
THE COUNCIL ON AVIATION ACCREDITATION: PART TWO – CONTEMPORARY ISSUES

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ABSTRACT

The Council on Aviation Accreditation (CAA) was established in 1988 in response to the need for formal, specialized accreditation of aviation academic programs, as expressed by institutional members of the University Aviation Association (UAA). The first aviation programs were accredited by the CAA in 1992, and today, the CAA lists 60 accredited programs at 21 institutions nationwide. Although the number of accredited programs has steadily grown, there are currently only 20 percent of UAA member institutions with CAA accredited programs. In an effort to further understand this issue, a case study of the CAA was performed, which resulted in a two-part case study report. Part one addressed the historical foundation of the organization and the current environment in which the CAA functions. Part two focuses on the following questions: (a) what are some of the costs to a program seeking CAA accreditation; (b) what are some of the benefits of being CAA accredited; (c) why do programs seek CAA accreditation; (d) why do programs choose not to seek CAA accreditation; (e) what role is the CAA playing in the international aviation academic community; and (f) what are some possible strategies the CAA may adopt to enhance the benefits of CAA accreditation and increase the number of CAA accredited programs. This second part allows for a more thorough understanding of the contemporary issues faced by the organization, as well as alternative strategies for the CAA to consider in an effort to increase the number of CAA accredited programs and more fully fulfill the role of the CAA in the collegiate aviation community.

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INTRODUCTION

Part one of this case study of the Council on Aviation Accreditation (CAA)¹ examined the history of the CAA, the accreditation process, and the current environment in which the CAA operates. Part two of this study considers that during the past 17 years, the CAA has been actively accrediting various aviation academic programs and today boasts 60 accredited programs at 21 institutions nationwide. However, out of 105 institutional members of the University Aviation Association (UAA), which is an organization representing collegiate aviation with over 800 members, only 20 percent of UAA institutions currently have CAA accredited programs (“Candidates,” n.d.; UAA, n.d.). This is in contrast to an average 59 percent accreditation rate in other academic fields [based on a random sample of 11 accrediting organizations recognized by the Council for Higher Education Accreditation (CHEA)].

In an effort to more fully understand why only one-fifth of aviation academic programs are accredited by the CAA, the second part of this case analysis asked the following research questions:

1. What are some of the costs to a program seeking CAA accreditation?
2. What are some of the benefits of being CAA accredited?
3. Why do programs seek CAA accreditation?
4. Why do programs choose not to seek CAA accreditation?
5. What role is the CAA playing in the international aviation academic community?
6. What are some possible strategies the CAA may adopt to enhance the benefits of CAA accreditation and increase the number of CAA accredited programs?

METHODOLOGY

In an effort to fully understand the CAA, including the complex issues surrounding the organization and the accreditation process, a comprehensive research strategy was necessary (Yin, 2003). A case study design was chosen because, as Yin (2003, p.1) explains, “case studies are the preferred strategy when ‘how’ or ‘why’ questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context.”

¹ This case study was undertaken during 2005. In 2006, the Council on Aviation Accreditation (CAA) announced a change of name and identity. Although the CAA is now known as the Aviation Accreditation Board International (AABI), references to the CAA within this article also refer to the AABI.

Yin (2003) acknowledges that case studies can be conducted by gathering both quantitative and qualitative evidence, yet all case study inquiries rely on multiple sources of evidence, with data converging in a triangulating fashion. The evidence for case studies may come from six sources: (a) documents, (b) archival records, (c) interviews, (d) direct observation, (e) participant observation, and (f) physical artifacts (Yin, 2003, p. 83). Although each of these sources, according to Creswell (2003), has various strengths and weaknesses, it appeared most appropriate for this case analysis to gather evidence from documents, archival records, and interviews.

