STANDING GROUP

DECISION ON S.G. 137/38

A Preliminary Report by the Standing Group
to the
Military Representatives Committee
on
THE 1955 NATO COMMON INFRASTRUCTURE PROGRAM

Note by the Secretary

1. On 30 August 1954 the Steering Committee, acting in
behalf of the Standing Group, approved S.G. 137/38 as a preliminary
report to be forwarded to the Military Representatives Committee.

2. This decision now becomes a part of and shall be attached
as the top sheet of S.G. 137/38.
PRELIMINARY REPORT BY THE STANDING GROUP

to the

MILITARY REPRESENTATIVES COMMITTEE

on

THE 1955 NATO COMMON INFRASTRUCTURE PROGRAM

References:

a. SHAPE AG 6100/6/E-411/54 LOG of 16 June 54
b. SAACLANT Serial 824 of 21 June 54
c. C-M(53)18 of 6 March 53
d. S.G. 137/35 (FINAL)
e. SHAPTO 731 (MRM-65-54)
f. SAACLANT Serial 824/1 of 13 August 54
g. M.G. 32/5 (FINAL)

THE PROBLEM

1. To examine SACEUR's (references a and e) and SAACLANT's (references b and f) proposed 1955 Infrastructure Programs from the point of view of military necessity and adequacy and to make recommendations thereon for eventual submission by the Military Representatives Committee to the North Atlantic Council by 1 October 1954.

FACTS BEARING ON THE PROBLEM

Procedure

2. In reference c the Council has established the procedure to be followed in the preparation, processing and screening of infrastructure programs and defines the respective responsibilities of the Standing Group and the North Atlantic Council.

3. The responsibility of the Standing Group is "to review from the point of view of military necessity and adequacy the programs submitted by the Supreme Commanders in order to decide on the combined NATO common infrastructure programs (with estimates of the degree of common use for each project) they will ask the Council to approve".
Reference d the Standing Group elaborated these procedures as applicable to military authorities and established a time schedule which was orientated around the necessity of forwarding the military recommendations to the Council by 1 October 1954.

5. These procedures have been followed and have resulted in a thorough and satisfactory military screening of the programs by all Allied nations.

6. In accordance with paragraph 7(b) of reference c, the International Staff are currently screening the programs from the technical, financial, economic and political points of view. Their recommendations are not at this time available but it can be assumed that, before the 1955 program is submitted to the Council, various projects will, by agreement with the military authorities, have been deleted, added or amended and more reliable cost estimates formed. Thus the 1955 program as it now exists can only be regarded as provisional, both in content and cost.

Scope of the Standing Group Report

7. This report, therefore, should only be regarded as of an interim nature, intended to:
   a. Establish the items for which the Standing Group proposes to recommend approval.
   b. Highlight the items, and the issues or reservations connected with them, to which further consideration must be given before an agreed military recommendation can be reached.

8. A final report, for approval by the Military Representatives Committee and submission to the Council, will be prepared as laid down in paragraph 33 of reference d.

9. In preparing this report the Standing Group has carefully examined the views of the Allied nations which have forwarded them. Turkey has not forwarded any views and, in accordance with
paragraph 29 of reference d, it is assumed that Turkey has none to offer. The views received are attached as Enclosures "C" to "O".

10. In interpreting its responsibilities for reviewing Supreme Commanders' programs, as outlined in paragraph 3 above, the Standing Group has decided that its recommendations and comments should stem from considerations of broad principle and policy involved, rather than from examination of the technical and military detail of individual items. After approval of the programs by the Council, details and refinements should be settled between Supreme Commanders, national authorities, and the Infrastructure Committee of the Council.

11. Included in reference a were proposals for POL and radio-navigational aid projects in Germany totalling £3.77 million. In order to expedite construction and utilize funds already available to the occupying powers, the Standing Group and the Infrastructure Committee, acting on behalf of the Council, have given advance approval to these projects. They are therefore not considered further in this report. The proposals in reference a, concerning on-base interconnecting pipelines and the toning down of pavements, will, where they apply to airfields in Germany, be dealt with in a similar manner.

12. Supreme Commanders have taken into account when formulating their programs the considerations which, on instructions from the Council (C-M(53)166F), have given rise to the Capabilities Planning Studies and a review by the Standing Group of the most effective future pattern of NATO forces. However, since infrastructure is required principally for the logistic and material support of forces in the field, until the pattern of forces is finally decided, concomitant requirements in the field of infrastructure cannot be established in any great detail. It will therefore not be until the 1956 program, by which time the most effective pattern of forces...
will have been finally agreed, that any new infrastructure requirements may arise therefrom. Meanwhile, this program has been carefully examined in order to ensure that all projects will remain essential under future methods of warfare.

13. On instructions from the Standing Group (paragraph 13a of reference d) possible German EDC forces were not considered by SACEUR in the preparation of his 1955 program.

Finance

14. In reference d the Standing Group, for planning purposes, apportioned between SACEUR and SACLANT the finances remaining, after final approval of the 1954 program, out of the £250 million approved by the Council for financing NATO common infrastructure during the three years 1954, 1955, and 1956.

15. After setting aside a margin of £25 million as a contingency fund against cost increases, £121½ million were apportioned to SACEUR and £13½ million to SACLANT as planning maxima for their 1955 and 1956 infrastructure programs combined.

Supreme Commanders 1955 Programs

16. By references a and b SACEUR and SACLANT have submitted their proposed 1955 infrastructure programs. SACEUR has, by reference e, submitted supplementary proposals and SACLANT has, by reference f, submitted minor amendments. CHANCOM has not submitted a program for 1955. The total cost estimates submitted by the Supreme Commanders are approximately:

- SACEUR - £80.63 million (not including Germany)
- SACLANT - £8.48 million
- TOTAL - £89.11 million (not including Germany)

A breakdown by countries and types of project is attached as Enclosures "A" and "B".
The military reasoning which led both to the selection from the original proposals (totalling £130 million for Allied Command Europe) by nations and subordinate commanders of projects for inclusion in supreme commanders' 1955 programs and to the deferment or exclusion of the remainder were discussed, as laid down in reference a, with national delegations at conferences in Paris between 19-22 July.

DISCUSSION

SHAPRE AIRFIELDS

18. The projects recommended comprise:
   a. The upgrading of one alternative airfield to main.
   b. Ten alternative airfields.
   c. One maritime airfield.
   d. Certain additional facilities at two main and one alternative airfield.
   e. Certain increases to approved standards at all airfields.

19. The estimated total cost is £31.62 millions.

20. SACEUR states that:
   a. Realistic estimates of end-1956 forces justify the provision of only one main tactical airfield, one maritime airfield and increased facilities at two tactical airfields. However, the slower peacetime build-up of air forces, while delaying requirements for main airfields, increases the need for alternative airfields to permit the most effective use of available forces and to accept post D-day reinforcements.
   b. Operational requirements permit the provision of two Sixth Slice alternative airfields to reduced standards.
   c. The maritime airfield is required for wartime, operational use of SACEUR's assigned maritime air forces in the eastern Mediterranean.
21. By reference (e), SACEUR has submitted proposals for:

a. Implementing two increases to airfield standards that have been approved by the Standing Group. These are:
   (1) The provision of on-base inter-connecting pipelines between dispersed groups of fuel storage tanks.
   (2) The toning down of airfield pavements.

b. The provision of 12 additional underground hardstands at Flesland airfield in Norway.

22. The Standing Group considers that:

a. Justification has been established for the airfields and facilities which are directly related to the build-up of NATO air forces. These should therefore be approved.

b. In the light of its preliminary views on the most effective future pattern of NATO forces, and on SACEUR's Capabilities Planning Study, any surprise onslaught by the enemy would probably be conducted initially with weapons of mass destruction and be directed against NATO capacity to retaliate in kind. There is therefore an urgent need to safeguard this capacity in the face of such an attack. Dispersion is one of the methods by which this can be achieved and SACEUR's proposals for the additional alternative airfields should therefore be supported. Moreover, with inferior forces and with the advantage of the initiative lying with the enemy, particularly as it relates to the point of attack, a high degree of flexibility is clearly desirable by the defense and this is achieved by the provision of alternative airfields.

c. SACEUR's airfield program should therefore be approved.

d. However, the program should be reviewed in the light of data arising from the 1954 Annual Review and any alterations to presently estimated force build-ups reflected by amendments to the requirement for airfields.

