

DOCKET NO. SA-539

EXHIBIT NO. 17-B

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

AIRWORTHINESS GROUP ON-SCENE BALLOON CABLE EXAMINATION

(9 Pages)

(3 Pictures)

Road

Loose Strands (2)

FRONT OF THE BALLOON

12

11

10

9

8

7

- BASKET BASE
- **Metallic lower outer frame**
- Wood Composite Flooring
- Rutan (wicker sides)
- 6 crossing stainless steel cables (12 free ends) thru frame & under wooden base which pass up thru eyelets on the upper roof metallic frame and attach to the burner frame at 8 hard points
- The basket/burner assembly is 3 tiers of metallic frames (2 for the basket assembly and 1 burner support)

6

5

4

3

2

1

POWER LINES

Basket Load Cable Ends at the Lower Frame Examination

1. Material discoloration due to heat/fire and features consistent over stress failure
2. Material discoloration due to heat/fire, features consistent over stress failure and possible evidence of strand fusing
3. Material discoloration due to heat/fire, features consistent over stress failure and possible evidence of strand fusing
4. Material discoloration due to heat/fire, features consistent over stress failure and possible evidence of strand fusing
5. Material discoloration due to heat/fire, features consistent over stress failure and possible evidence of strand fusing
6. Material discoloration due to heat/fire, features consistent over stress failure and possible evidence of strand fusing
7. Material discoloration due to heat/fire and features consistent over stress failure
8. Material discoloration due to heat/fire, features consistent over stress failure and possible evidence of strand fusing
9. Material discoloration due to heat/fire, features consistent over stress failure and possible evidence of strand fusing
10. Material discoloration due to heat/fire and possible evidence of strand fusing
11. Material discoloration due to heat/fire, features consistent over stress failure and possible evidence of strand fusing
12. Material discoloration due to heat/fire and possible evidence of strand fusing
13. Loose strand (1), one has features consistent with over stress failure the other has Material discoloration due to heat/fire and evidence of strand fusing and arcing along a portion of its length
14. Loose strand (2), one has features consistent with over stress failure the other has Material discoloration due to heat/fire and evidence of strand fusing

Envelope and attached burner frame



8 (4 cables to balloon and 2 to basket)

7 (3 cables to balloon and 1 to basket)

6 (3 cables to balloon and 1 to basket)

5 (4 cables to balloon and 2 to basket)

- **Burner support frame** was located in another pasture downwind of the main wreckage site
- It is of metallic construction
- It was upside down
- It has 8 hard points for attaching the six basket cables and the 14 balloon stainless steel load cables (total of 28 free ends)
- 14 cables each wrapped around an eyelet at the burner support frame
- At balloon there are 4 free ends of balloon load cable attached
- At the frame there are only 2 free ends. 2 of the cables are joined together creating only two attachments to the frame for the 4 cables
- One carabiner is used to attach to the frame hard point and has the basket cable ends attached to it and another carabiner is attached to that carabiner with the balloon stainless steel load straps attached to it
- SEE INCLUDED CABLE CONNECTION DIAGRAM FOR BASKET HARD POINT TO BURNER SUPPORT FRAME HARD POINT RELATIVE POSITION CORRELATION

4 (4 cables to balloon and 2 to basket)

3 (3 cables to balloon and 1 to basket)

2 (3 cables to balloon and 1 to basket)

1 (4 cables to balloon and 2 to basket)

F
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POWER LINES (reference only)

Basket and Balloon Cable Ends at the Burner Support frame

1. Both carabiners, the two balloon load cable and basket cable eyelets exhibited material discoloration due to heat/fire. Both of the balloon load cables at the frame were severed. The 2 free ends of one balloon load cable eyelet had features consistent over stress failure. The other balloon load cable exhibited evidence of strand fusing. (What are the balloon load strap #'s?) Both basket attach cable ends had material discoloration due to heat/fire. One exhibited features consistent over stress failure and the other exhibited features consistent strand fusing and over stress failure.
2. Both balloon eyelets had material discoloration due to heat/fire and the other exhibited features consistent strand fusing. The basket attach cable had material discoloration due to heat/fire and the other exhibited features consistent strand fusing. The red carabiner exhibited evidence of arcing.
3. The eyelet with one balloon cable exhibited evidence of strand fusing. The other eyelet with the wrapped cable only had one free end visible and exhibited features consistent with over stress failure and strand fusing. The basket attach cable had material discoloration due to heat/fire and the other exhibited features consistent strand fusing.
4. Red shrink wrapped cables indicating the front right corner of the basket. All 4 free ends exhibited features consistent with overstress failure, exhibited multiple permanent curved deformations versus pure straight cable and wire fraying, evidence consistent with abrasion along their length and possible strand fusing. (What are the balloon load strap #'s? One of the basket attach cables exhibited features consistent over stress failure and the other exhibited features consistent evidence of strand fusing.
5. All 4 balloon load cables remained attached to the balloon at balloon load straps 22, 23, 24 & 25. Both basket attach cable ends had material discoloration due to heat/fire. One of the basket attach cables exhibited features consistent over stress failure and strand fusing the other exhibited evidence of strand fusing.
6. All 3 balloon load cables remained attached to the balloon at balloon load straps 26, 27 & 28. The basket attach cable end exhibited material discoloration due to heat/fire and exhibited evidence of strand fusing.
7. All 3 balloon load cables remained attached to the balloon at balloon load straps 1,2 & 3. The basket attach cable end exhibited material discoloration due to heat/fire and exhibited evidence of strand.
8. All 4 balloon load cables remained attached to the balloon at balloon load straps 4,5,6 & 7. Cables are frayed and abraded along their length. One basket attach cable end material discoloration due to heat/fire, features consistent over stress failure and possible evidence of strand fusing the other exhibited features consistent over stress failure.

Removed Load Support Cables

1. The cable was intact.
2. The cable was intact.
3. The cable was intact.
4. The cable was intact.
5. The cable was intact.
6. The cable was intact.
7. The cable was intact.
8. The cable was separated and the separation exhibited discoloration and strand fusion.
9. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation had a broomstraw appearance.
10. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation had a broomstraw appearance.
11. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation had a broomstraw appearance.
12. The cable was separated, the cable had witness marks consistent with arcing, the separation exhibited discoloration and strand fusion.
13. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation exhibited strand fusion.
14. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation exhibited strand fusion.
15. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation exhibited strand fusion.
16. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation exhibited strand fusion.
17. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation exhibited strand fusion.
18. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation had a broomstraw appearance.
19. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation exhibited strand fusion.
20. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation exhibited strand fusion.
21. The cable was separated and the cable exhibited discoloration, witness marks consistent with arcing, and the separation exhibited strand fusion.
22. The cable was intact.
23. The cable was intact.
24. The cable was intact.
25. The cable was intact.
26. The cable was intact.
27. The cable was intact.
28. The cable was intact.

Burner frame placed on floor



Diagram on burner frame

