











AMS TECHNICAL MANUAL NO. 20

MAP DEPOSITORY MANUAL

FIRST EDITION JANUARY 1947

ARMY MAP SERVICE 6500 BROOKS LANE WASHINGTON, 16, D.C.

204/463

Digitized by



MAP DEPOSITORY MANUAL

This manual is issued to institutions participating in the AMS Map Depository Program as a guide for processing those maps and for reporting their own map holdings.

FIRST EDITION JANUARY 1947

U.C.ARMY MAP SERVICE006500 BROOKS LANEWASHINGTON, 16, D.C.

LIBRARY SCHOOL LIBRARY



•

2695 U35 Nitrary School

CONTENTS

.

۲

•	General	1
	Cataloger's Manual	7
	Check List	17
	Supplement to Cataloger's Manual	31
	Sample Cards	37
	Index	41



M588292

Original from UNIVERSITY OF CALIFORNIA

.

.



Original from UNIVERSITY OF CALIFORNIA

• :

SUBJECT: Addendum N

TO: All AMS Ma

During the mont Manual" was delivere the use of that manu Therefore, it is dee a general letter, wh

In this letter by page number, such all difficulties can believed that a gene institutions.

1. Reference i section will show th nothing mandatory un

2. Reference p to read as follows:

Certain maps ar imlude:

l.	Any 0 .
	should
2.	Any Ge
3 . [.]	Any Su
4.	Any HI
5.	Any ma
6.	Any ma
7.	Any wa
8.	Any re
9.	Any po
	ofay
	standa
10.	Any to

Digitized by Google



3. Reference g reporting series map given here is desire Service.

4.		AREA AREA A. If B. Id Ur C. Av So
	2.	SUBJEC A. Use B. Ave C. Di Ece whi as D. Use
	3.	SCALE A. Alv B. Wri ind eac
	5.	EXACT I A. In of she
	6 . ,	DATE A. Cod B. For rev C. Und pre dati
	11.	.UTHORI In (

or

Digitized by Google

,

Original from UNIVERSITY OF CALIFORNIA

.

.

.

Digitized by Google

3. Reference p reporting series map given here is desire Service.

4.	Refe	ARE	
,	2.	й.	JEC Usi Ávi Di Eci whi as Use
	3.	SCA	
	5.		CT 1 In of sho
	6 .		E Cod For rev Und pre dat
	11.	LUT.	HORI In (or

•

•

Digitized by Google

,

Digitized by Google

.

,

.

Original from UNIVERSITY OF CALIFORNIA

۱

.

•

12.	COORDIN Arg 1
19.	ONE PIE Leave
20.	MULTIPLI Leave
21.	SET Leave
22.	SERIES Leave
23.	COLOR The st
24.	MONOCHRC Clari
26.	PRESS RU These
	check
-53.	GCIP Refor this
	the r A. Chad Da
	Dà
	D
	The B. A la Zeal Isla woul
The symb the absence o is misleading	
Digitized by Google	

Original from UNIVERSITY OF CALIFORNIA

.

.

.

The second second

ł

•

ı,



•

Original from UNIVERSITY OF CALIFORNIA Many inquiries h maps on the compuse by anywhere on the campu and on inter-library Obligations and Respon

FOR THE COMMANDII



Original from UNIVERSITY OF CALIFORNIA

•



.

.

.

.

DDRESS REPLY TO: COMMANDING OFFICER ARMY MAP SERVICE CORPS OF ENGINEERS 6500 BROOKS LANE WASHINGTON 16. D. C.

EFER TO FILE NO.

SUBJECT: Addendum N TO: All AMS Ma 1. The followi and Hesponsibilities! To perm! a. depository program to (1)Maj li: 15 (2)Foi sti Other than t 2. military authority. FOR THE COM

> Original from UNIVERSITY OF CALIFORNIA

•

: .

.

. .

•

Digitized by Google

•



MAP DEPOSITORY MANUAL

JANUARY 1947

GENERAL

PURPOSE AND SCOPE

The Depository Program is designed to benefit all participants. Educational institutions will receive maps, and related publications valuable to research workers in the varied fields of geography, economics, geology, history, political science, agriculture and allied subjects. The Army Map Service will receive source material essential to the government's need for complete and immediate mapping information.

The program will furnish you with an active file of maps and related publications issued by this organization from its own data or from manuscript procured through agreement with cooperating agencies. We, in turn, will strengthen the Army Map Service Library with duplicate copies secured by you through your many contacts. Your accessions lists will enable the Army Map Service to prepare and maintain a union catalog. In the final analysis, then, we will be building a strong library both for your institution and for the United States Government.

The total number of items this office expects to distribute cannot be definitely determined at this time, but an estimate of 25,000 different maps seems fairly accurate. This total will be composed almost entirely of maps, although some gazetteers and other publications of geographic material will be included.

CATALOGING

For those institutions which do not have a cataloging system for maps, information on representative types of cataloging systems may be obtained by contacting the Army Map Service, stating size and purpose of the collection, amount of personnel time available for cataloging, size card preferred, etc. None of these systems are considered a panacea for cataloging problems, but each provides a number of categories into which an overwhelming majority of maps can be placed. Institutions having a cataloging system may likewise obtain such information if they deem it advisable to investigate other systems.

CARD CATALOG

Catalog cards are available to participating institutions without obligations. These are known as AMS Card Number One and Machine Punched Cards "A" and "B." Samples are shown on pages 37 to 40 of this manual. One AMS Card Number One is made for each General, Part, City Plan, Island or Series. The Machine Punched Card "A" is made for each individual sheet and the Machine Punched Card "B" is made as a supporting card to "A" on each General, Part, City Plan, Island, or Series, but not for each individual sheet. For complete explanation of AMS Card Number One, see letter dated 16 October 1946 from this office. If more detailed information is desired on the Machine Punched Card System, it can be furnished upon request.

FILING

As in the case of cataloging, some institutions will have their own systems of filing maps. For the Depository Program, if your institution does have a filing system and the maps have been filed according to it, the Army Map Service deems it advisable for you to continue. If no filing system is extant at the present time, the following system of filing is suggested:

1. File them flat.

2. File by country or area.

3. File general and part maps under country by scale from large scale to small scale.

4. File series maps under country by scale from large scale to small scale and within the scale numerically by sheet number or alphabetically by sheet name.

(AMS Depository Maps are sent to participating institutions in sheet number order for series maps.)

