



MCAPP MEETING

OTTAWA, CANADA

JUNE 1969

AGENDA FOR CANADA-UNITED STATES MAPPING
CHARTING AND AERIAL PHOTOGRAPHY
COMMITTEE MEETING

OTTAWA
24-27 June 1969

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1. Opening Address.
2. Introductory Remarks by the Chairman.
3. National Statements of Progress:
 - a. Topographic Mapping
 - b. Hydrographic Charting
 - c. Aeronautical Charting
 - d. Geodetic Control
 - e. Gravimetry
 - f. Related Materials *Gazetteer, Aero Aids, Sailing Aids, Tides, Currents etc*
 - g. Automation *plastic relief maps (1/2 done) 1/200000*
4. Review of the Mapping, Charting and Aerial Photography Plan in support of the Canada-United States Basic Security Plan:
 - a. Body of Plan.
 - b. Review of Committee Meetings:
 - (1) Committee "A" Topographic Mapping (Annexes A and C). *Parlee, O'Brien (Suncho), Bergerling, G. Hart*
 - (2) Committee "B" Hydrographic Charting (Annexes D1, D2, D3, D4 and D5). *Lacroix*
 - (3) Committee "C" Aeronautical Charting (Annexes E and F). *Kirk (Becker), Ashbough*
 - (4) Committee "D" Gravity (Annex H). *McConnell, Hauer*
5. Presentations:
 - a. Canada
 - (1) Development of Aerial Photographic Services in Canada. *L. Walker*
 - (2) Mapping with High Altitude SWA Photography Cost, Accuracy and Efficiency. *J. Gauthier*
 - b. United States
 - (1) Status of Geodetic Satellite Programs.
 - (2) Mapping for Civil Emergencies.
 - (3) An Analysis of the U.S. National Topographic Program. *Bergerling*
 - (4) A New Geodetic Datum for North America. *Burnoughs*
 - (5) The Helicopter Gravity Measuring System. *Gilbert*
6. Date and Place for Next Meeting. *Washington 16-19 June, 1970.*
7. Summary and Closing Remarks.
8. Tour of the National Research Council (Photogrammetric Section of the Applied Physics Division).
9. Tour of the Centre for Performing Arts.

LIST OF DELEGATES

UNITED STATES

Colonel R.E. Herndon, Jr. ^{Bob} - Defense Intelligence Agency
Mr. Leslie Y. Dameron, Jr. - Defense Intelligence Agency
Mr. Perry R. Gilbert - US Army Topographic Command
Mr. Lawrence J. Bechtel - Office of the Oceanographer of the Navy
Mr. Elmer Hauer - Aeronautical Chart & Information Center
Mr. R.J. Brämmer ^{C.E.} wife - US Federal Aviation Administration
Cdr Charles A. Burroughs - US Coast and Geodetic Survey
Mr. Lawrence H. Borgerding - US Geological Survey

CANADA

Colonel D.F.W. Aitkens - Director General Environmental and Operational Services.
Mr. S.G. Gamble - Director, Surveys and Mapping Branch, DEMR
Mr. G. Lacroix - Canadian Hydrographic Office, DEMR
Mr. L.A. Gale - Dominion Geodesist, DEMR
Mr. C.T. Osborne - A/Director Aerial Surveys, DEMR
Mr. T.H. Kihl - Aeronautical Charts, DEMR
Mr. R.K. McConnell - Gravity Division, Dominion Observatories Branch, DEMR.
Mr. E.D. Baldock - A/Director Map Production, Surveys and Mapping Branch, DEMR.
Mr. A.L. Ashton - Supervisor of Aeronautical Information Services, DOT.
LCOL L.J. O'Brien - Commanding Officer, MCE
Major J.C. Sinclair - DGEOS
LCDR A.B. Torrie - DGEOS
Major W.P.J. Becker - DGEOS
Mr. L.J. McAdam - DGEOS



Back Row: A. B. Torrie, J. V. Thompson, P. R. Gilbert, L. H. Bergerding, L. J. Bechtel, R. J. Parlee, W. P. J. Becker,
(Perry) (Elmer)
J. C. Sinclair, E. Hauer, R. K. McConnell

Middle Row: A. L. Ashon, C. A. Burroughs, T. H. Kihl, C. T. Osborne, L. A. Gale, L. J. McAdam, G. Lacroix,
E. D. Baldoct.

