



industries, inc.

December 14, 1979

SERVICE BULLETIN 111

REDUCTION OF FORCE REQUIRED TO OPERATE PARACHUTE TYPE TOP VENTS

Recent tests have shown that the force required to initially dislodge the Velcro positioning tabs which hold the Raven parachute top in place may in some cases be in excess of the maximum of 75 lbs. which is permitted by Federal Aviation Regulation 31.57B. Tests have shown that this condition can be satisfactorily corrected by effectively reducing the amount of Velcro which is used to connect the parachute top to the balloon envelope at each of the 24 positioning tabs. On a new balloon, the area of engagement of the Velcro should be no more than 1" square at each of the 24 tabs.

In order to bring Raven balloons having parachute tops into compliance, the amount of Velcro hook on each of the 24 4" long positioning tabs must be reduced by shaving off all but the center 1" of the hook using a razor blade or sharp knife. These tabs are located near the top opening of the balloon, inside the envelope.

We emphasize that THIS PROCEDURE APPLIES ONLY TO THE VELCRO POSITIONING TABS ON PARACHUTE TYPE TOPS.

NOTICE

TO: Raven Parachute Top Owners, Distributors and Dealers,
Balloon Repair Stations

FROM: Larry J. Manderscheid, National Sales Manager

Enclosed is a copy of Service Bulletin #111 which should be self-explanatory.

The FAA has advised us that they will be issuing an Airworthiness Directive making it mandatory for owners to comply with this Service Bulletin. Work should be accomplished in accordance with the directions in the Service Bulletin and a Log Book entry must be made by an authorized Repair Station.

If there are any questions regarding this matter please contact me or the Raven Engineering Department.

We regret any inconvenience this may cause to Raven Owners.



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SERVICE BULLETIN 111

Revision A

Rev. A, April 3, 1980
Supplementary to Service
Bulletin 111 dated
December 14, 1979

Recently manufactured balloons having parachute tops with 4" long vertical positioning tabs are in compliance with FAR 31.57B and need not be modified. These balloons have a full 4" of hook and pile and should be left as such with NO SHAVING OF EITHER HOOK OR PILE NECESSARY OR INTENDED. This includes all balloons manufactured and tested at Raven Industries on or after March 13, 1980.

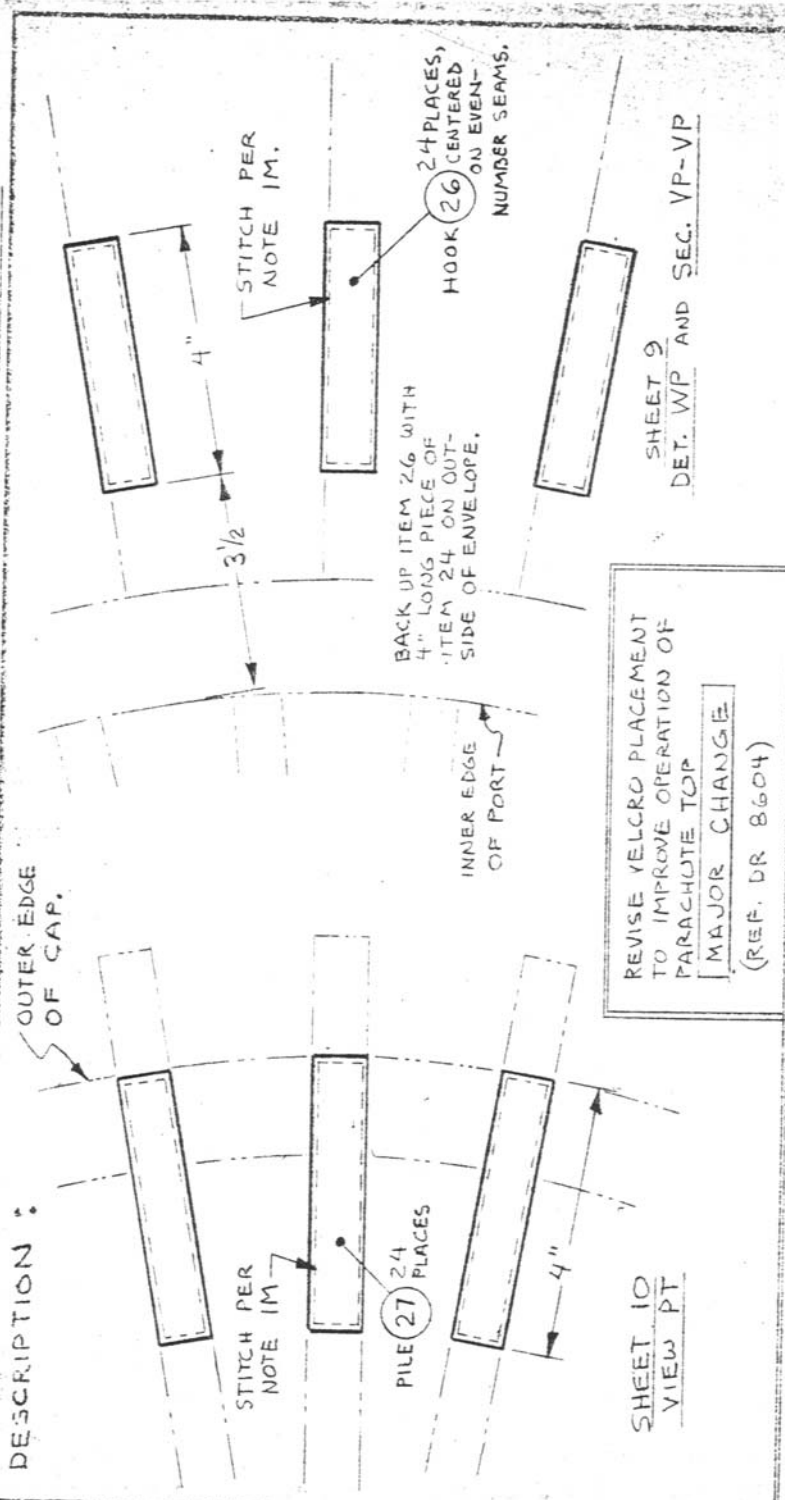
THIS DESIGN IS ALSO APPROVED AS A FIELD MODIFICATION TO BALLOONS MANUFACTURED PRIOR TO MARCH 13, 1980. The modification procedure is as follows:

Remove the pieces of Velcro hook located directly below the deflation port and relocate by sewing the 4 inch long 1 inch wide pieces of Velcro hook in position such that the 4 inch pieces of Velcro hook are located vertically on the even numbered half gore seams with one end located 3½ inches and the other end located 7½ inches from the edge of the deflation port. This positioning of the pieces of Velcro hook is oriented 90° from that of the original design.

Remove the pieces of Velcro pile located on the parachute top and relocate by sewing the 4 inch long 1 inch wide pieces of Velcro pile in position such that one end of the 4 inch pieces of Velcro pile is located even with the edge of the parachute top and that the other end of the four inch piece of Velcro pile is located four inches from the edge of the deflation cap. Again, this new positioning of the Velcro is oriented 90° from that of the original design.

In addition to the above methods, equivalent methods as approved by the Chief, Engineering and Manufacturing, Federal Aviation Administration, Rocky Mountain Region, are also acceptable. Contact Engineering and Manufacturing Branch, FAA Rocky Mountain Region, 10455 East 25th Avenue, Aurora, Colorado, 80010, telephone (303)-837-2897.

DRAWING AMENDMENT NO. 145 SH. 1 OF 1 DATE 3-25-80 1K



DESCRIPTION :

OUTER EDGE OF CAP.

STITCH PER NOTE 1M

PILE (27) 24 PLACES

SHEET 10 VIEW PT

STITCH PER NOTE 1M.

BACK UP ITEM 26 WITH 4" LONG PIECE OF ITEM 24 ON OUT-SIDE OF ENVELOPE.

HOOK (26) 24 PLACES, CENTERED ON EVEN-NUMBER SEAMS.

SHEET 9 DET. WP AND SEC. VP-VP

REVISE VELCRO PLACEMENT TO IMPROVE OPERATION OF PARACHUTE TOP
 MAJOR CHANGE
 (REF. DR 8604)

CHANGE BASIS (WHY, WHO ETC)
 DR 8604

FAA APPROVAL

BY D.E.R. DATE

EFFECT ON PARTS

IN STOCK: THIS CHANGE IS OPTIONAL FOR UNITS NOW IN SERVICE.
 IN SERVICE: ✓

DWG. TITLE
 ENVELOPE, S-55A

DWG. NO. D-11813 REV. AG

DISPOSITION: DATE DWG REV. LTR. DG-1230 REV LTR.