

ham tips

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HAM-BAND CHARTS (Phase Two)

Covering FCC Allocations, Sub-Allocations, and
Authorized Emissions from 3.5 to 450 MHz

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RCA Electronic Components*

The ham-band charts and information contained in the May, 1969 issue of "Ham Tips" covered the first phase of the Federal Communications Commission's new amateur radio incentive license regulations. These regulations were adopted on November 22, 1967 and were placed into effect on November 22, 1968.

In this issue are revised data and charts that reflect the changes contained in the second phase of the new regulations. The second phase went into effect on November 22, 1969.

The purpose of the Federal Communications Commission in initiating the new regulations on a two-phase, two-year basis was to provide amateurs with an opportunity to adjust their operations to the new rules, as well as to attain one of the higher classes of license. The editors of "Ham Tips" plan to advise readers of any additional changes affecting amateur radio operations whenever such revisions are adopted.

The second phase of the Federal Communications Commission's amateur radio incentive license regulations increases the size of the 'phone sub-allocations reserved for Extra and Advanced Class amateurs in the 75-, 40-, 20-, and 15-meter bands. The cw reservation for Extra Class amateurs remains at the first 25 kHz in the same bands.

Charts 1 and 2 cover all amateur frequency assignments up to 450 MHz, with the exception of the 1.8 to 2.0 MHz allocation. The 160-meter band is divided into

eight "sub-bands," and operation in each of the 50 states and U.S. possessions is limited to a few of these. Maximum DC plate input power varies from day to night. A1 and A3 emissions are authorized, and there are no privileged segments. Because the regulations covering "top band" are subject to change without hearing (whenever the Commission shall determine such action necessary in view of the priority of the LORAN-A radionavigation system), it is suggested that interested amateurs consult

Chart 1: Amateur Bands
(Showing Sub-Allocations and Authorized Emissions from 3.5 to 29.7 MHz)

