

CW-502  
A-021  
RED

FRONT SPAR

This section of the front spar is located between CW-501 on its right side, and CW-504 on its left side. The upper and lower connections separated along the radius of the upper/lower skin/spar chords. The sides separated by a tearing action. The panel extends from LBL 17 to LBL ~~61.66~~ 73.00.

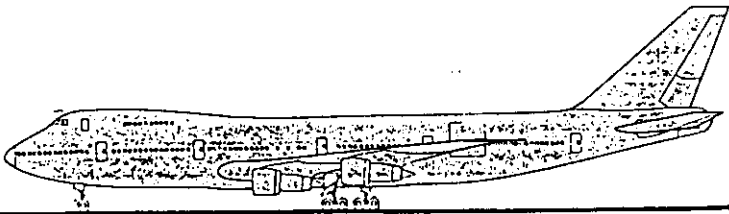
The front spar web is bowed forward in the middle about a vertical axis and all the stiffeners remain attached to the web. The stiffeners at LBL 33.89, 41.77, and 49.6 are crushed 13"-15" from the upper shear ties. The aft flange and the stiffener web around this area is crushed forward. The associated front spar web is bowed forward. The upper shear ties of the stringers separated from the upper skin and the "L" shaped upper chord fractured at the chord radius. The lower shear ties of the stiffeners separated from the lower skin.

The direction of failure of the upper and lower shear ties are documented in the shear tie study which determined that the stiffeners of this section of the front spar moved in forward direction.

There is no evidence of any pre-existing cracking or corrosion to this section of the front spar.

*SD GREEN*  
*12-06-96*

*W. M. 12-6-96 WA*  
*Stephen F. Maphan*  
*FMA 12-6-96*  
*R. Giacchetti JAM 12-6-96*  
*AA Reimer BOEING 12/7/96*



LOG # CW-502

TARGET # LL551(A021)

COORD: LAT 40 38 44.96

LONG 7239 08.97

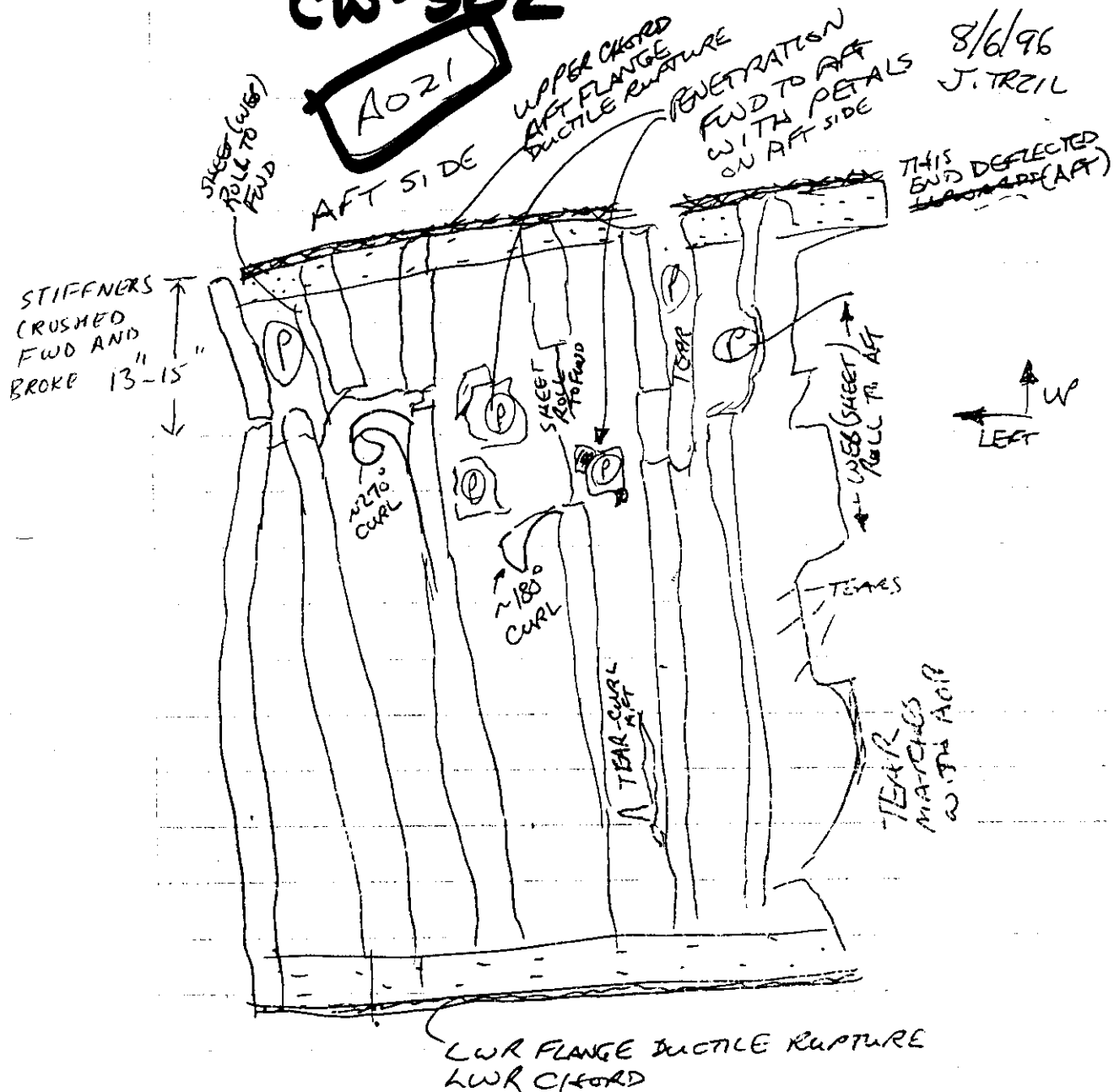
~~FRONT SPAR~~  
FRONT SPAR  
WING CENTER SECTION

