

# History of a History: The Woomera Story

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**SUMMARY** The paper discusses the changing approach made to writing for publication a history of a major enterprise: the UK/Australian "Joint Project" agreement (1946-80), which established and operated the rocket range and township of Woomera and its base at Salisbury S.A. Lessons are drawn that might be useful in other organisations contemplating histories of large-scale engineering enterprises, intended for outside distribution. The main advice is that while historical writing is to be commended it should not be entered into lightly. It needs to be properly planned at the outset, and the importance of expertise recognised. The use of a professional writer is recommended.

## 1 INTRODUCTION

The "Joint Project" agreement was first negotiated between UK and Australia in 1946, soon after World War II ended, and its main aim was to set up and operate a range in Australia for testing the new guided weapons being developed by the UK, weapons that had been used with such devastating effect by the Germans in the closing stages of the war. Within a few years several small ranges and a new town of Woomera had been created in the north of South Australia. A disused munitions factory at Salisbury had been converted into a support base and was rapidly becoming a centre for defence research and development. By the sixties, which were the peak years of Joint Project activity, the Woomera range was of world standard, stretching to the Indian Ocean and equipped with extensive electronic and optical tracking systems, communications and control equipment. It was an essential element in the development of guided weapons such as Thunderbird and Sea Dart and in the late sixties was used for testing the multinational "EUROPA" satellite launching vehicle and for launching the "WRESAT" and "Black Arrow" satellites. The Project was not only a major engineering achievement. It had a considerable economic impact in South Australia up to the mid sixties, as a major employer and as a significant user of the building and construction industries. There was also a social impact, particularly on the residents of the isolated on-industry town of Woomera. The Project continued through the seventies, but at a lower ebb because of declining UK interest in the Range. It finally terminated on 30 June 1980, by which time the remaining Australian staff had been redeployed to other defence work.

It is now almost ten years since a history of this Project was first proposed, and the approach has changed several times. In this paper five main phases have been identified, some of them split into shorter periods as shown in Table 1.

## 2 FIRST PHASE OF WORK : GENESIS AND PRELIMINARY DATA GATHERING

It was in October 1975, just after UK and Australia had negotiated an agreement to run down the Joint Project and to terminate it in 1980, that Mr A. Sharpe a senior executive of the Department of Defence in Canberra proposed that a history of the whole enterprise be written. He considered the

task important enough to warrant the full time attention of one person. The then Director of Weapons Research Establishment Salisbury, Dr M.W. Woods, supported the proposal but saw the main difficulty as finding a suitable person, who would have to be keen, to have a flair for writing, to be prepared to wade through an immense volume of records, to have a long background with the Project and to have enough time to spare. Nobody could be found to fit this well-nigh unattainable combination, and consequently it was decided to limit the work in the first phase to preliminary data gathering.

At that time there were staff with long experience in Project work awaiting redeployment to other work, following the severe contraction in Woomera trials. One of them was given the preliminary data gathering but he found it a monumental task for one man. A progress review some twelve months later reported that notes had been made on a large mass of publications, files and minutes of meetings. The notes were in great detail, as little thought had yet been given to the content of the history. The report considered that another twelve months would be needed on data gathering, and that the notes should then be reduced "to a coherent form suitable for editing and embellishment by a more professional writer". In the face of this disappointing report the work was terminated and the officer transferred to another waiting task: he was not used again on the history. His efforts were useful in later phases in that he had identified many sources, which were then collected. They were found much more amenable than the prodigious handwritten notes he had taken, intended for his own use later.

## 3 SECOND PHASE : THE COMMITTEE

The Superintendent of the Joint Project component at Salisbury revived the proposal to write a history in August 1978, following a period of sixteen months in which it had lain fallow. He canvassed his middle managers for ideas on why it should be attempted at all, for whom it should be written and the suggested style, format and content. After considering responses, the Superintendent decided on the following as the main lines for this second phase:

(a) the purpose of the task would be to prepare a historical record of the Joint Project, but with no attempt to be comprehensive;

(b) the history should be written in an interesting style, designed to appeal mainly to those already interested in the subject rather than to the general public;

(c) funds would not be available to employ a professional author, nor to use staff working full-time on the history, which "must be largely a cooperative venture, depending on those willing to contribute and able to devote part of their working (or leisure) time to the task".

