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### Royal Air Force Mid-Term Exam

When I selected my document for this assignment, I thought, “this will be great, I know about maps and orientation...I’m an Eagle Scout!” However, I quickly found that the Royal Air Force relic that I had decided to write about was not as straightforward to research as I had originally thought. “Hmm...we actually had to clear out a lot of our flight manuals and instructional materials after 9/11” Frank, the kindly Mcfarlin librarian, told me. He left a full sleeve of ritz crackers on his desk and led me to a small section containing aerospace documents; unfortunately, the results to our search were slim. “I’ll check with Ann Lupardus, and Marc from Special Collections” he told me as I hopelessly grasped onto a single 1980’s flight navigation manual. Frank’s suggestion proved profitable; Ms. Lupardis finally discovered some materials that shed light on the curious artifact I had procured from a miscellaneous folder in Mcfarlin Library’s Special Collections.

The item is a yellowed, scribbled-upon paper that measures 16 centimeters high and 20.5 centimeters wide. At the top of the document, a header indicates that the paper is a midterm examination for the 1st through the 5th Squadrons of the Royal Air Force (RAF). The document is undated, but because the test is authorized by the RAF, instead of the Royal Flying Corps (Great Britain's predecessor to the Royal Air Force), the document was likely created shortly before, or possibly after, the end of the Great War.

With very old documents, it is important to start investigating the materiality of the piece before probing too far into the substance of the text. Upon inspection, one immediately notes the different types of ink cluttering the surface of the document. There is the typists' ink, which constitutes the primary text of the document; it has faded throughout time to a shade of electric-indigo (I checked a color chart, and that is literally what it is called). There are also numbers handwritten along the margins of the page, where someone has obviously worked problems out for the test. Some of these notes were presumably made with a black pen, and others with a graphite pencil. Interestingly, the pencil markings are the least altered by age, as the pen markings have dimmed to an army green color. These observations may seem inane at first, but they do reveal a few things about the midterm.

First, the midterm exam was likely used by more than one person. It seems unlikely that the test would have been administered to someone who used two different writing instruments during a singular examination. Secondly, the fact that the exam requires essay responses demonstrates something of the Royal Air Force's expectations for its students. The midterm relies on comprehension and analysis-level questioning to assess the cadet's level of cognitive engagement with the material.

At this point it seems fitting to investigate who might have studied such material. Considering the style of this assessment, one might correctly expect cadets to meet a variety of distinct qualifications. According to a London newspaper in the spring of 1918, eligibility for the Royal Air Force required that candidates fulfill an elite checklist of criteria for enlistment. For example, candidates must be between the ages of seventeen and thirty, could not be taller than 6 feet or weigh more than 13 stones, and must have "very good" eyesight (*The Times* 4). Upon enlistment, cadets were to be classified as being a part of two classes: "A" or "B." These

classes were contingent upon the cadet's demonstrated "merit, character, personality, education, and aptitude for leadership" (*The Times* 4). Candidates were also required to submit their applications in written form, indicating that the RAF likely recruited proficiently literate soldiers.

The cadets from Squadrons 1-5 of the Royal Air Force were pioneers in the area of aerial reconnaissance, a discipline that "soon became the primary information source behind most battlefield decisions on the Western Front" (Finnegan 3). The advent of modern warfare revealed an unprecedented need for increased reconnaissance; the information recovered, in correspondence with modern photography, "became an integral part of the cartographic process in support of daily operations and offensive planning" (Finnegan 155). Before the Great War, nations had used disparate cartographic standards, based on Napoleonic-era maps. This astonishingly primitive system proved "unreliable for supporting accurate artillery fire," and thus necessitated a complete overhaul of cartographic intelligence (Finnegan 153). Educating airmen to collect and analyze such data therefore became strategically imperative.

As "cadet wings," or training institutions, could turn over trained officers within six months of initiation, the midterm examination asks questions relating to basic map reading and orientation skills. So what are the answers? Although my investigation could be amplified to respond to each of the examination's questions, I will limit my research to a select few. The questions increase in difficulty with each numbered item, but thankfully, do not completely surpass the scope of my research.

Part "A" of the first question asks the test-taker "What is (I) A contour[?]" The New Oxford American Dictionary defines a contour (short for contour line) as "an outline, esp[ecially] one representing or bounding the shape or form of something." Thus, in cartography, contours represent the shape or form of the earth's surface. Maps that account for these variances

are called topographical maps, and give readers a means to understand the topography of a given area. Contour lines are spaced on a map so as to give the map reader a three-dimensional understanding of the surface; in areas where lines are spaced close together, the map reader knows that the surface has a steep incline; where lines are spaced further apart, changes in elevation are less drastic. Understanding contours is fundamental for map-reading, so it seems sensible that the Royal Air Force would have tested its cadets on the basic characteristics of a contour.

Skipping down to the fifth question on the examination, the tests asks, “By what Squadron, and for what purpose are the following maps used: - 1/40,000 - 1/100,000. Give reasons.” Although I could not find what specific squadrons might have used the preceding maps, I did find a few books published during the second World War that shed light on the subject, “Maps of medium scale, normally from 1:50,000 to 1:125,000, are needed for strategical, tactical, and administrative studies by units ranging in size...” (Heavey 10). Military scholar Terrence J. Finnegan notes that the “ long-range railway guns used the 1/40,000 scale map for their operations. The British also used the 1/40,000 to track German artillery positions opposite the British front” (Finnegan 163). Finnegan also found that “[i]n addition to the 1/40,000 map, there was a smaller format 1/100,000 map covering the same area” (164). Thus, the RAF used these scales in juxtaposition to plan strategic ground level operations, as well as larger, scaled-back tactics.

Considering this assessment, designed for cadets from the RAF, provided me a truly exciting opportunity to engage with a primary document from the first World War. The examination illuminates the educational expectations of the RAF and gives readers a blueprint with which to empathize with WWI cadets. Investigation of the subject matter further deepens

the reader's comprehension about the role airmen played during the war; not only did the RAF involve itself in combat operations, but it also orchestrated strategic trench warfare because of the vital information recovered through reconnaissance operations. This document serves as a testament to the lives and education of RAF cadets, and lends an opportunity for further research into aerial reconnaissance during WWI.

#### Works Cited

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