Front Row: L. Y. Dameron, C. E. White, D. F. W. Atkins, R. E. Herndon, S. G. Gamble, L. J. O'Brien
(Yates) Bob

MCAPP Map - US presentation
June, 1969

MAPPING FOR CIVIL EMERGENCIES

by Perry R. Gilbert

In late 1967 the Continental Army Command began investigating the requirement for maps to satisfy Civil Defense, disturbance, and disaster operations. The plan discussed with U. S. Army commands was the preparation of a kit for emergency use. The Army commands stated that the major deficiency in prior involvements was the lack of a uniform map product with the necessary intelligence information. The Army Map Service was tasked to prepare a prototype map which satisfied the stated requirements. It met general acceptance from the Army users.

Preparing maps for all of the required areas presented various problems. As usual, funds were lacking for the project but still more serious was the lack of uniform and up-to-date large scale coverage. Virtually all of the existing medium and large scale topographic coverage was considerably out of date and not desirable for the intended purpose.

Since the automobile club and municipal maps were the most up-to-date source, it was decided to use them. This brought about the sizable task of selecting the most desirable coverage for almost 200 cities. While some engineer and city council maps were used, most of the bases selected were commercial maps. When a commercial base was selected, a letter was sent to the copyright holder requesting permission to use their map. Most companies agreed to allow the Federal Government to use their product for civil emergencies only; however, some desired payment and negotiations were necessary to acquire the map. (The U. S. Geological Survey has a plan for furnishing these bases in the future).

Oxalid copies of the bases were prepared and sent to the Army area concerned for intelligence annotation. When this information was received, the map was put into production. The map design had been coordinated with the Continental Armies, the Continental Army Command, and the Specifications and Design people at the Army Map Service.

The bases were scaled as nearly as possible to within the 1:15,000 - 1:25,000 scale range. The bases printed in black with

the intelligence information and an atlas grid overprinted in red. The optimum sheet size was 30" x 40"; however, it was necessary to go to the maximum press size of 42" x 58" in some cases. The reverse side of the map contained an overall geographic representation of the area. This was usually a 1:250,000 scale map with the city area centered on the sheet.

In addition to the regular map, 6 feet N-S by 7 feet E-W enlargements were made. These of course had to be made in sections and each section contained 1 1/4 inches of overlap to facilitate mosaicking.

There now exists approximately 115 area maps containing approximately 130 cities. Nine thousand copies of the regular map and 1000 copies of the enlargement were printed and stocked at strategic locations, ready for use.

Submitted
on 1/15/69
Approved by
SAC 25/4/69
C/O

MCAPP MEETING 1969

NOTES ON 1:50,000 PROVISIONAL MAPS

1. A few years ago it became evident that the reproduction of 1:50,000 standard (full-colour) maps was placing a heavy load on facilities of the Branch, particularly in less densely populated and rural areas. In 1966 it was decided that standard maps would be produced in urban and suburban areas only, with "provisional" maps being reproduced in other areas.

2. It was hoped that time could be saved by reproducing the pencilled lines of the compilation manuscript and minimizing the names on the provisional map. However, *Also* in some areas the 1:50,000 compilations were used in deriving 1:125,000 maps and for this purpose the line work had to be scribed. The result was not very pleasing and since most of these maps would be in this form for many years, the additional scribing necessary to up-grade the quality of these maps was felt to be warranted. →

3. Studies were made of producing two-colour editions in all provisional map areas. In one, culture and contours were shown in black, forested areas in grey (screened black) and hydrography in blue; in another, culture and contours were printed in orange with the hydrography and forested areas in differing shades of grey. Neither of these maps were acceptable to the military who strongly recommended the use of green for forested areas.

4. This led to consideration of four-colour provisional maps in black, green, blue and red, with contours screened on the black plate. The advantage of this presentation is that in northern areas only black and blue would be necessary, since there is no bush and very few roads. Provisional maps are now being produced in this format.