PARAFIL®
The Ultimate Synthetic Rope

CASE STUDY

PROJECT
GLIDER LAUNCHING

HERON GLIDING CLUB, SOMERSET

PRODUCT USED
PARAFIL® TYPE A,
POLYESTER CORE YARN
1 TONNE NOMINAL
BREAKING LOAD

TERMINATIONS
SPECIAL DESIGN

HIGH STRENGTH SYNTHETIC CABLE PRODUCTS
PARAFIL® GLIDER LAUNCHING

HERON GLIDING CLUB, SOMERSET

Heron Gliding Club, situated at the Royal Naval Air Station in Somerset, use PARAFIL® to launch gliders from the runways by motor towing using a very powerful towing vehicle. The motor tow is conducted using a 600 metre length of Type A, 1 tonne PARAFIL® cable, one end of which is connected to a release mechanism on the vehicle and the other to the release hook on the glider. Once the PARAFIL® cable is connected to the vehicle and the glider, a sequence of radio signals is given by the pilot to take up the slack and then to the launch the glider. Having received the signals and removed the slack from the PARAFIL® cable the vehicle driver accelerates down the runway and the glider takes off and climbs to a height of some 1500 to 1700 feet.

The launch is terminated either by the vehicle driver reaching the end of the runway or the pilot reaching the maximum height achievable in the prevailing wind conditions. After initially accelerating to some 50mph to get the glider airborne the launch speed is controlled by the pilot passing 'too fast' or 'too slow' messages over the radio to the driver. When the pilot perceives that he has reached the maximum achievable height he releases the cable via a control knob in the cockpit. Should the normal release system malfunction, an automatic 'back release' mechanism within the hook will operate to release the cable.

Once released, the PARAFIL® cable is allowed to free fall to the runway where it is picked up by the vehicle and dragged back to the launch point ready for the next glider.

Parafil cable has been used by the club for more than 15 years. Each 600 metre length of PARAFIL® cable will normally survive being dragged over the very abrasive surface of the runways for some 800-900 launches, approximately 8 to 9 months of use, before having to be scrapped.

No other cable has been found to successfully support this type of launch operation.

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