

3 August 1994

# 'G' Model finally flies

**AFTER months of maintenance and servicing work the first of 15 F-111 'G' Model aircraft flew its test flight in Australia beginning a new era of strike operations at 82 Wing.**

The Officer Commanding 82 Wing, Group Captain Dave Dunlop said that the United States Air Force personnel were sad to see their aircraft leave the US. "Many people attended the farewell and a lot of work was volunteered to ensure that the aircraft reached their new home intact," he said.

At dusk on test flight day, the team of technicians from 501 Wing who prepared the F-111 for Australian operational service waited for the aircraft they cheered on takeoff to touch down and complete a significant milestone in the project.



▲ Members of the F-111 'G' Model maintenance team with FLLT Dave Riddel and SQNLDR Bill Lawrence and WOFF Darryl Hooper after the aircraft's first flight following induction servicing.

GPCAPT Dunlop commended the team for succeeding in difficult circumstances. "The work required to produce this aircraft was done entirely by main-

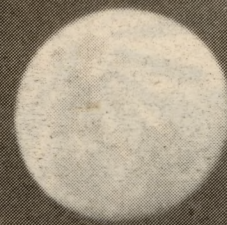
tenance staff at Amberley," GPCAPT Dunlop. "Your efforts are greatly appreciated by the aircrew who fly them."

"The combined efforts of 501 Wing and 82

Wing have made this programme and got it to where it is today. It is a major achievement to get this first aircraft

through the jungle of paperwork and into the air finally."

"I look forward to No Two".



▲ The first F-111 'G' Model to complete its induction servicing returns from a late afternoon flight to complete the first step in a maintenance programme involving 15 aircraft.

## DEFENCE UPDATE

# Impetus for F-111C modernisation

THE Royal Australian Air Force's F-111C avionics modernisation upgrade program finally received the long-awaited confirmed momentum early this month with the first flight of the prototype F-111C AUP swing-wing Mach 2 strike jet in the United States.

The flight on December 2 (our time) from the US Air Force's Palmdale Plant had been delayed since August, not apparently because of problems in getting the AUP right, but because of the fine tuning of the new instrumentation which is part of the package.

The aircraft (AB-132) was flown to the US in December 1991 to provide a design tool so that Rockwell could determine the best way to undertake the task. So there was considerable relief that it has finally been test flown after almost three years.

The F-111C AUP program for 21 aircraft based at Amberley in southern Queensland, near Ipswich, which were mostly delivered in the early 1970s, together with the purchase last year of 15 surplus USAF F-111G aircraft, aims to give the Australian Defence Force a formidable and reliable front line long range strike force to about the year 2020. They will remain capable of providing a low level attack platform with few equals in the world.

The first two of the former USAF model F-111s, which have been cleared for RAAF operations since the mid year, successfully carried out weapons delivery trials at the Delamere range in the Northern Territory recently. Four of the F-111Gs will form a separate flight over the next year or so in No 82 F-111 Wing. The wing consists of No 1 (Strike) and No 6 (Reconnaissance/Training) Squadrons, supported by No 501 (Maintenance) Wing.

After an extensive introduction at Amberley in the mid year, the first two Gs were cleared for operational flying training. This process will continue for the other Gs in the next few years and they gradually will be rotated through the squadrons so as to extend the fatigue life of the original RAAF aircraft.

The first two of the 15 surplus F-111Gs acquired were flown across the Pacific to Amberley base in September 1993. The last three flew in to Amberley on May 10 this year.

One flown by the Officer Commanding B2 Wing, Group Captain Dave Dunlop, was the first F-111 to be reclaimed from the Arizona Desert "boneyard" where hundreds of aircraft are stored in the dry atmosphere.

The F-111C upgrade was approved by the Government in the 1988-89 Budget, and currently is funded at \$484 million (December 1994 prices). The F-111G acquisition has been funded at \$148 million. This represents a sizable investment in the Air Force's F-111 strike/reconnaissance force.

The F-111C avionics upgrade (AUP) is



**Power:** Condensation streams from the wings as an F111C performs a climb

in two stages. The system design and modification of the prototype aircraft is being undertaken in the US by Rockwell's North American Aircraft Modification Division. There is some Australian industry involvement.

The flight testing, which will continue into 1995, is being carried out at the USAF's Palmdale Plant. This will be followed by extensive performance and evaluation trials at the USAF McLennan base at Sacramento, California. Fleet modification will be carried out in Australia by Hawker de Havilland under a sub-contract to Rockwell Systems Australia. This started at Amberley base last month. This early work involves new wiring for the four F-111C reconnaissance planes.

The local kit proofing of the other F-111C strike aircraft is following. Three F-111Cs at a time will be tied up in the AUP program at Amberley.

Long lead items purchased from the US include the attack radar system purchased from the Ocean, Radar and Sensor Systems Division of Martin Marietta (formerly General Electric). The terrain following radar (TFR), which allows the aircraft to fly low and fast, from Texas Instruments, Dallas, and the digital flight controls from the USAF, which were manufactured originally by General Dynamics (subsequently taken over by the Lockheed Co at Fort Worth).

The first modified aircraft is scheduled to enter Air Force service in mid-1997. Australian industry also will play an ex-

panded role in supporting the updated aircraft and systems.

Essentially, as explained by Group Captain John Kentish, director, RAAF Strike/Reconnaissance Projects, the AUP program is to improve the reliability and maintainability of the F-111 aircraft systems which are becoming out of date and difficult to maintain.

"We are taking out the old analogue instruments and replacing them with software-driven digital instrumentation," he explained. "The changes mainly are in the navigations weapons area. It also includes replacing the analogue flight controls with digital controls." Group Captain Kentish said that in seeking higher reliability and maintainability, a lot of the flight and performance character-

istics will be changed. This also involves re-testing and evaluating how the aircraft will perform with the updated instruments and controls.

The decision to upgrade the F-111Cs following an RAAF assessment which determined that an expanded role for its F/A-18 Hornets would not give the capability, in range and payload, required in a strike aircraft.

The acquisition of the 15 surplus USAF F-111G models as attrition aircraft is considered to have extended the F-111 fleet life to about 2020.

The group captain explained that the G models were purchased to provide for attrition and this should enable the F-111 capability to be retained until then.

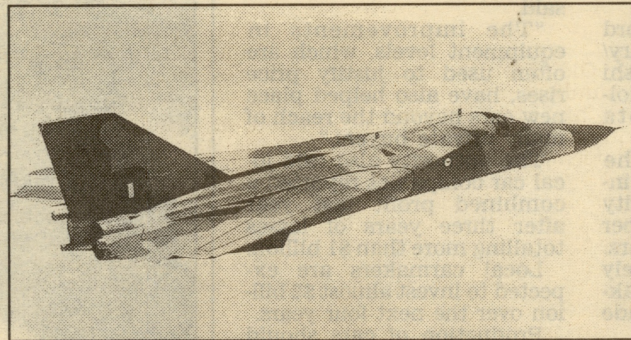
# 'Patch' keeps F-111s flying

By SCOTT MORTON

THE future of Australia's F-111 fleet has been secured by a team of Melbourne scientists which has developed technology to repair and strengthen the jet's controversial swing wing.

