

UNITED NATIONS
ECONOMIC
AND SOCIAL
COUNCIL



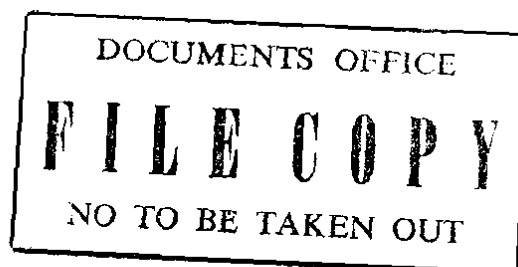
Distr.
LIMITED

E/CN.14/CART/C.2/2
20 September 1966

Original : ENGLISH



ECONOMIC COMMISSION FOR AFRICA
Second United Nations Regional
Cartographic Conference for Africa
Tunis (Tunisia) 12-24 September 1966



DRAFT REPORT OF COMMITTEE II

by the Rapporteur

Photogrammetry and Topography

DRAFT REPORT OF COMMITTEE II ON
PHOTOGRAMMETRY AND TOPOGRAPHY
(by the Rapporteur)

1. Election of officers

The following were elected officers of the Committee:

Mr. M.G. Adana (Togo) Vice-Chairman

Mr. Taye Reta (Ethiopia) Rapporteur

2. Aerial photography, photogrammetry and topographical mapping

Under sub-item 12(b) of the agenda of the Conference the Committee considered the following papers :

Aerial photography for regional surveying and mapping (E/CN.14/CART/192); (submitted by the United States)

Photogrammetry for regional mapping (E/CN.14/CART/193)
(submitted by the United States)

Mapping from airborne electronic control (E/CN.14/CART/194)
(submitted by the United States)

The testing of new optical combinations for taking photographs and plotting at the Institut géographique national (E/CN.14/CART/173)
(submitted by France)

Orthophoto and orthophoto map photogrammetric auxiliary means for solving technical tasks of engineering and land register in Africa (E.CN.14/CART.204) (submitted by Germany)

Practical improvements in stereoplottting instruments (E/CN.14/CART/214) and survey instruments and methods in the United States of America (E/CN.14/CART/215) (submitted by the United States)

Stereotopographic surveying and techniques used in the USSR
(E/CN.14/CART/226) (submitted by the USSR)

Photointerpretation (E/CN.14/CART/227) (submitted by the USSR)

The Committee then proceeded to consider the separate subjects under the items :

Aerial photography

The problems encountered in obtaining aerial photographs due to weather conditions, the harmattan, haze and low clouds were discussed and it was reported that the use of infra red films and super-wide angle lenses had produced very valuable results. Although further successes were also reported through the use of electronic navigation devices and colour photography the Committee felt that research into the methods of overcoming these difficulties should continue.

Auxiliary apparatus

It was reported that in addition to the Airborne Profile Recorder (APR) and the Horizon Camera, the aerodit had also been successfully used in Africa.

Ground Control

It was reported that both conventional and electronic methods of establishing ground control were in use in Africa. Reports indicated growing developments in electronic equipment, but the need to continue further research into control methods was stressed.

Aerial triangulation

The Committee saw the need for further development and research in aerial triangulation. It, however, realized that research into the problems facing Africa could be better carried out in Africa under African conditions and that the proposed ECA centres for Africa would play a prominent role in this respect.

Photo interpretation

The meeting took note of the paper presented on the subject.

Photo maps and mosaics

The use of mosaics and photomaps was discussed and it was reported that for flat terrain, swamps, etc...photomaps could be produced as cheaply as planimetric maps .

Topographical maps

The application of photogrammetry to topographical mapping was discussed . It was reported that although maps were being produced almost entirely by photogrammetry the use of ground survey methods could not be completely eliminated, especially where weather conditions were impossible and in areas of dense vegetation .

Field completion of maps

The Committee discussed the field completion and checking of maps produced from aerial photographs and agreed unanimously that maps must be checked on the ground . The use of helicopter for this purpose was also reported . It, however, was realized that even after the most rigorous checks mistakes could not be entirely avoided and that it may be useful to add a note to each map requesting users spotting mistakes to annotate the maps and report them to the cartographic agency which publishes the map.

Large scale mapping and cadastral survey

The Committee then considered item 12 (c) of the main agenda and discussed the following papers :

Organization and functioning of the Cartographic and Cadastral Service in Gabon (E/CN.14/CART/164) and

Tunisian experience in cadastral surveying (E/CN.14/CART/196)

The Committee saw importance of cadastral surveys to land surveying, administration, registration and establishment of cadastre and decided to recommend that government organizations dealing with the research and the administration of land should be closely related.

The use of aerial survey methods in large scale and cadastral mapping was reported by more participants and it was suggested that conventional and aerial survey methods could be used in countries where the cartographic organizations were still being developed.