



I.

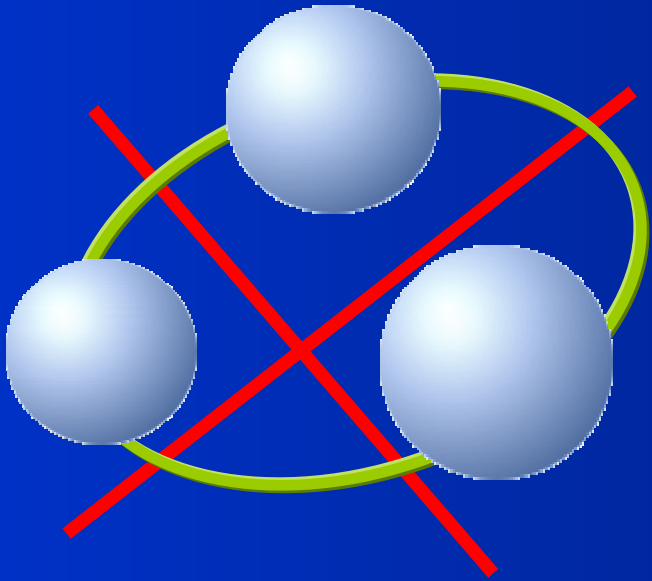
II.

III.

IV.

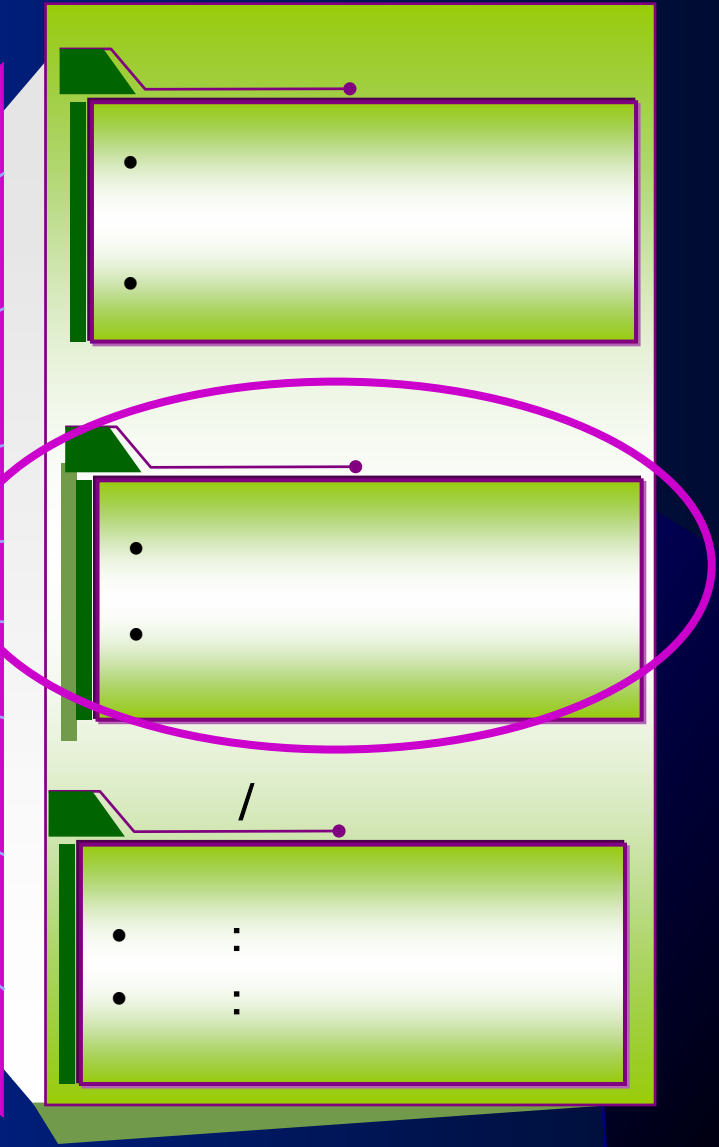
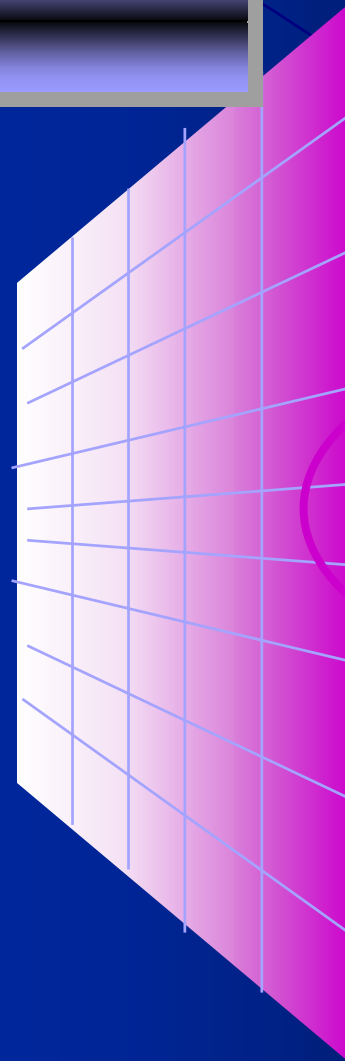
V.





65%

(100 / )



- : 1992. 06 – 2004. 04
- KTX 46  
: (1993.6 )
  - 12 Alstom
  - 34 ROTEM



- - : 300km/h
  - : 213km/h

- 98.6%(2003. 5 )



○

-

○ 21C

○

➡ 1996 4

( )



350km/h

: 1996. 12. 1    2002. 10. 31  
: 2002. 12    2007. 10

2,874

2,101

(

50%)

⋮

( , )



||.



