kobylisy depot, the Klapkova – Střelničná track triangle including part of the Březiněvská loop and emergency repairs were done on the track over Libeň Bridge.



New Obora Hvězda tram stop



Renovated tram loop at Sídliště Ďáblice

Modernisation of the railway track on the stretch Praha Libeň – Praha Běchovice (SŽDC), which is part of the first railway corridor, continued in 2009. This will include the addition of a third track, sound barriers, retaining walls, etc. The maximum speed of the new section will be 120 km/h (140 km/h for tilting trains). The stretch (8.7 km) should be completed in spring 2011 and the total costs should reach CZK 2.61 billion.

New **cycle tracks** were also built (see Chapter 8) and the “pavement programme” was also implemented. Also serving **pavement repairs** were additional funds (CZK 51 million) provided from the “Clean and Green Prague” project (see Chapter 9). Renovations of the Charles Bridge also took place in 2009.

Aside from its activities as an investor, which entailed capital spending of over CZK 1.2 billion in 2009 (including contributions from SFDI and city districts), TSK also fulfilled its role as the administrator of the city's roads, including bridges, tunnels and fixtures (traffic signs, street inlets, traffic signals, telematic systems, safety devices), as well as pavements, street greenery, parking lots, quayside and embankment walls, retaining walls, noise barriers, traffic management centres and other buildings. Keeping these things in satisfactory working order requires the performance essential repairs, winter and summer maintenance, and cleaning. The current expenditures for these activities reached CZK 2.4 billion in 2009 (including work covered by SFDI and city district contributions).

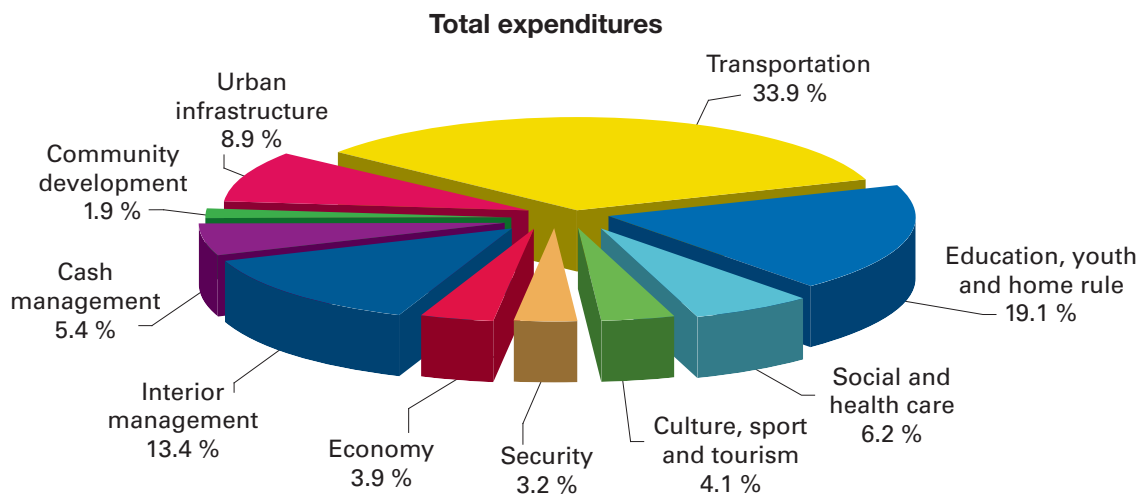
FINANCING THE OPERATION AND DEVELOPMENT OF URBAN MOBILITY

The operation of urban transport and the realisation of transportation infrastructure was financed from the budget of the City of Prague in 2009, with contributions from the state budget, the own resources of the Prague Public Transport Company, and other city organisations. Funding also comes from grants from EU funds and EIB loans.

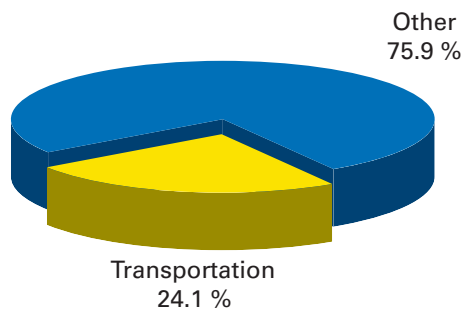
The City of Prague municipal budget, updated 30 June 2009, totalled CZK 72.4 billion in expenditures, of which the expenditures under Chapter 03 Transport, along with several items included under Chapter 07 (CZK 45 million), totalled CZK 24.6 billion. Chapter 03 was once again the most substantial chapter of the municipal budget in terms of expenditures (34 %).