Specifically, documents analyzed included all CAA documents (such as the *Accreditation Standards Manual* (CAA, 2003a), *Bylaws* (CAA, 2003c), and *Outline for a Self-Study Report* (CAA, 1999b)] that were accessible on the CAA website. In addition, journal and magazine articles related to accreditation in general, and CAA accreditation in particular were analyzed. Archival records (including the CAA membership list and the listing of CAA accredited programs and candidate programs) were analyzed as well. Interviews were also relied upon extensively during this case study. As Yin (2003, p. 89) explains, "One of the most important sources of case study information is the interview." Two types of interviews were utilized in this research effort. First, a focused interview was conducted via telephone with both the President and Executive Director of the CAA, as well as two administrators of aviation programs (one of which is CAA accredited). These participants were purposefully selected, as described by Creswell (2003), to represent CAA leadership, as well as the views of a CAA accredited and non-accredited program (with the director of the non-CAA accredited program also serving as a CAA trustee). Each telephone interview was completed during a 30-60 minute time period. The second type of interview, recognized by Yin (2003) as having more structured questions and resembling a formal survey, was also utilized. First, a brief questionnaire was sent via email to the entire population of 101 U.S. institutions offering non-engineering degrees in aviation (as determined by the 2003 UAA Collegiate Aviation Guide and UAA Institutional Member List) that currently do not have programs which are either CAA accredited or candidates for accreditation (UAA, n.d., 2003). Accounting for invalid email addresses, a total of 92 institutions received the email questionnaire. The email survey resulted in an initial response rate of 19.6 percent. A follow-up email encouraged an additional 5 responses (for a total of 23), resulting in a total response rate of 25 percent. Although lower than the preferred response rate, the purpose of the survey was simply to gain a more in-depth understanding of why non-accredited programs chose to remain non-accredited, and even with a lower than desired response rate, this purpose was fulfilled.

Next, email questions were sent to various specialized accrediting organizations recognized by the CHEA, as well as to the staff of both the CAA and UAA. These email questions garnered a 100 percent response rate. Last, using the most recent CAA Board of Trustees listing available on the CAA website, each of the officers and educator trustees of the CAA were asked to complete an on-line survey developed specifically for this research effort. One of the educator trustees selected explained that he has recently retired and is no longer a member of the CAA Board of Trustees. Of the 11 individuals selected for this survey, 9 responded, resulting in an 82 percent response rate.

Since the original purpose of the case study was to describe the CAA and the contemporary issues being faced by the organization, the general analytic strategy guiding this research was that of developing a case description. Within this analytical framework, Creswell's (2003) six steps of data analysis and interpretation served as a theoretical guide in making sense of the many sources of evidence and compiling the data into an organized and informative narrative that maintained a focus on the original research questions. First, the many sources of evidence were prepared for analysis by organizing interview notes, collating survey responses, and arranging the data into different types depending on the sources of information. Second, although this was an ongoing aspect of the analysis, all the data was read through to obtain a general sense of the information. As a follow-up to this, the data was analyzed in great detail with a subsequent coding of the data into categories. Fourth, the coding process was used to generate both a description of the CAA and themes appropriate to the research focus. Next, in consideration of the description and themes, a decision was made as to the best manner in which to convey the description and themes in the narrative (which included both a chronology of the events leading up to the formation of the CAA and a discussion of interconnecting themes in response to the research questions). The final step in this case analysis involved interpreting the data by formulating recommendations to improve the organization and enhance the number of accredited programs. As Creswell (2003, p. 195) notes, "Interpretation in qualitative research can take many forms, be adapted for different types of designs, and be flexible to convey personal, research-based, and action meanings."

In an effort to ensure trustworthy data, the concept of triangulation was employed through the gathering of data via interviews, surveys, and documents to observe patterns in the data. Reliability, specifically concerning the accuracy of observations, was enhanced by the use of detailed notes and audio recordings of the interviews, use of participant quotations in the final case study report, and member checking. Member checking was accomplished by allowing interviewees the opportunity to read the draft case study report and correct any inaccurate statements attributed to

them. Additionally, CAA officers and educator trustees were asked to indicate agreement or disagreement (via an on-line survey) with the results of a SWOT (strengths, weaknesses, opportunities, and threats) analysis conducted as part of this case study. To enhance internal validity, six months were allotted for the case study to allow collection of a large amount of evidence and an in-depth analysis of the data. Additionally, detailed notes were taken, abundant use of detail and verbatim language of participants were included in the case study report, and as often as possible, trends identified in one source of data were corroborated by at least one other data source. Last, external validity was strengthened through a concerted effort in this case study to accurately describe the data and provide for a more in-depth understanding of the CAA and the issues the organization currently faces. In this way, readers should be able to understand these findings so that they can be applied in other settings.