The technology, expected to save at least \$100 million, is already reaping the Federal Government millions in export cash.

Since the Menzies Government first plucked the F-111 from an American drawing board in the 1960s, the jet has been clouded in



**Breakthrough: F-111s will stay in the air longer.**

controversy because of wing stress fractures and crashes.

But replacing the aircraft with one of comparable ability would cost billions of dollars.

A research scientist with the Melbourne team, Dr Richard Chester, said that by using composite materials to reinforce the wing pivot fittings, the F-

111s will still be flying "into the next century".

The breakthrough means crack inspections can be extended from every 250 hours to 2000.

The crack-patching technology, developed at the Aeronautical and Maritime Research Laboratory in Port Melbourne over 20 years, has also attracted American interest.

The US Air Force has signed a multi-million dollar deal to apply the technology to repair fatigue cracks in its fleet of C-141 Starlifter aircraft and it may also be used on the C-5 Galaxy.

The reinforcement techni-

que uses boron fibres set in epoxy resin, producing a composite material that can be stiff and strong in one direction but flexible in another.

The boron fibre patch is bonded to the wing with a structural adhesive that eliminates the need for rivets.

Midway through 1973 the F-111, still the fastest aircraft in Australia, became part of the Australian defence scene after surviving flak over costs and a five-year delivery delay caused by repairs required to its swing wings.

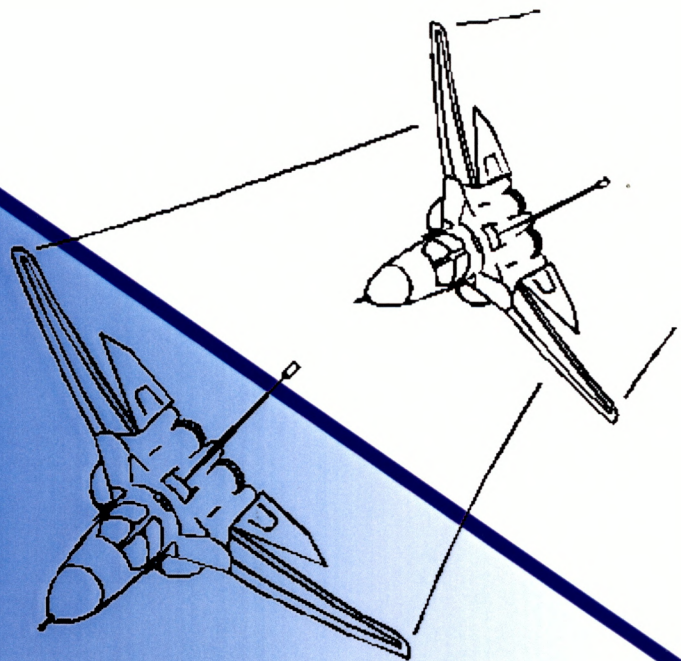
The fleet of F-111s will now serve Australia until at

least 2020, 47 years after the first flew in from America.

A \$500 million program is under way to update the plane's avionics from analogue to digital and the Federal Government has bought another 15 second-hand planes from the US, bringing the fleet to 37.

This purchase has also attracted criticism.

When the first two jets, each priced at \$5 million, arrived from the US last October, experts warned Australia would be the only country flying the planes because of US plans to scrap its fleet, raising fears that Australia could be deprived of essential expertise and spare parts.



# 1995

NEWS PAPER CUTTINGS AND  
ARTICLES OF INTEREST for  
the year 1995

**AN SRLMSQN PERSPECTIVE**



*F-111A 'City of Graham', a gift from the USAF, was the third F-111A core-production aircraft built. From 1965 to 1968, it flew 564 hours during 300 test flights before being used for ground training. In 1995, the aircraft was shipped to Australia and trucked to RAAF Base Amberley.*

USAF SN 63-9768

## **F-111A 63-9768 - “City of Graham”**

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Originally built for TACTICAL AIR COMMAND (TAC).

It was the third F-111A core-production aircraft built from 1965 to 1968. The aircraft was configured with ejection seats as the Crew Module was still in development and not available when the aircraft was built.

This aircraft became the property of the RAAF and was located at 501WG FTF for the use of Battle Damage Repair training. It is known as "The City of Graham"

The “City of Graham” (63-9768) was the third F-111A pre-production aircraft built. It first flew on April 30, 1965 from Carswell AFB, Fort Worth, Texas. It accumulated a total of 564.2 flight hours during 300 test flights. Its final flight was on December 4, 1968. This aircraft was later used for ground training at Sheppard AFB, Texas.

In 1995 the aircraft was dismantled for air transport via C-5A Galaxy to Australia, but was instead transported by road to Norfolk, Virginia, and then by sea aboard HMAS Kanimbla to Sydney. It was then shipped by HMAS Tobruk to Brisbane and finally by road to RAAF Base Amberley.

Soon after its arrival at Amberley the “City of Graham” was repainted in the “Gunship Grey” scheme. The third pre-production F-111A continues to serve, currently being utilized by 278SQN Technical Training Flight Amberley to train maintenance personnel in F-111 Confined Space Entry.

### **Specifications:**

Span:	32ft. swept; 63 ft. extended
Length:	73ft. 6in.
Height:	17ft.
Weight:	92,657 lbs. max
Armament:	One 20mm M61 A1 gun, plus a mix of up to 48 conventional weapons
Engines:	Two Pratt & Whitney TF30-P-1 of 18,500 lbs. thrust with afterburners
Crew:	Two
Cost:	\$8.2 million US
Cost per hour to fly:	\$1,857 (1968 US dollars)

Max Speed: 1,452 mph

Cruising Speed: 685 mph

Range: 3,632 miles

### **Interesting Facts:**

Being a Pre-Production model, this aircraft was fitted with ejection seats (not an ejectable crew module) and no pivot pylons.



