Report on the Ngong Ping Skyrail Cabin Dislodgement Incident

In order not to prejudice the legal proceedings,

those parts concerning the cause of

the cabin dislodgement incident

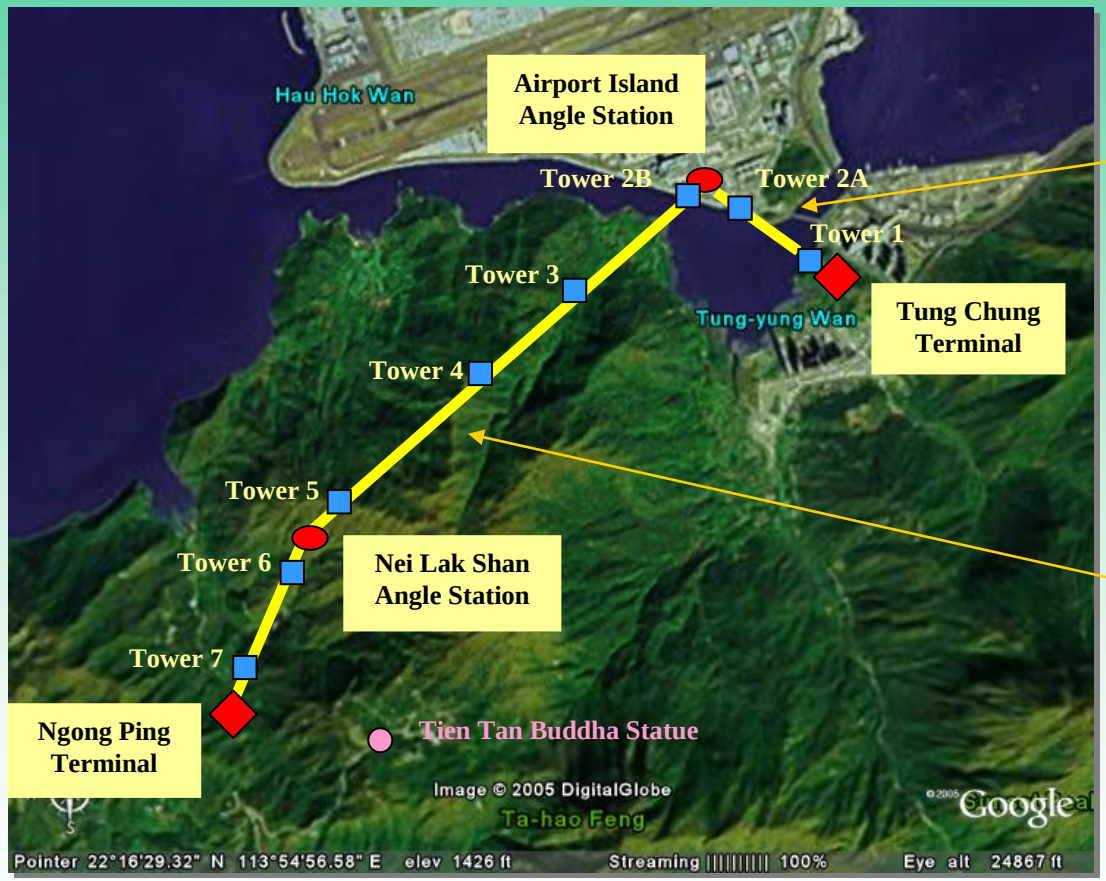
in the Expert Panel's report

are not appropriate to be released at this moment

Contents

- Ngong Ping Ropeway and its braking system
- Management, operation and maintenance of the Ngong Ping 360
- Experts' opinions

The Ngong Ping Ropeway



Section I
Link up TCT and AIAS

Section II
Link up NPT and AIAS

The Bi-cable Design

Carriage
(travel along track rope)

Track Rope
(stationary rope)

