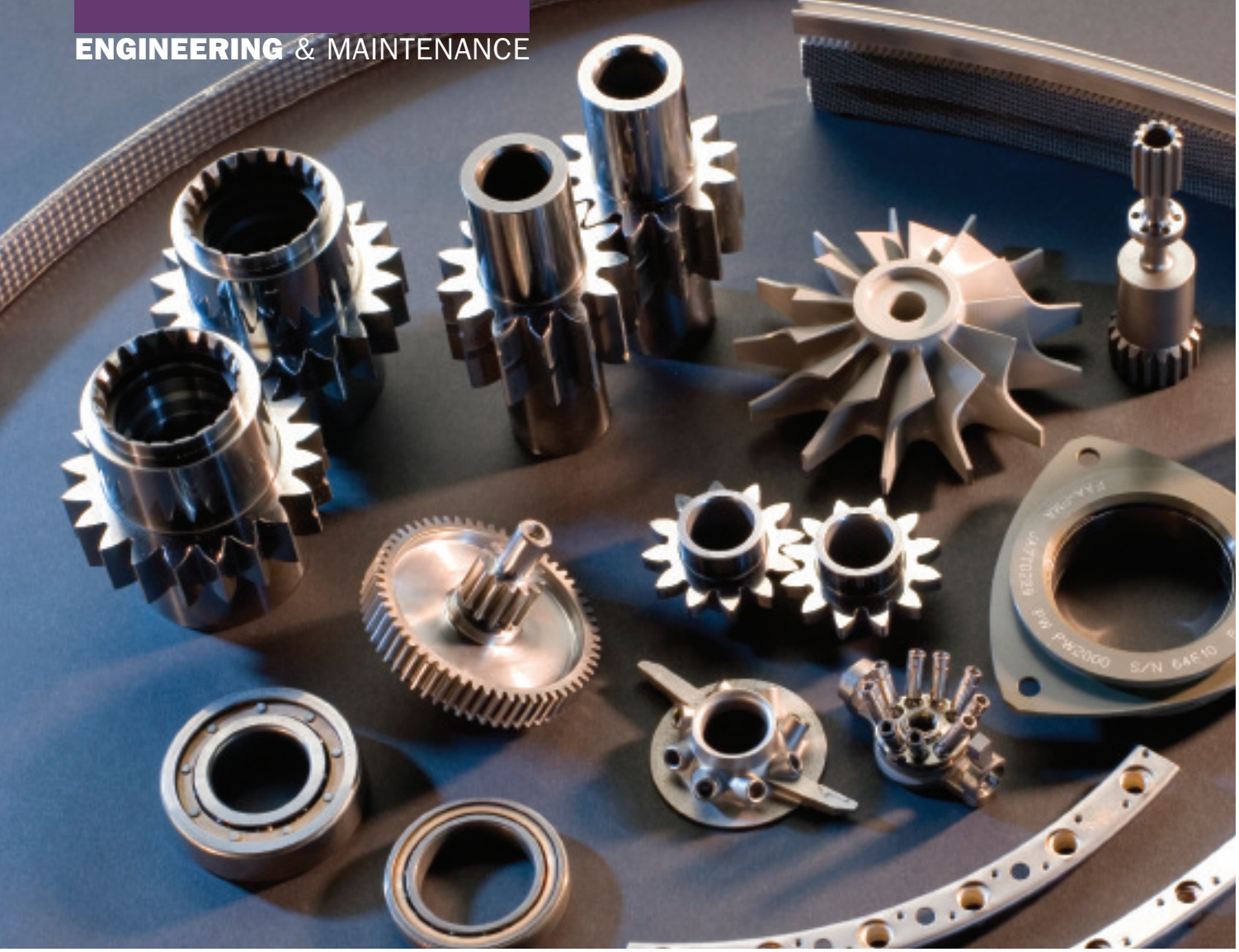


What next for PMA parts?

Questions abound in the PMA parts industry; some long-standing, some very recent. Are lessors beginning to accept PMA parts? Are OEMs about to take a monopoly in the aftermarket? And are PMA companies about to form larger consortiums to try and become more powerful? *Jason Holland* sorts fact from fiction in this assessment of the latest market developments.

The battle lines have long been drawn. PMA manufacturers say recent FAA guidance completely guarantees the safety and validity of their parts, and airlines will make cost savings by using them. Many engine OEMs still question the safety of integrating these parts with their engines, and have in the meantime set about expanding the solutions they offer. And lessors are still flatly refusing to even talk about using PMA parts.

Or are they?

