

Radar Set AN/ARQ-8 is a combination search receiver and jamming transmitter designed for airborne operation against enemy communications in the frequency range 25-105 mcs. It may be used against enemy radar systems operating within its frequency range.

The function of the receiver portion of the equipment is to accurately set the jamming signal of the transmitter on the frequency required. The receiver and the transmitter are simultaneously tuned to the same frequency by means of a single search control.

For spot jamming the frequency of the equipment is preset to a 5 mc. band within its frequency range prior to take-off. The output of the narrow band pre-amplifier consists of random RF noise voltages. The noise signal is mixed with the signal from a JAN 6V6GT local oscillator tube. The resultant output has the carrier suppressed and consists of two noise sidebands either of which may be selected, amplified and radiated as the jamming signal.

For barrage jamming a wide band pre-amplifier strip is furnished to replace the narrow band pre-amplifier strip to enable the equipment to furnish a barrage type noise signal with about 4 mc. bandwidth. For this type of operation the receiver portion of the equipment is not used since the barrage band is set prior to take-off and the equipment continuously jams over the pre-set portion of the frequency spectrum.

Power is obtained from an 80/115 volt 400-2600 c.p.s., a.c. and a 28 volt d.c. source.

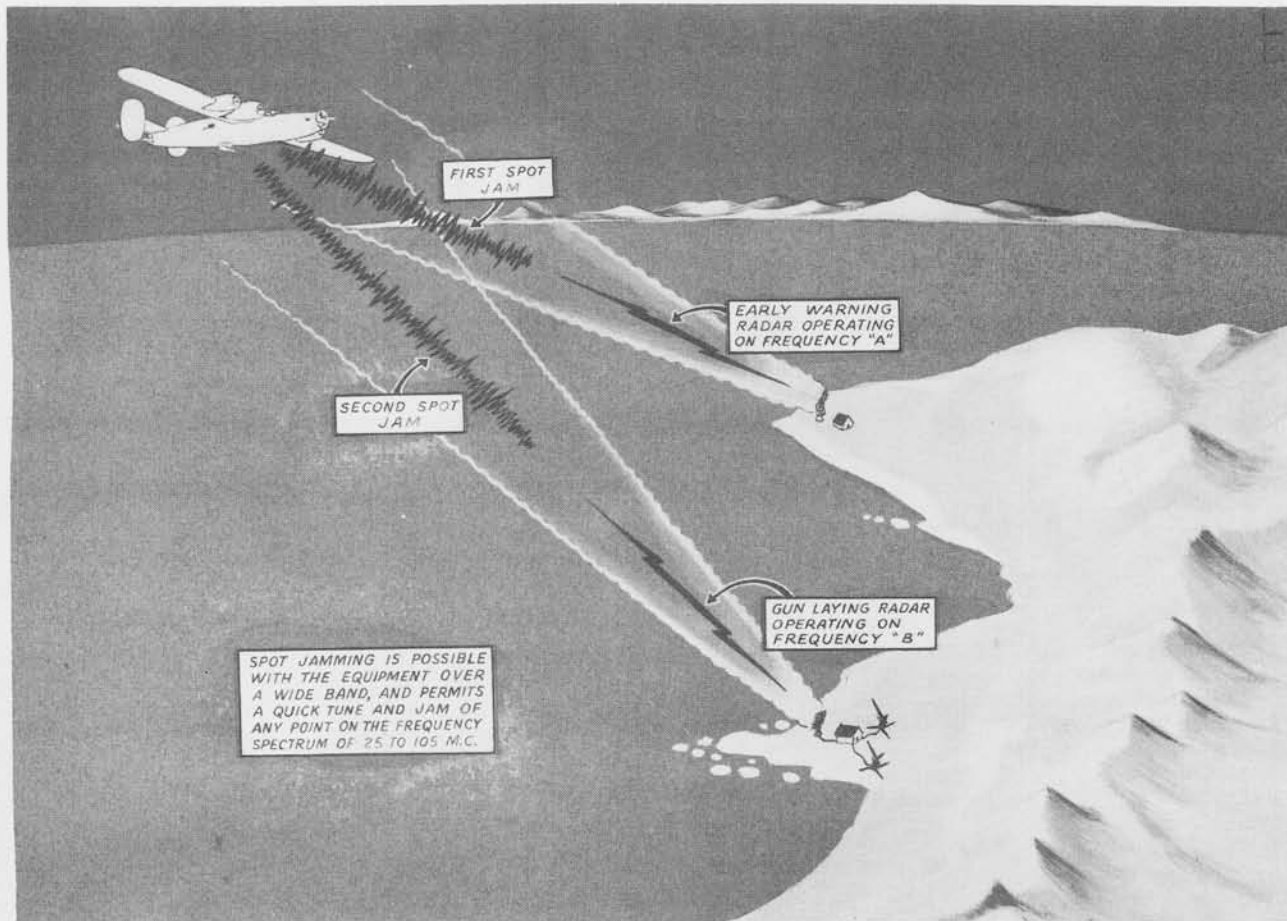
Test equipment required for the maintenance and tuning of the equipment includes Test Set I-139-A, Signal

