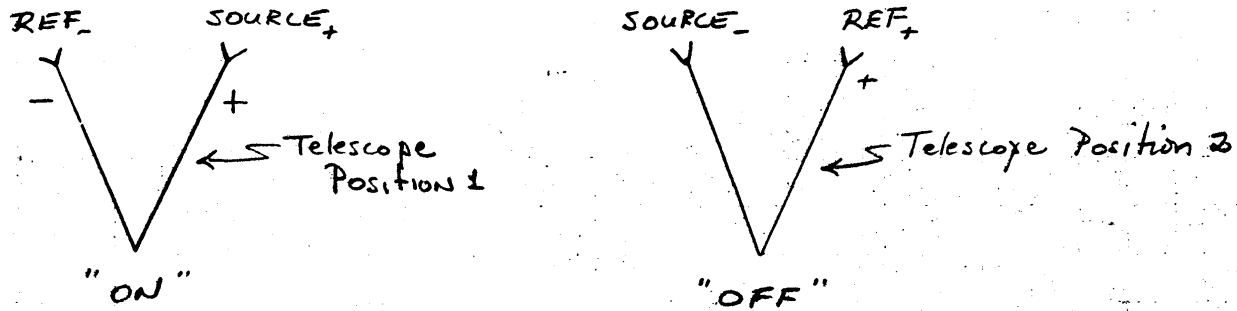
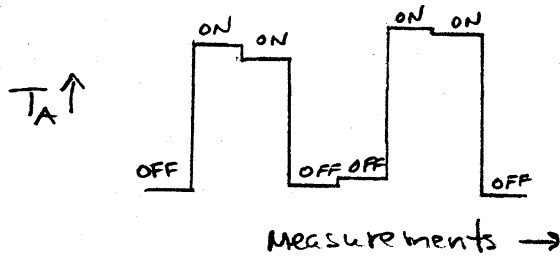


PROCEDURE FOR OBTAINING  $OFF_+ - OFF_-$  FOR

BEAM SWITCHING OBSERVATIONS



Observations are made with the source alternately in the (+) beam and the (-) beam in the pattern OFF-ON-ON-OFF. This cycle of 4 measurements is called "1 Repeat." Sequences of these repeats can be displayed with the scannumber S command in CONDAR and have the form



.....  
 The average difference between "ON" and "OFF" is  $\approx$  twice the source  $T_A$ .  
The numbers stored in the computer and displayed on the terminal screen by the S command have been divided by 2 to account for this.  
 In addition, the OFF's are zeroed.

The source antenna temperature  $\langle T_A \rangle = \sum_{i=1}^{2n} T_A(i)$

for  $n$  repeats, where

$$T_A(i) = \left[ \underset{\text{"ON"}}{\text{SOURCE}_+ - \text{REF}_-} - \underset{\text{"OFF"}}{\text{REF}_+ - \text{SOURCE}_-} \right] / 2$$

By changing the sign in the middle of the above eqn to +, we obtain

$$\text{REF}_+ - \text{REF}_-$$

i.e., the difference between the two sky positions used for reference.

PROCEDURE OFOF (XSCAN)

GET (XSCAN) SLENGTH XSUM = 0

FOR I = 1 TO NPOINTS / 2.

DIFFOFF = TWH (I \* 2 + 127, 2) + TWH (I \* 2 + 128, 2).

XSUM = XSUM + DIFFOFF

END

AVXSUM = 2. \* XSUM / NPOINTS

PRINT 'AVERAGE OF OFF-OFF = ', AVXSUM

RETURN; FINISH