According to some PMA companies, many lessors no longer have concerns about the technical aspects of using PMA parts and are open to negotiating the use of them — if airlines take the initiative and open discussions early in the process of drawing up a contract.

Increased lessor acceptance — myth or reality?

This theme has been explored by PMA manufacturers and associated organisations at recent high-level conferences. Jason Dickstein, president of the Modification and Replacement Parts Association (MARPA), recently claimed that the leasing community was "quietly embracing PMAs" and urged airlines wishing to use PMA parts to "speak the language" of lessors during negotiations. "Lessors are there to make money from their assets so are going to listen if this can be demonstrated," he said. He suggested one solution as splitting the cost savings from using PMA parts between the lessor and the airline, to create a 'win-win' situation.

Jeff Dark, VP sales & marketing at PMA manufacturer Jet Parts Engineering, says that because there is a perception that some airlines may not want to accept a lease agreement on an aircraft that includes PMA, "lessors take the easier route and attempt to dissuade their customers from using PMA, via the leasing contract". However, he asserts that "savvy operators that are PMA friendly have been increasingly more successful in bucking this

Most of the larger PMA companies are still active in making strategic acquisitions.

trend and negotiating the use of PMA into their leasing agreements".

BELAC president Chong Yi agrees with these sentiments: "Lessors are becoming more receptive to the use of PMA parts, particularly in the mature engine fleet such as CFM, CF6 and PW4000 engines." He says there are several reasons for this: "Lessors hear growing demand from operators, many of whom refuse to spend a significant amount of 'today' dollars for a perceived chance at residual value impact several years from now; the growing acceptance and residual value of overhauled PMA parts in the market as an alternative to OEM aftermarket parts; and the continuing increased number of operators on a worldwide basis that are accepting PMAs," he notes.

However, these conversations and/or agreements appear to be taking place exclusively in the corridors of power rather than out in the open. It is difficult to find a leasing company who will say they are actively encouraging the use of PMA. It is much easier to find lessors who say they are still deeply concerned about warranty and valuation issues.

Charles Willis, chairman and CEO of Willis Lease Finance, is unequivocal in his views. "I do not agree that engine lessors are warming to the use of PMA," he tells *ATE&M*. "On the contrary, the use of PMA engine parts would create a two-tiered valuation system and aftermarket. We have not seen their use in our contracts." Asked what his reaction would be if an airline came to him wanting to negotiate the use of PMA parts, whether in a new contract or a renewal, Willis said he would tell the customer that "for the time being we would not use the parts".

There are certainly no benefits for lessors in making changes to existing leases, so if a change in attitude is taking place it will take a long time for any tangible results to be seen. Only when new contracts are being discussed, or existing ones come up for renewal, can PMA negotiations potentially take place – and the majority of lessors will not actively encourage such discussion, or like Willis, encourage any discussions at all. Far from accepting that cost savings are possible, Willis takes a longer term view. "There may be immediate cost savings but what about the value loss to the engine?" he asks. "Our concerns are technical acceptance by our customers and engine valuation."

As things stand, there is no concrete evidence that a shift in lessor acceptance is taking place. The reality of the situation still depends on who you are asking. BELAC's Yi says it is a "misconception" that there is loss of residual value through the use of PMA parts and says the rise in a "significant aftermarket requirement for overhauled BELAC blades" suggests that this misconception is being laid to rest. On the other hand, Jeffrey Conner, director - alternate materials strategy at GE Aviation, says that increased lessor acceptance would in any case have no bearing on the OEM's "fundamental concerns with the absence of system level data for engines operating with a mixture of type certificate holder and non-type certificate holder parts and repairs".

Conner says that GE continues to be concerned with part-level changes introduced via PMA. "Existing FAA rules regarding PMA (and repair) allow for the introduction of design,

Are lessors warming to the acceptance of PMA parts? It depends on who you ask.

material and or manufacturing process changes at the part level without the involvement of the type certificate holder for the engine into which the changes are being introduced," he explains. "Maintaining continued airworthiness of aircraft engines requires a rigorous assessment of the impact of part-level changes on other parts, sub-systems and systems in the engine, especially with respect to life-limited parts and engine operability."

He points out that the FAA Engine & Propeller Directorate recently sent an interesting request letter to the Aerospace Industries Association (AIA). In it, the AIA was asked to form an advisory group to assist in developing guidance material to ensure that engine system effects are properly considered when reverse engineering turbine engine parts. "This letter highlighted FAA concerns that existing policy and advisory circular guidance used to validate reverse engineered designs 'do not adequately account for engine system effects when the reverse engineered part does not fully duplicate the type certificate holder's part'," he says. This documentation, he says, provides FAA confirmation that OEMs are only responsible for the airworthiness and systems effects of their own parts installed in the product. "Installation of parts and repairs approved without the involvement of GE can impact our ability to provide technical support, including failure investigations," he warns.

