SECTION 1- OFFICIAL MAP AND PLAN SYSTEMS- VICTORIA

1.1 Co-ordination of Surveys

It is recognized that maps and plans of all scales are basic to survey co-ordination requirements, and are fundamental to the concept and principles of the establishment of resources and administrative data storage. Information on maps, plans and overlays may be readily digitized, related, stored and retrieved if it is all integrated on the common Australian Map Grid.

In order to preserve this simple single reference system, the expression of all survey stations, title corners and engineering locations in terms of AMG coordinates has been approved and promulgated by the Surveyor-General as the one official survey system for the integration of all surveys in Victoria.

The detail on all maps can be readily inter-related by sole reference to the unified grid system, the AMG, which appears on each map series. Thus a single set of AMG coordinates for any point is sufficient information to locate the point on all maps and plans at any scale.

1.2 Medium Scale Map System

Medium scale topographic map coverage of Victoria exists at scales of 1:250 000 and 1:100 000. Both series are produced and maintained by the Commonwealth Government, and complete coverage of Victoria is available in both scales. Both series are illustrated in Fig. 1.1.

State resources have produced a number of maps at 1:50 000 scale, but no further mapping at this scale is on programme.

1.3 1:25 000 Maps

Statewide coverage of topographic data at 1:25 000 is in the course of preparation under the direction of the Surveyor-General. Printed map coverage can be ascertained by reference to the VICMAP Mapsheet Index published periodically by Survey and Mapping Victoria. Even where the mapping is published at 1:50 000 the compilation (and digital data) is to the accuracy required for 1:25 000 scale mapping.

All maps in this series have a specific name and number e.g. Kilsyth 7922-2-4. The system of sheet numbering for the series is given in Fig. 1.2. Initially all maps were published on the existing national square graticule of 7.5 x 7.5 minutes. That system has been replaced with the double-format (DF) system used in New South Wales with a rectangle of 7.5 minutes of latitude x 15 minutes of longitude.

An example of the 1:25 000 DF name and number is given in Fig. 1.2. The name Monbulk North is derived from the 1:50 000 map sheet area Monbulk 7922-2. (The only variation is where the 1:50 000 map name already includes the word North or South or where New South Wales already has a DF sheet name).

In some areas the mapping data may only be available in digital form.

1.4 Large Scale Map and Plan System

1.4.1 Standard Scales

These are 1:20 000 1:10000 1:5000 1:2500 1:1000 1:500 1:250

1.4.2 Sheet System

Unlike the medium scale maps, sheet boundaries for these larger scales are made to co-incide with AMG grid lines, rather than the spherical graticule. To achieve this a series of "Prime Rectangles", each with a name and a four digit number, has been created within AMG Zones 54 and 55. Each Prime Rectangle covers an area 64 000 metres by 40 000 metres balanced equally about the central meridian of each zone. The Prime Rectangle is the unit for the further subdivision and numbering of each of the component sheets at the different scales.

The four digit numbers of each prime rectangle represents in order from the left:

(a) a zone identifier (one digit);
(b) a column number (one digit);
(c) a row number (two digits). These numbers start at 01 to include the southern part of Tasmania and finish at 99 in Papua New Guinea), e.g., the southern-most prime rectangle in Victoria - Oberon - 54-14 has a row number of 14.

As an example, Rubicon 5000/16.02 can also be referred to as 5319-5000/16.02.

The Index to Prime Rectangles is shown in Fig. 1.3.

1.4.3 Sheet Numbering

Sheets at 1:20 000 and larger scales are numbered within each prime rectangle by the numbering of columns and rows commencing at 1 in the SW corner and increasing easterly and northerly. The easterly number will appear first. Where necessary the column and row numbers will be prefixed by zeros so that all sheet numbers of the same scale will contain the same number of digits. See Figures 1.4 and 1.5.

The Royal Australian Survey Corps has produced a number of standard 1:50 000 maps in Victoria in the past, mainly in training areas. In remote areas the State 1:25 000 mapping is not being published at that scale but as 1:50 000 double-format (DF) sheets. The DF sheet name combines the two standard 1:50 000 sheet names.
1.4.4 Format Size

Each format area is bounded by AMG grid lines and is a standard size for all scales.

