

UNCLASSIFIED

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AN/CPN-3

Radio Set AN/CPN-3, is an air transportable radar beacon for ground installation, designed to provide range, direction and identification for the homing of planes equipped with search radars. 10 cm band.

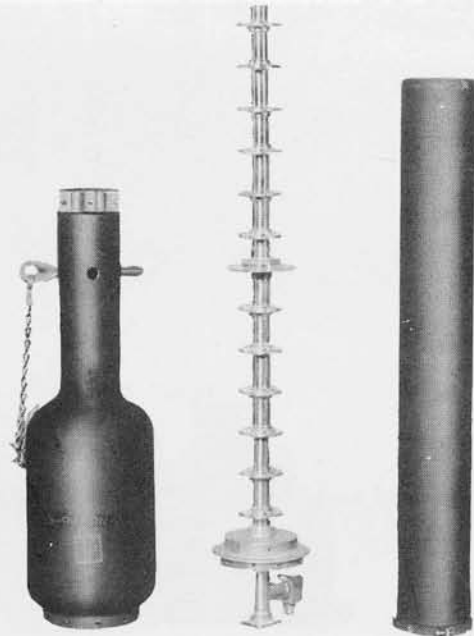
When attempting to home on this equipment, the aircraft equipped with airborne search equipment switches from radar "search" to "beacon" position. The signals from the aircraft, when received at the beacon, actuate the beacon transmitter, causing a group of coded pulse signals to be generated and transmitted to the aircraft where they appear as echoes on the indicator of the radar equipment. The distinctive keying or pulse grouping of the beacon signals identifies the beacon to the homing aircraft.

Performance, in general, has been good, and these beacons are in operational field and training use. In the British Isles, the beacons are operated in pairs, one automatically being put into operation by the failure of the other. An over interrogation gate and local interference eliminator have been incorporated in the system.

This equipment uses separate receiving and transmitting antennas; each a linear array of six elements of three horizontal dipoles, curved and equally spaced about a point.

It is expected that Radio Set AN/CPN-3 will be replaced by Radio Set AN/CPN-8.

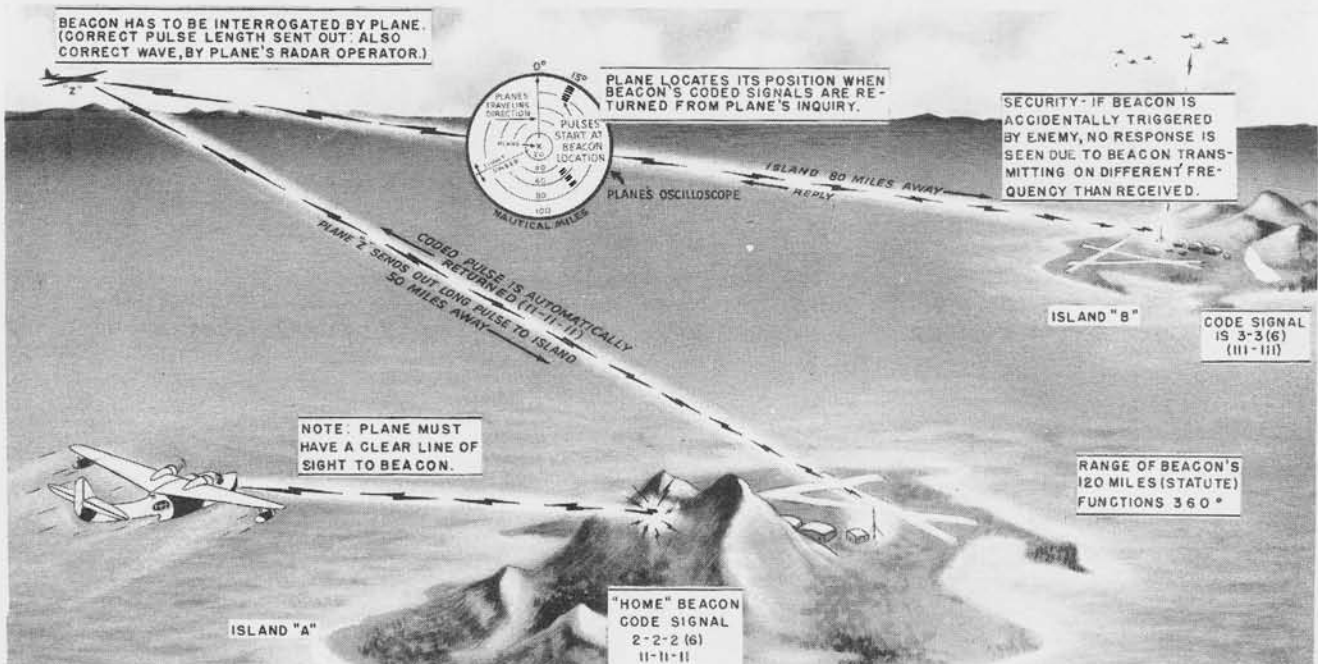
Test equipment required in the maintenance and tuning of this equipment includes Voltmeter IS-189, Test Set TS-14/AP, Synchroscope TS-28/APN, Phantom Antenna and Attenuator TS-74/UPM, Voltage Divider TS-89/AP, Wavemeter TS-111/CP.



