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DEC 1956

MEMORANDUM FOR THE RECORD:

SUBJECT: Discussion with [redacted] Re 600 Megacycle Antenna

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1. On 30 November 1956 I discussed with [redacted] Director of Research for [redacted] the problem of placing an optimum gain 600 megacycle antenna into an 8 x 8 x 8 foot space. [redacted] comments are summarized as follows:

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A. PARABOLA

Would yield about 21 DB gain in the space available. Would be rather expensive. Good from standpoint that dipoles can be shifted or changed for various polarization and frequencies.

B. CORNER REFLECTOR

Would yield about 16-17 DB gain (this for a five wavelength by three wavelength reflector with four collinear elements). Easily constructed, shipped.

C. YAGI ARRAY

Up to 18 DB gain could be realized using four bays of 4.2 wavelength long yagis. For horizontal polarization, spacing two wavelengths between bays vertically and with 2.5 wavelengths overall horizontal width. Actually, six bays could probably be used to advantage in the space available.

2. Personally, I believe that the Yagi configuration has a number of advantages insofar as ease of construction, dismantling, and reassembly are concerned; additionally, in circumstances where the complete array of four or six yagi bays cannot be accommodated due to space limitations, the individual yagi bays could be employed singly, in pairs, etc. by use of appropriate feed harnesses and matching devices. However, the final decision as to the type of array to be used will not be made until the subject has been discussed in more detail with [redacted]

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3. One hour of [redacted] time was utilized for the above discussion.

Note:

[redacted] on 4/18/57 said to forget my charges for this time *BBB*

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cc: R & D  
SPD

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