**APPENDIX**

# TOPOGRAPHIC OPERATIONS ANNEX TO CONPLANs/OPLANs/OPORDs

All corps-level and higher commands prepare a topographic annex to all CONPLANs/OPLANs/OPORDs. This annex provides the direction needed by subordinate elements of the command to obtain support from topographic units and guidance for the employment of those units. At division-level and below, this information may be in an appendix to the engineer annex or in accordance with local SOPs. The format for the topographic annex is shown on Appendix-3. This format is the same as that used by the unified and specified (U&S) commands, which is Annex M (MC&G) of the Joint Services Operations Plans (JSOPs). Note that all the references in this appendix refer to a general OPORD. Proper preparation of the annex demands detailed identification and definition of all requirements for topographic products and services, whether provided by the DMA or field units. The preparation of the topographic annex is not limited to topographic products, but applies to any products and services in the MC&G field which are required to support the command's CONPLANs/OPLANs/and OPORDs.

As with the preparation of any CONPLAN/OPLAN/OPORD, the quantity and complexity of information contained within the format of the annex or appendix will vary with the level of the unit developing the plan. For instance, preparing the annex for a brigade without a supporting topographic unit will be quite simple compared with that for a corps. As a minimum, maps and charts required for operational support must be identified.

The types of products and services needed to carry out unit missions and the quantity and frequency of the support desired, are addressed in the Format for Topographic Annex shown on Appendix-3.

To calculate the quantity of maps required for a particular OPLAN, plot the geographical areas covered by the unit's areas of operations and interest on copies of appropriate indexes from the DMA or on a MACOM map catalog. A small-scale map of the general area may be used to plot and correlate the area to the index. Factors to be considered in setting up areas of operations and interest are given in FM 100-5. Areas of operations are designated by the next higher level of command. An alternative method is listing the stock numbers for all the sheets required. Usually a combination of both methods is done, since each has specific advantages.

The next step is to determine the size and type of units to be employed, since this defines the quantity of products required to support the OPLAN. The MACOMs usually publish supplements to AR 115-11, which contain a list of generic units and the quantities of MC&G products each is authorized to order. If a supplement has not been published, the tables found in Section IV,

Topography, of FM 101-10-1/2 provide the necessary guidance. The quantity per sheet is then the sum of authorization for all subordinate units. The quantity per sheet multiplied by the number of sheets required for the geographical area is the *basic load*. The term *days-of-supply* is meaningless for maps, since the speed with which a unit moves through any given area is determined by the mission as influenced by weather, terrain, and the enemy situation.

Planning stocks are those maps required by commanders and staffs to plan an anticipated operation. Allowances, most of the time, are no more than 20 percent of the basic load. Command guidance should define whether or not this quantity is authorized in addition to or *part* of the basic load.

Operational stocks are those consumed, through loss or destruction, during execution of CONPLAN/OPLAN/OPORD, that must be replaced. Operational stock allowances are usually limited to no more than 20 percent of the basic load.

Overlap must be considered. A simple addition of authorizations for all units under a command is not the total number of maps required for any particular map sheet. To figure this total correctly, look at the geographic area coverage required for each unit at any level, based upon the unit's mission and employment capabilities. Questions such as "Do all brigades in a division require coverage for the entire division area?" need to be addressed. For an infantry squad or a tank platoon, the answer should be "No." On the other hand, entire coverage may be required for an attack helicopter unit in the covering force or a brigade in reserve, even though all the maps may not be in use at the same time.

(Appendix-3 through Appendix-9 is an excerpt from JCS Publication 5-03.2, Volume II).

**Format for Topographic Operations Annex M**

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HEADQUARTERS, ORIGINATING UNIT
ADDRESS
DATE

ANNEX TO M HQ OPLAN (NUMBER) (U)

TOPOGRAPHIC OPERATIONS (U)

(U) REFERENCES:

a. List those standard maps that are required for an understanding of this annex.

b. List those documents which provide the guidance required for the necessary planning functions that are relevant to this annex.

