

REMOTE ADVANCED REPAIR GUIDANCE

ABSTRACT

Systems and processes for enabling an off-site expert to interact with an on-site technician during repair of composite structure. The off-site expert can provide real-time guidance to an on-site technician before and during the performance of repair procedures to avoid errors. The off-site expert is also able to monitor the repair procedures in real time to verify that correct procedures are being employed. In particular, the systems and processes disclosed herein can provide direct visual guidance, feedback, and out-of-plan warnings for manual or automated scarfing and other operations during repair of composite structure. In some embodiments, the repair process combines optical three-dimensional surface measurement, illumination by at least one of visible, ultraviolet and infrared light, and digital light processing projection to provide step-by-step monitoring of the repair.

FIG. 3