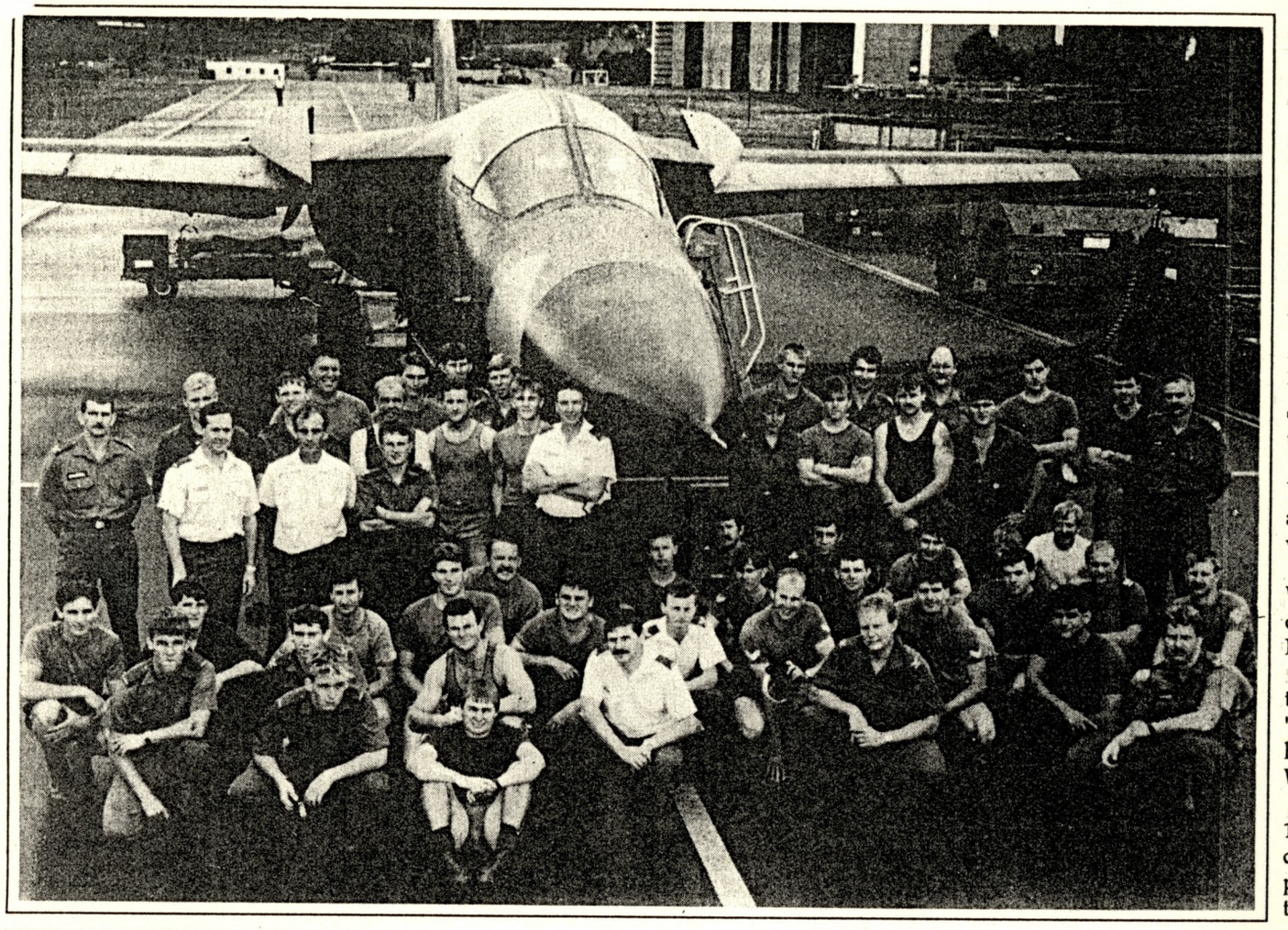


First 20 week R5 service

F111 aircraft A8-142 took off last week on its test flight just 18 weeks after it entered the R5 major servicing programme at No 3 Aircraft Depot.

