

HEADQUARTERS<sup>1</sup>  
568<sup>TH</sup> SIGNAL AIRCRAFT WARNING BATTALION  
APO 86

RFN:njk  
2 August 1945

UNNUMBERED )  
:  
MEMORANDUM )

Standard Operating Procedure for MEW and AN/TPS-10  
Operation During the Calibration and Final Installation Period

(This memorandum supersedes Unnumbered Memorandum, this headquarters, dated 6 July 1945.)

In order to take full advantage of all radar facilities available, it is believed that the low angle coverage and intercept capabilities of the MEW, during the period it is being calibrated and permanently installed should be used whenever possible. This will be accomplished as follows:

1. Radar Reporting

- a. Equipment – Two PPI scopes will be made available for reporting to the ADCC. The range will be set at 20-70 miles and each operator will report 180 degrees. A wire line from one interrogator will be paralleled to the AN/TPS-10 and will give identification and heights at the request of an Identification plotter located at the ADCC.

2. Radar Intercept

- a. Equipment – One PPI scope with Azdicator attachment will be made available to the controller. The second interrogator will be used by the controller. A wire circuit will be furnished to the AN/TPS-10 from the Intercept scope. A Craig Computer and Intercept Table will be operated for the convenience of the controller.

3. Personnel

1 Crew Chief  
2 PPI Scope Operators

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<sup>1</sup> The 568<sup>th</sup> SAW Bn. was located on Iwo Jima during this time period.

1 Intercept Scope Operator  
2 AN/CPX Operators  
1 Plotter Computer  
1 AN/TPS-10 Operator

#### 4. Duties of the Crew

- a. Crew Chief – the Crew Chief will supervise the operations of other members of the crew to insure that all information is being properly reported. He will rotate members of the crew through all positions at twenty (20) minute intervals except the PPI Operator on the intercept position during an actual interception. He will be responsible for recoding all bogey aircraft and special requests of the Radar Operations Officer.
- b. PPI Scope Operator – Will report all targets in his assigned sweep using polar coordinates.
- c. Intercept Scope Operator – Will assist the Controller in performing the interception. He will operate the Azdicator and furnish additional information to the AN/TPS-10 Operator when necessary.
- d. Interrogator Operators – One Interrogator Operator will be used by the Controller and report directly to the Intercept position. The other Interrogator Operator will be on a common wire line with the AN/TPS-10 and the Identification Plotter at the ADCC. He will interrogate aircraft at the request of the Identification Plotter at the ADCC.
- e. Plotter Computer – Will assist the Controller during an interception by plotting information on targets and fighters and any other information requested by the controller.
- f. The AN/TPS-10 Operator – Will wear a special head and chest set wired with one earphone to the Intercept position and the other to the Identification Plotter. His transmitter will be equipped with a switch allowing him to talk on either circuit. He will give heights to both the Intercept Scope Operator, who will operate the Azdicator and report range, and to the Identification Plotter at the ADCC upon request. In case of conflict on request for heights, he will give priority to the Intercept Scope Operator.

#### 5. MEW Operation

- a. Operation will be on a twenty-four (24) hour day schedule.
- b. Maintenance time will be taken on the MEW as required at times agreeable to the calibration officer and the MEW technical officer. Maintenance time on the AN/TPS-10 will be taken at

times agreeable to the calibration officer, AN/TPS-10 technical officer and the Radar Operations Officer.

- c. At least one interrogator will be kept on the air at all times for use by the Identification Plotter.
- d. Calibration requirements will have priority on all equipment. During calibration, normal operations will continue as far as available equipment permits.
- e. When two PPI Scopes are being used for reporting, one will cover 20-70 miles from 270° to 90° and the other will cover the sector from 20-70 miles from 90° to 270°. In case of breakdown or light traffic and only one scope is being used, it will report 20-70 miles for 360°.
- f. All reporting to the ADCC will be in polar coordinates from the station.
- g. The Crew Chiefs' log sheets will be forwarded daily to S-3, this headquarters, so as to arrive not later than 1000 the following day.

#### *6. ADCC Operation*

- a. Personnel – One plotter to be known as Identification Plotter will be furnished. This should cause no increase in requirements due to the fact that Agate 9 has been released from operations.
- b. Communications – The two plotting lines from the MEW, one covering the north sector and one covering the south sector, will be maintained. A jumper will be made at the ADCC which will permit tying these lines together if necessary. A plotting position will be furnished at the plotting table for the Identification Plotter. Monitoring positions for both reporting lines and the Identification Plotter line will be provided for the Radar Operations Officer.
- c. Operations –
  - (1) Plotters will use arrows for plotting as prescribed in VII Fighter Command Memorandum 100-12.
  - (2) Polar coordinates will be used exclusively for plotting MEW information.
  - (3) Each MEW plotter will filter his own plots.
  - (4) The Identification Plotter will use the interrogator at the MEW to maximum advantage for confirmation or more detailed information desired on any identification. Since the AN/CPX interrogator has a 250 mile range, it may be used to good advantage in determining the identification of flights beyond the interrogator of other radar stations. He will use the AN/CPX interrogator immediately on new plots of short range. He will request heights from Abner

1 when necessary, remembering that Abner 1 has a range of approximately sixty (60) miles. He must also remember that the primary mission of Abner 1 is to supplement information received from Abner 7.

BY ORDER OF LIEUTENANT COLONEL CHABERLIN:

ROBER F. NEWMAN  
Captain, Signal Corps  
Executive

OFFICAL:

/S/  
ROBERT F. NEWMAN  
Captain, Signal Corps  
S-3

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