23. On points of detail:
In S.G. 137/38, the Standing Group has recommended that the cost of the completion from alternative to main standards of the 2nd and 3rd Slice airfields at Belfort and Sezanne in France should be re-programed under the Sixth Slice. If this is approved by the Council these projects will have to be added to SACEUR's present program.

The Belgian comment on the deployment of France DAT units is noted. This problem is currently under study by the Standing Group and a decision can be expected shortly. However, it is anticipated that any recommendations will relate to earlier slices and will not affect SACEUR's present program.

SEAFLL NAVAL BASES

24. The projects recommended comprise:
   a. Naval POL storage at 9 ports in Northern Europe and 6 ports in Mediterranean - total 571,500 tons.
   b. Naval ammunition storage at 6 ports in Northern Europe and 3 ports in Mediterranean.
   c. One repair and maintenance base (financed jointly between NATO and Norway)
   d. Certain minor works at various ports in the Mediterranean.

25. The estimated total cost is £20.59 millions.

26. SACEUR states that:
   a. These projects are required for multi-national use by his naval forces to provide logistic support necessary for carrying out of NATO fleet missions.
   b. The course of the sea battle will dictate the deployment, as well as the composition, of Allied forces and effective use of the limited forces available will depend on the ability to deploy them with maximum flexibility. This flexibility can be obtained only by the provision of adequate strategically located facilities for their logistic support.
It is not considered to be the responsibility, nor is it practical, economical or feasible for each individual nation providing forces for NATO fleets to construct facilities, for their exclusive use, at every port to which they may possibly be deployed.

27. The Standing Group, when recommending approval of the 1954 programme in reference to, included a warning (para. 20) of the dangers of pursuing the principle of operational flexibility beyond prudent financial limits.

28. It is noted that the proposed cost of naval bases has risen from £15.31 millions in the 1954 program to £20.59 millions in 1955, representing an increase in percentage of the overall program cost from 19% to 25%.

29. However, in view of the fact that a large proportion of the costs of the 1955 program relate to installations in Northern Europe, an area previously inadequately provided for, it is not considered that the proposals are excessive. Nevertheless, it is considered that the warning previously expressed concerning operational flexibility should continue to be borne in mind.

30. It is considered that SACEUR has justified his proposals and a sufficient degree of common usage has been established.

31. It is therefore considered that SACEUR's proposals should be approved.

32. On points of detail:
   a. France has drawn attention to the wording of para 2 b (4) of Annex III to reference (a), which states that “even these (POL storage) requirements have been reduced by the amount required for host nations' NATO Command forces in home bases”. France considers that such action is contrary to the principle that the storage capacities constructed under Common
Infrastructure are available to all forces under NATO Command and is thus unacceptable. It is pointed out that this statement was intended to refer to the calculations of POL requirements as between NATO forces and forces under national control and is not related to the utilization of NATO POL facilities by NATO forces of a host nation. However, the Standing Group considers that the phrase referred to is open to misunderstanding and should therefore be deleted or clarified to conform with previously established principles.

b. Belgium has requested that, in the 1956 programme, definite plans for allocation and use be established for the POL and ammunition storage installations that will be proposed.

The Standing Group has, under current study proposals by supreme commanders for the control, operation and maintenance of naval base facilities. It is hoped shortly to conclude this study and forward recommendations to the Council for their approval of the plans and policies and further consideration of the financial implications. Until such action is completed it will not be possible for SACEUR to make other than provisional and tentative allocation of the facilities available.

SHAPE POL INSTALLATIONS

33. The projects recommended comprise pipelines and storage in eight NATO countries and discharge facilities in five.

34. The estimated total cost is £16.07 millions.

35. SACEUR states that these projects are designed:

a. to develop further the approved system by providing increased motor gasoline distribution capability in forward areas and by supplying jet fuel to additional airfields;

b. to provide additional storage capacity and discharge facilities at terminal ports;

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36. When proposing approval of the 1955 programme in reference to, the Standing Group, in paragraph 18, drew the attention of Allied Nations to the desirability of:

a. retaining operational flexibility by the maintenance and development of supplementary methods of POL distribution.

b. achieving and maintaining a balanced logistic system for the forces in any area by the parallel development of an adequate road and rail system to support the transport of supplies other than POL.

37. The Standing Group considers that:

a. SACEUR has taken the consideration in para. 36 above into sufficient account when selecting projects for inclusion in his program.

b. A sufficient degree of common usage or NATO interest has been established.

c. The proposals should therefore be approved.

38. On a point of detail:

Belgium has raised the question of the vulnerability of the POL pipeline system to attacks on the ports of discharge.

The Standing Group considers that this is a point of importance, particularly when related to the provisional conclusions it has reached on the Capabilities Studies. It is not considered, however, that this aspect should delay approval of the projects in the 1955 program but it is considered that further study should be made by SACEUR before his 1956 program is formulated, using as a guide the final conclusions and recommendations on the Capabilities Studies and such data as may be then available on the probable effects of attacks on ports with nuclear weapons.

SHAPE RADAR WARNING INSTALLATIONS

39. The projects comprise one Air Defense and four Coast-watching radar sites in Norway.
40. The estimated total cost is £0.75 millions.

41. SACEUR states that:
   a. The air defense radar is required to provide early
      warning and control for the NATO-financed SACLANT airfield at
      Andoya.
   b. The coast-watching radar is required to provide sur-
      veillance of sea and air traffic along the coast in support
      of Allied operations in Northern Norway, where visibility is
      usually bad and where darkness during winter is continuous.
   c. NATO requirements differ from those arising from con-
      siderations of Norway's own defense plans and that these projects
      would not be provided under purely national plans.

42. The Standing Group considers that, while strict interpre-
    tation of the principles concerning eligibility for common financing
    might be held to invalidate these projects, a sufficient degree of
    military justification and NATO interest has been established in that
    the facilities proposed:
    a. are designed to support multi-national NATO forces
       in a particularly vital area,
    b. would not be provided by the host nation in further-
       ance of its own national defense plans.

43. It is therefore considered that the proposals should be
    approved.

SHAPE RADIO NAVIGATIONAL AIDS

44. The projects comprise one new URN-3 installation in
    Malta and one spare equipment in each of five NATO countries.

45. The estimated total cost is £0.19 millions.

46. SACEUR states that:
   a. The new installation at Malta is required to
      provide additional coverage over the Southern part of his
      area.
The spare equipments are intended to maintain continuous coverage by providing replacements in cases of emergency for the single installations already approved under the Fourth Slice Program. They will be held in reserve in the major subordinate commands concerned for use as required.

47. The Standing Group considers that the projects proposed are militarily justified and that a sufficient degree of common usage has been established.

48. It is therefore considered that they should be approved.

SHAPE SIGNAL COMMUNICATIONS

49. The projects comprise cables, radio relays and communication equipment in seven NATO countries and their Mediterranean dependencies.

50. The estimated total cost is £11.06 millions.

51. SACEUR states that the projects are necessary to meet deficiencies in primary communications required in support of his defense plans and those of his subordinate commanders.

52. Established NATO procedures have been followed in developing the program which has been agreed by ELLA.
It is not practicable for the Standing Group to comment in detail on the proposals from the data submitted. However, the projects have been screened by the European Long Lines Agency and further screening will be carried out by the European Military Communications Co-ordination Committee and the International Staff. This detailed screening should determine the correctness of estimated costs and the degree of civil interest in particular facilities and identify the projects with pertinent defense plans.

It is therefore considered that, subject to continuous further screening as outlined above, the program should be approved.

On points of detail:

a. It is noted that Italy has proposed two additional items for inclusion at the expense of other items of approximately equivalent cost and that SACEUR has agreed to this change. The Standing Group will study this amendment to the program when it is submitted by SACEUR.

b. The United States has questioned the adequacy of the protection afforded to communications by the Copenhagen Ring Cable.

The Standing Group considers that the question of the vulnerability of ring cables in general should be studied by the International Staff experts in the light of the effects produced by nuclear attack.

c. The United States has also questioned the size of the program for Turkey.

The Standing Group, after noting the slow progress made with the implementation of the program of previous years in Turkey, considers that the signals program for that country should be reviewed by the International Staff in the light of the host nation's constructional capacity in this field in order to determine whether it will be possible to complete the
program in the time scheduled.

SHAPE WAR HEADQUARTERS

56. The projects comprise further increments to two previously programmed headquarters, one in Norway and one in Turkey.

57. The estimated total cost is £0.55 million.

58. The Standing Group considers that:
   a. A sufficient degree of military justification and common usage has been established.
   b. The proposals should be approved.

