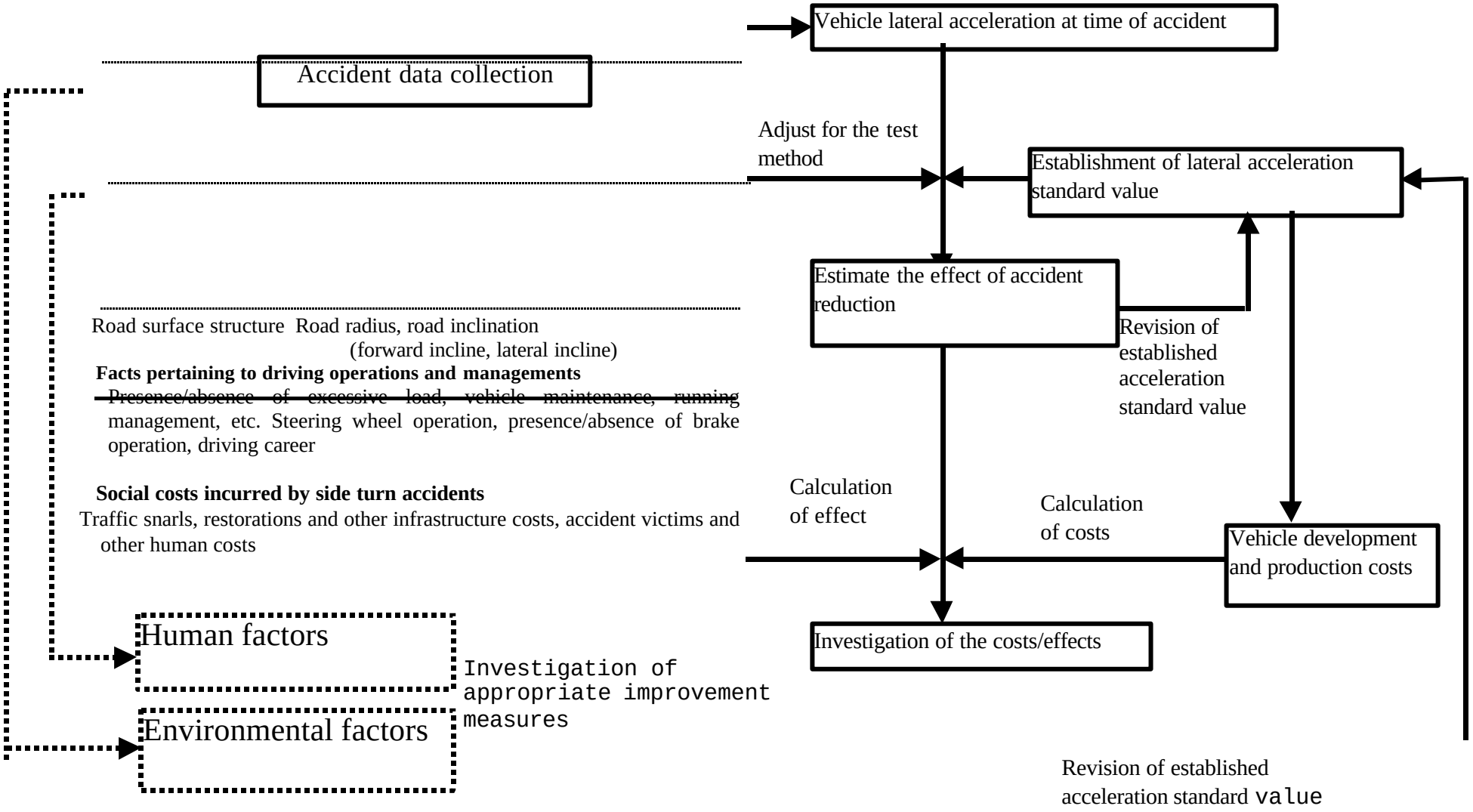
Informal document No. 8
(48th GRRF, 11-13 September 2000,
Agenda Item 2)

Method of analysis for Japanese accidents and data

Submitted by Japan

Since it was decided at the special GRRF held in December of 1999 that data on Rollover accidents shall be presented, Japan's outlook and accident data are submitted herein.