This is the first F111 to be serviced under a new production system that halves the time spent in the hangar. Two maintenance teams working an extended daily shift achieved the deadline with time to spare.

Previously, two teams worked on two aircraft. Under the new system, an additional F111 is available on the flight line and the aircraft being serviced returns to flying earlier.

The officer-in-charge of Production Wing at 3AD, Wing Commander Norm Watt said that the successful test flight pointed to the dedication of the R5 team and the supporting sections.

Computer aided project management allowed tasks to be planned and scheduled efficiently. "Everyone involved knew beforehand when tasks had to be completed to avoid delays", WGCDR Watt said.

With the introduction of 501 Wing in February 1992, all major servicings (R3, R4 and R5) will be carried out by the Wing. The success of the R5 programme allows a flow on to the new organisation. "No 482 Squadron introduced a similar maintenance system to ours", WGCDR Watt said. "501 Wing will allow us to shift manpower on the three types of major servicings."

Another first was the complete overhaul of the F111 fuel control system -- the first to be overhauled in the past 18 months. Postings of experienced people led to a temporary loss of this capability", WGCDR Watt said. "The test pilot reported one of the smoothest engine test flights on an F111."

Planning and predictable tasking are the hallmarks of the new system that has cut overtime dramatically and increased productivity. "Personnel may work outside the daily shift but they are notified beforehand and can make arrangements for personal time, etc", WGCDR Watt said.

Other contributions by 'subcontractors', including the development of new repair techniques for unexpected corrosion in the wings, point to the planned team approach being a successful formula. "We want to make sure that when a task is allocated the team has the materials, the time and the expertise to do it on time", WGCDR Watt said.

❑ *John Armstrong*

RAAF LOGISTICS COMMAND

WSLM NEWSLETTER

NO 1

11 JUN 91

A series of Newsletters to inform LOGCOM personnel on the definition, implementation and opportunities of Weapon System Logistics Management in LOGCOM.

COFS-LC

WHAT IS A WSLM?

WSLM is Weapon System Logistics Management. WSLM represents the functional and structural process changes which are being designed to increase this Command's ability to provide customer service, to improve our resource management and to provide our personnel more responsible and satisfying jobs. This arrangement will provide more focus on managing for required outcomes in operational activity at minimum life cycle costs. The new organizational entity created by implementing WSLM is the Logistics Group (LG).

SUPPORT GROUP ERA

The Hargreaves Report in 1980 recommended the reorganization of HQSC's inventory management into weapons system support groups instead of the then commodity/ specialist approach that was providing focus on customer and weapons systems requirements. While the establishment of the SGs and our refinement of inventory management procedures during the 80s increased WS focus, our efforts to fully integrate all the logistics activities with a WS focus proved more difficult.

WHY CHANGE?

There have been a number of internal and external environmental changes which have pressured us to change, as well as giving us the opportunity to implement our initiatives. At the top of the list is the development of readiness objectives for operational force elements and the current activity to develop sustainability objectives. The implementation of Programme Management and Budgeting with other financial improvements, are equally significant to the definition of logistics needs and resources to meet operational requirement. In delivering logistics support, our operations in HQLC are not easily understood by our customers. Further they are confused by the number of interfaces required by our present arrangements. RAAF acceptance of the disciplined systematic approach to logistics determination (Integrated Logistics Support ILS) throughout the full life of equipments is timely to our endeavours to emphasise qualitative evaluation of weapons systems and logistics delivery. Our present processes have undue reactive emphasis.

To satisfy our drive for quality support, a pro-active approach encompassing these opportunities is essential to deliver affordable support in the future. With Logistics Command's emphasis and practice of the quality approach many HQ personnel have seen, not only the need, but the way to restructure our activities and therefore our organizational arrangements to provide:

- Opportunities to increase the value of each person's contribution through task and process redesign.
- Opportunities for personnel to be authorized to implement with minimum review.
- Opportunities to achieve more comprehensive logistics solutions that have prospect of support at lower cost.