SACLANT COMMUNICATIONS

59. The projects include radio tele-typewriter circuits and miscellaneous communications facilities in Denmark, France, Morocco, Iceland, Norway, Portugal and the United Kingdom.

60. The estimated total cost as amended by reference f. is £1301.8 thousand.

61. SACLANT states that:
   a. It is essential that adequate and effective communication systems exist between command headquarters. Without such systems the execution of control necessary to implement operational plans cannot be accomplished.

   b. Continuous reliable communication is required between various headquarters to carry the operations, intelligence and administrative message traffic necessary for effective coordination of all NATO forces operating in the ACIANT area.

   c. Adequate and suitable communications are required for operational commanders effectively to control their own forces. Area broadcasts and ship shore facilities are typical of such communications.
d. Existing facilities are inadequate both as to capacity and reliability to meet the requirements outlined above.

62. The Standing Group concurs with SACLANT's justification for his proposals. In particular that in paragraph 61d above was one of the principal lessons learned from Exercise "Meriner".

63. It is considered that a sufficient degree of common usage or NATO interest has been established and that the projects should therefore be approved.

64. On points of detail:

a. Portugal has proposed that the terminal of circuit NA-18 should be located in Lisbon. The Standing Group considers that the item should be approved but that the details of the location of the terminal should be decided between SACLANT and the host nation in the light of technical advice by the International Staff as to the most efficient and economic method of implementing this facility.

b. The United States has questioned the estimated cost of the VLF Broadcast Transmitter, stating that recent experience in the construction of similar facilities leads them to believe that the cost has been underestimated.

The Standing Group considers that the International Staff when screening the cost estimate for this item should take into account U.S. experience in this field.

c. With regard to circuit NA-15 (U.K. - Iceland), the United States is not convinced that SACLANT has explored all possibilities of obtaining the required communications service from civilian or national sources and considers that construction should only be approved if arrangements cannot be made for the use of existing or planned facilities.
The Group concurs with the requirement for an additional U.K. - Iceland circuit, but considers that SACLANT should make further efforts to obtain satisfactory and guaranteed facilities in the manner stated above. Approval of circuit NA-15 will be withheld pending the outcome of this review.

SAACLANT NAVAL FLEET FACILITIES

65. The projects comprise an ammunition storage, moorings and defense boom in the Clyde area of the United Kingdom.

66. The estimated total cost is £7,100 thousand.

67. SACLANT states that:

a. A large majority of the naval forces earmarked for assignment to the Allied Command Atlantic are planned for deployment to the U.K. in time of war. Of these forces a considerable number are scheduled to be based in and/or supported from facilities in the Clyde.

b. Existing facilities in all U.K. ports, particularly the Clyde, will be utilized to the greatest extent possible in support of both national and NATO forces. There are, however, insufficient facilities to provide for both the U.K. ships and the ships of other nations in the Clyde area.

c. Due to the existence of a good harbor and an established national system of seaward and air defense in the vicinity, it is economically sound to use the Clyde to its utmost capacity.

d. The proposed projects provide for increasing the facilities in the Clyde in order that the additional requirements imposed by NATO forces can be met. The projects are a direct requirement of NATO forces and do not duplicate facilities existing or planned for national forces.
66. The Standing Group considers that:
   a. "The projects are militarily justified and that a
      sufficient degree of common usage has been established.
   b. Subject to the satisfactory resolution of certain
      problems - as stated below - connected with certain of the
      projects, they should be approved.

69. On points of detail:
   a. The United Kingdom and the Netherlands have questioned
      the wisdom of providing an above ground ammunition storage in
      the Clyde area in view of the latest appreciations of the
      thermo-nuclear weapon threat.

      The Standing Group considers that:
      (1) There is a NATO requirement for an ammunition
          storage in support of naval forces in the Eastern Atlantic.
      (2) It is operationally and strategically desirable
          that the naval forces should be based in the Clyde area.
      (3) In view of the fact that the Clyde area is an
          obvious target for nuclear attack, further consideration
          should be given by SACLANT and the host nation, with
          such assistance as may be provided by the International
          Staff, to the site selection for the storage, whether it
          should be above or below ground and any degree of dis­
          persion required. Account should be taken of the prelim­
          inary views of the Standing Group on the Capabilities
          Studies and such information as is available on the
          probable effects of nuclear attacks on ports.

   a. The United Kingdom and the Netherlands have raised
      certain points in connection with the provision of the Clyde
      boom. These concern:

      (1) The possibility of the host nation supplying the
          associated boom vessels.
(2) The extent to which the boom can be laid in peacetime.

(3) The maintenance of the boom in peacetime.

The Standing Group concurs with the military necessity for the Clyde boom but considers that approval should be withheld pending the satisfactory resolution of the above problems by the host nation and SACLANT.

SACLANT MARITIME AIR FACILITIES

70. The project is to provide increased bulk FOI storage at Bodo in Norway.

71. The estimated total cost is £76,500.

72. SACLANT states that:

a. There exists in the approved project for Andoya airfield, plans for construction of FOI storage facilities to provide a thirty day supply. In order that a full ninety day supply - the war reserve stock level established by the Standing Group - may be stored in this area, facilities for the storage of an additional sixty days supply must be constructed.

b. Due to the remote location of Andoya, it is necessary that facilities for the entire ninety days storage be located in North Norway. Bodo provides the most convenient and practical location since additions can be made to SHAPE's existing Fourth Slice project.

c. The facilities proposed are for the sole purpose of providing essential reserves in support of NATO operations in war. The provision of such facilities cannot be regarded as the responsibility of the host nation or any one nation to provide since the requirement arises entirely from NATO commitments.
d. Existing bulk fuel storage facilities are adequate for the requirements of the host nation and there is no degree of common use or benefit to the host nation occurring from this project. In view of the total requirement being generated by NATO forces it is considered that the cost should be borne by common financing.

73. The Standing Group:
   a. Supports SACLANT's justification for this project.
   b. Considers that a sufficient degree of common usage or NATO interest has been established.
   c. Considers that this project should be approved.

GENERAL STANDING GROUP COMMENTS

74. Supreme Commanders' Programs. The Standing Group considers that the proposed programs are, in general, sound and militarily well balanced, not only within themselves but also in relation to other conflicting factors. In particular SACEUR's program represents a skilful and judicious selection of projects of the highest priority from those proposed by nations and subordinate commanders. It is worthy of remark that the implementation of all projects proposed would have overspent the funds available to SACEUR for the 1955 and 1956 programs combined.

75. It is noted that the national comments of certain countries contain proposals for the re-consideration of various projects for inclusion in the 1955 program or their recommendation as of high priority for 1956.

76. The Standing Group wishes to draw attention to paragraphs 25 and 35d of reference d where it was stated that no proposals for additional items would be studied unless they were accompanied by proposals for savings in other directions. This policy was previously endorsed by the Military Committee when approving the 1954 program (paragraph 9 of reference g). Except for two items in SACEUR's communications plan for Italy no proposals for equivalent savings...
77. Supreme commanders will, of course, consider these additional projects when formulating their 1956 programs. However, the Standing Group cannot commit itself in advance to any recommendations concerning priorities for the 1956 program. Many countries will naturally have projects which they consider of the highest priority and which, if all were approved, would doubtless exceed the limited finances available. It will, therefore, be necessary for supreme commanders to study the proposals of all nations and subordinate commanders before they can select and propose a program which is in proper military balance, within the funds available, and in the best interests of NATO as a whole.

FINANCIAL CONSIDERATIONS

78. The Standing Group notes that the estimated total cost of the 1955 program as at present constituted will commit funds approximately as follows from those available:

<table>
<thead>
<tr>
<th>Approximate Funds Available</th>
<th>1955 Program</th>
<th>Balance Remaining for 1956 Program</th>
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<tbody>
<tr>
<td>SACOEUR</td>
<td>£ 121-1/2 million</td>
<td>£ 61 million</td>
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<tr>
<td>SACIANT</td>
<td>£ 13-1/2 million</td>
<td>£ 3-1/2 million</td>
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<tr>
<td>TOTAL</td>
<td>£ 135 million</td>
<td>£ 89-1/2 million</td>
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It is realised that, before final approval, these figures may be somewhat altered in either direction both by the addition of supplemental items or by screening action by the International Staff. As they stand at present supreme commander's programs represent an expenditure of 66 percent or two-thirds of the funds available for 1955 and 1956.

