

AC NO: 90-50B

DATE: 12/12/77



# ADVISORY CIRCULAR

## DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

**SUBJECT:** VHF RADIO FREQUENCY ASSIGNMENT PLAN FOR AERONAUTICAL OPERATIONS

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1. PURPOSE: This circular describes the civil air traffic control assignment of frequencies in the very high frequency (118-136 MHz) band.

2. CANCELLATION: Advisory Circular AC 90-50A, Air Traffic Control Radio Frequency Assignment Plan for VFR and IFR Communications, dated 2/7/75 is canceled.

3. FREQUENCY ASSIGNMENT PLAN:

a. Only the emergency frequency 121.5 MHz will continue to have 100 kHz protection.

b. ARTCC high altitude en route assignments will be on any selected 25 kHz, 50 kHz, or 100 kHz air traffic control channel in the 118-136 MHz band.

c. ARTCC low altitude en route assignments will be on any selected 50 kHz or 100 kHz air traffic control channel in the 118-136 MHz band.

d. Terminal assignments will be on any selected 50 kHz or 100 kHz air traffic control channel in the 118-136 MHz band.

e. Where possible, one 100 kHz local control channel will be retained at each ATCT.

4. ALLOCATION OF FREQUENCIES FOR THE AERONAUTICAL MOBILE SERVICE.

The radio spectrum between 118.0 and 136.0 MHz on 25 kHz channeling could contain 720 channels. By affording 100 kHz protection to 121.5 MHz, the maximum number is 714.

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<u>FREQUENCIES</u>	<u>USE</u>
118.0-121.4	Air Traffic Control
121.5	Emergency
121.6-121.925	Airport Utility, Ground Control
121.95	Flying Schools
121.975-123.075	Private Aircraft (FSS)
123.1	Search & Rescue, (Temporary Control Towers)
123.125-123.275	Flight Test
123.3	Flying School - Gliders
123.325-123.475	Flight Test
123.5	Flying School - Gliders
123.525-123.575	Flight Test
123.6-123.65	FSS's (Airport Advisory Service)
123.675-128.8	Air Traffic Control
128.825-132.0	Aeronautical En Route (Operational Control)
132.025-135.975	Air Traffic Control

Use of a tower local control or an airport advisory frequency is recommended for control of airport lights by keyed signals from aircraft.

5. FREQUENCIES COMMON TO FAA FLIGHT SERVICE STATIONS. The frequencies listed below will remain common to most FAA Flight Service Stations (FSS's) and will permit aircraft to obtain basic VFR services:

<u>FREQUENCIES</u>	<u>MODE OF OPERATION</u>
121.5	Emergency
122.0	En Route Flight Advisory Service
122.1	Simplex or RCV only with VOR
122.2	Simplex
123.6 or 123.65	Airport Advisory

6. GENERAL. The steady growth of aviation has brought about corresponding growth in air/ground communications requirements. Further the growing diversity of air traffic has resulted in an increasingly complex air traffic control environment. Following public comments in 1972, a Notice of Policy Decision in 1973 informed the public that the FAA was planning to increase the air traffic control communication capability by dividing the available spectrum into 25 kHz spaced channels. The implementation of 25 kHz channel communication assignments for high altitude en route sectors started on a case-by-case basis in 1977.

The quality and kind of communications equipment a pilot needs depends on the services desired and the scope of flying activity. The decision on the type of radio and the number of communications channels should be governed accordingly. The use of 720 channels (i.e., 25 kHz spacing)

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is required for unrestricted IFR operation. Therefore, equipage with this capability will insure full service.

The pilot should be aware that 25 kHz channel deployment excludes adjacent channel interference protection for equipment capable of operating only on 50 or 100 kHz increments and that interference caused by proximity to aircraft and ground stations operating on adjacent 25 kHz channels should be anticipated.

*Warren C. Sharp*

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