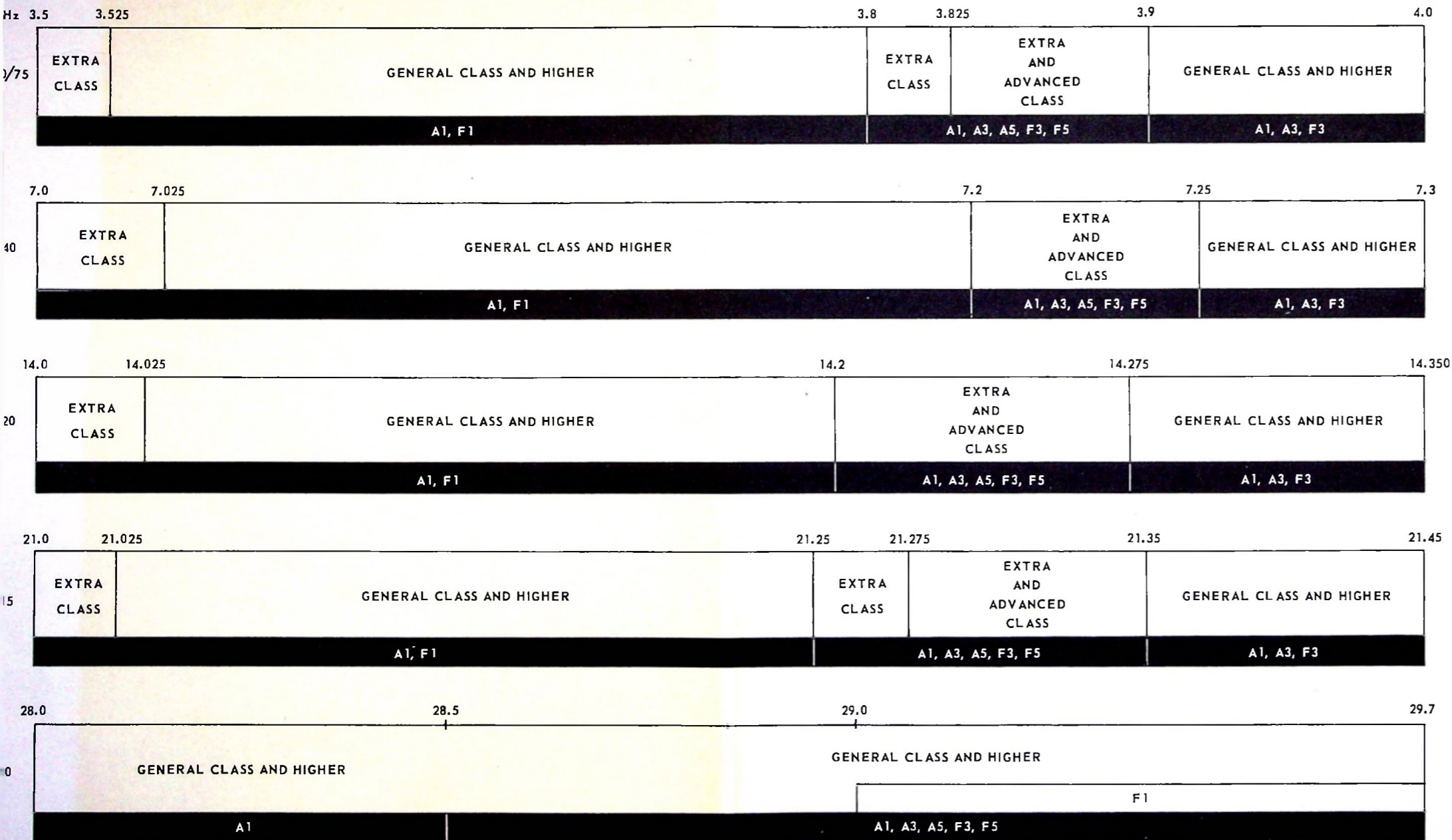
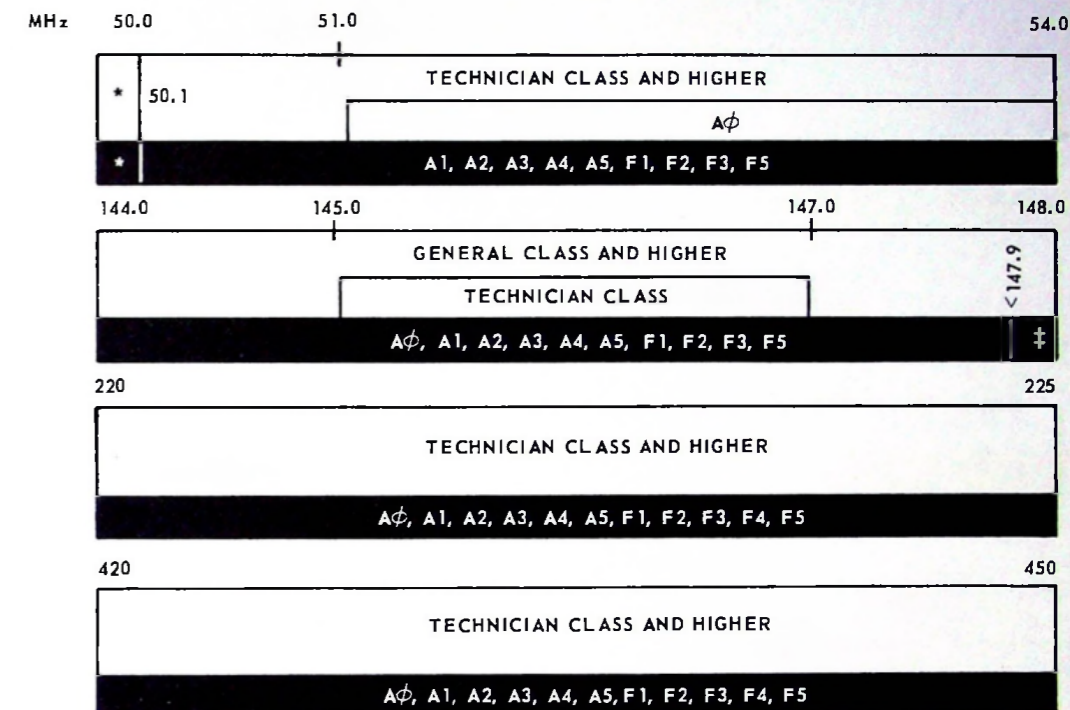


Chart 2: Amateur Bands
(Showing Sub-Allocations and Authorized Emissions from 50 to 450 MHz)



* EXTRA AND ADVANCED CLASS - A1 ONLY
 ‡ GENERAL CLASS AND HIGHER - A1 ONLY

INDEX TO SYMBOLS USED IN CHARTS 1 AND 2
Showing Classification of All Emissions Authorized for Use by Amateurs Through 450 MHz

