

Survey starts on high-speed Mum-Nagpur rail corridor

Plane Fitted With Sensors Captures Data

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Mumbai: National High Speed Rail Corporation Ltd (NHSRCL) on Friday commenced a Light Detection and Ranging (LiDAR) survey for preparation of a detailed project report (DPR) for the 736-km Mumbai-Nagpur High Speed Rail Corridor.

An aeroplane fitted with state-of-the-art aerial LiDAR and imagery sensors took the first flight and captured the data related to the ground survey.

An NHSRCL spokesperson said, "We are adopting LiDAR technology, which provides all ground details and data in 3-4 months, wherein this process normally takes 10-12 months."

The ground survey is crucial for linear infrastructure projects as the survey provides accurate details of areas around alignment. It uses a combination of laser data,



ON RIGHT TRACK

GPS data, flight parameters and photographs to give accurate survey data.

The spokesperson said, "During the aerial LiDAR survey, 150 metres around the proposed alignment is being captured for the survey. After collection of data, a 3D topographical map of the corridor of the proposed alignment on a

scale of 1:2,500 will be available for designing of vertical and horizontal alignment, structures, location of stations and depots, land requirement for the corridor, identification of project affected plots/structures and right of way."

To provide clear pictures of the structures, trees and other minute ground details, 100 megapixel cameras are being used for the survey.

NHSRCL will prepare detailed project reports for seven high-speed rail corridors and the LiDAR survey technique will be used.

Mumbai-Nashik-Nagpur corridor is among seven corridors.

MUMBAI-NAGPUR HIGH-SPEED CORRIDOR: NHSRCL STARTS AERIAL SURVEY

MUMBAI: The National High Speed Rail Corporation Limited (NHSRCL) has commenced an aerial survey for the construction of the high-speed railway corridor between Mumbai and Nagpur. The survey is being conducted to prepare the detailed project report (DPR) for the railway corridor. The survey will provide ground data details in four months.

“Ground survey is a crucial activity for any linear infrastructure project as the survey provides accurate details of areas around the alignment. This technique uses a combination of laser data, global positioning system (GPS), flight parameters and actual photographs to give accurate survey data,” said a senior NHSRCL official.

The proposed 736km high-speed corridor will connect Mumbai with Nagpur, Wardha, Malegaon, Jalna, Aurangabad, Shirdi, Nashik, Igatpuri and Shahapur towns.

NHSRCL has stated that the trains will be operated at a speed of 320km per hour. Passengers travelling by rail from Mumbai to Nagpur are likely to save up to 50% of their commuting time after the route is ready. At present, the shortest distance by train between Mumbai and Nagpur is 11.30 hours by Duronto Express. **HTC**

AERIAL LIDAR SURVEY KICKS OFF FOR 736 KMS CORRIDOR

In this survey, an aeroplane fitted with state-of-the-art aerial LiDAR and imagery sensors took the first flight and captured the data related to the ground survey

SHASHANK RAO | Mumbai

On Friday, two important things happened as far as the country's high speed rail is concerned. Firstly, the aerial LiDAR survey for the Mumbai-Nagpur bullet train initiated the detailed project report (DPR) process of this 736 kilometers long corridor. Secondly, the National High Speed Rail Corporation Limited (NHSRCL), on Friday, also signed an agreement with the Japanese government to lay tracks on the Vapi-Vadodara section of the Mumbai-Ahmedabad high speed corridor.

NHSRCL has begun the light detection and ranging (LiDAR) survey at Thane, which apparently could be the starting point of this bullet train corridor. "We started the LiDAR survey today till Nashik. In the coming days, we will go all the way till Nagpur via Aurangabad," said an official from NHSRCL.

In this survey, an aeroplane fitted with state-of-the-art aerial LiDAR and imagery sensors took the first flight and captured the data related to the ground survey. This provides all the ground details and data in 3 to 4 months, where in this process normally takes 10 to 12 months. The ground survey is a crucial activity for any linear infrastructure



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- OFFICIAL

project, as the survey provides accurate details of areas around the alignment.

