

## HYPOXIA HELPED !

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The ill effects of hypoxia are well known. At its worst, it is a killer; at its best, it results in insidious loss of efficiency. Here is a case, however, in which hypoxia helped - at least it saved an aircraft.

A pilot of a Vampire on an exercise, climbed to 32,000 feet (oxygen was switched to "high" at 25,000 feet) levelling off at this altitude. After about  $\frac{1}{2}$  minute, bluish-black smoke suddenly filled the cockpit. It appeared as if the smoke was being pumped in.

The smoke got inside his 'H' type mask and its pungency caused a strangling feeling in his throat.

He naturally thought the aircraft was on fire and decided to bale out. He wrenched off his mask, undid his safety harness, disconnected his R.T. and oxygen tube (having informed his leader of his plight) and thought he had jettisoned the hood. He then inverted the aircraft and let go.

He last remembered hitting his head on the canopy and vaguely realized that the hood had not gone off. The next thing he knew was that the aircraft was in a dive at 18,000 feet and his home airfield was straight ahead. There was no smoke in the cockpit and the hood was gone. His left hand was numb and he couldn't use it.

However he managed safely to land the aircraft using his right hand only.

He estimates that from the time that the smoke appeared in the cockpit to the time he lost consciousness was about 40 seconds.

Investigation showed that the smoke generated into the cockpit was due to the burning of the felt lining of the Marshall blower. By wrenching off his oxygen mask he subjected himself to acute anoxia and the effort at baling out was sufficient to cause loss of consciousness in a little over  $\frac{1}{2}$  minute. The extensor skin surfaces of the inter-phalangeal and metacarpo-phalangeal joints of his left hand were blistered. This was probably due to frostbite as he must eventually have succeeded in jettisoning the canopy and tried to clamour out of the aircraft on the port side, getting his left hand out of the cabin. He wore no gloves.

Had he not become anoxic, he would probably have got out of the aircraft and the aircraft would have been written off.

The points brought out by this incident are:—

- (a) The importance of switching oxygen on to "Emergency" under such circumstances.
- (b) That the oxygen should be disconnected last when baling out at altitude.

- (c) Pilots should ensure correct and tight fit of oxygen masks.
- (d) The importance of wearing full protective clothing - gloves etc.

But the intriguing question that it is desired to ask is this. Assuming he had successfully bailed out at 32,000 feet, retaining consciousness - when would he have pulled the rip cord?

SUBORBITAL