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EXPERIMENTS IN FLYING RESEARCH

A drama of man against the unknown, a gamble with death to pick up an airman by a 'plane in flight. Courageous volunteers risked their lives to make this test - the first of its kind.

Slow motion cameras show how the airman is whisked off the ground and swept skyward by the rescuing 'plane.

The human pick-up offers an escape lifeline for airmen stranded where a rescue aircraft can't land.

Another volunteer helps Empire scientists to keep ahead of the enemy in air combat. This airman is fitted with recorders to indicate his blood reaction, his brain and heart waves, in this test with a flying suit designed to combat the dreaded "Gs" which produce mental blackout when manœuvering at high speeds. Sudden changes of direction increase the action of centrifugal force on pilots - many of whom "black out" at 5 G - or five times the normal pull of gravity. To test the airman's ability to fire at a moving target under "g" conditions, and also test his physical and mental reactions, the mechanism is set in motion with the exterior lights out, so that the airman does not get dizzy.

Blood pressure readings are taken and when the almost Wellsian contraction stops, a recording machine has marked all the airman's reactions of mind and body - on a chart.

O.K. let's go. This time it's the real thing without the anti-"g" suit.

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Subjected to 5 "G", the airman's cheeks and chin sag. He blacks out; his answer to the observer's light signals are made by pushing a button under his thumb.

Getting into the suit looks a bit like a dressing-room in the '90s. but once laced and buttoned up, and the suit filled with air, he will continue to answer the light.

5 "G" - No black-out.

New water is put into the suit for the final test and this time the airman is able to take 7 "G" for five seconds without once blacking out.

Here we have seen scientific brilliance applied to war purposes. To-day's laboratory experiments are the everyday things of to-morrow.

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