This technique uses a combination of laser data, GPS data, flight parameters and actual photographs to give accurate survey data. During the aerial LiDAR survey, 150 meters of the area around the proposed alignment will be captured. After the data is collected, a 3D topographical map of the corridor for the proposed alignment on a scale of 1:2500 will be available to design the vertical and horizontal

alignment, structures, location of the stations and depots, land requirement for the corridor and identification of affected plots and structures.

"To provide clear pictures of the structures and other minute ground details, 100 megapixel cameras are being used for the LiDAR survey," said an official. The proposed plan for the Mumbai-Nagpur corridor will connect the cities of Wardha, Pulgaon, Karanja, Malegaon, Mehkar, Jalna, Aurangabad, Shirdi,

Nashik, Igatpuri and Shahapur.

Apart from this, NHSRCL also signed an agreement with the Japanese Railway Track Consultant Company Limited for the designs of high speed rail tracks. This will mainly be for the 237 kilometers long Vadodara to Vapi section for the Mumbai-Ahmedabad high speed rail corridor. The Japanese company will provide detailed design and drawing of the track bed, track and slab arrangement, and continuous welded rail, amongst others.

Survey for Mumbai-Nagpur bullet train starts

The Light Detection and Ranging(LiDAR) survey for the preparation of detailed project report for the proposed Mumbai-Nagpur High Speed Rail Corridor started from Friday. The 736-km bullet train project is likely to link Shaha-pur, Igatpuri, Nashik, Mehkar, Malegaon, Pulgaon, Wardha and Khapri, the National High Speed Rail Corporation Ltd said. It said the Li-DAR tech will provide data within four months.

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Survey for proposed Mumbai to Nagpur bullet train begins

MUMBAI, Mar 12 (PTI)

THE Light Detection and Ranging (LiDAR) survey for the preparation of Detailed Project Report (DPR) for the proposed Mumbai-Nagpur High Speed Rail Corridor started from Friday.

The proposed 736-km bullet train project is likely to link Shahapur, Igatpuri, Nashik, Mehkar, Malegaon, Pulgaon, Wardha and Khapri, the National High Speed Rail Corporation Ltd (NHSRCL) said in a release.

It is using the LiDAR technology which provides data in 3-4 months against the usual 10-12 months, it said.

In Light Detection and Ranging survey, an aeroplane fitted with aerial LiDAR and imagery sensors captures the data related to ground survey.

To provide clear pictures of the structures, trees and other minute ground details, 100 megapixel cameras are being used for the LiDAR survey.

NHSRCL has been entrusted with preparation of DPR for seven High Speed Rail Corridors in the country.

मुंबई-नागपूर बुलेट ट्रेनसाठी हवाई सर्वेक्षण

सकाळ वृत्तसेवा

मुंबई, ता. १२ : मुंबई ते नागपूर या प्रस्तावित हायस्पीड रेल्वे कॉरिडॉरसाठी लिडार सर्वेक्षणाला शुक्रवारपासून सुरुवात झाली. लिडार तंत्रज्ञान आणि इमेजरी सेन्सॉरने सज्ज असलेल्या विमानाने या सर्वेक्षणासाठी पहिले उड्डाण भरले. या सर्वेक्षणाच्या आधारावर प्रकल्प अहवाल तयार करण्यात येणार आहे. ३ ते ४ महिन्यांत हा अहवाल मिळणार आहे. या मार्गावर जवळपास १३ स्टेशन उभारण्याचा प्रस्ताव आहे.

या मार्गाची एकूण लांबी ७३६ किलोमीटर एवढी आहे. या प्रकल्पाद्वारे नागपूर, खापरी, वर्धा, पुलगाव, कारंजा लाड, मालेगाव, मेहकर, जालना, औरंगाबाद,



शिर्डी, नाशिक, इगतपुरी आणि शहापूर ही शहरे जोडली जाणार आहेत. राष्ट्रीय हाय स्पीड रेल कॉर्पोरेशनने लिमिटेडेने या सर्वेक्षणाची माहिती दिली. देशातील सात हाय स्पीड रेल कॉरिडोरचे सर्वेक्षण करण्याची जबाबदारी रेल कॉर्पोरेशनला देण्यात आली आहे.

