

UNITED NATIONS  
ECONOMIC  
AND  
SOCIAL COUNCIL



58541 c.13

Distr.  
RESTRICTED



E/CN.14/CART/160  
29 July 1966

ENGLISH  
Original: FRENCH

ECONOMIC COMMISSION FOR AFRICA  
Second United Nations Regional  
Cartographic Conference for Africa  
Tunis (Tunisia), 12-24 September 1966  
Item 7 of the provisional agenda

SUMMARY OF TOPOGRAPHIC AND CARTOGRAPHIC WORK CARRIED OUT IN  
THE REPUBLIC OF CHAD FROM 1 JANUARY 1963 TO 30 JUNE 1966

Report submitted by the Government of Chad

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SUMMARY OF TOPOGRAPHIC AND CARTOGRAPHIC WORK CARRIED OUT IN  
THE REPUBLIC OF CHAD FROM 1 JANUARY 1963 TO 30 JUNE 1966

Topographic and cartographic work was actively carried out throughout the country from 1963 to 1965, and this work is still continuing.

A detailed review is given below:

I. AIR PHOTOGRAPHS (by the Institut géographique national of France (IGNF))

Air photographs, on the scale of 1:6,000, were taken or retaken for the purpose of public works, cadastral surveys, town planning and development of urban centres:

Fort-Lamy, Fort-Archambault, Bongor, Abeche, Moundou, Koumra, Doba and Mongo, i.e. a total of approximately 1,050 km<sup>2</sup>.

On the scale of 1:50,000 or 1:70,000, air photographs were taken for the sheets:

Korotoro, Largeau (1/4 West), Moundou (1/2 North) and Beinamar (1/4 East).

The Koumra sheet (Mandoul valley) was first photographed during the dry season and again, on infra-red film, at the peak of the flooding period, six months later.

This represents a total area of 60,000 km<sup>2</sup>.

All this air coverage was required for studies of communication routes (roads or railway) and for that of development of Mandoul.

II. PRECISE LEVELLING (by IGNF)

A total of 1,510 km were reconnoitred, demarcated and observed on the following lines:

Fort-Archambault - Koumra

Bardai, de Gaulle crossroads via Yebbibou

Zouar - Korizo Pass - Libyan frontiers

Korizo Pass - Toumo (Niger)

Zouar - Bilma (Niger). By means of this section it was possible to close a level circuit of about 5,000 km across the Niger-Chad border. The closing error was 0.30 m.

### III. ASTRONOMY - GEODESY

The geodetic determination of the east-west so-called 12th parallel chain is still to be carried out. Although preliminary negotiations are being conducted, work has not yet started.

On the other hand, 8 new astronomical stations have been determined between the 15th and 16th parallels, together with 8 stations in the Mondou - Fort-Archambault area.

### IV. STEREOSCOPIC GROUND CONTROL - AERIAL TRIANGULATION (by IGFN)

Sheets on the scale of 1:200,000 of Zouar, Soborom, Wour, Bardai, Aozou and half north of Oudigwey (in the Tibesti area), were prepared for stereoplotting control with a view to aerial triangulation and subsequent plotting, same as for 18 sheets on the scale of 1:50,000 in Beinamar, Moundou, Koumra and Fort-Archambault, for the layout of the future Cameroon-Chad railway.

All these zones, whether on the scale of 1:200,000 or 1:50,000, have already been air triangulated and adjusted by electronic computers.

### V. GENERAL CARTOGRAPHY (by IGFN)

(a) On the scale of 1:50,000. The 18 sheets relating to the above-mentioned Cameroon-Chad railway study have been plotted and "ozalid" prints can be supplied on request; the compilation of coloured maps is expected to take place in 1967.

(b) On the scale of 1:200,000. Two types of document have been drawn up and published:

- (1) topographical base maps in 6 or 7 colours, the relief of which is only represented by form lines;
- (2) final maps on which the relief is represented by means of standard contour lines.

The former can be quickly drawn up on completion of the astronomical work and do not involve any costly operation, whereas the latter require preliminary stereoscopic ground control and aerial triangulation or the determination of regular air radar profiles subsequently linked to ground control, followed by successive pair plotting. All of this demands considerable facilities and a great deal of time, since all the technical work cannot be carried out at the same time and must be spread out over a number of years.

