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(c) Aircraft public correspondence service on maritime mobile frequencies may only be carried by aircraft stations licensed to use maritime mobile frequencies and must follow the rules for public correspondence in part 80.

(d) Aircraft public correspondence service on Aeronautical Mobile-Satellite (R) Service frequencies may only be carried on aircraft earth stations licensed to use Aeronautical Mobile-Satellite (R) frequencies and are subject to the rules for public correspondence in this part. Aircraft public correspondence service on Maritime Mobile-Satellite Service frequencies may only be carried by aircraft earth stations licensed to use Maritime Mobile-Satellite frequencies and are subject to the rules for public correspondence in part 80.

[53 FR 28940, Aug. 1, 1988, as amended at 57 FR 45750, Oct. 5, 1992]

§ 87.187 Frequencies.

(a) Frequencies used for air-ground Communications are listed in subpart E. Aircraft stations may use frequencies assigned to Government or non-Government aeronautical stations or radionavigation land stations if the communications are within the aeronautical or radionavigation land station scope of service.

(b) 410 kHz is the international direction-finding frequency for use outside the continental United States.

(c) 457 kHz is an authorized working frequency for flights over the high seas.

(d) 500 kHz an international calling and distress frequency for aircraft on flights over the high seas. Except for distress, urgency or safety messages an aircraft station must not transmit on 500 kHz during the silence periods for three minutes twice each hour beginning at x h. 15 and x h.45 Coordinated Universal Time (u.t.c.).

(e) The frequency 2182 khz is an international distress and calling frequency for use by ship, aircraft and survival craft stations. Aircraft stations must use J3E emission when operating on 2182 kHz and communicating with domestic public and private coast stations. The emission H3E may be used when communicating with foreign coast and ship stations.

(f) The frequencies 3023 kHz, 5680 kHz, 122.900 MHz and 123.100 MHz are authorized for use by aircraft engaged in seach and rescue activities in accordance with subpart M. These frequencies may be used for air-air and air-ground communications.

(g) The frequency 4125 kHz may be used for distress and safety communications between aircraft and ship and coast maritime mobile stations.

(h) The frequency 8364.0 kHz is authorized for use of survival craft for search and rescue communications with stations in the maritime mobile service.

(i) The frequencies in the band 121.975–122.675 MHz are authorized for use by private aircraft of air traffic control operations.

(1) The frequencies 122.00 and 122.050 MHz are authorized for use by air carrier and private aircraft stations for enroute flight advisory service (EFAS) provided by the FAA;

(2) The frequency 122.100 MHz is authorized for use by air carrier aircraft stations for air traffic control operations at locations in Alaska where other frequencies are not available for air traffic control.

(j) The frequency 122.750 MHz is authoried for use by private fixed wing aircraft for air-air communications. The frequency 123.025 MHz is authorized for use by helicopters for air-air Communications.

(k) The frequencies 121.500 MHz and 243.000 MHz are emergency and distress frequences available for use by survival craft stations, emergency locator transmitters and equipment used for survival pruposes. Use of 121.500 MHz and 243.00 MHz shall be limited to transmission of signals and communications for survival purposes. Type A2A, A3E or A3N emission may be employed, except in the case of emergency locator transmitters where A3E, A3X and NON are permitted.

(l) The frequencies 156.300, 156.375, 156,400, 156,425, 156.450, 156.625, 156.800 156.900 and 157.425 MHz may be used by aircraft stations to communicate with ship stations in accordance with part 80 and the following conditions:

(1) The altitude of aircraft stations must not exceed 300 meters (1,000 feet),

except for reconnaissance aircraft participating in icebreaking operations where an altitude of 450 meters (1,500 feet) is allowed;

(2) Aircraft station transmitter power must not exceed five watts;

(3) The frequency 156.300 MHz may be used for safety purposes only. The frequency 156.800 MHz may be used for distress, safety and calling purposes only.

(4) Except in the Great Lakes and along the St. Lawrence Seaway the frequency 157.425 MHz is available for communications with commerical fishing vessels.

(5) The frequency 156.375 MHz cannot be used in the New Orleans, LA, VTS protection area. No harmful interference shall be caused to the VTS.

(m) The frequency 406.0–406.1 MHz is an emergency and distress frequency available for use by emergency locator transmitters. Use of this frequency must be limited to transmission of distress and safety communications.

(n) The frequency band 960–1215 MHz is for the use of airborne electronic aids to air navigation and directly associated land stations.

(o) The frequency band 1300-1350 MHz is for surveillance radar stations and associated airborne transponders.

