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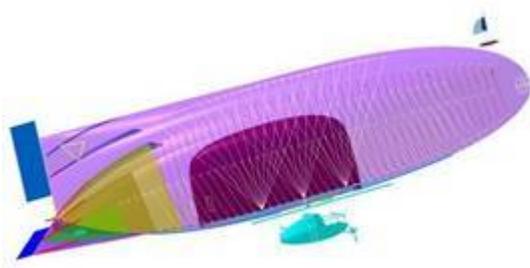
NEWSLETTER n°2

Wednesday 30th of May 2007

A New Stage for the THEOLIA-Windream One Team

After three years of research and development, the THEOLIA Windream One Team is opening a new chapter of prototype testing and manufacturing of the main parts of the airship, which will be the first one to attempt the aerial crossing of the Atlantic Ocean by means of renewable energies. The building sites of the outer skin and flight deck of the 28.5 meter long (60.7 ft) airship have now been chosen. For efficiency purposes, they are located within a close perimeter from the project base camp at former naval air station of Saint Mandrier, on the French Mediterranean coast. The actual cutting of cloth material and making of the carbon boards for the flight deck are scheduled to begin in the early days of June.

The trilobed skin of Windream One will be manufactured by Toulon-based Gateff Sailmaking, and its flight deck will come out of the Sailing Concept building site in La Ciotat. With the transfer to Aix-en-Provence of the THEOLIA Group headquarters, who are financial partners in this pioneering adventure, the Mediterranean has become central to this great technological challenge set by Peggy Bouchet and Stéphane Rousson for the beginning of 2008.



Credit : Costes / Chenus / PBSR

There were several highlights in the THEOLIA team activity over the last four weeks: a survival course for Peggy and Stéphane at the Training Centre for Survival and Rescue of the Lanvéoc-Poulmic Naval Air base (Brittany), a pilot theory test for Peggy, some decision-making on new technical solutions regarding the flight deck and the propelling equipment of the balloon and, last but not least, setting up camp at Saint-Mandrier.

Tests on the prototypes at Saint-Mandrier :

The first tests on the prototype of the outer skin started on Tuesday, 22 May, in the 3600m² (38750 sq ft.) Saint-Mandrier warehouse graciously made available by the Greater Toulon Provence Méditerranée City Community. Administrative regulations have been set with the Navy to govern the presence of the THEOLIA team, journalists and external technical advisers which will be circulating during 8 months around this site still under military control. After blowing the outer skin to a 1:3 scale, assembling the prototype will take another two weeks before Stéphane and Peggy can undertake the trial flights – first, inside the warehouse, then outdoors. This testing period will allow the team to fine-tune the final choices about the shape of Windream One's outer skin.



Credit : Castes / Chenus / PBSR



Credit : PBSR 2007



Credit : VPLP / Chenus / PBSR

The prototype of the flight deck, built out of plywood in Brest in April, arrived at the Saint-Mandrier base camp on Wednesday, 23 May. While the real flight deck will start being built at the end of May in La Ciotat – this time moulded instead of assembled from planks – Stéphane Rousson will work on the scale 1 prototype, putting it through a series of tests in connection with the propelling electric engines. The purpose of the mostly ergonomic tests is to determine the position of the drive shafts and choose between a one or two-engine option to ensure the total 8 to 10 kW required power.

Stéphane Rousson: "In pioneering projects such as Windream One, it is essential to remain open to new possibilities of development which keep appearing as you proceed with theoretical studies or technical courses. Nothing should be rigidly set as long as we are not certain to have found the best possible option. It sometimes put the Team under pressure as deadlines and budget also have to be kept in mind, but it's this search for a balance between all those parameters which fuels a human and technological venture such as Windream One. Every day, new thoughts come up and enrich the project – for instance, when building the prototype of the flight deck brought to light that moulding had to be chosen over planking to obtain a more shock resistant structure. Also, our recent training course at the CESSAN (Training Center for Survival and Rescue) in Lanvéoc has allowed us to reinforce some security equipment. The THEOLIA team's ability to adapt to these new solutions is remarkable, and we are able to go through the various phases of the project according to schedule. "

Peggy Bouchet's Log

"SURVIVAL COURSE AT CESSAN."