**The City of Graham prior to being dismantled for shipment.**

The Aircraft is now scheduled for destruction and in June 2011 was relocated from Field Training to the graveyard site on RAAF Base Amberley awaiting destruction



**ABDR Compound with F-111A, F-111C Crew Module and Canberra Wings**

# 501WG ORGANISATION

OC	GPCAPT ENGR
GARRY BATES	3000

WOD	WGFF WOD
JEFF ROWE	3077

SADMINO	SONLDR ADMIN
ANDREW ELFVERSON	2330

OIC AUP	SONLDR
DAN WHITE	2265

ADMINI	FLTLT ADMIN
SHANE KUHLE	3070

OICDSERV	FLTLT ED
MAL DICK	3050

COAVMMSON	WGCDR ENGR
JEFF BUGDEN	2741

OIC AVMG	FLTLT ELECTR
TERRY O'BRIEN	2549

PROD PLAN	FLGCOFF ELECTR
BRAD HARDS	2692

DICMSF	SONLDR AERO
VACANT	3079

OICMISS	FLTLT ELECTR
TAZ WILKS	3377

OICRPS	FLGCOFF AERO
ANNE SUTHERLAND	3379

OIC ESS	SONLDR ENG
ROB PERTICATO	2556

OICAVES	FLTLT ENGR
CHRIS CATERER	2538

AVES1	FLGCOFF ELECTR
GRANT HERRMANN	2110

AVES2	FLGCOFF ELECTR
ANDREW SCHOLTEN	2110

OICAES	FLGCOFF AERO
DAVE HOUGHTON	2443

OIC AES1	PLTOFF (S/N) AERO
TDDD WINTERFORD	3504

OICNDISL	FLTLT AERO
VACANT	3088

OIC FTF	FLTLT ED
KYLIE BELFORD	2707

OICSUPF	FLTLT SUP
TIM REYNOLDS	3076

COAMSON	WGCDR AERO
PAUL GORDON	3002

OICAMF	SONLDR AERO
MAL WILLIAMS	2388

OICAMS	FLTLT AERO
JOHN DUFF	3040

OIC ASS	FLGCOFF AERO
ANTHONY CLYDSDALE	2314

OICALSS	FLGCOFF ARM
JOHN GALLIGAN	2544

OICECMG	SONLDR AERO
ROB LAWSON	2400

OIC/L TST	MR PO2
GREG MASON	3118

2IC ECMG	FLTLT (NZ EXCH)
MARK DIXON	2892

ECMG SUPER	FLGCOFF
PAUL PAROLO	2808

DICWSSF	SONLDR
STEVEN MOGG	3461

WSSF	FLTLT
JIM EVERDEN	3466

WSSF	FLTLT
BRAD MACKAY	3454

WSSF	FLTLT
ANTHONY COLEMAN	3464

**FAX NUMBERS**  
 HQ (07) 280 3265  
 SRLM (07) 280 3397  
 AVMG (07) 280 3004  
 Pls inform OCSEC Ext 2359 of any changes

F111COORD	WGCDR ELECTR
DARYL BROWN	2536

F111CODRD1	
VACANT	

F111GELO	ASYSTECH
FSGT EDWARDS	2618

F-111 SST	
WGCDR JAMIESON (OIC)	2925
SONLDR PERTICATO (LOG)	2908
SONLDR BENFER (ENG)	2927
SONLDR FANTINI (COORD)	2944
WOFF HOOPER (ENG)	2927
MS. M CLAY (FIN)	2944
WOFF MACDONALD	2908

T/COSRLMSON	SONLDR SUP
DEREK ANDREWARTHA	3330

CE	WGCDR
TONY TREW	2605

OICEXEC	SONLDR ENG
MIKE NOBLE	3329

FINMAN	MR ASOS
RDBIN WALTERS	3393

OICP&A	FLTLT SUP
BRETT BISHELL	3357

OICPP&T	FLTLT SUP
PATRICK LILWALL	3344

OICFLTMAN	MR. PO2
GRAHAME CAIN	3529

OICASF	SONLDR AERO
DAVE MAHONEY	3222

TF30 P109 PROJ	FLTLT AERO
VACANT	3248

ENGSP	WOFF
PUD PASSMORE	3240

AFSENG	FLTLT AERO
ANDREW BAIRD	3048

AFSENG	FLTLT AERO
SCOTT WHITE	3048

AFSPT	FLTLT SUP
ROB BURTON	2961

OICAVSF	SONLDR ELECTR
JOHN KEARNEY	3110

OICAVSPT1	FLTLT ELECTR
MIKE BRYAN	3309

OICAVSPT2	FLTLT ELECTR
COL ARMBRUST	3307

OICAVSPT3	FLTLT ARM
JAMES HEADING	3533

OICAVSPT4	FLTLT ELECTR
LEON PHILLIPS	3543

AVOICSRPROJ	FLTLT ENGR
MARK MASINI	2129

AVOICSRPROJ1	FSGTAV
MARK BROWN	2729

AVOICSRPROJ2	FSGTAV
BOB WILSON	3228

DICAVSF	FLTLT ENGR
TERRY GUNSON	3513

OICCM	FSGT
NED KELLY	3442

OICEM	MR.
LINDSEY SLATER	3442

TF30 - P109	
	TBA
FSGT PETER NYE	TBA

WEF 02 JUN 95.

## 501SRLM TELEPHONE DIRECTORY AS AT 17JUL95

CPL	ALBRECHT	A411030	PAUL	3260	AV2
MISS	ALLT	718-30861	KIM	2484	PUBS
SQNLDR	ANDREWARTHA	O47402	DEREK J.	3330	T/CO
FLTLT	ARMBRUST	O123040	COL	3307	AV2
MR	ASHDOWN	702-34208	PETE	3545	FPA
FLTLT	BAIRD	O324517	ANDREW	3048	AFSENG
CPL	BAKER	A132159	BEN	3240	P109 PROJ1B
SGT	BELJON	A124924	GRAHAM	2604	ADMIN
SQNLDR	BENFER		MAL	3410	FSSTENG1
FLTLT	BISHELL	O233802	BRETT	3357	P&A
MRS	BROOKS	71993	CAROLE	3444	MRD
FSGT	BROWN	A62539	MARK A.	2729	SRPROJ1
WGCDR	BROWN	O315890	DARRYL	2536	GCOORD
CPL	BRUCE		DEAN	3394	LOGADMIN2
CPL	BURNS	A511452	DEREK	3534	AVSPT4
FLTLT	BURTON	O125009	ROB	2961	OICASF
SGT	BUTLER	A123503	HARRY	3530	AVSPT2H
MR	CAIN	718-11310	GRAEME	2748	FPA
MRS	CARTER	260-63368	ANNE	3219	A/AFSPT1D
FSGT	CAVANAGH	A123493	PETER	3305	AV1
FSGT	CHARLES	A321797	MARK	3439	AFSENG2
SGT	CHEYNE	A123940	PETER	3259	AVSPT4B
MS	CLAY	702-23007	MOIRA	2944	FSSTFIN
CPL	COLLINS	A131861	LEE	2832	SRPROJ2B7
SGT	COVENTRY	A126558	CHUCK	2986	SRPROJ2B1
MRS	DAVEY	541-82137	MICHELLE	2604	ADMIN
SGT	DIPROSE	A123438	KEVIN	2093	SRPROJ1A1
SGT	DOYLE	A231546	JIM	3248	ENGSP3B
CPL	DUCKWORTH	A125182	MIKE	3166	AFSPT2B
SGT	DUNKS	A228949	IAN	3263	AV2
MISS	DUNNING	81222	LOUISE	3230	AFSPT1E
FSGT	EDWARDS	A323941	SCOTT (JACKO)	2752	GELO
CPL	ELSON	A231540	KEITH	3219	ENG
SQNLDR	FANTINI	L230695	JENNY	3411	FSSTCOORD
LAC	FINLAY	A133250	ANDREW	3331	PUBS
FSGT	FOLEY	A59787	GREG	3359	P&A2
CPL	GADALETA	A130921	JOE	2832	SRPROJ2B5
WOFF	GANNON	A122304	GREGORY	3441	AFAENG1
FSGT	GARRETT	A124912	CHRIS	3393	FINMAN1
CPL	GIBSON	A131040	GLEN (KOOK)	2602	SRPROJ2BS4
SGT	GILES	A410243	ERIC	2581	SRPROJ2B2
CPL	GODWIN	A235352	ANDY	2618	SRPROJ3D1
MRS	GOODWIN	512-21049	HELEN	3393	FINLSA(MATL)
SGT	GOOS	A124951	DENNIS	3166	AFSPT1A
SGT	GRAY	A129771	ANDREW	3440	AVSPT4F
SGT	GRAYSON	A229474	PETER	3262	AVSPT1F
CPL	GROSSER	A131685	ANTHONY	3527	AVSPT2I
FLTLT	GUNSON	O129489	TERRY	3513	OICESF
MR	HALLIWELL		LYNDSAY	3442	MEA
SGT	HARPER	A127453	ALAN	3443	MEA
WOFF	HATCHMAN	A110370	GEORGE	2536	GCOORD1
FLTLT	HEADING	O326383	JAMES	3533	AV3
MISS	HEBEL	312-62636	SUE	3393	A/FINLSA
FSGT	HENRY	A124336	AL	3522	AV1

CPL	HICKING	A234387	JOHN	3048	AFAENG1A
MR	HILL		GRAEME	3332	DQA
SGT	HOLZE	A44266	JOHN	3524	AVSPT4D
WOFF	HOOPER		DARRYL	2927	FSSTENG2
SGT	HOMER	A125983	STEVE	3440	AVSPT4A
FSGT	HOSKIN	A322623	BILL	3436	AVSPT3A
SGT	HUGHES	A322830	LANCE (HUGO)	3240	ENG
SGT	HULL	A124272	MARK(GROUCHO)	3435	AVSPT3B
SGT	HUNT	A511558	PETER	3234	ENG
SGT	HUTCHESON	A235995	MARK (HUTCH)	3281	AV2
WGCDR	JAMIESON	O321461	IAN	2925	OICFSST / CO
MRS	JEFFERYS	718-11505	JANINE	3394	LOGADMIN3
CPL	JESSUP	A514187	PAUL	3216	AFSPT2C
SGT	JOHNSON	A125271	LYLE	3443	MEA2
CPL	JONES	A131471	DARREN (JONESY)	2986	SRPROJ2B3
FLTLT	JUDD	L130155	TRACEY	3436	AVSPT3
CPL	KAIRL	A133944	(CURLY)	3240	ENGSTPT3D
SQNLDR	KEARNEY	O230672	JOHN	3110	OICAVSF
FSGT	KELLY	A230491	NED	3442	MEA
MISS	KERSLAKE	538-06278	VICKI	2452	PUBS3
MRS	KIJASHKA	16691	ABIGAEL	3438	AVSPT4
SGT	KIKUCHI	A229262	CHRIS	3258	ENGSTPT1D
MRS	KING	508-92406	JULIE	3304	AVSPT1H
SGT	KLINCKE	A124372	BOB	3439	AFSENG3
CPL	KUDNIG		JUAN	3437	AVSPT4C
SGT	KUNDE	A126713	AL	3522	AVSPT1B
WOFF	LANG	A123948	LES	3439	AFSENG1
SGT	LE BHERZ	A122779	ROB	3443	MEA
MRS	LEITH-HEAD		VAL	3530	AVSPT2
FLTLT	LILWALL	O132406	PAT	3344	OIC PP&T (QMS)
SGT	LUCHT (LEEK)	A122860	STEVEN	2832	SRPROJ2BSUP5
WOFF	MACDONALD	A124669	SIMON	3412	FSSTLOG2
SQNLDR	MAHONEY	O126172	DAVID	3222	TF30PROJ
FLTLT	MASINI	O326709	MARK	2129	A/OICSRPROJ
SGT	MCANALLY	A233307	PAUL	3532	AVSPT1J
LAC	MCDOUGALL	A133992	JULIAN	3131	FIN
MR	MCINTYRE	517-66663	GRAHAM	2484	CAT
FSGT	MCKEE	A320943	GARRY	3260	AVSPT2G
CPL	MCLEOD	A325583	MALCOLM	2912	SRPROJ2BSUP4
WOFF	MCNAMARA	A120640	OWEN	3353	PP&T
MR	MCNEICE	718-09325	BRYAN	3546	FPA1
MS	MCPHEE	718-12356	JANINE	2742	SRPROJ3CS
SGT	MEACHAM	A511790	MICK	2831	SRPROJ2A2
SGT	MURRAY	A321270	ALLAN	3290	AVSPT2C
MR	NELSON	717-78709	STEPHEN	3545	FPA2
SQNLDR	NOBLE	O322014	MIKE	3329	XO(OICLSD)
FSGT	NYE	A125618	PETER	3248	TF30PROJ1
SGT	ORWIN	A125864	YARP	3219	AFSPT2
MRS	OSTERBURG	26705	KARIN	2742	SRPROJ3C
CPL	OTAGO	W130400	KYM	3440	AVSPT4
SGT	PAINE	A323801	IAN	2742	SRPROJ3A
WOFF	PASSMORE	A110465	GORDON (PUD)	3240	ENGSTPT2
SQNLDR	PERTICATO		ROB	2908	FSSTLOG
WOFF	PETHERICK	A47564	VICK	3359	P&A1
FLTLT	PHILLIPS	O512874	LEON	3534	OICAV4
SGT	POWER	A129209	RICH	2618	PROJ
SGT	PRESTON	A323205	MARK	3360	FIN
SGT	REYNOLDS	A229965	PETE	2581	SRPROJ2B

LACW	RHODES	W132907	JANE	2618	SRPROJ3D2
SGT	RIDLEY	A228521	PHILL	3436	AVSPT3
SGT	RODGERS	A125056	GARRY	3240	ENG
MISS	ROTHNIE	48157	SHARON	3261	AVI
FSGT	SENJOV	A321770	JOHN	3331	CSA
CPL	SKEA	A236127	IAN	3527	AVSPT2
MR	SLATER		LINDSAY	3442	ESM
CPL	SMITH	A129388	DOUG	2831	SRPROJ2A1
SGT	STEVENSON	A230756	ROGER	3257	ENGSP1A
CPL	STEWART	A232696	CHRIS	3359	PEPR
MRS	STUBBINGS	347-65327	IRIS	3257	ENGSP1C
SGT	SWALES	A127411	AL	2093	SRPROJ1A2
CPL	SZYMANSKI	A130377	MICHAEL (SKI)	3240	ENG
SGT	THEMOR	A129086	WAYNE	3226	AFSPT1B
WOFF	THOMSON	A234694	PETER	3248	ENGSP2
WGCDR	TREW	O229357	ANTHONY	2605	CENG
FSGT	VANDENBERG	A510727	MARTIN	2634	AFSPT1
SGT	WALKER	A322599	GREG (MAX)	3529	AVSPT2I
MR	WALTERS	30320515	ROBIN	2062	FINMAN
CPL	WEBB		ADRIAN	3248	TF30PROJ
FSGT	WEBB	A124580	HENRY	3532	AVSPT1D
SGT	WEBB	A49266	ROBERT	2581	GPROJ D/STAIR
FSGT	WEBB	A125645	STEVE	3436	AVSPT3D
SGT	WEBB		STEVE(SPYDA)	215 3295	(MEANDAH)
SGT	WEST	A232635	JEFF	3230	AFSPT1C
FLTLT	WHITE	O236639	SCOTT	3048	AFAENG
SGT	WILKINSON	A230978	COL	3525	AVI
MISS	WILLIAMS	32325	LIZ	3353	P&T1
SGT	WILLIAMSON	A511414	MARK	3441	AFAENG1A
FSGT	WILSON	A227512	BOB	3228	SRPROJ2A
SGT	WILSON	A231133	GREG	3526	AVSPT1C
CPL	WITTMANN	A125684	ALEXANDER(SLIM)	2581	SRPROJ2B4
MRS	WORTHINGTON	87366	SUE	3528	AVSPT2F

## ANALYSIS

by Stewart Wilson

# RAAF F-111 Crash Raises Questions

## An AA Commentary

The fatal crash of RAAF F-111C A8-127 during a simulated night attack on the meatworks at Guyra, NSW in September 1993 could be explained away as just an operational accident of the type which is going to occur from time to time due to the nature of the flying involved – low altitude, high speed and in this case at night and in poor weather with gusting winds, rain and low cloud.

But there seems to be a case for asking whether some systemic problems contributed to the accident, notably a lack of currency on the part of both crewmembers (especially the pilot), a lack of established rapport between the pilot and navigator, and the lack of a suitable simulator in which the crew could work up to an appropriate level of currency before venturing out on a 'real' mission.

The accident occurred during the egress manoeuvre following 'bomb' release, the aircraft entering an unplanned diving flightpath into the ground. According to the accident investigation summary: "At the pre determined pullup point the pilot initiated a pullup after depressing the bomb release button but told his navigator he was having difficulty in achieving – and did not achieve – the planned 3g for the attack. The most likely reason for this difficulty is that the pilot did not disengage the Auto TF [Terrain Following] system, which was trying to lower the nose of the aircraft, while he was trying to raise it.

"Consequently, the aircraft pitched up at a slower rate than the pilot intended. When the pitch attitude of the aircraft reached approximately 20 to 25 degrees nose up, loss of a reliable signal to the Terrain Following Radar system generated a TFR fail audio tone and probably caused the pilot to initiate a failsafe flyup at about 3g.

"The most probable sequence of events after the TFR fail audio tone is as follows. The pilot depressed the autopilot release lever to override the TF failsafe flyup and in the process took pressure off the bomb release button. He then decided to continue to fly the established egress procedure and rolled the aircraft to the right towards the planned egress direction. As he initiated the roll, *whilst possibly confused* [our italics], he again depressed the bomb release button, then released it. He achieved a bank angle of a maximum of 140 degrees and possibly 150 degrees, although the normal maximum bank angle for the recovery phase of the manoeuvre is 110 degrees. He then reversed the roll and reduced bank angle to between 80 to 90 degrees".

The report goes on to say the aircraft reached a nose down attitude of greater than 25 degrees when it should have been level and that "apparently the pilot was not controlling the aircraft's attitude by the attitude director but was flying instinctively.... He could also have been suffering from channelised attention which may have caused him to focus on achieving the planned rollout heading to the exclusion of information from the other primary instruments..."

The most probable cause of the accident was put down to "a loss of situational awareness".

One of the factors which it was considered may have contributed to the accident was the fact that the pilot "had not practiced this particular kind of attack at night for the preceding five months".

The cockpit voice recorder provided no indication of any problem but significantly, the crucial eight seconds before the accident could not be retrieved for examination.

Flt Lt Jeremy McNess and his navigator Flt Lt Mark Cairns-Cowin were both highly skilled airmen; McNess had been the Dux of his F-111 Conversion Course and Dux of his Introductory Fighter Course. But he had only flown 1.3 hours at night over the previous three months. He had never flown with Cairns-Cowin in an F-111 before and the navigator was scheduled to depart for the US the next day to help ferry one of the RAAF's newly acquired F-111Gs back to Australia.

The fact that Flt Lt McNess was ordered to fly this mission with his lack of currency is concerning. Even in civil aviation pilots have to be properly checked out if they haven't flown for some time, the limit being 30 days in the case of a commercial licence holder.

How is it possible for the pilot to be so low in night currency? Surely a better way to build up currency would have been to start on a less demanding exercise, especially when taking into account the poor weather conditions on the night

of the accident? Why is it that two crewmembers were teamed together when they had not flown in an F-111 before, and especially when both – particularly the pilot – were so low on night currency?

To its credit, the RAAF recognised some of these problems when the accident investigation had been completed and undertook to amend currency requirements

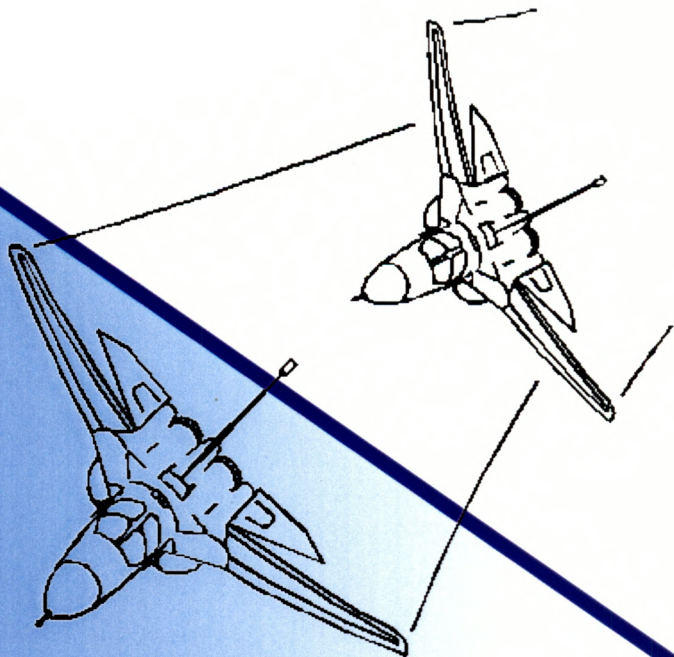
for night flying and night weapons delivery profiles, review procedures for night weapons delivery, counsel squadron and wing supervisors on the need for effective oversight of crew currency and capabilities and their matching against mission difficulty and to review the adequacy and efficiency of operational instrument flying training and currency.

Another area of concern is the fact that no proper protocol to inform the airmen's families of the accident was apparently put into action. Some close relatives – who should have been fully informed before the press was – found out about the deaths of the two airmen on television. This is simply not good enough and adds even more despair to an already tragic situation. AA has been told the overall impression gained by close relatives in this case was that the RAAF seems not to care overly much. This has a familiar ring to it – remember the RAAF 707 crash in 1991?

Any improvements to this and the circumstances which led to the accident won't bring back the crew of A8-127, but might help others. Surely currency and crew rapport are the basis of safe flying in any form whether it be in an F-111 at 540 knots and 400 feet or an airliner cruising serenely above the clouds. Because when something goes wrong....



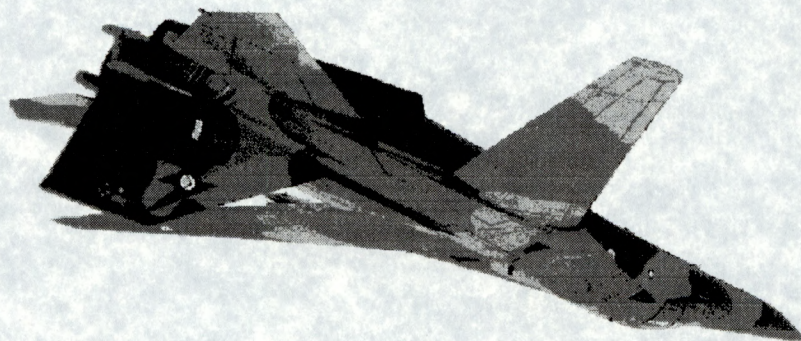
An RAAF F-111 in its element: bombed up, low and fast. In such a high stress situation the currency of the aircrew and their sense of 'team' are surely vital ingredients in achieving a safe conclusion to the mission. (Defence PR)



# 1996

NEWS PAPER CUTTINGS AND  
ARTICLES OF INTEREST for  
the year 1996

**AN SRLMSQN PERSPECTIVE**



*RAAF Amberley Sergeants' Mess*

# **SRLM SQN**

## **Dining In Night**

**10th October, 1996**

## Soup

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### **Duet of Hearty Bacon and Potato, & Cream of Pumpkin**

## Main

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### **Caribbean Chicken**

*Tender Breast of Spring Chicken,  
filled with Camembert Cheese and Avocado,  
served with Bacon Sauce*

### **Char Grilled Fillet of Beef**

*Served Medium with Cream Peppercorn Sauce*

## Vegetables

*Polonaise Potatoes      Carrots Julienne  
Turned Zucchini      Baby Beans*

## Sweets

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### **Strawberry Basket**

*Served with Chocolate Rum Sauce*

If you are off base & want the number - Dial 0754 61111

# SRLMSQN CONTACT LISTING

AL3 02 OCTOBER 1996

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Mission: Our mission is to provide Effective and Efficient Logistics Management in support of the F111 Weapon System and the Strike Reconnaissance Group.

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DNATS 87 2 + Ext STD (074) 6 + Ext PABXNET Dial Direct

<b>FAX1 (Exclusively for CO &amp; QUOTES/TENDERS)</b>	<b>13150</b>
<b>FAX2</b>	<b>13149</b>
<b>FAX3</b>	<b>13148</b>

## SRLM SENIOR EXECUTIVE APPOINTMENTS

<b>WALTER</b>	<b>S.</b>	<b>WGCDR</b>	<b>COSRLMSQN</b>	<b>13155</b>
<b>VALCIUKAS</b>	<b>S.</b>	<b>WGCDR</b>	<b>FSST-OIC</b>	<b>13054</b>
<b>TREW</b>	<b>T.</b>	<b>WGCDR</b>	<b>CENGR</b>	<b>13251</b>
<b>BARTETZKO</b>	<b>M.O.</b>	<b>SQNLDR</b>	<b>ASF-OIC</b>	<b>13263</b>
<b>BOORMAN</b>	<b>D.</b>	<b>SQNLDR</b>	<b>AVSF-OIC</b>	<b>13110</b>
<b>HENRY</b>	<b>R.T.</b>	<b>SQNLDR</b>	<b>SRPROJ-OIC</b>	<b>13192</b>
<b>FLATLEY</b>	<b>G.</b>	<b>SQNLDR</b>	<b>LSD-OIC (XO)</b>	<b>13156</b>
<b>MAHONEY</b>	<b>D</b>	<b>SQNLDR</b>	<b>TF30PROJ-OIC</b>	<b>13222</b>
<b>GUNSON</b>	<b>T.E.</b>	<b>SQNLDR</b>	<b>SEF-OIC</b>	<b>13019</b>

## LOGISTIC SUPPORT AND DEVELOPMENT FLIGHT

Logistics support to the CO and other squadron executives. Compilation of reports, establishment and manning management, common or fleet logistics management.

FLATLEY	G.	SQNLDR	OIC	13156
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## FINANCIAL MANAGEMENT

Provision of financial management reporting, monitoring of expenditure and the provision of financial advice to SRLMSQN management, claims certification, Foreign Military Sales case management, MRRL activity and SDSS activity standards.

HEBEL	S.C.	MISS	FINLSA	13163
KIJASHKA	E.A	MRS	FINMAN	13186
THOMSON	C.S	MRS	FINMAN1	13186
CARPENTER	B.D.	FSGT	FINMAN1A	13152
DRYSDALE	J.	CPL	FINMAN3	13186
PRESTON	R.S.M	SGT	FINMAN2	13164
WILLIAMS	E.	MS	UNDA/AOG COORD	13163

## LOGISTICS ADMINISTRATION

Squadron executive support, personnel administration, registry functions, T & S, visits and Squadron logistics requirements.