(p) The 1435–1525 MHz and 2360–2395 MHz bands are available on a primary basis, and the 2345–2360 MHz band is available on a secondary basis (the latter band only until January 1, 2020), for telemetry and telecommand associated with the flight testing of aircraft, missiles, or related major components. This includes launching into space, reentry into the Earth's atmosphere and incidental orbiting prior to reentry. In the 1435–1525 MHz band, the following frequencies are shared on a co-equal basis with flight telemetering mobile stations: 1444.5, 1453.5, 1501.5, 1515.5, and 1524.5 MHz. In the 2360–2395 MHz band, the following frequencies may be assigned for telemetry and associated telecommand operations of expendable and re-usable launch vehicles, whether or not such operations involve flight testing: 2364.5, 2370.5 and 2382.5 MHz. *See* § 87.303(d).

NOTE TO PARAGRAPH (p): Aeronautical telemetry operations must protect Miscellaneous Wireless Communications Services operating in the 2345–2360 MHz band.

(q) The frequencies in the band 1545.000–1559.000 MHz and 1646.500–1660.500 MHz are authorized for use by the Aeronautical Mobile-Satellite (R) Service. The use of the bands 1544.000–1545.000 MHz (space-to-Earth) and 1645.500–1646.500 MHz (Earth-to-space) by the Mobile-Satellite Service is limited to distress and safety operations. In the frequency bands 1549.500–1558.500 MHz and 1651.000–1660.000 MHz, the Aeronautical Mobile-Satellite (R) requirements that cannot be accommodated in the 1545.000–1549.500 MHz, 1558.500–1559.000 MHz, 1646.500–1651.000 MHz, and 1660.000–1660.500 MHz bands shall have priority access with real-time preemptive capability for communications in the Mobile-Satellite Service. Systems not interoperable with the Aeronautical Mobile-Satellite (R) Service shall operate on a secondary basis. Account shall be taken of the priority of safety-related communications in the Mobile-Satellite Service.

(r) The frequency band 1559–1626.5 MHz is available for airborne electronic aids to air navigation and any associated land station.

(s) The frequency band 4200–4400 MHz is reserved exclusively for radio altimeters.

(t) The frequency band 5350–5470 MHz in the aeronautical radionavigation service is limited to airborne radars and associated airborne beacons.

(u) The frequency band 8750–8850 MHz is available for use by airborne doppler radars in the aeronautical radionavigation service only on the condition that they must accept any interference which may be experienced from stations in the radiolocation service in the band 8500–10,000 MHz.

(v) The frequency band 9300–9500 MHz is limited to airborne radars and associated airborne beacons.

(w) The frequency band 13250–13400 MHz available for airborne doppler radar use.

(x) The frequency bands 24450–24650 MHz and 32300–33400 MHz are available for airborne radionavigation devices.

(y) Brief keyed RF signals (keying the transmitter by momentarily depressing the microphone ''push-to-talk'' button) may be transmitted from aircraft for the control of automated unicoms on the unicom frequencies

listed in paragraph (y)(3) of this section, or for the control of airport lights on the following frequencies:

(1) Any air traffic control frequency listed in § 87.421.

(2) FAA Flight Service Station frequencies 121.975–122.675 MHz.

(3) The unicom frequencies 122.700, 122.725, 122.800, 122.950, 122.975, 123.000, 123.050 and 123.075 MHz.

(4) Aviation support station frequencies listed in § 87.323(b): 121.950, 123.300 and 123.500 MHz if the frequency is assigned to a station at the airport and no harmful interference is caused to voice communications. If no such station is located at the concerned airport, aircraft may use one of the aviation support station frequencies for the control of airport lights.

(5) The frequency 122.9 MHz when it is used as the common traffic advisory frequency at the concerned airport.

(z) Frequencies for public correspondence between ships and public coast stations in the maritime mobile service (except frequencies in the 156–174 MHz band) and coast earth stations in the maritime mobile-satellite service are available for public correspondence between aircraft and public coast stations and coast earth stations, respectively. The transmission of public correspondence from aircraft must not cause interference to maritime communications.

(aa) Frequencies in the 454.675–459.975 MHz band are available in the Public Mobile Radio Service (part 22) for use on board aircraft for communications with land mobile stations which are interconnected to the nationwide public telephone system.

(bb) The frequencies 121.950 MHz, 122.850 MHz and 127.050[1] MHz are authorized for air-to-air use for aircraft up to and including 3 km (10,000 ft) mean sea level in the vicinity of Grand Canyon National Park in Arizona within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

36–27–59.9 N. Lat; 112–47–2.7 W. Long.
36–27–59.9 N. Lat; 112–48–2.7 W. Long.
35–50–00.0 N. Lat; 112–48–2.7 W. Long.
35–43–00.0 N. Lat; 112–47–2.7 W. Long.

(cc) The frequency 120.650 MHz[1] is authorized for air-to-air use for aircraft up to and including 3 km (10,000 ft) mean sea level within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

35–59–44.9 N. Lat; 114–51–48.0 W. Long.
36–09–29.9 N. Lat; 114–50–3.0 W. Long.
36–09–29.9 N. Lat; 114–02–57.9 W. Long.
35–54–45.0 N. Lat; 113–48–47.8 W. Long.