79. In view of the high degree of military importance attached to all the proposed projects the Standing Group considers that this proportion does not mortgage the future to an unacceptable extent. However, in view of:

- The number of outstanding projects still considered to be of high priority,
b. The infrastructure requirements that may arise from the new approach studies now being conducted,

c. The increasing number of inroads being made on the £25 million contingency fund,

the Standing Group cannot view the finances that will be available for the 1956 program with any degree of complacency and urges that every effort be made, both by supreme commanders and the International Staff, during the remaining processing of the program to keep the total cost of the 1955 program to as low a figure as possible.

"NEW APPROACH" STUDIES

30. As stated in paragraph 12 above the considerations which give rise to these studies have been taken into account by supreme commanders to the extent that is possible at this stage and further requirements in this respect may arise in their 1956 programs.

31. However, the Standing Group considers that these studies should continue to be borne in mind during the remaining processing and implementation of the program and that, where site selection for any project is possible, due consideration should be given to the threat of nuclear attack on the area concerned.
62. The Standing Group considers that:

a. SACEUR's and SACLANT's programs are militarily justified, well balanced and not excessive financially.

b. A sufficient degree of common usage and NATO interest has been established for the projects contained therein.

c. These programs should therefore be approved subject to the following considerations:

(1) That continuous further screening will be carried out by the International Staff and supreme commanders with the aim of establishing the most efficient and economic methods of implementing the proposals.

(2) That during this process the preliminary views of the Standing Group on the Capabilities Studies will be borne in mind.

(3) That the points of detail, raised in the discussion above, concerning certain projects will be satisfactorily resolved.

(4) That, should the 1974 Annual Review disclose any significant changes to presently estimated force build-ups, such changes will be reflected by relevant amendments to these programs.
83. The Standing Group recommends that the Military Representatives Committee:

a. Forward this report to their national authorities.

b. Inform their national authorities that a final Standing Group report, on similar lines, will be prepared for tabling in the Military Representatives Committee about 23rd September and that, therefore, any comments they may have should be made available both to the Standing Group and their Military Representatives by 15th September 1954 at the latest.
# ENCLOSE "A"

## SUMMARY OF SHAPE PROPOSED 1955 INFRASTRUCTURE PROGRAM

*(References A and B as amended by SH 3606)*

### COST ESTIMATES IN MILLIONS OF POUNDS STERLING

<table>
<thead>
<tr>
<th>COUNTRY IN WHICH LOCATED</th>
<th>AIRFIELDS</th>
<th>NAVAL BASE INSTALLATIONS</th>
<th>POL INSTALLATIONS</th>
<th>RADAR WARNING INSTALLATIONS</th>
<th>RADIO NAVIGATIONAL AIDS</th>
<th>SIGNAL COMMUNICATIONS</th>
<th>WAR HEADQUARTERS</th>
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NOVEMBER 1954
BELGIAN MILITARY MISSION
Washington D.C., 20 Aug 54
No. : 406

Major General A.E.L. Bigwood,
Military Representative to Standing Group
Pentagon Bldg.

SUBJECT: NATO 1955 Infrastructure Program

Reference: MRM-51-54 dated 2 July 1954

1. I have the honor to inform you that the Belgian Authorities approve, from the military point of view, the work projects of the Sixth Slice NATO Common Infrastructure as described in SHAPE document 6100/6/E-111/54 LOG of 16 June 1954 and SACLANT Serial 824 of 21 June 1954.

2. Nevertheless, the Belgian authorities wish to make several comments relative to SACEUR's program.

a. Naval Bases -

i. The Belgian authorities have expressed their desire to be assured that the program of Supply Installation be established in phase with the program for the activation and supply of forces.

ii. They have noted with satisfaction the assurance given by SHAPE, while there is no definite plan of allocation of supply installations among the using nations and no precise program of stockage the installations to be eventually used by only American forces of the Mediterranean, those being at the exclusive disposition of NATO.

iii. The Belgian authorities request that for the program of the Seventh Slice, a definite plan of use be established for the storage installations which would be forecast.

b. Airfields -

i. The Belgian authorities have asked SHAPE whether in the evaluation of the requirements for Central Europe account has been taken of the principle and redeployment NATO fields which according to SHAPE/141/54 dated 13.5/4 will be at the end of 1956, either unoccupied (St. DIZIER, LURE) or occupied by forces not assigned to SACEUR (CAMBRAI, EPINOC, DIJON).

ii. SHAPE answered in the affirmative, adding that the cost of the utilization of these bases, in connection with the financing of their construction, had been made the subject of a report to the Standing Group.

iii. The Belgian authorities requested that the Standing Group keep them informed as to the follow-up to this report.
c. POL Installations -

1. The Belgian authorities have expressed regret at seeing the NATO effort in this bear upon the multiplication of pipelines in the short area rather than on the reinforcements of the basis of the whole system, this basis which is precisely essentially contributed by the ports of MARSEILLE and HAVRE, and which, due to this, is weak because it is subject to bombing of localized targets of a small number.

The Belgian authorities feel that it would be appropriate to divide each important port of disembarkation with a port of diversion. For example, ZEEBRUGGE could be a port of diversion for DUNKERQUE. This would allow NATO, at the expense of the construction of a pipeline of some 50 km between ZEEBRUGGE and GHENT, to add to its potential, without delay and at a low cost, the considerable subterranean stockpiling installations which existed in that area.

ii. The Belgian authorities noted with satisfaction the assurance given by SHAPE to the effect that the installations of the ports of MARSEILLE and HAVRE will be sufficiently dispersed to avoid too great a vulnerability.

iii. Nevertheless, they insist that the connection of the Belgian POL stockpiling installations of ZEEBRUGGE to the NATO POL system may be contemplated in the program of the Seventh Slice. Failing this, Belgium would find great difficulties in assuring at the same time the maintenance and utilization of their own installations as well as the filling up of those parts of the NATO installations under her control.

The Belgian authorities have noted SHAPE's promise to take into serious consideration the possibility of incorporating this connection in the program of the Seventh Slice.

3. The Belgian authorities request that account be taken of the above comments especially in respect of 2.(a)(iii), 2(b)(iii) and 2(c)(iii).

(Signed) A.E.L. Bigwood
Major General
CJS 311-2-3-3

CANADIAN JOINT STAFF
2001 Connecticut Ave., N.W.
Washington, D.C.

15 August 1954

Secretary
Standing Group
Room 1E956, The Pentagon
Washington 25, D.C.

1955 NATO Common Infrastructure Programme

1 Reference is made to MRM-51-54 dated 2 Jul 54 on the subject of the 1955 NATO Common Infrastructure Programme.

2 The Canadian Services have examined the 1955 NATO Common Infrastructure Programme as it affects those projects on which Canada has a direct user interest, and from this point of view the programme appears satisfactory.

(signed)
(H.G. DeWolf)
Rear Admiral
Chairman
Canadian Joint Staff
DANISH MILITARY REPRESENTATIVE
TO THE STANDING GROUP
2328 Massachusetts Ave., N.W.
WASHINGTON 8, D.C.

19 August 1954
J. No. AH125/8-8

To
The Military Committee,
The Standing Group

SUBJECT: SHAPE Recommended 1955 Sixth Slice NATO Common Infrastructure Program

Ref.: MRM-51-54, dated 2 July 1954

In compliance with referenced document, Para 3a I beg to inform you that the Danish Ministry of Defense medio July 1954 has informed SACEUR that the Danish Department of Defense has no comments to SACEUR's letter 49 6100/6/E-411/54 LOG, but intends to include deferred projects in Seventh Slice.

In submitting MRM-63-54 on 18th August to the Department of Defense, Copenhagen, I requested comments to respectively concurrence in the additional projects set forth by SACEUR in SH 35818. In the same letter I asked for comments to respectively concurrence in SACLANT's 1955 Infrastructure Program.

*    *    *    *

(signed)

S. Ramlau-Hansen
Rear Admiral, RDN

(signed)

S. Ramlau-Hansen
Rear Admiral, RDN
MEMORANDUM FOR: THE SECRETARY, STANDING GROUP
FROM: Lt. General J. E. VALLUX
French Representative, Standing Group, NATO
SUBJECT: French comments on Sixth Slice Common Infrastructure Programme, recommended by Supreme Commanders.

