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ROTORHUB

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The flying doctors

Aeromedical transportation focus

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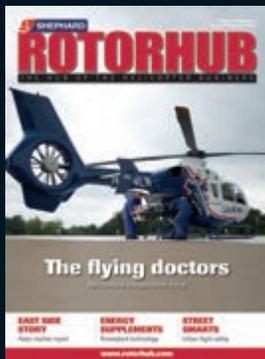
With recent tragic events once again highlighting the issue of safety in urban flying, the relevant authorities and key industry figures are discussing what needs to be done to ensure pilots, their passengers and the public remain protected.

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The largest provider of air medical transportation services in the US HEMS market, Air Methods operates around 390 helicopters across 45 states. (Photo: Air Methods)



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Aftermarket awareness

Peter Lewis, CEO of Alpine Air Support, describes the benefits of utilising aftermarket helicopter parts over visiting repair shops or purchasing new components.



The glossy brochures and websites dazzle with specifications, performance figures and a corporate interior that oozes luxury, highlighting unrivalled point-to-point airborne transportation.

Helicopters are by definition a technical marvel, whether used for VIP transport, medevac, police duties or plying their trade in the offshore oil and gas fields. Beyond the veil of glossy marketing lies the truth in daily operations – downtime for maintenance, irregular servicing and constant write-ups that can rarely be tackled simultaneously.

When civil helicopters were developed from those flown by the military, their teething issues and technical weak points were already well known. Operators had years of service life experience to know that a particular model required specific attention to maintenance issues. By the 1970s, new helicopters were being designed and flown with the civilian market as the primary sales target, and the focus for maintenance shifted from combat-fatigued mechanics to those in white overalls.

Efficient chain

Rotorcraft at the start of their production cycle require an efficient supply chain of OEMs to provide all the components required to be assembled. Based on a known production rate from the helicopter manufacturer, raw materials are procured and OEM assembly lines cater for efficient maximised component demand.

As a fleet leaves the spotlight and enters the 'legacy zone', many OEMs might not be producing the same components as they had done decades earlier, or are only willing to retool their production lines for cost-effective runs, so supplying ones and twos is simply not economical, and lead times measure in years, rather than months.

Some OEMs may have changed their business structures, been bought out, or, in some cases, completely disappeared from aviation altogether. In the US, many PMA parts can be used as

replacements. However, for many European helicopter types, no PMAs may be authorised or no STCs are in place because the manufacturers have retained exclusive control of what is certified to fly on their models, and that's the way they want it.

In many cases, some of the vendor OEMs are purely commercial organisations that make vehicle or marine parts which are then sold exclusively to the helicopter manufacturer who certifies the product as 'airworthy' and incorporates them into the final airframe design.

Here and now

Obsolescence is here and now. Your ten-year-old helicopter has avionics designed 30 years ago, and your autopilot computer has large circuit cards that would not look out of place in a cheesy science fiction movie from the 1970s.

Rust and corrosion on your nose undercarriage leg? The repair shop has worked the corrosion down to the allowable tolerance after waiting for OEM approval for a new repair process, but the news isn't good – it's scrap. Delivery time for a new one is 18 months as the helicopter manufacturer doesn't stock that model any longer.

The radar indicator has burned through on the CRT, a replacement is no longer manufactured and the company that used to make them has an alternative, but that one is now on the US ITAR listing due to its dual use on a military type – so good luck with applying to the State Department for an export licence to get a new screen for your vintage radar so that your pilots have a sporting chance of flying through bad weather on the way out to the rig.

What is the solution? Planning, establishing networks with other operators and maintenance facilities and getting to see the aftermarket suppliers as your army of worker ants sourcing and stocking key parts that are known to be awkward to procure.

When fleets of helicopters leave their first operators, inventories of spares and engines are usually available as separate lots, or packages. Investing a few precious dollars at times such

as these will pay dividends in years to come. Finance departments have a natural-born hatred of all things called 'inventory'.

What to them seems to be idle parts gathering dust on stockroom shelves is a tangible cost, so must therefore, by definition, be cut. Compare those costs to a helicopter grounded for a small part that is on special order – that rather large rotored asset will not be creating any precious revenue either. So much for cutting stock levels. Think again, dear CFO.

In the US, CMM documentation is mostly in the public domain, and any suitably equipped authorised FAA repair station may attempt repairs. In Europe, CMMs seem to have coveted confidentiality status on a par with nuclear weapon launch codes. You may own a helicopter, or perform maintenance on several, but you have no automatic right to be able to technically support your aircraft in the narrow-minded eyes of the OEMs.

You may or may not have a good rapport with your helicopter manufacturer or parts supplier. It pays to get to know the 'who's who' in the logistics department though. People make decisions, and understanding obsolescence issues can be easily resolved if OEM managers actually listen to what it is going on in the field – even if they don't really know what goes on in the real world as they hide behind their computer screens in corporate palaces. **RH**

Peter Lewis is CEO of helicopter parts aftermarket company Alpine Air Support.

The editor welcomes *RotorHub* reader contributions for consideration on the Collective Pitch page. Submissions should be in the region of 750 words and offer comment and reflection on a particular issue affecting the civil helicopter industry. *RotorHub* reserves the right to edit copy for style, length or legal reasons.