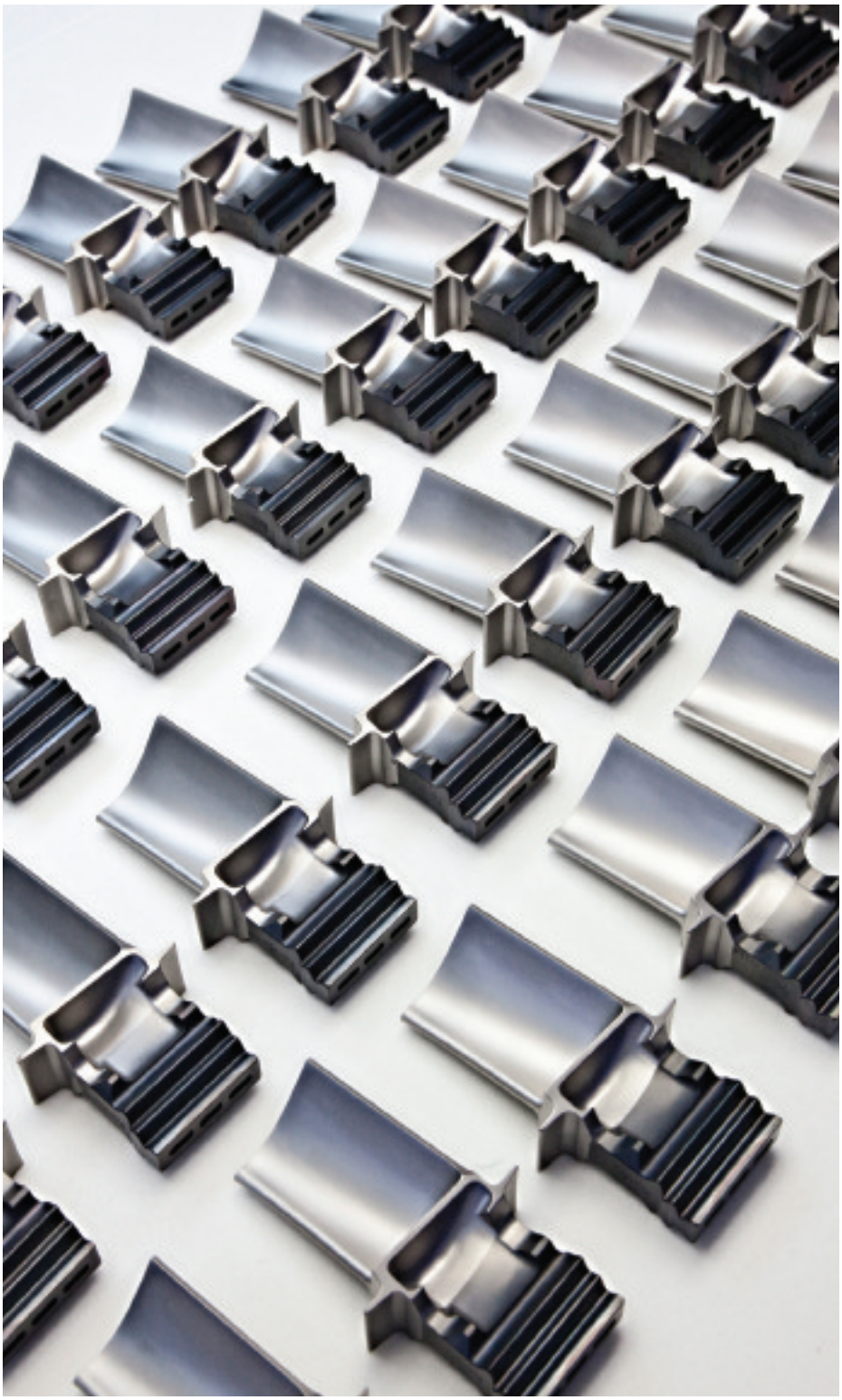
An OEM monopoly?

