

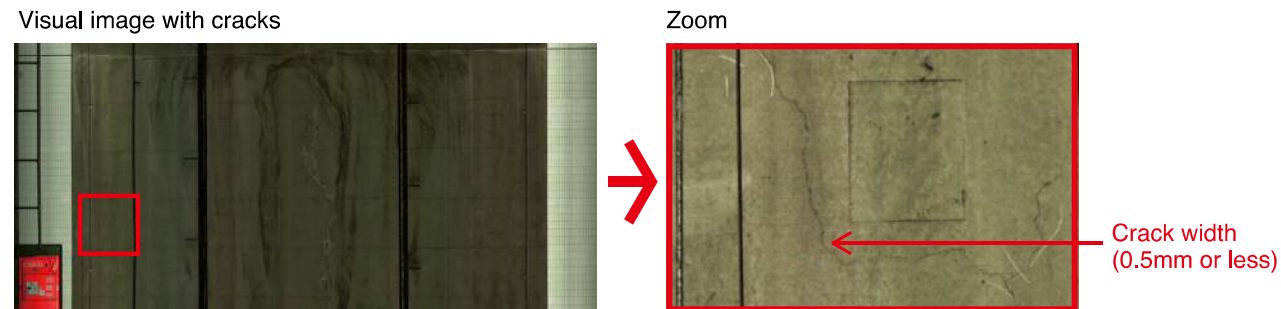
Inspection Without a Lane Closure

High Speed Pavement and Tunnel Analyzer

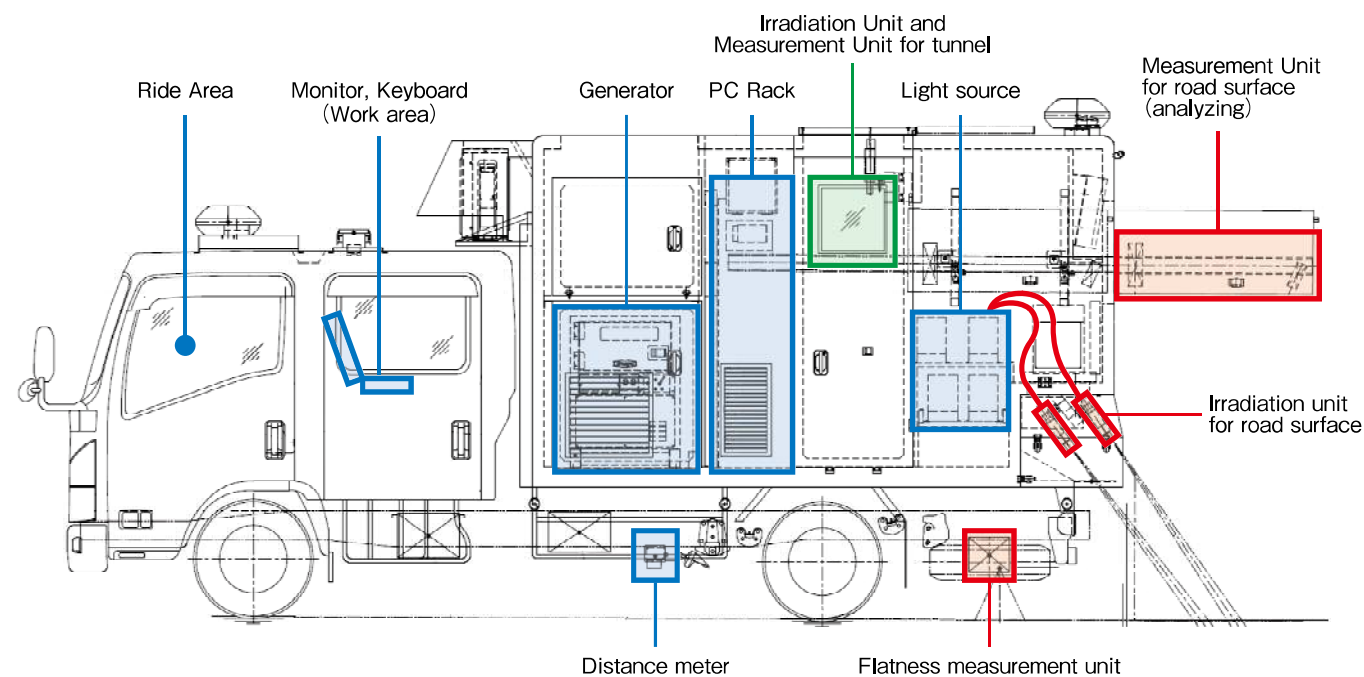
Tunnel Lining Inspection

Damage of cracks

- Survey with high accuracy crack width, length, number, efflorescence, & water leakage
- Inspect tunnel attachment rust, damage, etc. with color images
- Compare to previous survey with high-precision analysis, and check progress of damages



Measuring devise installation position



2013 Road surface performance test results

Test items	Scope of accreditation	Time of implementation	Result
Distance measurement accuracy	Distance measurement: $\pm 0.5\%$ or less	Night	Pass
Crack measurement accuracy	Indetification accuracy: width more than 1mm	Night	Pass
