

For 27 February 2012

Legislative Council Panel on Economic Development

**Breakdown of Ngong Ping 360 Ropeway Occurring
in December 2011 and January 2012**

Purpose

This paper reports to the Panel on the recent incidents involving service suspensions at Ngong Ping 360 (NP360) and the progress since the latest suspension on 25 January 2012.

Review of Incidents on 8, 18, and 22 December 2011

2. NP360 suspended its cable car service on 8, 18 and 22 of December 2011 and on 25 January 2012. Subsequent investigations have confirmed that these were isolated incidents that did not affect the safety of the cable car operation. They also proved that both the daily monitoring system and the automatic monitoring system had functioned as designed in ensuring system safety. Nevertheless, NP360 understands the inconvenience the stoppages caused to the guests and would like to apologise to them.

Incident on 8 December 2011

3. Cable car service was temporarily suspended at 4:35pm when the automatic monitoring system was triggered, stopping the cable car operation. The maintenance team carried out inspection immediately and conducted the necessary rectification. The team confirmed that there was partial wear on the haul rope sheave lining in the Ngong Ping Terminal which had affected the signal transmission system. Safety of the cable car operation was not affected and cable car service was resumed at 4:51pm to take guests back to the Tung Chung and Ngong Ping terminals. Cable car operation and guest boarding were then suspended and a detailed inspection of the cable car system was carried out after the operation hours. The cable car system was confirmed as operating normally after testing. Normal service was resumed on the following day.

Incident on 18 December 2011

4. At about 2:00pm on 18 December 2011, during a routine patrol inspection, an irregular sound was identified emanating from the roller bearing of the cabin transportation system at the entrance of Tung Chung Cable Car Terminal. An immediate check was carried out, which confirmed a fault with a roller bearing, and the system was safe for operation. The boarding of guests was stopped at 2:22pm to take guests back to the terminals. After all guests had alighted, cable car service was suspended at 3:16pm and repair work was carried out. The maintenance team isolated the faulty bearing for detailed checking and cable car service resumed at 4:15pm. That night, the maintenance team replaced the roller bearing and carried out detailed checks. After further testing, the cable car system was confirmed as normal. Normal service was resumed on the following day.

Incident on 22 December 2011

5. At 4:40pm on 22 December 2011, the automatic monitoring system was triggered, stopping the cable car service and requiring an immediate inspection of the cabin spacer in the Ngong Ping Terminal. The maintenance team carried out their inspection and found a slight slippage in a section of a V-belt. The team replaced the V-belt with further testing. The incident did not affect the safety of the cable car operation and service was resumed at 4:53pm to take guests back to the terminals. Subsequent investigation revealed that the cabin spacer was not operating smoothly. The maintenance team replaced the cabin spacer and conducted detailed testing and inspection, the cable car system was confirmed as normal. Normal service was resumed on the following day.

Review of Incident on 25 January 2012

6. At 2:49pm on 25 January 2012, the automatic monitoring system was triggered, stopping the cable car operation. The maintenance team carried out an immediate inspection and found the bearing of a haul rope bullwheel at the Airport Island Angle Station was not operating smoothly. Safety of the cable car operation was not affected and cable car service was resumed at a slow speed at 3:22pm to take guests back to the terminals. Cable car operation was suspended at 4:53pm after the last group of guests had alighted. That night, after the initial assessment of the maintenance time that would be needed, NP360 decided to suspend the cable car service for 10 days to conduct investigation and replacement works.

7. The maintenance team carried out several inspections, which involved lifting the bullwheel and removing the concerned bearing from its housing, upon which the engineers noticed irregular wear on the surface of the bearing's inner ring, which affected the smooth rotation of the bearing. Various experts including the cable car system manufacturer confirmed that the wear did not affect the safety of the cable car operation but noted that it could result in less comfortable rides and possible stoppages should the vibration sensors be triggered. Therefore, as a prudent measure, NP360 decided to replace the faulty bearing, as well as the bearings of the other six bullwheels, so as to step up the reliability of the cable car operations and enhance the ride comfort for guests.