REFERENCES:
1. S.C. 137/35
2. A6 6100/6/5-411/54/LOG
3. SER 824

I. GENERAL COMMENTS

1. The French Chiefs of Staff Committee consider that the infrastructure Programs for 1955, submitted by the Supreme Commanders, are generally acceptable from a military point of view even though they are based upon a Strategic Concept which is apt to be altered in the near future because of the use of new weapons. This may exert a serious impact on Infrastructure, which may make itself felt as early as the time of the preparation of the 7th Slice.

2. Under such conditions, programs currently submitted (including additional projects submitted by SAC/HR) should be considered on the one hand as maxima, on the other hand as projects not definite in character. Any increase, which is not counterbalanced by an equivalent decrease in already recommended projects and which would not satisfy the requirements of a new strategy, could only be made to the detriment of the 7th Slice for which the available funds already appear to be insufficient.

II. SPECIFIC COMMENTS

1. Airfields

The French Staff note that the question of the downgrading of the Sezanne and Belfort airfields is still under consideration by the Infrastructure Committee.

In the event, as it was proposed by the Standing Group, that these airfields would be downgraded for purely financial reasons to alternate airfields standards under the 3rd Slice, it is obvious that their completion as main airfields should be listed under the 6th Slice since they are to be occupied by the end of 1956.

2. Use of NATO fuel storage capacity established on naval bases

Paragraph 2 b (4) of Enclosure III of reference b states: "The POL storage programmed (and that previously approved) is keyed to the operational plans and requirements of the NATO Command forces only, and even these requirements have been reduced by the amount required for host nation NATO Command forces in home bases".

The French Chiefs of Staff Committee note that these dispositions have not been approved by the Standing Group and are in opposition to the principles which heretofore have been accepted that is; that capacity built under Common Infrastructure should be available for the use of all Naval forces under NATO Command.
The French point of view, a very definite one in this matter, is that national forces under NATO Command could not a priori be denied the use of those storage facilities built under Common Infrastructure within their own naval bases.

3. Radar Installations
   a. C.R.C. Radar in Norway

   In Enclosure V of reference b SACEUR recommends the installation of a C.R.C. radar for the air defense of Norway's northern area.

   While acknowledging the well founded justifications given by SACEUR concerning Norway's particular situation, it still must be kept in mind that air defense installations outside of the "air tactical zone" are a national responsibility and that the inclusion within the Sixth Slice Program of the project being considered would be to establish a precedent which might have repercussions.

   On the other hand, current studies on the air defense of Europe bring out new requirements the satisfaction of which would probably entail numerous problems which might be hard to settle.

   Under such conditions, the French Chiefs of Staff Committee are of the opinion that no new air defense installation should be financed in common as long as these studies have not been completed.

   b. In the same Enclosure V, SACEUR recommends the installation of three coastal warning radars in Norway.

   Now, in accordance with M.C. 36, coastal defense and the fixed installations which are a part of it are also a national responsibility. However, the French Chiefs of Staff Committee concur in SACEUR's feeling that in some areas which are specially important to NATO forces and when it would result in an exaggerated financial burden for the nation concerned, coastal defense installations may be financed in common, or at least the expenditures could be shared between the host nation and NATO.

   This disposition, which seems a reasonable one, may be applied in the future to other nations and it is under these conditions only that the coastal warning radars in Norway, proposed by SACEUR, can be included in the Common Infrastructure Program.

4. Naval Bases

   Comments made in para 1,1 above apply specifically to the general naval base program. This program, which, when taken together tends to build up two base complexes (one in the Mediterranean and one in the North Sea), gives rise to the following comments by the French Chiefs of Staff Committee:

   a. Funds remaining available under the three-year program will only permit a sketchy and incomplete development of this base complex, completion of which will require additional large Allied and national expenditure.

   b. Generally speaking the rearward portions of the defense complex of Western Europe have insufficient means available to them. It seems that the possibilities which are offered by a certain number of bases well located along the Atlantic Coast of Western Europe and North Africa have not been sufficiently examined.
c. Concerning the specific program which has been proposed by SACLANT, and even though the usual anchorage for the Striking Fleet appears to be Scotland, we fear that the importance assigned to the Clyde would result in an excessive and dangerous concentration of maritime strength in that region.

In fact, besides the Striking Fleet, SACLANT estimates that other maritime forces quite considerable in number will put into the Clyde for their supplies - and the question arises whether the means for defense once placed into execution, powerful though they might be, would be able to shelter this zone for an atomic attack, the consequences of which might be disastrous.

d. In conclusion, the French General Staff, all the while recognizing the difficulties of the problem and the results already obtained, are of the opinion that the overall concept of the program for NATO naval bases should be the object of a far-reaching revision, and that furthermore, in consideration of the high cost of the installations which are to be built, that we should be very prudent about taking any action in this realm of activity, as long as the studies being prepared on the "capabilities" have not yet clearly indicated the changes to be made in our strategy.

5. VLF Station in United Kingdom

From the consideration of NATO naval forces requirements and existing resources (stations of Rugby, Criggion and St-Assise) the French Staff has been led to believe that the shortage in long range VLF Stations amounts to two stations.

The station which SACLANT proposes to establish in the UK will allow for the completion of the equipment of the Atlantic Command area, but there will still be an important gap in the CINCFMED area. This gap can only be filled by another VLF station in the Mediterranean.

Although SACEUR has made no recommendation on this subject, the French Chiefs of Staff Committee consider that before approving SACLANT's project the Standing Group should have a complementary study made, in order to determine the priority of requirements, since there are already two stations in existence in the UK which are capable of meeting part of SACLANT's requirements, whilst the Mediterranean-Black Sea area has none.
THE GREEK MILITARY REPRESENTATIVE  
NORTH ATLANTIC TREATY ORGANIZATION  
WASHINGTON 8, D.C.

The Secretary  
Military Representatives Committee (NATO)  
The Pentagon  
Washington 25, D.C.

Info: H.N.D.G.S., Athens - Greece  

Subject: 1955 NATO Common Infrastructure Program

Reference: (a) S.G. 137/35 (FINAL)  
(b) MRM-51-54

1. The Hellenic National Defense General Staff, when the initial Infrastructure proposals were submitted and during the discussions of the SHAPE 1955 Common Infrastructure Program, emphasized that certain projects of supplementary work on Naval Bases of SOUDA BAY and SALAMIS, 6 U. R. N. Installations and Pipeline from KOZANI to THESSALONIKI, are considered of vital importance and essential from military point of view, for the support of NATO forces in this area.

2. SHAPE being obliged to reduce the total sum of the program of 6th Slice, could not finally include these projects in its recommended 1955 Sixth Slice NATO Common Infrastructure Program, as it is stated in page 20, para 10, serial 3 b of Naval Base Installations and in page 48 para 16 b of POL Installations.

3. The H.N.D.G.S. recognises the necessity of reducing the total amount of the 6th slice Common Infrastructure Program, and taking into consideration that its proposed additional items for inclusion, is not possible to be accompanied by proposals for corresponding saving, in other directions, according to para 35 d of S.G. 137/35, is obliged to accept this program as it is recommended by SHAPE. This is with the understanding, that the omitted projects will be included later in the seventh Slice of Common Infrastructure Program, when discussed, due to their high importance.
ITALIAN COMMENTS

ITALIAN MILITARY MISSION
WASHINGTON, D. C.

01254/3RP

August 23, 1954

TO THE SECRETARIAT OF THE STANDING GROUP

SUBJECT: Italian General Staff's Comments on 1955 NATO Common Infrastructure Program

Reference: a. S.G. 137/35 (Final)
           b. SHAPE AG 6100/6/E-411/54 LOG

In consonance with provision in reference a., herewith attached at enclosure are the Italian General Staff's comments on reference b.

(signed)
Cesare Gandini
Lt. General Italian Army
Enclosure 1 to letter O1254/GRP
dated 23 August 1954

SUBJECT: ITALIAN GENERAL STAFF's COMMENTS ON 1955 NATO COMMON INFRASTRUCTURE PROGRAM

Reference: SHAPE AG 6100/6/2-411/54 LOG

GENERAL

The Italian General Staff of Defense agree in general to the program in reference with the few exceptions and comments set forth in subsequent paragraphs.

It is realized that some of these comments may not appear pertinent with the content of referenced paper, as they refer to projects which are not included in SHAPE's Infrastructure Program. In the view of the Italian General Staff, however, these projects are of such operational importance as to make it worth while to discuss them briefly in this report. If this importance is recognized also by the Standing Group, the Italian General Staff, although aware of the economical difficulties involved, is of the opinion that every effort should be made to finance the projects in the 5th Slice or to recommend them as high priority projects in the 7th Slice.