1. ( ) SITUATION

a. ( ) MC&G Requirements. List the MC&G products that are required to support this plan. Show desired area coverage and quantitative requirements using an appendix if necessary or by portraying them graphically using standard index bases.

b. ( ) Available Products. Provide a general statement regarding the availability and adequacy of the MC&G data and related material required to support the plan.

c. ( ) Capabilities. List those topographic engineer forces that are assigned or attached. Show latest arrival date (LAD) for each topographic engineer unit that is contained in the time-phased force deployment data (TPFDD). If this is of sufficient length, use an appendix for recording detailed transportation requirements and procedures. Reference the appendix. Take notice that the format for the appendix should follow local procedures.

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d. ( ) Supporting Capabilities. List those topographic engineer forces that are not assigned or attached but which will be required to provide topographic support needed to implement this plan, including units not deployed. Specify the type of command relationship desired for each unit plus the type and duration of support required.

e. ( ) Assumptions. List those assumptions upon which this annex is based. The assumptions should state expected conditions over which the commander has no control.

2. ( ) MISSION. Restate OPLAN mission statement.

3. ( ) EXECUTION

a. ( ) Concept of Topographic Operations.

(1) ( ) General. Give a broad statement on how the command will provide the topographic support necessary to meet the commander's overall mission requirement. Include—

- Time phasing of operations.
- Nature and purpose of topographic operations to be conducted.
- Support that is interrelated or cross-service.
- Support from the DMA.
- Support provided by agreements, coordination, and cooperation necessary for the successful implementation of this plan. Describe the scope and extent of host nation support (HNS) that is available to enhance topographic operations in support of the plan.

(2) ( ) Deployment. Summarize the requirements for deploying topographic engineer forces and depot activities from their normal peacetime locations. Include the area of operations, emphasizing careful time planning of this deployment.

(3) ( ) Employment. Describe in general terms how deployed topographic engineer forces are to be employed to conduct topographic operations.

b. ( ) Tasks. Proper planning demands that provisions be made for the effective operation of all topographic engineer units supporting the command. Effective stockage and issue of MC&G products depend upon timely knowledge of impending operations,

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threats, and command movements. Explain detailed responsibilities of commanders, staff, and topographic units. In separate numbered subparagraphs, list the topographic tasks assigned to each element of the command and for those units that provide support to the plan. Each of the tasks should be spelled out in a concise statement. Every task statement should include a mission to be performed in terms of further planning or execution of the overall plan. These task assignments should be sufficiently detailed to ensure that all elements essential to the concept of the operation are described properly. Ensure that responsibilities are assigned to establish, validate, and submit MC&G requirements and to task topographic engineer units supporting the plan State responsibilities for defining and adjusting command stockage levels at map supply points. Specify map and data storage and distribution responsibilities for pick-up and storage.

*c.* ( ) Coordinating Instructions. The final subparagraph, lettered appropriately, should be in separately numbered subparagraphs. List those instructions that apply to the entire command or to two or more elements of it that are necessary for proper coordination of the MC&G support. Specify points of contact within the command who can authorize the release of war reserve stocks held or who can resolve command MC&G problems. At division level, the DISCOM operates the map supply points; at brigade level, distribution is from forward support battalion supply company through the supply officer (US Army) (S4). You must state whether a *push or pull* system will be employed. You must also specify any restrictions or quantity of the special products which may be required. Also, give an explanation of the command's system for setting priority and for allocating resources to deal with demands on limited resources. Include a brief description of how notification of forces and agencies will be carried out and how notification will be time sequenced. Provide the conditions under which contacts with host nation agencies are authorized and identify those points of contact.

4. ADMINISTRATION AND LOGISTICS

a. ( ) Supply and Storage.

(1) ( ) MC&G Products. Provide instructions on the MC&G supply and storage procedures and requirements. Give guidance for obtaining routine and emergency replenishment of MC&G products. Address any expected constraints on this replenishment Include the planned locations of command and supporting MC&G storage sites and facilities. Specify the type and quantity of MC&G products to be held by the supporting command's units. Give guidance for lead times that are required for furnishing nonstandard special-purpose product support or responding to large quantity orders.

