

Radio Set AN/CPN - 7, sometimes known as "BABS", is a modification of the airborne IFF Radio Set SCR-695 to form a ground, air-transportable, radar beacon transponder to provide a means of landing aircraft equipped with Radio Set SCR-729 or Radio Set AN/APN-2 under conditions of poor visibility and low ceiling. Use of the equipment will permit approaches in line with and to within one mile of the runway and to an altitude of 200 feet, the actual landing being conducted visually.

When interrogated by an interrogator-responder such as SCR-729, the BABS beacon transmits a beam slightly off the right of the runway (as viewed from the approaching aircraft) for approximately 1 second, and then another to the left of the runway for about 0.2 seconds. When exactly on the runway, the approaching aircraft is in a field of constant signal strength and receives a signal of unchanging amplitude, this manifesting itself as a steady signal (without flicker) on the airborne indicator. If the airplane is to the right or to the left of the runway, the amplitude of the signal will be different and an amplitude flicker will be observed on the right or left of the indicator corresponding to the side of the runway that the airplane may

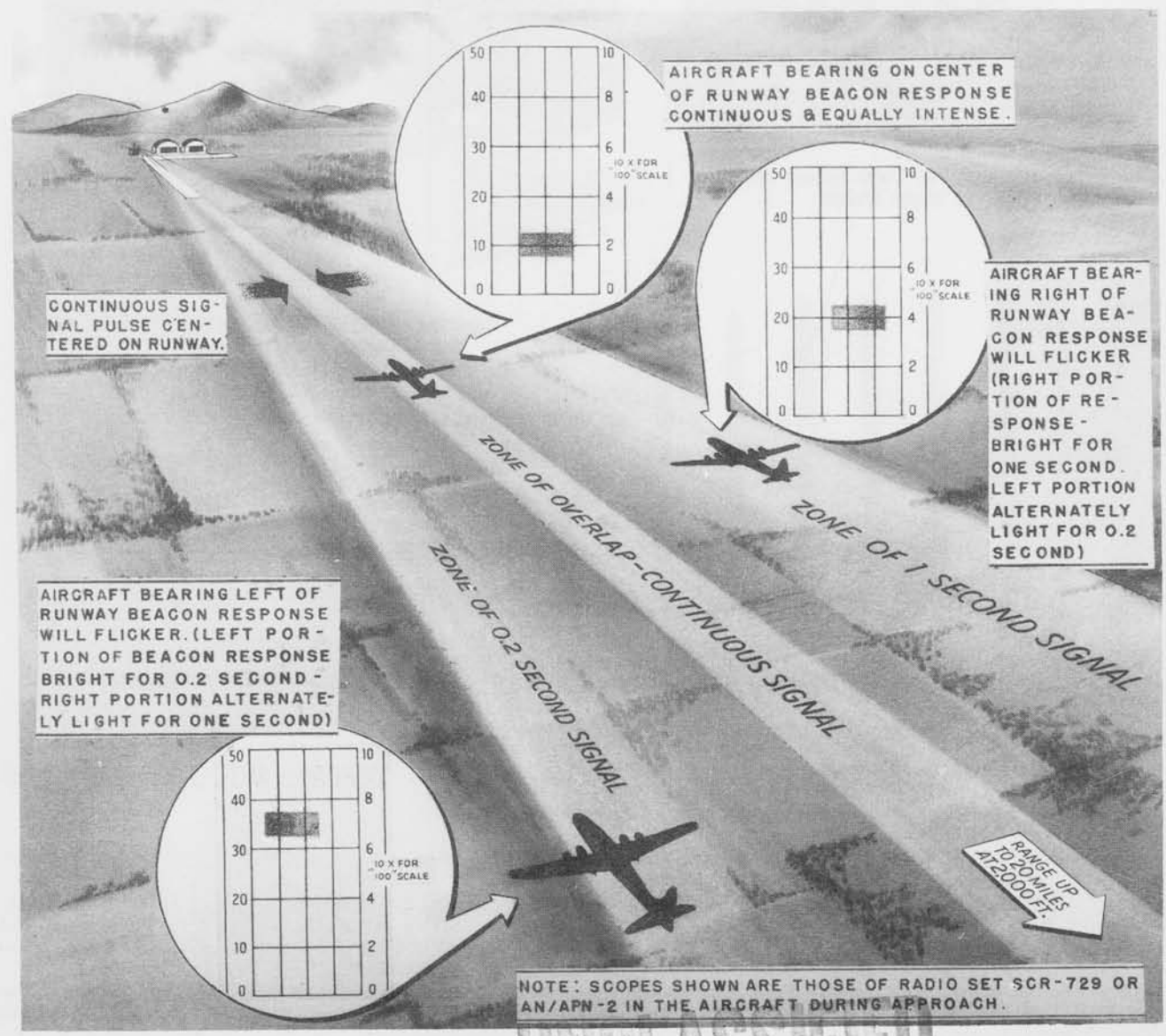
be approaching.

This equipment requires a 110 volts 60 cycle power source.

Test equipment used in the maintenance of this equipment includes Test Equipment IE-46.

POWER INPUT	95-180 WATTS, 110 V, 60 CPS
POWER OUTPUT	10 WATTS
FREQUENCY	RECEIVER 171-181 MC. TRANSMITTER 168.5 - 178.5 MC.
TYPE OF SIGNAL	PULSE
RANGE	20 MI. AT 2000 FT.