The following topographic base maps have been published:

NE 33. IV (Siltou), V (Toros), VI.X.XI.XII (Kichikiohi)  
XVI (Fochi) SVII. XVIII.

NF 34.IX (across the Libyan border), covering a total of 112,000 km<sup>2</sup>.

The following final maps have been published:

NE 34. XXI (Cunianga-Kebir) XIV (Bembeche) ND 34. XVII (Guereda).

In addition, the following standard maps have been plotted and are in the process of compilation and publication:

NE 34. XX (Gourou) XIII (Ain-Galaka)

ND 34. XVI (Am-Zoer) XIII (Kapka) XXIII (Iriba), i.e. a total of 96,000 km<sup>2</sup>.

(c) On the scale of 1:500,000

NC 33. NE (Bongor) NC 33 SE (Moundou)

ND 33. SW (Lake Chad)

(d) Town plans

The Fort-Lamy plan, on the scale of 1:10,000, was brought up to date and a new edition was published in 1965.


In addition, surveys are being made for the following plans:

Fort-Archambault and surroundings, on the scale of 1:10,000;

Bongor, Doba, Koumra, Abeche, Moundou, Mongo and their surroundings, on the scale of 1:5,000.

# UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL



Distr.  
LIMITED/LIMITÉE   
E/CN.14/CART/160/Add.1  
12 August/12 août 1966  
Original: ENGLISH/FRENCH  
Original: ANGLAIS/FRANCAIS

ECONOMIC COMMISSION FOR AFRICA  
Second United Nations Regional  
Cartographic Conference for Africa  
Tunis (Tunisia), 12-24 September 1966  
Provisional Agenda item 7

COMMISSION ECONOMIQUE POUR L'AFRIQUE  
Deuxième Conférence cartographique  
régionale des Nations Unies pour l'Afrique  
Tunis (Tunisie), 12-24 septembre 1966  
Point 7 de l'ordre du jour provisoire

## SUMMARY OF TOPOGRAPHIC AND CARTOGRAPHIC WORK CARRIED OUT IN THE REPUBLIC OF CHAD, FROM 1 JANUARY 1963 TO 30 JUNE 1966

Index maps submitted by the Government of Chad

## RELEVÉ DES TRAVAUX TOPOGRAPHIQUES ET CARTOGRAPHIQUES EXECUTES EN REPUBLIQUE DU TCHAD, DU 1er JANVIER 1963 AU 30 JUIN 1966

Tableaux d'assemblage présentés par le Gouvernement du Tchad

- 1/ The Index Maps are distributed to participants only. A limited number of copies of the maps can be made available upon request from the Cartographic Unit of the United Nations Economic Commission for Africa.
- 1/ Les tableaux d'assemblage ne sont distribués qu'aux participants mais un certain nombre d'exemplaires sont disponibles et peuvent être obtenue sur demande auprès du Service Cartographique de la Commission économique des Nations Unies pour l'Afrique.