Transport accounted for 24 % of the City of Prague's current expenditures and transport investments for 49 % of capital spending. Current spending on transportation was increased by a further CZK 900 million in November 2009 by a decision of the City of Prague Assembly. These funds were provided to the Prague Public Transport Company as a billable deposit in the form of a non-investment transfer. This increase is not included in the following text nor on the graphs in this chapter.

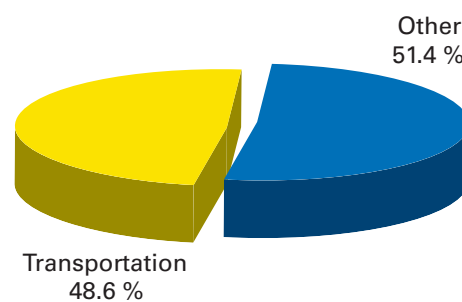
Breakdown of municipal budget expenditures in 2009
(budget updated as of 30 June 2009)



Transportation as % of current expenditure



Transportation as % of capital expenditures



Of the listed amount of CZK 24.6 billion, CZK 10.42 billion was used to cover current expenditures and CZK 14.14 billion for capital expenditures.

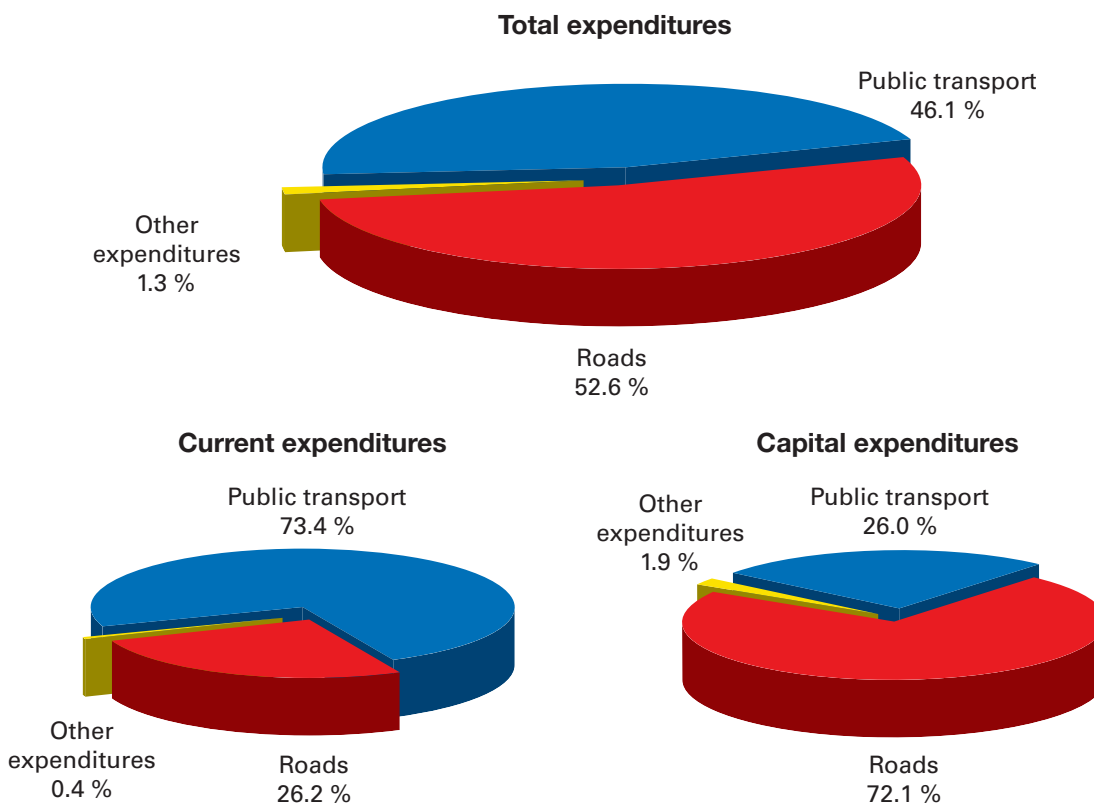
Every year, the subsidy of passenger mass transit plays a crucial role in the drawing of current expenditures. CZK 7.7 billion was set aside for this purpose in the adjusted budget, while CZK 2.7 billion was set aside for the administration, maintenance and operation of roads.