Monday, 23 April, 7:00 a.m. Stéphane and I are ready for action at the Jean-Bart gate in Brest, about to embark on the dock ferry to cross to Lanvéoc for a 3-day training course at CESSAN with a small group of fighter pilots, and helicopter and airplane crew. Having experienced survival for a number of hours astride the hull of my skiff in 7-metre high waves during my first Atlantic crossing, I am both anxious to start this course and slightly apprehensive. The first day is mostly devoted to the theoretical aspects of survival. The four lectures given by doctors and divers are aimed at informing us about the conditions and emergency measures that should be taken in situations of survival at sea: rescue equipment, life-saving gestures, organization of individual and collective survival... a body of information which would have been of great help to me nine years ago! Stéphane and I make a note of the various equipments which could be adapted to our THEOLIA sailing balloon.

Tuesday, day two of survival training. We spend the morning playing castaways... in the Brest seaport. The water temperature varies between 10 and 12 degrees Celsius. The cold creeps through our wetsuits, it's stimulating! After two hours spent almost still, freezing up in the water, we climb aboard a rescue dinghy, fire the distress signal, and are airlifted aboard a Super Frelon helicopter. An intense, extraordinary experience. I feel a great sense of respect and admiration for these divers and pilots, the life savers of the seas, who go out and do their job whatever the weather conditions.



Credit: PBSR 2007

The afternoon of Tuesday and Wednesday morning will be my worst nightmare. In the CESSAN swimming pool, it's time to bring in the "gloutte," a life-size replica of a flight cabin used as a ditching and evacuation simulation device. Dressed in flying gear, we are tied up to the seat of the gloutte to be immersed, trapped inside the contraption. I'm filled with anguish. I'm suddenly reliving my shipwreck and the 9 hours spent scrambling for survival, not knowing whether I'd be rescued before nightfall. Pulling myself together, I concentrate to try and keep my cool, take in a last breath, my right hand clutching my seatbelt buckle, ready to release it once at the bottom of the pool. Five metres under water, at last, a diver taps me on the shoulder to let me know that I can untie myself. This exercise lasts 30 seconds, which feel like an eternity when you are tied up in the dark and holding your breath. It is repeated six times, when we are splashed down upright, then upside down, in daylight and in darkness. The idea is to repeat each safety procedure until it becomes automatic. This training course has been a humanly and technically enriching experience. I am particularly thankful to the CESSAN commander and his team for their warm welcome. One thing is sure: I do hope not to have to put the teachings of those three days into practice!

Jean Marie Santander – Président fondateur du groupe européen THEOLIA : *«Peggy Bouchet, Stéphane Rousson et THEOLIA évoluent au travers de valeurs communes : la volonté, l'abnégation et la soif de réussir. Notre secteur d'activités, les ENR, n'est pas encore complètement mature. Il reste beaucoup de recherches à faire pour que la filière progresse ... et surtout pour valoriser les énergies renouvelables dans d'autres applications que la production d'électricité. C'est la raison pour laquelle THEOLIA s'est engagé auprès de Peggy et de Stéphane pour soutenir leur projet technologique et aventurier, WINDREAM ONE. Si nous voulons que les ENR occupent une place plus importante dans notre quotidien et qu'elles s'imposent au détriment des énergies fossiles et du nucléaire, nous nous devons d'encourager et de favoriser ce type d'initiative».*



Credit: Marie-Pierre Beauvisage

THEOLIA

L'ÉNERGIE NATURE

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The Theolia Group produces electricity from renewable energy sources. Theolia is an independent European company, one of the few companies producing 100% clean energy. Driven by a deep conviction that the future should be preserved, the Group has been developing wind power sources as well as other applications in biomass, biogas, solar energy and cogeneration. The company is quoted on the Eurolist B Euronext and is today a major player in the European clean energy market.

Full details about the WINDREAM ONE project on www.teamtheolia.com

*Downloadable press packs and illustrations on the website or upon request from the Press Office.
A 3D animation is also available. Visualise the Windream One project as you wait to see the first test flights.
Also available on the website or upon request.*

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