1. Airfields

The construction of a new alternative airfield in the Pescara area, as proposed by SHAPE, is agreed upon by the Italian General Staff of Defense.

The Italian Authorities, however, are concerned over the fact that the projects they had proposed for the improvement of a certain number of existing airfields in the Po Valley, have not been included in the 5th Slice Program.

With regard to this it is pointed out that the Italian Air Force General Staff had relinquished their original proposal for the construction of a second alternative airfield in the Vicenza Campodoro area, to make possible the acceptance of said projects.

2. Naval Base Installations

a. The Italian General Staff of Defense would like to stress the importance of reconsidering the inclusion in the 6th Slice of the following items in order of priority:

   (1) Cagliari: construction of an underground ammunition storage for 4,000 tons; estimated cost: Lst. 600,000;
   (2) Taranto: completion of the Mar Grande's 50,000 tons dry dock; estimated cost: Lst. 1,772,000;
   (3) La Spezia: construction of an underground gasoil storage for 10,000 tons; estimated cost: Lst. 285,000;
   (4) La Spezia: construction of a gasoil storage in lieu of the one cancelled at Imperia.

b. The operational reasons for requesting the above items are as follows:

   (1) Cagliari

   The importance of the geographical location of this port for naval operations in Central Mediterranean has already been recognized by including in the 5th Slice the construction of large underground storage facilities for
fuel and gasoil in the Cagliari area. To meet the needs of naval forces, convoys, antisubmarine and minesweeping forces the naval base of Cagliari should also be provided with the proposed underground ammunition storage.

(2) Taranto
It is the main Italian and NATO naval base in central Mediterranean. Works on a 50,000 tons dry dock in the Mar Grande have already been made (about 70% of requirements). Completion of this dry dock would be of great logistical assistance to any type of ship, particularly because other existing dry docks are located in the Mar Piccolo.

(3) La Spezia
La Spezia naval base, with its extended underground installations, is the main naval logistical center in Northern Tyrrhenian. A vast POL and fuel storage has already been approved and is under construction. There is however a strong requirement for more gasoline storage, as La Spezia is the major port in the area for POL entry. In addition, Spezia should be provided with an extra gasoil storage to make up for the one previously planned at Imperia and subsequently cancelled.

3. POL Installations
SHAPE's proposed POL installation projects are agreed upon by the Italian General Staff of Defense.

It is noted however that some other items proposed by the Italian Authority have not been taken into consideration. These are:

a. Partial rehabilitation of an old Army fuel storage located at Sasso Marconi. Rehabilitation works should increase of 22,000 m³ the existing fuel storage capacity in the Bologna area.

b. Connecting with a second pipeline the POL storages of Bologna and Verona. This would insure the flow of fuel between the two storages in case of interruption of any section of the approved pipeline Parma-Montechiari and Parma-Bologna.

c. Connecting the storage in Taranto with the storages of Gioia del Colle and Foggia. This connection would allow:

- To exploit at better advantage the storage of Taranto.
- To facilitate the supply of the two storages at Gioia del Colle and Foggia the importance of which in wartime is well known.

4. Radar Warning Installations

The question of the radar warning network along the Otranto and Sicily Channels is still under discussion and no decision has been reached up to now. It is, however, the firm belief of the Italian General Staff that the radar warning network in this area should by all means be considered in the 7th Slice Program.

5. Radio Navigational Aids

a. New UHN-3 equipment. This question involves both the cost required for its purchase as well as the expenses for its installation. The problem is still under consideration by SHAPE and it is hoped that necessary funds can be allocated.
b. ATCC. The Italian General Staff of Defense do not fully agree with SHAPE's view that the Italian territory can be controlled by one single ATCC. On the contrary they are of the opinion that at least three ATCC's, located in Milan, Rome and Brindisi respectively, are required to cover the entire territory. And this for the following reasons:

(1) Control of the whole air traffic from the Alps to Sicily with one ATCC would be practically impossible.

(2) The operation of one single ATCC would be too heavy and vulnerable.

(3) Installation of three ATCC's would conform to the three Air Defense Regions, the Research and Rescue Organizations, and to the existing Air Traffic Control Organization established in agreement with ICAO.

6. Signal Communications

a. The Italian General Staff of Defense request that the following two items be considered for inclusion in the 5th Slice:

(1) Firenze-Pesaro - coaxial Cable - 2 tubes + crown/Km.235;

(2) Civitavecchia-Olbia - Submarine Cable - 35 channels/Km.250.

Reasons for the above request are as follows:

b. Cable Firenze-Pesaro

(1) This cable is necessary to meet NATO and National Military circuit requirements as established in document ELLA/CT/13-14-25, that is:

<table>
<thead>
<tr>
<th>Circuits</th>
<th>NATO</th>
<th>Alternate route NATO</th>
<th>National Military</th>
<th>In Reserve 30%</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NATO Circuits</td>
<td>41 + 14</td>
<td>70 + 22</td>
<td>7 + 2</td>
<td>34 + 11</td>
<td>152 + 49</td>
</tr>
<tr>
<td>Alternate route NATO Circuits</td>
<td>70 + 22</td>
<td>70 + 22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NATO Totals</td>
<td>111 + 36</td>
<td>111 + 36</td>
<td>118 + 38</td>
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</tr>
<tr>
<td>National Military Circuits</td>
<td>7 + 2</td>
<td>7 + 2</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Military Total</td>
<td>118 + 38</td>
<td>118 + 38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Reserve 30%</td>
<td>34 + 11</td>
<td>34 + 11</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Grand Total</td>
<td>152 + 49</td>
<td>152 + 49</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Details of the above NATO circuit requirements are as follows:

<table>
<thead>
<tr>
<th>AFSOUTH</th>
<th>MEDCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuits using cable as the shortest route:</td>
<td>41 + 14</td>
</tr>
<tr>
<td>Alternate routeage</td>
<td>64 + 20</td>
</tr>
<tr>
<td>Totals</td>
<td>105 + 34</td>
</tr>
</tbody>
</table>

(2) A cable Firenze-Pesaro would provide a transversal link between the Tyrrhenian and Adriatic communication axes. This, in turn, would allow adequate flexibility to the communication network in the particularly sensitive areas of Northern and Central Italy. As it is known, these areas are sensitive because of their proximity to the North-Eastern front, the Adriatic coasts and due to the important targets located therein.
Securing flexibility to the network would give the additional advantage of avoiding the use of costly mobile equipment in case of damages to the cables due to enemy action or sabotage. This is all the more important because the financing of such equipment has not yet been approved by the Infrastructure Committee.

(3) The fact that the cable Firenze-Pesaro should be linked with the Tyrrhenian and Adriatic coaxial cables, points to the necessity for it to be of the coaxial type, also.

(4) The total cost of this cable is estimated at Lst. 1,800,000. However, according to ELLA's estimate its cost might be further reduced to Lst. 1,500,000, of which only Lst. 607,000 should be financed in the 6th Slice. The balance should be financed in the 7th Slice Program.

d. Cable Civitavecchia-Olbia (Sardinia)

(1) According to document ELLA/CT/13-1-4-25 the circuit requirements between the Mainland of Italy and Sardinia are as follows:

<table>
<thead>
<tr>
<th>Circuit Type</th>
<th>Channels</th>
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</thead>
<tbody>
<tr>
<td>NATO Circuits</td>
<td>56+11</td>
</tr>
<tr>
<td>National Military Circuits</td>
<td>-</td>
</tr>
<tr>
<td>In reserve 30%</td>
<td>18+3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>74+14</strong></td>
</tr>
</tbody>
</table>

In existence (50% capacity) 12+0

Grand Total 68+14

From the above it appears that the proposed cable (36 channels) would meet about 50% of the requirements for military circuits.

(2) As the cable would be the extension of the axis Roma-Pesara from Continental Italy to Sardinia it would also permit to link the Island with the two main Tyrrhenian and Adriatic axes. Improvement of communications between Continental Italy and Sardinia is deemed most desirable since the existing submarine cable Roma-Olbia (2 channels) and radio-relay Roma-Cagliari (24 channels) are no longer adequate to meet military and civilian requirements.

