

graph JAEA



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- 02 Survey the rivers
- 04 Survey the inner soil
- 05 Survey from the air
- 06 Forecast
- 07 Decontaminate
- 08 Study
- 10 Build
- 11 Prepare



01 Explanation of the cover page

Kansai Photon Science Institute has several laser devices capable of emitting extremely intense light. The photo on the cover page shows one of the devices named J-KAREN (JAEA Kansai Advanced Relativistic Engineering). This device shines in green while it's in operation.

The photo received an award of excellence in the 5th Panel Exhibition of The Beauty of Science and Technology.

Investigate the rivers



The Headquarters of Fukushima Partnership Operations has been conducting a “Long-term assessment of Transport of **Radioactive Contaminant** in the **Environment of Fukushima (F-TRACE)**” intended to investigate how the radioactive materials migrate. As a part of this study, they have been carrying out investigation at various sites.

This picture shows sampling of soil particles which adsorbed cesium, measurement of the sedimentation and of the velocity of the river current in the Odaka River in Minamisoma City.

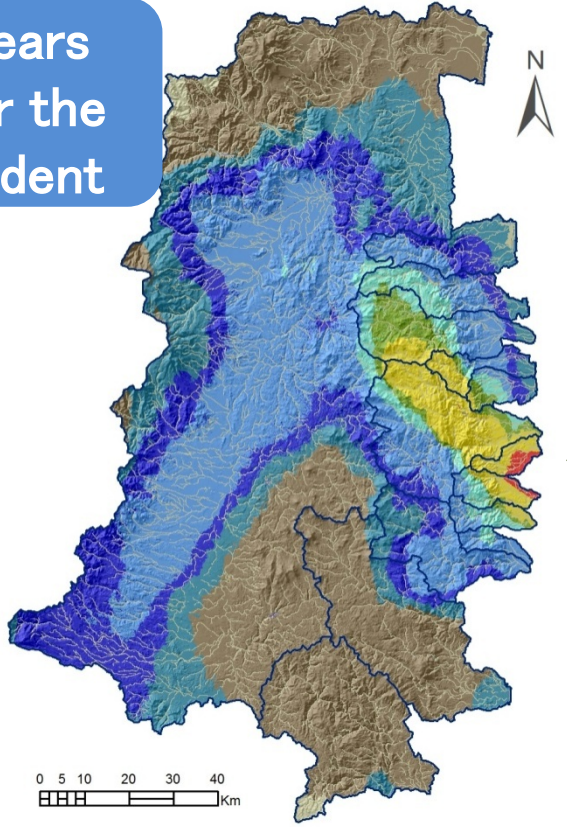
Investigate the soil



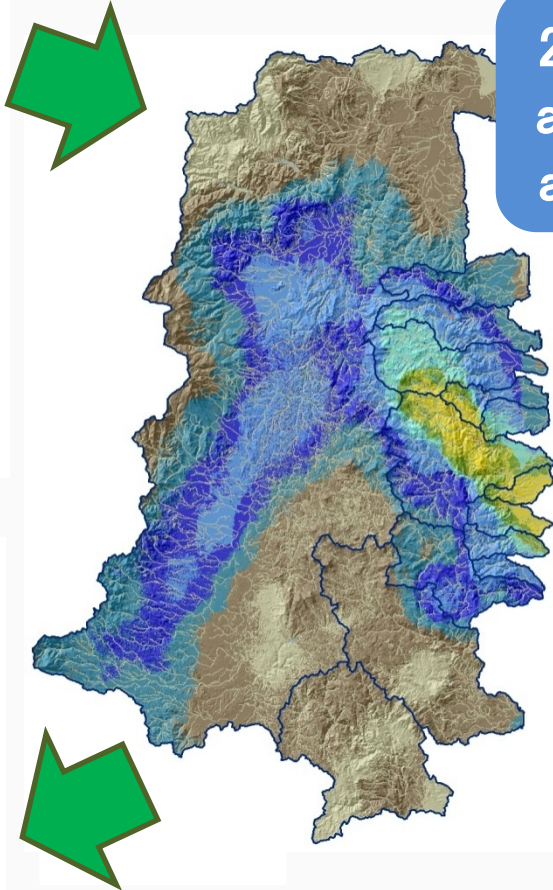
How much radioactive cesium migrates into the soil? How will it change with time? The Headquarters of Fukushima Partnership Operations has been conducting investigations using soil samplers for analyses of cesium depth profile. A soil sampler is a device capable of digging out the soil from the surface in a cylindrical form. This picture shows a soil sampler into the soil in Kawamata Town in Fukushima Prefecture.

