What We Did – Svy Units based in WESTERN AUSTRALIA
Contributers: Clem Sargent (CL) Frank Lenane (FL) Kym Weston (KW) Peter Jensen (PJ)Tim Allanson (TA) Peter Bowen (PB), John Bullen (JB)

YEAR	UNIT	OPERATION/ PROJECT	DURATION	LOCATION	NATURE OF WORK UNDERTAKEN	PERSONS TAKING PART	OTHER INFORMATION
1946							
1947							
1948							
1949							
1950							
1951							
1952							
1953							
1954							
1955							
1956							
1957							
1958							
1959							
1960	W Comd Fd	No name		Kimberley	1:250,000 map control	Maj Bill Springer	
JB	Svy Sect						
1961 <i>JB</i>	W Comd Fd Svy Unit	No name		Gibson Desert	1:250,000 map control. Hor con by 4 th order astro (position lines) Ver Con by airbourne altimetry	Capt John Bullen, Sgts George Gruszka, Phil Giblett,	9 map sheets:Madley, Warri, Cobb,Herbert, Browne, Bentley, Robert Breadon Talbot. Aerotrig – slotted template; plotting – sketchmaster. RC9 photog flown by Adastra. Pre-recce done by SAS in 1960.
1961 <i>JB</i>	W Comd Fd Svy Unit	No Name	October		1 st order EDM traverse	Maj Bill Sprenger	Equip failure caused work to be abandoned
1962 <i>JB</i>	W Comd Fd Svy Unit	No Name	May - Sept	NW WA – Base at Port Hedland Roebourne eastward, then Broome to Cape	1 st order EDM traverse	Maj Bill Sprenger (OC), Capt John Bullen, WO2 Frank Cohen	Using MRA3 tellurometers & RW sup.

				Leveque and Yampi			
1962 <i>JB</i>	W Comd Fd Svy Unit	No Name	October	North West WA	Con for 1:250,000 map 'Mount Anderson	Capt John Bullen and two others – Cpl ??, Pte ??	LOH sup by Helicopter Utilities. Crash at Frome Rocks. Task finished by road
1963 <i>JB</i>	W Comd Fd Svy Unit	No Name		North West WA	Re-measure part of Yampi EDM traverse 1:250,000 map con in Great Victoria Desert		
1964							
1965							
1966 <i>KW</i>	W Comd Fd Svy Unit OC Maj Hugh Taylor	No Name	3 Months – Jun-Sep	WA – Kalgoorlie	Arial annotation of 1 inch to 1 mile semi controlled photos for production of 1:250,000 maps. Extended from Laverton and Leonora in the north two map sheets wide to Esperance in the south.	Cpl Harry Newman Sprs Kym Weston, Jeff Larkin, Kevin Brewer and others	Using civil charter Cessna At end of period moved on to remeasuring the Esperance to Balladonia traverse
1966 <i>KW</i>	W Comd Fd Svy Unit OC Maj Hugh Taylor	No Name	6 weeks	WA – Baladonia	Remeasure the existing Esperance to Balladonia traverse. (Major veh roll-over had to be evac by Flying Dr. No lasting injuries.)	WO2 Pat Wood I/C George Ulinger Lofty Keen Personnel from Kalgoorlie Field completion and others.	It was thought that errors in this traverse were due to towers being too low. Previous Bilby towers were only sandbagged to the ground as it was impossible to dig in. This trip a pneumatic drill and explosives under the supervision of an engineer were used to reconstruct 2 or 3 towers. OC Maj H Taylor and SSM WO1 'Father' Jim Booton visited.
1967 CS	5 Fd Svy Sqn		Apr-Aug	Kimberley region – base at Wyndham op	1 st order EDM traverse, 1/100 000 mapping,	Maj Clem Sargent, Capt Ken Lyons, WO1 Jim Booton, WO2 Bob McKenna, Sgts Jo	