A part-time committee of five was set up in November 1976 to coordinate and progress the work, to edit contributions as they came forward and later to arrange publication, which at that stage was to be done internally. Composed as it was of five people busy with higher priority tasks, the committee did not meet very often, and during the twelve months of its existence it could do little more than organise an appeal for voluntary contributors and outline for the first time the proposed contents and format of the history.

#### 4 THIRD PHASE : THE FULL-TIME TEAM

Faced once again with disappointing progress, the Superintendent decided to cut losses and replace the committee with a small full-time team to take over the coordinating, progressing and editing role. Because of the rundown, staff with a long background in the Project were again available; two were selected and they started in November 1979. One of the first actions of the new full-time team was to assist the Superintendent to revise the contents, to assess the response to the appeal for voluntary contributions and to draw up a plan for drafting the history. The selected volunteers were invited to research and draft contributions on specified topics. The team then turned its attention to gathering more data. Some contributions started to arrive at this stage, mainly from UK sources (a retired Ministry of Defence officer W.T.S. Pearson had agreed to lead the UK share in this history).

I joined the team in early 1981 on the retirement of the Superintendent, and have led the team and managed the task since then. Before retiring the Superintendent recognised that the work could no longer be carried on without official recognition and funds, and he initiated action to plan the task and seek funds. As part of my task management I attempted a routine assessment of progress and likely completion dates, by setting up a simple model based on assumed writing rates for the various stages of research, drafting, editing and vetting for each chapter. This model proved to be quite unrealistic as there had been little experience to draw on in assessing these rates. The attempt was soon abandoned, as it was taking more time than it was worth and diverting effort from the real work of writing the history.

What did emerge was that the team could not rely on voluntary contributions, which with some notable exceptions were simply not forthcoming despite routine reminders. No real pressure could be applied as the volunteers had not been officially tasked, and so their work for the history was very low priority. Another problem was that the contributions that we did have needed much more than the hoped-for minimal editing for consistency. Additional research and extensive editing, even re-writing, would be mandatory if the story told were to be interesting and reasonably coherent. This is not to deny the value of written contributions, all of which were very welcome.

It was discovered that oral contributions are much easier to come by than written. Very few fail to respond to an invitation to reminisce into the microphone of a tape recorder in a discussion with one or two team members, and much valuable material has been collected this way including frank, lively comments that would not emerge from a written contribution. Unfortunately there are drawbacks. Interviews have to be prearranged, and are rarely practicable for interstate people. The material has to be tediously transcribed and is often difficult to use, as most interviewees appear much more verbose in a verbatim transcript of an interview than they would in a studied written communication. Many hours of effort are needed to arrange, carry out, transcribe and edit each interview, and some might yield only a sentence or two in the final manuscript. Nevertheless, the interview method has been found irreplaceable and some interviews invaluable.

Clearly the function of the team would have to change. We would now have to shoulder most of the research and drafting, extensively edit and rewrite as well. The next question that arose was how long it would then take to finish the manuscript. The team had by now been at work for two years and had done considerable work in planning the structure and approach, gathering and sorting documents and other data, consulting Press references and compiling information folders. Nevertheless, there was still very little publishable material available: little more than the first chapter. Further, the other team member was due to retire shortly, and in any case neither of us claimed to have the flair for writing prose that the average reader would want to go on reading and this was the most critical outstanding part of the whole task.

It was at this stage that I was asked to re-examine the old proposal to use a professional writer under contract. After estimating costs and timescales for various options, I concluded that adding such a writer to the team would not only give a superior end product, but would save both time and money. It was really the only way to finish the task in an acceptable timescale. My recommendation was approved and in November 1982 the writer post was advertised in the Saturday book review sections of the *Age*, *Australian* and *Adelaide Advertiser*. There was a very good response, but with the generous help of an unpaid consultant the 25 applications were short-listed for interview. The interview panel included an historian and a well-known Adelaide author, who gave expert advice on the likely writing style, speed and historical research ability of interviewees. The person selected, Dr Peter Morton, had a relevant academic background (PhD in English) and considerable experience in scientific journalism, which should give an idea of the blend of qualifications sought.

#### 5 FOURTH PHASE : CONTRACT WRITER AND TEAM

An 18 month contract with Dr Morton was signed in April 1983. The contract adopted a format suggested by the Australian Government Publishing Service (AGPS), but some of the clauses had been left open for negotiation. Two of these were the period and remuneration: the approach had been to ask front-running applicants to nominate a period, rather than to impose one that might turn out to be impossible. Later it was found necessary to extend the contract by ten months. As the writer was to be paid for writing and did not have to rely on returns from future royalties, copyright was assigned to the Commonwealth.