	E3	500	TGV-R	AGV	ICE-3	ICT
	275km/h	300 km/h	300km/h	350km/h	330km/h	230km/h
	GTO	IGBT		IGBT	IGBT	GTO
	/	/	/	/	/ /	/
	1997	1997	1993	-	1999	2002

UIC 776-2R

200km





( )

II.

	300 km/h	350 km/h
	20 1	20 , 11 가
	Mild Steel	
	+	가





○

KTX	( )

○



20



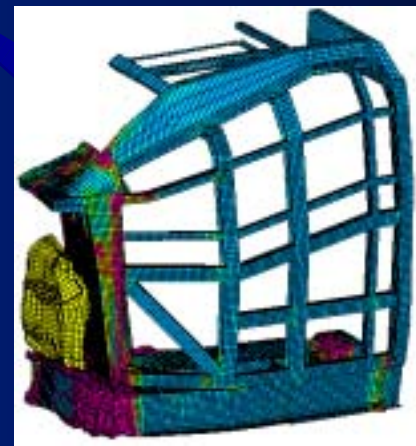
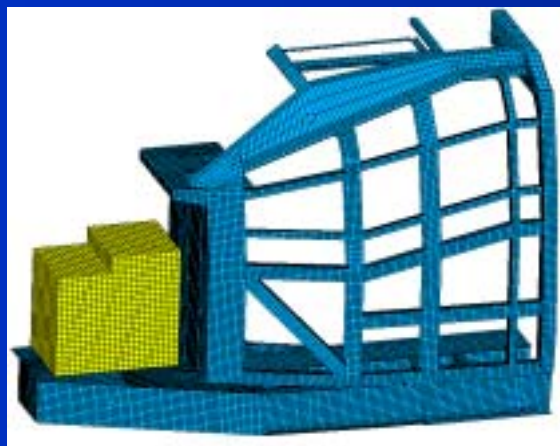
11



II.



: 2MJ  6MJ





○

- (Mild Steel 30%)

-

(600 mm x 18.7 m)



( )





- , ( , )
- Eddy Current Brake
- BBCU
- (Brake Blending Control Unit)

