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NORTH ATLANTIC MILITARY COMMITTEE
COMITE MILITAIRE DE L'ATLANTIQUE NORD

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MCWM-1-67

3 January 1967

MEMORANDUM FOR THE MEMBERS OF THE MILITARY COMMITTEE

SUBJECT: ACE-HIGH Network

- References:
- a. SHAPE ltr 5790/23-10, 16 Nov 66
 - b. MCWM-77-66, 27 Dec 66
 - c. MILCOM 610
 - d. MILCOM 618
 - e. SHAPTO 3819

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Per Authority IMS-0462-02
By HOUSLWA Date 2-7-2003

1. In reference b, the Interim Communications-Electronics Working Group discussed alternate routing of ACE-HIGH network, described in reference a, and made recommendations to the Military Committee.

2. Further amplifying information on the alternative solutions available for the North-South link, and SACEUR appraisal of these alternatives, was sought by references c and d.

3. Reference e provides the following information:

a. Amplifying Information

(1) The minimum requirement, as stated by SHAPE, **between Roetgen and Livorno is 40 channels**, but for technical reasons the maximum capacity of the **alternate route must be 60 channels**.

(2) The alternate route based on the German offer, would provide, from October 1967, **60 channels from Roetgen to Kindsbach** only at a cost of £80,000 per annum. Extension to Southern Germany is planned for April 1968, with same capacity, at a cost of a further £80,000 per annum.

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This system, even when extended, will not fully meet NATO requirements, because a link between Southern Germany and Northern Italy would be required. Such a link can be provided by provision of NATO funded equipment, at a cost of £1,450,000. Further, interconnection between existing ACE-HIGH system and this alternative, would require additional NATO-funded equipment at a cost of £510,000. Thus, for the first year, the total cost of this solution is £2,120,000. Further cost would be £160,000 per annum.

(3) The alternate route based on the United States offer would provide, from April 1967, 24 channels from Roetgen to Montevenda at a cost of £430,000 per annum. Interconnection between existing ACE-HIGH system and this alternative, would require additional NATO-funded equipment at a cost of £17,000. This solution is only offered on an interim basis. Thus, the total cost of this interim solution would be £447,000.

b. SHAPE Evaluation

(1) The solution, based on the German offer, is not acceptable to SHAPE because the system will not be completely available before April 1968, and is considered to be too costly. SHAPE notes that procurement of equipment and rental costs for one year, would become uneconomical before the end of that year, as compared with construction cost of an entire new NATO system, which has been estimated at £2.5,000,000.

(2) The solution, based on the United States system, is not acceptable on a permanent basis, to SHAPE because:

- (a) it would be available only until the completion of a NATO-funded solution
- (b) provides only 24 circuits.

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(3) Both solutions would require acceptance of the following disadvantages:

(a) Introduction of elements into ACE-HIGH network which are not under SACEUR exclusive control.

(b) SHAPE would depend on national elements for system control, restoration and full time response.


(4) Both offers indicate that facilities would be available in time of crisis and war. However, if communications capacity is restricted during such periods, the SHAPE requirement would have to compete with national demands, with possible adverse results to SHAPE.

c. SHAPE Recommendations

(1) Strongly recommends Military Committee support of a NATO-owned permanent system as described in paragraph 2 d, Annex A of reference a.

(2) Recommends, as an interim measure until completion of a NATO-owned system, acceptance of the United States offer.

EF/md


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Director

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