Historians, Archivists, Wastage and Planning for War

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This paper is not in itself a scholarly article. It is an invitation to discussion based upon personal knowledge, experience and conversations with scholars in the fields of history, archives, libraries and even museums. It seeks to air concerns and consider potential solutions.

One of our tasks is to help people understand the future by explaining that the past holds more, and often different lessons, than they thought.

War is an occasional, all-encompassing, human activity which very often occurs because of miscalculation and which is even more likely to be drawn out because of the same lack of perceptivity.

War is a wasteful process, but the rate of wastage can be calculated just as insurance companies quote figures for marine risk.

Planning involves making estimates based upon sums which have to be derived from a combination of givens and assumptions. How well the plans work out depends, of course, upon a number of factors including the weather, the enemy, resources and allowances made for possibilities (sometimes called "chance").

For the historian to be able to assess how well this has been done in the past, he or she needs to find certain records in the archives. And the management of the military includes change and the consequences thereof in innovation, testing, adoption, training, use and adaptation, modification, consumption or wastage, maintenance, repair and salvage, medical practice, and graphic materials such as maps and charts, to name but a few.

Two problems immediately arise as we get into the twentieth century, certainly from 1850 onwards: what will the historian want in the future and who will select it, arrange and describe it, and preserve it. Money will also be a factor.

A quick look at historiography and a detailed examination of its products will show that certain types of history and historians are evolving. These changes are particularly of concern in the interlinked fields of military, naval, air, technological and procurement history.

I first worked as an historian abstracting shipping patterns from newspapers of 1807-09. Then I laboured in seventeenth-century documents, before moving for my doctoral dissertation to modern history, where I could combine my military training as a pilot with my historical training as a researcher. The documentation was already, even for a twenty-year span, becoming unmanageable in terms of technical journals and legislative materials. So I had to make selections; yet I had been schooled in concepts of Rankean completeness applicable, perhaps, to the medieval period. Moving into airship history, I first became acquainted with the problems of the destruction of documents in the archives by persons who had no idea of the importance of the records because they went only by signatures and office.

But, then, I too was still not fully aware of the many possibilities for extracting information from the materials themselves. And I still profess ignorance. When I afterwards worked on the still-secret history of the British Overseas Airways Corporation (BOAC), I became truly aware of the massiveness of organizational files, since the corporation produced 110,000 new ones each year. Obviously, I could not peruse them all. But luckily I had an access tool in that I had authority to start with the Board minutes and papers and then work down from the management level to whatever I judged ought to be followed through to the end. My own time, retention schedules, the whim of disposal sprees, and lack of space in the BOAC buildings also helped focus my searches.

Since then I have made two long explorations of the Public Record Office (PRO) in London by proxy and several of the National Archives in Washington.

Asked by the United States Air Force (USAF) to write a chapter on the Battle of Britain, I became interested in questions of serviceability and wastage. The former arose from documents which led down towards maintenance, the latter to planning for war. But when we began to search the PRO for the documentation, we found no records of the Royal Air Force (RAF) Statistical Office for the period July 1939-October 1940 relating to pilots. Squadron and other files, outside of the newly released history of maintenance in World War II, were devoid of that part of Form 540, the log of unit activities, dealing with the subject because squadron folders had been purged of all but operational materials, narrowly defined, and some photographs. It has not been possible to get a vertical cut down through squadron records to know what they should or might contain. In other words, what were the daily returns and other types of record? However, in October 1990 I did find in the Service Historique de l'Armée de l'Air at Chateau de Vincennes, the mobilization orders for No. 226 Squadron, RAF, and these did list many of the publications and documents required; but the records themselves were not there.

Equally frustrating is the fact that I have not so far been able to get official historians to show any interest in such documents. Yet, I would argue, how can we intelligently ask the archivists whether they have or will save documents we cannot precisely describe? For instance, consumption of fuel and spares are very important topics. From the lean data in daily status reports for the RAF I can confirm why some aircraft types were known as "dogs" — they were largely unserviceable week after week! On the other hand, secret engine reliability reports show that the RAF was by 1927 getting about 1700 hours between overhauls in piston-engines, if the type had been in service more than three years.

The History of the Ministry of Munitions (12 vols. 1919-1921, but confidential till after World War II) reveals that wastage of gun carriages was examined to the point where a formula could be derived. Unfortunately, however, the sources and figures are not provided. Nevertheless, there, and in aircraft production, wastage was noted as a vital element in calculating future programmes, especially since in fighter squadrons it ran at 66 per cent per month. But who compiled these statistics? At present, I do not know.

For the argument here the point is whether archivists have collected the data, the dull statistical reports from engineering officers and the like, which will enable historians to unravel these logistical conundrums? Without such materials we cannot say whether grand strategy, strategy or even tactics, could be carried out.

