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Nota di contenuto	1. Rationale and organisation / Rhys Jones [and three others] -- 2. Fatigue requirements for aircraft structures / Russell J.H. Wanhill -- 3. Typical fatigue-nucleating discontinuities in metallic aircraft structures / Simon A. Barter, Lorrie Molent, Russell J.H. Wanhill -- 4. Practical computational fracture mechanics for aircraft structural integrity / Daren Peng, Pu Huang, Rhys Jones -- 5. Crack growth from naturally occurring material discontinuities / Rhys Jones, Daren Peng, ALison J. McMillan -- 6. Adhesively bonded repair/reinforcement of metallic airframe components : materials, processes, design and proposed through-life management / Alan A. Baker, John Wang -- 7. Surface treatment and repair bonding / Andrew N. Rider, David R. Arnott, James J. Mazza -- 8. Analysis, design and assessment of composite repairs to operational aircraft / Rhys Jones, David Hui -- 9. Repair of multisite damage in civil transport aircraft : an example of the damage-tolerant design of composite repairs / Lorrie Molent, Rhys Jones -- 10. The F111C wing pivot fitting repair and its implications for the design/assessment of bonded joints and composite repairs / Lorrie Molent, Rhys Jones -- 11. Development and validation of bonded composite doubler repairs for commercial aircraft / Dennis Roach, Kirk Rackow -- 12. Computing the growth of naturally-occurring disbonds in adhesively-bonded joints / Wenchen Hu, Rhys Jones, Anthony J.

Kinloch -- 13. Delamination growth in polymer-matrix fibre composites and the use of fracture-mechanics data for material characterization and life prediction / Rhys Jones [and four others] -- 14. Introduction to supersonic particle deposition / Victor Champagne Jr., Neil Matthews, Victor Champagne III -- 15. Additive metal technologies for aerospace sustainment / Neil Matthews -- 16. Applications of SPD to enhance the structural integrity of corroded airframes / Rhys Jones [and four others] -- 17. Application of SPD to enhance the structural integrity of fuselage skins and centre barrels / Neil Matthews [and three others] -- 18. Multiplicative manufacturing and aircraft sustainment / Rhys Jones, Daren Peng, Neil Matthews.

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Sommario/riassunto

This book is a one-stop-shop for practitioners and researchers in the field of aircraft sustainment, adhesively bonded aircraft joints, bonded composites repairs, and the application of cold spray to military and civil aircraft.

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