

LA. Min. No. 191

Military Green No. 3%

Military Forces of the Commonwealth

Formation of the Permanent Survey Corps

His Excellency the Governor-General, acting with the advice of the Federal Executive Council, has been pleased to approve of

- unit of the Permanent Military Forces. A corps to be called the "Australian Survey Corps" being raised as a
- to the Australian Survey Corps with their present ranks and seniority serving in the Survey Section of the Royal Australian Engineers being transferred (2) All officers, warrant officers, non-commissioned officers and men now
- (3) This Order in Council taking effect from 18 July, 1915.

(EXTRACT OF ORDER IN COUNCIL 3 JULY, 1915)

Y I IA Y O'N'E

CHRONOLOGY OF THE

ROYAL AUSTRALIAN SURVEY CORPS

SECOND EDITION

Preface to Second Edition

Since this Chronology was originally published, a definitive Corps history has been produced by Brigadier Fitzgerald. His book, Lebanon to Labuan, published in 1980, is the story of the Corps during World War II.

Needless to say, there is plenty of scope for much more detailed research and recording of the Corp's activities before and after the period covered so well by the Brigadier.

The original aims of this booklet are still valid.

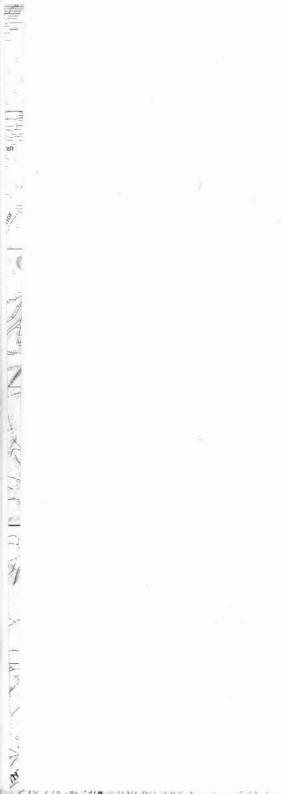
This new edition has been completely revised and updated. In order that amendments for future editions may be easily made, this document has been compiled on a computer.

24 June 1985

(J.G.Corless)

LTCOL

Commanding Officer



Foreword to First Edition

This Chronology has been produced by the officers of this School, to provide a guide of the history of The Royal Australian Survey Corps, for the students of the 1/79 Young Officers Course. A further aim in producing it, is to provide a framework which, when it has been made as accurate as possible, can be used by anybody who wishes to write a detailed history of part or whole of the Corps' existence.

We are well aware that there are many omissions and perhaps inaccuracies in this Chronology, but have decided that it is better to produce it in its present form, than wait until it is perfect. For many years efforts have been made to produce a history of the Corps, but probably because of the magnitude of the task, it has not yet been done. Since it is such a large task, we think it may be better to produce a summary, such as this, which can be circulated and used as a basis, to which corrections and additions can be made.

We hope that anyone who can contribute additional information or corrections will do so. On our part, we undertake to incorporate the new material into the next edition of the Chronology, hopefully in 1980.

We believe that it is best to keep the Chronology in its present consise form. However, if more detailed information is received, we will precis it for the Chronology, but will keep all of the information on file in our museum and make it available as part of the display. We will also send a duplicate of it to Survey Directorate to insure against fire or any other tradegy. Please send any

information to this address:

Royal Australian Survey Corps.

Commanding Officer School of Military Survey MILPO BONEGILLA VIC 3693

We trust that this Chronology will be of interest and value to the present and past members of the

6 April 1979

(E.P. Constantine) LTCOL Commanding Officer

1902. AGMG responsible for milery mob Lyo. Arty MAS BRIDGES. No resources for topo until 1908-04 1903 - Steff Ride Morrows map Sydney -

Bull 1:63360

1906 - CROIS Markey & Miller propose that Corps of Guidos of 344 surveyors. Army IG MASGEN 4. Fine need strategic and tore maps. 1908 - 960 Steff Ride 1:63360 Brishme

1909 - CES BRIDGES proposal 12 UK COLCIOSE report put to Mil Board 17 Many og. Approved by Minister 26 May og - UK pers 4 Noo's for howgraws apprecias

1834 - Map of Nineteen Counties' bossed on tringelowing bosselines Botany Bay Cake George - Mitabell
1842 - Map of Morelon Bay Bossel on trig say bosseline Normanby SECTION 1 Plains

Federation to World War I

1901 1 Jan. Federation of the Australian Colonies.

Prior to this, mapping in Australia had mainly been for civilian purposes, although, from the very begining, much of it had been carried out by naval or military officers; e.g., CAPT Cook, LT Flinders, LT Oxley, MAJ, Mitchell, CAPT Sturt, LT John Roe, and COL Light.

Roe, and COL Light.

(RN)

William IT P. King (RN)

1903 Parliament of the Commonwealth of Australia

'Survey' and Citizen Forces (part time or militia) to include 'Intelligence'.

1907 The Governor-General approved the raising of the Australian Intelligence Corps. One of its tasks

was to prepare strategic and tactical maps.

passed the 'Defence Act'. Included in this Act was the provision to raise Permanent Forces to include

Military mapping commenced.

Existing Lands Department cadastral maps were used as a basis and topographic detail was added. The work was on a part-time basis. Sir John Monash, then a LT COL in the Intelligence Corps, was involved in surveying the Seymour - Avenel area of Victoria during this period.

1910 Because the 'part-time' mapping programme, which began in 1907, was unsuccessful, the advice of General Close, the Chief of the Geographical Section of the British General Staff (GSGS), was sought. As a result, a Survey Section, Royal

long for Atc - togre and relating to the cost in which areas are to be mapped the scal of mapped the scal of mapped the scal of mapped and similar girstions " CBS and signs

polyconic projection 14° \$ x 1/2° 8 Australian Engineers, was raised in the Permanent Forces and allocated for duty under the control of the Australian Intelligence Corps. 11 Apr. CPL Lynch, SPRS Davies, Wilcox and Barrett, topographers, arrived on a two year loan from the Royal Engineers. - initial work Warrandyte aranbourne, Dandenoug topo detail in cadastral plans 16 Apr. LT J.J.Raisbeck, draughtsman, was appointed to the Section. Soon after, WO Constable was also appointed as a draughtsman. Jul. LT W.L.Whitham was appointed and seconded for training. He resigned in 1912. Sub-sections were based in Melbourne and Sydney. - New Broken Buy Bota The mapping was carried out by plane table using local cadastral control. related to local triangidate 1912 May. SPRS Rossiter and Roseblade arrived on loan from the Royal Engineers. M. McEniary, UPG Claus, CA. Favier CV A. Jun - Aug. SPRS Clews, Radcliffe, Murray, AT Clements, Anderson and Blaike, topographers, and Macdonald and Mallross, draughtsmen, were enlisted. OC VIC Sect ATC - CROL MONASH 1913 A sub-section was based in Adelaide. NSW maps printed would dept In the period Apr 1910 - Aug 1913 military mapping covering nearly 9500 km2 had been plotted. This equates to 15 x 1 : 50 000 maps. 17 Mar. LT Quinlan, ex-African Colonial Surveys, was appointed to command of the Section. 1913 - 1914 Commencement of triangulation scheme for mapping werribed andline remeasured 1860 B/L 1 Jul 12 - estato 1xcADT beffer, 4 draftsman wo, 1 Asst Suyr cs m +SET -total 23

17 61

SGTs Bradley, Watson, Roberts, Shiels, Jones and Simms enlisted.

1915 1 Jul. Australian Survey Corps raised as part of the Permanent Military Forces (PMF).

All members of the Survey Section of the Royal Australian Engineers were transferred to the new Corps in their current ranks.

Jul. LT Vance, a licensed surveyor, was appointed.

CAPT Quinlan resigned and was succeeded by LT Lynch in command of the Corps. The Corps strength on formation was 3 officers and 17 other ranks.

Sketch Maps to end 1915:

Now / Act - Morna Pt Nowcostla lake Marquenie Camberra

VIC - Ringwood, Crambourne, Western Port, Weblamai, Soviento, Geelong

SA - Adeloride

Manorus Mayor, at least 10

V/C-3

7745 - 1

NSW-1

521 - 2

WA - 3

1892 - renewal colls for a mationel geodotice surveys (trig) 665 Ang 14-13May 15 MAJGEN James Gordon LEGGE 24 May 15 - 31 Dec 15 COL Godfrey IRVING

SECTION 2

WORLD WAR I TO 1938

1917 Of the 3 officers and 17 other ranks in the Corps, all but 4 ORs volunteered for service overseas. This remainder was engaged on defence mapping in Australia.

