Road Transport Capacity for Emergency Response

Research Institute of Highway, MOT, PR China
1. Emergency teams
2. Emergency supplies & equipment
3. Information system
Emergency teams

Teams for recovery of damaged road

Fleet for materials delivery
Emergency teams

Teams for recovery of damaged road

Team at the national level

Team at the local level
Team at the National Level

- Composed of armed police as national team for recovery of damaged road
- A total of 12 teams in main regions
- For national defense road, major bridge/tunnel
- For major emergency response
Team at the Local Level

- Provincial and municipal road transport emergency response agency is responsible for the team organization & routine management
- With people from road administration & maintenance entity
- Selected road maintenance entity through open bidding
- Road maintenance and emergency recovery of damaged road based on contract agreement
Teams for recovery of damaged road

Fleet for materials delivery
Provincial transport emergency response agency is responsible for local fleet & team organization.

To establish passenger and freight service teams respectively based on prefecture city.

To sign agreement with large regional motor carriers for the provision of emergency transport service.

With tax exemption and fuel subsidy for those listed in the emergency transport service.
Transport equipment and their conditions

- Capacity reserves units shall keep the emergency transport reserves vehicles in good condition, and strengthen the daily maintenance work.
- Technical class of vehicles achieve above secondary level.
- Vehicle age shall not be more than 5 years or driving mileage no more than 150,000 vehicle-km.
Establish emergency transport capacity archive, including the entities, vehicle tonnage (seat), type and number of persons

Exam technical conditions, reserve capacity, entity and personnel changes every year; adjust, supplement and update the records accordingly

In principle, no less than 300 passenger vehicles, 500 freight vehicles for each of the provinces
Provincial emergency management agencies formulate emergency plans according to local conditions, mobilize societal forces, organization procedure and decision-making procedures.

In the case of more highway transport capacity is needed, it should be turned to the people’s government at the same level to get the support from the social forces.
Emergency personnel safety protection

- Provide different types of public emergency personnel safety equipment combined with instructions, take necessary safety measures.
- Provide personal accident insurance for those who participate in emergency response services.
1. Emergency teams
2. Emergency supplies & equipment
3. Information system
Emergency supplies & equipment reserve system

National Highway Emergency Road Transport Materials Storage

Local Highway Emergency Road Transport Materials Storage
National road emergency transport materials storage center

Take into consideration of the following factors:

- The layout of the national expressway system
- The timeliness of emergency supplies scheduling and the rationality of covered areas
- Regional climate and geological conditions
- The covering area for each of the centers is about 500-800 km
National emergency transport materials storage centers are to be set in Heilongjiang, Liaoning, Neimenggu, Beijing, Hebei, Zhejiang, Jiangsu, Henan, Shanxi, Gansu, Hubei, Sichuan, Yunnan, Guizhou, Guangdong, Fujian, Qinghai, Xizang, Xinjiang, and etc.
Provincial and municipal transport departments are responsible for road transport emergency materials storage in their regions.

General principles: taking into account of the following factors:

- Types and characteristics of the road traffic incidents in the jurisdiction area
- Distribution of road transport emergency fleet and team
- Various facility resources available from enterprises of road maintenance, construction and road transport
- The service area for each center should cover about 200 km
Entrustment system for the management of national road transport emergency materials storage authorized and supervised by MOT; the dispatch/delivery of the materials should be approved by MOT.

The provincial transport department is the trustee responsible for the construction and management of the materials storage.

Special team is organized by the provincial transport department with closed management system including specialized warehouses and specially assigned persons.
Emergency supplies & equipment

Emergency supplies & equipment

Emergency equipment

Machines

Communication equipment

Road recovery

Rescue effort
Emergency equipment

- Emergency **machine equipment** including steel bridge (Bailey bridge), excavator, shovel loader, bulldozer, land scraper, compulsory mixer, form spreader, truck cranes, snow blower, air compressor, platform trailer, oil can, fire engine, dynamo, pumps, life detector

- Emergency **communication equipment** including vehicle station, USW handset, maritime satellite mobile phone and portable generator
Emergency supplies

- **Materials for road recovery** including asphalt, gravel, sand rock, cement, straw bag, gunny bag, snowmelt agent, skid resistant, oil absorption material, etc.

- **Rescue efforts** including protective clothing and equipment, tents, fuel, safety sign, emergency transport vehicles, vehicle maintenance tools and protective equipment etc.
1. Emergency teams
2. Emergency supplies & equipment
3. Information system
Highway transport emergency response communication platform system

- Based on full integration of the existing transport communication and information resources, to establish and perfect “unified management, multiple networked communication, fast response, effective process” highway transport emergency communication system.

- Emergency response centers at ministerial, provincial and municipal levels established.
Emergency Response System Framework

To improve road net management, efficiency, service level & rescue capacity
National road network management and Emergency response center
Data communication among 15 provinces/cities including road condition images captured by video system
路路况信息简报

（2009年8月31日上午9时）

公局

签发人：李年

全国路网运行监测分析周报

（2009年8月24日—8月30日）

24日至25日，广东、上海、江苏、浙江、福建、安徽、湖北、湖南、四川部分地区出现中到大雨，其中，四川盆地西部局部地区出现暴雨。26日至30日，我国西北地区东南部、华北南部、黄淮、江汉、四川盆地、江南、江南南部等地出现一次较强降水过程。部分地区出现暴雨，湖南、安徽、湖北、四川等地部分地区出现大暴雨。30日开始，我国降雨强度降低，降雨区域有所缩小。

从上周路况系统上报信息看，受上述天气及交通事故影响，河北、天津、广东、河南、云南、四川、湖北、重庆等8个省（市、区）共11条高速公路、5条国省干线（四川S101、G213、G317、G318，湖北G209、6条省道（河南S322、云南S214、重庆S103、S202、四川S308、S309）先后出现局部交通中断。目前除云南S214开通应急通道外，其它路段均采取了有效措施，交通中断路段已基本恢复正常。
Daily weather forecast by China Central TV
Route/facility inquiry
Driving navigation
Road condition information
Road weather information
Travel advice
Emergency response function (developing)
Thank You!