As Erik Norberg notes about the Swedish archives, military records document what should have been done, not what was executed. The archives contain orders, therefore, not operational reports concerning a country that has not fought in 160 years. Moreover, peacetime records are filled with rather different concerns from wartime, where the emphasis is on operational activities.

In peacetime Sweden, the records kept deal with administration, not training and other routine matters. The problem is that no one considers routine records important. Some help can be obtained here, as in airline history, by collecting all accident and incident reports because these usually start by explaining what is or was normal procedure. The best way to get help is to persuade a senior officer to collect what should go to the archives and not to the dump. Another way is to work with engineers and artillerists who have a more academic interest.

It is true that in all hierarchical organizations information rises to the top, but we all know that the movement can be suspect, as Alain Berlincourt rightly suggests. Reports are falsified to make the commander look good, or even dictated by him. That is why it is so essential to get down to the basic records, to examine and quantify them as well as to mine through them to digest what they tell us.

The problem for technical researchers is that so many of the basic records have not been kept.

The question is, why has it taken archivists so long to get down from the Ministers, the Chiefs of Staffs, and the high command and operational levels to the basic records of the sinews of war? And the supplementary question is, can archivists ferret out, accession and declassify what remains extant? And describe it in usable finding aids.

It is true that in the age of machine-readable records we may have much greater capability of tracking history than we did, but part of the value of history is to be able to show each new generation that its problems are not new.

As Norberg notes, the danger of machine-readable records is that unless archival storage is ordered, there is a danger that in peacetime they will not be backed up or downloaded, or that retention and disposal schedules will only give them a short life with no samples kept.

In Sweden, for instance, all records on an aircraft type are destroyed when it is withdrawn from service, except one set, which is preserved at the Division of Maintenance at the Air Board. But will it get to the Archives?

In 1987 the Royal Archives began to publish a guide to the military holdings on World War II, but there is no national forum in Sweden for discussion of the sorts of question raised here.

In Canada, the National Aviation Museum feels that, especially because — like the National Air and Space Museum in Washington — it wishes to document and tell the story of its artifacts, the location and preservation of technical records is an important task. Much too much modern history is based on technology, but the records are not always there so that a researcher can explain "how" and "why," as opposed just to "what."

Merely to consider wastage goes forward to the front line, and all the way back past consumption to manufacturing management and raw material resources.

Christopher Terry would favor an international forum, perhaps a meeting of the military archives subcommittee of the International Commission for Comparative Military History (ICCMH) at Turin in 1993 on this topic. [The ICCMH has a national branch in most countries, generally located in care of the official Army historical office.]

As the veterans of World War I fade from the scene, it is still not too late to interview the fitters and riggers and other technical personnel in order to try to preserve the expertise needed to enable us to understand the records. For instance, how was the daily state or status of aircraft in the RAF reported to the Air Ministry? In order to understand what happened in the Battle of Britain, it is necessary to know that there is a gap in the records as we currently have them. We can tell where it is because those of us who were in the RAF know, and having read Lord Dowding's despatch, can confirm how it happened. If fitters and riggers could not fix bullet holes at dispersal, then they pushed the aircraft off the field and drew a new one. If the aircraft was shot down in repairable condition, it was usually not available within twenty-four hours at its own airfield. But the records fail to show those aircraft essentially "off for repairs" in the above sense. Only when mobile repair teams began to go out, did these machines appear again at Maintenance and Storage units ready for reissue from October 1940 onwards.

So, we need to collect certain types of technical material. How is this to be done? It is a good question about which there ought to be some discussion. As I recall, the BOAC records on the Avro York, 1942-1956, which ranged from the initial handwritten letter from the designer to the official Corporation epistle returning the Certificate of Airworthiness for the type ran about six metres high, not including maintenance documents. The files could probably have been weeded of some duplicate material, but should probably have included at least one maintenance log and any special correspondence in that field. In the area of navigation, the law only required logs to be kept for thirteen months. I suggested that one log a year with maps be kept for each type or each route, so that over time we could compare types, traffic, navigation systems and methods, etc.

Von Hardesty notes that it is correct to suggest a generalized lack of awareness about this theme and the preservation of appropriate, if admittedly "dull," records.

Examples of the types of record that historians would like now to compile are: Ship's engineering logs, covers and dockyard records of all sorts in order to know what was recorded; how and why the ship functioned as it did and how often (i.e., how many days

at sea, etc.), so as to develop operational patterns, timing, necessities and repairs, details of major overhauls, and be able to establish norms based on statistics and not impressions.

We also need, for instance, motor and armoured vehicle records in order to determine whether one service handled them better than another, and also to be able to track the age, endurance and repair record, as well as wastage. All of this provides interplay between people and machines.

As historians, we do not yet know all the questions we would like to ask because we have not yet formulated them, and because — we will not be able to do so until we see all the records — and sometimes perhaps even the original machinery.