	1	1		T	ı	T	
				area Cambridge		Mazzarol,(MT) Con Tsalalos,	
				Gulf – Halls		Sprs ? Black, ? Brewer,	
				Creek		Bert Rozema plus others	
1968	5 Fd Svy		Apr - Aug	West Kimberley	1/100 000 map control,	Maj Clem Sargent, Capt	
CS	Sqn			region – base at	connection to Adelie Island	Peter Eddy, Lt (CMF ftd)?,	
				Derby	Map control by Aerodist,	WO1 Spike Jones?, WO2	
				,	EDM traverse, aerial	Alex Munro, WO2 Bob	
					heighting by baro altimetry,	McKenna, Sgts Daryl	
					map annotation	Hockings, Tony Waldron,	
						Noel Clutterbuck (RQ), Cpls	
						Ray Sargeant, Alex Cairney,	
						Sprs David Anderson, Greg	
						Buckenham, plus others	
1969				Sgn HQ -	1/100 000 map control	Lt John Whitburn, WO1	OC detached to 2 Sqn
CS				Fremantle	Geraldton – Carnarvon	Spike Jones, others	OO detached to 2 oqn
				1 Temantie	region	Opike Jones, Others	
1970					region		
1971	5 Fd Svy	Project D3/71	4 mths –	NT – initially	1/100 000 map control,	OC Maj Clem Sargent, Ops	Capt Reg Saunders
CS	Sqn	1 10,000 00// 1	Jun-Oct	based at Darwin	Bathurst & Melville Islands,	O Capt Noel Sproles, Capt	hosted for about a
TA	Oqri		Juli Oct	then in	NT, Buccaneer Archipelago	Peter Eddy (at end of op)	week at Kalumburu
PB				WA (Kimberley)	Map control by aerodist.	Capt Sambas, (Indon army)	Capt Sproles
'				- based at	Map control by acrodist.	2Lt Bruce Brammy,	undertook a
				Kalumburu near		Warwick Setree (NS), WO1	'sovereignty' visit by
				the Benedictine		Bob McKenna Aerodist	means of RAN patrol
				Mission.		master op), WO1 Spike	boat to Ashmore Reef.
				IVIISSIUII.		Jones, Sgts Noel	boat to Asimore Reel.
						Clutterbuck (RQ), Hicks	All survey personnel
						(RAEME), Ray Sargeant	aerodist remote and/or
						(Log) Tony Waldren, Eddie	records interpreting
							data.
						Schultz, Dennis Duquemin,	data.
						Daryl Hockings, Cpls	
						Werner Kuhnle, Bob	
						Atkinson, Bill Kemp, Pete	
						Biorac, Bill von Malenstein,	
						Brian Firns, Phil Bray, John	
						Mobbs, Barry Parker (CC), ,	
						Pete (Emu) Osterhage,	
						Johnny (Whiskey) Walker,	
						Frank Yeates, Wilkinson	
						Sprs Mick (MCV)Venn, Phil	
						Boyle, Bob McCarthy (NS	

1972						svyr) Keith Breahny (NS dtmn), Rod Moss, Tim Allanson, Don Maskew, Al (Alzo) Rossow, Pete Colewell, (George) Lindsey Clarke (?) George Timmins (?), Keith Wilkinson, Brian Silver, Terry (TJ) Wicker, Don Musgrave, Chris Dixon, Cliff Webb, Brett (Dutchy) Van Leeuwin, John Gilbert, Peter (PJ) Bowen, Phil Bray (Air Photog), Mick Bancroft.	
1974 PJ TA Gading IV Report.	5 Fd Svy Sqn 5 Fd Svy Sqn	OP Gading 3 OP Gading 4	Apr - Aug	Indonesia - Sumatra Indonesia – Sumatra. Base camp at Medan	Survey control for mapping Survey control for 1:50,000 mapping Ver con barometric heighting. Satellite fixation of selected primary stations using Hor con by Geoceiver on loan from US Defence Mapping Agency (DMA). Mapping photography flown by 2 Sqn RAAF	OC Maj Hugh Taylor OC Maj Alex Laing, Capt Peter Bates-Brownsword, Lt Fred Brown, Maj DG Rossi (MO),Lt PC Coghlan (RAE Liaison Butterworth) WO1 Bob McKenna (aerodist master op), WO2 Daryl Hockings (Ops Offr), WO2 Noel Clutterbuck (Q), SSgts Bill Van Malenstien (I/C Heighting parties), Dennis Duquemin (Geoceiver Ops) Sgt Ray Sargeant (Tpt), JD Collins, , WB Kemp (Liaison Butterworth), JD Doidge (RA Sigs _ communication), Cpls: George Clarke, P Colwell, JW Lees, Peter Osterhage, Brian Partridge, MC Venn, LCpls JW Cross, RG McKay, PD Twidale, Sprs Brian Cosford, Tim Allanson, Rusty Williams.	Chartered Beechcraft Queenair used for supplementary photography of control points and gaps.