8. Following the replacement and testing of the new bearings, the annual servicing inspection will be brought forward to permit a thorough checking of the entire cable car system.

Maintenance and inspection in light of 25 January incident

9. NP360 will replace the bearings of all seven sets of bullwheels which are located at the Tung Chung Terminal (one set), Ngong Ping Terminal (two sets), Nei Lak Shan Angle Station (one set) and Airport Island Angle Station (three sets, including the faulty bearing set).

10. The work to replace the bearings, as well as the subsequent checks and tests, are expected to take approximately two weeks. The bearings installed in the bullwheels weigh either four or eight tonnes and need to be lifted out for replacement.

Time is needed to erect lifting frames, which can only be used following the appropriate safety inspections.

11. The remote location of the Nei Lak Shan Angle Station, which is not accessible by road, adds to the complexity of the work, as all heavy engineering materials have to be transported to the site by helicopter or crane. Foggy and windy weather will also be a determining factor in how quickly the materials can be delivered and the works can progress.

12. After replacing the new bearings, various inspection and tests including a loading and unloading test will be conducted to ensure that safety and service quality reaches the highest level. In addition, an independent ropeway surveyor will take about one week to carry out the annual servicing inspection, which has been moved forward from June. NP360 expects that the replacement of the bearings, as well as the subsequent tests and annual servicing inspection would take around two months. NP360 will strive to complete the works at the earliest possible time so as to shorten the suspension period and reduce the inconvenience caused to guests. The exact service resumption date will be announced after completion of the annual servicing.

13. NP360 will maintain close liaison with EMSD on the work progress during maintenance period.

14. NP360 will continue to follow a stringent repair and maintenance programme in scheduling its regular maintenance and checks, including automatic monitoring, daily patrols and inspections, preventive maintenance and routine inspection. NP360 is currently reviewing its maintenance work and actively exploring ways to increase the frequency for regular maintenance and improve the maintenance practices.

Improvement measures relating to the emergency response mechanism, communication with customers and cable car service notification

15. In the incident on 25 January, NP360 did activate its emergency response mechanism. This included broadcasting information to guests in cabins, arranging shuttle buses to transport guests from Ngong Ping to Tung Chung, providing guests with water and warm pads, contacting tour guides who had already arrived at the terminals or reserved tickets, informing relevant Government departments as well as organisations including the Travel Industry Council of Hong Kong and Hong Kong Tourism Board, making announcements containing the latest information about cable car service through electronic media, posting notices at MTR stations and making public announcements at MTR interchange stations (namely, Lai King, Hong Kong, Kowloon Tong and Nam Cheong stations) and Tung Chung station, and presenting the ‘appreciation pack’ to affected guests (each containing a gift ticket for a round-trip cable car ride and two \$50 gift shop coupons), posting notices on the NP360 website and informing travel agencies and other members of the travel industry.

16. Since 27 January, NP360 has also set up temporary service points at three MTR stations (Lai King, Hong Kong and Kowloon Tong) to make it more convenient for guests who had booked tickets in advance to change their itineraries or obtain a refund. Guests can also do this via their travel agency or at the NP360 ticketing offices at Tung Chung and Ngong Ping terminals.

17. NP360 appreciates the views of the public. The Company has been actively reviewing its contingency handling measures, communication with guests as well as suspension-related communications and has identified enhancement measures for the future as below:

- As part of the efforts to enhance communication with guests, NP360 is installing new broadcast equipment and arranging training for staff. This will enable the Company to deliver live broadcast information to cabin guests at regular intervals and more appropriate than the existing recorded information.
- In-cabin emergency packs will be upgraded to include blankets and warm pads when the season requires. (The current emergency pack as well as the Summer Pack includes water, emergency food, torch, glow sticks, plastic bag, towel, cloak and sun shields).
- In cold weather, NP360 will provide hot drinks to guests affected in a cable car service disruption.
- NP360 will invite a customer service expert to provide training to staff, to enhance guest service.
- NP360 will review the design of its website to highlight service disruption notifications in a way that is more prominent to guests visiting the site.
- NP360 already liaised with the travel industry on the notification procedures during service disruption. NP360 will enhance notification to travel agents, tour operators and tour guides.

