DynCable

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Dynamically highly stressed cable systems for the use in rotor blade deicing systems

AMES, KTS and BLEYER intend to develop dynamically highly stressed cable systems for the aerospace industry. The aim is the reduction of operation costs due to increased operational lifetime and lower production costs of these cable systems. The development and certification will be achieved by the combination of an EASA certified engineering office (AMES EASA.21J.299), an EASA certified production organization (KTS AT.21G.008) and a helicopter expert. Strategic goals are the protection against possible aviation crisis and the establishing of testing competence.

Helicopters are essential for multiple civil and military applications nowadays. They allow a fast evacuation of emergency victims, the efficient surveillance of borders and transit routes, the supply of rural areas and the assistance during emergencies and crisis when all other means have failed.

The nature of task, the immense effect of each possible failure and the high complexity of the aircraft require highly qualified suppliers and service providers for this branch.

AMES and KTS decided to focus their strengths to gain ground as engineering service provider and supplier, respectively. Additional support is provided through the engineering office Manfred Bleyer.

The company AMES has been established as engineering service provider in the aerospace business areas research and development and airline engineering. The extensive investigation effort, the EN/AS 9100 certification as well as the EASA Design Organisation Approval EASA.21J.299 have enabled a rapid growth in recent years.

For many years KTS has been a strong growing, well known and respected supplier of cable and wire harness systems and tools in the aerospace branch. The company KTS is EN/AS 9100 certified and supplements the possibilities of AMES with their EASA Production Organisation Approval AT.21G.008 in perfect manner.

Manfred Bleyer with his engineering company is one of the leading helicopter experts in Austria and Europe. Mr. Bleyer has been in the helicopter business since 1981 as a pilot and as an engineer. He is a certified helicopter testpilot (graduate of the National Test Pilot School, USA) and has many years of experience with helicopter certification projects.

The combination of DOA, POA and a helicopter expert ensures rapid development, production and certification to gain market access.

The team intends to develop dynamically highly stressed cable systems for the use in rotor blade deicing systems. These systems are mounted on the rotor head and blades which is a highly versatile environment. They have to cope with mechanical stresses, cyclic deformations, vibrations and harsh environmental conditions. High maintenance costs are caused by the short operational lifetime of presently used cable systems.

A feasibility study has shown that KTS could probably manufacture such cable systems with higher lifetime at competitive manufacturing costs with a Supplemental Type Certificate. It is the goal of this project to establish the foundations for this range of products.

Furthermore the gained experience in hardware testing will enhance the companies abilities for further growth and future R&D projects.

Infobox

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Project Leader

AMES - Aerospace and Mechanical
DI Dr. Techn. Michael Huber
Grazerstraße 10
8130 Frohnleiten
03126 / 59 295

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