Predict

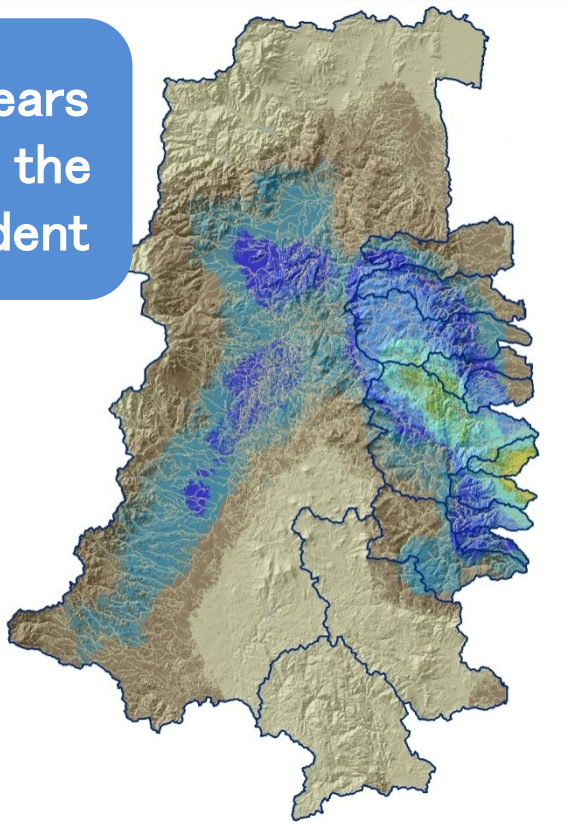
2 years
after the
accident



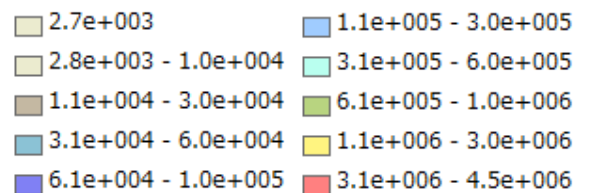
20 years
after the
accident



50 years
after the
accident



Accumulated amount of ^{137}Cs [Bq/m^2]