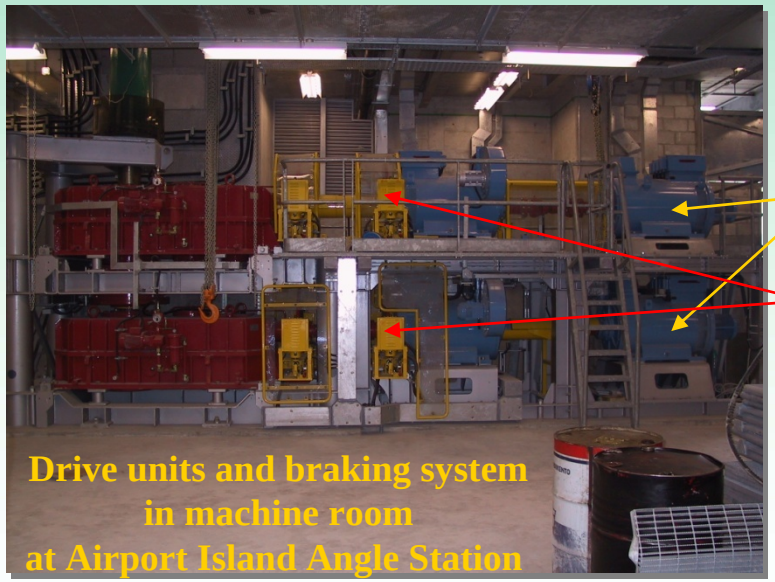
Hauling Rope
(moving rope)

Detachable Grip
(grip on hauling rope)

Cabin
(for carrying passengers)

Braking System

- During normal operation,
  ropeway is made to stop by the use of brakes
- Under normal circumstances,
  all brakes operate automatically with deceleration control



Drive units and braking system
in machine room
at Airport Island Angle Station

There are 3 types of brake :

Electrical Brake - for normal stoppages

Service Brake - activated when electrical brake cannot perform the desired braking

Emergency Brake - used under emergency situation to stop the system

Service Brake Test on 11 June 2007

- Under normal operation,
  service brakes function automatically under computer control
- when conducting service brake test,
  operation of service brakes changed to manual mode

Plan & Intention

- Part of Annual Examination according to laws
- Simulate one group of service brakes without deceleration control

Result

- Dislodgement of a cabin

Suspected Offence

The government's criminal investigation reveals

- A person is suspected to have contravened section 23A of the Aerial Ropeways (Safety) Ordinance, Cap. 211

- "No person shall wilfully or negligently do or omit to do anything in relation to an aerial ropeway if such act or omission is likely to render the ropeway unsafe for persons using, operating, or being in the vicinity of, the ropeway."

International Experts' View

- The design of the cable car system complies with the prevailing international standards and practices on safety; the service interruptions before 11 June did not compromise its safety

- The current regulatory regime in Hong Kong is in line with the international practice; EMSD will continue with the current framework to ensure safety of the cable car system

Regulation by Government

In the 9 months since the opening of the ropeway, EMSD has

- Conducted over 130 regular and random inspections
- Issued 47 advisory notices on improvement measures
- Met monthly with MTRCL and Skyrail, and
  asked for weekly progress update
  to closely monitor the implementation of the improvement measures
- 42 improvement measures have been completed as at 11 June
- Completed a performance review and urged MTRCL
  to conduct an independent review in January 2007
  to review the design, operation, maintenance and management
  of the Ngong Ping ropeway
- Obtained endorsement from the experts on the review and
  recommendations put forward to MTRCL

Operation, Maintenance & Management

- **Approach adopted by the Expert Panel :**

1) Conduct on-site inspection and audit the ropeway;
2) Review previous incidents and the performance of the ropeway operating company since 18 September 2006;
3) Review observations and findings arising from EMSD's inspections;
4) Review operation records of the ropeway;
5) Inspect and examine maintenance schedule, procedures, work instructions, service log and related records;
6) Review record of interview and information given by concerned staff members, the ropeway manufacturer and owner;
7) Examine the ropeway performance review reports conducted by EMSD in January 2007 and TÜV SÜD in May 2007;
8) Review spare part inventory and management system.

Expert Panel's Recommendations

Areas for improvement
in respect of management, operation and maintenance

1) training for operation and maintenance staff
2) maintenance and operation procedures and work instructions
3) spare parts and materials inventory control
4) planned preventive maintenance
5) Quality management
6) Human resources management
7) Procurement practices

Expert Panel's Recommendations

Prior to re-opening of the ropeway

- Examine the ropeway system, repair and replace all damaged parts
- Test and commission the entire ropeway as if it were a new build
- Repeat Annual Examination for the entire ropeway
- Implement identified improvement measures to enhance reliability of ropeway system
- Review and restructure management, operation and maintenance organization to ensure a safe and reliable ropeway service
- Implement quality management system, e.g. ISO9000, to ensure consistency in practices and continuous improvement

End