In this fourth and current phase of the task, in which the writer and the Departmental team are closely integrated, it was soon evident that the approach adopted was the right one, after three unsuccessful tries in the previous phases. The writer was quickly immersed in research and drafting, and in the first ten months work the 15,000 words of publishable material already drafted grew to 140,000.

## 6 FIFTH AND FINAL PHASE : PUBLICATION

As the history will be an official Commonwealth publication, this phase will be in the hands of the AGPS. Action will be necessary in due course to programme and fund the publication, which is expected to be complete in September 1986.

## 7 CONCLUSIONS

In my view both right and wrong turnings were made at various stages in writing this history, such as the following:

(a) The initial decision to write the history was a good one, and so were later decisions to proceed despite setbacks. I firmly believe that the final history will be well worthwhile. Apart from its value to future historians and its interest to those involved in Woomera or Salisbury activities, one should remember that the Joint Project spent many millions of Australian and British taxpayers' money during its lifetime, and should be prepared to account for itself.

(b) Much of the work done in the first phase was wasted, because no real attention had been given to the content of the history, because the work was carried out in something of a vacuum with no wide canvassing of inputs outside senior management circles, and because the officer concerned was not used again after his work was abruptly terminated. The next 16 months were lost, perhaps unavoidably, because of inaction.

(c) The second phase began well with efforts to correct former mistakes, by examining the purpose and content of the history, by canvassing middle management for ideas, and later by widely publicising the whole proposal among those likely to be able to contribute. However, one wrong turning was to rely on a part-time committee to organise the writing task, given the inevitable competition from other higher priority tasks. This was later corrected by replacing the committee by a full-time team dedicated to the history.

(d) While it was a very good idea to invite voluntary contributions and to cast a wide net for them, the mistake was made in the second phase, and carried over into the third, of relying almost entirely on these voluntary contributions, and of assuming that they would be forthcoming quickly and be suitable for publication with a minimum of editing. Inevitably the early estimates of timescale proved hopelessly unrealistic as a result.

(e) Another error made in the second phase was failure to seek funds for the task, without which it tended to be regarded as low priority work that could not compete with recognised priority tasks.

(f) Undoubtedly the biggest mistake made in the second phase, and carried over into the third, was to exclude the possibility of using a professional writer. It was not until this was recognised and corrected that the task was at last placed on a proper footing. Arranging the contract and selecting a writer diverted significant effort away from

writing draft material for 16 months but it was effort well spent.

## 8 ADVICE TO OTHERS

The following words of advice are offered in the hope that they might be useful guidance for other organisations contemplating writing histories of large-scale engineering enterprises, histories that are intended not just for internal consumption or for technical readers, but for the general public as well.

### 8.1 The Decision to Write a History

It is assumed that a subject for a possible history has emerged. The first question to decide is whether it should be attempted, and this in turn will depend on the answers to other deceptively simple questions, such as those suggested below.

(a) Why do we want to write it? There are all sorts of sound reasons why engineering heritage should be recorded in the form of a historical account, but they should be considered, agreed and recorded, perhaps weighted or qualified.

(b) For whom is it to be written? The answers should flow from (a). Thus if the history is being written to influence public attitudes or as an accounting to the public, then its content and style must appeal to the layman. If intended as a historical record, then it will need to be adequately researched and referenced and to deal with significant matters and not just entertaining trivia. Of course the history may well aim at both the layman and the historian.

(c) What is to be written? Is there a clear concept of what the final product should be like? Are those in charge of the project agreed on this? Consider not just the content, length, illustrations and so on, but the approach. Is it to be scholarly, entertaining, factual or a blend? Is it to pass judgement on past decisions and if so will the writer be free to state views contrary to the official "line" of the organisation? The censorship issue should be faced squarely.

(d) Can we write it? Are there adequate records to use as source material? Are there knowledgeable people still around whose memories can be drawn on to produce a lively account? Are sufficient funds likely to be available? Most importantly, who is to write it? This last question is explored in detail below.

Given that there are sound reasons for writing the history, that it can be written and so on, one must now decide whether it is really worth undertaking, remembering that it will inevitably take longer, cost more and need more determination than when first assessed. If the history is unlikely to become a firm commitment, strong enough to survive reasonable future setbacks, then it is better not attempted.