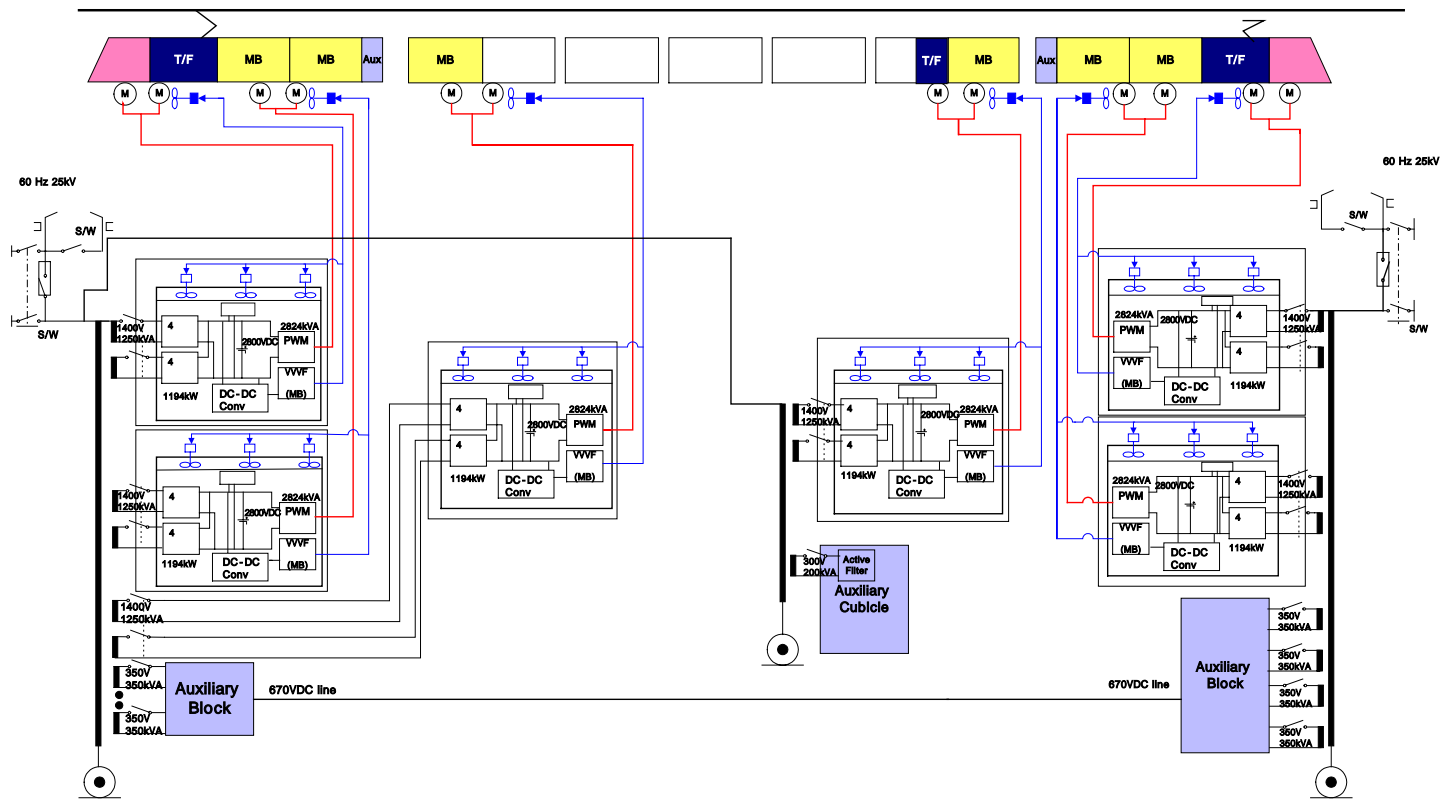


Eddy Current Brake



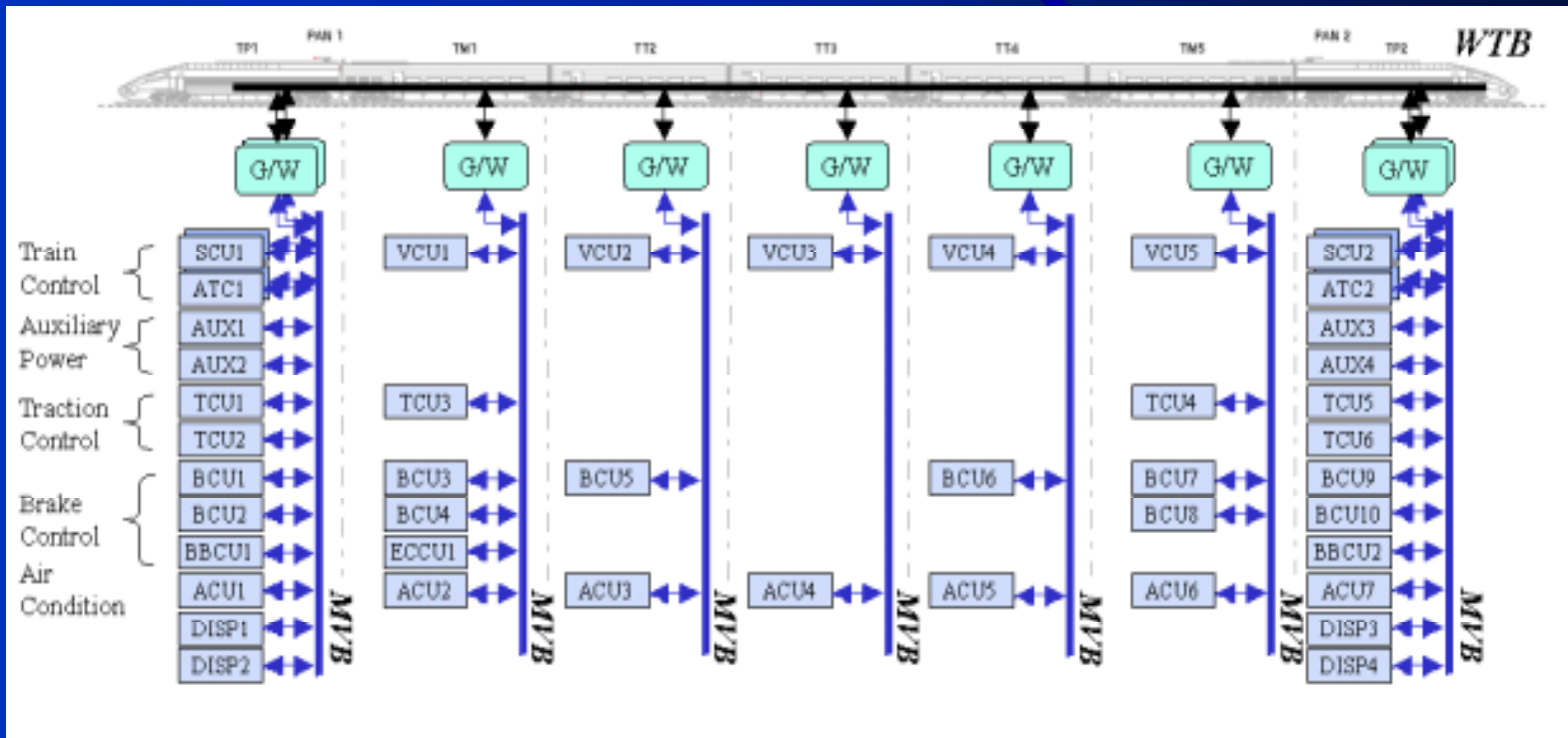
Brake Control Unit





- 2C-11-2M
- PWM, , IGCT



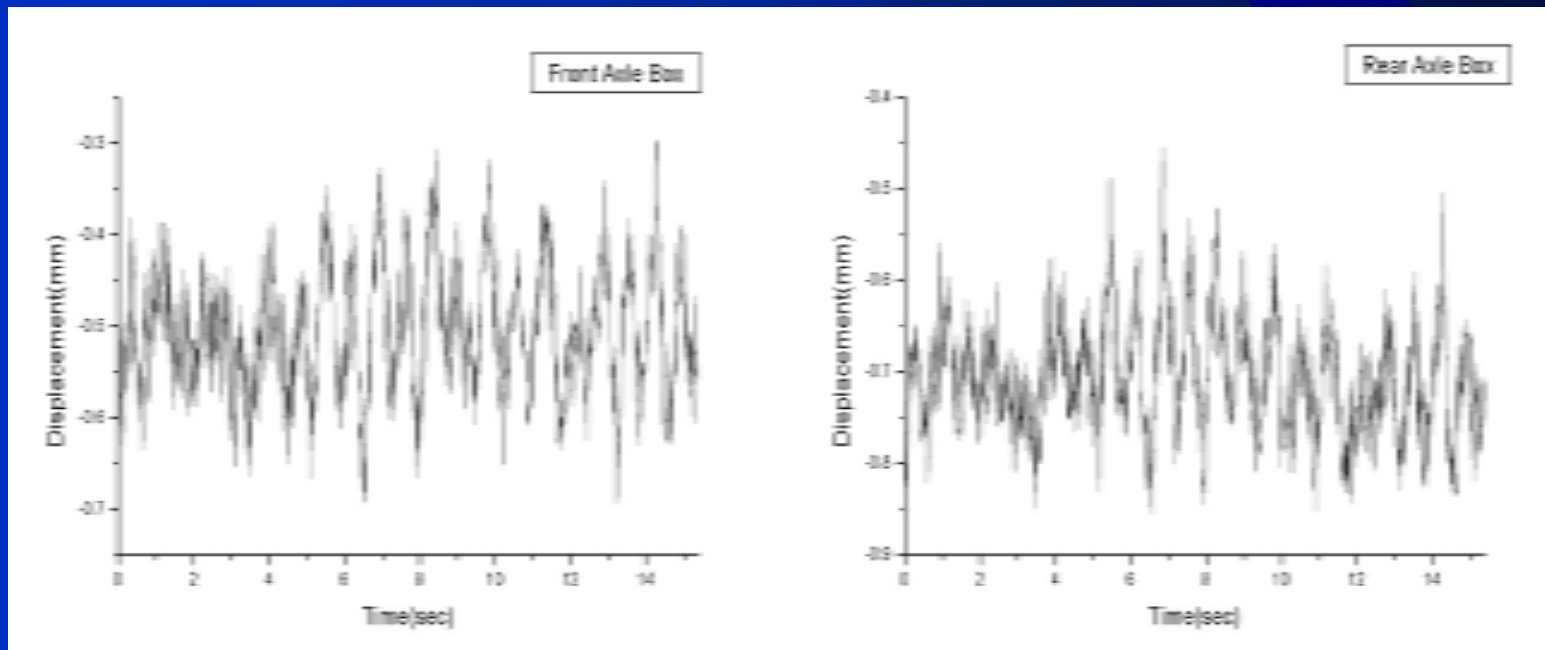


- 50 Units
- 1,000
- TCN(Train Communication Network)





- 
- Al Casting Articulated Fixed & Carrying Ring Frame
- 



Roller Rig Test

402km/h





○

- Vehicle Control Unit(VCU)