So the FAA has certain concerns, and yet the PMA manufacturers have also held up FAA guidance as proof that PMA parts are perfectly valid. "The industry has reached consensus that PMA parts offer the same level or better performance for safety and reliability," asserts BELAC's Chong Yi. He is not the only confident voice. "Over the last few years, with FAA support and pro-active education, the mind set on PMA has changed completely to the point where PMA parts are no longer discussed in the context of safety," says Andy Shields, VP PMA at Wencor. "PMA parts/suppliers have become largely invisible within air carriers' supply chains. The original position against PMA from the OEMs, targeted at safety comments, has now changed to pure commercial tactics."

These OEM commercial tactics are largely perceived to be an attempt to aggressively increase their share or even take control of the aftermarket. Jet Parts Engineering's Dark fears the "reaction from the OEM community becoming stronger and [even] more aggressive". He says: "Alternative sourcing (PMA, DER repair, etc.) is the only threat to the OEM aftermarket monopoly, and the OEMs are developing new strategies to fight this competition. Some are withholding CMMs [component maintenance manuals] and other ICA [Instructions for Continued Airworthiness] information. Some are quoting incredibly long lead times to MROs that don't sign contracts. Some are coming hard at the operators to sign 'total care' agreements which exclude PMA."

HEICO co-president Eric Mendelson is also critical of what he sees as the "abusive" pricing practices of some OEMs and their attempts to curtail airline usage of PMA parts. He explains that the vast majority of the FAA-PMA

HEICO reports exponential growth in PMA parts uptake in Latin America and Asia.



BELAC president Chong Yi says the aftermarket requirement for overhauled BELAC blades is "laying to rest the misconception that there is loss of residual value through the use of PMA parts".

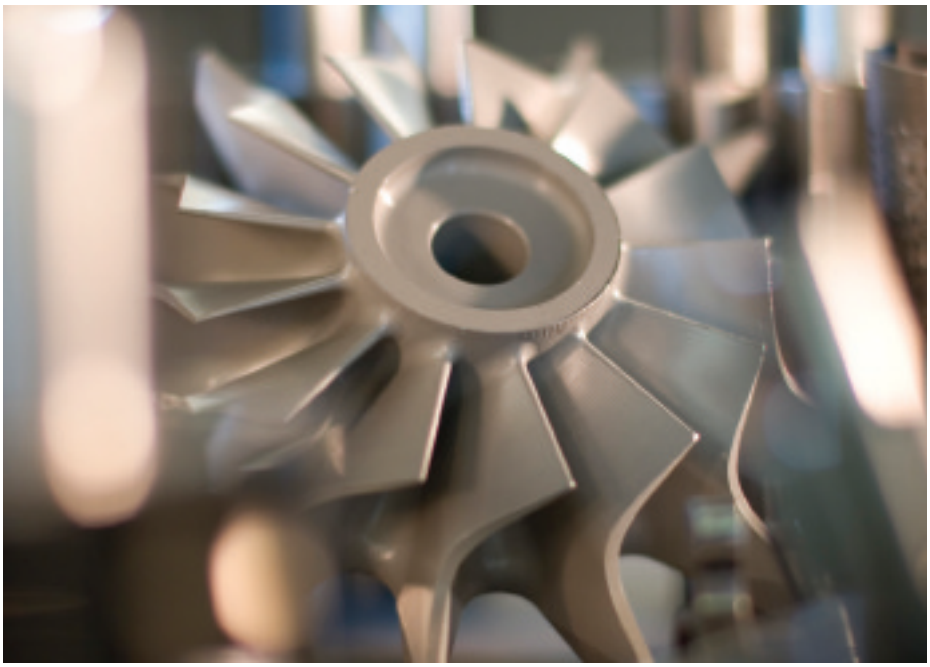
parts his company has developed have been at the request of the airlines "in order to create competition, providing an [alternative] for our partners to the abusive aftermarket pricing practices of many OEMs". He has seen a resurgence of some OEMs "manipulating their control of maintenance instructions to constrain airlines' use of FAA-PMA parts and DER repairs". Mendelson commended the FAA for taking a strong position in a recently-issued draft memorandum "that tells the OEMs this behaviour is 'not acceptable'".

Both Dark and Mendelson believe there are ways to prevent the "uncompetitive OEM monopoly" from becoming reality. Mendelson has urged airlines to act with "courage" and "smarts" and investigate using alternative suppliers of parts and repair to help them gain control over what would otherwise be a non-competitive environment. While he has the utmost respect for the investments that the airframe, engine and component OEMs make to develop new-technology aircraft, he observes that the companies are making these types of investments because they expect to be rewarded with volumes of new aircraft sales.

