

# VLBA ACQUISITION MEMO #265

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

HAYSTACK OBSERVATORY

WESTFORD, MASSACHUSETTS 01886

10 July 1991

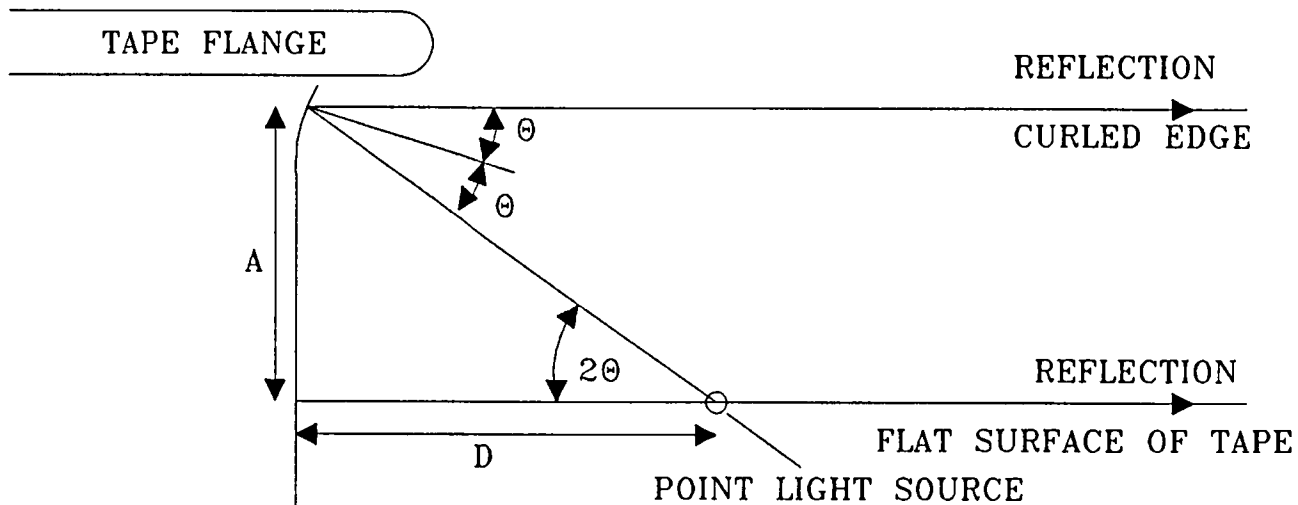
Telephone: 508-692-4764

Fax: 617-981-0590

To: VLBA Data Acquisition Group  
From: Alan E.E. Rogers  
Subject: Simple method of measuring the edge curl

Edge curl is the precursor of a loose and bumpy tape pack. Thickening of the edges (now thought to be due to prolonged high speed running on the transport) results in the curling of the tape edges (see Memos 228, 229, 232). The degree of edge curl, indicating the condition of the tape edges, can be measured by observing the reflection of a penlight filament on the backcoat of a reel of tape as follows:

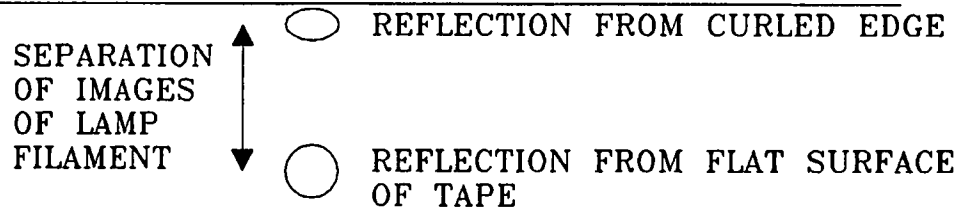
- 1] Be sure the top layer of tape is tight. If necessary unstick zebra tape, tighten and refasten.
- 2] Place a penlight about 1" from tape and simultaneously observe the reflections from the tape edge and the flat portion of the reel pack.
- 3] Note the separation of the images for both inner and outer edges of the tape - see attached figure for geometry.



$$\theta = A/(2D) \quad \text{FOR EYE AT DISTANCE } \gg D$$

D CHOSEN TO BE APPROX 1"

ON GOOD TAPE  $A < 0.125"$  OR  $\theta < 3.5 \text{ DEG}$



SIMPLE METHOD FOR MEASUREMENT OF THE AMOUNT OF EDGE CURL