Increasingly available computer assistance furthers the opportunity to concentrate more on the challenging and less on the mundane aspects of our work. Overall a strong need to improve and a number of solutions have been developed.

WHAT'S HAPPENING

AIRCRAFT WEAPON SYSTEM SUPPORT

Mid last year a senior level group was required by AOCLC to develop the WSLM concept briefed to HQLC personnel in Jul 90. The need to make a profound step away from our functional organization was an early conclusion, particularly the search for a solution capable of providing integrated weapon system management meant that fundamental changes on how engineering support, maintenance services and project support were to be provided.

The Steering Group agreed that the introduction of WSLM was so important that a longer period of definition and development should precede full implementation. For this purpose the F111 aircraft was selected and the development of the Strike Reconnaissance Logistics Group (SRLG) was initiated. Last November AOCLC agreed the basic division of responsibilities between Logistics Groups and other elements of the HQ. A briefing to HQLC personnel last December laid out the way ahead. The Branches of the HQ were reformed in February this year to facilitate the restructure to occur through this year. Since then a working party which has representatives of each major functional organization has been defining all the logistics processes required to support weapon systems and the shape, size and functions of the SRLG.

What's to Occur

The major activities which must be undertaken before the SRLG can be brought into being are defining the task groupings, selecting people for jobs, defining the necessary training, setting up office accommodation, developing a SRLG implementation plan and establishing monitoring procedures.

The SRLG Start

The main determinant of a start date for the SRLG is the availability of suitable accommodation. Some weeks ago 17 Jun 91 was established as the start-up date. While some elements may be transferred by that date, a date in July and August now appears more likely, now that an accommodation solution has been identified.

What are the Main Parts of the Pilot SRLG Organization

The SRLG will bring together under a Logistics Group Leader multi disciplined service and civilian personnel drawn from SG7, Engineering, Projects and Maintenance Management. The LG will start out with about 80 personnel.

FUTURE ORGANIZATION GROUND SYSTEMS AND COMMON INVENTORY MANAGEMENT

In parallel with the reorganization of weapons systems, ground equipment and commodity focused SGs within the present ESS Directorate are also being regrouped with elements from Engineering, Projects and Maintenance Management to provide more logical groupings in keeping with the WSLM structure to optimise logistics support. Five Logistics Groups (LGs) are proposed as follows:

LG3 - Motor Transport Marine Craft and Arrestor Barriers

LG5 - Ground Telecommunications, Radar, Computers and Photographics

LG6 - Common Ground Support Equipment

LG8 - Technical Commons where management by another LG is not appropriate, plus all common aircraft fit commodities.

LG9 - Clothing and Fabrics, Non-Technical and Domestic Items.

INTEGRATED LOGISTICS SUPPORT IMPLEMENTATION PLAN

AFTI LOG 4/91 installed the Integrated Logistics Support (ILS) discipline as the RAAF's standard approach to logistics management. A HQLC draft plan, the product of extensive research by DILSS-LC and DLPD-LC has recently been released for comment. The plan was developed in concert with WSLM initiatives, which will be the crucible in which RAAF ILS will be implemented. The AFTI requires HQLC to develop Logistics Support Analysis (LSA) methodologies and systems and to implement them by the construction of LSA Records (LSAR) for existing weapon systems. The availability of LSARs will allow the LGs to establish credible links between resource inputs and operational preparedness outputs thus promoting cost effectiveness measurement capabilities.