, ,

○ Suspension System

- , Yaw Dampers
- Primary Coils Springs &  
Secondary Coil or Air Springs



1







< ATC/CTC/IXL >

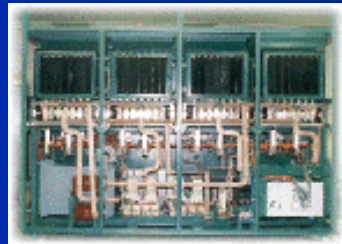


< EMI >





Cab-Cubicle



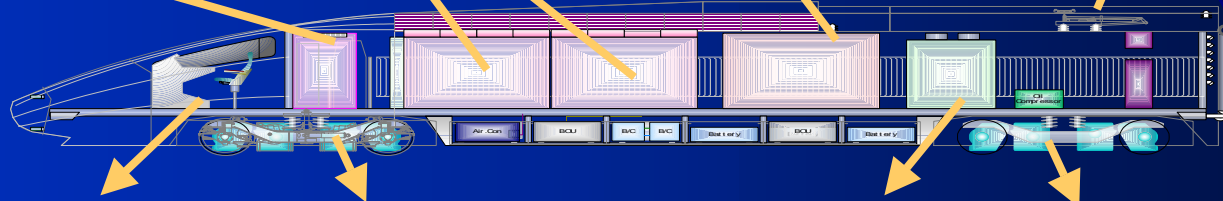
Motor Block



Main Transformer



Pantograph



Driver's Desk

Traction Motor

Auxiliary Block

Eddy Current





7 1



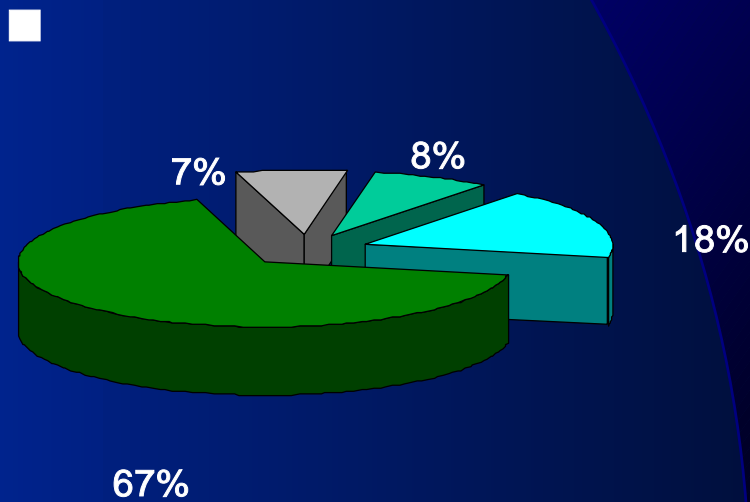
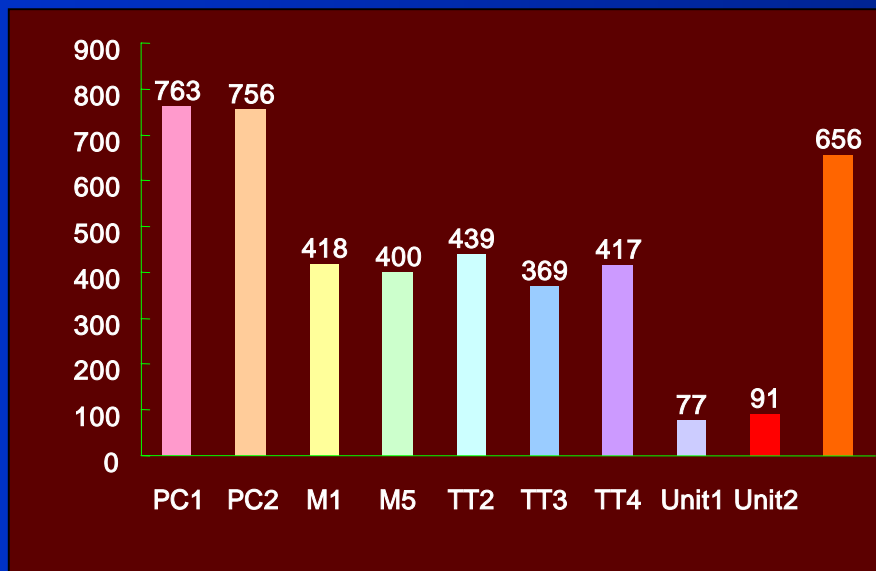
ITEM		FIGURES
Dimension of car (mm) LxBxH	Power Car	22,690x2,814x4,055
	Motorized Trailer	21,845x2,970x4,055
	Trailer	18,700x2,970x3,690
Length between Bogie Center (mm)	Power Bogie	14,000
	Trailer Bogie	18,700
Maximum weight per axle (ton)		17
Total Tare Weight (7cars, ton)		310
Maximum Running Speed (km/h)		350



III.



( 4386 )





- , ,  
- ,

12  
369





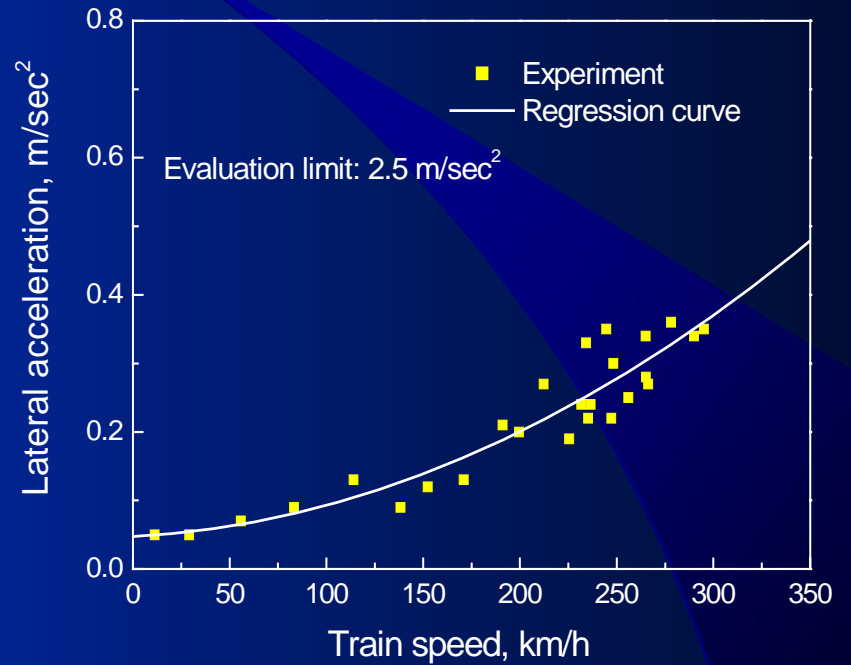
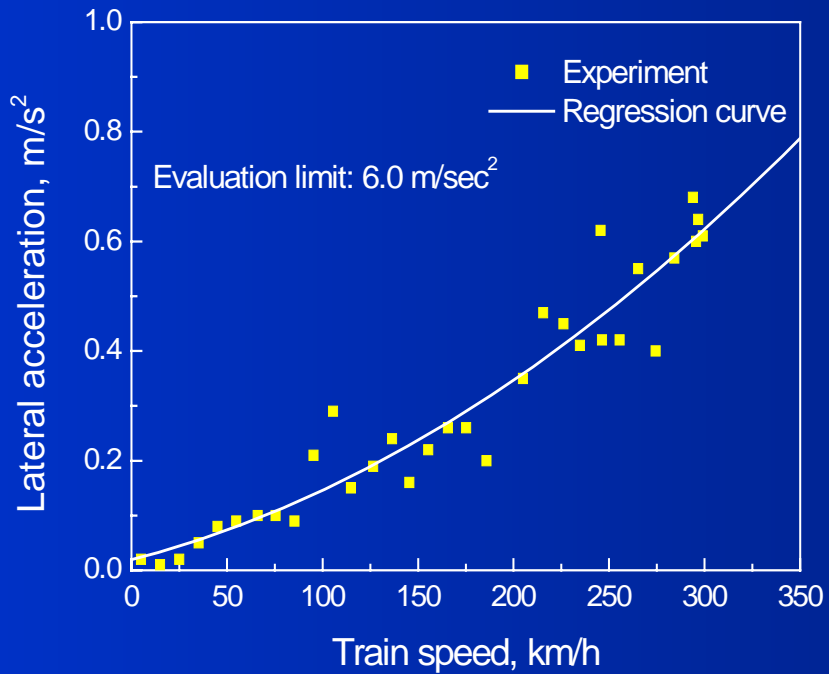


