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EKG Recording - Gars

autonomic nervous system

Background.

As noted in the introd the A.N.S. exerts a great influence on activity of the heart both in timing of its actions and strength of them. The question of ANS effects in SMS is still open and in an effort to gain some insight into this a measurement of two cardiac timing parameters ~~are were requested~~ by EKG were scheduled. These parameters reflect powerful ANS control as well as other factors.

Procedures & operations:

Both heart rate and delay of the activation of the ventricles by the atria may be measured on a beat to beat basis by the EKG R to R & P to R intervals. Comparisons were to be made ~~during~~ pre-flight, in-flight and during SMS and after recovery.

To make recording as simple as possible a standard Holter EKG recorder was slightly modified such that the internal ~~code~~ and timing ~~chks.~~ ran continuously and the ~~data~~ remainder of the ^{recording} circuitry would be activated by pressing a button in the end of an ~~and~~ handle which also served as an electrode. ^{Fig. 1} ~~and~~ If the other hand holding a similar electrode an EKG

containing the adequate P & R waves would be recorded in a noisy but usable form. ~~This also~~ Time shown on the recorder clock was recorded ^{at the time of making the record} and since this time is encoded on one channel of ~~the~~ recorder the tape could be identified and analyzed post flight ~~when~~ ^{after} graphically recorded ^{ing} by a companion play back unit.

P-R and R-R intervals are recorded determined using standard criteria.

Results - Preflight training and base line data ~~was~~ were normally obtained as was one recording on MD-3. Since SMS was over there was no value in the data.