MAIN PLAYERS - SO FAR

WSLM Implementation Management:

AIRCDRE Belton	COFS-LC
Mr King	DDEV-LC
WGCDR Hurley	SOWSLMPROJ

WSLM Steering Group:

AIRCDRE Belton	COFS-LC
AIRCDRE Giles	DGELS-LC
AIRCDRE Newton	DGLOGOPS-LC
GPCAPT Chandler	DLPE-LC
Mr Wurf	DRP-LC
GPCAPT Cottrell	DSS-LC

WSLM Aircraft Working Party:

GPCAPT Chandler	DLPE-LC
WGCDR Doak	DGELS-LC SUP
LTCOL Stevens	SG7
WGCDR Hurley	SOWSLMPROJ
SQNLDR Secker	RO4B
SQNLDR Fletcher	PROJ3B
Mr Nunn	FIN2
FLTLT Caterer	SG7

Ground Equipment and Commons Logistics Groups Working Party

GPCAPT Dallimore	DTELENG-LC
GPCAPT Judge	DESS-LC
WGCDR Willis	A/DAEENG-LC
WGCDR Trench	SG8
Mr Forristal	SG3
WGCDR Smith	SG5
SQNLDR Hingston-Jones	SG9

SoSD

RAAF LOGISTICS COMMAND

WSLM NEWSLETTER

NO 2

13 JUN 91

This Newsletter, the second in a series designed to inform LOGCOM personnel on the definition, implementation and opportunities of Weapons System Logistics Management in LOGCOM provides an overview of the arrangements to be adopted to restructure the HQLC engineering function.

COFS-LC

RESTRUCTURING THE HQLC ENGINEERING FUNCTION

Following AOCLC's determination in Nov 90 that HQLC would be restructured towards a WSLM model, a review has been conducted within DGELS-LC Branch to resolve how the restructuring of the HQLC engineering function can be achieved to ensure the full management effectiveness and authority of the WSLM Groups while maintaining and improving the quality of the primary engineering functions required of the Command. An arrangement which will satisfy these goals has now been determined, and as a conseq-uence the HQLC engineering function (LOGENG for the purpose of this newsletter) is about to undergo some significant changes, perhaps the most difficult since the inception of the Command in 1959.

The purpose of this newsletter is to provide information on the events about to occur in LOGENG, give some insight into their basis, and to indicate that the projected outcomes are not only intended for the betterment of the RAAF, but also to create clearer opportunities for all technical members to use their individual capabilities to meet the needs of the organization.

HISTORY

To briefly recap some history, the HQLC logistics support organization remained essentially unchanged for many years up to the 1970s. It was a heavily 'partioned' organ-ization comprising engineering (LOGENG), spares assessing, repair and overhaul, provisioning, purchasing etc, and within each of these elements were further repetitive partitions into groupings of airframes, engines, electrical etc. HQLC LOGENG has clearly reflected this organizational approach.

Nevertheless, in the 1980s some changes were made in LOGENG. Helicopter airframes and Army aviation airframes were transferred from AIRENG1 to AIRENG2 as a means of balancing workload, but breaking the traditional groupings. The Hornet Engineering Section (HES) developed on a multi-discipline basis, principally as a means of ensuring intra-system dependencies were cohesively managed and configured. The systematic analysis and publication of maintenance requirements also developed in AIRENG3, and more recently fatigue and materials/process engineering capabilities have developed in AIRENG4. Arrangements within DAEENG have varied between system and weapon system management models with some matrixed features usually evident. These developments have occurred in isolation and for valid reasons appropriate at the respective times, but have not in them-selves prompted a more comprehensive examination of the role and responsibilities of LOGENG as a whole.

MANAGEMENT BY WEAPON SYSTEM

In Nov 90, the decision was taken by the AOC to proceed towards the development of the weapon system focused management structure, now generally referred to as Weapon System Logistics Management (WSLM). There are at least three principal imperatives behind the decision. Firstly there is the need to ensure that the logistics support provided to the operating customers is indeed quality support that is squarely aligned with the customers' real needs. The RAAFQ initiative supports the imperative. Secondly, there is PMB and the need to ensure

that financial and other resource expenditures are soundly and equitably made on the basis of ADF and RAAF priorities. Finally, Integrated Logistics Support brings a new arena of management methodology to systematically test and analyse expenditure against a particular system or set of systems, and to measure the performance of systems and logistics support arrangements against defined objectives.

