



89th. FIELD SURVEY SQUADRON
ROYAL ENGINEERS

(IN CONJUNCTION WITH SURVEY OF KENYA)

SQUADRON DISBANDMENT CEREMONY

AT

SURVEY OF KENYA, FIELD HEADQUARTERS, THIKA ROAD

FRIDAY 10th JULY 1959

PROGRAMME

- | | |
|-----------|--|
| 2.45 p.m. | His Excellency The Hon. Sir Evelyn Baring GCMG KCVO The Governor of Kenya will take the Salute and inspect the Quarter Guard |
| 3.00 p.m. | Outdoor and Indoor Demonstrations |
| 4.00 p.m. | Tea |
| 4.30 p.m. | His Excellency the Governor departs |

Processes which are being used in the production of the 1/100,000 Maps of Kenya.

SURVEY

1. AIR PHOTOGRAPHY

Air Photographs are taken of the area to be mapped at a scale of 1/80,000. These photographs are taken by the Royal Air Force using Canberra Jet Bombers modified for Air Photographic Reconnaissance work. In order to obtain a scale of 1/80,000, the aircraft flies at 40,000 feet above the ground, and uses a camera with a 6" lens.

2. GROUND SURVEY

Points which can be identified on the Air Photographs are fixed on the ground by survey parties using Astronomical methods. The density of this control is approximately one point every thirty miles.

In addition to fixing control points, the survey parties carry out annotation of the photographs and Barometer Heighting.

3. AIR SURVEY

Using the control supplied by the survey parties, a Slotted Template Laydown is assembled at Air Photograph scale. When in adjustment, a large number of additional control points can be obtained from the laydown for use in the compilation. The average density of these points is from three to four miles.

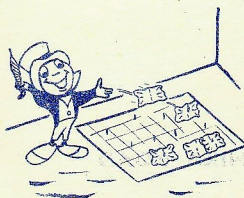
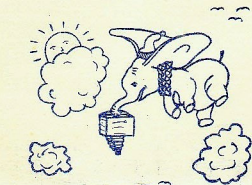
4. COMPILATION

All the control points obtained from the laydown are transferred on to sheets of Astrafoil (a stable plastic) and detail is compiled from the Air Photographs and other material available, and tied to these points.

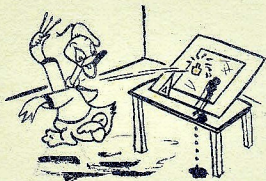
5. FIELD CHECKING & NAME COLLECTION

All sheets are Field Checked by survey parties for later information and for detail not clearly defined in the photographs.

In addition, all sheets are passed to D.C.s for name checking and collection. After the D.C.s have returned the sheets, they are vetted for name spelling by the Standing Committee for Geographical Names (S.C.G.N.) before being put on the map.



6. FAIR DRAWING

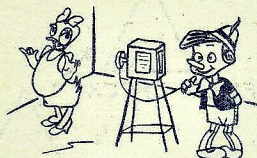


From the checked compilations, blueprints are printed on Astrafoil, one for each colour in the printed map. Draughtsmen fair draw in black one plate for each colour. This drawing is normally done at a larger scale than the finished map in order to obtain maximum accuracy and sharpness of image.

A new method has just been evolved for fair drawing in which a coated Astrafoil is used, and instead of drawing with a pen and ink, a sapphire cutter is used to cut the coating. The finished sheet is then dyed with black or red dye, the coating is removed, and the result is a positive which is at the same scale as the finished map.

REPRODUCTION

7. PHOTOGRAPHY



The positives of each colour, obtained either by fair drawing or by the Astrascribe method may require to be reduced to the correct scale. On the Camera a negative is made to the correct scale, and from the negative a contact positive may be produced.

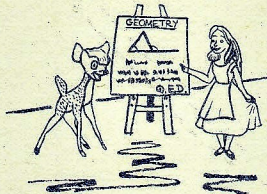
These negatives or positives, one for each colour, form the material from which the printing plates are obtained.

8. PRINTING DOWN



The image on the negative or positive now has to be transferred to a material suitable for use on the printing machine. In the Printing Down, or Helio department, the work is transferred either by means of the Albumen process in the case of a negative, or by the Gum Reversal process in the case of a positive, onto a Zinc plate. There will be one plate for each colour.

9. PROVING



The printing plates are now ready for the machine, but before they are passed to the machine, Proof copies are taken on the Proving Press to check for any faults in the plates, and to determine the colours required in the final map. The proof copy will give the final appearance of the finished map before the work is actually printed in quantity on the machine.

10. PRINTING



The prepared plates are transferred to the machines which are Rotary Offset pattern, and Double Demy (36" x 25") in size. There is one Single colour, and one Two colour machine. In the latter, two colours are printed during each run, whereas in the single colour each colour has to be printed separately in succession. These machines are capable of printing 6,000 copies per hour, but the usual speed is 3,000 per hour.

11. STOREMAN



The printed sheets are removed from the machine, trimmed to the correct size in the Guillotine, and packed ready for despatch.

In addition, the storeman 'grains' or prepares the zinc plates for the printing down process, and supervises the storage of the chemicals used in the various processes.