लिडार तंत्रज्ञान...

लिडार अर्थातच लाईट डिटेक्शन अँड रेंजिंग तंत्रज्ञानामुळे जमिनीवरची परिस्थिती अचूक टिपता येते. एरियल लिडार आणि इमेजरी सेन्सॉर बसवलेल्या विमानाद्वारे हवाई पाहणी केली जाते. या सेन्सॉरच्या माध्यमातून प्रकल्पालगत १५० मीटरपर्यंत परिसरातील भौगोलिक रचना आणि इतर तपशील मिळतो. छायाचित्रे, व्हिडीओ घेण्यासाठी १०० मेगापिक्सल क्षमतेचे कॅमेरे वापरले जातात. लेझर, जीपीएस डेटा, वास्तवित छायाचित्राच्या संयोजनातून सर्व माहिती गोळा केली जाते. या माहितीच्या आधारे शीडी टोपोग्राफिकल मॅप तयार होतो. त्यामध्ये प्रकल्पासाठी लागणारी जागा, स्टेशन आणि डेपोच्या लोकेशनचे तपशील मिळतो.

मुंबई-नागपुर हाईस्पीड रेल कॉरिडोर के लिए सर्वे शुरू

मुंबई। मुंबई-नागपुर हाई स्पीड रेल कॉरिडोर के लिए लाइट डिटेक्शन एंड रेंजिंग (लिडार) सर्वेक्षण का काम शुक्रवार को शुरू किया गया। मुंबई-नागपुर हाई स्पीड रेल कॉरिडोर की लंबाई लगभग 736 किलोमीटर है। इसके लिए विस्तृत परियोजना रिपोर्ट (डीपीआर) तैयार करने के लिए आज अत्याधुनिक एरियल लिडार व इमेजरी सेंसर्स से लैस एक हेलिकॉप्टर ने पहली उड़ान भरी और जमीनी सर्वेक्षण से संबंधित आंकड़ों को कैमरे में कैद किया। नेशनल हाई स्पीड रेल कॉर्पोरेशन लिमिटेड लिडार तकनीक को अपना रहा है। यह अगले तीन-चार महीने में जमीनी विवरण के आंकड़े उपलब्ध करा देगा जबकि इस प्रक्रिया में सामान्य रूप से 10-12 महीने लगते हैं। जमीनी सर्वेक्षण किसी भी रैखिक अवसंरचना परियोजना के लिए एक महत्वपूर्ण गतिविधि है क्योंकि सर्वेक्षण संरक्षण के आसपास के क्षेत्रों का सटीक विवरण प्रदान करता है।

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मुंबई-नागपुर के बीच प्रस्तावित बुलेट ट्रेन के लिए सर्वे का काम शुरू

मुंबई, (भाषा)। प्रस्तावित मुंबई-नागपुर तीव्र गति के रेल गलियारे के लिये सुदूर संवेदी प्रौद्योगिकी लाइट डिटेक्शन एंड रेंजिंग लीडर सर्वे शुक्रवार को शुरू हुआ। प्रस्तावित 736 किलोमीटर बुलेट ट्रेन परियोजना शाहपुर, इगतपुरी, नासिक, मेहकार, मालेगांव, वर्धा और खापरी को जोड़ेगी। इस सर्वे में लीडर प्रौद्योगिकी का उपयोग किया जा रहा है जिसमें आंकड़े 3-4 महीने में उपलब्ध हो जाते हैं जबकि परंपरागत तकनीक में 10 से 12 महीने का समय लगता है। लीडर सर्वे में विमान में लीडर और इमेजरी सेंसर का उपयोग कर जमीन के सर्वे से जुड़े आंकड़े एकत्रित किये जाते हैं।