Rut measurement accuracy	Rut depth: within ± 3 mm	Night	Pass
Flatness measurement performance	Flatness: within $\pm 30\%$	Night	Pass

Distribution, Contact

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For more information, [NEXCO Shikoku](#) [click!](#)

2013.10

Eagle

Analysis with high accuracy at speeds up to 100km/h.

Road surface inspection

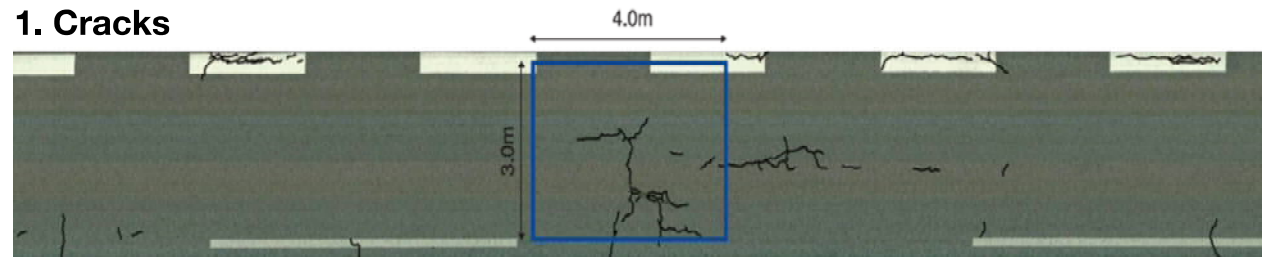
Tunnel Lining

Road surface inspection and tunnel lining survey with one vehicle (6t car)

- Color photography with 100km/h speed, high-precision measurement
- Line illumination that does not inhibit general running vehicles

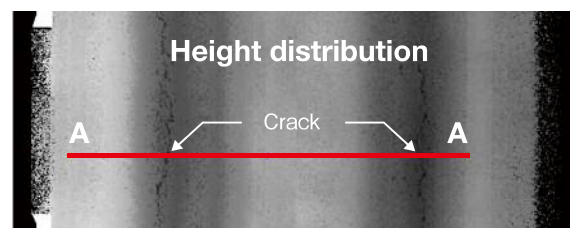
Road surface survey

1. Cracks

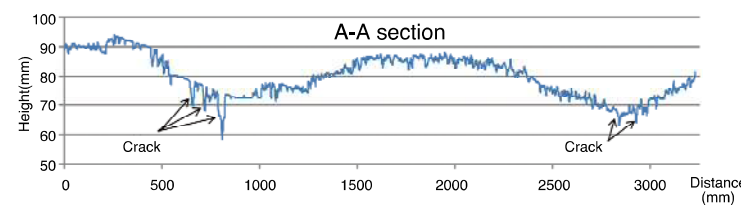


Cracks plan view by line scan camera : 0.8 × 0.5mm/pixel (speed 100km/h)

