

Sanitized Copy Approved for Release 2011/05/25 : CIA-RDP78-03645A000200110001-3

FORM 12-76 490 USE PREVIOUS EDITION

ARCHIVES/RECORDS CENTER SERVICE REQUEST

INSTRUCTIONS: REQUESTER - 1. COMPLETE REQUEST. 2. RETAIN LAST COPY FOR SUSPENSE. 3. SEND REST OF SET TO RECORDS CENTER. 4. UPON RECEIPT OF MATERIAL DESTROY SUSPENSE COPY. SIGN AND RETURN ORIGINAL TO RECORDS CENTER, IF APPLICABLE.

FROM: ARCHIVES/RECORDS CENTER

NO. 44927
DATE SERVICED

DATE 3 May 68

BOX NUMBER 2 70

JOB NUMBER 030088

ACTION REQUESTED

LOAN PER. RETENT. INFORMATION

TO: CTS/RMO
212 South Bldg

NAME OF REQUESTER

ILLEGIB

OFFICE

ILLEGIB

LOG DATA

MATERIAL REQUESTED IS TO BE USED FOR (check one)
FOIA PRIVACY ACT COMMITTEE INVESTIGATIONS OTHER

FOR ARCHIVES/RECORDS CENTER USE

Folder 11

SERVICED BY SPACE NUMBER POSTED

NUMBER OF DOCUMENTS SENT NOTIFIED

Sanitized Copy Approved for Release 2011/05/25 : CIA-RDP78-03645A000200110001-3

Sanitized Copy Approved for Release 2011/05/25 : CIA-RDP78-03645A000200110001-3

Return archive files to:

C/OTS/Registry

212 South Bldg.

Sanitized Copy Approved for Release 2011/05/25 : CIA-RDP78-03645A000200110001-3

CONFIDENTIALMK II SECURE ROOM

Absolute room security is an extremely difficult thing to achieve. The conventional method of "sweeping" areas to make them secure has many disadvantages. It requires considerable time and equipment. If done properly, almost complete dismantling of the area under search is required. Even if this is done and the area declared "clean", no one has any assurance as to how long it will remain so. Other approaches have been tried, such as inter-communication systems masked by white noise, etc. All of these systems are generally uncomfortable to wear, fatiguing, and so annoying that it is impossible to get people to use them. This is the security system as most people know it. Areas are superficially "swept" and declared "clean" as far as the sweeping equipment could tell, and these areas are used for daily conferences and high level conferences.

In an attempt to provide maximum countermeasure means against surreptitiously placed surveillance devices operating on acoustic, electromagnetic, visual, infra- or ultra-visual principles, a special secure room was designed for conferences and communications work based on the room-within-a-room concept. The object of the room is to provide a secure area as nearly as possible like a room in a home or office in which up to twelve adults can work in comfort for several hours (read, write, converse, walk about, etc.). The term "comfort" implies good light, fresh air, comfortable temperature, adequate room, pleasing appearance, comfortable acoustics, absence of unnecessary outside distractions, and, insofar as possible, the psychological comforts of familiar types of surroundings to avoid any "shut-in" feeling.

RECORDS CENTER

STAT

CONFIDENTIAL

The engineering features of the room were dictated primarily by security considerations to make the room as secure from tampering as practicable. Also considered were the anticipated conditions under which the room would be shipped to location and erected and, subsequently, periodically inspected. Prior to designing this room, experience had been gained through the building of a predecessor room based in part on National Bureau of Standards sound transmission tests, and which incorporated many of the Mark II room features described below.

The room may be erected in any space where there is sufficient wall-to-wall clearance to permit a man to pass freely. This is not only necessary for erection but is also desirable for periodic inspection of the room's outer surface. By supporting the room on lucite pillars at points along its periphery, all six surfaces are made accessible for inspection. The room is structurally adequate to permit jacking the room up to remove any pillar for close inspection or replacement. Each pillar in turn rests on a vibration isolator having a natural frequency lower than that induced by any communications equipment, which may be used in the room. Keeping the number of contact points between the secure room and the floor of the parent room at a minimum not only facilitates inspection but also makes leveling the room easier when installed on an uneven floor. Consideration was given to make the room as modular as possible within the limitation of its multi-wall design to reduce erection time and to enable disassembly and reassembly at another location.

The basic room structure consists of three separate walls. The innermost of these walls is "floated" from the other two on soft rubber

Page - 3

isolation strips to obtain better than Mass Law sound transmission loss through the wall. Floor and ceiling construction is similar to that for the vertical walls except that extra structural bracing is included to permit the room to be supported entirely from its periphery. The middle wall serves as both the main structural component and the RF shield. It is fabricated of .030" aluminum sheet mounted over an aluminum framework. Because it is of sheet stock as opposed to conventional screening, it provides a beneficial "extra" inasmuch as it also serves as an acoustic wall. Its solid construction provides RF suppression in excess of that provided by double copper screening at all points of the RF spectrum. The outer wall serves primarily as a barrier to external penetration. It consists of 20 gage (.032") aluminum panels which are secured to the framework from inside the room and which cannot be removed from the outside short of actually cutting the panels. This wall provides a relatively smooth outer skin which is comparatively easy to inspect for tampering. Specially formulated paints can be applied to the outside to further increase the difficulty of concealing evidence of tampering.

The inner wall is decoupled from the RF shield by soft rubber strips. Either 20 gage (.036") steel or 16 gage (.051") aluminum can be used, depending on which is more important, maximum sound transmission loss or minimum weight. The inner surface of this wall can be either painted or covered with decorative vinyl, which ever is more appropriate for the intended usage of the room.

Page - 4

Power is introduced into the room through dual line filters, access to which must be made through a double-locked panel. Interior lighting is provided by three ceiling fixtures, each of which uses four 60-watt incandescent light bulbs. Jacks are located on the power line inside the room to permit attaching meter prods to check for any suspicious power consumption which might indicate the presence of power line operated surveillance gear. Conditioned air enters the room through a special panel which is interchangeable with other wall panels to permit its location anywhere in the room. Duct silencers are located within this panel to maintain the acoustic performance. Fresh air is introduced into the room from a diffuser at the top of the panel and is returned to the outside at the base of the panel. The air conditioning unit can be located just outside the room, or, if space does not permit, it may be located in a room adjacent to the parent room. When located next to the secure room, the air conditioner is placed on a dolly and the duct connections to the room are of a quick-disconnect type to permit rapid and easy inspection of the ducts and waveguide area. The room is currently equipped with two doors, one being primarily an acoustic door, the other a continuation of the RF shield. Work is proceeding on development of a door seal which may eventually permit incorporating both of these features in a single door.

Furnishings and decoration inside the room will depend on its intended usage. For the room furnished to Bell Laboratories for evaluation, the steel walls have been surfaced with simulated wood grain vinyl, the

CONFIDENTIAL

Page - 5

aluminum ceiling panels are covered with acoustic tile and a rug has been provided for the floor. Along one wall of the room there is a combination chalk board and projection screen. These are concealed behind a decorative drapery when not in use. The room is furnished with a conference table, chairs, bookcase, and battery powered clock. Overall dimensions of this room are 11'8 $\frac{1}{2}$ " by 14'1 $\frac{1}{2}$ " by about 8'11" high. It weighs approximately 6,000 pounds exclusive of interior furnishings.

CONFIDENTIAL

