

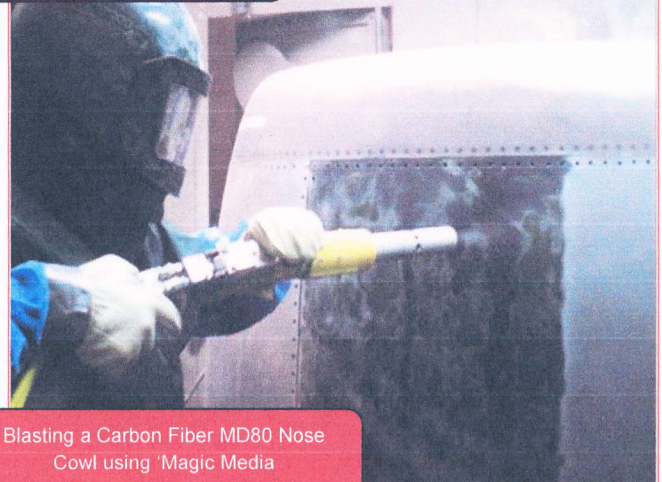
Teamwork helps Approve 'Magic' Blasting Process

By Mark Newgard - Materials & Manufacturing Engineering

Thanks to the support provided by Blasting Specialties, US Technology, and the teamwork and efforts of the Paint and Fiberglass Shop 279-3, Facilities Maintenance 209-5, CAM Cleaning Shop 272-1, and Engineering, AA now has a walk-in blast booth equipped for use in stripping paint from polymer composite parts. The 9'X9' booth uses Plastic Media Blasting (PMB), MIL-P-85891A, Type VIII media, developed by US Technology, called Magic Media II (30-60 mesh). This dry abrasive paint stripping process was identified as a possible alternative to hand-sanding almost a year ago by Paint and Fiberglass Shop employees Robert Fields and Dale Craig, who were instrumental in bringing this capability to AA.

Paint stripping by Magic Media II blasting is being done in accordance with Materials and Process Specification P02-73 – Paint Stripping Composite Parts by Plastic Media Blasting (PMB), which was recently released by Materials & Manufacturing Engineering. This specification establishes process and operator qualification requirements for each composite paint stripping application involving different paint and substrate combinations. The requirements established in this specification were derived from Boeing Document D6-55564 – Requirements for Alternative Paint Stripping Processes.

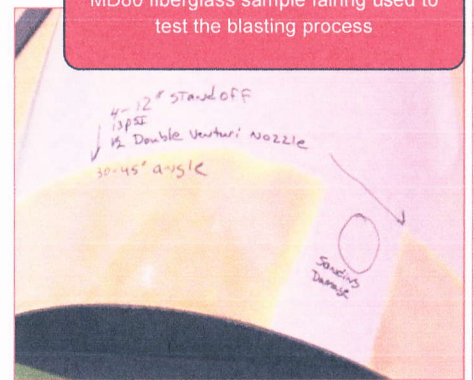
Paint and Fiberglass Shop employees were among those who received classroom and hands-on training from US Technology representatives during the week of April 20, 2009. They are now applying the techniques learned during these training sessions and are performing process development work required to identify critical process variable settings for each production application. The blast booth currently being used must be shared with cleaners in the CAM Cleaning Shop (272-1) who are performing general purpose plastic media blasting operations in accordance with Materials and Process Specification P02-54. The Paint and Fiberglass Shop is hoping that a successful production trial over the next several weeks will prove the viability of the Magic Media II paint stripping process and provide performance data needed to justify the purchase and installation of a walk-in booth dedicated to Magic Media II paint stripping applications.



Blasting a Carbon Fiber MD80 Nose Cowl using 'Magic Media'

Engineering and Production employees responsible for the maintenance and repair of composite parts are encouraged to contact the Paint and Fiberglass Shop and make arrangements to have their parts paint stripped by the Magic Media II process so they can see first hand how this process can be used to selectively strip layers of paint and primer or remove the entire coating system depending upon the requirements.

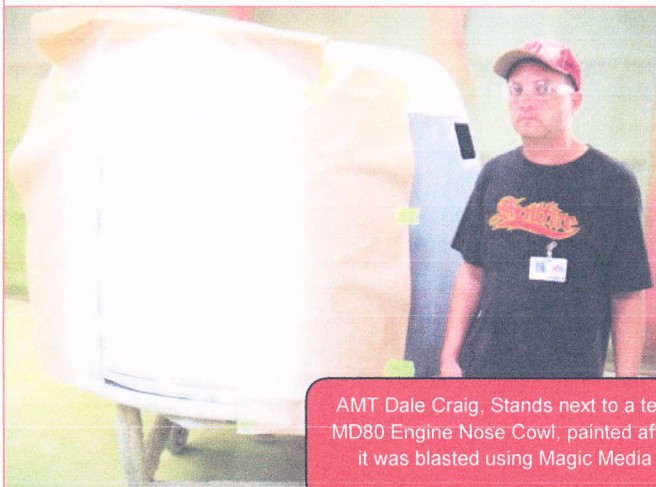
MD80 fiberglass sample fairing used to test the blasting process



A video showing paint being removed from a CH-47 Chinook helicopter rotor blade by Magic Media II blasting can be viewed at the US Technology website at www.ustechnology.com.

The Magic Media II blasting process is being used successfully to strip paint from composite parts in several military applications:

- Magic Media II is used to strip paint from the airframe of the B-1 Lancer bomber at Tinker Air Force Base (10% of the surface area of the B-1 is composite material).
- The airframe and main rotor blades of the CH-47 Chinook helicopter are stripped of paint using the Magic Media II process (main rotor blades are fabricated from fiberglass, titanium, and lightning strike materials).
- The Marine Corps Air Station at Cherry Point uses Magic Media II to strip paint from component parts fabricated from composite materials.



AMT Dale Craig, Stands next to a test MD80 Engine Nose Cowl, painted after it was blasted using Magic Media