CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

SECRET
SECURITY INFORMATION

25X1A

COUNTRY	USSR	REPORT NO.	[redacted]
SUBJECT	New Radio Tube Designation System in the USSR	DATE DISTR.	14 April 1953
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PLACE ACQUIRED		REFERENCES	25X1A

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE. THE APPRAISAL OF CONTENT IS TENTATIVE. (FOR KEY SEE REVERSE)

25X1X

SOURCE: [redacted]

25X1A

[redacted]

1. The Soviets adopted a new system for designating radio tubes early in 1952. [redacted] 25X1X

25X1X [redacted]

25X1A 2. [redacted] a sketch [see sketch on page 3] which illustrates the symbol or descriptive designation that appeared on the tubes and includes a detailed explanation of the characters. This symbol or designation usually consisted of five characters in units or blocks. The first of these was numerical, the second and third alphabetic, the fourth numerical, and the fifth alphabetic. The second unit of the designation was usually omitted on tubes allocated for civilian use. From this I assume that tubes having the second unit of designation were intended for military use. I do not believe many Soviet civilians knew of the second unit -- no blank space for that symbol appeared on the tubes used by civilians. The meanings of the units are:

   a. The first unit designated the filament voltage of the tube.

   b. The second unit, when it appeared, designated the power characteristics of the tube.

   c. The third designated the type of tube.

   d. The fourth was a number for the type of tube. [redacted] 25X1X that experimental tubes were given numbers upward from 17. Therefore, the numbers of the tubes issued for military use would not run consecutively.

   e. The fifth unit indicated the size and shape, as well as the material, of which the tube was made.

3. Another sketch [see sketch on page 4] illustrates the descriptive designations of the American RCA tube [redacted] 25X1A 25X1X

25X1X [redacted] and the corresponding old Russian and new Russian designations. [redacted] in 1948 only the American type tube designations were known and being used. These same designations were later translated into both the old Russian designations and into the new system presently in use.

25X1X 4. [redacted] 100-page manual written by G. Wulfinkel [redacted] 25X1X explained the characteristics of the Soviet commercial radio receiver tubes. It was published in the USSR before the new Soviet designation system was completed -- probably in 1949 -- and no reference was made to the new system. This particular publication was not obtainable on the open market because of its limited distribution. However, I believe it is presently used exclusively by the military and has been ammended to include new radio tube designations.

[redacted]

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RUSSIAN RADIO TUBE DESIGNATION SYSTEM

6	(blank)	K	17	B

or 6AC7 = new 6Ж14Б

1st Number	2nd Letter	3rd Letter	4th Number	5th Letter
Filament Voltage or Diameter			Type №	Construction
	ГА = Generator $\lambda > 12$ m	А = Diode		С = Glass Envelope
	ГУ = Generator $\lambda < 12$ m	С = Triode		Б = Metal "
	Б = Power Supply Rect.	П = Pentode Beam Power		Ж = Acorn Tube
	Р = Relay or Gas Filled	Х = Double Diode		П = Miniature (finger)
	Л = Tube with deflection	У = Tetrode		Л = Lock on Socket
	blank = Receivers only	К = Shaded Pentode or Beam Power with Long characteristics		
		Ж = ditto with Normal Char.		Б = White Screen
		А = Generating Tubes with Two Grids		С = Blue Screen
		Р = Triode with One or Two Diodes		В = Green Screen
		Б = Pentode with One or Two Diodes		М = Yellow-green "
		Н = Double Triode		П = Long fluorescing time
		Е = Indicator		К = Short fluorescing "
		Г = Gasatron (Gas Filled Tube)		
		Т = Thyatron		
		О = Cathode Ray Tube with magnetic Defelection		

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[redacted]

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RCA Designation	Old Russian Designation	New Russian Designation
** VR-75	75C5-30	?
** VR-105	105C5-30	?
** VR-150	150C5-30	?
6H6	—	6X6 or 6X6C
** 5Z4	5Ц4	?
5Ц4	5Ц4	?
5Y3 ?	—	—
** 6X5	—	6X5
** 6AS7	—	6H11
** 6BG6-G	—	6П7
**(1852) 6AC7	6AC7 & OSW 2190	6Ж4 (6Ж14Б*)
** 6AG7	—	6П9 (6Ж4Б*)
** 6SL7	6H9M	6H9C
** 6SN7	6H8M	6H8C
** 6AG5	6АЖ5	6Ж3П (6Ж5П*)
** 6AB7	—	6К15Б ?
(LS50)	П50	?
** 6L6	—	6П3
** 6F6	6V6-GT	6Ф6C
** 6SJ7	—	6Ж8 (6Ж17Б*)
** 6J6	6H15 (6H1A)	6H15П
RV12P2000	—	12Ж1Л
6SK7	—	6К3
12SK7	—	12К3
12SJ7	—	12Ж8
6SA7	—	6А7
6SH7	—	6Ж3

*Formerly used by USSR.
**Characteristics for these Tubes found in Wulfinkel Tube Manual but not always in the RCA Tube Manual (eg.- the 6SL7 & 6AS7 are not in the RCA manual.

RUSSIAN RADIO TUBE DESIGNATION SYSTEM

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