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(2) ( ) Support of Topographic Engineer Units. Topographic engineer units normally rely on supported units for the majority of logistics support. Specify the requirements needed for the provision of nontopographic as well as topographic logistics supports.

b. ( ) Transportation.

(1) ( ) MC&G Products. The MC&G products are normally provided on a supply-point basis, whereby units which need products are responsible for picking up those products from established supply points. Supply guidance for the movement of MC&G products from supporting supply points to the ultimate users. List as a minimum, the time-phased transportation requirements list (TPTRL) portion of the TPFDD reflecting movement of MC&G materials. List any transportation shortfalls in the required support of topographic operations. Also, list contingency plans to fully carry out and sustain topographic operations in the event that full transportation requirements cannot be provided. An appendix may be used, if necessary, to list detailed transportation requirements and procedures.

(2) ( ) Topographic Engineer Units. Topographic engineer units may also require assistance from supported commands to move organic equipment. Supply guidance for integrating the topographic engineer unit's transportation requirements into the command's movement plan.

c. ( ) MC&G Support. Supply instructions for obtaining planned support Itemize the division of responsibilities between organic units and supporting topographic engineer units to ensure that actions to procure and stock MC&G products are complementary. Identify points of contact for emergency procurement. Normally, access to the DMA support is only available through the supporting command.

d. ( ) Reports. If reports are required, specify how they are to be formatted as well as what time limits, methods, and classification apply to their submission. Enter this in the appendix. Follow local procedures for format.

5. ( ) COMMAND AND SIGNAL

a. ( ) Priorities. Delineate the priority of MC&G support to supported units and the priority of production for MC&G products.

b. ( ) Command Relationships. Include primary and alternate locations of all major topographic engineer units and supporting the DMA organizations. Specify the command and control relationships between the command and its attached or supporting MC&G units and organizations if this has not previously been addressed.

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c. ( ) Command and Control. Provide a statement describing the scope and types of any special signal support that is required for MC&G operations. With the exception of survey units, most topographic units have few communications capabilities. Thus, explicit tasks are assigned to ensure that these units are effectively supported by the command's assets. This is especially critical in the case of distribution platoons operating map supply points. The Communications-Electronics Annex to this OPLAN must be referenced.

s/
General
Commander in Chief

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OFFICIAL:

(APPROPRIATE LEVEL) ENGINEER

Appendices:

1 - Mapping, Charting, and Geodesy Requirement List

2 - Mapping, Charting, and Geodesy Transportation Requirements (Optional)

3 - Mapping, Charting, and Geodesy Reports (Optional)

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(FORMAT: Mapping, Charting, and Geodesy Requirements List Appendix)

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APPENDIX 1 TO TOPOGRAPHIC ANNEX TO HQ OPLAN (NUMBER) (U)

MAPPING, CHARTING, AND GEODESY REQUIREMENTS LIST (U)

| REQUIRED ITEMS 1/ | COVERAGE REQUIRED 2/ | COVERAGE AVAILABLE 3/ | Quantity 4/ |
|---|---|---|---|
| 1. STANDARD AEROSPACE PRODUCTS | | | |
| 2. STANDARD HYDROGRAPHIC PRODUCTS | | | |
| 3. STANDARD TOPOGRAPHIC PRODUCTS | | | |
| 4. STANDARD AIR TARGET MATERIALS | | | |
| 5. SURVEY REQUIREMENTS | | | |
| 6. STANDARD MULTIUSE DATA BASES | | | |

1/ Generalized description such as a map series, scale, or digital data. Stock number of a specific item is not required.

2/ Area to be covered described by geographic coordinates, political boundaries (identified by geopolitical codes), and recognizable geographic area. Display in a TAB as a graphic or list.

3/ Display status in a TAB as a graphic or list related to coverage required, or source for special-purpose products.

4/ Number of copies of each sheet, chart, or item needed to support the OPLAN. A list by stock number is attached as a TAB.

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