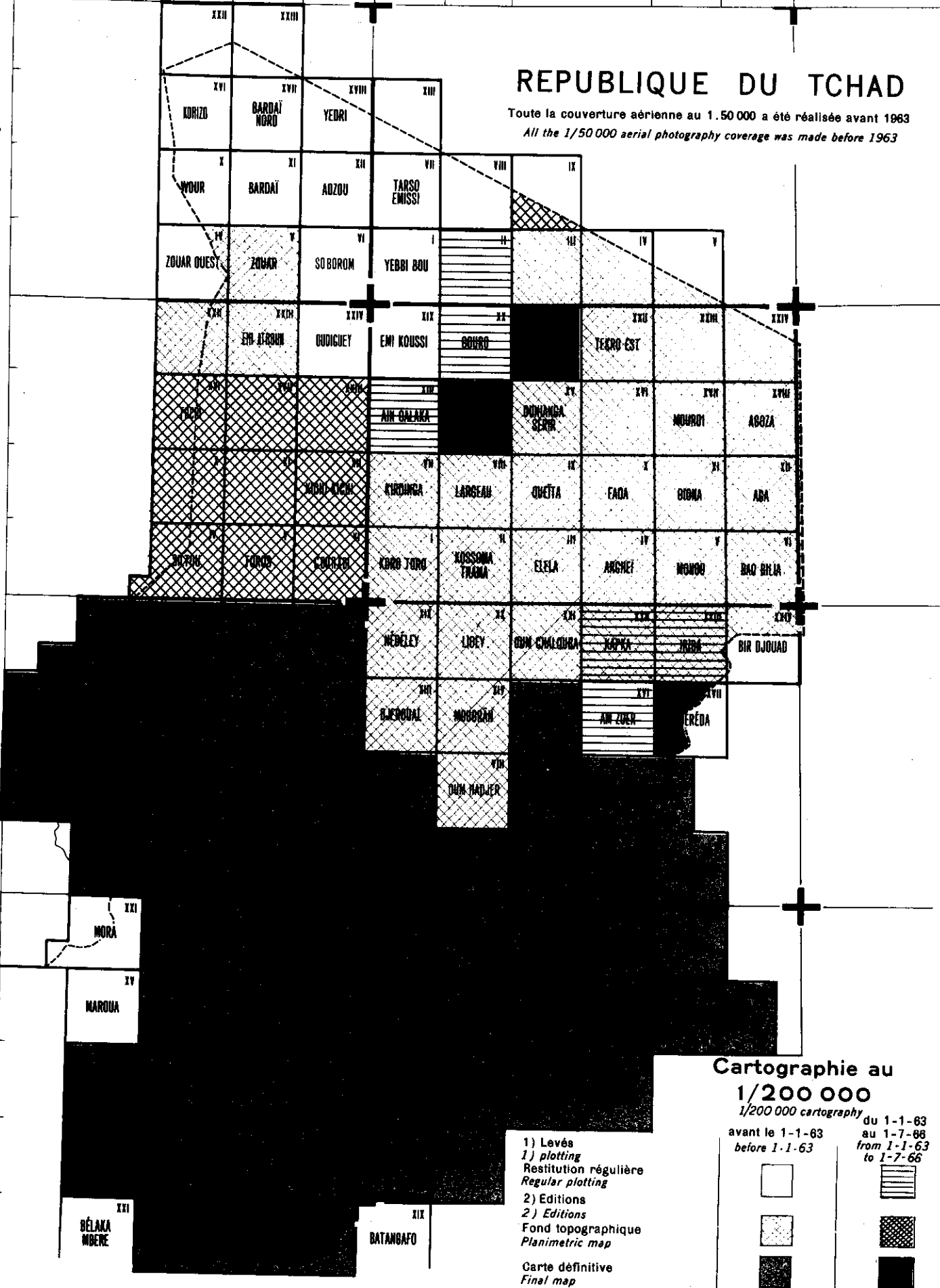
\* For participants only  
Aux participants seulement

24° 13° 14° 33 16° 17° 18° 19° 20° 34 22° 23° 24°

NF  
21°  
20°  
19°  
17°  
16°  
15°  
ND  
13°  
12°  
11°  
NC  
9°  
8°

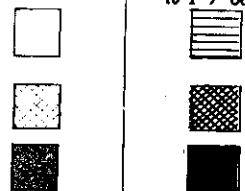
# REPUBLIQUE DU TCHAD

Toute la couverture aérienne au 1.50 000 a été réalisée avant 1963  
All the 1/50 000 aerial photography coverage was made before 1963

