



中国汽车技术研究中心有限公司
China Automotive Technology and Research Center Co., Ltd.

Identified Crash Scenarios with Probabilities Study in China

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China In-Depth Accident Study (CIDAS) was launched on July 15, 2011. It was initiated by the China Automotive Technology and Research Center (CATARC) in conjunction with a number of well-known domestic and foreign automobile companies to conduct an in-depth investigation, analysis and research of road traffic accidents in China.

- Aim: providing basic data support and technical services for the Chinese and international automotive industry.
- Database: >4,300 Chinese road traffic accidents.
- Application Area:
 - ✓ Formulating & revision of relevant automotive safety standards
 - ✓ Automotive active and passive safety technology research
 - ✓ C-NCAP (China - New Car Assessment Programme)


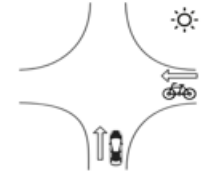




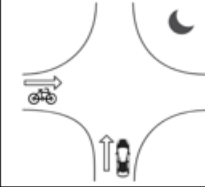


- C-NCAP makes a comprehensive judgment combined with the statistical results of the CIDAS to conform to China's actual traffic conditions.
- E.g. C-NCAP active safety' s
 - (1) test case selection,
 - (2) test condition setting (speed, crash type...)
 - (3) evaluation weight for each case.


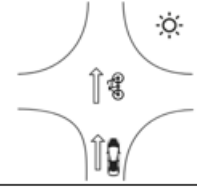

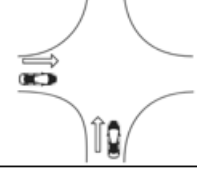
AEB						FCW						HMI	
CCRs		CCRm		CCRb		CCRs		CCRm		CCRb		HMI	Turn off
20kph	1	30kph	1	12m 4m/s ²	1	35kph	1	50kph	1	12m 4m/s ²	1		Warning
30kph	1	45kph	1	40m 4m/s ²	1	45kph	2	60kph	3	40m 4m/s ²	1		Pre-tighten
40kph	3	65kph	3			55kph	2	75kph	3				Traffic facility
						75kph	1					Malfunction	Driver Behavior


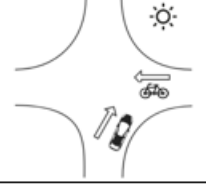
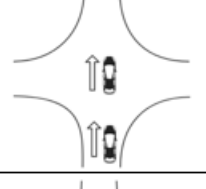
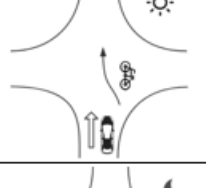

Test Speed	AEB VRU Ped				HMI	
	CVFA-50	CVFA-25	CVNA-25	CVNA-75	Turn off Req.	
20km/h	1	1	1	1	Warning Sound Req.	1
30km/h	2	2	1	1	Working Light Req.	1
40km/h	2	2	2	2		
50km/h	2	2	2	2		
60km/h	1	1	1	1		





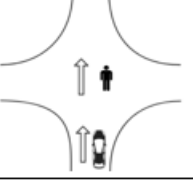
CIDAS: These 33 scenarios cover 87% of the overall passenger vehicle accident scenarios.

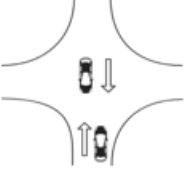

Scenario	Day or Night	Sketch Diagram	Accident Number Ranking
The vehicle goes straight and collides with the two-wheeler crossing from the left side.	Day		1
The vehicle goes straight and collides with the two-wheeler crossing from the right side.	Day		2
Collision caused by speeding.	All Time	Speeding	3
Collision caused by vehicle lane departure.	All Time	Lane departure	4
Collision caused by the driver distraction.	All Time	Driver distraction	5


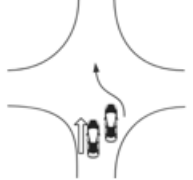
Scenario	Day or Night	Sketch Diagram	Accident Number Ranking
The vehicle collides with the two-wheeler in the blind area on the left side.	All Time		6
The vehicle collides with the two-wheeler in the blind area on the right side.	All Time		7
The vehicle goes straight and collides with the two-wheeler crossing from the left side.	Night		8
The vehicle goes straight and collides with the pedestrian crossing from the right side.	Night		9
The vehicle goes straight and collides with the two-wheeler going in the longitudinal direction.	Night		10

Scenario	Day or Night	Sketch Diagram	Accident Number Ranking
The vehicle turns right and collides with the two-wheeler crossing from the right side.	Day		11
Collision caused by drunk driving.	All Time	Drunk driving	12
The vehicle goes straight and collides with the two-wheeler going in the longitudinal direction.	Day		13
The vehicle goes straight and collides with the pedestrian crossing from the left side.	Night		14
The vehicle goes straight and collides with the vehicle crossing from the left side.	All Time		15

Scenario	Day or Night	Sketch Diagram	Accident Number Ranking
The vehicle turns left and collides with the two-wheeler crossing from the right side.	Night		16
The vehicle turns right and collides with the two-wheeler crossing from the right side.	Day		17
The vehicle goes straight and collides with the vehicle going in the longitudinal direction.	All Time		18
The vehicle goes straight and collides with the two-wheeler cutting in the same direction.	Day		19
The vehicle goes straight and collides with the two-wheeler crossing from the right side.	Night		20

Scenario	Day or Night	Sketch Diagram	Accident Number Ranking
The vehicle goes straight and collides with the vehicle crossing from the right side.	All Time		21
The vehicle turns left and collides with the two-wheeler crossing from the left side.	Day		22
The vehicle goes straight and collides with the pedestrian crossing from the right side.	Day		23
The vehicle turns right and collides with the two-wheeler crossing from the left side.	Day		24
The vehicle goes straight and collides with the pedestrian walking ahead.	All Time		25

Scenario	Day or Night	Sketch Diagram	Accident Number Ranking
Collision caused by violation of traffic lights.	All Time	Violation of traffic light	26
The vehicle goes straight and collides with the vehicle going from the opposite direction.	All Time		27
The vehicle goes straight and collides with the pedestrian crossing from the left side.	Day		28
Collision during parking.	All Time	During parking.	29
Collision during reversing.	All Time	During reversing.	30

Scenario	Day or Night	Sketch Diagram	Accident Number Ranking
The vehicle departing the lane collides with the vehicle ahead and the two-wheeler.	All Time	Departuring the lane	31
The vehicle collides with the vehicle in the blind area.	All Time		32
The vehicle goes straight and collides with the vehicle cutting in the same direction.	All Time		33



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Thank you!

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