Generator TS-47/APR, Radio Frequency Wattmeter TS-118/APR, Pickup Assembly TS-131/AP, Test Set I-56-K, General Radio Signal Generator type GR 804C and Hickok Voltmeter type 110.

Army Supply Program requirements as of 1 October 1944 were 1,335 for the calendar year 1944 and 2,152 for 1945.

POWER INPUT	400 WATTS
POWER OUTPUT	30 WATTS
FREQUENCY	25-105 MCS.
TYPE OF SIGNAL	CLIPPED NOISE, SUPPRESSED CARRIER
SENSITIVITY	200 MICROVOLTS FOR 10 MILLIWATT OUTPUT
SELECTIVITY	3 DB AT 100 KC FROM RESONANT FREQUENCY

TUBE COMPLEMENT			
NO.	TYPE	NO.	TYPE
1	9001	3	6C4
1	6SQ7	2	6AK5
3	6SG7	1	931A
1	6AG7	3	6AC7
1	5Y3GT	1	829B
2	5Y4G Y	1	832A
2	6Y6GT	1	6SN7GT
1	884		



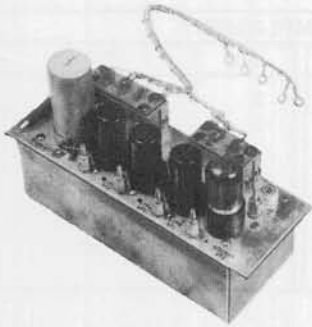
Radar Set AN/ARQ-8 is an airborne selective radar jamming equipment capable of rapid switching of jamming frequency when the enemy resorts to evasive changes in radar frequencies to counteract jamming operations.



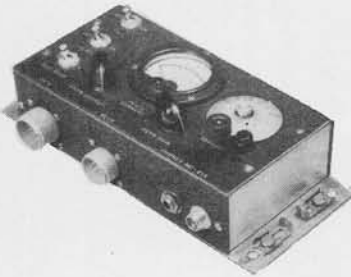
Radio Transmitter T-51/ARQ-8



Radio Receiver R-58/ARQ-8



Pre-amplifier Strip AM-23/ARQ-8



Control Unit C-93/ARQ-8



Antenna Assembly AS-150/ART



Antenna Assembly AS-161/ART



Antenna System AS-97/ART



Antenna System AS-89/ART

RADAR SET AN/ARQ-8

TOTAL WEIGHT 100 LBS.

Component	Nomenclature	Size	Weight
Tuning Shaft	MC-215		
PreAmplifier Strip	AM-22/ARQ-8	10" x 4" x 7"	3 Lbs.
PreAmplifier Strip	AM-23/ARQ-8	11" x 4" x 7"	4 Lbs.
Transmitter	T-51/ARQ-8	8" x 11" x 22"	35 Lbs.
Receiver	R-58/ARQ-8	8" x 5" x 22"	20 Lbs.
Control Unit	C-93/ARQ-8	4" x 5" x 10"	3 Lbs.
Mounting Base	MT-171/U	3" x 11" x 22"	3 Lbs.
Mounting Base	MT-167/U	3" x 6" x 22"	3 Lbs.
Mounting Base	MT-191/ARQ-8	2" x 5" x 10"	1 Lb
Antenna System	AS-89/ART	72" Long	4 Lbs.
Antenna System	AS-97/ART	54" Long	3 Lbs.
Antenna Assembly	AS-150/ART	30" Long	3 Lbs.
Antenna Assembly	AS-161/ART	40" Long	3 Lbs.
Antenna Matching Section	CU-50/ART	6" x 5" diameter	2 Lbs.
Antenna Matching Section	CU-51/ART	6" x 5" diameter	2 Lbs.

and includes cables, plugs and adapters, etc.