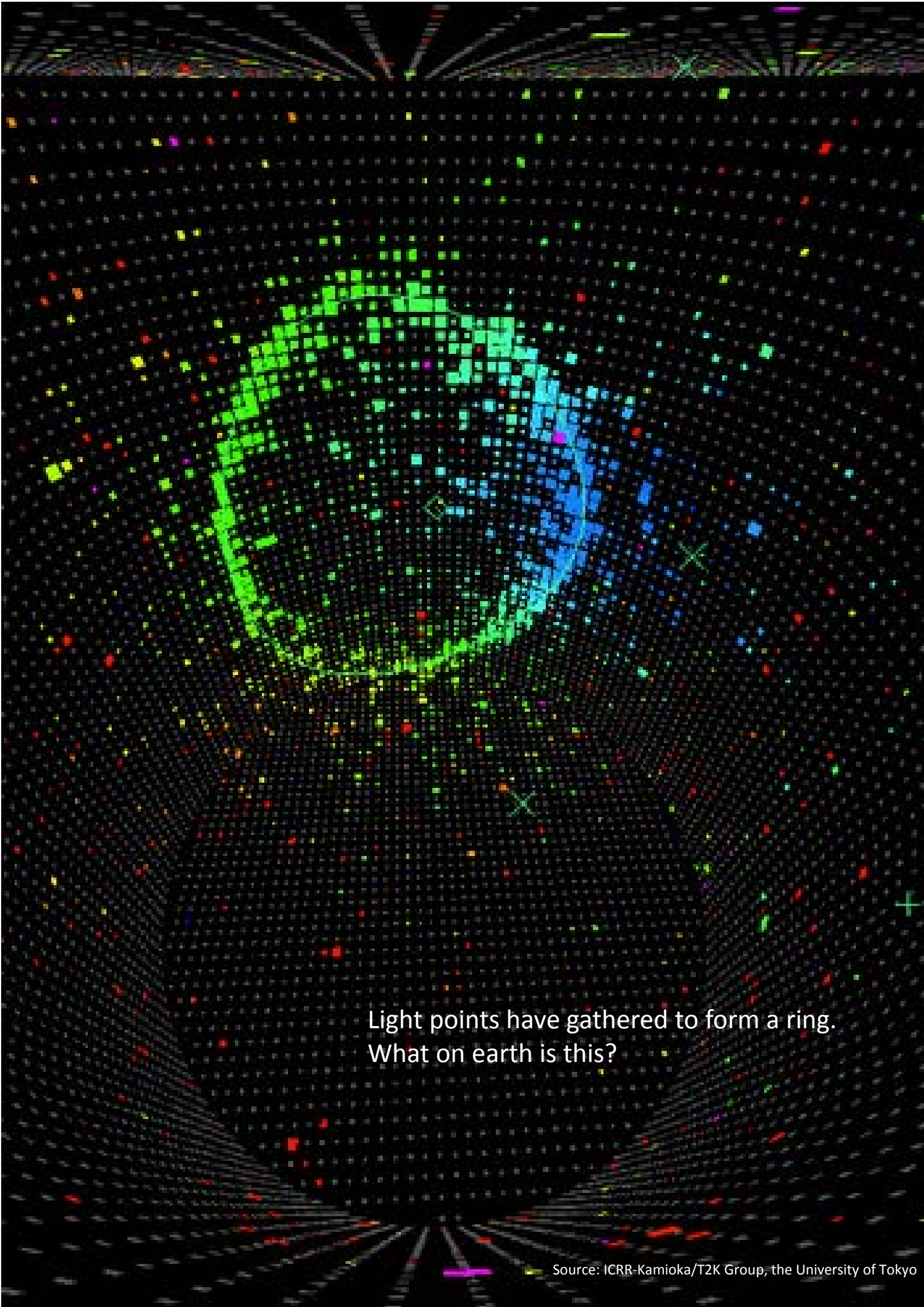


This figure shows the prediction of cesium 137 distribution as a function of time.