Vehicle lateral acceleration at time of accident
Accident data collection
Adjust for the test method
Establishment of lateral acceleration standard value
Estimate the effect of accident reduction
Revision of established acceleration standard value
Road surface structure Road radius, road inclination
(forward incline, lateral incline)
Facts pertaining to driving operations and managements
Presence/absence of excessive load, vehicle maintenance, running management, etc. Steering wheel operation, presence/absence of brake operation, driving career
Social costs incurred by side turn accidents
Traffic snarls, restorations and other infrastructure costs, accident victims and other human costs
Calculation of effect
Calculation of costs
Vehicle development and production costs
Human factors
Environmental factors
Investigation of appropriate improvement measures
Investigation of the costs/effects
Revision of established acceleration standard value

Data on Rollover accidents

Item				1	2	3
Facts pertaining to accident conditions	Rollover configuration			after passing	left curving	left curving
	Vehicle speed(km/h)			60	51	40
	Road radius			straight		
	Radius of tire marks on road					
	Brake application method					
	Length of tire marks on road					
Facts pertaining to vehicle in accident	Vehicle specification	Vehicle model		U-FE437F	W-CK610BNT TF1591	P-FP410DR TF1591
		Rear body configuration				
	Vehicle condition	Gross weight at time of accident(kg)		2000(loading weight)	9987(loading weight)	13000 (loading weight)
		Loading position				
		Height of gravity center at the time of accidents				
Facts pertaining to the road surface	Road surface condition	Pavement condition and weather		freezing snow	wet rain	dry fine
	Road surface structure	Road radius				
		road inclination	forward incline	even	down	down
			lateral incline	track		
Facts pertaining to driving operations and managements	Presence/absence of excessive load			absence	absence	absence
	vehicle maintenance			no trouble	no toruble	no trouble
	running management, etc					
	Steering wheel operation			not good	over speeded	over speeded
	Presence/absence of brake operation					
	Driving career (years)			17	5.3	30.3
Social costs incurred by rollover accidents	Traffic snarls					
	Restorations and other infrastructure costs					
	Accident victims and other human costs			minor injury 1	serious injury 1	serious injury 1

Data on Rollover accidents

Item				4	5	6
Facts pertaining to accident conditions	Rollover configuration			left curving	left curving	left curving
	Vehicle speed(km/h)			55	50	40
	Road radius					
	Radius of tire marks on road					
	Brake application method					
	Length of tire marks on road					
Facts pertaining to vehicle in accident	Vehicle specification	Vehicle model		KC-FP410DR HT2552	KC-SS3VJCA P239D	W-CK620BNT TF1591
		Rear body configuration				
	Vehicle condition	Gross weight at time of accident(kg)		20000 (loading weight)	20010 (loading weight)	27000 (loading weight)
		Loading position				
		Height of gravity center at the time of accidents				
Facts pertaining to the road surface	Road surface condition	Pavement condition and weather		dry cloudy	wet cloudy	dry fine
	Road surface structure	Road radius				
		road inclination	forward incline	up	even	down
			lateral incline			
Facts pertaining to driving operations and managements	Presence/absence of excessive load			absence	presence (max.17750kg)	presence (max.19250kg)
	vehicle maintenance			no trouble	no trouble	no trouble
	running management, etc					
	Steering wheel operation			over speeded	over speeded	not good
	Presence/absence of brake operation					
	Driving career (years)			2	7.4	0.2
Social costs incurred by rollover accidents	Traffic snarls					
	Restorations and other infrastructure costs					
	Accident victims and other human costs			minor injury 1	serious injury 1 minor injury 1	minor injury 1

