



Washington Office

November 2, 2001

Ms. Dwana R Terry
Chief
Public Safety and Private Wireless Division
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Request for a Waiver of Part 87 Rules to Allow Type Acceptance of Rockwell Collins' Aeronautical VHF Transceivers with Dual Channel Spacing Capabilities.

Dear Ms. Terry:

Rockwell Collins, Inc. ("Rockwell Collins") hereby requests a waiver of Section 87.173(b) of the Federal Communications Commission's ("Commission's" or "FCC's") rules to allow type acceptance of its aeronautical VHF transceiver¹ capable of transmitting on either 25 kHz or 8.33 kHz channels between 118 and 137 MHz. The Commission has previously granted waivers of Section 87.173(b) allowing type acceptance of Rockwell Collins transceivers capable of transmitting on both 25 and 8.33 kHz channels in the 118-137 MHz band.² The Commission has also granted waivers to Thompson-CSF Communications,³ Allied Signal, Inc. (now Honeywell),⁴ Garmin International, Inc.,⁵ and Wulfsberg Electronic Division of the Chelton Group Company (now Thales).⁶

For reasons described below, including consistency with U.S. international commitments and Federal Aviation Administration (FAA) regulations, and safe and efficient VHF communications during international flights, Rockwell Collins believes that Commission

¹ **FCC ID AJL822-1603**. Application electronically submitted November 1, 2001. Form 731 Confirmation Number EA648647.

² On February 11, 1998, the FCC granted a waiver of Section 87.173 allowing type acceptance of several Rockwell Collins VHF transceivers with "dual spacing" capability in the 118-137 band in order to accommodate European adoption of the International Civil Aviation Organization ("ICAO") 8.33 kHz channel spacing standard, see DA 98-275, 13 FCC Rcd 2954 (1998).

³ In the Matter of Thomson-CSF Communications, Garmin International, Inc. and Allied Signal, Inc.; Request for Waiver of Section 87.173(b) of the Commission's Rules Governing Assignable Carrier Frequencies in the Aviation Services, 14 FCC Rcd 3255 (1998).

⁴ Id.

⁵ Id.

⁶ In the Matter of Wulfsberg Electronics Division; Request for Waiver of Section 87.173(b) of the Commission's Rules Governing Assignable Carrier Frequencies in the Aviation Services, 15 FCC Rcd 10992 (2000).

approval of a waiver allowing type acceptance of its aeronautical VHF transceivers with 8.33 kHz channel spacing capability is in the public interest.

Background

In March of 1997, ICAO amended its International Standards and Recommended Practices to incorporate a channel plan specifying 8.33 kHz channel spacing in the Aeronautical Mobile (Route) Service (AM(R)S) in the 118-137 MHz band.⁷ The 8.33 kHz channel plan was adopted to alleviate the shortage of very high frequency (VHF) air traffic control (ATC) channels experienced in Western Europe and the United Kingdom.⁸ Eight western European countries implemented the 8.33 kHz channel plan in 1999.⁹ Accordingly, aircraft operating in the airspace of these countries must be able to transmit and receive on the 8.33 kHz spaced channels.

Western Europe has experienced a worsening shortage of available aeronautical VHF radio frequencies over the last decade. In response to this shortage, affected European regulators and industry recommended reducing channel spacing from 25 kHz to 8.33 kHz in the affected region.¹⁰ 8.33 kHz channel spacing allows implementing states to triple the number of frequencies available in a given frequency range and can be made compatible with services maintaining 25 kHz channel spacing.

US Industry Standardization and FAA Certification of VHF Transceivers Capable of 8.33 kHz Channel Spacing

Although there are no current plans by the FAA to implement 8.33 kHz channel spacing in the United States, U.S. industry and the FAA have recognized that air carriers operate internationally and their aircraft operate in countries that employ 8.33 kHz spacing. Aircraft must have the capability of communicating reliably with ground stations as directed, and on the frequencies specified, by air traffic controllers. The Commission has stated that this capability could be impaired if US-registered aircraft were unable to

⁷ See *International Standards and Recommended Practices, Aeronautical Telecommunications*, Annex 10 to the Convention on Civil Aviation, Vol. V, Aeronautical Radio Frequency Spectrum Utilization, Amendment No. 72, International Civil Aviation Organization, Montreal, 1997 (ISRP). Ordinarily, when the ICAO adopts an International Standards and Recommended Practices, it is binding on the contracting countries. See Amendment of Part 87 of the Commission's Rules to Establish Technical Standards and Licensing Procedures for Aircraft Earth Stations, *Report and Order*, PR Docket No. 90-315, 7 FCC Rcd 5895, 5896 n.12 (1992). However, contracting countries were not required to implement 8.33 kHz spacing if their current channel spacing standards provide an adequate number of frequencies. ISRP at 6, para. 4.1.2.1. The United States has not adopted 8.33 kHz spacing.