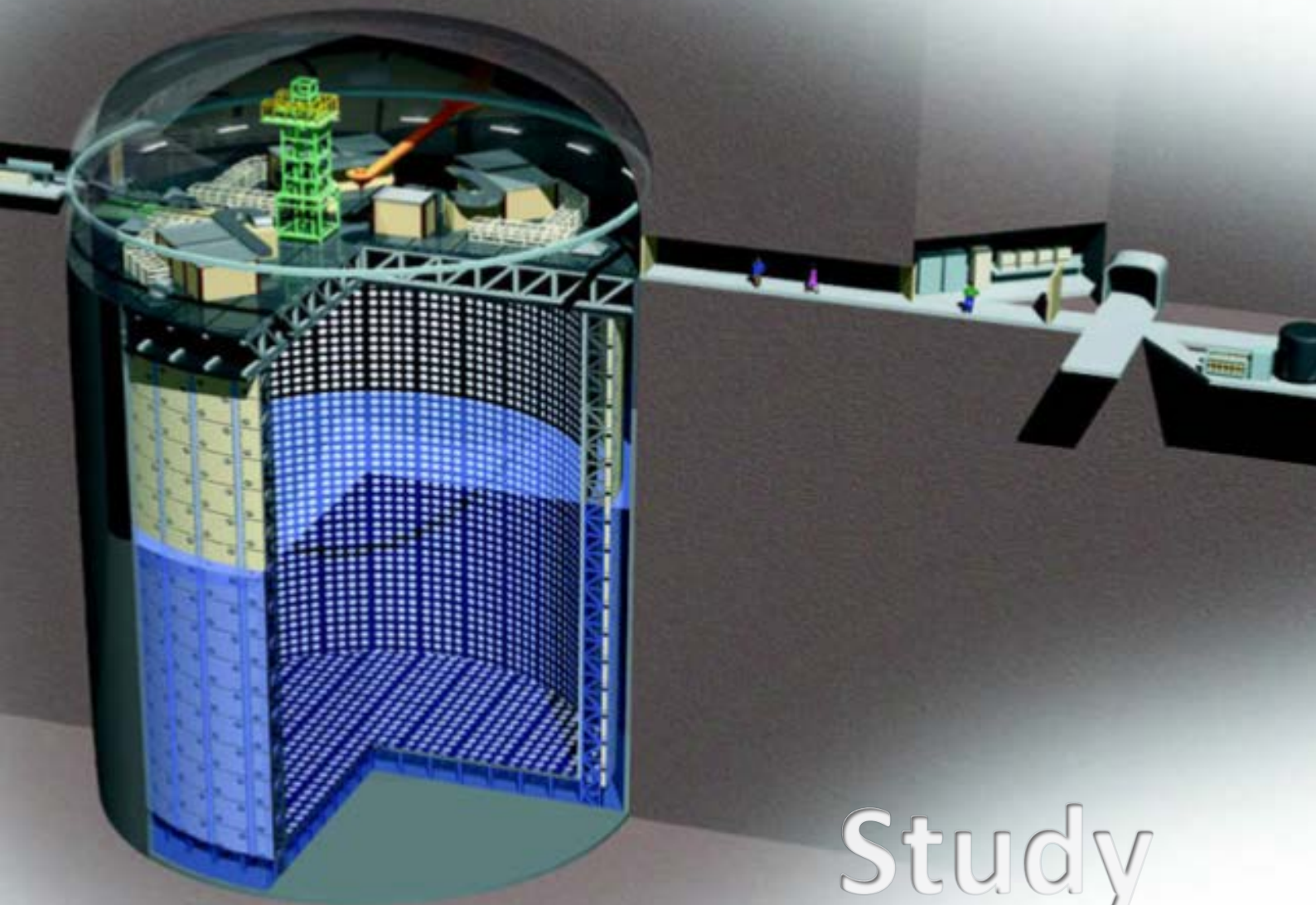
Decontaminate



The Government and municipalities are now conducting decontamination. The Headquarters of Fukushima Partnership Operations has, prior to these activities, already implemented the Decontamination Pilot Project to examine what type of decontamination methods would be effective. This project was implemented under the commission from the Cabinet Office in twelve municipalities in Fukushima Prefecture from September 2011 to June 2012. The results has been reflected to the decontamination guidelines issued by Ministry of the Environment.