Capital expenditures were primarily used for development investments, i.e. construction of new roads, metro lines and other transportation facilities (76 %), as well as extensive repairs and

renovations of transportation routes and facilities and the renewal of technical equipment (24 %). Funds earmarked for improving the road network and the conditions for road traffic predominated in the capital expenditures. Of the total amount of CZK 14.14 billion, CZK 3.7 billion went to renewal and development of public transport and CZK 10.2 billion to investments in the road network.

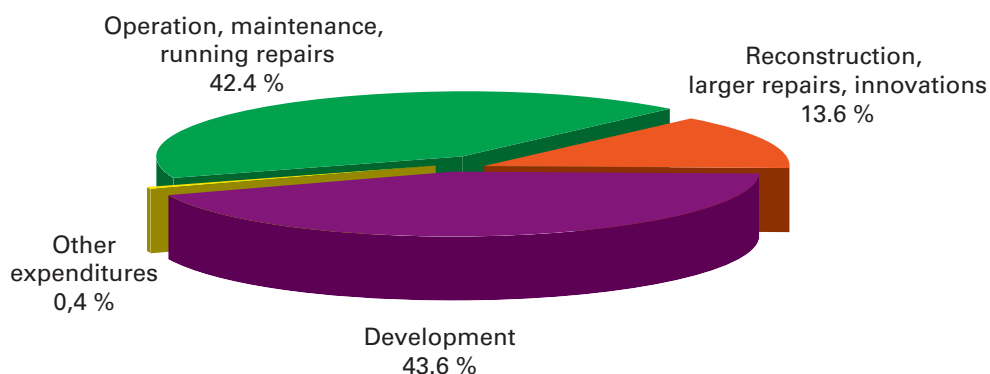
Of the total transportation expenditures in the 2009 budget, the amount set aside for ensuring the operation, renewal and development of public passenger transport was 46 % and the amount for ensuring road transport and development of the road network was 53 %.

Structure of municipal budget transport expenditures in 2009 (budget updated as of 30 June 2009)