(3) The cost of this cable is estimated at Lst. 680,000. However a quota of Lst. 240,000 would be financed by the Italian Ministry of Communication as a contribution for the civilian use of the cable in peacetime. This financing, in conjunction with a possible reduction of 20,000 Lat. in the original cost estimate, would leave Lst. 420,000 to be financed in the 6th Slice.

d. Conclusion and recommendation

In summary, the cost of the two proposed cables is:

<table>
<thead>
<tr>
<th>Cable</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firenze-Pesaro</td>
<td>Lst. 607,000</td>
</tr>
<tr>
<td>Civitavecchia-Olbia</td>
<td>Lst. 420,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,027,000</strong></td>
</tr>
</tbody>
</table>

To make it possible the inclusion of the two items in the 6th Slice Program, the Italian General Staff of Defense suggest the deletion from cable n.8 in SHAPE AG S100/3/8-411/54 LGG of the following items: 137/50
Piombino-Elba-(Bastia)(Italian quota) Lat. 47,000
(table n.6) (French quota) " 129,000
Cagliari-Trapani " 153,000
Standby terminal and repeater equipment " 586,000
VF telegraph carrier " 112,300

Total " 1,027,300

The Italian Ministry of Communication will provide within its budget for VF telegraph carrier, and Standby terminal and repeater equipment.

7. War Headquarters

It is known that recent agreements provide for the national financing of Headquarters subordinate to CINCAF MED. However, this financing arrangement should be without prejudice to decisions as to future financing.

In connection with this, the Italian General Staff of Defense wish to point out that 30% of the works required for the construction of an underground war headquarters for MEDCENT in Naples have already been carried out at national expenses.

Completion of the war headquarters would require an additional expense of Lat. 350,000 which, in the opinion of the Italian General Staff of Defense, should be provided by international financing, because of the importance of MEDCENT as an international headquarters.

It is hardly necessary to recall that this importance stems mainly from the geographical location of the port of Naples and the large number of ships that the port will be required to support logistically in wartime (some 1,100 ships yearly).

For the above reasons the Italian General Staff of Defense would greatly appreciate if the completion of MEDCENT protected war headquarters can be included in the 6th Slice Program.
LUXEMBOURG COMMENTS

ORGANISATION DU TRAITÉ ATLANTIQUE NORD
REPRESENTANT MILITAIRE BELGE

Washington, 10 Aug 54
No. 379

Major General Andre E.L.Bigwood
Military Representative
to
The Standing Group
The Pentagon

SUBJECT: 1955 NATO Common Infrastructure Program

REFER: MRM 51-54 of 2 Jul 54

I have the honour to inform you that the authorities
of the Grand Duchy of Luxembourg have no comments on SHAPE's and
SACLANT's proposed 1955 Infrastructure Program as laid down in
documents SHAPE AG 6100/G/E-411/54 LOG of 16 Jun 54 and SACLANT
SER 824 of 21 Jun 54.

F/A.E.L.BIGWOOD
Major General

(signed)
Colonel EEM Baron A. del Marmol
Netherlands Comments

Netherlands Joint Staff Mission
1470 Euclid Street, N. W.
Washington 9, D. C.

No. 3496-117A/317

20 August 1954

To: Chairman Standing Group

Subject: National Comments on 1955 NATO Common Infrastructure Programme

Ref.: (a) SQ 137/35 (Final)
(b) MRM-51-54
(c) SHAPE AG 6100/6/K-411/54 LOG
(d) SACLANT SER 824 dated 21 June 1954
(e) STAND 774

1. As requested in ref (a) para 23 and in ref (b) I may herewith forward to you the finalized Netherlands comments on SACLANT and SHAPE's 1955 NATO Common Infrastructure Programmes:

A. SHAPE (ref c): nihil.

B. SACLANT (ref d):

(1) Annex A to Part III, Ammunition Storage in the Clyde Area

During discussion of this programme in Paris on 23 July 1954 it appeared that SHAPE proposed underground ammunition storage for large quantities in target areas. As these two criteria apply to the ammunition storage in the Clyde area, it is considered to be essential that the study, promised by SACLANT during this conference, will be completed before a final decision is reached between underground and above ground ammunition storage.

(2) Annex C to Part III: Re-Location of the Clyde Boom, and Annex B to Part III: Additional Moorings in the Clyde

During the same discussions it came to our attention that the 6 additional boom vessels required for the relocated boom have not yet been assigned. If these vessels are not or will not be available the projects of the relocation of the boom and of the provision of additional moorings in the Clyde are still unsettled. There has to be a definite assignment of these vessels by the British Admiralty before the projects in Annexes B and C can be approved.

2. As requested in ref (e) the Netherlands NLR to SACLANT and the Netherlands Military Representative to SHAPE will inform SACLANT and SACEUR of these comments.

The acting Netherlands Military Representative

(signed) G. Koudijs
Rear Admiral R. Neth. N.

Enclosure "J"
ENVELOE "K"

NORWEGIAN COMMENTS

NORTH ATLANTIC TREATY ORGANIZATION
NORWEGIAN MILITARY REPRESENTATIVE

2362 Massachusetts Avenue
Washington, D. C.
August 13, 1954

Copy to: The Standing Group

MOD/NORWAY

Attention: Colonel H.L. BAYS

Ref: a) MRM 51-54 of 2 July 1954
b) SHAPE's AG 6100/5/E - 411/54 LOG of 16 June 1954
c) SACLANT's Ser 824 of 21 June 1954

1. With reference to b) and c) above, containing SACEUR and SACLANT's proposed 1955 Common Infrastructure Programs, I am informed from Norway that the Norwegian Authorities will make no comments to these proposed programs.

2. Even if the Norwegian authorities might have wanted some changes regarding SACEUR's program, they find that they should, at this stage, make no comments as long as the program is not further changed.

This program in Norway is the result of extensive discussions between SACEUR, CinCNORTH and national authorities, and is as a whole the best balanced program on which all parties could reach agreement.

Sincerely yours,

(signed)
Erling Hostvedt
Rear Admiral R. Nor. N.
MEMORANDUM

TO: The Secretary of the Standing Group
FROM: The Portuguese Military Representative
SUBJ: 1955 NATO Common Infrastructure Program
REF: (a) MRM-51-54 dated 2 July 1954
     (b) SACLANT SERIAL 824 dated 21 June 1954

As requested in paragraph 3a of reference (a) above, set forth below are the comments of the Portuguese Military Authorities regarding SERIAL 824.

(l) The terminal of circuit NA 18 should be located at the radio naval station "Commandante Nunes Ribeiro", Lisbon, belonging to the Portuguese Navy Department. This location is satisfactory as much in the case of the MHQ being set up in Lisbon as in Gibraltar. Installation in Lisbon would cost $16,580 less than in Montijo.

(b) Communications between Lisbon and Montijo will always be assured by means of the radio-teletype circuit in VHP, presently being installed by the Portuguese Navy Department, and by the two telephone connections within his private telephonic network.

(c) Type "B" estimates (referred to on page 11-17 of SERIAL 824) are as follows:

   For the Lisbon Terminal - $60,775.00
   For the Montijo Terminal - $77,355.00

THE PORTUGUESE MILITARY REPRESENTATIVE
(signed)
Humberto Delgado
Major General

Enclosures: 2 Type "B" Estimates
Name of project: Radio Teletypes circuit NA-18 Montijo-terminal

<table>
<thead>
<tr>
<th>List of items</th>
<th>Quant.</th>
<th>Unit Price</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Chapter I-Supply of Cables and accessories.</td>
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<tr>
<td>Transmission Lines</td>
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<td>Poles</td>
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<td>Chapter II-Detailed prices for laying and connection the above cables and accessories</td>
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<td>$175.00</td>
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<tr>
<td>Impedance transformers &amp; Coaxial cable</td>
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<tr>
<td>Chapter III-List of civil engineer works.</td>
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<td>$1,000.00</td>
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<td>works in the receiver building</td>
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<td></td>
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<tr>
<td>Chapter IV-List of prices of radio equipment.</td>
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<tr>
<td>Transmitters Collins 1 Kw (1 for Standby)</td>
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<td>$7,000.00</td>
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<td>T/D (for Standby)</td>
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<td>Frequencymeter</td>
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<td>Receiving antennas</td>
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<td>Chapter VIII-List and prices of spare parts</td>
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<tr>
<td>Spare parts for transmitters, receivers and teletype machines</td>
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<tr>
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<tr>
<td>Chapter XII - Customs for radio terminal</td>
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<tr>
<td>Chapter XIII - Contigencies (10%)</td>
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<td></td>
<td>$7,000.00</td>
</tr>
</tbody>
</table>

