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Collins KWM-1 aircraft version question

yahya · Jul 25, 2023

Y

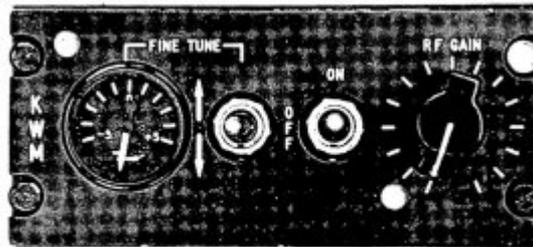
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Member

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Jul 25, 2023

#1

Does anybody know more details on the aircraft version of the Collins KWM-1 HF radio? While the original KWM-1 was addressed to the HAM market, the set pictured below from ca. 1957 operated on only one crystal-controlled preset in the 14-30 MHz band with the maximum power of 100W RF. The controls were very simplistic: just an on/off toggle switch, RF gain potentiometer and tuning control. The set required both 115V AC 400 Hz obtained from the aircraft alternator and 28V DC to operate correctly. Reportedly, the aircraft version of the KWM-1 was on board the U-2 plane piloted by Francis Gary when he was shot down in the USSR in May 1960.



KWM-1 CONTROL PANEL

Port side cockpit console of the U-2 with the KWM-1 control head





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#2

I'm not an expert on the KWM-1 although I do have a KWM-2A with lots of accys. I suspect the aircraft version of the radio is identical to the commercial/amateur version and its only the power supply that is different. There is an AC supply, a 12VDC and a 28VDC which does not require any 115VAC 400Hz power.

The main radio has lots of controls on its front panel and the remote aircraft control panel that plugs into the radio is very limited. The radio is also VFO controlled.

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T

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#3

I heard a bit about these at some time in the past (in the mid 1980's I stumbled on one in storage while looking for APR-9 parts), but have never seen anything "official".

Apparently very low production numbers, I was told under 20. I was also told "this is not how they left the factory", whatever that means. Very short window of use, only a few years before being replaced with something else.

T!

yahya

Y

yahya

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#4

Thank you Gentlemen for the input. Below are the pages from the flight manual that deal with the KWM-1 and the ARA-26 coder for reference. The manual stated that the alternator and DC power were required to operate the radio. Without alternator power the set would fail to operate.

I wonder what indeed the airborne version of the KWM-1 had in common with the commercial HAM version. I presume the aircraft version was crystal-controlled instead of the VFO on the HAM one.





W

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Somewhere there would be need to be the coarse tuning and loading controls, most likely converted to screwdriver adjustment instead of knob control and lockable, so that the PA could be matched to the antenna.

#5

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