These imperatives of themselves however, do not necessarily define a new organization. Whilst the 1970s organization created very little focus on major systems in an overall management sense, a complete inversion or vertical slicing of that old organization may simply generate an inverse or oblique set of problems. The 1970s formation of the Support Groups has gone some way to satisfying customer alignment, but has not of itself created a nucleus of management methodology to fully realise the potential of the Command. The challenge is to create such a management and work structure.

WSLM AND ENGINEERING

The difficulty which faced HQLC was to determine how engineering and WSLM could best be accommodated within the new structure. Where earlier changes to the LOGENG Branch (and to the Command for that matter) have been achieved by creating or shifting complete CE positions, tasks and functions, the changes now envisaged could not be so readily accomplished. An examination of present engineering within the Command has been conducted, and has come to two broad conclusions:

a. that the core contribution of engineering to logistics is a particular kind of knowledge and decision making skill which, as an expensive and cornerstone resource, must be carefully nurtured, assigned and controlled; and

b. that HQLC LOGENG has traditionally performed a mix of engineering and management responsibilities which are divisible for the purpose of achieving the WSLM arrangements.

ENGINEERING - A CORE CONTRIBUTION

An examination of Engineering within the Command has not been made easy by the fact that the RAAF has never particularly isolated the term engineering, and neither defined it nor given it prominence. The term technical has had wider and more general usage embracing engineering, maintenance and quality assurance and management of these functions (refer DI(AF) TECH 1-1) and the term engineering has been used as required within this context.

In its basic sense engineering is 'an application of science' and it is from this basis that engineering will now be accommodated within the Command. Some important observations on this line of thought are as follows:

a. that <u>all</u> technical staff, to a greater or lesser extent, apply engineering science in their daily work;

b. that there is variability amongst technical staff in both the desire and capacity to apply that engineering science;

c. that the capacity each individual exercises in the application of engineering science has been hard won, both in terms of time and cost to the RAAF and in terms of labour and dedication on the behalf of the individual; and

d. that the collective capacity of the Command to apply engineering science must be carefully maintained, assigned and controlled for maximum effect, ie to bring an optimum and uniform application of science to bear as and when required, and to do so at the least cost but optimum benefit to the organization and to the greatest satisfaction of the individual.

DIVISION OF RESPONSIBILITY

HQLC LOGENG has traditionally carried a mix of responsibilities in three broad ways:

a. acting as a Design Authority in its own right, empowered to design, authorise and direct manufacture of either new equipment or modifications to existing equipment;

b. acting as a surveillance authority, principally in the area of airworthiness; and

c. acting as a project office, specifying and managing in the fullest sense, all aspects of selected activities having a technical basis.

To separate the core 'application of science' from these responsibilities is not straightforward and has not been previously attempted in the Command. The establishment of Unit Engineering Sections at some units is perhaps the nearest similar conceptual arrangement in which the RAAF has separated engineering from other work, although DI(AF) TECH 2-10 is not particularly explicit as to the intended capability and limitations of those sections. Again in broad terms only for the purpose of this newsletter, the proposed division of responsibility for the separate new specialist 'Engineering' staff to provide support of the WSLM environment will be as follows:

a. The role as engineering Design Authority will be more explicitly defined and retained as will be the relationship with other DAs (in particular the prime equipment manufacturers) and Design Approved Contractors (DACs). Configuration control and its fundamental link to design processes will necessarily remain an Engineering staff responsibility (whereas configuration management will be a role of the WSLM).

b. The Engineering role as a surveillance body will continue but only insofar as matters arising from, or required to be rectified by, engineering processes are concerned. The Engineering staff will determine and apply minimum engineering standards for airworthiness and safety, but only apply such engineering in support of mission-

worthiness and cost-effectiveness as determined by the WSLM. Other technical matters affecting airworthiness, mission-worthiness or cost-effectiveness such as maintenance management will not be addressed by the staff, except to the extent of establishing appropriate standards.

c. The separate Engineering staff will not engage in management activity that is specifically linked to a weapon system, except as a result of tasking by WSLM staff. As a general principle, the Engineering staff will only be involved in management to the extent necessary to effect the business of making engineering decisions. Provision of services such as the drawing office, AESF, and the development of generic programmes with DSTO will continue as ELS Branch management functions.