Map sizes will vary from approximately 14x18 inches to 35x45 inches. If you use five-drawer cabinets, drawer size (inside measurement) 50x35½x2½ inches, you will need 30 such cabinets. Each cabinet measures approximately 16 inches in height. If cabinets are stacked 6 high the 30 cabinets will occupy approximately 78 square feet of floor space with an equal amount of space for pulling of drawers.

MAP HOLDINGS REPORT

The report form (Check Card) furnished your institution is for the purpose of reporting your map holdings. It is discussed in detail later in this manual. Additional copies of this Check Card may be obtained from this office. A sample in completed form is on page 38 of this manual.

Certain maps are not to be reported to the Army Map Service. These include:

- 1. Any U.S. Agency maps.
- 2. Any Geographical Section General Staff maps.
- 3. Any Survey of India maps.
- 4. Any Hind maps.
- 5. Any National Geographic Society maps.

All maps not falling in the above categories are to be reported whether of past or future accession. Some institutions have implied that Army Map Service wants information on future accessions only, but this is not the case. All maps are to be reported except as noted above.

It is not necessary to report all holdings at one time. Reports can be spread over a reasonable period. Each report form should include the union catalog code number of your institution as assigned by Army Map Service in the space marked "Date Cataloged" at the bottom of the card.

In reporting series maps only one card is needed for

the general information on the entire series, but the individual sheet number or sheet name, edition, type of date, date and number of file copies should be indicated on the reverse side of the card. These should be arranged numerically or alphabetically according to the characteristics of the specific series.

For all maps reported by your institution, the Army Map Service will furnish AMS Card Number One in completed form if it is desired. This card was enclosed as a sample in a letter of this office dated 16 October 1946. This service on your own collection is offered in addition to any cards being furnished for the depository maps.

DESTRUCTION OF SUPERSEDED MATERIAL AND REPLACEMENT OF DAMAGED SHEETS

Sheets superseded by later sheets may be used for classroom work, retained for historical purposes, or destroyed. If superseded sheets are destroyed, a certificate of destruction should be furnished the Commanding Officer of this installation. In no case will such obsolete sheets be given to or permitted to fall into the hands of any private individual or concern.

In some instances sheets may be damaged in transit to your institution. Should such an occasion arise, this installation will replace mutilated or damaged sheets upon receipt of a request for replacement directed to the Commanding Officer of this installation and marked for the attention of the Map Distribution Division.

BOOKS AND PAMPHLETS

Army Map Service is interested in books and pamphlets concerning cartography, geodesy, photogrammetry, and related subjects in the topographic mapping field.

This office is not interested in books and pamphlets held by your institution which have been cataloged by the Library of Congress. However, it would be appreciated if a listing of all other books and pamphlets falling into the aforesaid categories could be submitted. This listing should contain the author, title, edition, place of publication, publisher,

date, series, call number and subject headings. If your institution has a large number of such books to report, the Army Map Service will be happy to furnish form cards for such items upon request.

OBLIGATIONS AND RESPONSIBILITIES

The obligations and responsibilities as given in our introductory letter still apply and are given below:

a. To place in an active and separate file all items which are received under the program.

b. To hold the material for necessary reference purposes, however, not permitting its removal from the campus or library except on inter-library loans. It must also be determined in making inter-library loans that these institutions are thoroughly familiar with the restrictions given in this paragraph and paragraph "c" following.

c. To not copy or distribute material received from the Army Map Service without prior approval of the Army Map Service. To handle the material in accordance with any protective security regulations imposed by the Army Map Service.

d. To make available to the Army Map Service duplicate copies (beyond your needs) of maps and geographical data which your institution may receive from sources other than Federal Government Agencies.

DISTRIBUTION OF CAPTURED MAPS

Distribution of captured maps will be made to a few libraries selected according to geographical location. This plan is not to be confused with the original Depository Plan. Captured maps can be furnished only to the aforesaid group because a very limited quantity is available. All institutions who participate in the Army Map Service Depository Plan will be able to obtain these captured maps through inter-library loans. All participating institutions will be furnished a list at the time of distribution giving the name and address of the libraries receiving captured maps.

It was originally planned to distribute the captured maps in the first part of 1947, but this will not be possible. At the present time, this office is unable to estimate any definite time of distribution. Every effort will be made to distribute them at the earliest possible date.



Original from UNIVERSITY OF CALIFORNIA

6

CATALOGER'S MANUAL For use with the Check Card in AMS Depository Program

During the months since the AMS Depository Program was instituted, many depositories have objected to the use of the sheet known as the Accessions Report Form. These objections were justified since the Report Form required considerable writing or typing. In order to eliminate as much pen or typewriter work as possible, the Check Card System was substituted and widely accepted by the participating institutions. This card does not eliminate or attempt to eliminate all of the work mentioned heretofore, but does decrease the amount.

This manual is designed to serve several purposes: (1) to aid the cataloger in determining the important features of a map; (2) to standardize, as nearly as possible, the reports received from all participating institutions; (3) to help the cataloger indicate the information on the Check Card in such a way as to provide AMS with sufficient knowledge about the map so that it will be unnecessary for personnel of this installation to examine the map itself; (4) to eliminate all extraneous material; (5) to assist in the use of the Check Card, which is a work sheet.

The user of the manual will find that the items listed in the manual are arranged in the same order as they appear on the Check Card. Most items are self-explanatory and a short period of using the Check Card with the manual will be found sufficient to acquaint the cataloger with the system so that the manual will be used only at times when doubt arises in the cataloger's mind as to the proper nomenclature.

The Check Card is divided into two parts by a double line. the upper portion of the card indicates the area, subject (major classification), scale and exact title, together with considerable identification material. The lower portion

of the card, containing a check list and blank at the bottom for other information, is designed to allow rapid checking of data shown on the map. The check list is not complete but contains items that are of common interest to most mapping agencies and map collectors. One of these cards should be completed on each individual map, group of maps, or series of maps. In case of group or series maps, the sheet number or name of each sheet should be listed on the reverse side of the card together with the edition, type of date, date and number of file copies on each sheet as explained later in this manual. This information should be listed in the following order, e.g., 12IV, 1st, V 1942 (3).

The following explanation of the Check Card refers to each entry on the card. All blanks should be filled except those otherwise noted in the manual.