Type of Modulation	Type of Transmission	Symbol	Type of Modulation	Type of Transmission	Symbol
Amplitude	With no modulation	A0	Frequency (or phase)	Telegraphy by use of shift keying without the use of a modulating audio frequency	F1
	Telegraphy without the use of modulating audio frequency (by on-off keying)	A1		Telegraphy by the on-off keying of a frequency-modulating audio frequency or by the on-off keying of frequency-modulated emission (Special Case: An unkeyed emission, frequency modulated)	F2
	Telegraphy by the on-off keying of an amplitude-modulating audio frequency or by the on-off keying of the modulated emission (Special Case: An unkeyed emission, amplitude-modulated)	A2		Telephony	F3
	Telephony	A3		Facsimile	F4
	Facsimile	A4		Television	F5
Television	A5				

PLEASE NOTE: All data presented in the charts and text have been compiled from "FCC Rules and Regulations," Part 97, as of January 1, 1970.

the nearest FCC District Office for details governing their particular area.

Because of their limited scope, Novice Class privileges are not shown. They are as follows: radiotelegraph (A1) operation only, 3.7 to 3.75 MHz; 7.15 to 7.2 MHz; 21.1 to 21.25 MHz; and 145.0 to 147.0 MHz — using all authorized radiotelegraph emissions.

Technician Class licensees may use all emissions authorized between 50.1 and 54.0 MHz and between 145.0 and 147.0 MHz, as well as all amateur frequencies and emissions authorized above 220.0 MHz.

Emission Limitations

Type A0 emission may be used for short periods of time, even where not specifically designated, for test and other experimental purposes.

On frequencies below 29.0 MHz and between 50.1 and 52.5 MHz, the bandwidth of an F3 emission may not exceed that of an A3 emission having the same audio characteristics.

On frequencies below 50.0 MHz, the bandwidth of A5 and F5 emissions may not exceed that of an A3 single-sideband emission.

On frequencies between 50.0 and 225.0 MHz, single-sideband or double-sideband A5 emission may be used but the bandwidth may not exceed that of an A3 single-

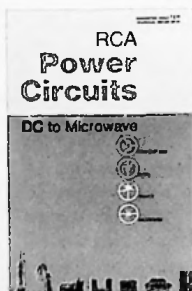
sideband or double-sideband signal, respectively. The bandwidth of an F5 emission may not exceed that of an A3 single-sideband emission.

Below 225.0 MHz, A3 and A5 emissions may be used simultaneously on the same carrier frequency provided the total bandwidth does not exceed that of an A3 double-sideband emission.

In addition to the allocations shown here, amateurs may operate within six bands of frequencies from 1,215 to 22,000 MHz, as well as all frequencies above 40,000 MHz. Hams interested in any of these frequency assignments should consult "FCC Rules and Regulations," Part 97, for available operating privileges.

Except for voice-interrupted code practice, 50.1 MHz is the lowest frequency at which tone-modulated keying or facsimile modulation is permitted. Also, 51.0 MHz is the lowest frequency at which an unmodulated carrier (A0) can be transmitted for other than short periods of test.

Amateur TV enthusiasts will note that A5 and F5 emissions of the slow-scan type are now authorized to Extra and Advanced Class amateurs on the bands between 3.8 and 21.35 MHz; to General Class and higher above 28.5 MHz; and to Technician Class Licensees between 50.1 and 54.0 MHz, 145.0 to 147.0 MHz, and 220.0 to 225.0 MHz. Above 420.0 MHz, the bandwidth restriction is eased for all licensees.



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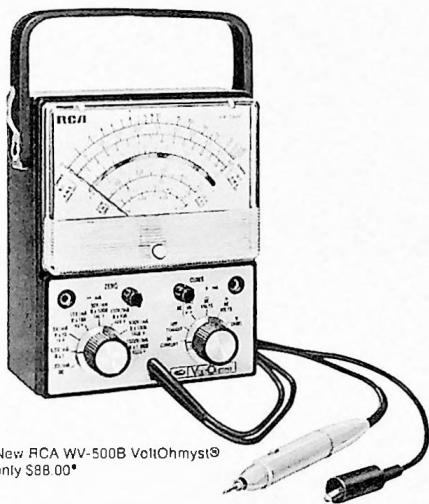
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