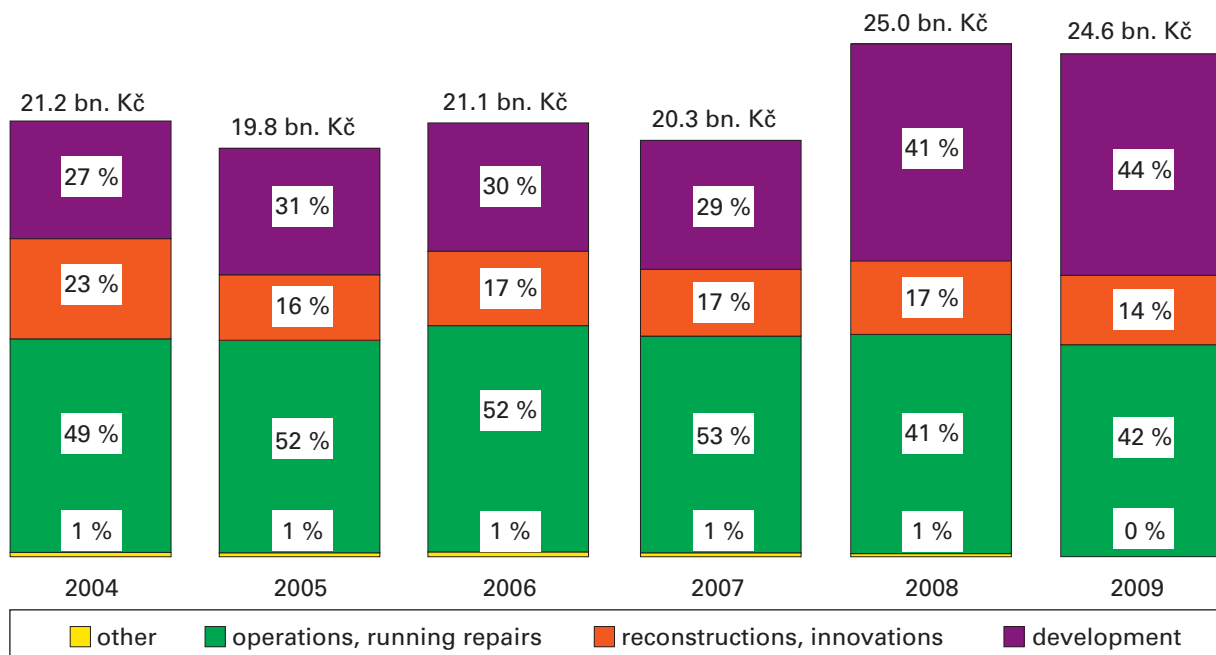


A more detailed breakdown of the items in the chapter expenditures shows that over CZK 10 billion went to securing operation, general repairs and maintenance of the city's transport system, more than CZK 3 billion went to major repairs, renovation and renewal of technical facilities and just under CZK 11 billion was earmarked for development investments.

Structure of total transport expenditures in 2009 budget (budget updated as of 30 June 2009)



Development of structure of transport expenditures in City of Prague budgets



Targeted bound contributions were provided to the City of Prague from the state budget for operating metro and Strahov Tunnel safety systems and for the purchase of low-floor articulated buses.



New SORCITY NB 18 low-floor articulated bus

CZK 1.1 billion was allotted to Prague from the State Fund for Transport Infrastructure for the maintenance, repair and construction of roads that are temporarily fulfilling the function of the missing superior road network. The state budget also adds to EU funds to help finance EU operational programmes, and a contribution was provided to Prague for the system of managing and regulating urban road traffic.

The state also took part in building the Prague Outer Ring Road, assuming full responsibility for financing it. A total of CZK 8.3 billion was drawn for ring road construction in 2009, of which CZK 3.5 billion came from the Transport Operational Programme and the Cohesion Fund, CZK 2.7 billion from the European Investment Bank and CZK 2.1 billion from the budget of the State Fund for Transport Infrastructure.

The Prague Public Transport Company contributed CZK 1.5 billion to cover the investment costs of the urban mobility system, and covered 38 % of the PT fleet renewal costs spent in 2009 (CZK 1.2 billion).

The revenues from sale of public transport tickets were also an important source of funding for the operation of Prague Integrated Public Transport.

EU PROJECTS

Transport Operational Programme (OPD)

The Technical Administration of Roads of the City of Prague continued to take part in projects falling under the Transport Operational Programme in 2009. In cooperation with the Prague City Hall Transport Department and EU Funding Department and in coordination with the Prague City Development Authority, a separate detachment of priority axis number 5 was acquired for Prague for the years 2006 – 2008, entitled “Modernisation and Development of the Prague Metro and Road Traffic Management Systems in the City of Prague”. The resulting financial allocation for this priority axis (following an equalising allocation from the ERDF) totalled EUR 330 million. This amount is drawn by both TSK and DPP.



Intersection Karlovarská – Drnovská renovated from source OPD

Project “Prague Urban Road Traffic Management and Regulation System”

The goal of this project is to reduce the negative effects of the large volume of road traffic by implementing telematic systems in Prague and optimising traffic on the existing road network using new modern control and information technology, including tying it into the comprehensive national telematic system (NDIC). The project budget is CZK 655 million, of which OPD subsidies cover 85 % (around CZK 560 million).

Various areas for drawing funds under TSK

Area 1 – Management through traffic signals	Area 4 – Traffic data collection incl. meteorological sensors
Area 2 – Urban Traffic Control Centre Prague	Area 5 – Expansion of functionality of urban radio network
Area 3 – Optical network	Area 6 – Project preparation, management and publicity

In 2009, project money went to renew traffic signals at 25 intersections as part of Area 1. In Area 2, the delivery of a new large-scale screen (Barco wall), renovation of power supplies and cooling, and programming work on software modules for communication and installation of pre-set traffic scenarios was all financed as part of the UTCC Prague modernisation. In Area 3, OPD funds were used to begin preparations for laying optic cable in the “A” metro line tunnels between Náměstí Míru and Skalka.