1975 PJ TA Gading V Project Report		OP Gading 5	May - Aug	Indonesia – Sumatra. Base camp at Padang.	Survey control for mapping Geoceiver (when it worked) Barometric heighting	OC Maj Alex Laing, Capt RJ Wood, WO2 Daryl Hocking (Ops Offr), Capt GA Mumme (MO), Capt GJC Lee (RA Inf), Lt DJ Martindale (RAE), 2Lt RH Gunthorpe, SSgts Dennis Duquemin i/c heighting parties),BW (Brian) Firns,Sgts JD Collins, KJ Kennedy, BE (Barry) Parker, JR (Ray) Sargeant (MT), CL (Chris) Dahlberg (2 Fd Svy Sqn) Cpls CJ Andrews, Brian (Wild Bill) Cosford (heighting), Al Kavanagh (GC party & heighting), Cliff Webb (GC party & heighting) BJ (Brian) Partridge (GC party), Kev (Spook) Kennedy (Camera op), Sprs John Gilbert (GC party), Paul Cheater (heighting), Darcy Volz (heighting), Bob (half track) McKay (Heighting)	
1976 <i>PJ</i>	5 Fd Svy Sqn		Aug - Sep	WA – Pilbara & Murchison River areas	Road classification of 76 1: 100.000 mas	Det OIC Lt Daryl Hockings	Undertaken for conversion to military specifications of National Mapping maps
1977							
1978	5 Fd Svy	??	?	WA – Augusta –	Field completion of 12 x	??	
PJ	Sqn	OD Navy Day		Pemberton area	1:50,000 maps	OIC WO2 Dennie Duggesterie	
1978 <i>PJ</i>	5 Fd Svy Sqn	OP New Broom		WA – Exmouth Peninsula	Hor & ver control for 6 x 1:50.000 maps and subsequent field checking	OIC WO2 Dennis Duquemin	
1979							
1980 <i>PJ</i>	5 Fd Svy Sqn		Jul - Aug	WA – Great Sandy Desert	Under defence force assistance to the civil community program,	Lt Peter Jensen	Two members of the 1896 expedition died whie looking for

					navigate for an historical society to follow, find and renovate the water wells established by the disastrous Calvert Expedition of 1896 led by the SA surveyor Lawrence Wells		Joanna Springs that had been reported byan 1874 expedition. Methods used tonavigate in 1980 were interpretation from the original Wells journal, compass and pace, astro position fix with Wild T2 theodolite, map reading scale 1:250,000 NTMS and photo interpretation.
1981	5 Fd Svy	OP Microbe	Jul - Sep	WA – Pilbara	Estb Survey control for		Operation carried out
<i>PJ</i> 1981	Sqn 5 Fd Svy	OP Numbah	Jan - Feb	region Christmas	1: 50,000 mapping Estb survey control	OIC Lt John Mobbs plus two	with WA Lands Dept
PJ	Sqn	OF Numban	Jan - Feb	Island offshore	Esta survey control	Ole Lt John Mobbs plus two	
1982 PJ	5 Fd Svy Sqn	OP Mizmaze	Jun - Jul	WA – Kimberley region	Estb mapping control by Magnovox MX 1502 receivers. 24 sta completed and 200 existing sta panelled and photographed for 1:50,000 mapping	OC Maj Pat Wood	Magnovox based on Transit Navigation Satellites replaced the Geoceiver ANPRC 14
1982 <i>PJ</i>	5 Fd Svy Sgn	OP Microbe		WA – Pilbara region	Field completion of 61 x 1: 50,000 maps	OIC S/Sgt Russ Larson	
1982 <i>PJ</i>	5 Fd Svy Sqn	OP Miscast	15 Feb – 22 Mar	WA – Yilgarn Goldfields region	???		
1983 <i>PJ</i>	5 Fd Svy Sqn	OP Golden Fleece	Sep	WA – Murchison Gascoyne region	Estb survey control (35 points) by MX 1502 receivers and panel and photograph 220 existing survey stations.		
1983 <i>PJ</i>	5 Fd Svy Sqn	OP Mizmaze	May - Aug	WA – Pilbara Kimberley area	Vertical control by APR		
1984	5 Fd Svy	OP Grass		WA – Yampi	Field completion		
<i>PJ</i> 1985	Sqn 5 Fd Svy	Castles Carto Jarrah		Training area South West WA	Field checking	Colin Cuskelly	
1985 <i>FL</i>	Sqn	Carlo Jarran		South West WA	Field Checking	Colli Cuskelly	
1986	5 Fd Svy			WA – Pilbara	Field checking &	Alan Toogood, Steve Foster,	Camp locs – Karratha,

FL	Sqn			region	supplementary air photogaphy	Frank Lenane (litho), Scott Payne, others	Port Hedland, Hillside Station (near Marble Bar), Newman.
1987 <i>FL</i>	5 Fd Svy Sqn	OP Mizmaze		WA Kimberleys	Field checking & supplementary air photography		
1987 <i>PJ</i>	5 Fd Svy Sqn	OP Microbe	Phase 1 – 19 May – 10 Jul. Phase 2 – 19 Oct – 14 Oct	WA – Pilbara region	Field Completion 130 x 1:50,000 maps in Roy Hill, Balfour Downs, Mt Bruce, Onslow, Pyramid, Turree Creek 1: 250,000 areas.		
1988							
1989							
1990							
1991							
1992							
1993							
1994							
1995							
1996							