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5/179th September, 1959.COCOM Document No. 3659

MEMORANDUM BY THE UNITED STATES DELEGATION
CONCERNING THE FRENCH INTERPRETATION OF THE
EMBARGO COVERAGE OF ITEM 1520

Reference: COCOM Document 3634.

1. The United States authorities have given the French statement to COCOM an exhaustive examination. They have concluded that the French export to Poland of the radio relay system described in COCOM Document 3634 unquestionably requires COCOM approval because the equipment in question is embargoed by Item 1520. Moreover, the United States authorities will be unable to concur in such an exception request.
2. The United States regards this question as one of utmost importance in view of the great strategic value inherent in radio relay equipment. It is difficult for the United States to see how a meaningful embargo on this critical equipment can be preserved if the radio relay system described in the French memorandum, or equipment similar to it, can be exported to the Bloc whenever the exporting country reports that it will be used to relay television programs.
3. The French statement to COCOM on July 28 argues that the equipment to link Lodz, Warsaw, Poznan and Katowice is not embargoed because it falls within the meaning of the exclusion clause of Item 1520.
4. This clause defines non-embargoed radio relay communications equipment as "short range and low power links for transmissions between the camera or studio and the television transmitter".
5. In support of the contention that the Type FHT 4076 meets this requirement, the French Delegation states that: 1) the transmitters are of low power output (3 watts); 2) the range is very limited; 3) there are no standby facilities, so that it cannot be used for telephone service; 4) the Type FHT 4076 in the 3800-4200 Mc/s band is strictly reserved for television.
6. These contentions are not supported either by material published by the manufacturer of the equipment himself or by our technical experts who have studied the French statement.
7. The manufacturer in his published technical statement on the Type FHT 4076 (Notice No. 386.6.1959) makes points that conflict with each of the four arguments presented above. The pertinent passages from that technical statement of the manufacturer are as follows:

"The radio relay system Type FHT 4076 is designed for very long distance transmission of a wide band signal, and principally, of 600 telephone channels or of a 625 line television signal (with or without the accompanying sound)".

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"The transmission is frequency modulation in the 3800 to 4200 Mc/s band. The power output is more than 6 watts."

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"This unit [the modulation-de-modulation unit Type HD 7C] transmits indifferently either telephone channels or television".

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8. The analysis made by our technicians in Washington agrees with the manufacturer's statements and examines the problem as it relates to the terms of the exclusion clause of Item 1520.
9. The controlling phrase in the exclusion clause of Item 1520 is that referring to the use for which the equipment is designed. The phrases defining power output and range obviously refer only to equipment used to link the camera or studio to the television transmitter. If the equipment is not designed for this use, i.e., linking camera or studio to the transmitter, it does not qualify for exclusion no matter what its power or range may be.
10. It is evident that the Type FHT 4076 is not designed to link the camera or studio to the transmitter. The manufacturer does not suggest it for this purpose and COCOM Document 3634 makes clear that a city to city link spanning over 500 kilometers is intended. Moreover, the frequency range alone demonstrates that the equipment is for telephone, telegraph or television program transmission from city to city. The range of 3800 to 4200 Mc/s is reserved in France, as elsewhere, exclusively for this type of transmission. Television links from camera or studio to the transmitter are confined in France to a band of frequencies near to 8500 Mc/s. The TRT Model TV 3, which is the TRT equipment specially designed, to link camera or studio to the TV transmitter, operates at 8200 to 8500 Mc/s.
11. These facts convinced our experts that the FHT 4076 does not satisfy the basic requirement of the exclusion clause.
12. Since this fundamental condition is not met, the other considerations outlined in the French statement are no longer logically relevant. However, the remainder of the experts' analysis is also of interest.
13. They do not believe that the Type FHT 4076 is particularly low in power output. Even assuming a power output of 3 watts (compared to the manufacturer's statement of over 6 watts), this is still significant for radio relay equipment. For example, the Ratheon Model ETR-1000, designed for television relays, has a power output of only 1 watt. The TRT Type FHT 4300, a long-haul TV link, has a power output of only 1.5 watts with a possible single hop range of 100 kilometers. Even the TRT Type CZ 8 V, said by the manufacturer to have established the "world's longest microwave leap" has a power output of only 10 watts. The Ratheon Model TOR-12, designed for telephone service, has a power output of 0.1 watt. Finally, the TRT Type TV 3, which is its studio or camera link to transmitter, has a power output of only 0.4 watt.
14. Nor do the experts believe that this equipment can be meaningfully described as "short range", even leaving aside for the moment the fact that the manufacturer specifically describes it as "very long range". All radio relay equipment is, by its very nature (i.e. line of sight transmission) composed of short range links. If the equipment is designed so that multiple short range links can be joined to span great distances, it is obviously long range equipment and is so known to the profession. If the equipment is not suitable to cover great distances in multiple links, it is clearly short range. Camera or studio to transmitter links are a special type of equipment (e.g. TRT's TV 3) not designed to the high standards necessary for multiple links to cover extended distances. The Type FHT 4076, however, is designed for multiple links over great distances.
15. The contention that the FHT 4076 can carry only one television channel, and cannot carry telephone channels because no stand-by equipment is being ordered, is not convincing to the experts either. They point out that, if this equipment is not embargoed, as contended in the French statement to the

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Committee, any number of additional relay units could be purchased permitting simultaneous two way communication. Or, units installed on one sector could be transferred to another sector to obtain the same effect. Since the Type FHT 4076 is designed for both 600 channel telephone communication or 625 line TV, either of these services would then be available.

16. All of these considerations convince the United States authorities that the Type FHT 4076 proposed for export is unquestionably embargoed. It is not designed as a camera or studio link to the TV transmitter but for transmission between cities. It therefore fails to meet the basic requirement of the exclusion clause in Item 1520. Moreover, it is not especially low in power output nor is it short range equipment. It cannot be said to be exclusively for television and, to the contrary, is suited to high volume long distance telephony. It therefore has many strategic applications.

17. It is also appropriate briefly to recall the interpretation given by the French Delegation to the present exclusion clause in Item 1520 during the 1958 list review.

18. It was the French Delegation which submitted the text reading "... à l'exclusion du matériel de radio transmission à faible puissance assurant la transmission entre la caméra de prise de vue ou le studio et l'émetteur de télévision". (Document 3015.00/2). It was the United States understanding that this wording of the exception clause in Item 1520 was clearly intended to prevent the shipment of equipment suitable for long distance transmission.

19. Later, during the Committee discussion of June 24, 1958, the French Delegation cited the TV station at Grenoble as an example of the meaning of the exclusion clause. The French text, it was stated, was designed to permit the linking of the studio and the transmitter which are 6 kilometers distant. The French Delegation also explained that the distance between studio and transmitter might be even as much as 20 kilometers.

20. The United States Delegation hopes and believes that this full exposition of the carefully considered views of United States experts and authorities will be convincing to all delegations and their experts and authorities as well.

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