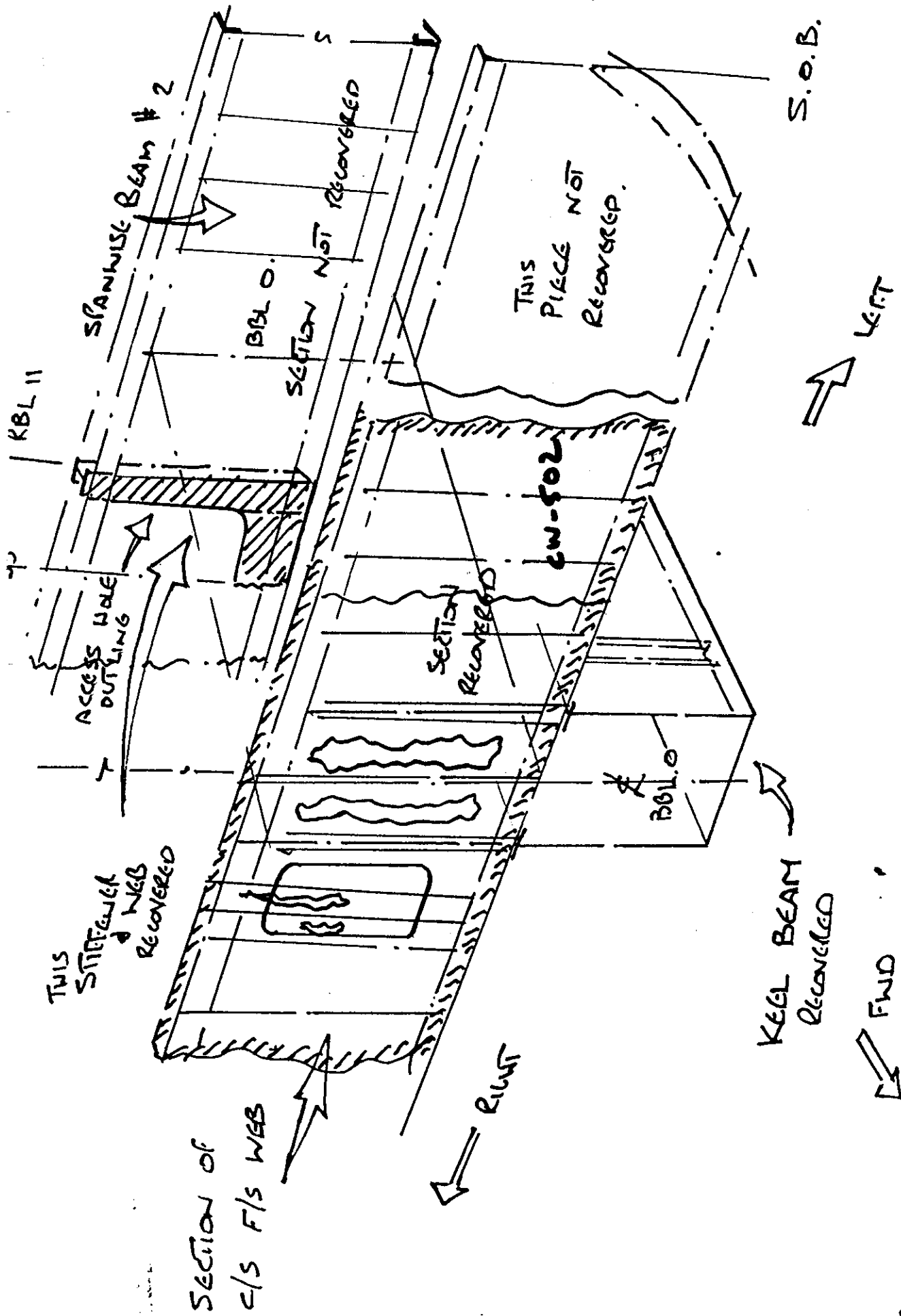
DEBRIS FIELD # 3 (RED)

**CW-502**

**A021**

8/6/96  
J. TRCIL





NOTE SPANWISE BEAM NO 3 NOT SHOWN  
 FOR CLARITY. AND NOT RECOVERED

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