

*Peery*

## 12 METER MILLIMETER WAVE TELESCOPE

MEMO No. 194

TO: J. W. FINDLAY

FROM: L. J. KING *Lj King*

SUBJECT: ANALYSIS OF 12M REFERENCE JIG ON 2 SUPPORTS

THE DEFLECTION CALC OF THE REFERENCE JIG (R/J) IS BASED ON

(1) 12M DRAWING #87D00005.

(2) R/J SUPPORTED AT TWO ENDS ONLY.

(3) R/J MODEL CONSISTED OF

14 JOINTS --- 2 SUPPORTS &amp; 12 TRANSDUCER CONTACT PTS.

13 MEMBERS --- PROPERTIES OF EACH UNIFORM MEMBER ARE  
BASED ON AN AVG SECTION OF ITS TWO ENDS.THE DEAD LOAD DEFLECTIONS OF THE R/J DUE TO THE ROTATION  
FROM HORIZONTAL TO 17.886 DEGREE TILTED POSITION ARE:

SECTION NO.		DEFLECTIONS W.R.T. SENSOR AXIS	
		PARALLEL TO	PERPENDICULAR TO
1		15 MU	-1 MU
2		28	-2
3		40	-4
4		49	-7
5		53	-10
6		51	-13
7		44	-15
8		43	-15
9		32	-17
10		19	-18
11		7	-19
12		-6	-19

NOTE: SENSOR AXIS ANGLE = CONTACT ANGLE  
OF MEMO #187 (8/21/82).

MU = .001 MM.

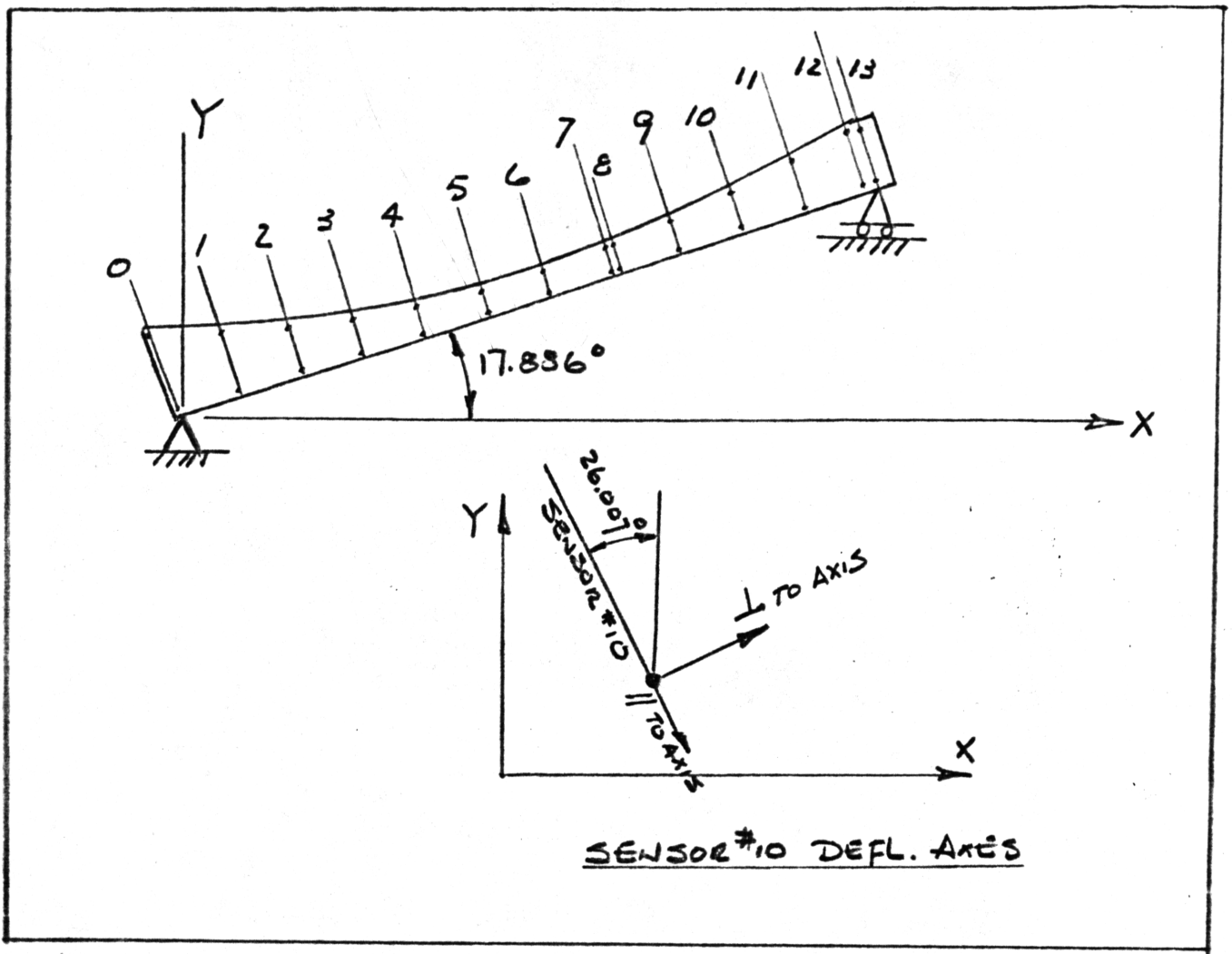


FIG. 1. R/J GEOMETRY AND DEFLECTION AXES