GAD-1

AC NO: 90-50A
DATE: 2/7/75

ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

SUBJECT: VHF RADIO FREQUENCY ASSIGNMENT PLAN FOR AERONAUTICAL OPERATIONS

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-90-50, Air Traffic Control Radio Frequency Assignment Plan for VFR and IFR Communications dated 9/29/70, is cancelled.

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 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. One 100 kHz local control channel will be retained at each ATCT. Common FSS channel 122.2 MHz will be retained at each Flight Service Station.

4. ALLOCATION OF FREQUENCIES FOR THE AERONAUTICAL MOBILE SERVICE.

   The radio spectrum between 118.0 and 136.0 MHz on 50 kHz channeling could contain 360 channels. By affording 100 kHz protection to 121.5 MHz, the maximum number is 358; on 25 kHz channeling, the maximum number is 714.

FREQUENCIES	USE
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
123.325-123.475	Flight Test
123.5	Flying School
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)
132.025-136	Air Traffic Control

*Use for control of airport lights by keyed signals is authorized. Use of a local tower 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) and will permit aircraft to obtain basic VFR services:

FREQUENCIES	MODE OF OPERATION
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. In 1960, additional radio spectrum was reallocated for air traffic control and a long range air traffic control radio frequency plan, extending beyond 1966, was announced to the public. The plan included advice regarding the necessity for 50 kHz channeling in aircraft and, to meet the need, FAA modernized its ground communication facilities.

In order to improve the capability to control air traffic, the FAA has expanded its en route and terminal air traffic control facilities by establishing additional radar operating positions and air traffic

control towers. These new facilities and positions create a requirement for additional assignments which necessitates the use of more channels. These assignments are included in the Airman's Information Manual, the en route low and high altitude charts and new sectional charts.

To meet the requirements for new channels, the implementation of 25 kHz channel communications for high altitude en route sectors is planned to begin in January 1977. As required, policy permits implementation of 25 kHz channels on case-by-case basis in 1976.

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) will be required at some future date. Therefore, purchase of this capability would insure full service for a greatly extended period. For unrestricted IFR operation, 360 channel communications capability is presently necessary and 720 channel communications capability will be necessary by 1976.

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 interference caused by proximity to aircraft and ground stations operating on adjacent 25 kHz channels should be anticipated.

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