GRAHAM	C.	SGT	LOGADMIN	13152
DAVEY	M	MRS	LOGADMIN1	13151
MCDUGALL	J	LAC	LOGADMIN2	13151

## PUBLICATIONS

WATT	L.A	MR	PUBS1	13161
KERSLAKE	V.L.	MISS	PUBS3	13162
FINLAY	A.G	CPL	PUBS4	13159
SIMMONS	H.H.	MR	PUBS2	13158

## QUALITY MANAGEMENT SYSTEMS & TRAINING

Implementation and maintenance of Quality Systems, provision of training and co ordination and publication activity support to Technical Publication sponsors.

HOLLAND	K.D.	MR	OICQMS	13049
MCNAMARA	O.	WOFF	QMS1	13158
JONES	B	MISS	QMS2	13158

## CATALOGUING

Provisioning of cataloguing services and item identification.

CLARK	R.	MR	CAT1	11515
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## DEPARTMENT OF QUALITY ASSURANCE ORGANISATION REP

HILL	G.B.	MR	QMS DQAOR	13157
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## PERFORMANCE EVALUATION & PLANNING

Development, Maintenance and analysis of performance measures and indicators, facilitation of business planning and compilation of logistics performance reports.

TYSHING	M.	FLTLT	PEPR	13153
PETHRICK	V.	WOFF	PEPR1	13154

FOLEY	G.	MR	PEPR2	11549
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**UNIT SECURITY OFFICER**

Provision and maintaience of security standards within SRLMSQN

CAIN	G	MR	USO	11538
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**COMPUTER SYSTEMS ADMINISTRATOR**

Provision of Local Area Network computing support and LAN administration.

DIPROSE	K.E.	FSGT	CSA	13165
STEWARD	C.	CPL	CSA1	13165

**F111 FLEET PLANNING AND ANALYSIS**

F111C Fleet maintenance planning and analysis. RI co-ordination and development of systems.

CAIN	G.L.	MR	FPA	11538
McNEICE	B.R.	MR	FPA1	11514
NELSON	S.	MR	FPA2	13266
ASHDOWN	P	MR	FPA2SUP	13266

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## CHIEF ENGINEER

Provide engineering expertise in the delivery of integrated logistics for the F-111 aircraft and other technical equipment which are the logistic management responsibility of SRLMSQN. Ensure that design conducted on relevant systems is undertaken by authorised agencies. Ensure that relevant systems are technically acceptable to the RAAF by ensuring that authorised design code standards are not compromised, specifications are authorised within such codes and designs are adequately qualified.

TREW	T.	WGCDR	CENGR	13251
VACANT			ASSIST CENGR	

## SYSTEMS ENGINEERING

Configuration management; type record maintenance, technical data library, configuration control board; maintenance requirements determination and sponsorship of TMP'S. Management of EMP and CMP. Development of EMS procedures. Conduct of configuration management audits (PCA/FCAs).

GUNSON	T.	SQNLDR	OIC	13019
HARDS	B.J.	FLTLT	GSYS	11516

### Configuration Management Cell

#### Configuration Manager

STI's, MOD's, RFD'Ws, and defect registration. Control and maintain data bases associated with Product Configuration Documentation (PCD) Database.

KELLY	P.E	FSGT	CM	13095
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### Weapon System Database Management

#### Database Manager

HODKINSON	P	FSGT	DBMAN	13095
HARPER	A.B	SGT	DBMAN1	13095

### Maintenance Requirements Determination

Implementation of EE400/401 amendments. Review of PSS and TMP using CAPLOG.

Le BHERZ	R.L	SGT	MRD1	13074
JONHSON	A.L	SGT	MRD2	13074

### Technical Data Library

Maintenance and control of technical data and drawings.

HALLIWELL	L.	MR	TDLIB	11517
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### Engineering Systems Manager

Documentation of procedures in support of F-111 engineering systems, sponsor for F111 weight and balance.

SLATER	L.	MR	ESM	11551
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### Weapon System Data Manager

VACANT		FLTLT	WSDM	
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### PCD Maintenance

Indexing and storage of PCD within the Technical Data Library. Control and maintain database associated with PCD.

## AEROSYSTEMS FLIGHT

Logistics management of the F-111 weapon system airframe and associated systems.

BARTETZKO	M.	SQNLDR	OIC	13263
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### AFS-AIRFRAME ENGINEERING

Airworthiness and engineering management of the F-111 airframe and airframe systems.

WHITE	S.A	FLTLT	AFENGOIC	13048
REES	D.	MR	AEROSTRUCTURES	13048
HOUGHTON	D.	FLTLT	AFENG1	13147
LINDSAY	A.	WOFF	AFENG2	13147
CHARLES	M.A.	FSGT	AFENG2A	13115
KLINCKE	RC	SGT	AFENG2B	13115
MARSHALL	J.	CPL	AFENG2C	11535
WILSON	R.	WOFF	AFENG3	11535
WILLIAMSON	M.	SGT	AFENG3A	11536
HICKING	J.	CPL	AFENG3A1	11536
TARMO	A.	CPL	AFENG3A2	11535

### AFS - AIRFRAME SUPPORT

Reprovisioning of spares, management of repairable items and assessment of all items associated with the F111 airframe and associated systems.

DOWNS	K	FLTLT	OICAFSPT	13205
VANDENBERG	M.	FSGT	AFSPT1	13205
GOOS	D.J.	SGT	AFSPT1A	13166
THEMOR	W.W.	SGT	AFSPT1B	13226
WEST	J.J.	SGT	AFSPT1C	13230
KING	J.A.	MRS	AFSPT1D	13226
DUNNING	L.M.	MISS	AFSPT1E	13230
ORWIN	M.	SGT	AFSPT2	13219
JESSUP	P.	CPL	AFSPT2A	13166
DUCKWORTH	M.	CPL	AFSPT2B	13219
PERCIVAL	P.	CPL	AFSPT2C	13205
DAVIES	S.	SGT	AFSPTSUP	13216

### ASF - ENGINE SUPPORT

Airworthiness and engineering management of Pratt & Whitney TF-30 engines. Also responsible reprovisioning of spares, management of repairable items and assessment of all items fitted to the TF-30 engine.