1. AREA

Describe the exact area covered by the map as nearly as possible. Whenever a regional or areal subdivision of a country or continent is to be used as the area heading on the catalog card, the name of the country or continent should be given first, followed by a comma, then by the subdivision, e.g., USSR, Asiatic; Africa, Northeastern. If a political or administrative subdivision or a city name is to be used, the country name is given first, followed by a dash, then by the subdivision or city name, e.g., USSR—Georgian SSR; Canada—Ontario.

2. SUBJECT (Major Classification)

Enter the name or the name and letter of one of the subject titles listed below, e.g., Aeronautical, or Aeronautical (b). If any of the subheadings under these subjects apply, the letter should be shown after the subject name in parenthesis. Some maps have more than one subject; in such cases, pick the most appropriate or emphasized subject. If more than one subject is emphasized, show the main one in this space, and the other in the blank space

```
at the bottom of the card. The complete list of subjects
to be shown on the cards is given below:
 Aeronautical
   a. Detailed plans of airfields, air strips
   b. Flightstrips
   c. General maps showing routes, fields
   d. Miscellaneous-charts, graphs, diagrams, profiles
 Agriculture
 Astronomical
   a. Magnetic charts
 Base
 Cadastral-land ownership
 Climatic
 Communications-when two or more are emphasized
   a. Terrain going map
 Cultural—planimetric—without contour or form lines
 Economi c
   a. Mine locations, concessions
   b. Oil installations
   c. Water works systems
Ethnographic-human geography, populations
 Exploration—pioneer geographic research
Geological
  a. Geological cross sections
Health
History
Hydrographic-oceanography
  a. Harbors, ports
Indust ry
Military
  a. Air support or target charts
```

Digitized by Google

```
b. Plans of military stations
Miscellaneous
Natural resources
Nava1
Outline
Photo maps
  a. Air support or target charts
  b. Contoured
  c. Miscellaneous photo-any type
  d. Photocoverage maps
  e. Photo index
  f. Waterways
Physical-small scale relief
  a. Stereogram
Plans of structures, buildings, works
Political
Posta1
Power
Radar, radio, wireless
  a. Radar
  b. Radio, wireless
Rail roads
  a. Detailed plans of stations, yards
  b. General maps, lines, systems, nets, routes
  c. Miscellaneous diagrams, charts, tables
  d. Profiles
  e. Surveys-right of way
Religion
Roads, highways
 a. General maps
 b. Miscellaneous diagrams, charts, signs
  c. Outline city plan
```

- d. Profiles
- e. Strip maps
- f. Surveys-right of way

Soils

Special

- a. Indexes
- b. Symbol sheets

Telegraph-cable

Telephone

Topographic-contoured

- a. Form lines
- b. Hachures
- c. Spot elevations

Trade

Vegetation

Water supply

Waterways

- a. Canals
- b. Drainage
- c. Lakes
- d. Rivers
- e. Steamship routes

3. SCALE

The representative fraction, sometimes called the fractional scale, is the only one to be recorded. Example: 50,000. If not given, determine the scale with a scale Indicator on the linear scale or between two parallels of latitude. If the scale is not given but can be determined from measuring on another map, the derived scale is to be given in brackets [50,000]. If no scale can be determined, a cross (X) is placed in the scale box.

11 .

4. CLASSIFICATION NUMBER

Place the classification number of your institution in this space.

5. EXACT TITLE

The title is to be given in the original language, or in a transliteration of it followed by the English translation in parentheses where the meaning may not be clear. Any error in the title is to be copied as given, then corrected in a note at the bottom of the card. Avoid copying words in a foreign language that are not part of the title.

If no title is given on the map, the title supplied by the cataloger is enclosed in brackets [].

If the space provided on the card is not sufficient for a long title, it may be continued in the space for notes at the bottom of the card. The continuation of the title is to be shown by the use of three dots (...) at the breaking point of the title.

6. DATE

Write in the most significant date given on the map according to the following priority listing and indicate the type of date by placing the letter applicable in front of the date. This priority is arranged in order of importance. If there is no date given, put a cross (X) in the date box. On individual maps with dates, the numbers or names with dates of each sheet should be listed on the back of the card covering the entire series, e.g., 12 IV-V 1942; 13 III-W1940.

Priority	Code Letter	Example	Interpretation
1	W	W1941	Edition 1941
2	v	V194 0	Revised 1940
3	L	L341	Field compilation March 1941
4	М	M1939	Compiled 1939
---	---	-------	---------------------------
5	D	D1943	Surveyed 1943
6	E	E1944	Engraved 1944
7	Р	P1945	Published or printed 1945
8	Z	Z1946	Reprinted (run date) 1946
9	-	1942	No interpretation of date

7. EDITION

If a map is a numbered edition, the number is to be entered in this space. When the map is not a numbered edition, one of the following may apply and should be shown. In case of a group or series of maps, the edition is to be shown on the reverse side of the card opposite each sheet number.

```
Preliminary or provisional
Emergency
Advance
Interim
Expurgated
```

8. LANGUAGE (TEXT)

Name the language or languages used on the map, listing the language of the legend first.

9. S C R F U

These letters show the classification of maps. Circle the correct initial based on the classification of the map or as applied at your institution.

S - Secret
C - Confidential
R - Restricted
F - Free
U - Unclassified

Digitized by Google

10. NUMBER OF FILE COPIES

Indicate in this box the number of copies on file at your institution. In the case of individual group or series maps, indicate the number of copies for each in parentheses after the date on the reverse side of the card.

11. PUBLISHING AUTHORITY AND NUMBER

Enter the name of the publishing authority in the original language except when it is written in a non-Latin alphabet, in which case transliteration or translation should be used. In the case of government organizations, the official name of the organization is to be preceded by the name of the country within which it functions, e.g., France— Institute Geographique Nationale. In the case of commercial map-making firms, the full name of the firm is to be followed by the place of publication, e.g., John Bartholomew and Son, Ltd., Edinburgh. If the city is not well known or if confusion might arise from several cities having the same name, it would be well to give the province, state or country name in parentheses after the name.

A map series number or report number which may be considered an integral part of the map itself is to be given after the name of the publishing authority.

If the name of the publishing authority is too long for the space provided on the card, it may be continued in the space for notes at the bottom of the card. An asterisk (*) is the designated symbol for this break and continuation.

12. COORDINATES

Indicate latitude and longitude of the center of part maps only. See explanation of part maps under 53 of this list.

13. SOURCE

Give the immediate origin of the map, e.g., AGS New York Public Library.