2. Ruts



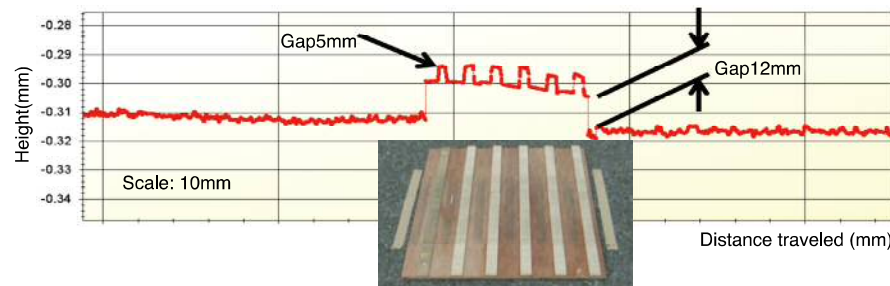
3D shape measurement by light cutting method



High-precision cross-section profile measurements
 · Height resolution: 0.5mm · Measurement interval: 1.68 (width) × 5.6mm (length)
 · Shooting width: 4.4m

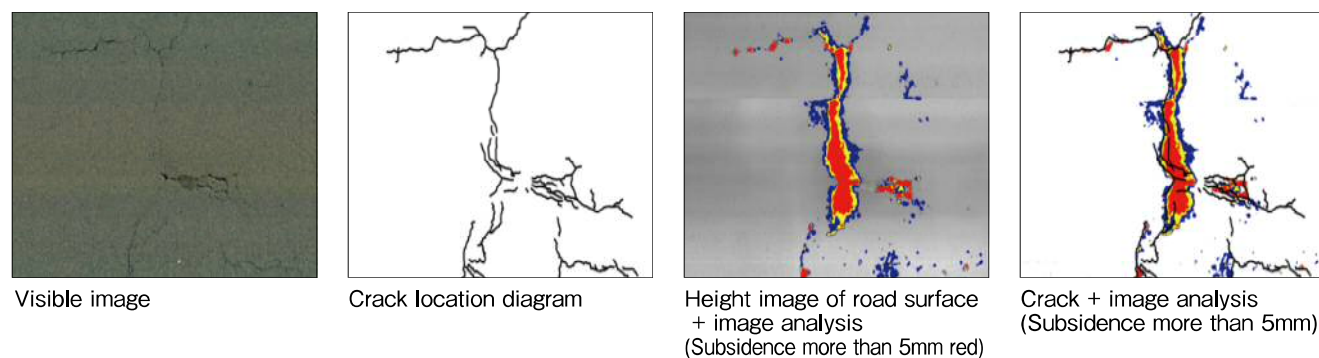
3. Flatness

- High Resolution and accurate profiling vertical shape of a small step portion
- 3m profile, 8m profile, and IRI measurement are available
- Survey difference of level

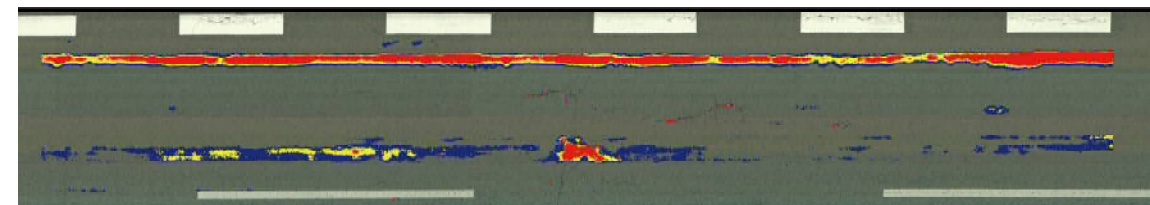


4. Visual Analysis

① View of amount depression (dip) by analysis of height information (Cracks inside □ line)