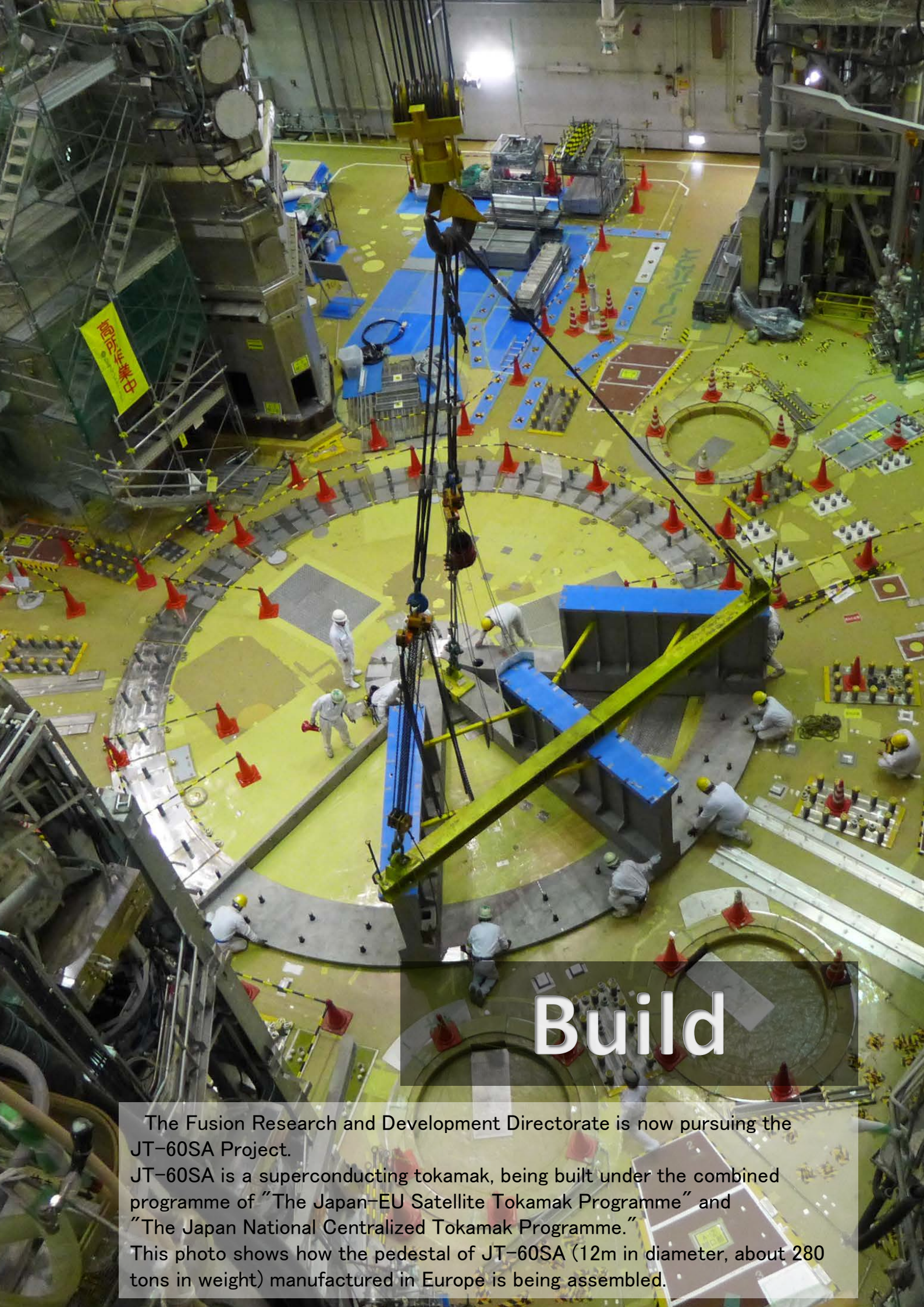


Light points have gathered to form a ring.
What on earth is this?



Source: ICRR-Kamioka/T2K Group, the University of Tokyo

A magnificent experiment is being conducted, in which an underground detector called “Super-Kamiokande” of the Institute for Cosmic Ray Research, the University of Tokyo (shown in the above figure), located in Kamioka Town of Hida City in Gifu Prefecture, detects the neutrino released from J-PARC in Tokai Village, 295km away from the detector. The figure on the previous page shows the lights received by the photo multiplier tubes arranged on the inner walls of the 3 dimensional event display of super-Kamiokande, made clearer by assigning different colors to different time periods. It shows that the Cherenkov radiation released from the electron/positron shower caused by the electrons generated from the reaction between electron neutrino and water is caught in the form of a ring. Please refer to the following website for details: <http://legacy.kek.jp/intra-e/press/2013/071921/>



Build

The Fusion Research and Development Directorate is now pursuing the JT-60SA Project.

JT-60SA is a superconducting tokamak, being built under the combined programme of "The Japan-EU Satellite Tokamak Programme" and "The Japan National Centralized Tokamak Programme."

This photo shows how the pedestal of JT-60SA (12m in diameter, about 280 tons in weight) manufactured in Europe is being assembled.



Oarai Research & Development Center conducted a comprehensive emergency drill in August this year.

It was conducted under the assumption that an earthquake with an intensity of lower 6 on the Japanese seven-stage seismic scale occurred in Oarai Town, the commercial power source was lost, and a fire was also caused in a facility by the earthquake.

Japan Atomic Energy Agency List of Activity Sites

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Takasaki Advanced Radiation Research Institute

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Telephone: (027)346-1211 (Information desk)

Tsuruga Head Office

Post code 914-8585, Kizaki 65-20, Tsuruga City, Fukui Prefecture
Telephone: (0770)23-3021 (Switchboard number)

Ningyo-toge Environmental Engineering Center

Post code 708-0698, Kamisaibara 1550, Kagamino Town,
Ashida County, Okayama Prefecture
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Aomori Research and Development Center

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Fukushima Environmental Safety Center

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graph JAEA

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