14. PROJECTION

Digitized by Google

Write in the projection of the map if it is given. The four boxes for meridians and parallels may then be skipped. If no projection is named put an $^{11}X^{11}$ in the box and a check in the correct meridian and parallel boxes. Stub coordinates are mere indications of geographical coordinates in the margins.

15. DIAGRAM

This is usually a line drawing, graph or chart showing a situation or a conventionalized representation of an area. Check only if the material at hand is not a true map. Examples are: graphs, bar charts, statistical tables, mileage tables.

16. PICTURE

Check when the material at hand is:

Photograph—not aerial Scenes along a highway Views Sketches

17. PROFILE

Check if the item is a profile-usually a line drawing.

18. AERIAL PHOTO

Verticals or obliques. Photo mosaics are to receive the same treatment as printed maps.

19. ONE PIECE

Leave this space blank.

20. MULTIPLE

Leave this space blank.

21. SET

Leave this space blank.

22. SERIES

Leave this space blank.

23. COLOR

Digitized by Google

Check if two or more colors are used in printing or shading.

24. MONOCHROME

Abbreviation for the type of reproduction is added in space following "Monochrome":

```
Black on white - BW
Blue on white - BIW
Brown on white - BrW
Ozalid - Oz
Blueprint - BP
```

25. MANUSCRIPT

Check if item is original drafting of a map. Sometimes a topographic map will have so much original data added to it that it becomes an original manuscript collation map.

26. PRESS RUN

Any type of printed map, e.g., lithograph, engraving, gravure.

27.
28.
VARIOUS TYPES OF REPRODUCTION OF MAPS
29.

Check if material at hand is:

Photographic negative Photostatic negative

Positive whether photographic or photostatic

30. BIBLIOGRAPHY

Check if compilation references or authorities are given on the map.

Digitized by Google

The check list does not pretend to be complete. It does attempt to screen out the information most often desired.

Each group is arranged under a heading. Check the heading if any of the group are checked.

Example:

\checkmark	RAILROADS
	BRIDGES
\checkmark	DISTANCES

This means that distances on railroads are shown. Checking a heading only means that none of the subheadings apply.

\checkmark	RAILROADS
	BRIDGES
	DISTANCES

This means that railroads are shown but without information other than alignment.



This means that a heading on the check list is shown importantly on the map but not indicated in the subject (Major Classification) box at the top of the card. A double check $(\sqrt[1]{2})$ in the heading box will indicate greater importance.

Items 31 through 55 following constitute the check list portion of the card, and the usual things on maps that are checked for the various topics.

31. AGRICULTURE

Any indications of agriculture on a map, even clearings

in a forest that are labeled as cropland. A. Animal Industries Sheep Raising Cattle Raising or Dairying Goat Raising Fox Farming Hog Raising Etc. B. Crops Individual Crops named on map Cotton, Wheat, Etc. C. Regions **Farming Areas** 32. AIR NAVIGATION Any map that is designed for aviation or contains any of the following items is checked here: A. Distances (Air Distances) $Mileage \begin{cases} Statute \\ Nautical \end{cases}$ **Kilometers** B. Landing Areas Airdromes Airfields Emergency Fields Level Places suitable for Landings Seaplane { Anchorages Bases Hangars Mooring Masts

C. Routes

Flying Lanes Aviation Landmarks

```
Radioelectric Stations
Obstruction marked
Air Lights
```

33. BOUNDARIES, ADMINISTRATION

International Boundaries of Countries Empire Boundaries

A. Internal Boundaries

```
State
Province
Department
Parish
County
Municipality
City
Police District Lines
```

34. INDUSTRY

Any indication of industry

A. Areas

General industrial regions Example: Manufacturing Regions

B. Plants

Located or named Examples: Factory Koriyama, Japan Mill

C. Types

Light or Heavy Industries (if so name) or if type of industry is named.

Wood Working Factories Clothing Factory Sawmill

35. MILITARY

Check if map is adapted to military use. Examples: Resistance Movements

Digitized by Google

Target Maps Prison Camps

A. Collation

Map overprinted with military information—usually press overprinted on some good series map but may be hand-written and photographed.

B. Administrative Areas

Allied-Controlled Areas Enemy-Controlled Areas Military Defense Zones Prohibited Zones Military Front Areas

C. Military Grid

Military grid overlayed on top of coordinates or instead of coordinates.

- 36. OIL (Always means petroleum)
 - A. Fields

Locations of fields or deposits, active or inactive. Example: Mene Grande Field in Venezuela

B. Pipe Lines

Carrying crude or refined oil.

C. Refineries

Cracking Plants, Etc.

D. Storage

Tank Farms Bulk Storage Tanks

37. PEOPLES

Anything concerning population or characteristics of peoples. Examples: Crime concentrations Labor Supply

A. Distribution

Population maps

Density maps

Settlement symbols on maps (individual houses on a large scale map)

(Do not check this box for maps that simply show cities of various sizes—10,000, 50,000, etc.

B. Ethnology

Ethnic Groups Tribal Areas Racial Groups Example: Distributions of Germans in the Sudetenland

C. Linguistics

Language Distribution Example: German speaking enclaves in Romania

38. RELIGIONS

Dioceses Ecclesiastical Provinces Religious Distribution Example: Principal churches and faiths of Europe

39. POWER

Any indications on the map of power data or installations.

A. Amounts

If KVA, KWH, KW, capacity or production figures or any others relating to power are given.

B. Lines

Power Lines Transmission Lines High Tension Grid High Voltage Transmission

C. Plants

Diesel Steam Hydroelectric

Digitized by Google

Dam Generator Transformer Station Step-up Plant D. Types If any of the following are named: Steam Diesel Therma1 Hydroelectric Hydraulic Windmill 40. RAILROADS Check if there is a simple indication of railroad lines such as appears on general maps. A. Bridges Bridge symbols or named bridges, culverts B. Distances Mileages, mile markers or kilometers given C. Traffic Flow of traffic Traffic capacities (not facilities) D. Tunnels Tunnel Symbols E. Electrified Are any electrified? G. Multiple Tracks Check if double line tracks are shown or if extra tracks are indicated around loading docks, storage houses, etc.

H. Traffic Facilities

Wyes Watertowers Turn Tables

Round Tables Fuel Supply Car Storage Yards

41. CLIMATE

Weather Precipitation Sunlight Barometric Pressures Occurence of Frosts Length of Growing Season

42. FISHING

Fishing Banks Whaling Areas

43. GEOLOGY

Rock Structure Underlying Structure

44. HISTORY

Historical Boundaries Maps where data represents an ancient situation Historical Battles

45. ROADS

Check if map shows simply the existence of roads

A. Bridges

Bridge Symbols Culverts

B. Distances

Mileages Kilometers Between Towns Mile Markers Kilometer Posts

C. Traffic

Traffic Flow Vehicle Traffic Count D. Tunnels

Tunnel Symbols

E. Surfaces

Paved Concrete. Asphalt Metalled Macadam Graded Graded Gravel Dirt Hard

F. Other Categories

First Class Second Class National Roads State Roads In Transit Projected Roads Trails Wagon Roads Two Car Width Dry Weather All Weather Caravan Trails

46. MINERALS

General mineral areas

A. Deposits

Located or named Example: Bituminous Deposits in Wales

47. SOILS

Any indication of soil types Examples: Clay Ridge Quicksand

48. SURFACE

Any indication of the nature of the terrain

A. Contours

Continuous lines connecting equal points of elevation, sometimes numbered.

B. Geodetic

Triangulation Stations Grid Data Bench Marks Etc.

C. Form Lines

Similar to contour lines but usually not continuous and not numbered. Sometimes called "Approximate contour lines" or "Rational Contours."

D. Geomorphic

Physiographic diagrams which delimit areas and set them off by use of physiographic symbols. Angle of observance is vertical. Angle of symbols is oblique.

E. Hachures

Lines arranged to show slope, sometimes using different thicknesses of lines to show steepness of slope. The thicker—the steeper.

F. Layer Color

Different shadings between selected contour lines.

G. Pictorial

Portrayal of terrain from an oblique angle of observance.

H. Shading

Digitized by Google

Portrayal of terrain from a vertical angle of observance.

I. Spot Heights

Numbers printed on the map sometimes in parentheses (26) to indicate elevations of peaks, towns, etc.

49. TELECOMMUNICATIONS

Any long distance communications system

A. Cable

Check if any of the following are shown:

Stations Lines Distances

B. Radio

Stations Call Letters Antennae Radio Beams Transmitter Stations Studies and Offices

C. Telegraph

Stations Lines

D. Telephone

Stations Individual Installations Lines

50. VEGETATION COVER

Check if any vegetation symbols are used on the map. Example: Forest symbols

A. Complete

All of map surface is covered with symbols showing vegetation.

JANUARY 1947

B. Incomplete

Part of map has vegetation symbols Cropland Forests Etc.

51. WATER SUPPLY FACILITIES

```
Wells
Springs
Reservoirs
Later Systems
Water Pipe Lines
Aqueducts
Hydrants
```

52. WATERWAYS

This box is rarely checked unless others below it are. It is not to be marked if the maps simply show the existence of rivers, bays and oceans.

```
0 - Ocean Waterways
```

- I Inland Waterways
- A. Depths

0.	I.
Fathoms	Depths in Figures
Ocean Contours	(Usually Feet)
Sometimes Layer Color	

B. Distances

0.

Mileages (usually Nautical Miles)

Mileages or Km. (not often given)

I.

C. Port Facilities

Docks Holes Cranes Piers Warehouses

```
Customhouse (at a port)
    Lighterage
    Repair Facilities
    Buoys
    Markers
    Lighthouses
    Harbor Lights
  D. Routes
    Channels.
    River Bars
    Courses Marked
    Ocean Lines given without distance figures
  E. Traffic
    Traffic Flow
    Flow of Goods
    Number of Ship Sailings
  F. Navigability
    Seasonal Variation in Depths
    River Locks
    Channels Dredged
    Breakers Indicated
    Underwater Obstructions Located
  G. Canals
    Usually checked only for inland waterways
53. GCIPS
  These letters show the type of maps. Circle the correct
initial based on the following explanations:
  G - General Maps. A General Map is defined as one which
covers all of the specific geographical or political area.
  C - City Plan Maps. Usually cover populated areas such as
cities, towns, or villages which come under one political
```

C - City Plan Maps. Usually cover populated areas such as cities, towns, or villages which come under one political administration. These maps are characterized by a high degree of cultural detail, well delineated streets, dwellings, etc.

Digitized by Google

I - Island Maps. Maps of islands or a group of islands.
 P - Part Maps. A part map is defined as one which covers
 a part of the specific geographical or political area.

S - Series Maps. Series maps are generally considered to be a group of sheets which match each other in scale, uniformity of symbols and cartographic standards, and usually, but not always, have an orderly arrangement with adjacent sheets having contiguous borders, (*i.e.*, matching coordinates). In some instances, when a map series covers a large area, more than one projection may be used and the scale may vary from one part of the series to another. An index'map showing the arrangement of the sheets usually accompanies a series or is available in the publisher's catalog.

If a map covers a part of a city, town, village, or island, circle both initials. (e.g., $G \bigcirc I \bigcirc S$ or $G \bigcirc I \bigcirc S$).

In cases where the maps are defined as a series but do not cover the entire area as designated in the space for "AREA" on the card, circle the appropriate initials. (e.g., G C J (P(S)).

If a map defined as a city plan or island covers the entire area as indicated in the space "AREA" on the card, circle the two initials applicable. (e.g., $\bigcirc C(I) P$ S or $\bigcirc C(I) P$ S).

If a number of island or city plan maps are grouped by country or continent for convenience, circle the appropriate initial. (e.g., G C (I) P(S) or G (C) I P(S).

54. DATE CATALOGED

Enter the Army Map Service number assigned to your institution.

55. BLANK SPACE (On lower part of card)

If check list so far has not brought out the importance of the map, enter it here.

Digitized by Google

Example: A. List any insets.

Inset of Smithville, 1:5,000

- B. Continuation of Exact Title, Publisher, etc.
- C. Additional description of the contents of a map.



-

SUPPLEMENT TO CATALOGER'S MANUAL

SUBJECT LIST WITH COMMON TYPES OF MAPS GROUPED UNDER EACH

The following listing is for the aid of the cataloger in determining the proper subject. This is an expanded listing of the subjects given on pages 8 thru 11. Duplications do occur but it is intended to assist the cataloger, if any doubt arises as to the proper subject to be used.

1. AERONAUTICAL

Air bases, fields, lines, ports, routes, etc. Air navigation Aeronautical charts

2. AGRICULTURE

Cotton Wheat, etc. Agricultural regions Animal industries

3. ASTRONOMICAL

Star Charts Magnetic Charts—declinations Isogonic charts Isoporic charts

4. BASE

Various projections and grids— Azimuthal, Gnomonic, Stereographic, etc. Great Circle Routes Plotting Charts Locations Maps

5. CADASTRAL

Land Ownership Tax Apportionment

6. CLIMATIC

Duration of sunlight Meteorology Rainfall Precipitation

7. COMMUNICATIONS

Used when two or more types of communications are equally emphasized.

8. CULTURAL

Planimetric maps showing man-made features in detail. Usually have detailed natural drainage features. No contours or form lines.

9. ECONOMIC

Mine locations, concessions Oil Installations, concessions Waterworks, systems.

10. ETHNOGRAPHIC

Human geography maps Populations

11. EXPLORATION

Discovery maps Pioneer Geographical Research Route maps

12. GEOLOGICAL

Geological cross-section

13. HEALTH

Disease Mortality Health Resorts Recreation areas

14. HISTORY

Archeological Past political boundaries

15. HYDROGRAPHIC

Harbors



- x.,

Ports

Shore Features

16. IN DUSTRY

Manufacturing Processing

17. MILITARY

Any map designed primarily for military use such as:

```
Air raids

Arsenals

Occupied areas

Bomb damage

Collation

Defenses

Gun positions

Landing places

Logistics

POW camps

Radio detector stations

Resistance movements

Ship sinkings

Submarine bases
```

18. MISCELLANEOUS

Used only when map does not fit into any other classification.

19. NATURAL RESOURCES

Distribution of unexploited material

20. NAVAL

Preparation maps Training activities

21. OUTLINE

No detail, usually small scale Drainage and boundaries shown Usually not colored

22. PHOTO MAPS

Digitized by Google

```
Air support or target charts
Contoured
Miscellaneous photo—any type
Photocoverage maps
Photo index
Waterways
```

23: PHYSICAL

Earthquakes Volcanos Panoramas Physiographic diagrams

24. PLANS OF STRUCTURES, BUILDING AND WORKS

Detailed maps of large scale not covered by a specific subject.

25. POLITICAL

```
Administrative Divisions
Boundaries
Empires
Spheres of influence
```

26. POSTAL

Activities of postal services Routes Distances

27. POWER

Electric Hydraulic Hydroelectric High tension grids

28. RADAR, RADIO, WIRELESS

Radar Stations Radio, wireless stations

29. RAILROADS

Railways Any aspect of railroading

30. RELIGION

Diocese map Ecclesiastical provinces

31. ROADS

Distance charts Strip Maps Trails Routes Bus Service

32. SOILS

Distribution

33. SPECIAL

Indexes Symbol sheets

34. TELEGRAPH—CABLE

Land and water communication by telegraph

35. TELEPHONE

Land and water communication by telephone

36. TOPOGRAPHIC --- CONTOURED

Form lines or hachures with spot elevations. Two or more items listed as "SURFACE" in the lower part of the check card.

37. TRADE

Commerce Export Import

38. VEGETATION

Forestry

39. WATER SUPPLY

Wells and springs Aqueducts Irrigation

Digitized by Google

40. WATERWAYS

Canals Drainage Lakes Rivers Steamship routes

.



Original from UNIVERSITY OF CALIFORNIA

.



,

,

AREA JAMAICA, EASTERN		DPC	SUBJECT (MAJOR CLASSIFICATION)	SCALE 1: 25,344		CLASS. NO.		
EXACT TITLE JAMAICA, KINGSTON DISTRICT	13	A	STRICT	DATE		2-30	2-30-40000-25	6
				EDITION		LANGUAGE (TEXT) ENGLISH	ISH SH	
						S C R	R F (1) NO.FILE COPIES	COPIES
PUB. AUTH. AND NO. GREAT BRI	TAIN,	GSGS	5 3124					
COORDINATES W 7	1260 491		SOURCE X					
PROJECTION X		-	DIAGRAM	ONE PIECE	COLOR		PHOTOGRAPH NEG.	H NEG.
STRAIGHTMERIDIANS	STRAIGHT PARALLELS	SI	PICTURE	MULTIPLE	MONOM	MONOCHROME	PHOTOSTAT NEG.	NEG.
CURVED MERIDIANS	CURVED PARALLELS	8	PROFILE	SET	MANUSCRIPT	CRIPT	POSITIVE	
STUB COORDINATES	NO COORDINATES	-	AERIAL PHOTOGRAPH	SERIES	V PRESS RUN	RUN	V BIBLIOGRAPHY	ΗY
AGRICULTURE	MILITARY)	POWER	CLIMATE	SOILS		VEG'T'N. COVER	COVER
Animal Industry	Collation		Amounts	FISHING	SURFACE	ACE	Complete	
Crops	Admin. Areas	2	Lines	GEOLOGY	V Contours	ours	Incomplete	
Regions	Military Grid	>	Plants	HISTORY	Form	Form Lines Geod.	WATER SUPPLY	VPPLY
AIR NAVIGAT'N	OIL		Types	ROADS	Geor	Geomorphic	WATERWAYS	AYS
Distances	Fields	2	RAILROADS	Bridges	Hachures	ures	0. I.	
Landing Areas	Pipe Lines	2	Bridges	Distances	Pictorial	rial Layer	Depths	
Routes	Refineries		Distances	Traffic	Shading		Distances	ces
BOUNDARIES	Storage	>	Traffic	Tunnels	V Spot	Spot Heights	Port Fa	Port Facilities
Internál	PEOPLES		Tunnels	Surfaces	TELEC	TELECOMMUN.	Routes	
INDUSTRY	Distribution		Electrified	Other Categories	Cable		Traffic	
Areas	Ethnology		Gauges	MINERALS	Radio		Navigability	bility
Plants	Linguistics		Multiple Tracks	Deposits	V Teleg	Telegraph	Canals	
V Types	RELIGIONS	_	Traffic Facilities	Mine Locations	Teles	Telephone	- 0	e s
8/41 RUN DATE							DATE CAT.	
TO LET LOCA DA MAN			MAD CATALOG CADO	D FABO			COLEM	al ack
LOWM US-32 / 111-21-401	01 UEFI. UF SIAIE		AARINA TAR	ANN A		RED	GREEN	SLACA

38

Original from UNIVERSITY OF CALIFORNIA

REPORTING (CHECK) CARD (Actual size: 5x8 inches)

7		2		2		*		2		:	12		đ		\$	78	3
	4	12 12 14		34 34 34		56 56 56 56 56 56 56 56 56 56 56 56 56 5			2	43 44 48	\square		16,	171	NV	.TH8	+6 +6
		2		+		ي		78 78 78 78	:	2		.1	-		3		2
		~			2	و	Ē			1	2	ACC		DATE	95 95 95	78 78 78 78 78 78 78	3
	04690815201	2 1			BLUE YENTICAL-N.O. CHARTE	5	BROWN VERTICAL-AAF CHARTI			=	1	-	Ŧ	-			Ŧ
		-		34 34	Ū,	<u>ज</u>	š	2	•	7	-	2	- -		5	~	28
5	- 20		ž		ŝ	Š	¥.	_		_}		PRINTING	34 34 34 34 34 34 34 34 34	DATE	95 95 95 95 95 95		
י			SHEET NUMBER OR NAME		5	Š	CAL	1 8	i	33 34 35 36 37 38 39	12	R	T.	٥	Š	7	ے محد
	4	12	~	34 34 34 34 34 34 34 34 34 34	D D	5 6		78 78 78 78	-	리			34		8	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2:
	0		õ	34	ž	S S	Ξ	78	1	5	12		*		x		2
	0	12 12 12 12	2	34	3	56	MO	78	1	5	-7	X	34	~	S.	38	2.5
	0	12	8	*	á	\$6	ä	78	1	2	12	S 10	34	BEI	S.	3	1
	10	~	Ę	*		ŝ		78		3	12	CES	34	M	1	38	
	-	N	Ľ	+				8,		2	N	Ň	1	Z	0		1 2
r		-		I,				78 7		"	12		+		•		+ 5
		~	E	1		56	Į.	~		_	Ē	-			<u>~</u>	CEV12	- + -
		12.12		~	0	vī	SALMON - CAPTURED MAPS	-	2	30 21							<u></u>
		12 12			3		E.	5	¥	ř		۲	~	7	2	~	
5			1	-	ŝ		X	r.	Ĭ	. (-	M	2	2	Š	78	o' è t
		5		1 34 34	1		ž	50	ŝ	:	17	NO	~	£	۶°	78	5.5
[7	MANILA - MAP CARD		ŝ	78	BUFF- URBAN AREA		12	Ũ	*	5	S	78	4
					ž		SAI	78	9	36	12		7		s.	78	÷.
	6	14	Γ	-	1	NW	s	28		25 26	12 12 12 12 12 12 12 12 12 12 12 12 12 1		34 34 34 34 34 34 34 34 34 34 34 34 34 3		20	1 78 78 78 78 78 78 78 78 78 78 78 78 78	• • • • • • • • • • • • • • • • • • •
F	N	2	1					7.8 7			!	z	-	5	s.		:
	1	12 12 12 12 42				156 56 56				(+	DESCRIPTION	Ŧ	<u>+</u>	5		
		2	ł			5				-	1.2	ž	-	2	0		+ -
		-	ł	-		5				21, 28	E	ESC	٣.	<u>+</u> -	F-		-+-
		-		Ē	٦			5		*	-	ō	Ď	-	~	~	0 4 - + -
				7	SCAL	ľ,				_	-	_	~		Ľ,	~	<u> </u>
		E		<u> </u>	5	۶°	_	5		-	17	_	~	0	1 2	78	0
)		[2		*		\$		5		-	12	NOIND	~	CATALOG	s.	78	55
		2		2		%		78		17	17	S	*	F	8	78	- t 1
כ		2].	1	1	Š		38		=	12		7	ľ٩	5	78	9+ 9+ 9+ 9+ 9+ 9+ 9+ 9+ 9+ 9+ 9+ 9+ 9+ 9
5	1	12 12 12 12 12 12 12 12 12 12 12 12 12	A.M.S. CALL NO	34 34 34 34 34 34 34 34 34 34 34 34	Γ	56 56 56 56 56 56 56 56 56 56 56 56 56 5		78 78 78 78 78 78 78 78 78 78 78 78 78 7		12 13 14 15 16 17 18 19	1 21 121 121 12 12 12 12 12	.0	893	BB	\$ 95 95 95 95 95 95 95 95 95 95 95 95 95	78 78 78 78 78 78 78 78 78 78 78 78 78	9
2	19201	12	بـ	1	Ľ	2		a.		-	171		_	Γ	3	78	5
5	' a	1	F	-	AUTHORIFY	0					1	SIGNIFICANT	+		0	_e0	5
5		1	10	17	E	ľ.				~	12	ļ,	Ŧ	DATE	5		
-	الا ابر ا		2	٣	F	12				-	1	ž	ľ.	۱ð	2		+ •
F+ 00 000000000000000000000000000000000	1	Ē	Ž	1-		Ĕ	-	78 78			1	50	34 34 34 34 34 34		26 56 56 56 56	- <u>-</u> - 2-	9+19+ 1 9+
J		12	1	1	SE	5	 :		æ	10	Ξ	L	<u>[~</u>	L	<u> </u>		
2	্ৰ		1	34 34		5	SSI	1.78	NUMBE	0.	1		NO	ITI I	ED.	78	+6 +6 +6 .
0		12		1	WILLIA	~~	CLASSI	78 : 78	2	•	12	_				78	<u>;</u>
ŋ	1	12	1		ľ	2	ľ	32	 ⁻	5	12		34	Γ	56		5:
U	N	Γ	1	-	w	2		28	·				7	١.,	56	NO. 8/	1
2	' m	12		Ē	TYPE	2		73		-	12	F	ł	15	56	VF 78	t :
NNEO		121	1	F	1	R		~	<u> </u>	-	12	PECIA	1+	SERMICES	99	EGATIVE NO	
N	0	-	L	1-	-	1.0				-	12 4	1	Γ.	SE	0	787	; ;
N			1	Ē	AREA	\$ 2		8 2			17		ŗ	t	503	Z	÷.
	Ľ	1.		E	<	1		7.8			Ē	L	<u> </u>	L	<u> </u>	20	-+
3		1-	1	-		°°		20		-	17		. D 3	ŧN.	30	TYPE	6

MACHINE PUNCHED CARD "A" (WHITE) (Actual size: 3-1/4x7-1/2 inches) .

.

Digitized by Google

٩.

.

