Since our last newsletter, we have expanded the flight test envelope for P2 with regards to speed and weight. Not only the large numbers of individual tests, but also the long periods of bad weather have made flight testing rather challenging. Nevertheless, many successful flights have been performed and helped our team to understand and learn more about the aircraft and subsequently optimize P2 in order to improve the design of P3.

The engineering team supports the flight test activities and integrates the necessary improvements. The challenge is to gather the necessary data and findings from flight testing in a timely matter so that improvements can be implemented into P3. We are confident that the incremental improvements from one prototype to another are an important part of the development process.

One other source of input for our product is the close relationship that we have built up with Air Zermatt, our launch customer. In various meetings we have discussed the product and its advantages but also areas requiring improvements to ensure that our helicopter fits best for the foreseen operations in its class.

Besides the product development, various teams work on the required structures and processes around the helicopter. On one hand, these are the approvals needed for the serial production and on the other hand to prepare the service concepts and structures as well as the operations, maintenance, and training instructions for the helicopter.

All in all, we will not run out of work in the next months.

Editorial  Martin Stucki, CEO
We have now entered the sixth month of flight testing of the second prototype (P2) of the SKYe SH09. Plans have remained on track according to our rigorous schedule, despite unfavourable weather conditions in the region at the start of Summer.

P2 has achieved a wide range of flight test activities at 97% of the Maximum Take-Off Weight of 2'650 kg. Successful completion of low speed flight manoeuvres, both sideways and rearwards, and significant expansion of the forward speed flight envelope have kept the test crews busy. Operations at 3’000 feet altitude that included turning flights, autorotations, and development of take-off and landing profiles, have successfully demonstrated the potential of this airframe to operate in multiple environments. Noteworthy is that many landings were made on grass and in different cross-wind conditions.

All flights are monitored from the ground via telemetry, allowing the team to evaluate data from system behaviour and performance with scrutiny. Performance has been evaluated both during vertical and forward climbs at up to maximum power with test crews reporting excellent power margins and fuel consumption as per predictions. The performance is complemented by the large fuel tank that will deliver long endurance to future owners and operators of the SKYe SH09. Every phase of flight testing is followed and controlled by strict maintenance inspections, now taking place to prepare the next steps. From there, P2 will continue its test plan with the high speed campaign.
In preparation for serial production of the SKYe SH09 helicopter, Marenco Swisshelicopter will commence construction of a new assembly hall. Permissions for construction had already been agreed with the regional authorities. Groundbreaking has taken place on August 2016 in the presence of the Councillor representing the canton of Glarus and the Mayor of Glarus Nord.

The expanded assembly hall will be built on the North side of the existing hangar, at Mollis Airport. Once finalized, Marenco Swisshelicopter facilities on the field will cover an area of 4000m2, of which a substantial part reserved for office space. This expansion is scheduled to be completed before the end of 2017.
Marenco Swisshelicopter has appointed Stefan Andres as Chief Technical Officer earlier this year, thereby bringing in further valuable expertise as the program matures towards a finalized design. Mr. Andres shares his experience and views below:

„It is great that you are back into the helicopter world”, that is what most of my friends and former colleagues were saying since I joined Marenco Swisshelicopter. It is true that from my very first design projects 18 years ago at Eurocopter, my heart was always beating for helicopters. Meanwhile, I had challenging jobs as engineering department leader, program manager and business unit manager in various aviation companies but also in engineering services for other industries. Moreover, I have experience in small companies and start-ups but also more than 10 years within the Airbus group. I am glad to share my lessons learned and contribute to the transition of Marenco Swisshelicopter from being a start-up organization to a successful helicopter OEM.

In all my functions I had a strong customer focus, i.e. on both the external and internal customer levels. My priority will be to achieve the Type Certification (TC) on time while considering the valuable input and needs of our customers. To achieve this goal, we need to secure our Design Organization Approval (DOA) from EASA. To finish the development of the SKYe SH09 and achieving the necessary EASA approvals in parallel is a challenge but I am convinced that thanks to the motivated and dedicated team, we will achieve both in the very near future.
October is still some time away, but at Marenco Swisshelicopter we are excited to make our first appearance at Europe’s leading rotorcraft event, Helitech. This year, the event will be held in Amsterdam, where members of the Marenco Swisshelicopter team will be from 11 – 13 October 2016 on Booth 12B10 to answer your questions and fill you in on the latest developments.

It has been and will continue to be a busy year, with the anticipation of the third Prototype of the SKYe SH09 coming out soon, the substantial and exciting strides made with the second Prototype, the construction of the assembly line in Mollis and the progress in EASA certification. Furthermore, Amsterdam is a key location, with the Netherlands having a strong aviation history in manufacturing and operation. All of this makes that it is great timing to be present at Helitech this coming October. Feel free to contact us if you wish to reserve a specific time slot at the show, or simply drop in.

Join us in Amsterdam and keep your eyes on the SKYe.