For details, please refer to the Appendix.

Mitigation measures during service suspension

18. Ngong Ping 360 appreciates the support of its village tenants, who are important and close business allies, and the company understands that their operations have been affected by the suspension of the cable car service. On the night of 25th January 2012, NP360 has already informed the tenants about the cable car service suspension, and thereafter continued to maintain close communication with tenants. NP360 has held discussions with each of the tenants on the release of special allowances, which are meant to subsidize and enable them to continue operations during the suspension.

19. To attract more guests to the Ngong Ping Village, NP360 has also arranged a promotion for the village during this period. Guests who spend HK\$60 or more in the Village can redeem, free of charge, a MTR single journey ticket from Tung Chung to travel to most destinations on MTR lines.

20. NP360 has been working closely with the travel industry to encourage more group tours visiting Ngong Ping Village. NP360 will offer group tour guests free

admission to the Village's two multimedia attractions, namely "Walking with Buddha" and "Monkey's Tale Theatre".

21. NP360 has also contacted New Lantao Bus Co. (1973) Ltd. to increase the frequency of buses travelling between Tung Chung and Ngong Ping to facilitate guests wishing to go to Ngong Ping Village, Po Lin Monastery, Big Buddha and the other attractions.

22. NP360 is also in discussion with Transport Department, to explore the feasibility of allowing NP360 to arrange emergency shuttle buses under special circumstances, so as to increase the company's flexibility in diverting guests during incidents.

23. During the service suspension period, NP360 will continue to work with tenants and partners in the travel industry, including discussing partnerships and programmes designed to attract guests to the attraction when it re-opens.

Ngong Ping 360 Limited
February 2012

**Ngong Ping 360 Customer Service and
Information Dissemination Enhancement During Incidents**

	Cable Car In-cabin Guests	
	Current Arrangement	Enhancement Actions
Communication	Pre-recording broadcast: <ul style="list-style-type: none"> — Pre-recorded messages are broadcast to guests inside cabins 	Live broadcast in addition to pre-recorded broadcast: <ul style="list-style-type: none"> — To provide updated information to cabin guests at regular intervals — Live broadcast equipment will be set up at Tung Chung Operations Control Centre — Relevant training will be arranged to the designated team responsible for the live broadcast to cabin guests during incidents
Services	Emergency Pack : <ul style="list-style-type: none"> — Emergency packs are available in every cabin containing a torch, glow sticks, plastic bag, bottled water, emergency food, towel, sun shields, cloak 	Emergency Pack: <ul style="list-style-type: none"> — To provide “Winter Emergency Pack” in cold weather, which includes: warm pads, emergency blanket, wind screens
	Guests in Ngong Ping Terminal and Ngong Ping Village	
	Current Arrangement	Enhancement Actions
Communication	<ul style="list-style-type: none"> — Ticketing Office stop selling tickets once cable car service is suspended; staff will also inform guests on the service arrangement — If cable car service is delayed for 3 minutes, announcement will be broadcast to guests inside Ngong Ping Terminal — Notices will be posted at the terminal and pre-boarding area — If cable car service disruption has been confirmed and emergency 	<ul style="list-style-type: none"> — Current arrangement to be maintained, i.e. broadcast, notices; as well as frontline staff to explain the service arrangements to guests — Additional training will be provided to frontline staff to enhance their communication skills to ensure the provision of clear and accurate information in a caring manner