⁸ See *Plan for the 8.33 kHz Channel Spacing Implementation in Europe* (8.33 kHz Spacing Plan), Edition 2.0, European Civil Aviation Conference, Dec. 2, 1996 at 2.

⁹ The implementing countries are Austria, Belgium, France, Germany, Luxembourg, Netherlands, Switzerland and the United Kingdom. *Id.*

¹⁰ Western European regional agreement on 8.33 kHz channel spacing was reached in the Special EUR Regional Air Navigation Meeting ("EUR RAN") in Vienna, September, 1994. ICAO considered the matter on a global basis in 1995.

communicate effectively with ATC facilities in the European countries employing 8.33 kHz spaced channels.¹¹ RTCA, Inc. (“RTCA”) and Aeronautical Radio, Inc. (“ARINC”) have approved U.S. VHF transceiver standards including 8.33 kHz channel spacing capability based on the ICAO recommendation.¹² The FAA has adopted Technical Standards Orders (“TSOs”) based on these industry standards¹³ allowing the certification of VHF transceivers with 8.33 kHz channel spacing capability and, therefore, the use of such duly certified transceivers in the United States pursuant to FAA requirements.¹⁴

Commission Type Acceptance of VHF Transceivers Capable of 8.33 kHz Channel Spacing

Rockwell Collins has previously applied for and received a waiver under Part 87.173(b) of the Commission’s rules to build radios capable of employing 8.33 kHz channel spacing.¹⁵ The Commission recognizes the importance of allowing 8.33 kHz channel spacing and has released a Notice of Proposed Rulemaking seeking to permit certification of dual channel spacing transceivers to accommodate aircraft which operate in countries employing 8.33 kHz spacing.¹⁶

Rockwell Collins VHF transceivers with 8.33 kHz channel spacing capability are, and will continue to be, built to industry standards, certified by the FAA (as discussed above) and, during the Commission’s own type acceptance procedure, notified to the FAA pursuant to Section 87.147. The Commission should be assured by these continuing and redundant government reviews that a waiver allowing type acceptance of Rockwell Collins VHF transceivers with 8.33 kHz channel space capability would not jeopardize the National Airspace System.

Conclusion

Granting type acceptance for Rockwell Collins VHF transceivers with 8.33 kHz channel spacing capability will allow continued safe and efficient ATC VHF communications on flights to and from Western Europe and is consistent with FAA regulations and the United States’ commitments in ICAO. A waiver of Section 87.173 allowing type acceptance of Rockwell Collins’ aeronautical VHF transceiver with 8.33 kHz channel spacing capability is therefore in the public interest.

¹¹ Rockwell Collins, Inc. Order, 13 FCC Rcd 2954 (WTB PSPWD 1998).

¹² See RTCA DO-168a, *Minimum Operational Performance Standards for Airborne Communications Equipment Operating Within the Frequency Range 117.975 - 137.000 MHz* and ARINC Characteristics 566A, 716, and 750.

¹³ See the FAA’s TSO-C37d, TSO-C38d, TSO-C37c and TSO-C38c.

¹⁴ Airborne equipment must be deemed airworthy by the FAA. Technical Standard Order Authorization pursuant to 14CFR21.601 is one manner by which the FAA approves airborne equipment.

¹⁵ See Footnote 11.

¹⁶ See In the Matter of Review of Part 87 of the Commission’s Rules Concerning the Aviation Radio Service, WT Docket No. 01-289, Adopted October 10, 2001, Paragraph 24.

Rockwell Collins respectfully requests expedited review of this request. Please contact Mr. Joseph Cramer of this office at (703) 516-8213 if you have any questions.

Respectfully submitted,

Linda C. Sadler
Director, Governmental & Regulatory Affairs