ELLWOOD	J	FLTLT	OIC ENGSPT	13240
STEVENSON	R	SGT	ENGSTPT1A	13257
STUBBINGS	I	ASO3	ENGSTPT1B	13257
GURR	C.	SGT	ENGSTPT1C	13233
CARTER	MA	ASO3	ENGSTPT1D	13233
BOND	R	MR	ENGSTPT2	13248
HUNT	P	SGT	ENGSTPT2A	1323413243
THOMSON	P.J.	WOFF	ENGSTPT2E	13240
PASSMORE	G	WOFF	ENGSTPT2H	11537
WILKINS	J.	CPL	ENGSTPT2J	13191
RODGERS	G.J	SGT	ENGSTPT3	13234
SZYMANSKI	M	CPL	ENGSTPT3A	11537
HUGHES	L	SGT	ENGSTPT3C	13248
BAKER	B	CPL	ENGSTPT	11552
ELSON	K	SGT	ENGSTPT	11552

## AVIONICS SUPPORT FLIGHT

Logistics management of the F-111 weapon system integrated avionics.

BOORMAN	D.	SQNLDR	OIC	13110
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### AVSF - AVIONICS SUPPORT SECTIONS 1 & 2

Logistics management of F-111 Navigation , Flight Control, Reconnaissance, Power Distribution, Electronics, Instrumentation and Oxygen Systems. Logistics management of F-111 communications, fire power control, radar and radio navigation, Pavetack and ECM systems.

ARMBRUST	C.D.	MR	AVSPT1 & 2 OIC	13180
CAVANAGH	P.F.	MR	AVSPT1A	13171
MORRIS	C.S.	SGT	AVSPT1B	13175
WHITE	C.C	CPL	AVSPT1BSUP	11544
WILSON	G.	SGT	AVSPT1C	11504
WEBB	H.A.	FSGT	AVSPT1D	11509
SCOTT	M.	SGT	AVSPT1E	11503
GRAYSON	P.J.	SGT	AVSPT1F	13188
ROTHNIE	S.P.	MISS	AVSPT1G	13199
DUHAU	R.J.	MR	AVSPT1H	11500
DARBY	S.A.	SGT	AVSPT1I	11501
LAIRD	J.	SGT	AVSPT1J	13170
WILSON	R.W	FSGT	AVSPT1K	11548
MUNSTER	S.M	CPL	AVSPT2ASUP	11505
HUTCHESON	M.	SGT	AVSPT2B	13183
BEALE	R.	SGT	AVSPT2D	13201
DUNKS	I.	SGT	AVSPT2E	13185
WORTHINGTON	S.	MRS	AVSPT2F	11506
SENJOV	J T	MR	AVSPT2G	13201
KUNDE	A.	SGT	AVSPT2H	11547
WALKER	M.	SGT	AVSPT2I	11507
GROSSER	T.	CPL	AVSPT2HSUP	11546

### AVSF - AVIONICS SUPPORT SECTION 3

Weapon delivery and life support system logistics management in support of the F-111 weapon system.

SCOTT	J.W	FLGOFF	AVSPT3 OIC	11510
WRIGHT	R	SGT	AVSPT3-	13866
HOSKIN	B	FSGT	AVSPT3A	13169
HULL	M	SGT	AVSPT3B	11542
WEBB	S.T.	FSGT	AVSPT3D	11540
JACKSON	B.A.	CPL	AVSPTSUP	13172
CASH	D	ASO3	AVSPT3F	11542
RIDLEY	P	CIV	AVSPT3G	13934
MCALISTER	B	FSGT	AVSPT3ASUP1	13172

#### **AVSF - AVIONICS SUPPORT SECTION 4**

Logistics management of all F-111 support equipment including airframe, engine and avionic GSE, ATE, F-111 mission simulator, MDPE and other miscellaneous systems.

PHILLIPS	L.	FLTLT	AVSPT4 OIC	11511
HARPER	P	FSGT	AVSPT4A	13131
CHEYNE	P. N	SGT	AVSPT4B	13232
HASSALL	J	SGT	AVSPT4C	11543
LUCHT	S. V.	SGT	AVSPT4D	11502
GOODWIN	H. M.	MRS	AVSPT4E	13167
GRAY	A	SGT	AVSPT4F	13168
OTAGO	K. T.	CPL	AVSPT4G	13190
AYLOR	J	CPL	AVSPT4H	11508

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## STRIKE RECON PROJECTS

F-111 major projects, currently AUP, ATE-R, simulator and F111G.

HENRY	T.	SQNLDR	OIC	13192
BROWN	M	FSGT	SRPROJ1	13189
SWALES	A	SGT	SRPROJ1A1	13190
CUTLER	L	SGT	SRPROJ1A2	13198
REYNOLDS	P	SGT	SRPROJ2B	13195
GILES	E	SGT	SRPROJ2B2	13194
JUST	R	SGT	SRPROJ2B2	13194
CONVENTRY	C	SGT	SRPROJ2B3	13259
MARTIN	B	SGT	SRPROJ2B5	13195
JONES	D	CPL	SRPROJ2B6	13194
PAINE	I.M.	SGT	SRPROJ3A	13196
THORPE	J	SGT	SRPROJ3B	13196
POWER	R.T.	SGT	SRPROJ3D	13197
RHODES	J.M.	LACW	SRPROJ3D2	13197
PILBEAM	I.C.P.	FSGT	SRPROJ4	13193
SKINNER	M.A.	SGT	SRPROJ4C	13193
GADELETA	J	CPL	SRPROJSUP	13259
EDWARDS	E	FSGT	F111GELO	13187
WITTMAN	A.	CPL	SRPROJSUP	11520
REYNOLDS	P	WOFF	DFCSMGR	

### SRPROJ (F111G LOAS PROJECT)

MURPHY	G.	WOFF	GLOAS	13093
CLAYTON	B.	SGT	GLOAS	13093
OXLEY	G.	SGT	GLOAS	13093
WOODWARD	P.J.	SGT	GLOAS	13093

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## TF30 PROJECT CELL

Manage the introduction of the TF30-P-109 engine into the F111C aircraft.

MAHONEY	D.	SQNLDR	OIC	13222
NYE	P	FSGT	TF30-PROJ1	13270
McNAMEE	D.L	SGT	TF30-PROJ2	11518
PODGER	G	CPL	TF30-PROJ2A	11519
DOYLE	P.J	SGT	TF30-PROJ3	11521
TULLIS	B.J.	SGT	TF30-PROJ4	11520
MCPHERSON	I.R.	CPL	TF30-PROJ4A	11516

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## F111 SUPPORT STUDY TEAM

VALCIUKAS	S.	WGCDR	OIC	13054
PERTICATO	R.	SQNLDR	FSST-LOG1	13098
BENFER	M.	SQNLDR	FSST-ENG1	13064
HOOPER	D.	WOFF	FSST-ENG2	13084
POLLOCK	K.M.	MRS	FSST-FIN	13102
MACDONALD	S.	WOFF	FSST-LOG2	13101