But Mendelson points out that the real profits for the systems suppliers are in supplying parts and MRO in the service life of the aircraft. "The challenge for airlines that operate aircraft with these systems is that too often there is only one source of supply for parts and repair," he says. "Without competition, prices rise without restraint, and service levels decline." This is why competition from PMA and DER repair companies is essential, he says, and why airlines must act shrewdly to ensure there is more than one source of parts and repair.

Dark believes the PMA industry is being "challenged again to come up with solutions that can effectively combat some of these OEM initiatives and keep the competition of alternate sourcing as an important long term benefit to the operators". In offering a solution, he states: "We really need 'champions' in the airline industry that understand the fact that the only reason the OEMs are coming to the table with concessions is that there is strong competition to their product. Unless the operators understand that, the OEMs will again capture the aftermarket."

The OEMs are thus being cast in the villain role, but is this really fair? Responding to a question about OEMs wanting to create a monopoly in the aftermarket, GE's Conner notes that OEMs have always been involved in engine services – whether in product life-cycle cost of ownership, new spare part manufacturing and delivery, component repair development, or engine overhaul and repair capability to support fleet entry into service.



PMA companies are continuing to make inroads in new areas of the aircraft, and in new regions of the world.

He says that the increased OEM presence in the aftermarket is in fact a response to customer demand. "Over the years, customers have increasingly looked to the OEM to offer more comprehensive, value-added solutions. In response, GE began providing its 'OnPoint' solutions, offering flexible overhaul and/or material solutions, often including risk transfer elements, which provide competitive maintenance services with tailored product structure and terms," he says.

"Currently, about half of the installed fleet of GE and CFM products is covered by GE with these types of products. The solutions typically cover a broad range of product content — new, used, repair, overhaul, logistics, licensing, etc. — such that airlines realised more value in the overall engine and cost of ownership than can be achieved through just alternative materials on specific components," he states.

Connor says that GE also offers solutions that deliver value to MRO network partners to make competitive OEM solutions available through independent or airline affiliated MRO providers. "This provides airlines more choices of non-OEM services providers who offer other unique value propositions (e.g. aircraft MRO, geographic proximity and relationships, etc.)," he explains. "So it is not a matter of "taking control"; rather, GE offers OEM solutions that customers want and choose in order to achieve the best total cost of ownership."

> ***Some are withholding CMMs and other ICA information. Some are quoting incredibly long lead times to MROs that don't sign contracts. Some are coming hard at the operators to sign 'total care' agreements which exclude PMA.***
> **—Jeff Dark, VP sales & marketing, Jet Parts Engineering**

The future

Where does all this leave us then, apart from being highly confused? The 'reality' of the situation seems to be many things at once: some customers want the cost savings offered by PMA parts; some prefer the cost savings offered by total OEM solutions. Few completely understand the warranty and valuation issues associated with using PMA parts in leased aircraft, and even fewer want to see a market monopoly. Could it be that with all the competing strands of information and disinformation, advantages and solutions, that in fact a "happy" market balance is already being maintained? Or is this idea itself just wishful thinking?

Meanwhile, the PMA companies are continuing to make inroads in new areas of the aircraft, and in new regions of the world. BELAC's Yi sees the largest growth area being in China and the Pacific Rim, while HEICO's Mendelson reports "exponential growth" in Latin America, as well as Asia. Jet Parts Engineering's Dark agrees that Asia offers the "bulk of new opportunity", but admits the rate of worldwide uptake on PMA parts has been surprising. "We are still seeing growth in emerging PMA markets, but I don't think it has been as fast as any of us expect," he explains. "We are continually trying to break down barriers with fledgling PMA users."

Wencor's Shields notes that regulatory agencies throughout the world have recently been including PMAs within bi-lateral agreements. "This is allowing more and more air carriers throughout the world to seek the advantages that PMA offers. The use of PMA is widespread in Europe and slightly behind the US. The Asia Pacific market for PMA is slowly increasing in line with our expectations and is dependent on the individual air carrier's situation," he says. A general theme has emerged: "The rate of PMA take up is directly related to the percentage of leased aircraft in a carrier's fleet — the higher the percentage of owned aircraft, the higher the use of PMA."

One result of the OEMs' continued increase in aftermarket share could be consolidation among the PMA companies. Dark says the push for total solutions could eventually lead to PMA consortiums or joint proposals, but these are only ideas at this stage. Most of the larger PMA companies are still active in making strategic acquisitions. "I think we're still seeing PMA companies consolidating and acquiring some of the smaller companies that add to their expertise and capabilities," says Dark. "I'd say at this point there are less than a dozen serious players, regarding test & computation PMAs."

However many players there actually are, they could not ask for a more controversial market within which to operate. ■