Summary

Stress is cited as one of the most urgent problems that has been undertaken by psychologists in the past forty years. It's practical ramifications extend to most aspects of human life and work, both individual and social. In study of stress the ergonomist occupies a central position. The relationships between man and his environment that form the stuff of ergonomics are both the causes and result of physiological and psychological processes in individual. It seems plausible to infer from this discussion that level of work is influenced by the amount of work done. In other words, the quality and quantity of work done is determined by the workload or the length of work. Thus the workload is a kind of stressor (Kakimoto, 1984). The present investigation was designed to verify the ergonomic principle stating that the effect of workload is similar to the effect of stress. Two levels of both i.e. mental and physical workload were taken and the following hypotheses were formulated.

Hypotheses:
1. Low mental stress would increase CFF threshold.
2. CFF threshold would decrease as a result of high
mental stress
3. Low mental stress would improve performance on hand steadiness task.
4. Compared to no stress high mental stress would lead to performance decrement on hand steadiness task.
5. Low physical stress would increase CFF threshold.
6. High physical stress would result in lowering of CFF threshold.
7. Low physical stress would lead to improved multiplication output and hand steadiness performance compared to no stress condition.
8. High physical stress would lead to decreased multiplication output and hand steadiness performance compared to no stress condition.

For the testing of these hypotheses two experiments employing two randomised before-after design were conducted on a sample of total 40 Ss selected randomly from post-graduate students of M.D. University. The first experiment was conducted to study the effect of low and high level of mental stress on CFF and hand steadiness performance. In the second experiment the effect of low and high stress was studied on CFF threshold, multiplication output and hand steadiness.
In experiment I, it was observed that low level
of mental stress increased the CFF threshold and
level of performance on hand steadiness. The high
level of mental workload had a different effect
and it lowered the CFF and performance level.

Similar kind of changes were observed in
performance and CFF as a result of low and high
levels of physical workload. Low level of physical
workload stress improved the multiplication output
and handsteadiness performance. An increase in
CFF as a result of low stress was also observed. The
high level of physical workload, on the other hand
decreased CFF thresholds and performance on
handsteadiness and multiplication task.

It can be thus concluded that the effect of low
and high level of workload (both physical and mental)
was similar to the effect of other kinds of stress.