CONTEMPORARY ISSUES

When considering non-CAA accredited programs, the CAA states that, "the fact that an institution does not choose to seek accreditation is not of itself a commentary on the quality of education offered in that institution and must not be so interpreted" (CAA, 1999a, p. 1). However,

Although accreditation is not the definitive answer as to whether the program is the best nor should it imply that schools not accredited by CAA are unworthy of consideration, it does provide reassurance for students, scholarship grantors and employers that a specific institution is "up to par." (Knauer, 2005, p. 28)

Thus, our main research question concerned why so few aviation programs are accredited by the CAA. This is indeed a strategic issue for the CAA, as this organization examines its past, studies the course it has taken, and strategizes about the future. Additionally, as the organization transitions into the international arena of aviation accreditation, it would be helpful to understand the reasons behind the level of success at home, prior to attempting success on an international scale. In an effort to examine this issue, and bring certain options to light, part two of this case study presents various questions that should be addressed, and highlights alternatives that may be adopted by the CAA to positively address this pressing issue.

What are some of the costs to a program seeking CAA accreditation?

When considering the costs of accreditation, we must consider both direct monetary costs and indirect costs of time, energy, and intellectual resources. The direct monetary costs are both annual CAA membership dues and accreditation fees. The current annual membership dues for an educator

member is \$720. The accreditation fees include an application fee of \$1,750 for one program (with \$350 additional per program), a visit fee of \$1,250, and actual visiting team expenses which usually average \$3,500 (G. Kiteley, personal communication, August 9, 2005). Thus, the approximate total monetary costs for one program to be accredited is \$7,940 (based on two years of membership dues). Accreditation fees for international programs are considered by the CAA on a case-by-case basis (CAA, 2002).

As noted by both the CAA and institutions that have undergone the accreditation process, specifically the self-study process, the time, energy, and intellectual resources required for accreditation can amount to a substantial amount. Faculty and/or staff must devote a substantial amount of time and energy toward the self-study as they effectively analyze every aspect of the program over a 6-9 month period. Although the self-study should be completed within one academic year, it will likely require that full academic year to complete, especially for institutions seeking initial CAA accreditation and never having completed such a detailed self-study of the aviation program in the past (CAA, 1999c). As Knauer (2005, p. 28) states, "CAA accreditation is a lengthy and costly process for sure."

Regarding the costs experienced by programs seeking CAA accreditation, Dr. Paul Craig, Chair of the Department of Aerospace at Middle Tennessee State University, explains that the direct monetary costs are really insignificant compared to the time and expense necessary for the self-study, and in fact, he explains, sending his faculty to several conferences and paying various membership dues may equal the direct monetary costs necessary to apply for CAA accreditation (personal communication, June 27, 2005). Dr. Tim Brady, Dean of the School of Aviation at Embry-Riddle Aeronautical University and President of the CAA, echoes this sentiment, explaining that the costs required by the CAA are no more than any other content accrediting body (personal communication, July 7, 2005). Brady also proposes that the institution will pay the costs as long as they are convinced that CAA accreditation has value. However, Dr. Juan Merkt, former chair of the Department of Aviation at Ohio University and current Director of the Aeronautics Program at Jacksonville University, points to costs associated with changes to curriculum, faculty, and staff that may be required to meet CAA standards (personal communication, July 18, 2005). Administrators of smaller programs are concerned about this and even feel that CAA dues can prove burdensome. One program administrator even suggests eliminating CAA fees. Lastly, Craig states that when personnel are already stretched thin, expecting them to work on a major project (self-study) for a year is asking a lot. The program must have administrative backing and a person or committee devoted to working on this project for a year's time.

What are some of the benefits of being CAA accredited?

