NEW CONCEPTS IN UP- AND DOWNLINKS FOR FLYING VEHICLES

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INTRODUCTION

Unmanned, remote controlled vehicles are more common these days than they have been just five years ago.

The decision makers in the industrial and military field have recognized that remote controlled vehicles have, together with complex modern electronic systems, an excellent flexibility at fairly low costs.

Most of these vehicles are designed to operate completely autonomous, just controlled by a powerful onboard computer system. In military applications you would say "fire and forget".

To optimize these systems for their specific mission and to verify that they operate as expected it is essential to do a lot of real time simulation and online testing at real life conditions.

A powerful and highly reliable remote control equipment has been developed especially for this purpose whereby there is no difference whether using it for airborne or ground applications. Using this system you are able to completely remote control the unmanned vehicle and in parallel to receive all data from onboard sensors and systems. To fulfil the extreme safety requisitions of test centers all over the world a highly reliable and independent test termination system has been developed to still control the test mission even if you loose control over the vehicle itself.

The main target for test engineers is to "securely realize a insecure process within the boundaries of the test center".