Format size in all cases is 800 mm × 500 mm. See Fig. 1.6.
**SHEET NUMBERING FOR 1:25000 SCALE MAPS AND PLANS**

(Geographical Sheet Boundaries)

Basic area is a 1:100000 Topographic Map [National Series]
e.g. Ringwood 7922

<table>
<thead>
<tr>
<th>WHITTLESEA</th>
<th>ARTHURS CREEK</th>
<th>STRATHEWAN</th>
<th>TOOLANGI</th>
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<tbody>
<tr>
<td>7922-4-4</td>
<td>7922-4-1</td>
<td>7922-1-4</td>
<td>7922-1-1</td>
</tr>
<tr>
<td>EPPING</td>
<td>ELTHAM</td>
<td>CHRISTMAS HILLS</td>
<td>YARRAWARRA</td>
</tr>
<tr>
<td>7922-4-3</td>
<td>7922-4-2</td>
<td>7922-1-3</td>
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<tr>
<td>HAWTHORN</td>
<td>NUNAWADING</td>
<td>MONBULK NORTH</td>
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</tr>
<tr>
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<td>7922-3-1</td>
<td>7922-2-N</td>
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<tr>
<td>MOORABBIN</td>
<td>DANDENONG</td>
<td>MONBULK SOUTH</td>
<td></td>
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<td>7922-3-3</td>
<td>7922-3-2</td>
<td>7922-2-S</td>
<td></td>
</tr>
</tbody>
</table>

Area shown is a 1:100000 sheet area divided into 16 component parts of 1:25000 scale areas

Fig.1.2
PRIME RECTANGLES
OF
THE AUSTRALIAN MAP GRID
FOR LARGE SCALE MAPS AND PLANS
Scale 1:250 000
Kilometres
SHEET NUMBERING FOR 1:20000 1:10000 AND 1:5000 SCALE MAPS AND PLANS

AUSTRALIAN MAP GRID (A M G)

RUBICON
[PRIME RECTANGLE]

This sheet is
Rubicon 20 000/4.2

This sheet is
Rubicon 10 000/7.2

This sheet is
Rubicon 5 000/14.02

Fig. 1.4
SHEET NUMBERING FOR 1:2500 1:1000 1:500 AND 1:250

SCALE MAPS AND PLANS

This sheet is
Rubicon 2500/32.02

1:2500
[32 x 32 Sheets]

This sheet is
Rubicon 1000/79.02

1:1000
[80 x 80 Sheets]

This sheet is
Rubicon 500/158.003

1:500
[160 x 160 Sheets]

This sheet is
Rubicon 250/316.005

1:250
[320 x 320 Sheets]

Fig. 1.5
SHEET SIZES FOR 1:20000 AND LARGER SCALE MAPS AND PLANS

AUSTRALIAN MAP GRID (A MG)

NOTE: SMALL MARGINAL SPACE ON A1 SHEET
SUGGESTED SHEET SIZE B1 : 1000mm x 707mm

<table>
<thead>
<tr>
<th>SCALE</th>
<th>FORMAT SIZE</th>
<th>No. OF SHEETS IN PRIME RECTANGLE</th>
<th>GRID INTERVAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:20 000</td>
<td>16 000mE x 10 000mN</td>
<td>4 x 4</td>
<td>2 000m</td>
</tr>
<tr>
<td>1:10 000</td>
<td>8 000mE x 5 000mN</td>
<td>8 x 8</td>
<td>1 000m</td>
</tr>
<tr>
<td>1:5 000</td>
<td>4 000mE x 2 500mN</td>
<td>16 x 16</td>
<td>500m</td>
</tr>
<tr>
<td>1:2 500</td>
<td>2 000mE x 1 250mN</td>
<td>32 x 32</td>
<td>250m</td>
</tr>
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<td>100m</td>
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<td>160 x 160</td>
<td>50m</td>
</tr>
<tr>
<td>1:250</td>
<td>200mE x 125mN</td>
<td>320 x 320</td>
<td>25m</td>
</tr>
</tbody>
</table>

Fig. 1