1918 During World War 1 most of the Corps work was to update existing maps and add tactical information to them. 3 members served in Palestine, the rest in France. One member (Murray) was awarded the DCM for plane tabling behind Turkish lines. Most of the members in France worked in the Topographical Section of the Australian Corps preparing tactical maps for the Australian divisions. Others worked for GHQ on triangulation. Much of the tactical information, such as trench detail, was obtained from aerial photography flown by the Australian Flying Corps.

1919 Jul. Corps members returned to Australia and were transfered back to the Survey Section RAE. The Survey Corps remained unmanned until 1932. Estab - 22

1920 Mapping of Australia recommenced: the areas of work were coastal regions of QLD, NSW and VIC plus Training Areas. A total of 86×1 mile to the inch maps were produced between 1920 and 1939.

1922 A new process camera was purchased and installed at the Vic Govt Printer. The 36" x 26" format meant that map sheets no longer had to be cut in half to be photographed. Vic Govt Printer lithographic facilities were used from 1913 until 1939.

Estab - 14

1924 RAAF flew experimental aerial photography of Westernport Bay and Wisemans Ferry; it was unsuccessful because of excessive tilts.

1927 Jun. RAAF Survey Flight was established; by 1930, 14 \times 1 : 63 360 map sheet areas were photographed. This photography was used to supplement plane tabling.

1930 "Graphical methods of Perspective Rectification" were used for the first time during the mapping of the Albury sheet. The disparity between the NSW and VIC triangulation systems, revealed during the mapping of Albury, led to investigations towards establishing a National Coordinate System.

1932 The Australian Survey Corps was remanned from the Survey Section RAE. Total strength was 14 members.

1933 The Sydney Observatory was adopted as the national geodetic datum. The Clarke 1858 Spheroid was also adopted. Adopted British Woolified Grid The Avst Jones

1934 Commencement of triangulation program to connect the QLD, NSW, VIC and SA networks. A special Geodetic Section was formed to carry out this task. Prof. Grant of Adelaide University developed the use of temperature coefficient of electrical resistance for use with Invar Tapes for baseline measurements. The first line measured incorporating this system was at Millicent SA. CART LYNCH retired as Senior Officer Aust Suy (a)

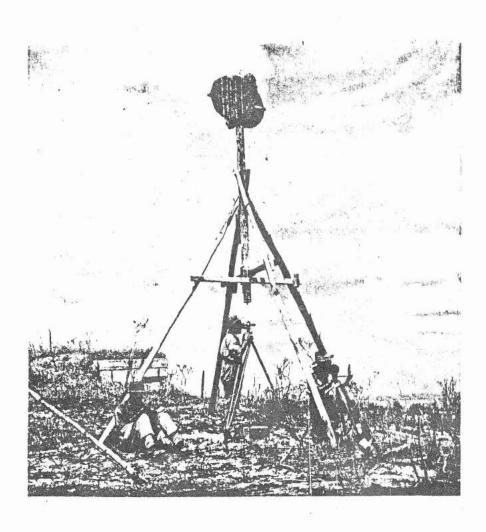
1935 Corps establishment increased to 35.

1936 MAJ TA VANCE appointed OC Aust Suy Corps
1936 Eagle 4 cameras were introduced; air
photography improved, allowing the use of the
"Master Grid" block compilation method - Slotted
Template.

Sorle linch = Imile map first to be compiled from air photography

1938 A three year Long Range Mapping Programme was adopted - providing for establishment increases and equipment purchases to meet the growing war threat.

and Canadran survey and mapping organisations



Triangulation party of 5 Fd Svy Coy observing on Rupture Feature.
Balikpapan. 27 Aug 1945. AWM 115242.

SECTION 3

WORLD WAR II

- 1939 By the outbreak of war the QLD to SA
- Jul. Army Headquarters compiled and promulgated 'Instructions for War - Survey'.
- Sep. Corps strength: 9 officers and 41 other ranks. The military survey of Australia was will being carried out by the Corps.
- 1940 The Pacific situation called for a rapid increase in the rate of production of maps of vital and strategic areas in Australia as follows;
 - a. Stategic mapping scheme; 4 miles to 1 inch (1: 253 440);
 - b. Emergency mapping scheme; 1 mile to 1 inch (1:63 360).

The Emergency mapping scheme was to be conducted by civilian surveyors employed by the various State Lands Departments.

- 22 Apr. The 2/1 Australian (Corps) Field Survey Company was formed under the command of MAJ L. Fitzgerald. (AIF)
- Sep. The Australian War Cabinet approved a survey and mapping programme for the Home Forces. This included:
 - The completion of the three year expansion programme;

 The merging of the permanent Survey Corps into the new organization; and

C The raising of the following units:

Survey Directorate at Army HQ;

- 1 x Army HQ Survey Company;
- 1 x Army H0 Cartographic Company;
- 4 x Command Field Survey Companies;
- 1 x Survey Section for Darwin MD;
- 1 x Corps Survey Mobile Reproduction Section;

These units were later to be converted to:

- 1 x LHQ Cartographic Coy;
- 4 x Fd Svy Coys;
- 2 x Army Topographical Survey Coys;
- 3 x Fd Svy Depots;
- 1 x Mobile Litho Sect.
- was raised under the command of CAPT H.P.G.Clews.
 1941. Jan. LTCol T.A. VANCE appointed Director Survey AHQ
 1941 Mar. 2/1 Australian (Corps) Field Survey
 Company arrived in the Middle East. This unit later
 moved to Palestine and undertook plane table
 mapping along the Syria-Trans-Jordan border.

 The Mar. 7MD/NTFORCE/1/7 Followy Sect (20ff, 43 02)
 raised LT L.Col Wood)
 Jun Jul Syrian Campaign. The 2/1 produced
 operational maps, supplementing those issued by GHQ
 Middle East.

1942 Feb. The 2/1 Australian (Corps) Field Survey Company returned to Australia and converted into the 2/1 Australian Army Topographic Survey Company AIF. Jun. LTCOL VANCE refired, LTCOL L. FTZGERALD appointed

Jun. The LHE Cartographic Company moved to 'Fortuna' in Bendigo from the Manchester Unity Building, Melbourne. This unit was eventually equipped with 9 lithographic printing presses.

Feb/Mar. New Guinea (Force) Survey Section raised (3 effr, 22 or initially) later retitled 2 field Survey Section and later 8 Aust Field Survey Section AIF. (first oc IT EC O'REILLY)

from NG Svy Sect /2 Fol Suy Sect and a section. 8 Field Survey Section, raised from 3 Field Survey Company, arrived in Port Moresby under the command of CAPT J.K. Herridge. Syrvey/ mapped Kokoda / Buna campaigns

Dec. A detachment of 2/1 Army Topographical

Survey Company moved to Buna.

Aug-Oct. 6 Aust Army Tope Survey Coy AF raised
CAPT B. LAMBERT

During this year photomaps were introduced. Formal

training commenced with the formation of the Field

Survey Training Depot at Burwood, Vic.

The method used to establish control during this period was triangulation fixed by astronomical determination for latitude and longitude (Position Line Fix) which was never better than 3rd order.

1943 Feb. 3 Field Survey Company moved to New Guinea under the command of CAPT A.F.Kurrle. A detachment was sent to Milne Bay.

Mar. MAJ T.Keig took command of 3 Field Survey Company and set up Headquarters in Port Moresby. Detachments were sent to Bulldog, Wau, Nadzab, Bena-Bena and the Ramu Valley.

Jun. Fitzcepau premoted Col. Survey units Concentrated in Aust Survey Corps from AAE.

Apr-Dec. The 2/1 Army Topographical Survey

Apr-Dec. The 2/1 Army Topographical Survey Company moved to Port Moresby. No 1 Section of 2 Field Survey Company moved to Lae.

1944 Apr. The Field Survey Training Depot at Burwood, Vic, was disbanded.

May. 5 Field Survey Company moved from Ingham to Wongabel.

Oct. No 1 Section of 2 Field Survey Company moved to Torokina in Bouganville

Nov. No 3 Section of 2 Field Survey Company moved to Lae.

Dec. A detachment of 2/1 Army Topographical Survey Company was sent to Hollandia in Dutch New Guinea.