	bus service is activated, immediate announcement will be broadcast to guests	
Services	<p>Guest service:</p> <ul style="list-style-type: none"> — Ticketing staff will help guests to change their itineraries or arrange for refunds — Bottled water and warm pads will be provided to guests waiting at the terminal or pre-boarding area — Assigning additional staff at arrival platform to offer immediate assistance to affected guests, such as bottled water, warm pads or first aid. Also, "Appreciation Pack" will be presented to affected guests <p>Emergency Bus Service:</p> <ul style="list-style-type: none"> — If cable car service is suspended for more than 45 minutes, emergency buses will be arranged to transport guests from Ngong Ping Village to Tung Chung 	<p>Guest service:</p> <ul style="list-style-type: none"> — To set up an "Emergency Service Kiosk" at Ngong Ping Terminal & Ngong Ping Village if cable car service is delayed for 30 minutes, to provide one-stop service support to affected guests — Assigning additional staff at "Emergency Service Kiosk" to coordinate and handle emergencies, including: providing relevant information to affected guests, helping guests to re-arrange itineraries, offering first aid services, rest areas and emergency supplies such as cold and hot water, warm pads, blankets, snacks and etc. <p>Emergency Bus Service:</p> <ul style="list-style-type: none"> — NP360 is also in discussion with Transport Department, to explore the feasibility of allowing NP360 to arrange emergency shuttle buses under special circumstances, so as to increase the company's flexibility in diverting guests during incidents
	Guests at Tung Chung Terminal	
	Current Arrangement	Enhancement Actions
Communication	<ul style="list-style-type: none"> — Ticketing Office stop selling tickets once cable car service is suspended; staff will also inform guests on the service arrangement — If the cable car service is delayed for 3 minutes, announcement will be broadcast to guests inside Tung Chung Terminal — Notices will be posted at the terminal and main entrance 	<ul style="list-style-type: none"> — Current arrangement to be maintained, i.e. broadcast, notices; as well as frontline staff to explain the service arrangements to guests — Additional training will be provided to frontline staff to enhance their communication skills to ensure the provision of clear and accurate information in a caring manner

Services	<p>Guest service:</p> <ul style="list-style-type: none"> — Ticketing staff will help guests to change their itineraries or arrange for refunds — Bottled water and warm pads will be provided to guests waiting at the terminal or pre-boarding area — Assigning additional staff at arrival platform to offer immediate assistance to affected guests, such as bottled water, warm pads or first aid. Also, "Appreciation Pack" will be presented to affected guests — Deploying staff at Tung Chung Terminal Car Park to express apology to guests transported from Ngong Ping Village to Tung Chung, and inform them to arrange for refunds at the Ticketing Office 	<p>Guest service:</p> <ul style="list-style-type: none"> — To set up an "Emergency Service Kiosk" at Tung Chung Terminal if the cable car service is delayed for 30 minutes, to provide one-stop service support to affected guests — Assigning additional staff at "Emergency Service Kiosk" to coordinate and handle emergencies, including providing relevant information to affected guests, helping guests to re-arrange itineraries, offering first aid services, rest areas and emergency supplies such as cold and hot water, warm pads, blankets, snacks and etc.
	Guests Going to NP360	
	Current Arrangement	Enhancement Actions
Communication	<p>When cable car service is suspended for 30 minutes, information is disseminated via below channels:</p> <ul style="list-style-type: none"> — Make announcements through electronic media — Broadcast at MTR stations: Announcement is broadcast every 8 minutes at major interchange stations (namely Hong Kong station, Kowloon Tong station concourse) and Tung Chung station, and platforms towards Tung Chung at Lai King station, Nam Cheong station — Notices at MTR stations: Notices are posted in front of entry ticket gates at all MTR stations (with the 	<p>When cable car service is suspended for 30 minutes, information is disseminated via below channels:</p> <ul style="list-style-type: none"> — Current arrangement to be maintained — To include posting notices at Airport, Lo Wu and Lok Ma Chau stations as standard practice, in order to keep guests informed of cable car service arrangement — NP360 official website: A pop-up window is added to highlight notice in a more prominent way to guests visiting the site — NP360 Customer Service Hotline: Enhancing the additional information to the

	<p>exception of Airport, Lo Wu, Lok Ma Chau and light rail stations)</p> <ul style="list-style-type: none"> — For 25 January incident, immediate request was made to and granted by MTR to post notices at extra locations (namely, the Airport, Lo Wu and Lok Ma Chau stations) in order to keep guests informed of cable car service arrangement — NP360 official website: Notice is posted on the NP360 website — NP360 Customer Service Hotline: Related information is added 	<p>hotline, callers will be able to listen to the related message once line is connected</p>
--	--	--