AEROSTAR™
INTERNATIONAL, INC.
"Ballooning's Leader Since 1960"

SERVICE BULLETIN #124

July 19,

SUBJECT: All AFT suspension cables, Proper Care and Handling

APPLICABILITY: All new Aerostar systems with AFT suspension, including retrofits, and all Raven systems with AFT retrofit suspensions.

PROBLEM: A significant number of AFT cable singles and pairs have been returned to Aerostar for any of five reasons:

1. Heat damage of silicone covering in areas adjacent to burner, particularly on 2-pt suspension, but can occur on Rally suspension (possible, but less likely on 4-pt suspensions).

2. Cable thimble bending at lower end of 2-pt cable with consequent visible cutting of Kevlar core fibers.

3. Slippage/ripping of silicone covering away from ends near cable termination exposing black urethane covering over core.

4. Tearing or abrasion of silicone/fiberglass covering.

5. Cracking of teflon buffer at lower end of 4-pt cables, at loop of termination

CAUSE/EFFECT:

1. The heat damage of the covering can only occur if there is a flame spur present or there is a high degree of radiant heat present. This is an indication that the burner is seriously out of flame alignment. Update nozzles are necessary to tighten the flame the best.

2. The bending of the thimble occurs when the cable end becomes twisted during inflation and locks in this twisted position. The force is significant enough to mis-position or completely dislodge the thimble in the end. If not caught during inflation, this can cut the fibers of the cable where the shackle contacts the cable (See Drawing A). The corrective action is to check all of the cables where they meet the shackle during inflation to ensure they are not twisting and jamming. If this has already occured with a cable, inspect the thimble area for cutting of the

black covering and possibly the Kevlar. If evidence of Kevlar damage is present, the cable must be replaced.

3. The slippage or ripping from the heat-shrunk end of the silicone/fiberglass shell is caused when the outside shell is gripped and pulled with a force of around 100 pounds. It is easy to repair with a dab of Vyna-Bond adhesive. If it has merely slipped, jam some adhesive under the heat shrink and around the end of the cover and slide it back in place. This tends to hold rather well. If it has ripped away, again use Vyna-Bond adhesive to glue it back in to place.

4. Tearing or abrasion occurs when the crew steps on or grinds into the ground, the cable during inflation. On landing, the cable can snag on a quick release pin on the superstructure or can twist with the balloon and become snagged on the burner support nuts. The solution is to correctly educate the crew on handling of the AFT cables, and for the pilot to keep an eye on the cables immediately after landing to ensure they are not allowed to snag on the burner or elsewhere.

5. The teflon buffer should theoretically never wear out, but under certain conditions could crack and allow the black Kevlar covering to pull through and wear on the suspension fitting. In case this occurs, return the cable to the factory for evaluation for repair/replacement.

INSPECTION: It is important to exercise proper care for the AFT cables. The covering does damage easier than their steel and stainless steel counterparts. The good news is that most damage is field repairable as discussed in the above steps. Before every flight, it is extremely important to inspect your cables on each point discussed above applicable to your balloon. It is not necessary to log an inspection in the aircraft logbook after each pre-flight.

DRAWING A: