

R-390 Secret or not, 3/10/2022

I have read discussions from time to time that the R-390 family was classified Secret at one time. The following are some of the posts about this.

Please let me know any suggestions for content and contributions welcome, Larry Haney, Larry41gm 'at' gmail 'dot' com. Thanks.

Date: Wed, 9 Apr 2008 10:42:56 -0500

From: mikea

Subject: Re: [R-390]

In support of which I advance my experiences: In my experience, the maintenance and operation manuals for classified equipment are themselves classified at the same level as the equipment they cover, since the maintenance manuals tell how the equipment works and is repaired, and since the operation manuals tell how to use the equipment. My experience also is that classified equipment is tagged with the equipment's classification, and with any special-access requirements and/or compartment labels. None of the versions of the R-390 or R-390A manuals I've seen -- from the very old (1950s) through the most recent 1960s/60s -- have had any classification markings whatever, whether printed on the original or stamped on later. This includes my original depot maintenance, field maintenance, and operation manuals from the Army. Moreover, the Collins R-390 and/or R-390A document I've seen carried no classification markings at all, but discussed the internal economy of the receiver in enough detail that it certainly should have been classified if the hardware was.

Date: Thu, 10 Apr 2008 09:20:08 -0700

From: "Dennis A. Deaton"

Subject: [R-390] RE: R390A Classification

Hopefully I can shed a little light on this, three ways. First, my own R390A, S/N 433 from the first Collins contract. I first saw it when I was in High School back in the early '60's. It was in the ham shack of the school's Electronics Lab. It had been acquired as part of a DoD gift to industrial education back in the 1950's. Many years later, a classmate of mine became the chairman of the industrial arts department of that old high school. He, in turn was given the order to clean out all the "old junk" in the building as they were relocating the department to a different facility. He contacted me and asked if I wanted the receiver. Of course I had to think about it first - only about 2 micro-seconds - before I said yes. It's sitting on the bench in my garage, in the rebuild process now. The obvious thing is this. The DoD would NOT give away a piece of CLASSIFIED equipment to a high school. Second, my experience as an Electrical Engineer and Project Manager for DoD. I worked at various labs and agencies over a 31-year period from 1971 to 2002. Over that time I would come into contact with various types of equipment, both CLASSIFIED and UNCLASSIFIED. When a piece of equipment is

CLASSIFIED, it is plainly marked as such and has classification stickers plastered all over it. I worked on many pieces of countermeasures equipment that were so marked. The design documents for those equipments carried the same classification markings as the equipments themselves (usually a higher classification level). I've seen a lot of R-390As over the years in a lot of different locations (including "monitoring" stations). Never did I see any classification stickers on R390A receivers. The microwave lab that I ran at Point Mugu had one on the bench just for us to zero-beat the 10 MHz clock in our frequency counter with WWV. The receiver was not CLASSIFIED. The lab was not CLASSIFIED. It did not have any special security measures that are needed for a CLASSIFIED facility using CLASSIFIED equipment. I also did some work at an un-named facility in Colorado. That place IS a secure facility. It has racks of new digital receivers that were built by Collins and WJ. None of them are marked as CLASSIFIED either. However the facility is secure and, more importantly, the receiver's use is CLASSIFIED. It's a matter of application. Third, if you look at the original R-390A design documents that are available on the web at various places, you'll see that they are usually marked as "Sensitive" or "Restricted". That is merely an internal Collins marking that was there to prevent industrial espionage from competing firms "Sensitive" and "Restricted" are not DoD classifications. The MILSPEC, MIL-R-13947B, for the R-390A is not CLASSIFIED either. If the receiver was to be a piece of CLASSIFIED equipment, it would carry the same (or higher) classification markings as the receiver. I hope that this helps sort out the myths from fact.

Date: Thu, 10 Apr 2008 15:16:34 -0400
From: "Don Heywood"
Subject: [R-390] Receiver classification and cabinet comment

Hello all, during all the years I have been involved with the R-390 family starting in 1963 on the submarine Sailfish, have any of the equipment or technical manuals been classified. I do however have an R-391 manual which is marked "restricted", this is a preliminary draft and probably was marked for company security. This is the one with the interesting spelling, i.e. "alinement"...