The residual technical activities will rest with technical staff in the WSLM groups. In some sectors this may amount to little work, in others, there will be a substantial amount. In either case, separating both processes and elements of processes to make the division of responsibility will require considerable effort and thought.

The totality of how WSLM Logistics Groups will function is not yet entirely clear, but a rigorous methodology, including Logistics Support Analysis (LSA) will have a substantial influence on the day to day work and the structure and composition of the WSLM organization. It will be the responsibility of the WSLM technical staff to identify, research and provide resources for those technical decisions necessary to achieve effective and efficient logistics support and to facilitate timely response from the Engineering staffs.

From an employment perspective therefore, the Engineering staff should be attractive to those members wishing to pursue the more pure aspects of engineering, whereas the WSLM centres should be attractive to those more inclined to exercising logistics analysis and management skills.

SCOPE OF TASK

The scope of the task to separate Engineering and technical management responsibilities should not be underestimated. There are at least 50 general subject areas engaged in by the present LOGENG which need to be examined, very few of which can be easily divided according to the existing framework of instructions. There is also the problem that the numbers of personnel within some sections of LOGENG is very small. Some work may not be transferable until sufficient staff are available from other sectors of the Branch, and some work may simply have to go on hold until the transition process is near complete. Some present areas of engineering work supported by small staffs will not be divisible between various weapon systems or between Engineering and WSLM centres, and will remain basically intact within ELS Branch. For other areas, a degree of engineering authority may be delegated to WSLM staff (as is already the case for certain part

substitutions). Finally, real people with real circumstances will need to be accommodated as far as practicable. Already there are some Engineering staff expressing a desire to remain in a more engineering oriented job, while others are becoming attracted to the opportunities that the new and potentially powerful and dynamic WSLM groups will create. Where possible the wishes of the staff will need to be accommodated.

WAY AHEAD

There is much work to be done to implement the WSLM concept, and this newsletter can achieve little more than introduce the concepts developed to properly accommodate both basic engineering and weapon system technical management requirements. Essential steps to be completed at least include:

a. fundamental policy and terminology agreements with Air Force Office, particularly in engineering and airworthiness (this is important as AFO is in the process of revising a range of relevant policy documents);

b. identification of all involved processes and at least basic divisions of responsibilities to be struck within those processes.

c. determination of manpower needs to meet current and projected workload according to the new responsibility allocations, noting that the restructure cannot result in additional manpower; indeed, some savings are anticipated;

d. selection of personnel to occupy the newly created positions;

e. determination of a transition sequence to ensure there is no loss of control or continuity of essential tasks; and

f. allocation of appropriate accommodation and provision of necessary support facilities.

Work is proceeding, via a full-time working party led by DLPE-LC, toward establishment of the pilot WSLM group for the F111 aircraft and termed the SRLG, in Jul 91. The delay from earlier intended start dates has allowed resolution of difficulties which became evident principally in terms of the restructuring of the traditional HQLC engineering activities. The time has been well spent, and the outcome, together with additional planning and effort which has been possible in relation to wider WSLM activities and the provision of LSA tools has positioned the pilot SRLG to be a more effective and mature operation, with potential for greater flow-on benefits as we plan for total transition to the WSLM structure.

. The major contribution to this Newsletter was by WGCDR Doak.

RAAF LOGISTICS COMMAND

WSLM NEWSLETTER

NO 3

26 AUGUST 1991

The third in a series of Newsletters to inform personnel of the implementation of Weapon Systems Logistics Management in HQLC. This issue covers formation of the TF30 Customer Support Section and the OSI Review of Civilian Classifications.