Custo total do material necessario ao circuito Montijo-Gibraltar

---- $77,355.00.
**Name of project:** Radio Teletype circuita NA-18

**Lisbon Terminal**

<table>
<thead>
<tr>
<th>List of items</th>
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<th>Unit Price</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter I - Supply of cables and Accessories</td>
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<td>$175.00</td>
<td>$175.00</td>
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<tr>
<td>Impedance transformer</td>
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<td></td>
<td></td>
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<tr>
<td>Chapter II - Detailed prices for laying and connecting the above cables and accessories</td>
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<td>Chapter III - List of civil engineer works</td>
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<td>Works in the receiver building</td>
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<tr>
<td>Chapter IV - List and prices of radio equipment</td>
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<tr>
<td>Transmitters type 431 C-2</td>
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<tr>
<td>Receivers Collins 716-A-2</td>
<td>2</td>
<td>$3,500.00</td>
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<tr>
<td>Teletypes model 15</td>
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<td>$4,800.00</td>
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<tr>
<td>Teletypes model 15 T/D</td>
<td>1</td>
<td>$4,800.00</td>
<td>$4,800.00</td>
</tr>
<tr>
<td>Line amplifiers</td>
<td>1</td>
<td>$100.00</td>
<td>$100.00</td>
</tr>
<tr>
<td>Chapter VII - Transmitting antennas</td>
<td>1</td>
<td>$1,000.00</td>
<td>$1,000.00</td>
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<tr>
<td>Receiving antennas</td>
<td>-</td>
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</tr>
<tr>
<td>Chapter VIII - List of prices of spares parts</td>
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</tr>
<tr>
<td>Spares for equipments</td>
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<td>Chapter IX - Installation and connection of equipment referred in previous chapter</td>
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<td>-</td>
<td>$4,000.00</td>
</tr>
<tr>
<td>Chapter XII - Customs for radio material</td>
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<td>$1,900.00</td>
<td>$1,900.00</td>
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<tr>
<td>Chapter XIII - Contingencies (10%)</td>
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<td>-</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>$560,775.00</td>
</tr>
</tbody>
</table>

**TOTAL:** $560,775.00

**Enclosure "L"**
No. 266-P
NATO SECRET

MEMORANDUM

TO: The Secretary of the Standing Group
FROM: The Portuguese Military Representative
SUBJ: Additions to SHAPE Recommended Sixth Slice Infrastructure Program
REF: MRM-63-54 of 16 August 1954

As requested in paragraph 4 of the above document, I wish to inform you that the Portuguese Military Authorities approve the projects mentioned in subparagraphs 2a and 2b thereof.

THE PORTUGUESE MILITARY REPRESENTATIVE

(Signed) Humberto Delgado
General
ENCLOSURE "M"

TURKISH COMMENTS

NOT RECEIVED
Memorandum for: Secretary, Standing Group

Subject: SACEUR's and SAACLANT's Proposed 1955
NATO Common Infrastructure Programmes

References: a. SHAPE AG 6100/5/B-411/54 L0g of 16 June 1954
b. SAACLENT SER 624 of 21 June 1954
E. SHAPE 731

From: United Kingdom Representative

The proposals of SACEUR and SAACLANT in references have been
carefully examined. United Kingdom representatives have also attended
a series of conferences held in Paris by the Supreme Commanders
during the week ended 24th July for the benefit of national military
delegations desiring further explanations. They were able in this
way to clear up various points which had arisen in the examination of
their proposals. They also obtained assurance from SACEUR and
SAACLANT that the "new approach" had been taken into consideration in
the formulation of the proposals.

2. The final result of the examination is that the United Kingdom
has no military objections to offer to the proposals which in some
cases they support, and in the rest accept as being operationally
necessary.

3. They have however, certain comments to offer on two of the
major projects in the SAACLANT programme, and to which it is consid-
ered necessary to invite special attention since the United Kingdom
has a close and direct interest in both projects.

4. Examination of the Clyde Boom project has revealed certain
difficulties inherent in this project, namely that:

(a) although presented by SAACLANT as a proposal to move the
Dunoon boom to a new location, the project does in fact
involve the construction in deep tidal waters of a new
boom for which it is unlikely that very much of the equip-
ment of the Dunoon boom will be suitable;

(b) the boom cannot be laid in peacetime except at consider-
able inconvenience to shipping, and maintenance would be
costly;

(c) if not laid in peacetime, it would take at least six
months after the declaration of an emergency to complete
the boom;

(d) the construction of such a boom presents a number of
technical problems which are not yet fully mastered;

(e) there will be an associated requirement for 12 boom defence
vessels, the cost of which has been estimated at around
4 million pounds.
5. These difficulties were brought to notice by the United Kingdom representatives during the discussions in Paris, but the representative of SACLANT firmly resisted the suggestion that the project should be deferred for further examination and remained adamant that SACLANT wished the proposal to go through this year.

6. Even if it be assumed that the boom would be accepted as eligible for NATO common financing (and there is at least an element of doubt about this if the boom is not to be laid in peacetime) there is no possibility of the boom vessels being provided as common infrastructure and they will therefore have to be found from U.K. national resources.

7. While not questioning the military necessity of the boom the United Kingdom wishes to reserve its position on this proposal pending further investigation of -

(a) the possibility of providing boom vessels;
(b) the extent to which the boom can be laid in peacetime;
(c) the maintenance of the boom if laid in peacetime.

8. The second project to which it is desired to invite special attention, is that of the above ground ammunition storage in the Clyde area. The United Kingdom wishes to reserve its position on this project pending further consideration of the wisdom of a project of this nature which, in view of the latest appreciation of the thermo-nuclear weapon threat is clearly open to question.

Summary

9. The United Kingdom has no military objections to offer to the proposals of SACEUR and SACLANT. It wishes however to reserve its position on -

(a) the Clyde Boom project;
(b) the Clyde Ammunition Storage project

pending further consideration of these items.

/s/ C. R. PRICE
Major-General

19th August, 1954
MEMORANDUM FOR THE SECRETARY, STANDING GROUP

SUBJECT: Proposed 1955 NATO Common Infrastructure Program

References:
a. SHAPE AG 6100/ 6/E-411/54 LOG, 16 June 54
b. SACLANT Ser 824, 21 June 54

1. While the United States does not yet have a firm position on the above references, the comments below are submitted for the purpose of drafting an interim report to the MRC. Final U.S. approval, together with any additional comments or reservations, will be submitted prior to drafting the revised report which is to be considered by the Standing Group about 23 September.

2. Screening of the technical details of proposed facilities to insure austerity and uniformity among commands and various host nations should be effected by international experts available to the Infrastructure Committee of the NAC.

3. In implementing the infrastructure programs, and especially during final site selection, consideration should be given to vulnerability to attack with nuclear weapons by the enemy.

4. With reference to maritime airfields, the U.S. has no current or planned logistic support capability at Antalya, Turkey, for U.S. forces earmarked for SACEUR which may be assigned to the proposed maritime airfield at Antalya. Therefore, support of this project if its total or partial justification is predicated on utilization by U.S. forces, would not be in consonance with the U.S. logistic plans.

5. With reference to the Signals Communication portions of the programs the absence of full data gives rise to reservations on certain projects.

a. SACEUR Denmark Serial No. 1 - Copenhagen Ring Cable. In view of the vulnerability of the entire area, it is doubtful that adequate protection against interruption of communications would be provided by the Ring Cable. The limited insurance value of this construction should be weighed carefully against its cost by the international staff.

b. SACEUR France Serial No. 2 - St. Die-Coïmar 37 - quad underground cable. The necessity for this project is questioned since no military commands are located in this area.

c. SACEUR Turkey - The program in Turkey appears to be excessive. Further, based upon the progress made to date on 4th and 5th slice programs, it would not be possible at the same rate to complete the projects programmed in this slice in the time scheduled. It is recommended that the entire program for Turkey be carefully and realistically reviewed by the International Staff.
d. SACLANT Ser. No. 1 - Circuit NA-15 UK and Iceland. The U.S. is not convinced that SACLANT has explored all possibilities of obtaining the required communications service from civilian or national sources. Construction should be approved only if arrangements cannot be made for the use of existing or planned facilities.

e. SACLANT Serial No. 2 - VLF Broadcast Transmitter in the UK. Based upon U.S. experience in construction of similar facilities it is believed that the cost of this project have been greatly underestimated. In order to prevent future requests for funds to complete a project, it is recommended that the estimate be thoroughly reviewed.

(Signed)
KARL TRUESDELL, JR.
Brigadier General, USAF
Deputy U.S. Representative to the Standing Group