

LAND ROVER IS APPLYING AUTOMOTIVE AERO EFFICIENCY TESTING TO AMERICA'S CUP BOAT DESIGN

Sophisticated computer analysis of the carbon fibre wingsail and airflow provides many new avenues of performance



REAR SPOILER GAPS CHANGE PROFILE OF AIR FLOW DOWN REAR SCREEN TO STOP DIRT ACCUMULATION

435

TOTAL NUMBER OF SIMULATIONS OR TESTS TO DATE

100 GB

DATA RECORDED PER SIMULATION OR TEST ON THE VEHICLE

35971

RECORDINGS OF LIFT, DRAG AND SIDEFORCE LOGGED PER SECOND

THE DATA EQUIVALENT TO WRITING 144000 WORDS OR 1 X NEW YORK TIMES



200 MILLION

COMPUTATIONAL CELLS ANALYSED PER TEST (I.E. SIMULATION POINTS) 10 MILLION MORE THAN THE DISCOVERY SPORT



15MM LOWERING

AT CONSISTENT SPEEDS ABOVE 65MPH VEHICLE LOWERS 15MM TO REDUCE DRAG

REDUCED DRAG

'AIR CURTAINS' HELP TO REDUCE DRAG AND IMPROVE AIRFLOW



11 RECORDINGS OF ENTIRE AIRFLOW LOGGED PER SECOND

LAND ROVER BAR

104

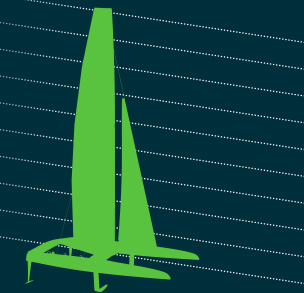
TOTAL NUMBER OF SIMULATIONS OR TESTS ON BOAT TO DATE

175 GB

DATA RECORDED PER SIMULATION

80 MILLION

COMPUTATIONAL CELLS ANALYSED PER TEST (I.E. SIMULATION POINTS)



POTENTIAL PERFORMANCE AND MANOEUVRABILITY GAINS

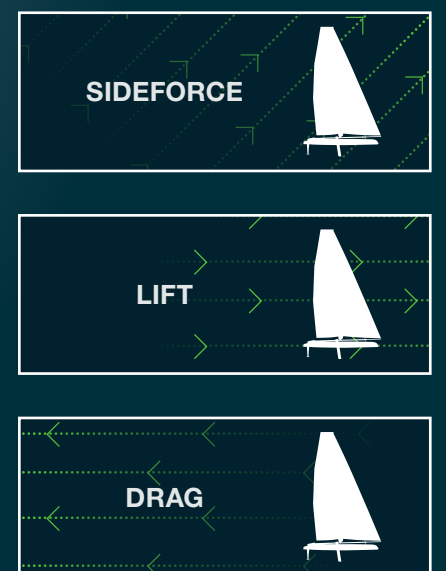


56

RECORDINGS OF LIFT, DRAG AND SIDEFORCE LOGGED PER SECOND

5.6

RECORDINGS OF ENTIRE AIRFLOW LOGGED PER SECOND



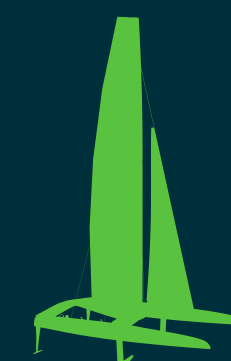
APPLICATIONS : AERO EFFICIENCY BENEFITS



MINIMUM DRAG OPTIMUM LIFT

REAR SPOILER GAPS = MORE EFFICIENT VEHICLE

ALL NEW DISCOVERY DELIVERS 10% DRAG IMPROVEMENT ON PREVIOUS VEHICLE



OPTIMUM STRAIGHT LINE PERFORMANCE

PERFECT MANOEUVRE (TACK/GYBE)

MINIMUM WEIGHT