

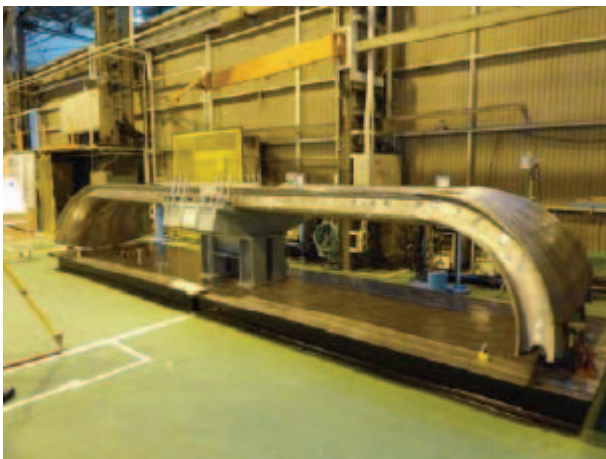
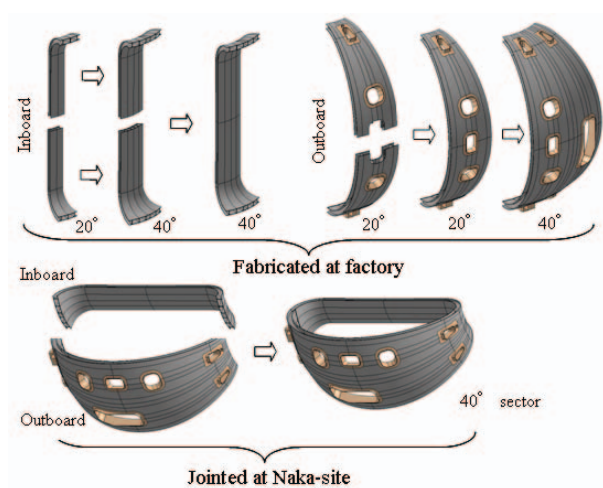
Great East Japan Earthquake

On 11 March, 2011, the great earthquake struck the east Japan. We would like to express our heartfelt sympathy for those affected by this massive quake and tsunami. We, however, are all safe, and did not see serious damages by the earthquake on the facilities and equipment to be utilized for JT-60SA from their appearances, nor did we suffer from the tsunami at the Naka site. Although having been temporarily closed due to limited damages (e.g. on the water supplies) by the earthquake, the institute already resumed regular working hours, and detailed inspection and restoration for JT-60SA were launched. We are now making our best efforts to get things back to normal as soon as possible.

Shinichi Ishida
Project Leader of the Satellite Tokamak Programme

Headline

First 40° sector of VV ready to be delivered





Eight parts forming a 40° sector of the Vacuum Vessel (VV) were successfully fabricated at the manufacturer's factory in Japan, and welded to form the inboard and outboard of the 40° sector. They will be later delivered to the VV sector assembly building at the Naka site, and welded to form the first complete 40° sector, which will be 6.63 m in height and 16.66 t in weight.

News

Manufacturing of superconductors for CS and EF coils on schedule



A sample of the Central Solenoid (CS) conductor cable was prepared and delivered to the Naka site, and a critical current measurement will be carried out later on this sample.

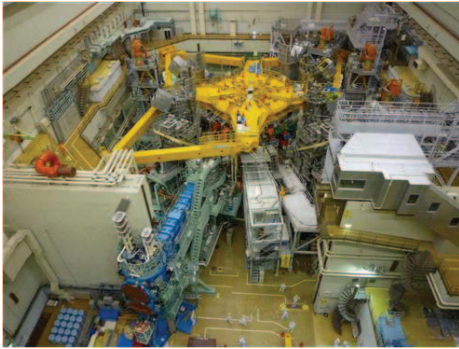
Three superconductors for the Equilibrium Field coil No. 6 (EF6) were manufactured, and in total six superconductors out of fourteen, which are needed for forming the EF6, were manufactured.

The dummy double pancake for the EF4 was divided into 10 sections in order to check the cross-sectional surfaces of its conductor, and no defects such as air bubbles were found in the impregnated resin. A 36° model of the EF coil was then manufactured by using the divided pancake sections, and its insulation material, preimpregnation tape, was set into the model. These led to successful completion of the trial production of the EF4.

A double pancake for the EF4 using superconductor has been manufactured since the end of January, 2011.

News

Disassembly of JT-60 making steady progress



Disassembly of JT-60 has made further progress. Some of the parts forming the star-shaped yellow truss, the scaffolding flooring, and pipes around the beam lines, were disassembled and removed.