Mast Head AS-9/CPN-3

TUBE COMPLEMENT			
NO.	TYPE	NO.	TYPE
2	417A	1	VR-150-30
3	5U4G	1	2AP1
2	5Y3GT	1	6X5GT
8	6AC7	1	2J37
1	6H6	2	304TH
3	6L6G	1	829
4	6SJ7GT	2	1616
17	6SN7GT	2	8020
1	6Y6G	2	VR-90-30
1	VR-105-30	2	6AG7

POWER INPUT	1.7 KW @ 115 VOLTS
POWER OUTPUT	10 KW (PEAK)
FREQUENCY	TRANS. 3256 MC. REC. 3267 - 3333 MC
TYPE OF SIGNAL	CODED PULSE
TYPE OF PRESENTATION	RANGE CODED DISPLAY ON RADAR SCREEN
DATA SUPPLIED (TO AIRBORNE SET)	BEACON IDENTIFICATION, RANGE AND AZIMUTH FROM BEACON
MAXIMUM RANGE	LINE OF SIGHT TO 100 MI.
PULSE LENGTH	0.5 MICROSECONDS

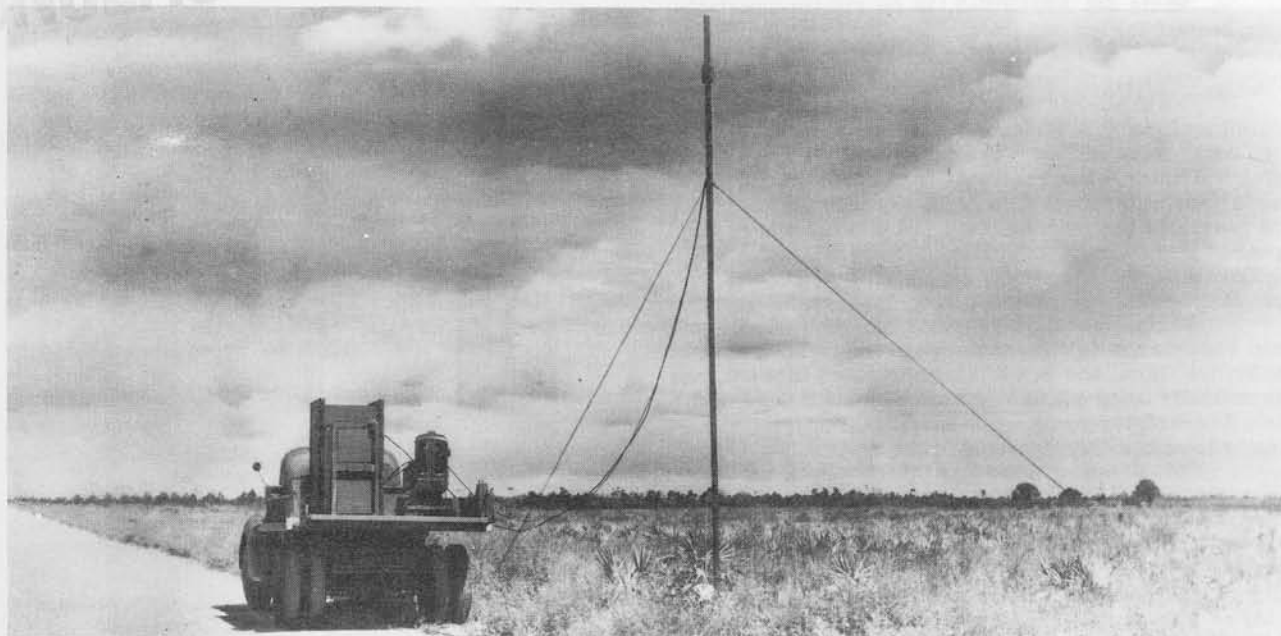


Radio Set AN/CPN-3 is an air transportable radar beacon designed to provide range, direction and identification for the homing of 10 cm band ASV radar equipped aircraft.