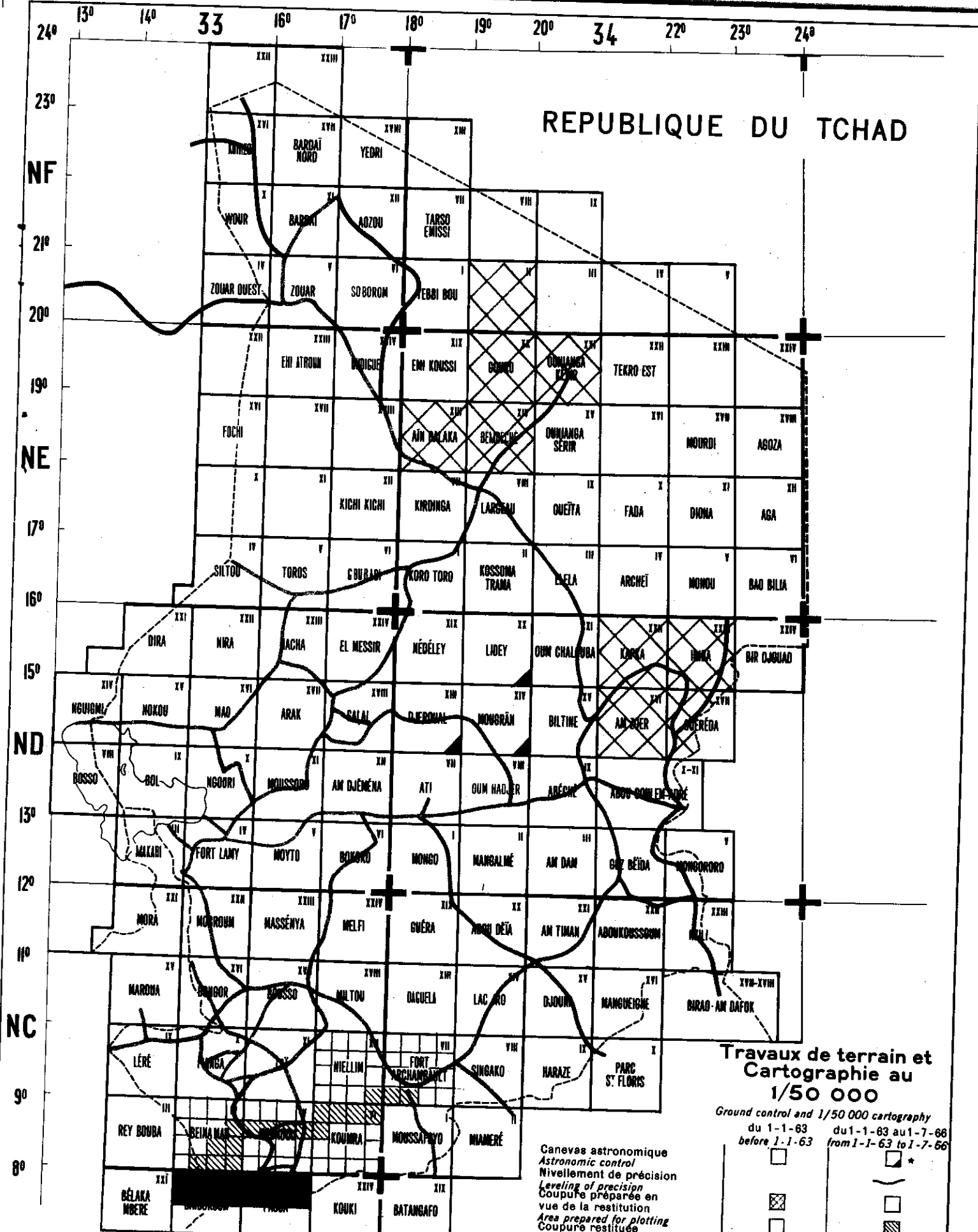


**Cartographie au 1/200 000**  
1/200 000 cartography  
du 1-1-63 au 1-7-66  
from 1-1-63 to 1-7-66

1) Levés  
1) plotting  
Restitution régulière  
Regular plotting  
2) Editions  
2) Editions  
Fond topographique  
Planimetric map  
Carte définitive  
Final map