The ability to collect to traffic information (Area 4) was considerably expanded in 2009 with the installation of 53 spot detectors and 8 sectional detectors on the Prague road network, about half the number of detectors that will be co-financed under OPD. OPD also co-financed the installation of 15 meteorological sensors. The functionality of the urban radio network (Area 5) was expanded during the past year with the development of firmware for various types of end facilities (P+R parking lots, variable information signs, traffic signal controllers and meteorological sensors). The individual elements of the telematic system were then reconnected to the urban radio network (e.g. Vypich traffic signals, Strakonická variable information sign, etc.).

Project “Increasing Road Safety in Prague”

Due to the approval of the project dealing with the management and regulation of urban road traffic, in December 2008 the City of Prague submitted a second project request for a subsidy from OPD funds under the title “Increasing Road Safety in Prague”.

On the basis of a Czech Ministry of Transport decision from March 2009, this project was approved for co-financing from the Cohesion Fund as part of OPD. The principle of financing is the same as with the preceding project – the OPD subsidy amounts to 85 % of costs. The total budget is CZK 580 million including VAT.

The project will mainly deal with the monitoring and management of traffic in tunnels, providing traffic information and harmonising the telematic systems on the City Ring Road and Radial Roads. A selection procedure for a supplier was held in the second half of 2009.

Single Programming Document for “Objective 2” (JPD 2)

The main task of JPD 2 was to remove the most serious weak points and barriers to development in certain parts of the city, particularly by improving the quality of the urban environment and developing the city’s potential in order for Prague to be able to fulfil its expected role as the dynamic capital of a European Union member state.

Three specific sub-projects were laid out (drawing of EU funds ended in 2008):

- Traffic systems supporting transformation of the urban environment
- Regeneration of damaged and inappropriately used spaces
- Public infrastructure improving quality of life, particularly in housing estates

“Traffic Modelling” project

The “Traffic Modelling” project was realised in 2005 – 2007 by the City of Prague Institute of Transportation Engineering. After this body was merged with TSK, the output of this project continues to be used by TSK as the successor organisation. The project was included in Priority 1 and Measure 1.1 Traffic systems supporting transformation of the urban environment.

The main goal of JPD 2 – Traffic Modelling was improving an effective specialised instrument that would use a traffic model to assess various methods for optimising and regulating traffic in the city.



Logo of project JPD 2 – Traffic Modelling

The run of the project was focused on the traffic conditions at selected intersections in Prague. The specific conditions at intersections are the result of various characteristics and parameters, which include the way in which traffic is managed (uncontrolled, signal-controlled), the structural arrangement (crossroads, roundabout, the number and arrangement of road arms), traffic volume in the individual directions, presence of mass transit routes, in particular trams, the volume of pedestrians and cyclists, etc. These characteristics and parameters form a whole range of combinations that were described in the model so that the output would correspond to the real traffic as closely as possible. Also part of the project was the creation of a modelling tool that takes into account the given parameters, and this tool is now used to test selected plans, traffic measures, and traffic development designs in the city under the principles of the City of Prague transportation policy.

Operational Programme Prague – Competitiveness (OPPC)

After the completion of JPD 2, the new Operational Programme Prague – Competitiveness picked up on its activities. The goal of OPPC is again to increase the competitiveness of Prague as a dynamic metropolis of an EU member state by removing barriers to development and weaknesses of the region, raising the quality of the urban environment, improving the accessibility of transportation and telecommunication services and developing the city’s potential for innovation.

In 2009, the 4th stage of construction at Nábř. E. Beneše – U Pichla was financed from OPPC. This was a renovation project of the embankment wall and revitalisation of the adjacent area on the left bank of the Vltava. The total costs of the construction were CZK 63.30 million, of which CZK 60.89 came from an EU subsidy under OPPC.

In the past year, OPPC also commenced construction of a raised bicycle bridge under the Prague Outer Ring Road bridge in Lahovice. The total construction costs are CZK 59.7 million, with the EU subsidy from OPPC covering CZK 57.77 million.

On the basis of another OPPC call for submissions aiming for spring 2010, further construction projects that will compete for an OPPC grant were prepared at the end of 2009. They primarily concern cycle tracks within Prague.

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