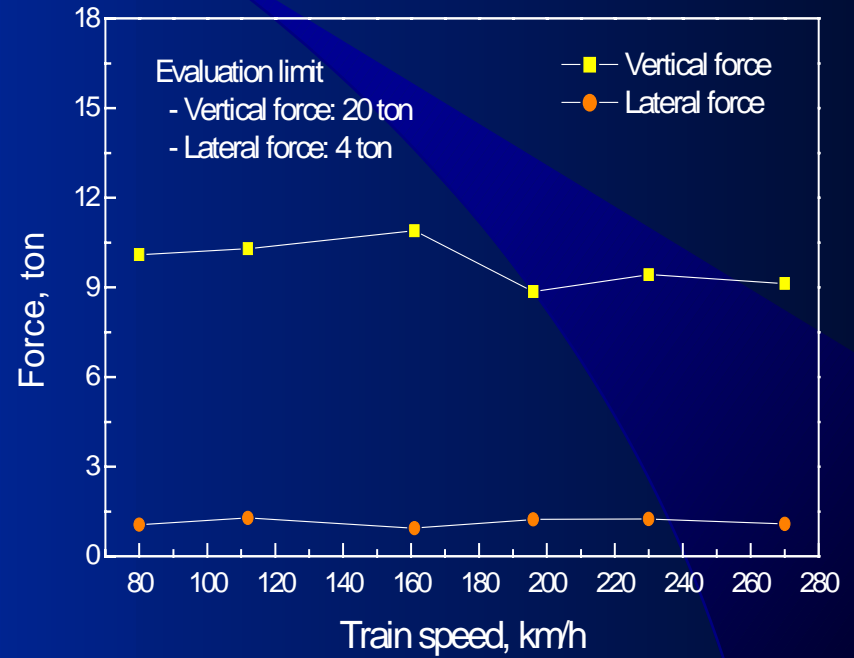
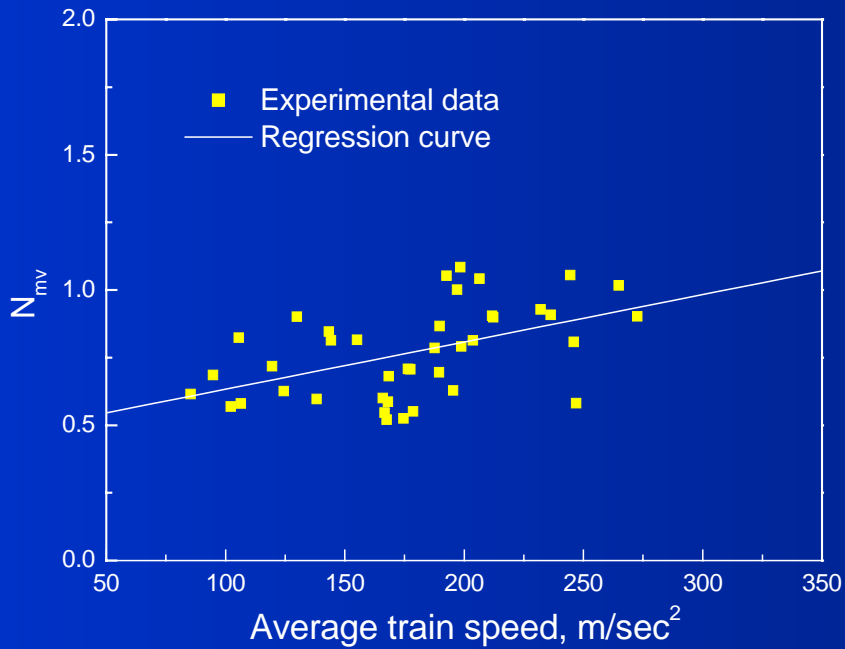
○