SOWSLMPROJ

DEVELOPMENT OF THE STRIKE RECONNAISSANCE LOGISTICS GROUP

TF30 CUSTOMER SUPPORT SECTION

Development of the SRLG is well under way. The TF30 Customer Support Section (CSS) has already been formed under the leadership of FLTLT Trevor Plant. This Section is being utilized as a mini-pilot to allow development of new labour saving and efficient processes for the delivery of cost effective, quality, logistics support to our customers, the F111C operators. A number of briefings and brainstorming sessions have convinced the members of the Section that the aims of WSLM are in fact **INTEGRATION** of the various logistics elements and not just another HQLC relocation.

THE LG ORGANIZATION

To aid integration of logistics processes, the aircraft LGs will be organised in a flat organizational structure format within which teams of not more than ten personnel which will include analysis, RI management, engineering support and spares inventory manager (buyer) elements will be formed. Each team, to be known as a Customer Support Section (CSS), will be responsible for the total logistics management of a defined number of LOAS 'trees' within the LG. The proposed structure of the SRLG which includes a Systems Analysis and Management Section, Engine, Airframe and Avionic CSSs and a Project Section is shown at Page 3.

PROCESS AND PROCEDURE DEVELOPMENT

As always when considering a new way of doing business, the first decision to be made is 'Where do we start'. The staff of the TF30 CSS decided on the logical approach of identifying work processes which cut across all sections of the current SG activity. The processes identified were:

* Modifications
* ORSUS
* Substitution of Part Numbers
* LOAS Entries
* STIs
* Defect Reports
* MRLL/ROR
* SQ14s (Prov/Assessor)
* Quarantine Accounts

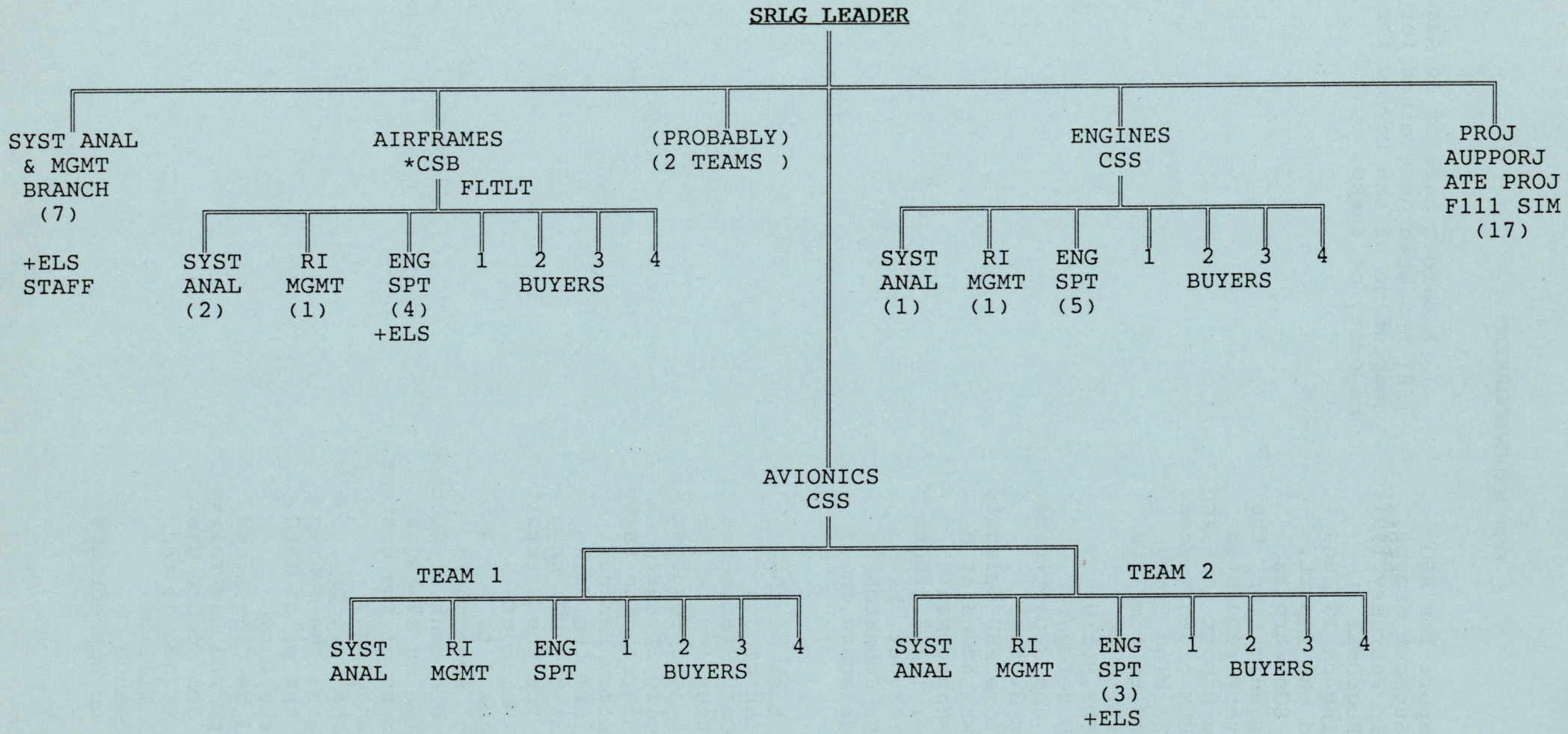
Of the above listing, 'ORSUS' was chosen as the initial process for review as ORSUS resolution can involve LG Section, SPTO2 and LOGELS staff. Using the quality approach, the team have adopted flowcharting and brainstorming techniques to refine work practices. When the new processes are defined, procedures and training packages will be developed with the assistance of DLPD-LC staff. The procedures when proven during the pilot will provide the basis for the reorganization of the remainder of HQLC into WSLM format.