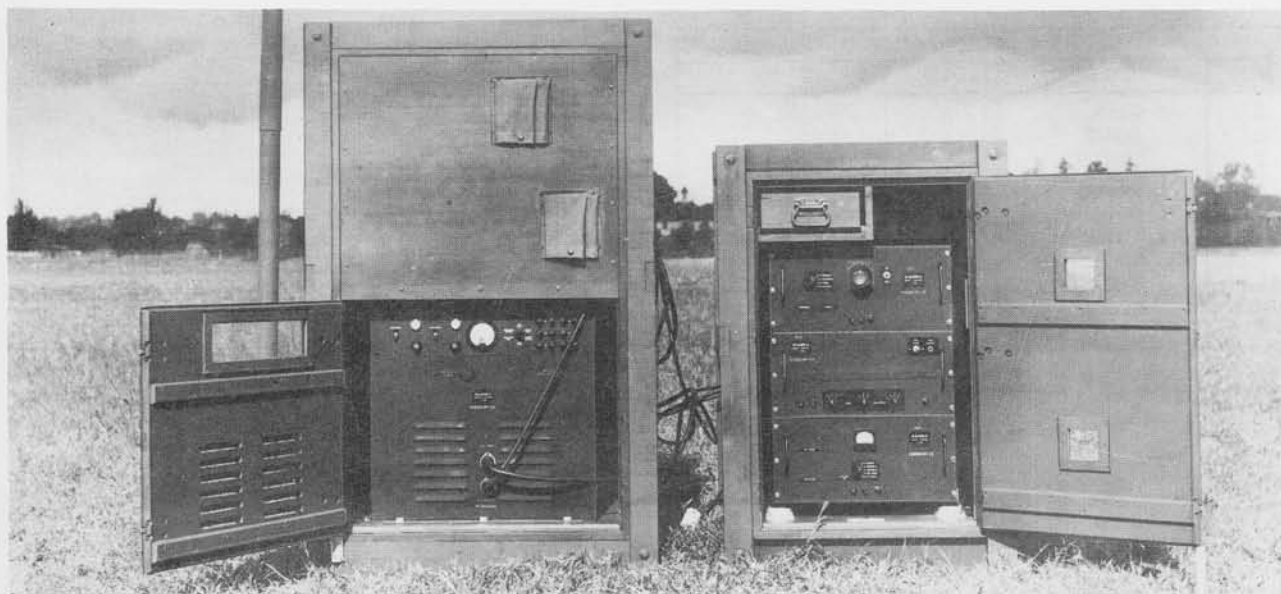
July 1945

Section 4 - Graphic Survey

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Radio Set AN/CPN-3 in rear of truck.



Radio Set AN/CPN-3 front view, doors of housings open.

RADIO SET AN/CPN-3

TOTAL WEIGHT 1400 LBS.

Component	Nomenclature	Size	Weight
Radio Receiver	R-11/CPN-3	8" x 18" x 13"	53 Lbs.
Coder	KY-1/CPN-3	8" x 19" x 13"	40 Lbs.
Monitor	ID-13/CPN-3	8" x 19" x 13"	27 Lbs.
Radio Transmitter	T-8/CPN-3		
Power Supply	PP-8/CPN-3		
Mast Head	AS-9/CPN-3	43" x 4" diam.	
Antenna Support	AB-2/CPN-3 includes Mast Head 20' High		127 Lbs.

and includes plugs cable adapters etc.

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