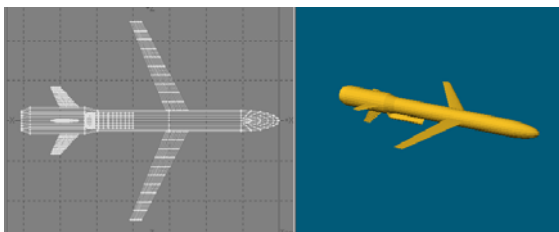


Military Aircraft

- Aircraft performance and weapon stores carriage and release loads assessment
- Simulated flyout performance and jettison subject to aircraft aerodynamic influence
- Assessment of structure loading and flutter modes of control surfaces
- Aeroelastic analysis and design/performance evaluation of towed body systems in the subsonic to supersonic mach regime
- Critical loads determination to support certification approval

Weapon Systems

- Design and performance assessment, on complete airframe aerodynamics for numerous weapon types including ground-to-air, air-to-air and air-to-ground missiles and rockets
- Design and performance assessment on target and weapon delivery drones for both conventional aircraft geometry and complex folded surface arrangements
- Aeroelastic work covering fixed and control surface flutter, in the high subsonic to supersonic mach regime. General aerodynamic experience includes aerokinetic heating extending to hypersonic weapon systems and associated methods of cooling. For control surface flutter, the actuation loop stiffness has been modelled to determine its influence on critical flutter speed
- Flight trials performance matching with software prediction (generated by MASS) undertaken for various weapon systems and light aircraft
- Wind tunnel programme definition and results processing
- Use of both classical and CFD (ANSYS) methods of analysis



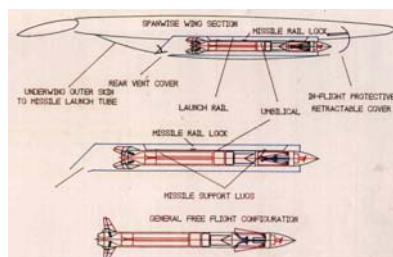
Civil Aircraft

- Control algorithm definition for the autoland Cat III system on the BAe 146 series aircraft, developed in conjunction with Honeywell of the USA
- Lighter than air craft and light aircraft assessment leading to performance and aerodynamic loads determination resulting in certification approval by the regulatory authorities



Building Aerodynamics

- Suspension bridge dynamic elastic analysis
- Aerodynamic behaviour of grandstand roof structures under oblique gust and shear wind loading
- Vortex induced 'galloping' and aeroelastic flutter and divergency trends have all been addressed during our structure analysis studies
- Aerodynamic/elastic design and performance assessment of wind powered generators



MASS is an independent UK Systems House with a strong Defence & Aerospace market focus, offering specialist skills in:

- Electronic Warfare
- Technology & Innovation
- Information Technology

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