Perhaps two small examples of how technical records might be utilized can suffice to give more focus here. In the Battle of Britain the new Operational Training Units of the RAF had 150 Spitfires and Hurricanes, yet their serviceability rate was only 59 per cent versus 75 per cent in Fighter Command. This caused such a scandal that the Inspector-General reported on it. He noted that the problem stemmed from fitters and riggers having to do guard duty while instructor pilots were detailed for officer-of-the-day. It would be enlightening to know, in addition, whether so many aircraft were unserviceable because of a lack of spares, a matter still pertinent in the 1991 Gulf War. The second case is that of two Wellington squadrons in the Middle East in 1940-41. These strategic bombers flew hardly any operational sorties. The maintenance part of Form 540 would tell us why, but these do not seem to be available in either AIR 22 or AIR 27 at the Public Record Office.

As Von Hardesty asks, how, if at all, has the theme of wastage been addressed by historians? Williamson "Wick" Murray, in his book on the Luftwaffe (1983), did examine serviceability rates, certainly a meaningful way to gauge the decline of German air power in the East. Hardesty's research suggests that Soviet aeropropulsion engineers designed their powerplants to operate for rather brief periods of time, to be replaced routinely from the massive production capacity of the Soviet war industry. Soviet pilots at the end of the war were genuinely impressed with the operational life of the P-51's powerplant.

Hardesty recently obtained over 1,200 pages of microfilm, many formerly classified as secret, on the Il'ya Muromets bomber in World War II from the Central State Military Archive in Moscow. What he saw there was not problems of wastage, but severe shortages — in particular a secure supply of modern aero-engines. In fact, the squadron's efficiency and contribution to the war effort was governed by this factor. This raised the question whether such shortages were peculiar to Russia, a partially industrialized country at the outset of the war. Are shortages and wastage interacting themes? These, and the related theme of the role of historians and archivists in documentary reconstruction, deserve equal treatment.

Among the Canadian archivists there is recognition now that they have primarily collected administrative records that illustrate policy, rather than those showing what the department or service practised, especially the routine underpinnings.

The problem of failure to collect the desired records so that we can measure and assess wastage is not limited to the twentieth century. Government records which

delineate policy are needed, as well as departmental materials which illustrate strategy and tactics, operational records which show procedures and tasks (e.g., the appendices to RAF Form 540), and the "papers" of the associated infrastructure which explain the efforts of all the others above.

The National Archives of Canada is more like state archives and regional historical societies in the USA — in that it is mandated to collect government records and private papers. But, there is concern that it may not have saved the most valuable information. It is rather like accumulating statistics — when you wish to use them, they are not what you need.

We historians recognize that there is a storage problem. We also object to archivists weeding or rearranging files. Historians need to see things as they were viewed by those who made decisions or commented on them as they were taken. Besides which, such weeding is unnecessarily expensive.

A better approach would be a small committee to discuss general policy and review specific cases, with a one-year waiting period before any decision was final.

Prior to such committees being formed, perhaps a master checklist of questions to be asked and mutually agreed answers to be given and subscribed should be identified. Such a list might consist of some, all or more than the following:

1. Why should this material be saved in the first place?
2. Who may ultimately benefit from it?
3. Is it completely representative of the staff and activities of the corporate body?
4. Of what does the entire set of records consist?
5. Is all of it needed?
6. Is all of it noted here?
7. If space does not permit keeping all of it, what is an acceptable solution:
   a) sampling and residual destruction
   b) omitting certain series while retaining examples
   c) weeding
   d) microfilming
8. Is this fonds typical or special, common or unique?
9. What points not already noted above need to be recorded here before a judgment is made?
10. Is the selection committee truly representative of all the creators and users?
11. Is it agreed by all that the recommended disposal of this series is .....? If not, why not?

These questions may help with the thinning and preservation of material in general destined for the archives, but they do not aim at the specific problem of assuring that technical records survive.

Yet, as a historian of military, aeronautical and technological affairs, I increasingly see patterns in all of these fields which have similarities. These should, in our largely mechanical and now increasingly automated world, help us predict what will happen if certain courses of action are followed. This is one of the contributions of history.

And while on another side I would argue for and point to the human element in history, the story of things technical shows the repetitive patterns of human-driven mechanical behaviour.

Thus, the resistance of the RAF to the technological revolution in aviation has its parallel in the cavalry's reaction to the tank. We are just beginning to explore why the leadership of such a supposedly advanced organization should have reacted that way. But we cannot find out why the RAF did not order sufficient tools for fitters and riggers unless such a mundane series as the files of the Director of Equipment have been saved and contain the minutes of the discussions, the correspondence, and the orders, which should reflect what the Air Staff thought would be the nature of the next war.

So, the general questions above have to be sharpened to focus on technical records. Here not only historians and former maintenance staff can be of help, but also museum curators and archivists can use their expertise to ferret out what we as historians need.

Notes

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