### 8.2 Specifying and Planning the Task

Assuming the proposed history has survived its first hurdle, the next step should be to define and plan the task. This is no different in principle from doing it for an engineering task of comparable magnitude, and thus should include the purpose and aims of the task, the proposed method, resources needed, cost and timescale estimates and the management plan.

### 8.3 Who is to Write the History?

This question should be given special attention, because a wrong decision could wreck the entire task, perhaps after considerable effort has been put into it. Avoid getting heavily involved in research before the writer is at work. There is no reason why sources of information should not be gathered at the outset, but "research" without the writer's guidance can easily become an end in itself, wasting time in seeking the wrong data while giving an illusion of progress.

Beware of the fable that any competent engineer or administrator, experienced in writing technical or other papers and submissions, can write lively and readable narrative likely to appeal to an intelligent layman unused to technical jargon or "officialese". A few such people can write really well, even brilliantly: Nevil Shute was an aeronautical engineer who became a masterly storyteller. But the chances are against it. Remember that you will need an individual who is not only skilled in writing but is also self-motivated, used to working alone, and who has the discipline to carry through the task thoroughly and diligently. Unless you are very lucky or your ambitions are modest, you will have to look for such a writer outside your own organisation.

The ability to produce TO ORDER accurate yet appealing manuscript from indifferent materials, such as voluminous files and dry technical literature, is a rare skill. Like any such skill it needs basic ability, education and experience, and it has a price. Decide what quality of job you want done, seek expert advice from those who know the writing profession, and set your budget accordingly. As a guide, you are unlikely to be paying less than you would for a skilled and experienced engineer.

An argument often used is that only someone inside the organisation, who has lived with the venture to be recorded, can possibly write the history. Certainly such people are invaluable in the research phase and in contributing written drafts or oral reminiscences. But using an outsider has advantages on other points. He/she is more likely to see the wood rather than the trees, more likely to make disinterested unemotional historical judgements, less likely to be over-influenced by the rules and traditional views that every organisation generates.

Do not, of course, go to the other extreme of engaging an outside writer and then leaving him to do all the work, including ferretting out documents, finding people to interview, even managing the task. An outsider will need considerable management support and direct help with research, preferably full time, to make best use of his talents.

Selecting the writer is very important. Seek expert advice at all stages. Advertise widely, taking care to outline the history proposal and the part to be played by the writer (best done by preparing notes to be sent to enquirers rather than attempting to cover it all in a short advertisement). Decide what attributes you are looking for in the writer, and make sure you have somebody on the interview panel competent to judge such attributes in interviewees. Make sure the contract covers all the

vital matters, e.g. what is expected of the writer, period, payment, access, facilities to be provided, break clauses etc. Many of these will have to be negotiated before signing, perhaps before making the final selection. Do not simply select the lowest price or even the shortest timescale - demonstrated writing ability should be paramount.

### 8.4 Other Advice

Consider the use of word processing facilities. Repeated editing and rewriting is inevitable, and a flexible system will come into its own. Nowadays many writers prefer to compose and edit on the keyboard.

Like any task you will need to set deadlines and to measure progress from time to time, but do not be too ambitious, as writing by its nature proceeds in fits and starts, and does not lend itself to complex PERT charting. Probably the only quantity that means much is how many publishable words have been drafted.

TABLE I  
PHASES IN WRITING THE "WOOMERA HISTORY"

Phase	Main Actions	Duration (months)
1	.Proposal made, considered by senior management.	6
	.PRELIMINARY DATA GATHERING by one man full-time. Terminated after review.	12
	.Interval	16
2	.Approach reconsidered & widely discussed.	3
	.COMMITTEE set up (part-time). Contents, format and approach outlined. Appeal for voluntary contributors.	12
3	.FULL-TIME TEAM replaced committee. Contents revised, contributions invited. Data gathering & research, some contributions in.	25
	.Use of professional writer examined & recommended. Research, drafting etc. continued at slow pace.	10
	.Letting of writing contract approved. Advertising, short-listing, interviews. Writer selected, contract terms negotiated.	6
4	.CONTRACT WRITER started (18 months term). Research & drafting proceeds. Review after 10 mo., contract extended to 28 months.	28*
5	.PUBLICATION (AGPS).	12*
	Total duration (10.8 yr)	130*

\* estimated