

## Geological surveys planned at Kashiwazaki-Kariwa NPS following Niigata-Chuetsu-Oki Earthquake

### 1. Purposes of the Survey

Following the occurrence of Niigata-Chuetsu-Oki Earthquake on July 16, 2007, geological surveys will be conducted to check and evaluate active faults in water and land areas adjoining the NPS in a bid to reflect information obtained from the said earthquake properly to the NPS's seismic safety assessment. Further, underground geological structures including deep underground structures beneath the station premises and soil characteristics will also be checked and evaluated.

### 2. Outlines of the Survey

#### (1) Survey areas

- Surveys will be performed in the areas specified in the map shown on the right.
- Detailed survey points will be determined later with past survey records and latest information taken into account.

#### (2) Survey periods (plan)

- Adjoining water area: Late August 2007 – End of October 2007 (as announced on July 26, 2007)
- Adjoining land area: Early September 2007 – End of March 2008
- Station premises: Early September 2007 – End of March 2008

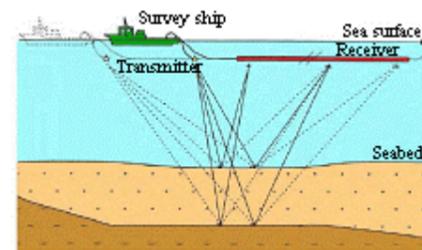
#### (3) Survey methods

##### a. Adjoining water area

Underground geological structures will be evaluated in an area encompassing the aftershock region by conducting a maritime sonic prospecting.

##### <Maritime Sonic Prospecting>

Underground structures are surveyed by emitting sound waves from a vessel and monitoring sound signals reflected back at strata beneath the sea bed.

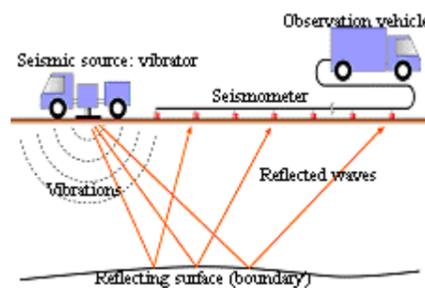


##### b. Adjoining land area

Besides those in an immediate land area adjoining the NPS, underground geological structures will be evaluated in an extensive land area encompassing the Nagaoka Plain Western Rim Fault Zone by expanding the scope of a geological survey for seismic safety assessment promoted since last year to include subsurface exploration etc.

##### <Subsurface exploration>

Underground structures are surveyed by applying vibrations to the ground with a vibrator truck and monitoring and analyzing reflected wave signals.



##### <Surface geological survey>

Geological conditions are surveyed by observing strata exposed on the ground (outcrop).

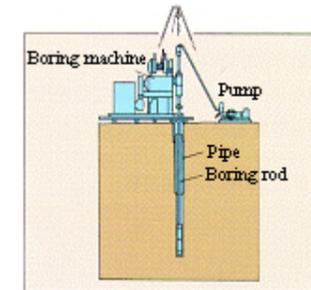


### c. Station premises

Underground geological structures including deep underground structures beneath the station premises will be checked and evaluated with a boring survey etc., while land subsidence and soil liquefaction risks will be evaluated by checking soil characteristics.

##### <Boring survey>

Soil conditions are surveyed by successively collecting and observing rocks etc. constituting substrata as a core.



##### <Soil property test>

Laboratory tests of samples collected in a boring survey to evaluate the strength or hardness of soil by applying stress to or deforming them.

### Kashiwazaki-Kariwa NPS geological survey area map

