Teledyne look for speedy development for brownout solution

Teledyne Defence, Business Development Manager, Paul Miller knows his way around. As an ex Royal Navy helicopter pilot, he has been involved in the aerospace industry and MOD for many years and knows which doors to knock on…

Last year Miller joined Filtronic in Shipley, West Yorkshire. The company, a world leader in the design and manufacture of customised RF, microwave and millimetre wave components and subsystems is now a subsidiary of Teledyne Technologies, the US-based conglomerate that purchased Filtronic's defence arm in August 2008.

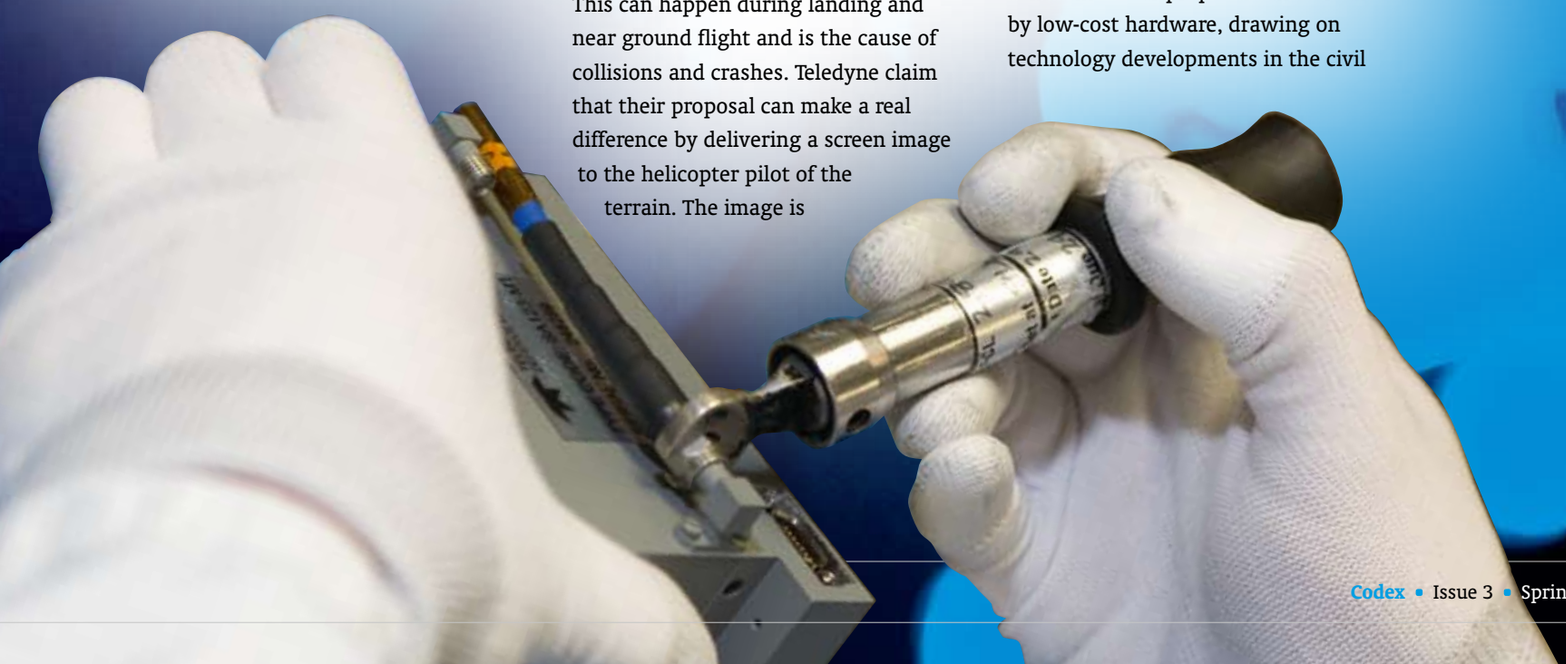
Miller believes that the new relationship fits well with their innovative approach to defence electronics. "We are a high innovation company and looking for business beyond the 'now' that will take us into the future," he explains.

Miller submitted one of the first proposals to CDE soon after its launch in May 2008. The proposal was for a Low Visibility Landing (LVL) aid which is being heralded as a solution to 'brownout'.

Brown out is caused by a helicopter rotor blade creating a downwash that kicks up dust, sand and other debris causing swirling clouds making it impossible for the pilot to see the ground. The pilot can be temporarily blinded by the swathes of brown dust that encircle the helicopter and many lose spatial awareness and become disoriented.

This can happen during landing and near ground flight and is the cause of collisions and crashes. Teledyne claim that their proposal can make a real difference by delivering a screen image to the helicopter pilot of the terrain. The image is formed by using microwave technology that can see between particles of dust, where normal optical and thermal systems cannot, giving a three dimensional model of the ground. This gives the pilot the information needed for a safe landing.

For Miller, this is an exciting proposal that can be of huge benefit in future operations: "We want to get this developed speedily and that is where CDE comes in… Our proposal can be realised by low-cost hardware, drawing on technology developments in the civil



marketplace. We know of no comparable approach and neither radio nor barometric altimeters can distinguish rough ground and obstacles. We believe our LVL aid solution is unique."

Teledyne were one of the first to use the new CDE online system and Miller was quick to get his proposal in for assessment. "I attended the Harwell launch and was impressed by the energy and clarity that was evident from all involved. That was sufficient evidence that there is a deep commitment throughout MOD for this venture and to encourage us to use the online portal."

The LVA proposal was submitted in June and Miller received notification of funding less than a fortnight later. He sees the online application as significant 'step change' for MOD and particularly useful for small levels of funding. For him, the methodology was easy to understand and less complex than others he has experienced.

They are now progressing on Phase One of the programme which they are due to complete soon. They intend to use the test range facilities of Porton Down and will then be looking to develop it through to the equipment programme.

Miller's involvement with CDE is ongoing and he has attended a number of seminars since the launch. He believes these are important and help industry understand how they can contribute to defence. "These are useful as they help you understand MOD priorities and the capability gaps. They focus on how we can work together and generate business and partnership opportunities."

Teledyne Defence Managing Director, Neil Ferguson is also looking forward to the next stage and is hopeful that they will be able to achieve rapid deployment to the front line. "Demonstration of LVL technology later this year will be an important milestone in the development of this key, new operational system."

He is also fully behind Miller's commitment to CDE which he says has helped them work quickly and enabled them to commit to their aim to make a 'positive impact on helicopter survivability and operations'.

And with four additional proposals waiting to be submitted to CDE, Teledyne are fully committed to this new way of working.

Photo 15 – Paul Miller, Business Development Manager
Photo 16 – Chinook helicopter faces brownout during landing
Photo 17 – New technology