



Press Release

Successful Testing of Eco-clim in Occitania's TERs

March 2018 – The 100% “green” Eco-clim air conditioning system, which has been tested by the Occitania Region, SNCF and Liebherr-Transportation Systems on a TER train over the last two years, has surpassed expectations in terms of passenger comfort and maintenance costs according to the preliminary conclusions of the trial phase. The test phase will continue until August 2019.

Carole Delga, President of the Occitania/Pyrenees-Mediterranean Region: “This test is another example that will contribute to enriching our regional positive energy project. I am convinced that waste recycling, renewable energy production and sustainable mobility are set to be new sources of lasting employment for our region.”

In September 2015, Liebherr installed an environmentally friendly air cycle air conditioning technology demonstrator on an SNCF regional train operating in Occitania. The demonstrator was tested as part of SNCF's “Eco-Clim” research program, the main aim of which is to prepare the next generation of “green” trains.

The test program was intended to provide SNCF with all the data it needs to evaluate the advantages offered by this technology. Different operating parameters were tested as part of this experiment, such as the effective cooling output, the precision of the temperature regulation in the passenger compartment and the power consumption – all of which were tested in real operating conditions.

Evaluation took place over two full years of in-service operation and on different regional routes within Occitania, which enabled testing to occur in a wide range of climatic conditions and altitudes. The preliminary assessment concluded that the air cycle air conditioning technology delivers results beyond expectations, particularly in terms to passenger comfort and reduction in maintenance costs.



“SNCF, as a group, is committed to improving its environmental performance. We wanted to test this technology on the TERs in Occitania in order to expand our set of data – both from a technical point of view and from a customer-experience point of view,” explains Jacques Rascol, Regional Management of SNCF Mobility Occitania.

The air cycle air conditioning technology, initially used by Liebherr in the aerospace industry, constitutes one of the next-generation technologies for railway air conditioning. It offers significant improvements in terms of product life cycle costs and also allows a considerable reduction of train operating costs.

This technology uses air as a coolant instead of conventional chemical refrigerants, which means that it does not damage the ozone layer in any way. It thus helps in fighting against climate change.

Liebherr-Transportation Systems – Renowned Manufacturer of Railway Technology

Liebherr-Aerospace & Transportation SAS in Toulouse (France) is one of eleven divisional control companies in the Liebherr Group and coordinates all activities in the fields of transportation and aviation equipment. It employs around 5,400 people worldwide.

Liebherr’s transportation systems division supplies cab and saloon heating, ventilation and air conditioning (HVAC) systems, hydraulic actuation systems, dampers and hydraulic load levelling equipment for rail vehicles of all kinds. Liebherr has many years of experience in the development, manufacture, and field service of these technologies, offering support throughout the entire product lifecycle. In addition to its own sales and service centers, the division has access to the Group’s extensive and unique technologies as well as development and service facilities around the world. This global set-up means that Liebherr-Transportation Systems is there for its customers wherever they may be.

Contacts:

Liebherr-Aerospace & Transportation SAS, Ute Braam, Corporate Communications,
Tel. +49 8381 46 4403, Email: ute.braam@liebherr.com, www.liebherr.com

La Région Occitanie: Barbara Atlan, Responsable adjointe du service de presse,
Tél. +33 4 67 22 63 62, Courriel: barbara.atlan@laregion.fr, www.laregion.fr

SNCF: Alain Gibergues, SNCF Direction du matériel, Tel. +33 2 43 78 69 95,
Email: alain.gibergues@sncf.fr, www.sncf.com

Captions



liebherr-air-cycle-air-conditioning-system-on-board.jpg - © Liebherr
Liebherr demonstrator installed on an SNCF regional train (TER).



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The SNCF regional train travelling through Occitania with Liebherr's environmentally friendly air cycle air conditioning demonstrator.