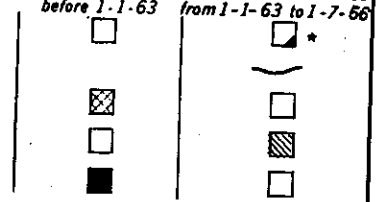
# REPUBLIQUE DU TCHAD



## Travaux de terrain et Cartographie au 1/50 000

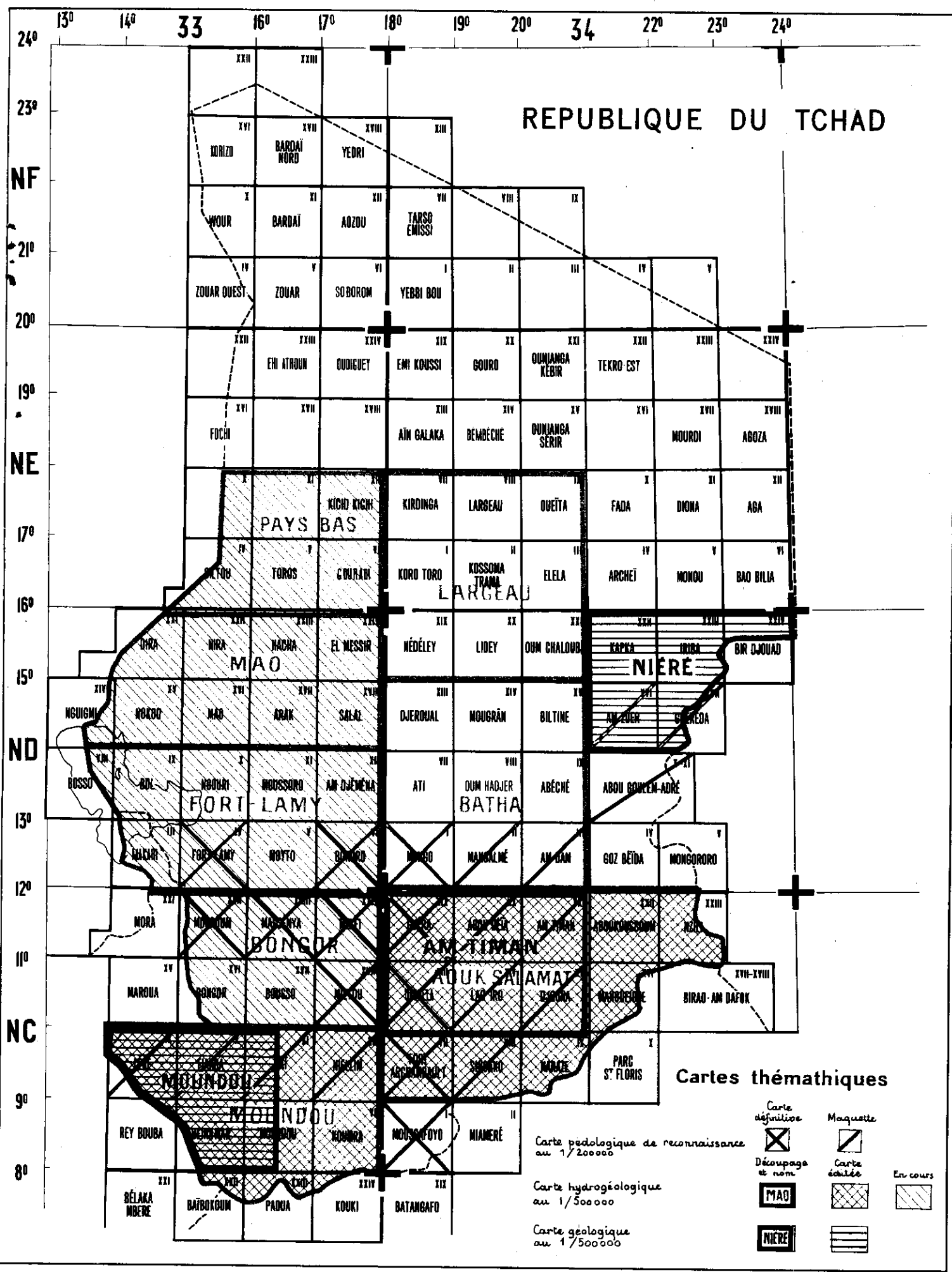
Ground control and 1/50 000 cartography  
 du 1-1-63 du 1-1-63 au 1-7-68  
 before 1-1-63 from 1-1-63 to 1-7-68

Canevas astronomique  
 Astronomic control  
 Nivellement de précision  
 Leveling of precision  
 Coupure préparée en  
 vue de la restitution  
 Area prepared for plotting  
 Coupure restituée  
 Plotted map  
 Coupure éditée  
 Edited map








\* NB: Equipement astronomique ..entièrement terminé  
 Astronomic control ..... entirely finished

# REPUBLIQUE DU TCHAD



## Cartes thématiques

Carte définitive	Maquette
	
Découpage et nom	Carte éditée
	
	En cours
	

Carte pédologique de reconnaissance  
au 1/20000

Carte hydrogéologique  
au 1/50000

Carte géologique  
au 1/50000