1945 Apr. The 2/1 Army Topographical Survey Company moved to Morotai. 1 Mobile Lithographic Section moved to Morotai under the control of Advanced Land Headquarters.

Jul. 5 Field Survey Company moved to Morotai and supplied detachments to the 7th and 9th Divisions in Borneo. 6 Topographical Survey Company moved to Lae and 12 Field Survey Depot moved to Morotai.

The Order of Battle of survey units amounted to about 1700 all ranks and the total turnover of personnel probably amounted to over 5000. At the cessation of hostilities in Aug 1945, the units then posted overseas were:

CUBURY HALTE HADER COMMAND

FORMATION	SURVEY UNITS UNDER COMMAND						
ADV LHQ	Det 2/1 Army Topo Svy Coy 12 Fd Svy Depot 1 Mobile Litho Sect						
1 AUST ARMY	6 Army Topo Svy Coy Det 2 Fd Svy Coy						
1 AUST CORPS	2/1 Army Topo Svy Coy (less det) 5 Fd Svy Coy (less dets)						
7 AUST DIV	Det 5 Fd Svy Coy						
9 AUST DIV	Det 5 Fd Svy Coy						
2 AUST CORPS	Det 2 Fd Svy Coy						

The total map production during the war period is outlined below:

Maps Published by the Australian Survey Corps

	Loc	8	MILE to Inch	4	MILE to Inch	1	MILE to Inch	1:25000 and 1:20000	TOTAL
	Australia		62		224		397	25	708
PNG Dutch New Guinea New Britain New Ireland Bougainville and Green Island					33		118	93	224
					2		6	8	
					1	17		12	30
					6				6
					2	24		42	68
Borneo				25	(1:	83 :50000)	39	147	
	Mindanao (Philippir	nes	5)		44		156		200
	TOTALS		62		337		801	219	1419

² Sep. World War 2 ends. Japanese Surrender Documents produced by the Australian Survey Corps, hand-lettered by SGT George Ricketts.

Sep. Inaugural meeting of the National Mapping Council. Initial membership comprised of the Commonwealth Surveyor General, the States Surveyors General and D Svy. The task of the council was to establish a National Mapping Programme and to coord-inate its execution.



The Koolymilka Base Line Group

Spr. M.Smith, Spr. J. Reneker, Spr. D. White, Spr. L. Cannard, Spr. L. Arnold, Spr. H. Smith, Cpl. J. Hammond, Cpl. D.R. Ridge, Lt. S.W. Snow. Back Row - Maj. W.B. Reif, Sgt. K.J. Cook, Col. L. FitzGerald, Cpl. N.R.J. Hiller, Spr. B. Dalton, Spr. D. Carr,

Absent · Spr. Reid, Cpl. Gow. Front Row · Cpl. T.C. Sargent, Spr. R. Laming, Spr. N. Vaughan, Spr. M. Cain, Spr. W. Miller.

appointment as Director of Survey in 1978; and Cpls Ridge and Sargent, and Spr Dalton became Lt Colonels. It is noteworthy that of the above other rank members of the Corps, Cpl Hillier attained Colonel rank on his

SECTION 4

1946 - 1960

1946 A control/mapping task was commenced in the Burdekin River area of North Queensland for a water conservation project.

Initial studies commenced for the Snowy Mountains Scheme. The Corps established control and produced some 1:50 000 maps.

The Woomera rocket range project commenced with MAJ L. Lockwood leading a party on the first recon of the area.

1947 Maps for the 1947 Census were produced by The Australian Survey Corps. Corps strength stabilized at about 430 all ranks.

1948 The 'Royal' title was granted to the Corps in recognition of achievements during World War 2.

The School of Military Survey was established at Balcombe. The initial establishment was 3 officers and 27 other ranks. The CO was MAJ H.F. (Bert) Eggeling, the SI was CAPT F.D. Buckland and the Adjt/QM was LT L.B. Sprenger.

1950 Jul/Aug. The Koolymilka Base Line was measured as part of the Woomera Project. The 7 mile baseline measurement was completed by AHQ Svy Det and LRWRE Sect. Pers involved included Col L. Fitzgerald (the Corps Director on a field task !?), LT Spencer Snow, CPL J. Hillier and CPL D. Ridge.

1951 National Service Scheme introduced. The requirement was for all eligible men to serve 77 days full time, then 3 years in the Citizens

Military Forces (CMF). The major Corps commitment was by the School of Military Survey which ran 3 courses per year for 24 students commencing in Nov 1953. Another aspect was the build up of CMF Svy Corps units.

Both the Melbourne and Sydney based units averaged about 180 pers on strength during this period of National Service (1951-57).

Dec. MAJ-GEN R.L. Brown, the Director-General of the Ordnance Survey of Great Britain, presented his report on the state of mapping in Australia to the Commonwealth Government, with recommendations on the National Mapping Program. This report had been commissioned at the instigation of D Svy; its major recommendations were never implemented.

1952 Multiplex photogrammetric equipment was introduced into the Corps for mapping on a regular basis.

1953 Officer exchange postings to the United Kingdom were inaugurated. The first exchange officer was CAPT L.B. Sprenger.

The Klimsch Commodore cartographic camera was installed at the AHQ Svy Regt, Bendigo. It remained in continuous use until Dec 1978.

1954 The Advisory Committee on Mapping was established by the Commonwealth Government. The only technical member was the nominee of the Institution of Surveyors. The RAAF Photo Reconnaissance Unit was disbanded and contracts were arranged with civil firms for mapping photography.

20 Jul. Project Xylon commenced in New Britain. This operation, which was to last until 30

Jul 1955, was a ship-shore triangulation survey scheme carried out in conjunction with the US Army, who provided the ship and its officers. The crew were Philippino.

1955 Australian Army involvement in the Malayan Campaign (1955-60) commenced. Two officer positions were established in Singapore; the Deputy Assistant Director - Svy, Far East Land Forces (DAD Svy FARELF), MAJ F.D. Buckland, and the Liaison Officer with 84 Svy Sqn RE, LT H. Taylor (1956). No formed units were involved.

1956 The scribing technique was introduced replacing cartographic 'fair drawing' with pen and ink. The first map sheet produced by this technique was the Mildura 1:50 000 which was published on 1 May 1957.

Metric scale mapping was introduced in 1956-57 replacing the old one mile and four mile series.

25 Aug. Project Cutlass commenced in New Ireland. This was another ship-shore triangulation survey, again with US Army assistance. This operation included a 300km theodolite and chain traverse from Kavieng to Samo. This operation continued until 5 Nov 1957.

1957 W Comd Fd Svy Sect became the first RA Svy unit to use a helicopter on field survey operations.

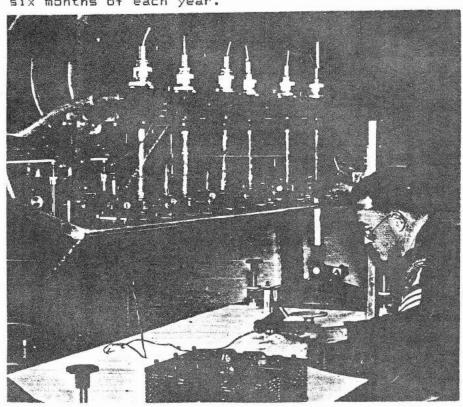
The Corps acquired its first Electronic Distance Measuring equipment, the Geodimeter. This original model is now located in the Corps Museum at Bonegilla.

1958 Introduction of the Tellurometer MRA1 EDM equipment. This, and its later model successors,

Troverse

was to become the major Corps equipment for distance measurement.

During the 1950s the Corps strength had grown to nearly 400 and by the end of the decade large field survey parties were working all across the northern parts of Australia. They were extending geodetic surveys and producing 1:250 000 maps. Western, Central and Northern Command Fd 3vy Sections were working in the Kimberleys, Arnhem Land and Gulf-Cape York areas respectively. Topo Sqn of AHQ Svy Regt worked across all these areas. E Comd Fd Svy Sect was engaged in local mapping and at times supported other units with detachments. These operations were of necessity, carried out in the northern dry seasons and usually lasted for over six months of each year.



SECTION 5

1960 - 1969

1960 Jan COL L. Fitzgerald O.B.E. retired and COL D. Macdonald took over as D Svy.

The last map produced using 'fair drawing' techniques was published.

A new Reference Spheroid was determined and adopted by the National Mapping Council. This was commonly known as the '165 Spheroid'; its dimensions being force 6378165 metres for the equatorial semi-axis and a confidence of 1/298.3.

1961 Considerable experimentation and innovation was involved in developing methods of hill shading the 1:250 000 map series. Finally a method of carving wax models was developed. The finished model was illuminated from the NW corner and photographed on the Klimsch camera.

1962 A new photogrammetric era began with the installation of Wild equipment in Topo Sqn of AHQ Svy Regt supported by the Wild RC.9 super wide angle camera. The Wild A9 Autograph provided aerial triangulated model control for B9 Aviograph instruments. These B9 stereoplotters were relocated at the School of Military Survey in 1965.

Two Wild B8 Aviograph instruments were also purchased at this time.

The use of Multiplex equipment still continued for some time.

Litho Sqn of AHQ Svy Regt began to use presensitised printing plates on a stand-by basis.

The Corps resumed mapping activities in PNG as part of a National Geodetic Programme. A coastal Tellurometer traverse was carried out conjunction with a US offshore HIRAN survey and a Division of National Mapping Tellurometer and triangulation survey through the highlands.

Two Z colour M.A.N. printing presses were installed at Litho Sqn.

1963 An Aristo coordinatograph was installed in Carto Sqn, AHQ Svy Regt, improving grid production relieving much of the painstaking process.

The first Zeiss (Jena) Stecometer stereocomparator was installed in Topo Sqn.

The first aerial triangulation block was adjusted by digital computer. This was the Townsville-Ayr 1:250 000 map area. The computer used was an IBM 1620 at the Victorian CRB HQ in Melbourne.

The Airbourne Profile Recorder was introduced and trials were conducted by AHQ Svy Regt. This was the WREMAPS Mk 1 radar APR which is now located in the Corps Museum.

1 Topo Svy Tp was raised with an establishment of 3 officers and 39 other ranks, for service in Vietnam.

The Johnston Ground Elevation Meter was introduced into Corps service. Trials and training were conducted at the School of Military Survey in the Balcombe area.

The Aerodist MRC 2 airborne distance measuring equipment was introduced. It was tested in Victoria and used operationally in PNG.

- Trilder from, control extension for

Pre-sensitised printing plates completely replaced the old plates thus eliminating the requirement for graining and sensitising them.

1965 The Corps Jubilee Tear. A number of celebrations were held, including a dinner in Melbourne attended by the Minister for the Army, senior army officers, and five of the original 18 members of the Corps. These were Clews, Davies, Murray, Watson and Bowen-Jones. The strength of the Corps was now 50 officers and 400 other ranks.

Late in 1965, the School of Military Survey moved from Balcombe, on the Mornington Peninsula, to Bonegilla in NE Victoria. In order to supervise works and prepare the training area, the SI and a small staff moved to Bonegilla where they conducted the 1965 WO Promotion Course. The main body of the School moved during December in order not to interfere with the training programme.

A lithogrphic printing section was established at JIO Canberra. Initial equipment included a double crown printing press, a small process camera, and plate-making gear, all of which was supplied from AHQ Svy Regt.

1966 A new geodetic adjustment of Australia was completed based upon a new spheroid, which became known as the 'Australian National Spheroid'. The dimensions of the new spheroid were identical with those adopted by the IUGG this year: 63/8160 metres for the semi-major axis and a flattening of 1/298.25. The Johnston Geodetic station was adopted as the origin of the survey. Coordinates of the principal survey stations were computed on the Australian Map Grid (AMG) which is synonymous with the Universal Transverse Mercator (UTM) Grid system.

May. A Sect 1 Topo Svy Tp consisting of 1 officer and 16 other ranks departed for South Vietnam. After a short period at 1 ASLG at Vung Tau, the section moved, in June, to TF HQ at Nui Dat.

1967 A second Zeiss Stecometer was procured for Jupo Sqn from Zeiss (Jena) of East Germany.

A joint US-Australian astro triangulation programme commenced with Corps participation in observing teams on Thursday Island and near Narrabri in NSW. The method involved the use of Wild BC.4 cameras mounted on T4 base photographing Echo and Pageos passive satellites.

1968 The 1:250 000 mapping programme was completed and the 1:100 000 programme commenced.

The 2 colour M.A.N. printing presses in Litho Sqn were converted into 3 colour presses.

Multiplex was phased out in Topo Sqn.

Contract cartographic completion commenced on the 1:100 000 series.

17 Sep. CAPT N. Sproles, 2IC A Sect 1 Topo Svy Tp, was wounded in action at Fire Support Base 'Grey' in South Vietnam. He had been detached on liaison duties with Thai forces.

1969 The last 1:250 000 map and the first of the new 1:100 000 series were published.

Topo Sqn conducted trials on a OMI/Nistri Analytical Plotter AP/C controlled by a Bendix computer.

The concept of Automap was initiated.

Another Zeiss Stacometer was installed at the School of Military Survey. This instrument was subsequently relocated to Air Svy Sqn in the mid 19705.

An officer exchange posting with the Royal Canadian Ergineers was established. CAPT J.R. Cattell was involved in surveys in the Canadian artic, whilst CAPT J.L. Sinclair replaced him in the Regiment.

An OR exchange posting with the Royal Engineers was initiated.

A second Astro-triangulation programme commenced with observations being carried out near Narrabil NSW, on Thursday Island, on Cocos Island and at Perth WA.

During this year, A Sect 1 Topo Svy Tp in South Vietnam printed 27,000 maps on its screen printing frame, bringing the total number of impressions over a three year period to 125,700.

By the end of this year the equipment used, and types of support provided by, A Sect 1 Topo Svy Tp in South Vietnam, had been developed and standardized as follows:

Major equipment included:

Theodolites Zeiss Stereotope Plotters Silk Screen Small Process Camera Photo Enlarger

Tellurometers F24 Aerial Camera % Contact Screen & lights

* fitted in an AAVN Porter aircraft.

Major types of support included:

Production of village line or photo maps for all villages in the 1 ATF area;

Overprinting of 1:50 000 maps with enemy and tactical information for each operation; Holding and issue of stocks of maps at all scales; Production of special maps as required; Aquisition of aerial and terrestrial photography for survey and general purposes; Continuous map revision. Field survey work in 1 ATF area after 1967 was USA

minimal but surveyors were detached to assist and SVN units in geodetic surveys.



SECTION 6

1970 - 1985

1970 Apr-Aug. Operation Mandau; control survey in Kalimantan (Indonesian Borneo) undertaken by 5 Fd Svy Sqn in conjunction with 84 Svy Sqn RE and the Indonesian military survey agency (JANTOP). This was the first of many Defence Cooperation Programmes.

14 Jun. The Freedom of Entry to the City of Bendigo was granted to AHQ Svy Regt under the command of LTCOL Sprenger.

A Calcomp 718 Flatbed Plotter was installed in Topo Sqn. This digitally controlled coordinatograph was used to scribe grids and graticules and automatically draw base compilation sheets complete with aerial triangulated model control, thus eliminating considerable painstaking hand calculation and manual plotting.

The Detachment AHQ Svy Regt was formed at Bonegilla to alleviate an accomodation shortage in Bendigo.

Draughtsmen were included on the establishments of Fd Svy Sqns.

Field Survey operations were carried out in PNG, Northern Territory, Northern Western Australia and Queensland.

1971 Feb. A recon of New Britain was undertaken using fixed wing aircraft.

15 May-7 Jul. Operation Gading I was carried out by 2 Fd Svy Sqn in South Sumatera. Tasks included Aerodist trilateration, barometric traversing and aerial photography.

8 Oct. Australia's involvement in Vietnam ended and A Sect 1 Topo Svy Tp returned to Australia.

Dec. 8 Fd Svy Sqn, comprising 2 officers and 18 other ranks, was raised at Popondetta in PNG.

Gap photography was flown in PNG by chartered Queenair aircraft.

New Wild RC.10 super wide angle aerial survey cameras were purchased. Their lenses are virtually free from distortion.

Field survey operations continued in New South Wales and South Australia.

1972 Topo Sqn took delivery of an IBM 1130 computer and an OMI/Nistri AP/C-3 Analytical Plotter complete with coordinatograph and OP/C orthophoto projector. This year also saw the introduction of two Zeiss Planimat DZ stereoplotters and their 3G-1/GZ-1 orthoprojectors.

Mar-Aug. MARB3/201 Aerodist first used Gulf Carpendana

Apr-Aug. Operation Gading II was carried out by 2 Fd Svy Sqn continuing surveys commenced

last year in South Sumatera.

31 Jul-8 Dec. Operation Wineglass was carried out in West PNG by 4 Fd Svy Sqn based in Goroka. Tasks included Aerodist trilateration, tellurometer traversing and barometric heighting.

31 Aug. COL F.D. Buckland O.B.E. retired as D Svy and was succeeded by COL J.K. Nolan.

1973 Several important developments occurred during this year. Operation Skai Piksa (phase 1) commenced in PNG. RAAF Canberra aircraft were used to obtain high altitude small scale RC.10 aerial

photography. Considerable economies in ground control and stereocompilation were to be achieved.

Also during the year the Australian Army was reorganized on functional command lines. Fd Svy Sqns were to come under the command of HQ FF Comd. AHQ Svy Regt was renamed Army Svy Regt , Topo Sqn became Air Svy Sqn and AHQ Fd Svy Depot was renamed Army Map Depot.

Mar-Aug. The MRB-3 Aerodist equipment on 1 Fd Svy Sqn operations in Cape York . LCH Balikpapan supported this operation.

May-Aug. Operation Gading III was carried out in Central Sumatera by 5 Fd Svy Sqn. Work again included Aerodist, barometry and aerial photography.

Jun. New accommodation for 4 Fd Svy Sqn was opened at Keswick Barracks. During this decade all Fd Svy Sqns in Australia were housed in new accommodation.

Jul-Dec. Operation Plastic Flagon was mounted by 4 Fd Svy Sqn in the West PNG and Torres Strait areas. Work involved geodetic traversing, Aerodist trilateration, barometric heighting, field completion surveys and aerial photography.

Aug-Nov. Geodetic traversing in New Britain. - 8 Fd Svy San to connect Project Xylon (1954/55) and Project Cutlass (1956/57) to New Guinea.

3 Fd Tp, 42 Svy Engr Regt RE and 2 Fd Svy San conducted Operation Hertford. This involved classical surveys for control densification on the

Nov. New 1:50 000 mapping specifications introduced.

Photogrammetric Test Range at Bonegilla.

Fd Svy operations in the Shoalwater Bay, Qld and Tarcoola/Kingoonya, SA, areas.

The first Orthophotomaps (OPM) were produced from colour and monochrome aerial photography by Air Svy Sqn. 29119 1972

1974 21 Apr-8 Aug. Operation Gading IV was carried out by 5 Fd Svy Sqn in Northern Sumatera. In addition to the usual barometry and aerial photography this operation deployed Magnavox ANPER. 14 Geoceivers for the first time. These TRANSIT satellite receivers were on loan from DMA together with a US expert. This was also the first overseas survey op mounted under command of HQ FF Comd and did run into some administrative coordination problems.

May. Trials with the WREMAPS II Laser Terrain Profile Recorder (APR) were conducted in PNG.

May-Nov. Phase 2 of Operation Skai Piksa was mounted in PNG. Photography for the PNG Government's Purari River Development Project was included in the task.

8 Fd Svy Sqn completed the New Britain geodetic traverse.

Jul-Nov. Operation Sea King was conducted by 4 Fd Svy Sqn in the Eastern Highlands area of PNG. Tasks included Aerodist, barometric traverses, and Geoceiver control.

Air Svy Sqn commenced grid and graticule program development and production on the Footscray Ammunition Factory's Gerber flatbed plotter.

Dec-Jan. Army Svy Regt was involved in the production of rapid response photomaps of Darwin in the aftermath of Cyclone Tracey. Photographic cover exposed on 26 Dec by 2 Sqn RAAF was considered to be substandard and a new sortie flown a few days later was used. MAJ F.E. Thorogood from D Svy-A was staff officer to General Stretton of the Natural Disasters Organization who commanded the emergency operations in Darwin.

1975 Automap 1 equipment was delivered to Air Svy Sqn. This consisted of an Input Subsystem (ISS, 4 Wild B8s and 3 Gradicon manual digitizing tables), an Optical Line Following Subsystem (Gerber OLF), a Verification Subsystem (Gerber 1442 round bed plotter), General Purpose Subsystem (GFSS, HF21MX computer), and an Output Subsystem (OSS, Gerber 1232 flat bed plotter).

The Canadian officer exchange programme was terminated after 3 exchange postings.

10-27 Mar. Operation Short Walk was conducted by 4 Fd Svy Sqn in the Woomera area of SA. Existing survey control was targeted and photo identified. APR profiles were also flown.

Apr-Sep. Operation Sandy Hill was carried out by 1 Fd Svy Sqn. In North Qld, the Aerodist was deployed for the last time, APR profiles were flown and survey stations were targeted and identified. An EDM traverse was carried out in the Torres Strait.

6 May-22 Aug. 5 Fd Svy Sqn mounted Operation Gading V in Central Sumatera. Survey work was to supplement and identify existing horizontal and vertical control, obtain APR profiles and aerial photography and determine river gradients.

May-Jul. Skai Piksa Phase 3 was mounted in PNG.

Jun. 8 Fd Svy Sqn moved to its new base at Wewak in PNG.

30 Jun. COL J.L. Stedman was appointed Director of Survey-Army vice COL J.K. Nolan who retired.

Jun-Dec. 8 Fd Svy Sqn mounted Operation Lahara. This operation covered a widespread area of PNG and included the Louisiade Islands, Woodlark Island, Ninigo Island, the Bismark Archipelago and the Samarai area. The Squadron established Geoceiver control, carried out some geodetic traversing, and panelled and identified control. Control was also established and field annotation surveys were made for UOPMs. Field completion surveys were carried in Bougainville, New Britain and West PNG. A recon was also carried in the Admiralty Islands.

2 Sep-8 Oct. Operation Hot Land; 5 Fd Svy Sqn carried out geodetic traversing, control identification, APR profiling and road classification surveys in the Yampi area of WA.

1976 Training commenced in the new trade of Technician Cartographic, Technician Photographic and Technician Printer.

A Tranet satellite tracking station was established at Smithfield SA in cooperation with the US Defence Mapping Agency.

Jan-Jun '. Operation Sun Bird was mounted by 1 Fd Svy Sqn in Qld. This operation was organized into 8 phases and included the establishment of Geoceiver control, APR profiling, spirit levelling, field completion and photo annotation surveys.

28 Apr-1 Aug. Operation Brass Key; 4 Fd Svy Sqn deployed to the Northern Territory. Survey work involved 1,535 km of geodetic traversing, panelling and identification of control and 10,540 km of APR profiles. Road classification surveys were also carried out.

Jun-Nov. 2 Fd Svy Sqn deployed to Irian Jaya for Operation Cenderawasih. Work was concentrated on doppler satellite control surveys and aerial photography.

1977 A new officer exchange programme was initiated with the US Army (DMA). The first American posted to Army Svy Regt was MAJ L.G.(Sam) Thompson Phd who set up the Technical Services Cell. At about this time the Doctrine Cell at the School of Military Survey was also established.

20 Feb-8 May. 8 Fd Svy Sqn commenced Operation Nyalaun Kup Phase 1 in PNG. This involved doppler satellite surveys, geodetic traversing, field completion surveys and aerial photography.

9 May-10 Oct. 2 Fd Svy Sqn again deployed to Irian Jaya for Operation Cenderawasih. Operations concentrated on doppler satellite control acquisition, APR profiling, supplementary aerial photography and the acquisition of mapping aerial photography by 2 Sqn RAAF.

24 May-24 Jun. Operation Short Walk II; 4 Fd Svy Sqn was engaged in field completion, photo annotation and reconnaissance surveys in SA.

18 Jul-2 Sep. Operation Nyalaun Kup Phase 2; 8 Fd Svy Sqn carried out field completion surveys in the PNG Highlands. Sep. Phase 1 of Operation Tropic Shores; 1 Fd Svy Sqn commenced work in the Cape York area of @ld. Tasks involved field completion, control identification and the acquisition of supplementary photography.

29 Sep-27 Oct. 8 Fd Svy Sqn commenced Operation Nyalaun Kup Phase 3 which involved field surveys to connect stations established by Project Xylon in 1954-55 to the New Britain Primary Traverse. Some field completion was also carried out.

Air Svy Sqn took delivery of a PDP 11/70 computer and an OMI/Nistri AP/C-3T Analytical Plotter. The AP/C-4 instrument which had been ordered could not be delivered in time. When it finally was delivered, the -3T instrument was retained and the IBM 1130 and original AP/C instrument were sold. At about this time the Stecometer Coordimeters were replaced by PDP 1103 computers which were linked to the 11/70 computer.

1978 28 Feb. COL J.L. Stedman retired and was succeeded by COL N.R.J. Hillier as D Svy-A.

The Klimsch Commodore camera in Litho Sqn was retired and was replaced by another, slightly smaller, computerized camera from the same manufacturer.

A new cartographic specification for RA Svy maps and charts was introduced. SYMBAS (Symbolization All Scales) was developed by the Technical Services Cell during 1977 especially for digital cartographic reproduction.

Jan-Oct. Operation Ania Lolo; 8 Fd Svy Sqn carried out this 8 phase operation throughout PNG. Work involved field completion in Milne Bay

Province; field completion, Geoceiver operations, control identification and airfield levelling for APR control in the Highlands; Geoceiver operations, geodetic traversing, and field completion in Manus Island, New Ireland, Bougainville and the Solomon Islands (Ontong Java); APR operations in Northern PNG; field completion in the islands to the North of New Britain; and aerial photography by chartered Queenair to cover Skai Piksa gaps.

May-Jun. Operation Tropic Shores phase 2 was carried out in the Cape York area North of 15 degrees South. 1 Fd Svy Sqn's work involved field completion, control identification and supplementary aerial photography.

13 Jun-11 Sep. Operation New Broom; 5 Fd Svy Sqn conducted this 2 stage operation in the Yampi Training Area for field completion, control identification and supplementary photography.

Aug-Sep. 4 Fd Svy Sqn carried out Operation Short Walk III for field completion and control identification in SA.

Nov-Dec. RA Svy units were exercised in intensive production as would be required in a national emergency in MAPEX 78.

In this year the first map produced by Automap 1 was published; this was a 1:50 000 sheet in the Yampi Training Area.

1979 Feb-Mar. Operation Desert Walk; 4 Fd Svy Sqn conducted Geoceiver and control identification surveys in SA.

May-Aug. 4 Fd Svy Sqn carried out field completion and control identification surveys in the NT in Operation Brass Key 79.

May-Dec. 3 Fd Svy Sqn conducted Operation Hano Puana Phase 1; this involved AFR profiling throughout the PNG mainland.

30 JUL. GD draughtsmen, now Illustrators Reprographic, were formally recognized as belonging to RA S77.

Jul-Oct. Operation Pattimura 79; this 2 Fd Svy Sqn operation was carried out in the Northern Maluku area of Indonesia, the Spice Islands, and involved Geoceiver control positioning, control identification, acquisition of supplementary aerial photography and connection of doppler control to sea level in order to define the relationship between the spheroid and geoid.

1980 S Fd Svy Sqn ceased to exist as an active squadron, remaining in existence with a small number of advisors to the PNG Survey Dept and Papua New Grinea Defence Force. Moved to Port Moresby.

Feb-Nov. Operation Tropic Traveller (phase 1) was conducted by 1 Fd Svy Sqn in the NT. This operation involved field completion, control identification and supplementary photography of 1:50 000 tactical mapping.

Feb-Mar. 4 Fd Svy Sqn carried out control panelling for a Natmap APR operation in SA in Operation Desert Walk 80.

May-Jun. 4 Fd Svy Sqn next conducted a field completion, control identification and supplementary photography operation in SA in Operation Short Walk 80.

Apr-Jul. Operation Pattimura 80 was carried out in the Maluku Province again by 2 Fd Svy Sqn. An additional task this year was the employment of the APR equipment.

Sep-Dec. 2 Fd Svy Sqn operated in the Solomon Islands establishing and identifying Geoceiver control and connecting it to sea level. This was Operation Spearline.

1981 Jan-Feb. Operation Numbah; 5 Fd Svy Sqn sent a small detachment to Christmas Island in the Indian Ocean to establish doppler satellite control, to establish a height datum, to carry out field annotation and collect survey intelligence.

Mgr. Commenced GPS observations of TRANET 545 Smithfield SA - 4 Fd Svy Sgn | 05 Defense Mapping Agency Mar-Oct. Phase 2 of Operation Tropic Traveller by 1 Fd Svy Sqn in the NI.

Mar-Apr. Operation Cynthia, by 4 fd Svy Sqn was mounted from Alice Springs for Geociever control.

Apr-Jun. 2 Fd Svy Sqn carried out Operation Pattimura 81 in the South Maluku Province. This year's activities concentrated on doppler satellite control establishment, identification, connection to sea level and supplementary photography.

Jul. Tenders close for Automap 2.

1982 9 Feb. Photographer and Projectionist Cinema trades were officially sponsored by RA Svy.

1982 Feb-Mar. Operation Miscast was carried out by 5 Fd svy Sqn in the Yilgarn WA area. Activities included the establishment of doppler satellite control and acquisition of colour aerial photography.

Jun-Jul. 5 Fd Svy Sqn next mounted Operation Mizmaze in the Kimberleys WA. In addition to the establishment of Geoceiver control, AFR profiles were also flown.

3-22 Jul. Operation Notarial Stage 1 was conducted by 4 Fd Svy Sqn in SA. Work involved field annotation of OPMs.

Jul-Sep. 4 Fd Svy Sqn mounted Operation Nervose in Arnhem Land and NE NT. Work concentrated on Geoceiver control for mapping and GMA82.

Sep. 5 Fd Svy Sqn connected a previously established doppler station to the primary survey control network by Magnavox 1502 translocation.

Oct-Nov. Operation Beachcomber was carried out by 5 Fd Svy Sqn. This operation involved vertical and oblique aerial photography of selected beaches in WA.

Nov-Dec. 4 Fd Svy Sqn carried out Stage 2 of Operation Notarial, field annotating in SA.

2 Fd Svy Sqn successfully carried out a short notice and lightly scaled operation in the Riau and Lingga island groups in Indonesia South of Singapore. This was Operation Nusa Timur 82

Dec. The School of Military Survey moved into its new accommodation in Latchford Barracks. Officers and Sergeants Messes remained in use in East Bonegilla until about February 1983.

During this year, Schut's Bundle Adjustment was set up on the PDP 11/70 to augment his Polynomial Strip adjustment in Air Svy Sqn.

1983 Jan. Air Svy Sqn took delivery of a Kongsberg flatbed digital plotter. This instrument was installed especially for aerial triangulation output and associated grids, thus freeing the Automap Gerber for digital cartography output.

Mar-Jun. Operation Neuration 83 was conducted by 4 Fd Svy Sqn over a large area of the NT. The operation included the establishment of doppler satellite control, the identification of existing control and field annotation.

Apr-May. 5 Fd Svy Sqn deployed to the Pilbara area of WA field annotating 1:50 000 OPMs for Ex Kangaroo 83.

13-30 Apr. Operation Notarial Stage 3 was carried out by 4 Fd Svy Sqn. This operation, to field annotate 4 \times 1:50 000 OPMs was conducted concurrently with a RAE Operation Midop. That operation involved the collection and recording of Military Infrastructure Directory (MID) information.

May-Aug. 2 Fd Svy Sqn returned to Indonesia for Operation Nusa Timur 83. This doppier satellite control operation was carried out in the islands West of Kalimantan in the South China Sea.

May-Sep. 5 Fd Svy Sqn mounted Operation Mizmaze 83 in the Gascoyne, Pilbara and Kimberley areas of WA. This was an APR profiling operation.

4 Jul. COL A.W. Laing was appointed Director of Survey-Army vice COL N.R.J. Hillier who retired.

Sep-Oct. 5 Fd Svy Sqn continued operations in the Gascoyne and Murchison areas of WA in Operation Golden Fleece. This time the work involved establishing doppler satellite control. In addition to RA Svy equipments, JMR-1 receivers were used.

In late 1983, Intergraph computerized draughting equipment began to arrive at Army Svy Regt marking

the commencement of Automap 2. This equipment consisted of dual-screen interactive graphic edit work stations, graphic screens and graphic data superimposed in the optical train on the Wild BS Aviograph plotters, a Raster scanner/plotter and associated VAX computers. After some intensive trials, additional equipment was supplied in 1984 in order to meet the required spacifications.

1984 Mar-Jul. Operation Welcome Stranger Phase 1) this was the first field operation by Army Svy Pegt for many years. It involved field completion in Victoria.

Apr-Jun. 5 Fd Svy Sqn again deployed to the Pilbara area of WA, this time for Operation Microbe 84, a doppler satellite survey project.

1-17 May. 1 Fd Svy Sqn mounted Operation Tropic Traveller 84, field completing in the Einasleigh region of Rid.

May-Jun. 4 Fd Svy Son mounted Operation Notarial V, field completing in central Australia.

Jun-Jul. Operation Nusa Barat 84; 2 Fd Svy Sqn mounted this operation in the Islands West of Sumatera to establish doppler satellite control.

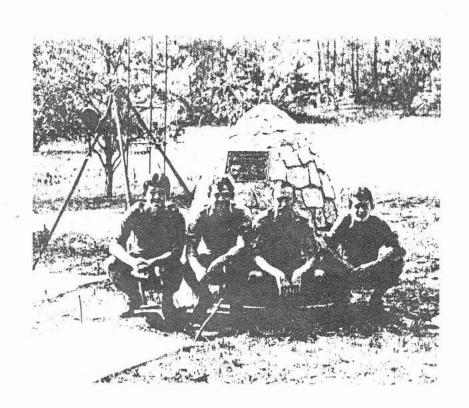
Jun-Oct. Operation Nervose 84; 4 Fd Svy Sqn conducted an APR operation flying 13,700 km of profiles in the Arnhem Land and Victoria River Downs area of the NT.

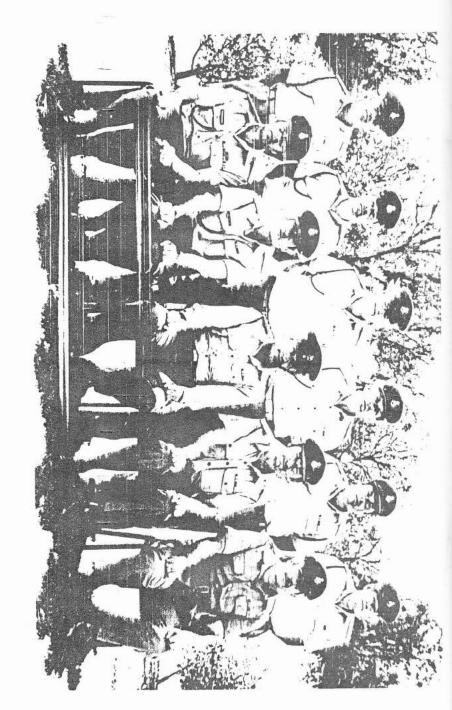
Jun-Nov. 2 Fd Svy Sqn mounted Operation Anon 84 in the Kiribati, Tuvalu, Nauru and Tonga (Ata Island) area of the South Pacific Ocean. This involved the establishment of doppler control and the acquisition of supplementary photography for an EEZ Baseline Survey.

Sep-Oct. 4 Fd Svy Sqn carries but Operation Cynthia 85, field completing the central corridor area of the NT.

Sep-Nov. Phase 2 of Operation Microbe SS.

4-28 Nov. Operation Benetnasch was conducted by 2 Fd Svy Sqn for field completion in the Kosciusko region of NaW.





RA SVY Corps Conference Nov 79

Standing L/R: MAJ A.Henson, MAJ H.E.Hansen, MAJ J.G.Corless, MAJ J.Gruszka, MAJ S.R.Campbell, MAJ L.S.Davies.

Sitting L/R: LTCOL F.E.Thorogood SBStJ. LTCOL E.P.Constantine. COL N.R.J.Hillier. LTCOL R.F.Skitch, LTCOL A.W.Laing.

COLONELS COMMANDANT

1967 - 1973 Brig D. Macdonald 1973 - 1978 Brig F.D. Buckland O.B.E. 1978 - 1982 Col J.L. Stedman

1983 - 1987 Col T.C. Sargent

CORPS DIRECTORS AND SENIOR OFFICERS

1910 Survey Section RAE:

1910 - 1912 LT W.L. Witham 1913 - 1915 CAPT C.V. Quinlan

1915 Australian Survey Corps:

1915 - 1934 MAJ J. Lynch 1934 - 1942 LTCOL T.A. Vance

1948 Royal Australian Survey Corps:

1942 - 1960 COL L. Fitzgerald O.B.E. 1960 - 1967 COL D. Macdonald 1967 - 1972 COL F.D. Buckland O.B.E. 1972 - 1975 COL J.K. Nolan 1975 - 1978 COL J.L. Stedman 1978 - 1983 COL N.R.J.Hillier 1983 - COL A.W. Laing

STAFF OFFICERS GRADE 1 SURVEY (SO1 Svy)
HEADQUARTERS FIELD FORCE COMMAND

1972 AD Svy HQ FF Comd

1972 - 1975 LTCOL E.U. Anderson M.B.E.

1975 SO1 Svy HQ FF Comd

1975 - 1977 LTCOL G.O. Ricketts 1977 - 1979 LTCOL B.E. Dalton 1979 - 1980 LTCOL F.E. Thorogood 1980 - 1981 LTCOL N. Sproles 1981 - 1984 LTCOL D.G. Swiney M.B.E.

1985 - LTCOL K.J. Murphy

COMMANDING OFFICERS

Army Survey Regiment

1941 LHO Cartographic Coy:

1942 - 1945 MAJ W.H. Sarll

1946 AHQ Cartographic Unit:

1945 - 1948 MAJ A.J. Townsend 1948 - 1951 MAJ P.A. Kennedy

1955 AHQ Survey Regiment:

1951 - 1962 LTCOL L.J. Lockwood 1962 - LTCOL C.S. Tyler 1962 - 1965 LTCOL F.D. Buckland 1965 - 1969 LTCOL J.K. Nolan

1969 - 1970 LTCOL L.B. Sprenger M.B.E.

1970 - 1972 LTCOL W. Howarth

1973 Army Survey Regiment:

1972 - 1975 LTCOL D.R. Ridge 1975 - 1976 LTCOL E.P. Constantine 1977 - 1980 LTCOL R.F. Skitch

1981 - LTCOL F.E. Thorogood

1981 - 1982 LTCOL P. Eddy 1983 - LTCOL J. Gruszka

COMMANDING OFFICER/CHIEF INSTRUCTORS

School of Military Survey

1948 - 1949 MAJ H.F. Eggeling

1950 - 1954 LTCOL H.A. Johnson

1954 - 1960 LTCOL W.B. Relf

1960 - 1965 LTCOL J.K. Herridge

1965 - 1972 LTCOL H.M. Hall

1972 - 1975 LTCOL T.C. Sargent

1975 - 1976 LTCOL N.R.J.Hillier

1976 - 1981 LTCOL E.P. Constantine A.M.

1982 - 1984 LTCOL K.J. Murphy

1985 - LTCOL J.G. Corless

SO1 (SURVEY TECHNICAL ADVISOR) PUS SURTA ABRI INDONESIA

1973 - 1975 LTCOL N.R.J.Hillier

1975 - 1977 LTCOL E.U. Anderson

1977 - 1979 LTCOL A.W. Laing

1979 - 1981 LTCOL N. Sproles

1981 - 1982 LTCOL J. Gruszka

1983 - 1985 LTCOL R. Blackburn

1985 - LTCOL H. Hansen

SO1 (SURVEY TECHNICAL ADVISOR) MALAYSIA

1984 - LTCOL D. McLuskey

OFFICERS COMMANDING

Cartographic Squadron, Army Survey Regiment

1956 ? Topo Sqn

1956	**	1960	MAJ	S.	Snow
1960	-	1962	MAJ	J.L.	Stedman
1963	-	1964	MAJ	N.R.J	.Hillier
1964	-	1966	MAJ	E.U.	Anderson
1966	-	1969	MAJ	E.P.	Constantine
1969	-	1972	MAJ	J.	Bullen
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1973 Air Svy Sqn

1973	***	1977	MAJ	J.R.	Cattell
1977	-		CAPT	Α.	Henson *
1978		1979	MAJ	P.	Eddy
1980	-	1981	MAJ	P.R.E	.Searle RE
1981	-	1982	MAJ	D.	McLuskey
1982	-	1984	MAJ	G.	Baker

1985 Carto Sqn

Air Survey Squadron, Army Survey Regiment

1951 Carto Sqn

1951		1969	MAJ	G.O.	Ricketts	
1969	-	1972	MAJ	K.S.	Todd	
1972	-	1974	MAJ	J.	Bullen	
1974	_	1975	MAJ	K.	Walsh	
1975	_	1977	MAJ	F.L.	Bryant M.B.E.	
1977	_	1978	MAJ	R.	Bridge	
1978	-	1979	MAJ	I.F.G.	Whittington RE	-
1979	_	1980	MAJ	R.L.	Roche	

1980 - CAPT R.W. Cooper * 1981 - MAJ K.J. Murphy

1981 - 1982 MAJ D.R. Bowen US Army

1982 - 1984 CAPT M. Byrne

1985 Air Svy Sqn

1985 - MAJ T.E. Edwards

Lithographic Squadron, Army Survey Regiment

1951 - 1970 MAJ W. Howarth

1971 - CAPT J. Gore

1971 - 1973 MAJ R. Smith

1974 - 1975 CAPT D.D. Williams RE

1976 - 1977 MAJ R. Wilson

1977 - CAPT T.E. Edwards *

1978 - 1975 CAPT G. Kenney

1979 - 1980 MAJ S.R. Schwartz US Army

1981 - 1982 MAJ R. Blackburn

1982 - CAPT M. Byrne *
1982 - 1983 MAJ S.J. Vote

1984 - MAJ F. Raue

1st Field Survey Squadron

1945 3 Fd Svy Coy:

1945 - 1948 MAJ H.A. Johnson

1948 ? N Comd Fd Svy Sect:

1948 - 1960 MAJ J.K. Herridge

1955 N Comd Fd Svy Unit:

1960 - 1963 MAJ S.W. Snow

1963 - 1968 MAJ J.L. Stedman

1970 1st Field Svy Sqn:

1968 - 1972 MAJ E.U. Anderson M.B.E. 1972 - 1974 MAJ K.S. Todd 1974 - 1975 CAPT A.J. Strachan 1975 - 1977 MAJ R.F. Skitch 1977 - 1981 MAJ L. Davies D.J. Puniard 1981 -MAJ D.R. Hockings 1982 - 1983 MAJ 1984 -C.J. Mitchell MAJ 1985 -MAJ P.J. Lilley

2nd Field Survey Squadron

194? - 1948 MAJ H.F. Eggeling 1948 - 1951 MAJ L.J. Lockwood 1951 - 1952 MAJ A.B. Roberts

E Comd Fd Svy Sect:

1952 - 1962 MAJ B. Herbert 1962 - MAJ G.G. Ghent

1962 E Comd Fd Svy Unit:

1962 - 1965 MAJ H.M. Hall 1965 - 1970 MAJ R.V. Hammett 1971 - 1976 MAJ E.V. Laker M.B.E. 1976 - 1978 MAJ D.G. Swiney M.B.E. 1978 - 1981 MAJ S.R. Campbell 1981 - 1982 MAJ P.J. Lilley 1982 - 1985 MAJ H.E. Hansen 1985 - MAJ S.W. Lemon

4th Field Survey Squadron

1952 AHQ Fd Svy Sect (C Comd Det):

1952?- 1954 MAJ W.B. Relf

1956 C Comd Fd Svy Sect:

1954 - 1958 MAJ J.K. Nolan

1962 C Comd Fd Svy Unit:

1958 - 1962 MAJ F.D. Buckland

1963 - LTCOL W.B. Relf

1964 - 1969 MAJ D.K. Ridge

1970 4th Fd Svy Sqn:

1969 - 1974 MAJ G.O. Ricketts

1974 - 1980 MAJ J. Gruszka

1980 - 1981 MAJ J.W. Winzar

1982 - 1983 MAJ M.A. van den Tol

1983 - 1985 MAJ E.R. Schultz

1985 - MAJ P.M. Bion

1982 - CAPT P.A. Jensen

5th Field Survey Squadron

1946 5 Fd Svy Coy ?

1946 - 1947 LT W. Harrison

1949 W Comd Fd Svy Sect:

1947 - 1952 MAJ R. Rule

1952 - 1955 MAJ F.D. Buckland

1955 - 1956 CAPT G. Ghent

1962 W Comd Fd Svy Unit:

1956 - 1964 MAJ L.B. Sprenger 1964 - 1967 MAJ H. Taylor 1967 - CAPT K.J. Lyons *

1970 5 Fd Svy Sqn:

1967 - 1972 MAJ T.C. Sargent 1972 - 1974 MAJ Taylor н. 1974 - 1976 MAJ A.W. Laing 1976 - 1977 CAPT R. Wood * 1977 - 1978 MAJ J.R. Cattell 1978 - 1980 MAJ J.G. Corless P.H. Wood B.E.M. 1980 - 1985 MAJ P.A. Bates-Brownsword 1985 -MAJ

8 Field Survey Squadron

1971 8th Field Svy Sqn:

1971 - 1973 MAJ A.W. Laing B.E. Dalton 1973 - 1974 MAJ 1974 - 1975 CAPT H.E. Hansen * 1975 - 1976 MAJ K.J. Murphy Wood B.E.M 1976 - 1980 MAJ P.H. 1980 -CAPT P.M. Bion 1980 - 1982 MAJ R.L. Roche 1982 - 1984 MAJ R.W. Cooper MAJ S.J. 1985 -Vote

1st Topographic Survey Troop

1963 Det 1 Topo Svy Sqn:

1963 - 1964 CAPT E.P. Constantine 1964 - CAPT K.S. Todd (Sydney) 1965 - 1966 CAPT R.F. Skitch

A Section 1st Topographic Survey Troop (AFV)

1966 - 1967 CAPT R.F. Skitch 1967 -LT D.K.R.McCloy * CAPT 1967 - 1968 A.W. Laing 1968 - 1969 MAJ J. Bullen 1969 -E.P. Constantine MAJ 1969 - 1970 CAPT F.E. Thorogood * 1970 -CAPT K.J. Lyons CAPT P. 1970 - 1971 Eddy 1971 -CAPT C.W. Watson

Staff Officer Grade 2, Survey (SO2 Svy) Headquarters 1st Division Survey Section

1981 - 1983 MAJ T.E. Edwards 1984 - 1985 MAJ J.W. Winzar

Army Map Depot

1961 AHQ Fd Svy Map Depot (South Kensington)

1960 - 1961 CAPT W. Child 1961 - 1962 SSGT A. McLaughlin 1962 - 1963 WO2 B.F. Jordan 1963 - 1964 SGT J.B. Cosgrove 1964 - 1969 CAPT J.G. Long 1969 - 1970 SSGT P. Rossiter

1972 AHQ Fd Svy Map Depot (Bandiana)

1970 - 1975 CAPT P. Rossiter

1973 Army Fd Svy Depot: 1975 Army Fd Svy Map Depot: 1975 - 1976 LT D.B. Avery

1976 - 1977 LT K.J. Pauliukevicivs

1977 Army Map Depot:

1977 - 1979 CAPT A.B. McLelland

1980 - 1982 CAPT I. Bootland

1982 - CAPT A.K. Stephens

Detachment Army Survey Regiment (Bonegilla)

1970 - 1972 CAPT R.G. Bridge

1972 - 1973 CAPT K. Walsh

1974 - 1976 CAPT R.L. Roche

1976 - 1977 LT S.J. Vote

1977 - 1978 WO1 W.R. Boyd O.A.M.

1978 - 1979 CAPT J.W. Gregs

1979 - 1981 CAPT D.L. Maskew

1981 - 1982 CAPT A.K. Stephens

1982 - 1983 CAPT I. Bootland

1983 - 1985 CAPT D. McLachlan

* Administering Command

Note: The rank shown is the highest held at the time of that appointment.



Instrument of Surrender

In vicosdance with Seneral Culer Number One would by the Japanese Imperial General Headquarters by direction of the Supreme Communiter of the Albert Down we hearby -

- A. Proctains the Uncombitional Surander to the Commander in the Surander Interference Annual Suran of all Supernove Sund Town and all Armed Town under Japanese control in the Netherlands Cast Indies, East of and exclusive of Lamboh, and in Bornes.
- B. Command all Communders and members of the Jupanese Armed Forces and Controlled Forces within the Furrious Islands and Seeas aforevaid to coase hostilities immediately, lay down their arms, romain in their present localities and do all such acts and things as may be required of them by the Commander in Chief, Australian Military Forces or his authorized Representative or Representatives.
- C. Command all level, Melitary and Navy officials and all manches of the Japanese Asmed Toxes to obey und enforce all Teclamations, Orders and Directions issued by the Commander in Chief, Australian Melitary Toxes, or his authorism!

 Propresentative or Propresentatives

Synod at Morotas on the North day of September 1945.

Li g By command and on behalf of By command and on behalf of Japanese Imperial General Headywesters.

Hooplands on the North day of September 1945.

LAB Carmer Floresal

Australian Military Town

