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DEFENCE PLANNING COMMITTEE

FRENCH PARTICIPATION IN TROL CRYPTOGRAPHIC PROCUREMENT  
PROGRAMME

Report by the Infrastructure Committee Representatives  
of the Fourteen Nations

The Infrastructure Committee Representatives of the Fourteen Nations consider that the question of French participation in the TROL cryptographic procurement programme requires thorough discussion by the Fourteen Nations in the Defence Planning Committee.

2. NATO military policy (as contained in SGM-458-61 and other documents) calls for the total encryption of all communications, (telegraph, voice, data, facsimile and television), and a new major step to achieve this will be the provision of modern tapeless, rotorless, on-line (TROL) cryptographic equipment for all NATO telegraph circuits. However it will be recalled that, at the meeting of the Council on Wednesday, 23rd November, France indicated that as a logical consequence of the French position regarding military headquarters and infrastructure, it would not take part in the discussion on the selection of TROL equipment. Furthermore, the French Delegation indicated informally that France would not contribute to the cost of procuring TROL equipment for NATO.

3. It will also be recalled that at the special meeting of the Council on 7th September(1), France stated:

"Télécommunications

(a) Télécommunications des quartiers généraux

Pour des raisons analogues, la France cessera de participer aux dépenses d'investissement (achat de matériel). En revanche, nous pourrions continuer à participer aux frais de location de circuits militaires (permanents ou réservés des réseaux P. & T.) utilisés pour la détection lointaine, la défense aérienne et les nouvelles liaisons à établir entre le Commandement français et les Commandements alliés."

(1) C-VR(66)44

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4. At the special meeting of the Council on 10th November(1), the French Deputy Permanent Representative stated that:

"ce dernier problème (NADGE) revêt aujourd'hui un certain caractère d'urgence puisque les contrats doivent être signés le mois prochain. La Délégation française comprend que puisque la France poursuit sa participation au programme NADGE, elle continuera aussi à demeurer dans les réseaux de recueil et de transmissions des informations de défense aérienne (ACE HIGH, early warning et d'une façon générale les systèmes de communications qui s'y rapportent), étant entendu qu'elle continuera à assumer sa participation financière."

5. The International Staff considered that non-participation by France in the TROL programme raised amongst others, important operations questions, and submitted the following questions to SACEUR:

- (1) what is the position of the NATO Military Authorities on the operational repercussions of not fitting circuits terminating at French MOD, French NALLA, MET centres and French military units previously integrated in the Allied Command Europe with the standard NATO TROL equipment?
- (2) would it be operationally acceptable to communicate air defence information obtained via the NATO alarm and alert system to French MOD, either in clear (if France will not equip their liaison circuits), or through a cryptographic chain on which NATO has no control (this implies equipment as well as operating procedures)?
- (3) how could French units be integrated into a NATO operational plan (in case of emergency or war which would be recognised by France) if these units have no direct circuits with the NATO commands or these circuits are not equipped with NATO standard cryptographic equipment?

6. SHAPE's reply, contained in the letter at Annex A hereto, shows that non-participation would in fact involve unacceptable limitations on liaison with French forces, and on the air defence and early warning information passed to France. SHAPE is of the opinion that to achieve any effective military co-operation in an emergency, the number of circuits required in the Command and liaison and other categories will remain approximately as originally foreseen (see paragraph 7 below). The essential difference will be that a larger proportion of these circuits will be reserved circuits, which must nevertheless be fully equipped in

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peacetime, regularly tested and with personnel trained in operation and maintenance. SHATE has however also stated that French participation in NADGE does not of itself require French participation in the TROL cryptographic procurement programme, since separate arrangements are being made in the case of NADGE.

7. The total cost of the programme has been calculated at £16.5 million for which the French contribution would be roughly £2,170,000. The number of equipments originally foreseen for equipping communications between NATO and French forces has been estimated at 59 duplex and 72 simplex terminal equipments (5% and 6.5% respectively of the total programme). The cost of equipping these circuits on the basis of the estimates used in establishing the cost of the programme is £350,000.