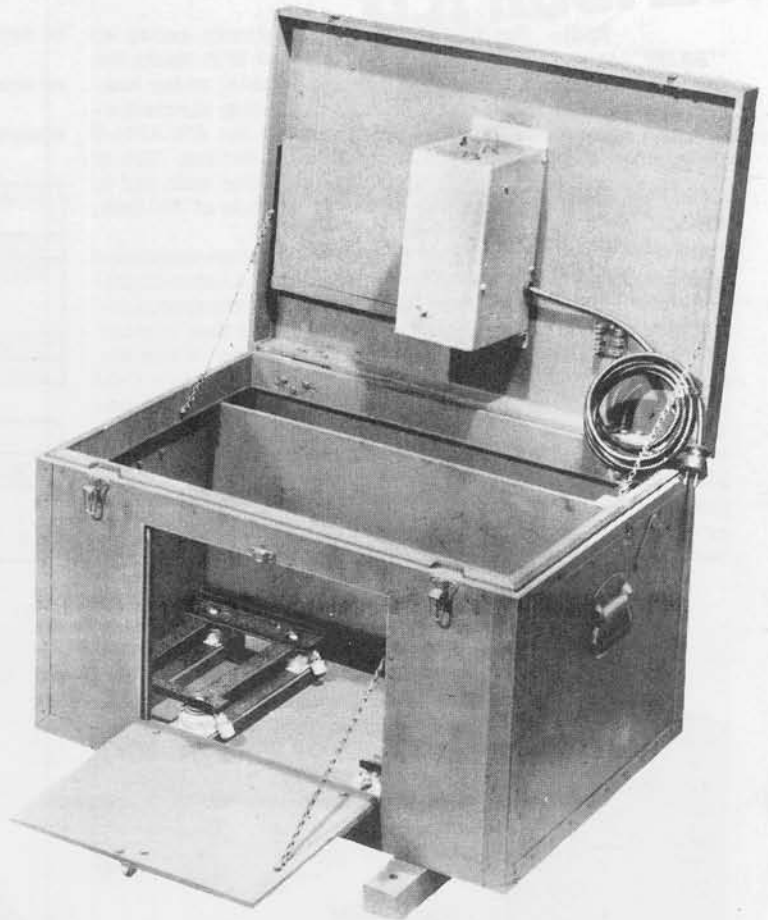
TUBE COMPLEMENT			
NO.	TYPE	NO.	TYPE
1	5U4G	3	6H6
3	7193	6	6SH7



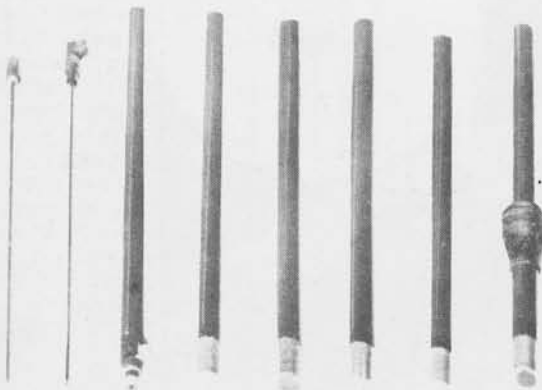
Radio Set AN/CPN-7 (BABS) is air transportable radar beacon transponder which provides means of landing aircraft equipped with Radio Set SCR-729 or Radio Set AN/APN-2



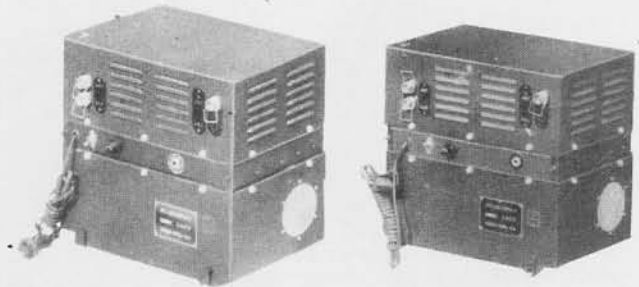
Case CY-47/CPN-7 with Power Unit,
Onan Model 358RS



Case CY-46/CPN-7 with Mountings FT-247-F
and Switching Assembly SA-10/CPN-7



Antenna AT-31/CPN-7 Antenna Mast AB-3/TPN-1



Receivers-Transmitters RT-29/CPN-7

RADIO SET AN/CPN-7

TOTAL WEIGHT 200 LBS.

Component	Nomenclature	Size	Weight
Case	CY-46/CPN-7	28" x 20" x 18"	45 Lbs.
Receiver-Transmitter	RT-29/CPN-7	13" x 14" x 10"	40 Lbs.
Switching Assembly	SA-10/CPN-7	8" x 3" x 13"	11 Lbs.
Antenna	AT-31/CPN-7	Length 18"	
Antenna Mast	AB-3/TPN-1	Length 20' Diam. 2"	7 Lbs.
Case	CY-47/CPN-7	28" x 20" x 18"	45 Lbs.
Onan Power Plant	#358RS		
Antenna System	AS-48/CPN-7	8" x 8" x 11" Height 27"	
Mounting	FT-242-F		