The CAA feels that CAA accreditation offers the following benefits: (a) increasing the attractiveness of the program to prospective students and their parents by ensuring that the program meets accepted standards of quality; (b) ensuring employers that graduates possess a broad background in the aviation industry as well as skills needed for aviation specializations; (c) assuring institutions that their aviation program will periodically perform a comprehensive self-analysis to achieve their objectives; and (d) keeping aviation educators in contact with other faculty, industry advisors, and practicing aviation professionals. Although these benefits should naturally flow to an accredited program, considering the goals of the CAA, it may be possible that these benefits do not flow as naturally as the CAA would advocate or that aviation programs would prefer (“About accreditation,” n.d.).

Specifically, are the graduates of CAA accredited programs more successful than graduates of non-accredited programs in both obtaining and maintaining positions in their chosen career? Interestingly, Phillips (in Fagan and Wells, 2000, p. 48) states “that ‘we do not know whether student characteristics, or the characteristics of programs from which students graduate, make a difference in later job performance’.” Even so, as Kiteley explains, the graduate of an accredited program can explain he is a graduate of a program that has been measured against a common set of standards (personal communication, July 28, 2005).

Regarding the benefits of CAA accreditation, Craig explains that his program must hold its own as it competes with 38 other departments at the university, and the CAA (which is an outside, national accrediting body) helps him do just that. His department is able to stand shoulder to shoulder with these departments, rather than being a stepchild. Brady agrees and explains that CAA accreditation gives an aviation program strength within the institution—a sort of badge of approval. This has tremendous value, as most aviation programs are, in general, looked down upon by faculty in other academic programs, as well as administrators lacking an aviation focus (Smith, 2002, p. 13). In addition, Craig shares that past reports of the CAA visiting team have had a direct impact in his program moving into new facilities, as well as acquiring a new fleet of aircraft. CAA serves as a strong voice to represent his program in a sea of voices at this large, comprehensive university. As Merkt explains, CAA accreditation provides leverage for aviation programs. Last, CAA accreditation results in graduates of programs that have met certain standards and adequately prepared their graduates to meet the needs of industry. For these reasons, Craig explains to all freshmen they are at a CAA school, and their curriculum includes certain courses because of stated industry preferences. Brady explains that graduates of CAA accredited programs have a better chance of being hired, and notes that

some airlines are hiring flight graduates from CAA accredited programs first. Merkt points out that CAA accreditation reassures students and parents that the program has a certain level of quality and has met certain benchmarks to achieve that quality. These benchmarks, as Merkt explains, result from the industry demanding that graduates meet certain requirements (P. Craig, personal communication, June 27, 2005; T. Brady, personal communication, July 7, 2005; J. Merkt, personal communication, July 18, 2005).

Why do programs seek CAA accreditation?

The answer to this question is not necessarily discovered in CAA documents, although we are aware of the benefits of being CAA accredited, according to the CAA. The answer therefore lies in the hearts and minds of administrators of CAA accredited programs. Craig is strongly committed to the CAA, and knows that his program reaps the benefits when he and his administration are committed to his program's CAA accreditation. It benefits industry, it provides greater assistance to students in the long term, and results in stability and equitable pay for faculty. Although the previous chair of the program at Middle Tennessee State University made the initial decision to seek CAA accreditation, Craig agrees that this was a beneficial decision for the program and the institution, and as a result, he continues to seek CAA re-accreditation on a regular basis (personal communication, June 27, 2005).

Brady explains this from a leadership perspective. He explains that if a program endeavors to be a leader in collegiate aviation education, the program must take the lead by stepping out and seeking accreditation. Echoing thoughts from Craig, Brady also shares that aviation programs once suffered (and still do to some extent) from a lack of academic credibility. These aviation programs have to fight it out with other programs for finite budget dollars. In the past, as there was no formal aviation accreditation, aviation programs fell victim to those programs that were accredited. Now, however, once accredited, programs have a solid base from which to argue for those dollars and are doing so successfully. The institutional president likely takes action on CAA recommendations. Indeed, as Kiteley shares, programs that were first accredited by the CAA in 1992 have substantially improved in many areas, specifically in those areas previously recognized in past CAA visiting team reports (T. Brady, personal communication, July 7, 2005; G. Kiteley, personal communication, July 28, 2005).