Data on Rollover accidents

Item				7	8	9
Facts pertaining to accident conditions	Rollover configuration			left curving	left curving (passing)	gale
	Vehicle speed(km/h)			60	50	
	Road radius					
	Radius of tire marks on road					
	Brake application method					
	Length of tire marks on road					
Facts pertaining to vehicle in accident	Vehicle specification	Vehicle model		KC-SS3VJCA TF28H8C2 conv	KC-CK551BNT CT220D	U-FK516S
		Rear body configuration				
	Vehicle condition	Gross weight at time of accident(kg)		20000 (loading weight)	17000 (loading weight)	0 (loading weight)
		Loading position				
		Height of gravity center at the time of accidents				
Facts pertaining to the road surface	Road surface condition	Pavement condition and weather		wet rainy	dry fine	wet cloudy
	Road surface structure	Road radius				
		road inclination	forward incline	up	up	even
			lateral incline			
Facts pertaining to driving operations and managements	Presence/absence of excessive load			absence	absence	absence
	vehicle maintenance			no trouble	no trouble	no trouble
	running management, etc					
	Steering wheel operation			over speeded		
	Presence/absence of brake operation					
	Driving career (years)			7	21.5	2.9
Social costs incurred by side turn accidents	Traffic snarls					
	Restorations and other infrastructure costs					
	Accident victims and other human costs					

Data on Rollover accidents

Item				10	11	12
Facts pertaining to accident conditions	Rollover configuration			left curving	left curving	curving
	Vehicle speed(km/h)			60	28	
	Road radius					
	Radius of tire marks on road					
	Brake application method					
	Length of tire marks on road					
Facts pertaining to vehicle in accident	Vehicle specification	Vehicle model		P-FV415JR TF242-1	P-RR170BA	U-CM88KE
		Rear body configuration				
	Vehicle condition	Gross weight at time of accident(kg)		30400 (loading weight)		2500 (loading weight)
		Loading position				
		Height of gravity center at the time of accidents				
Facts pertaining to the road surface	Road surface condition	Pavement condition and weather		wet rainy	dry fine	wet rainy
	Road surface structure	Road radius				
		road inclination	forward incline	down	up	down
			lateral incline			
Facts pertaining to driving operations and managements	Presence/absence of excessive load			presence (max.30400kg)	absence	absence
	vehicle maintenance			no torouble	no trouble	no trouble
	running management, etc					
	Steering wheel operation			over speeded	over speeded	careless
	Presence/absence of brake operation					
	Driving career (years)			7.9	0.2	5.5
Social costs incurred by rollover accidents	Traffic snarls					
	Restorations and other infrastructure costs					
	Accident victims and other human costs			death 1	serious injury 1 minor injury 16	death 1

Data on Rollover accidents

Item				13	14	15
Facts pertaining to accident conditions	Rollover configuration			left curving	right turning	left curving
	Vehicle speed(km/h)					100
	Road radius					
	Radius of tire marks on road					
	Brake application method					
	Length of tire marks on road					
Facts pertaining to vehicle in accident	Vehicle specification	Vehicle model		W-CR610BAT ST20SA conv	KC-CK551BHT FKC220A	KC-SS1FJCA TF40337
		Rear body configuration				
	Vehicle condition	Gross weight at time of accident(kg)		15000 (loading weight)	20000 (loading weight)	37030 (loading weight)
		Loading position				
		Height of gravity center at the time of accidents				
Facts pertaining to the road surface	Road surface condition	Pavement condition and weather		dry cloudy	wet rainy	dry fine
	Road surface structure	Road radius				
		road inclination	forward incline	even	down	down
			lateral incline			
Facts pertaining to driving operations and managements	Presence/absence of excessive load			absence	absence	absence
	vehicle maintenance			no trouble	no trouble	no trouble
	running management, etc					
	Steering wheel operation					over speeded
	Presence/absence of brake operation					
	Driving career (years)					
Social costs incurred by rollover accidents	Traffic snarls					
	Restorations and other infrastructure costs					
	Accident victims and other human costs			death 1	death 1	death 1