Date: Thu, 10 Apr 2008 17:11:42 EDT
From: JRFKE5RI 'at' aol.com
Subject: [R-390] R390A Classification results

Here are the results of my investigation which included responses from many people in the security services who used them or maintained them from their first introduction until their final phase out. The consensus of opinion is that the receiver itself, was not classified unless it had special modifications or was part of another classified system. I am one hundred percent certain that this conclusion is correct. Wikipedia should take note!

Date: Thu, 10 Apr 2008 23:37:28 -0400
From: Roy Morgan

Subject: Re: [R-390] RE: R390A Classification

I think in the distant past, some DoD publications were marked "restricted". For example, I seem to remember having manuals for the RAL and possibly the LM frequency meter and the GO-9 transmitter that are marked that way. These were all designed prior to WW-II, or at least evolved from designs that old. Sorry, I can't confirm my memory: most of my manuals are in storage.

Date: Fri, 11 Apr 2008 00:40:53 -0400
From: rbethman
Subject: Re: [R-390] RE: R390A Classification

You are indeed correct. I have a TCS-12 manual, and it is marked Restricted. Dennis, as far as "modern" markings - you are correct. However, during MY time in starting in the '60s, some items were marked with one of the NOW common classifications - Followed By: "Formerly Restricted Data". So Restricted has been in use during WWII, and into the early '60s.

Date: Fri, 11 Apr 2008 09:32:32 -0500
From: glwebb 'at' gundluth.org
Subject: Re: [R-390] R390A Classification results

My memory from nearly 40 years ago is predictably unreliable. But as a former R brancher (CTR2, Hi to John the M brancher) here is what I remember: I spent three years working with and around R390A's inside buildings inside FRD-10 Circular Disposed Antenna Arrays. Mostly doing narrow band and wideband High Frequency Direction Finding. To go from E3 to E5 I had to study the pertinent manuals. None of the ones about the receivers were stamped with any level of classification. And none of the receivers had any either. I'm sure though, that some of the equipment associated with the encrypted teletype circuits was classified An O brancher could tell us more. I talked to a T brancher this morning who worked with banks of R390/R390A's in the 70's. None of his equipment was classified. By the way, "Restricted" as a level of classification was dropped sometime in the 50's. Some countries still use it as one of theirs. U.S. levels are "Confidential, Secret, and Top Secret". Contrary to some novel writers, there is no level above Top Secret. There are some designations used to narrow the Need To Know and Access. "Eyes Only" and "Cryptographic" come to mind.

Date: Fri, 11 Apr 2008 15:55:05 +0100
From: "Andy Jackson G8JAC"
Subject: RE: [R-390] R390A Classification results

Here's the British slant on this. We still use "Restricted" although the secrecy paranoia has eased off over the past decades. Information that is government property but doesn't really warrant "Restricted" is now classified as "Crown Copyright". In the old days however, even an

army document describing the resistor color code was classified as "Restricted" here!

Date: Fri, 11 Apr 2008 19:31:23 -0400
From: "Richard Spargur"
Subject: [R-390] R390A Classification results

I worked on the R-725 for several years 1970-1973. A gross way to describe the difference with an R-390A is to say it is essentially an R390A with an R-390 IF deck. The mechanical filters in the R-390A's IF deck's mechanical filters caused distortion which made it un-usable for direction finding applications. Initially the manuals would have been classified until they were fielded in systems, but I never saw one. The ones I had, had no classification markings at all.

Date: Thu, 10 Apr 2008 17:46:23 EDT
From: DJED1 'at' aol.com
Subject: Re: [R-390] R390A Classification results

Sounds right. I did find a post on the net that said that the R-725 manual was classified. This falls under your category of special modifications.