A method of cutting an upper vertical port of the VV was established, and almost two thirds of the 27 ports have already been cut.

News

JT-60SA Research Plan available on website



The JT-60SA Research Plan has been developed to propose a consistent set of research objectives and strategy covering all major research fields in JT-60SA experiments. The [JT-60SA Research Plan Ver. 2.1](#) was completed on 28th February 2011 with the efforts of 155 co-authors (70 from JA HT, 66 from 13 universities & fusion Institutes in Japan, 10 from Fusion for Energy (F4E), 4 from 3 EU fusion Institutes, 5 from the PT). It is now available on the JT-60 SA Website.

This latest version of the Research Plan was improved in the following points from the previous version, 2.0: (i) contribution to DEMO, (ii) fusion engineering research subjects using JT-60SA, (iii) strategy of collaboration with modelling and simulation research topics, (iv) additional research subjects in each research field, (v) matching with the new ITER operation schedule, (vi) technical information in Appendix for collaborators (diagnostics detail and port allocation, magnetic field ripple, typical discharge scenarios, etc.).

It will be discussed again intensively and widely among the JA and EU experts, and the next version will be completed by December 2011.

Meetings

Kick-off meeting for Cryostat Base



Left to right front: José Manuel Sanchez, Begoña Gomez, Belén Gonzalez, Luis Villabrille. Back: Sam Davis (F4E), Víctor Martinez, Daniel Couso, José Botija (CIEMAT), Begoña Fernández, Ivan Vazquez, Adolfo Garcia, Rafael Garcia, Mercedes Medrano (CIEMAT)

The cryostat base for JT-60SA is one of the most urgent items for procurement, since the rest of the tokamak has to be constructed on top of it. Its manufacture suffered a delay in 2010 when the company contracted to make it announced a major downsizing and that it intended to pass the contract to a competitor. However, following the transfer, things are looking up for 2011. The second contract kick-off meeting was held on 16th March between CIEMAT (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas), F4E and IDESA (Ingeniería y Diseño Europeo S.A.) at the IDESA office in Gijón, Spain.

The meeting was attended by all the key project and management staff from IDESA. They presented their company capabilities as well as their outline process and schedule for the manufacture, and explained they were proud and excited to be working on JT-60SA. Since almost all the low cobalt, low permeability plates are now ready, the cryostat base will soon start taking shape. The meeting closed with a visit to the IDESA workshops in Aviles, conveniently located very close to the port. Needless to say the progress of the cryostat base towards the quayside and ultimately to Naka will be closely watched by CIEMAT and the rest of the JT-60SA team!

Meetings

First DRM of Cryostat Vessel Body

The 1st Design Review Meeting (DRM) of the Cryostat Vessel Body (CVB) was held by video conference on 28th February.

The draft of the Procurement Arrangement for the CVB was explained by F4E and CIEMAT, and reviewed and discussed among the experts attending from the JA and EU HTs and PT. The draft of the CVB Material Procurement Arrangement prepared by the JA HT, and the CVB Technical Specification and its Structural Analysis prepared by CIEMAT, were also reviewed and discussed intensively, and information regarding the transportation limitations in Japan for the CVB were explained.

Visits

PL visit to Garching office and JET



In March, the Project Leader (PL), S. Ishida, visited JET (Joint European Torus) in Oxford, UK in order to give a seminar on the JT-60SA project. This followed his visit to the EU Home Team headquarters in Garching, Germany to discuss the procurement of the components with the EU Home Team members.

At JET, the PL also exchanged opinions with the Leader of EFDA (European Fusion Development Agreement), F. Romanelli, on the activities of EFDA towards the JT-60SA experiments, and toured JET's torus hall, currently not in operation during its remodelling, with the Head of JET department, L. Horton, and the Operation Group Leader, G. Sips as guides. JET will start pumpdown in April, and the first plasma is expected in August.

Calendar

April 13-14, 2011

11th Technical Coordination Meeting (Remote)

June 26-30, 2011

38th IEEE Int. Conf. on Plasma Science (ICOPS2011) and 24th Symp. on Fusion Engineering (SOFE2011)
Chicago, USA

September 11-16, 2011

10th International Symposium on Fusion Nuclear Technology (ISFNT-10)
Portland, USA

September 12-16, 2011

22nd International Conference on Magnet Technology
Marseille, France

September 21-22, 2011

12th Technical Coordination Meeting
Naka, Japan

Contact Us

The JT-60SA Newsletter is released monthly by the JT-60SA Project Team.
Suggestions and comments are welcome and can be sent to masayasu.sato@jt60sa.org.

For more information please visit the website: <http://www.jt60sa.org/>