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Paragraph # 5.

Memo for Ops Record

Subject: "Personal Equipment Staff Visit to EAFB and Del Rio AFB".

NEW SEAT PACK (FOR EJECTION SEAT)

All efforts in seat pack design for project use must be directed towards a singular configuration for all units. This aspect of course is but supplementary to safety, comfort and survival requirements already outlined in discussions and specifications dating to project inception.

The new seat pack will be of smaller dimensions than the presently used seat pack due to smaller dimensions of the seat pack well in the ejection seat. This will require the local manufacture of a light weight wood or metal positioning device for the new seat pack whenever it is used in the old (cold) seat. Seats, cold or hot are to be interchangeable in each project assigned aircraft. The quantity of survival gear to be carried in the new seat pack will be less than previously carried in the old seat pack.

All hoses protruding from new seat pack will do so from the left rear corner. This will necessitate repositioning of the oxygen regulator from placement presently recommended in the F.O.G. new seat pack design. Regulator placement is to be in the rear left corner with the emergency O<sup>2</sup> cylinder against rear wall of seat pack. The press to test will be positioned at the left front corner of the pack midline between top and bottom of hard pan and as close to the corner as engineering practices will permit.

The present type aero tech quick disconnect and hose connections will continue to be used. The ship mounted female aero tech quick disconnect is to remain unchanged in position and type.

Acceptance of the new seat pack will not require modification of any component system of the aircraft. LAC engineers have subjected the components of the old seat pack to ground test ejections. All reports have indicated adequacy and success.

An automatic method to activate the O<sup>2</sup> supply at time of ejection has not yet been devised to work in conjunction with the cockpit left console ship mounted aero tech quick disconnect. In the interim period awaiting this capability, the pilot will be required to manually activate the emergency supply prior to ejection. The emergency supply will not meter oxygen until ejection is accomplished regardless of what time the emergency O<sup>2</sup> supply is alerted prior to ejection. This is a desirable feature.

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The new seat pan is reported to lack comfort. The discomfort has been considered serious enough to be noted in the aircraft discrepancy log by the majority of pilots having used the pan in excess of 2 hour periods. The P.E. section of WRSP-4 will determine the exact shortcomings relative to comfort and pursue improvements through attempts in tilting seat pack assembly, cushions, or if necessary redesign of seat pan.

One seat pack will be modified through joint efforts of LAC and WRSP-4 P.E. personnel to incorporate two each type F 2400 O<sup>2</sup> regulators enjoined to a manual regulator selector. Selections will permit activation of #1 or #2 or both regulators. It has long been the contention of the pilots that a single O<sup>2</sup> regulator to serve for both normal and emergency O<sup>2</sup> purposes to be short of desirability. It is understood that this modification will provide psychological assurance to the pilots and possibly other benefits. It is also understood that the modification of coupling two oxygen regulators in but an R & D effort for 1 seat pack at this time. Weight penalty is calculated at between 30 to 40 ounces.

The new seat pack will be equipped with standard hooks for attaching to B-5 parachute, 1 inch medium density foam rubber pad, extending 1/2 inch forward of seat pack front edge, cloth covered with pad to seat straps and seat pack anti flail bailout harness.

The survival equipment pouch is to be of the present design.

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