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Abstract The Concurrent Engineering approach and the significantly reduced time slot for an

A/C development require an adaptation of the test process to cope with the resulting requirements. Due to the fact that the flight test phase is always the last step within the qualification and certification chain, a reduction of the flight test phase duration is only possible by intensive integration of the previous test and simulation activities. Based on the A/C system qualification and certification this paper should show how a highly integrated test process will support the provision of the necessary verification in the given time frame. The starting point therefore is a function based overall testing strategy at A/C level. This testing strategy should include all available test means like flight test A/C, ground test means incl. multi system integration test means. This top level testing strategy will be based on the multi-system level testing strategies. One focus of these multi-system level testing strategies will be to put as many tests as possible in the phase before first flight. Especially the tests regarding system maturity will provide a high potential to ensure a successful and effective flight test phase. The system maturity could be improved by a joint approach between all key players within the system development – system design office, system supplier, system integrator, test department, certification office. Therefore a constant information exchange, a coordinated test planning and interacting adaption of activities is absolutely essential. The basic approach therefore will be described in this paper.