- : 57.2km ( ~ )
- : 7,000m
- : 15 %
- : 18.3km
- : 23.7km











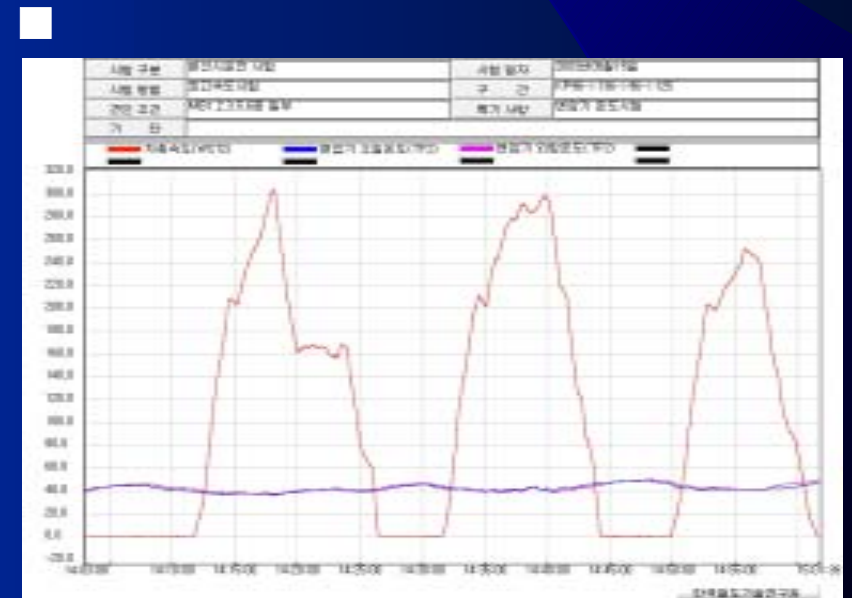
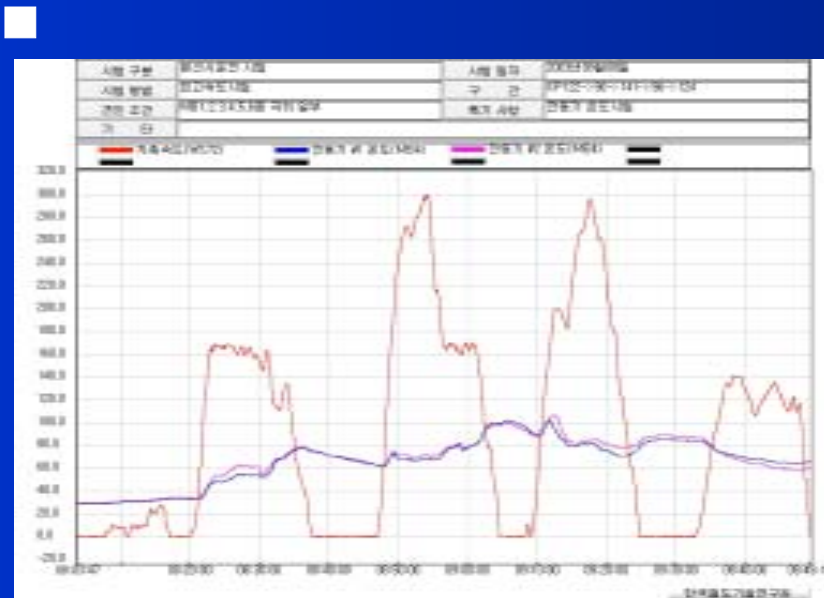
■ ( 180 )

#1(MB4)	29.17	101.85
#2(MB4)	30.01	106.26



■ ( 135/190 )

TF2	40.47	49.20
TF2	39.28	49.96





o 2002 8 31 Anti-Slip/Slide







○ 2002 9 25 가

(CT: Current Transducer)

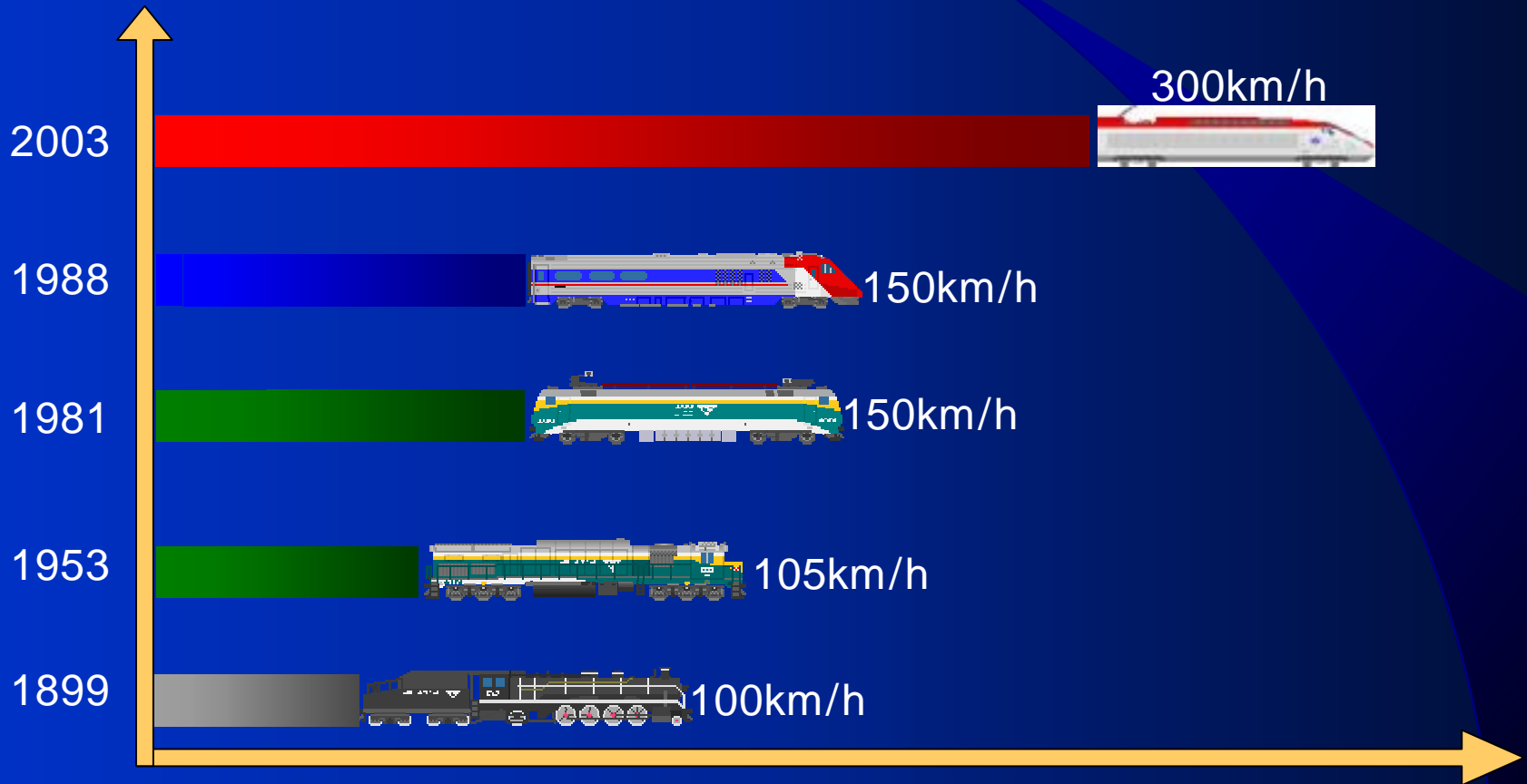


IV.



