

THE *Gabriel* LABORATORIES

DIVISION OF THE GABRIEL COMPANY • 135 CRESCENT ROAD NEEDHAM HEIGHTS 94, MASS.

Telephone
NEedham 3-0005

November 17, 1952

Mr. Grote Reber
Wailuku, Maui, T.H.
U. S. A.

Dear Mr. Reber:

I am enclosing a copy of a report that I prepared for my IRE paper. The paper contains the basic mathematical work necessary for the treatment of tolerances of parabolic mirrors.


Since the writing of this paper I have done additional experimental work on the actual gain reduction and side lobe distribution of distorted reflectors. I am attaching two curves showing some experimental results.

Although I do not recommend using reflectors as badly distorted as I have used, both the theory and experiment indicate that when gain only is the consideration, considerable error may be tolerated.

I hope the paper may be of some value to you and would like to hear from you if you have any comments.

Sincerely,

THE GABRIEL LABORATORIES
Division of the Gabriel Company


John Ruze
Director of Research

JR:jw

• *Research Facilities for*..... GABRIEL SHOCK ABSORBER Division
WARD PRODUCTS Division..... WORKSHOP ASSOCIATES Division
BURD PISTON RING and HADEES HEATER Division..... INTERNATIONAL METAL HOSE Division