8. From the above, it is evident that, for operational reasons, it is essential for French circuits to be fitted with TROL equipment. The financing of this military co-operation could be achieved by:

- (a) the normal contribution which France would have made to the cost of this procurement had they continued in the NATO Infrastructure programme (provision has been made in Slices XIII, XVI and XVII, with a final increment to be proposed for Slice XVIII) or
- (b) no French contribution to the capital cost of providing equipment, but in lieu thereof an additional charge to be paid by France over and above the normal French contribution to the cost of renting circuits (or to the cost of operating the NATO military communications system ACE HIGH as the case may be), so that the contribution to the capital cost considered to be equitable by the Fourteen be reimbursed over a number of years through the NATO Military Budget, or
- (c) French national procurement of the equipment to be fitted to circuits of direct interest to France. This would involve a minor sum (see paragraph 7) and would be grossly inequitable to the other nations since France would enjoy the benefits of secure communications throughout the Alliance while escaping payment of a financial contribution to the extensive system outside France.

9. It is suggested that the Defence Planning Committee may, in the light of the above, wish to obtain clarification in the Council as to France's intentions in this respect. Annex B hereto contains a suggested form of report for this purpose.

(Signed) M. CHISE  
Chairman

OTAN/NATO,  
Paris, (16c).

SHAPE 6110/23-30

22nd November, 1966

TROL equipment for French circuits

1. Following are SHAPE comments to specific questions raised by a memorandum from the International Staff:

- (a) reference question no. 1: in an emergency, SHAPE could not exercise effective liaison or co-ordination with MOD France and the French agencies listed, nor exercise command of or co-ordination with French units unless the required telegraph circuits are established and tested in peacetime and equipped with NATO TROL equipment on which personnel are trained in operation and maintenance. The delays involved in using off-line encryption on NATO circuits or in passing traffic from NATO headquarters communications centres to national liaison detachments for onward transmission would be totally unacceptable;
- (b) reference question no. 2: the only early warning information which could be passed in the clear would be the initial reports. Amplifying reports would have to be classified. The use of national classified circuits would be acceptable from a security point of view, but the delay in transmission via a national liaison detachment would be unacceptable. Furthermore, there is a requirement for passing classified telegraph traffic from SOCs to the ADOCs at ATAF level and to the national air defence centre at Taverny;
- (c) reference question no. 3: French units could not be effectively integrated into the NATO command structure without direct secure communications circuits. The essential direct circuits must be equipped with NATO TROL equipment in peacetime. Time would not permit the despatch of communications operating detachments or cryptographic equipments from either the NATO or national headquarters in an emergency.

2. To summarise, it is SHAPE's view that the circuits which would be required in an emergency must be established, equipped with NATO TROL equipment, and tested in peacetime; otherwise, they will not be available in an emergency. In the absence of the necessary secure circuits, it would be impossible to establish effective co-ordination, liaison or command and control arrangements between NATO headquarters and French national headquarters, agencies or units. Furthermore, as long as France remains a member of NATO, it will be to her advantage to support SHAPE's plans for the full

implementation of the TROL programme, as this will increase the value and timeliness of operational and intelligence information from the ACE reporting system which would be passed to France.

FOR THE SUPREME ALLIED COMMANDER EUROPE:

(Signed) E. HENRICI  
Major General, Ge A  
Assistant Chief of Staff  
Communications and Electronics

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DRAFT REPORT BY THE DEFENCE PLANNING COMMITTEE TO THE COUNCIL

1. In the course of its discussions on the question of the selection of tapeless rotorless on-line (TROL) cryptographic equipment, the Defence Planning Committee has recognised that certain aspects of the question required reference to the Council for clarification.

2. NATO military policy (as contained in SGM-458-61 and other documents) calls for the total encryption of all communications (telegraph, voice, data, facsimile and television). However, at the meeting of the Council on Wednesday, 23rd November, France indicated that as a logical consequence of its position regarding military headquarters and infrastructure, it would not take part in the discussion on the selection of TROL equipment. On the other hand, the Council will recall that at its meetings on 7th September and 10th November, France expressed an interest in financial participation in the cost of renting military circuits used for liaison with French forces, early warning and air defence information.

3. Since the NATO military telegraph network will be completely fitted with TROL equipment, the Defence Planning Committee suggests that the Council may wish to seek clarification of how France envisages obtaining the information in which it is interested if the French terminals are not to be fitted with the equipment which will be selected for NATO use, as part of the TROL cryptographic procurement programme included in Infrastructure Slices XIII, XVI and XVII with the final increment being proposed for inclusion in Slice XVIII.