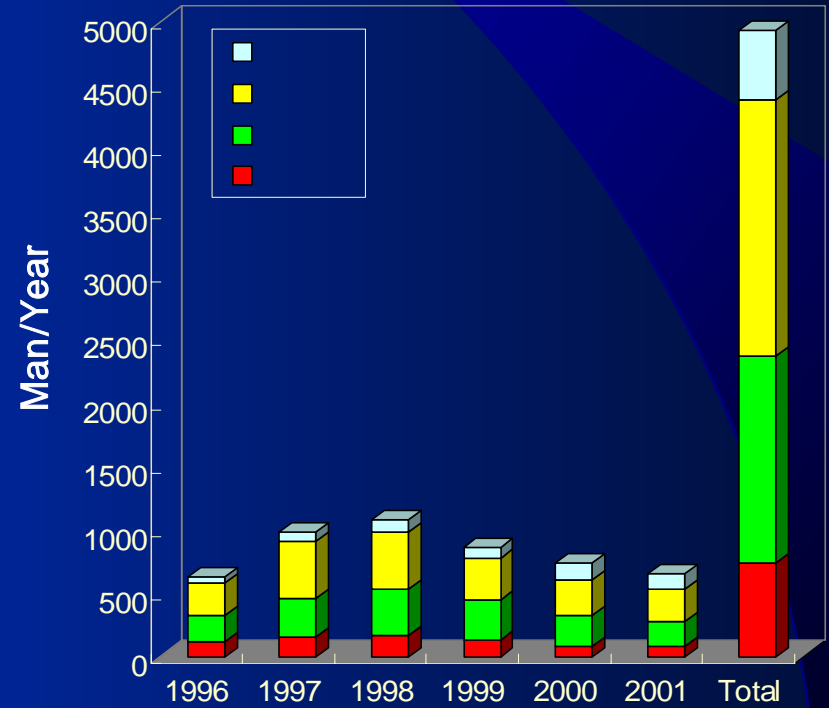
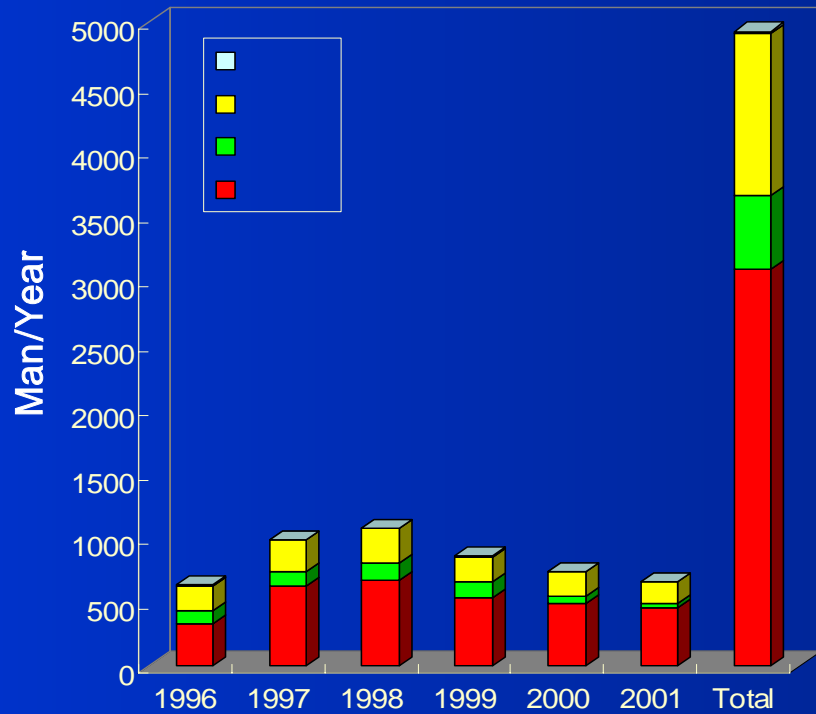


○



○

- 6 4934 man-year( : 3,089, : 1,254, 569)



○

(KISTEP )

- (6 : 82 , : 18 ,  
 29 )

- 26.4% 88.2%

○

- 104  
 - ,  
 - 가 : 87%  
 - : 92%



○

- 1 가 14  
KTX ( )  
(2003. 1)
- 107m<sup>2</sup> 85-95m<sup>2</sup>  
ATC
- ( )
- Florida (2003. 2)



V.



	( )	(TGV)	(ICE)
	1962. 6	1968 - 1977	1985
	1963. 3 256km/h	1981. 2 310 km/h	1986. 11 345km/h
	1991. 2 325 km/h	1990 515km/h	1988. 5 408km/h
	1964 200km/h	1984	1991

2

4



v.

12 km



