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13 December 1960

MEMORANDUM FOR MR. REED MAYO, NAVAL RESEARCH LABORATORY

Subj: Estimated power of certain Soviet radars

1. Reference our recent conversation, I have located several sources of estimated power of certain Soviet radars. These values differ somewhat, as you can see, so I have included all of them for your own choice of selection.

2. Following are the radars of most probable interest:

a. [redacted] (Landbased)

(1) Air Force states frequency is 572-603 mc/s.
(2) ONI states 572-602 mc/s.
(3) CIA states 565-605 mc/s.
(4) Air Force estimates 350 KW.
(5) British estimate 500 KW - 1 MW.
(6) ONI estimates 500-600 KW (nominal).
(7) CIA gives no estimate of power.

b. [redacted] (Soviet) (Shipborne)

(1) ONI states frequency is 810-850 mc/s (Center 835).
(2) NSA states 815-845 mc/s.
(3) British state 800-875 mc/s.
(4) CIA states 800-875 mc/s.
(5) Air Force 815-850 mc/s.
(6) Air Force estimates power as like that of [redacted]
(7) ONI estimates possibly 1 MW (nominal).
(8) CIA gives no estimate of power.

c. [redacted] (Soviet) (Landbased)

(1) ONI states frequency is 560-575 mc/s (Center 570).
(2) Air Force states 560-575 mc/s.
(3) CIA states 560-575 mc/s.
(4) Air Force estimates power as 1 MW.
(5) British estimate power as 1-2 MW.
(6) ONI estimates power as 1 MW (at least).
(7) CIA estimates power as 2 MW.

d. [redacted] (Soviet) ~~(ONI temporary nickname)~~ (Shipborne)
(Recently seen in North Fleet on destroyer - SKORYY #528)

(1) ONI states probably a larger reflector for [redacted] radar.
(2) ONI estimates frequency like [redacted] (around 845 mc/s).
(3) ONI estimates power as probably (at least) 500 KW.

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e. [redacted] (Soviet) (Landbased)

(1) Air Force states frequency 830-890 mc/s.
(2) British state 815-850 mc/s.
(3) NSA states 815-845 mc/s (and possibly 900 and 1600).
(4) ONI states 815-850 mc/s (Center 835, and also a possible 905).
(5) CIA states 800-900 mc/s.
(6) Air Force estimates power as 500-1000 KW.
(7) CIA estimates power as 250-500 KW.

f. [redacted] (Soviet)(Landbased)

(1) NSA states frequency as 570 mc/s.
(2) ONI states 570 mc/s.
(3) CIA states 560-575 mc/s.
(4) Air Force estimates power as like that of [redacted] 2700 - 3100
(5) NSA estimates power as like that of [redacted]
(6) CIA estimates power as 2 MW.

g. [redacted] (Soviet) (Landbased)

(1) NSA states frequency as 570 mc/s.
(2) CIA states (questionable RF) 560-575 mc/s. AF 2700-3100
(3) CIA estimates power as 2 MW.
(4) NSA estimates power as being modified [redacted]
(5) Air Force estimates power as being modified [redacted]

h. [redacted] (Soviet) (Landbased)

(1) NSA states frequency as 570 mc/s.
(2) Air Force states frequency as 570 mc/s. 2700-3100 AF
(3) ONI states frequency as 600-800 mc/s.
(4) CIA states (questionable RF) 560-575 mc/s.
(5) CIA estimates power as 2 MW.
(6) Air Force estimates power as 2 MW.
(7) NSA states similar to [redacted]

i. [redacted] (Soviet) (Landbased)

(1) CIA states (questionable RF) 560-575 mc/s. S Band
(2) Air Force gives no L-band capability.
(3) British gives no L-band capability.
(4) British estimate power as probably 2 MW.
(5) CIA estimates power as 1-2 MW.

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j. [redacted] (Soviet) (Landbased)

(1) CIA states (questionable RF) 560-578 mc/s. S Pan.
(2) Air Force gives no L-band capability.
(3) British give no L-band capability.
(4) CIA estimates power as 1-2 MW.

3. While the power quoted is for the radar, there appears to be some question if the value given is applicable to the L-band capability.

4. I hope this will be of some assistance to you.

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