Z											ND di	/ M		_				•			7	
ส				34						4		12		*		56 56		78 78		t 1		
	E N GL	12 12 12 12		34 34	. CHARTS	5 ₆	VF CNARTS	78 78 78 78 78 78	BROWN HORIZONTAL-CROSS REF.	42 43 44			TEXT	34 34 34 34				7 s		6+ 6+		
K I NG S TON		12			BLUE VERTICAL - M.O. CHARTS	56 56	BROWN VERTICAL-AAF CHARTS	787	HORIZONTAL	위 리		12 12 12	an	34 34 34	ENCE	9 5 95 95 95 95 95 95 95 95 95 95 95 95 95		78 78 78 78 78 78 78 78 78 78 78 78 78 7		9+ 8+ 8+ 8+ 8+ 8+ 8+ 8+ 8+ 8+ 8+ 8+ 8+ 8+		
U Z -		12 12 12 12 12 12	EXACT TITLE	34 34 34	BLUE VI		BROWN	78 78	BROWN	"		12 12 12	BOOK, DOCUMENT OR	34 14 54	AREA CROSS REFERENCE	a; a; a;		78 78 78		+6 +6 +6		
		12	EXA	34 34 34		۶ ⁶		78 78 78	AN AREA	퀴		12 12 12	BOOK.	75 75 75 75 75 75 75 75 75 75 75 75 75 7	AREA CRO	95 95 95		78 78 78		*6 *6 *6 *		ED)
OH OOOOOOOZS344 JAMAICA		12			RED-AREA MAP FILE	56	CALE FILE	78 78	GREEN VERTICAL-URBAN AREA			12 12 12		34 34 54		95 56 56	ING.	78 78 78		+6+6+6+6+		MACHINE PUNCHED CARD "B" (RED)
N N N		12		34 34 34			GREEN-SCALE FILE	<u>74</u> 78 78 78 78 78 78 78 78 78 78 78 78 78	GREEN VE	22 22		12 12 12		1 1 34 34		95 95 95 V	ALPHABETIZING	18 78 78	CODE	F6 +6 +6 +		HINE PUNCHED CARD "B" (F
Ŧ		12 12 12 12 12		*	11	N V -	S	8 78		Ξ		17	z	34 34 34 34 34 34 34	SE R	6 50	×	\$ 78		3 F + 9		U,
ŧ	Ö	12])		1 2 2 2 2 2		78 7		t			EXACT LOCATION	Ĩ.	SERIES NUMBER	5 95	IJ	28	_L	÷.		٩.
m	0 2 9 0	12				ş		2		=		12	Š		Ž]				t :		HH ~
ที	Ý	12		34	Ľ	1		2		21 22		12		*		,)		3		. 8		ι <u></u> Ξ°
a	7			1 34	SCALE	2		1 78		_		17	Š		36	8				+6 +6 +6		5.
ď	3	2 1 2		¥ 34	•	5		8 78		=		12		ž	NO	8 9				6 i + :		JU ,
0	N1604 W1	12 1		34 34 34 34 34 34 34 34 34 34 34		50 50 50 50 50 50 50 50 50 50 50		28		12 13 14 15 16 17 18 19		12		ľ		95 95 95 95 95 95 95 95		78 78 78]	E S
0	0	12		34		\$,ie		=		12		7		ŝ		3		;		Z t
Ō	6	12	A.M.S. CALL NO	34	>	s S		78		=		17		34 34 34 34 34 34 34 34	1	ŝ				1		」 王 い
	- H	12	ļ	*	RIT	\$		7.		3		i		~		\$. 7.		; ;		AC
o'	4	2	0		AUTHORITY	ي م		8 7				Ē	5	~ •	Ļ	ور		8 7		Ŧ		M
=		12	ž	[₹	Š		78.7				12 12 12 12	PROJ.	-		56 56 56		78 78 78 78		+6 +6 +6		
ō		12		34	s	ş	<i>.</i> .	.*	~	2		12	Γ	7		56		78				
0		2		34 34		50 56	CLASSII		NUMBE	•		12		*		ŝ		7.		**	1	
n n	-	12 12 12		-	WILLIAN	56. 56	5	78 78 78	N.			17	4	r T		ۍ د		8 78		+6 +6 +6 +6		
		-		F	- 	50	_	2° 2°	L				E	34 34		8 8		78 78		o`∎ + :		
0	-	12		13 13	TYPE	3		<u>,</u>		-		12	5	 		56 56		~		5		
225023	U	12		⊢	T	s		78	-	-		12 12 12 12 12 12 12	EXACT TITLE	*		ş						
2	-	1		7	AREA	\$		78		1		12		I				3.		6 + 6 + 6 + 6		
1 1	Ω (m T	1			78		1				7		ہ ج						
0	-	Ξ	L	" *		s S		78		- 1-a	GWV	12 12				\$			pe		1	

Digitized by Google

INDEX TO CATALOGER'S MANUAL

Aerial Photography	15
Agriculture	17
Air Navigation	18
Area	8
Bibliography	18
Blank Space	
Boundaries, Administration	
Classification No.	
Climate	
Color	
Coordinates	
Date	
Date Cataloged	
Diagram	15
Edition	13
Exact Title	12
Fishing	23
GCIPS	28
Geology	23
History	23
Industry	19
Language (Text)	13
Nanuscript	16
Nilitary	19
Winerals	24
Nonochrome	16
Multiple	15
Number of File Copies	14
0i1	20
One Piece	
Peoples	20
Photograph Negative	
- t	

41

Photostat Negative	16
Picture	15
Positive	16
Power	21
Press Run	16
Profile	
Projection	14
Publishing Authority and Number	14
Railroads	22
Religions	
Roads	
S C R F U	
Scale	
Series	15
Set	
Soils	24
Source	16
Subject (Major Classification)	
Surface	25
Telecommunication	26
Vegetation Cover	26
Water Supply Facilities	27
Waterways	27

.

Digitized by Google

Digitized by Google

.

.

Original from UNIVERSITY OF CALIFORNIA

•

•

۰.



•

C

.







	RETURN TO DESK FRO LIBRARY SCHOOL	Y USE DM WHICH BORROWED L LIBRARY ast date stamped below, or which renewed. ject to immediate recall.	A P P
	JUN 8 1974		
		and and a start of the	
	2010 (S. 2028)		
		and the second	
		Ma	
	LD21-35m-8 '72	General Library	
	LD21-35 <i>m</i> -8,'72 (Q4189810)476—A-32	General Library University of California Berkeley	
Digitized by GOC	gle	UMVERS	Diginal (1977) To CE CADICORNIA



