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IN REPLY REFER TO
BUMED:ZRG:ma
15 June 1973

Glaser

Mr. Leonard Theran
Product Manager
ACUREX Corporation
485 Clyde Avenue
Mountain View, Ca. 94040

Dear Mr. Theran:

In response to your request of 8 June 1973 regarding information on studies on the biological effects of radiation at frequencies near 9 GHz, I offer the following references:

1. CARPENTER, R.L., & LIVSTONE, E.M. (1971), IEEE Trans. on Microwave Theory & Techniques, MTT-19(2):173-178,* "Evidence for nonthermal effects of microwave radiation: Abnormal development of irradiated insect pupae," [10 GHz, cw radiation used].
2. McAFEE, R.D. (1971), ibid.,* "Analeptic effect of microwave irradiation on experimental animals," [10 GHz, pulsed radiation used].
3. LIU, L.M., SKEWES, G.W., LINDAUER, G.A., & ROSENBAUM, F.J. (1973), Digest of Tech. Papers presented at IEEE G-MTT Internat. Microwave Symp., held 4-6 June 1973 at Boulder, Colo., "Further experiments seeking evidence of nonthermal biological effects of microwave radiation", [9 GHz, cw and pulsed rad. used].
4. BIGU del BLANCO, J., ROMERO-SIERRA, C., & TANNER, J.A. (1973), ibid., "Bird feathers as dielectric receptors of RF fields", [10 GHz rad. used].

You are quite right, however, in commenting that most of the literature on microwave hazards is at a frequency of less than 3 GHz. There aren't many more studies that I can think of that were conducted near 9 GHz.

Thank you for sending the literature on your moisture gauge; a most interesting application.

Mr. Leonard Theran

15 June 1973

As you requested, I have enclosed a copy of my bibliography. A 4th supplement is presently being prepared.

With best regards,



ZORY R. GLASER, Ph.D.
LT, MSC, USN
EMR Project Office
Research Division

Encl:
Bibliography

*This is the special issue devoted to the "biological effects of micro-waves."