OSI REDEVELOPMENT

The OSI Report for ASO staff in HQLC Support Groups was finalised in February 1991. The Victorian Regional Committee meeting on 18 June 1991 considered the report, however as the SGs were in process of reorganization, the Regional Secretary requested a review of the Report to align with the new WSLM organization. An Industrial Working Party (IWP) was formed to complete the task consisting of SOWSLMPROJ, WGCDR Hurley, a permanent PSU delegate Ms I. Johnston and a part-time PSU delegate Mr G. Earl. A second part-time PSU delegate Mr J. Collins was added at a subsequent PSU/Management meeting to cover 16/18 Albert Road. At PSU request, Mr Earl replaced Ms Johnston as the permanent delegate on 1 August 1991.

The major task of the IWP is definition of Job Descriptions, Duty Statements and classification levels for the multi-skill jobs required under OSI and also integral to the WSLM concept. The tasks of Spares Inventory Manager (Buyer) which form the bulk of ASO duties in the LGs have been developed for the aircraft LGs, copies of which are provided at Pages 4 to 7. A 'brain-storming' session is planned for development of Ground/ Commons LG duties on 22 August 1991. Development of the Systems Analysis and Management (ADMIN/FIN) tasks will be pursued as soon as the duties are defined in the pilot SRLG. On completion the Duty Statements will be classified against the approved Australian Public Service Job Second Tier Classification Standards and recommendations will be forwarded to Defence Establishments on appropriate levels.

A target date of 30 August 1991 has been determined for completion of the review for the majority of tasks.



* CSS CUSTOMER SUPPORT SECTION

Department of Defence	Date	Pos.No.
DUTY STATEMENT	Classification: Administrative Service Officer Class 1	
State: Victoria	Local Designation:	
Division: Headquarters Logistics Command	Creating Auth. No. Date Ref.	Current Auth. No. Date Ref.
Branch: Logistics Operations		
Directorates: Weapon Systems Logistics Groups	Number of Subordinates:	

Imm.Sup. FSGT/ASO3 P.N. Highest Sub. P.N.

Duty No.	TRAINEE BUYER
1.	Undergo training in all aspects of buying activity.
2.	Process documentation requiring the use of basic buying techniques.

Highest Function - No. Most time-consuming duty:

Delegations:

Conditions:

Quals. & Exp. (other than prescribed)