(dd) The frequencies 136.425, 136.450, and 136.475 MHz are designated for flight information services—broadcast (FIS–B) and may not be used by aircraft for transmission.

(ee) The frequency 121.95 MHz is authorized for air-to-ground and air-to-air communications for aircraft up to 13000 feet above mean sea level (AMSL) within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

32–35–00 N. Lat.; 117–12–00 W. Long.
32–42–00 N. Lat.; 116–56–00 W. Long.
32–41–00 N. Lat.; 116–41–00 W. Long.
32–35–00 N. Lat.; 116–38–00 W. Long.
32–31–00 N. Lat.; 117–11–00 W. Long.

(ff) The frequency 978 MHz is authorized for Universal Access Transceiver data transmission.

(gg) (1) The frequency 120.650 MHz is authorized for air-to-air communications for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Maui.

(2) The frequency 121.950 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Molokai.

(3) The frequency 122.850 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Oahu.

(4) The frequency 122.850 MHz is authorized for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Hawaii when aircraft are south and east of the 215

[1] Until further notice this frequency is available for air-to-air use as described in the Grand Canyon vicinity. Availability is a result of the FAA's assignment of this frequency. If the FAA reassigns this frequency the Commission may require air-to-air use to cease.

degree radial of very high frequency omni-directional radio range of Hilo International Airport.

(5) The frequency 127.050 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the shoreline of the Hawaiian Island of Hawaii when aircraft are north and west of the 215 degree radial of very high frequency omni-directional radio range of Hilo International Airport.

(6) The frequency 127.050 MHz is authorized for air-to-air use for aircraft over and within five nautical miles of the Hawaiian Island of Kauai.

(hh) (1) The frequency 121.95 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

33–46–00 N. Lat.; 118–27–00 W. Long.
33–47–00 N. Lat.; 118–12–00 W. Long.
33–40–00 N. Lat.; 118–00–00 W. Long.
33–35–00 N. Lat.; 118–08–00 W. Long.
34–00–00 N. Lat.; 118–26–00 W. Long.

(2) The frequency 122.775 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

34–22–00 N. Lat.; 118–30–00 W. Long.
34–35–00 N. Lat.; 118–15–00 W. Long.
34–27–00 N. Lat.; 118–15–00 W. Long.
34–16–00 N. Lat.; 118–35–00 W. Long.
34–06–00 N. Lat.; 118–35–00 W. Long.
34–05–00 N. Lat.; 118–50–00 W. Long.

(3) The frequency 123.30 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

34–08–00 N. Lat.; 118–00–00 W. Long.
34–10–00 N. Lat.; 117–08–00 W. Long.
34–00–00 N. Lat.; 117–08–00 W. Long.
33–53–00 N. Lat.; 117–42–00 W. Long.
33–58–00 N. Lat.; 118–00–00 W. Long.

(4) The frequency 123.50 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

33–53–00 N. Lat.; 117–37–00 W. Long.
34–00–00 N. Lat.; 117–15–00 W. Long.
34–00–00 N. Lat.; 117–07–00 W. Long.
33–28–00 N. Lat.; 116–55–00 W. Long.
33–27–00 N. Lat.; 117–12–00 W. Long.

(5) The frequency 123.50 MHz is authorized for air-to-air communications for aircraft within the area bounded by the following coordinates (all coordinates are referenced to North American Datum 1983 (NAD83)):

33–50–00 N. Lat.; 117–48–00 W. Long.
33–51–00 N. Lat.; 117–41–00 W. Long.
33–38–00 N. Lat.; 117–30–00 W. Long.
33–30–00 N. Lat.; 117–30–00 W. Long.
33–30–00 N. Lat.; 117–49–00 W. Long.

[53 FR 28940, Aug. 1, 1988]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 87.187, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at *www.fdsys.gov*.

§ 87.189 Requirements for public correspondence equipment and operations.

(a) Transmitters used for public correspondence by aircraft stations in the maritime mobile frequency bands must be authorized by the Commission in conformity with part 80 of this chapter.

(b) Transmitters used for public correspondence by aircraft stations in the Aeronautical Mobile-Satellite (R) or Maritime Mobile-Satellite frequencies must be certificated by the Commission in conformity with part 87. Aircraft earth stations that are required to be commissioned to use a privately owned satellite system also must meet the provisions of § 87.51.

(c) A continuous watch must be maintained on the frequencies used for safety and regularity of flight while public correspondence communications are being handled. For aircraft earth stations, this requirement is satisfied by compliance with the priority and preemptive access requirements of § 87.187(q).

(d) All communications in the Aeronautical Mobile Service and the Aeronautical Mobile-Satellite (R) Service have priority over public correspondence.

(e) Transmission of public correspondence must be suspended when such operation will delay or interfere with message pertaining to safety of life and property or regularity of