



Product Manager Firefinder
U.S. Army Communications-Electronics Command
Fort Monmouth, New Jersey 07703-5000

Maintenance Bulletin

AN/TPQ-36 and AN/TPQ-37 Radar Systems	FILE NO:	156	REVISION:	
	DATE:	6/20/00	CATEGORY:	Maintenance
SUBJECT:	Tilt Sensor Alignment			
	SYSTEMS AFFECTED:	All		

1. Reference: TM 11-5840-380-23-1, TM 11-5840-354-20-1, and TM 11-5840-355-20-1.
2. Summary of the problem: Tilt Sensors are aligned to the radar antenna when installed. BX and BY values are determined from this alignment and become part of the radar's initialization data. Current documentation procedures do not guarantee that the BX and BY values being used are truly those of the tilt sensor installed on the antenna. This issue is further complicated when radar antennas are swapped between shelters.
3. To improve the tracking of Tilt Sensor alignments the use of the following label is being added to the alignment procedure. It is to be filled out during the alignment and attached to the transmitter power distribution panel near the hour meters (Q-36) or on the inside of the tilt sensor access door (Q-37). This label can be made locally though it may eventually be available from the depot.

TILT SENSOR SERIAL NUMBER:	DATE:
BX:	BY:

4. This alignment is also being added to the Organizational PMCS to be done annually for verification.
5. It is important that all crews verify these values when they receive a new antenna. Unless the label is present and the serial number matches the serial number of the tilt sensor installed on the radar there is no assurance that the BX and BY values are valid. It is strongly recommended that crews do this alignment for themselves.
6. Alignment tips:
 - a. Adhere to the instruction in the procedure to "ride" the antenna during the alignment. Getting off the antenna is enough to disturb the level and result in incorrect BX/BY values.
 - b. If the alignment is done in the field, consider doing it again in a garrison environment protected from wind and other weather conditions.
 - c. Remember the quality of your work will affect the accuracy of your radar.

APPROVED BY LOGISTICS MANAGER: Walter Tyson, PMFF DATE: 6/21/00