Date: Sat, 5 Jun 2010 07:51:31 +0100
From: "Lester Veenstra"
Subject: Re: [R-390] security classification

Nice to see someone who remembers Herb (IBY) the favorite of 73 and the scourge of QST. I worked for Herb, among other things, fixing r-388s and R-390xs. Then I joined the Navy, designated a CTM and sent to A school where the majority of the course was to learn R-390s. For some reason they decided it would be a waste of time for me to take the classes. Instead they gave me the course material and I sat in a room taking the tests. Got out of Great Lakes (K9NBH) in a lot less than the two years the navy said it would take to get educated! BTW, R-390s were never a classified hardware or in the form of manuals.

Date: Fri, 4 Jun 2010 20:58:13 -1000
From: "Raymond Cote"
Subject: [R-390] security classification

When I purchased a couple R390-A receivers from DRMO, Honolulu, the receivers were tagged, not sprayed, SECRET when being utilized. The BFO's were replaced with ten-turn pots and marked with marks on the chassis for common stop points. DRMO personnel shredded the manuals because they had no clue that the operating frequencies were classified not the books. Reminds me of the dunces that worked at Jim Creek and destroyed so many radios due to slight meter needle isotopes. My radios came with meters, as I pulled the tags off the radios before someone noticed the warning.

Date: Sat, 5 Jun 2010 14:14:20 -0400
From: Al Tirevold
Subject: [R-390] "Classified" R-390A Receivers

In my research, I have come across exactly one reference that is classified - "Restricted" - and that is The Final Engineering Report on Radio Receivers R-389()/URR and R-390()/URR from 1953-Sep-15. I suspect that that classification is an internal Collins radio item, not an official government classification. The document is at <http://www.r-390a.net/faq-eng-r3.pdf> The radio was frequently used within a secure 'classified' environment. The uses to which the radio was put and the frequencies that were used were often classified. I have found no evidence that the radio was itself, ever 'classified'.

Date: Sun, 6 Jun 2010 16:13:24 +0200
From: "Prof. Johannes Fischer"
Subject: Re: [R-390] R-390

Hi everybody, what was classified was the Engineering Report on the R-389/URR, R-390 and R-390X. Later on that document was de-classified.

Date: Mon, 07 Jun 2010 08:25:49 -0700
From: "Dennis Deaton"
Subject: Re: [R-390] Classified Equipment

As far as the R-390A receiver being classified equipment goes, I saw my own R-390A (Collins unit from the first contract) when I was in junior high. My dad was attending night classes at our local high school, working on his GED. I went along to the electronics class with him. Being a new novice, the class instructor was kind enough to let me go into back room and operate the school's club station while class was being held. **The station was this R-390A** and a Heathkit DX-40. **The school had received the receiver NIB from a DOD grant.** I'm certain that DOD would not give classified equipment to a public school! Many years later, an old grade-school buddy of mine who ended up teaching at our old high school called as said that the administration was basically shutting down the electronics classes and that he needed to "clean out" all the excess "junk" from the classroom. He asked if I wanted the R-390A. Two nano-seconds later I answered "YES"! It's now on the bench in the process of being restored. I'm going to match it up with a Johnson Adventurer.

Date: Mon, 07 Jun 2010 10:28:39 -0700
From: "Dennis Deaton"
Subject: Re: [R-390] Classified Equipment

I failed to mention the year that I first saw my R-390A. **It was 1958.** Long before the EAC ad

appeared in CQ. I graduated from college (after high school, Jr. college and the USMC) in 1971 and worked for DOD on a variety of classified programs for the next 31 years. The only classified equipment I ever saw was krypto gear (KG-75's and -125's), jammers (ALQ-162's, -126B's and -165's), missiles (SM-1's, SM-2's and RIM-2D's) and radar consoles (AWG-9's, APG-65's and SPG-55B's). The receivers and transmitters associated with the krypto boxes were unclassified. The jammers were classified when loaded with the waveforms (techniques) associated with a particular threat. The radars had specific waveforms and frequencies hardwired into their design. The missiles and KG boxes are obvious. When I ran the EW dept's microwave lab at Point Mugu, I had an R-390A sitting on the lab bench just to receive WWV and set up the 10-MHz lab reference. A waste for that receiver. But, it worked just fine.
