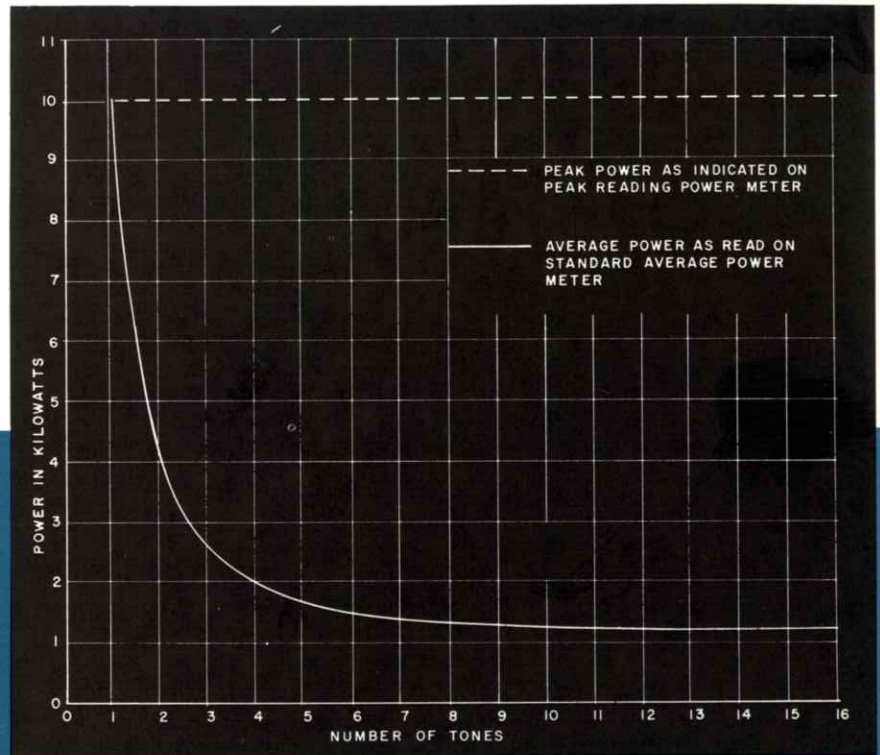


## PEAK POWER METER

TMC PPM-1

The chart at the right illustrates the relationship between peak and average power in graphic form under multitone conditions.

**THE PPM-1 ALWAYS READS  
TRUE PEAK POWER.**



A common misapprehension continues to exist over the ratio between average and peak power in high power transmitters, particularly where multichannel (multitone) transmission is used.

All TMC transmitters have been designed for peak power capability, but we often encounter situations where the operator attempts to maintain full output power reading on an *average power indicating meter*, even when using as many as sixteen tones for transmission purposes.

The unretouched pictures shown on the rear of this bulletin, taken from actual operation of a TMC-10K (AN/FRT-39), illustrate for the first time with the aid of our new peak reading rf power meter, exactly what happens when two, five and sixteen tones are applied to a transmitter rated at 5 KW average, 10 KW peak. With these pictures, it is immediately apparent that if an attempt is made to maintain full power readings on a *conventional average reading meter*, a serious peak overload can be applied to a transmitter, with consequent "flat topping" and possible damage.

It is for this reason that TMC has developed this series of peak reading meters. They are available as kits for all TMC transmitters, or may be a built-in option on all present production.

Each kit contains an electronic portion in a double shielded enclosure, a forward diode, a new KW meter and a remote switch.

The mathematics applicable to such peak overloads is quite simple, and is contained in several previous TMC Publications; viz:

*A First Primer describing SSB by D. V. Carroll, Managing Director, TMC (Canada) Ltd.*

*A Discussion concerning Relative and Absolute Intelligence in SSB by D. W. Carter, Engineering Services Manager.*

*An Analysis of AM, SSB and AME by W. P. Henneberry, Director, TMC Training School.*



