

\*MUR1\* BANK 2 - MUON HIT STATUS BANK.  
FOR EACH HIT A 2-BYTE WORD PACKED AS FOLLOWS...

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STRUCTURE OF HLUN    BIT...15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0  
                         0 0 0 0 0 0 0 0 A B C D X Y Z T L  
                         .....THIS BIT NUMBERING RUNS OPPOSITE TO IBM CONVENTION  
                         I.E. MACHINE SEES 'L' FLAG IN BIT NO. 15.  
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HLUN	0	=	0	IF LONGITUDINAL COORDINATE IS 'INVALID'
		=	1	IF LONGITUDINAL COORDINATE IS 'VALID'
HLUN	1	=	0	IF TRANSVERSE COORDINATE IS 'INVALID'
		=	1	IF TRANSVERSE COORDINATE IS 'VALID'
(I.E. MOD(HLUN,4) = 0 ---> BOTH COORDS. BAD				
= 1 ---> LONG. COORD OK ( TRANS. COORD. BAD)				
= 2 ---> TRANS COORD OK ( LONG. COORD. BAD)				
= 3 ---> ALL OK				
HLUN	2	=	0	IF Z COORDINATE IS 'INVALID'
		=	1	IF Z COORDINATE IS 'VALID'
HLUN	3	=	0	IF Y COORDINATE IS 'INVALID'
		=	1	IF Y COORDINATE IS 'VALID'
HLUN	4	=	0	IF X COORDINATE IS 'INVALID'
		=	1	IF X COORDINATE IS 'VALID'
HLUN	5	=	0	IF Z COORDINATE IS NORMAL
		=	1	IF Z COORDINATE IS EITHER DRIFT OR LONG.
HLUN	6	=	0	IF Y COORDINATE IS NORMAL
		=	1	IF Y COORDINATE IS EITHER DRIFT OR LONG.
HLUN	7	=	0	IF X COORDINATE IS NORMAL
		=	1	IF X COORDINATE IS EITHER DRIFT OR LONG.
HLUN	8	=	0	IF HIT 1 HAS BEEN LOST (BECAUSE OF HIT 4)
		=	1	IF ALL OK
..... BIT 8 FLAG IS ONLY MEANINGFUL FOR HIT1.				

NOTE: THE 1<sup>ST</sup> SET BIT(OF 5,6,7) IS ALWAYS THAT FOR LONG. COORD.

NOTE: ONE CAN USE TBIT, ONE OF THE FORTRAN H SPECIAL FUNCTIONS  
INVOKED BY THE OPTION XL, BUT NOTE THAT THE BIT NUMBERING IN TBIT  
IS THE OTHER WAY ROUND. E.G.  
TBIT(HLUN(IHIT),14) IS TRUE IF DRIFT COORDINATE IS OK.  
TBIT(HLUN(IHIT),15) IS TRUE IF LONGITUDINAL COORDINATE IS OK.  
AN EXAMPLE FROM MUFFLY SETS THE LOGICAL VARIABLE BADL AS FOLLOWS..  
BADL=.NOT.TBIT(HLUN(IHIT),15)

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