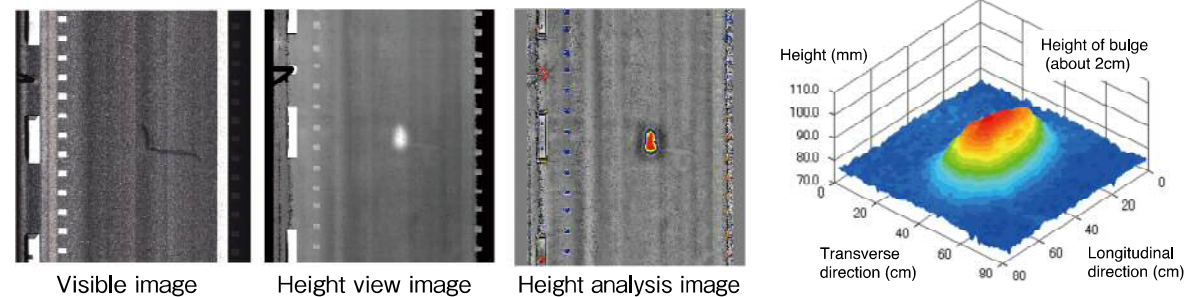


② Three-stage display of rut amount



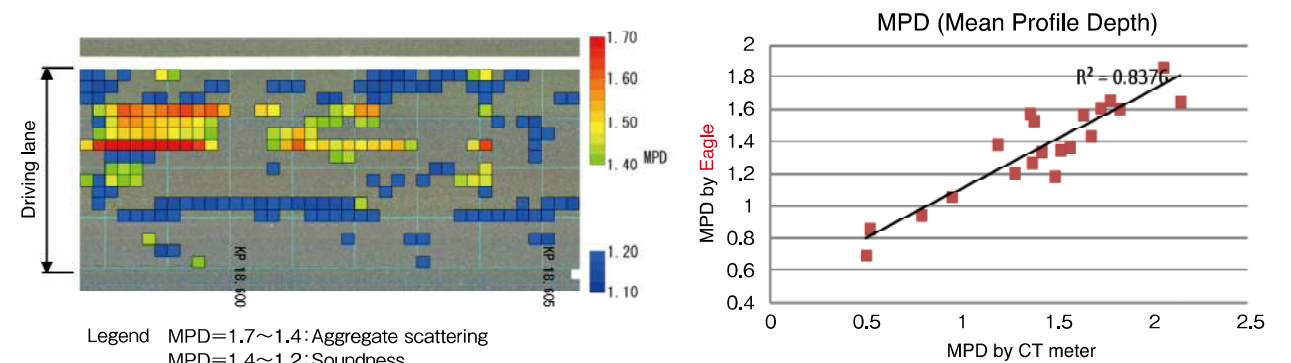
Rut analysis image (rut amount more than 5mm: red)

③ Blistering investigation



④ Aggregate scattering study of high-performance pavement (MPD)

- Strong correlation between MPD measured by CT meter and MPD measured by Eagle.※)
- Plan aggregate scattering survey is available



Legend MPD=1.7~1.4: Aggregate scattering
 MPD=1.4~1.2: Soundness
 MPD=1.2~1.1:

※) References
 A Study on quantification on aggregate scattering of drainage pavement,
 63rd Annual Scientific Conference Japan Society of Civil Engineers,
 Sept.2008:Public Works Research Institute, Kano Takashi other

⑤ Joint Survey

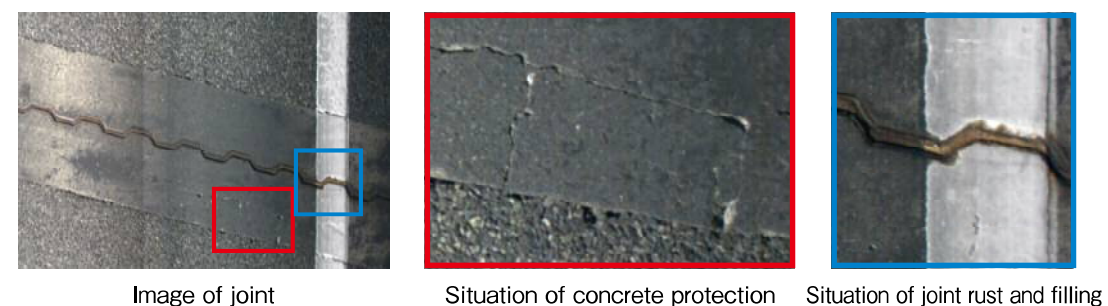


Image of joint

Situation of concrete protection

Situation of joint rust and filling