**THE TECHNICAL MATERIEL CORPORATION**

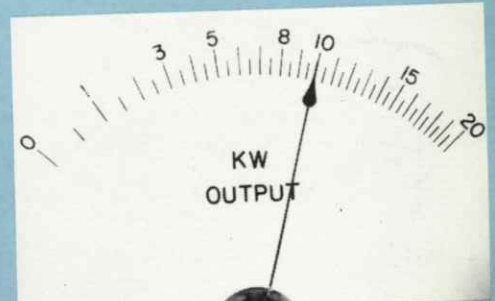
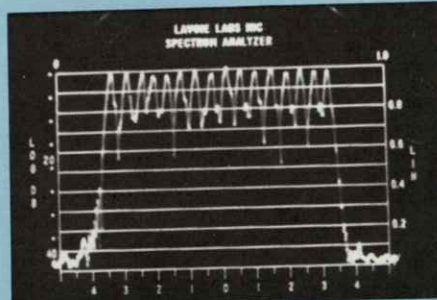
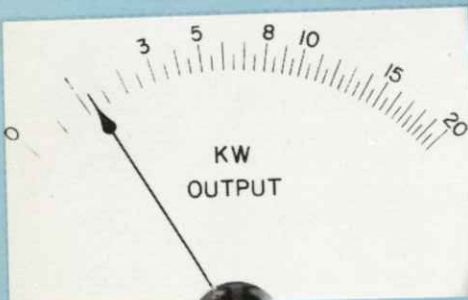
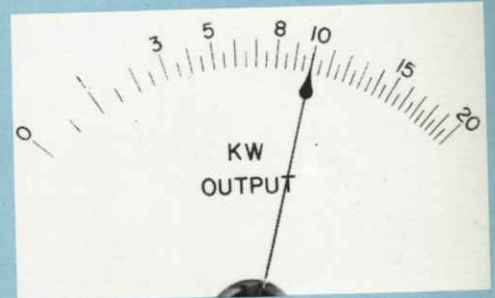
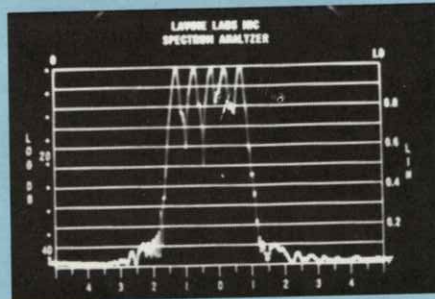
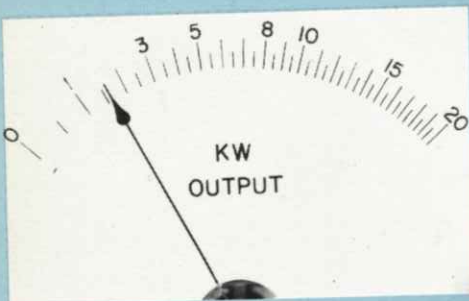
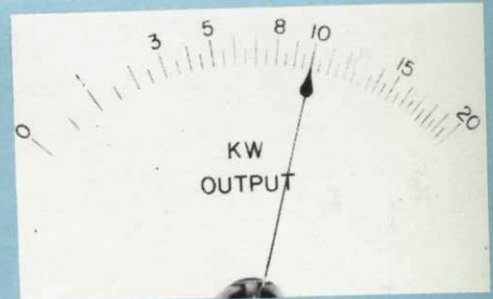
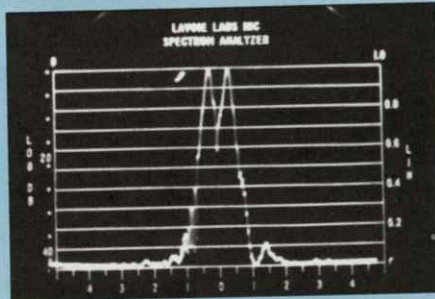
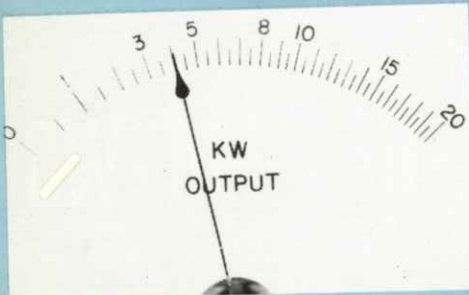
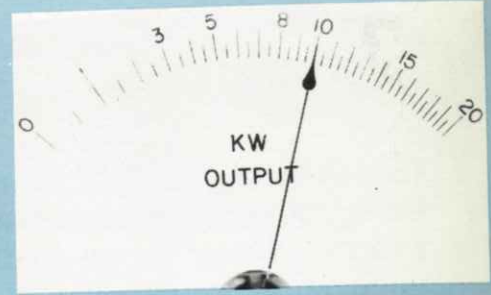
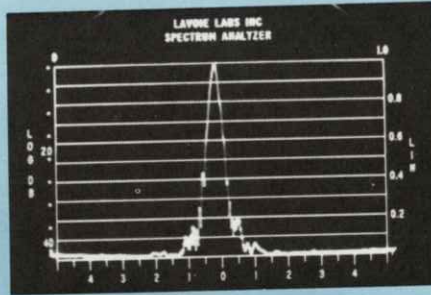
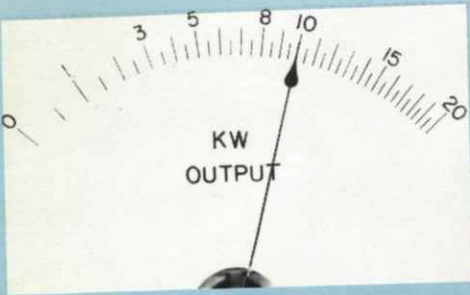
**AND SUBSIDIARIES**

# TMC PPM-1 PEAK POWER METER

## AVERAGE POWER

## TONES

## PEAK POWER



The unretouched photographs shown above indicate simultaneous average and peak powers under multitone conditions.



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