Why do programs choose not to seek CAA accreditation?

On the surface, one may assume that non-CAA accredited programs have not sought CAA accreditation simply because they are not of sufficient quality that would permit them to become accredited. In other words, is it

possible that over three-quarters of aviation programs are not CAA accredited because they simply could not pass the muster? This is doubtful, and in fact, in examining this question from the CAA perspective, we read that “the fact that an institution does not choose to seek accreditation is not of itself a commentary on the quality of education offered in that institution and must not be so interpreted” (CAA, 1999a, p. 1). If that is in fact true, that quality programs are not seeking CAA accreditation, then other, possibly less obvious reasons must be evaluated. (Please see Appendix A for actual comments by administrators of non-CAA accredited programs regarding this topic.)

One reason for not seeking accreditation, from an administrative perspective, is that “college rankings and specialized accreditation rate high among the things college presidents love to hate” (Ewell, 1998, para. 1). Ewell explains that specialized accreditation is attacked because “it is seen as an increasingly expensive and duplicative distraction from core institutional purposes” (1998, para. 7). If this is true, we would expect to see a similar high percentage of non-accredited programs in other academic fields. In fact, the opposite is true, with academic fields such as veterinary medicine, industrial technology, and forestry, boasting a relatively high percentage of accredited programs (averaging 59 percent).

Is it possible then, that a large number of programs desire CAA accreditation, but are hesitant to apply for accreditation, thinking they may be denied accreditation? Although this is a plausible reason, it is not supported in historical CAA actions. Kiteley (personal communication, July 28, 2005) explains this is an invalid perception shared by some programs. Indeed, Brady estimates a very small number of programs (possibly less than three) have been denied CAA accreditation in the past, once approved for candidate status. Likewise, Brady states that only a small number of programs, once accredited, have not sought re-accreditation once a term of accreditation expired. In certain instances, the lack of support may have occurred due to the retirement of a champion of the CAA at a particular institution (T. Brady, personal communication, July 7, 2005).

More plausible reasons include the lack of industry demand for graduates of CAA accredited programs, and thus lack of student demand to attend institutions with CAA accredited programs. Indeed, 89 percent of CAA board of trustee members responding to a survey agreed that the majority of aviation employers are unaware of the CAA. As Craig states, those front-line managers interviewing to fill entry-level positions are unaware of the CAA. Graduates of CAA programs should have an advantage over the competition, but, as Craig admits, this is not always the case. He has never heard a front-line manager state, “We’re only hiring graduates of CAA schools.” Interestingly, however, Merkt believes that this will eventually occur industry-wide as airlines, airports, and others only hire from CAA

accredited institutions. And while he agrees this may take some time, Merkt notes that one airline, in particular, is reluctant to even establish an internship program with any programs that are not accredited by the CAA (P. Craig, personal communication, June 27, 2005; J. Merkt, personal communication, July 18, 2005).

Yet another issue involves the lack of knowledge about the CAA possessed by students and parents. According to respondents to a survey of CAA officers and educator trustees, 100 percent agreed that the majority of prospective collegiate aviation students are unaware of the CAA. Likewise, 100 percent agreed that the majority of parents of college-bound aviation students are unaware of the CAA. When recruiting, Craig tells students and parents about the CAA, but very seldom do these parents and students possess prior knowledge about the CAA. Indeed, as Merkt explains, many parents are confused about the roles of the FAA and CAA in assuring program quality.

Additional reasons, according to Merkt, revolve around lack of institutional support (both internal and external to the program), the time and expense required to make required curricular (and faculty, staff, and facility) changes, and the desire to make sure the program meets minimum requirements before applying. Also, although less common, some programs have frequent turnover that prevents a champion of the CAA from having the time necessary to both bring the program up to CAA standards and then apply and see the process through until accreditation is granted. As Merkt shares, a new program director may need approximately four years to become thoroughly acquainted with a program (P. Craig, personal communication, June 27, 2005; J. Merkt, personal communication, July 18, 2005).

Additional reasons why programs choose against seeking CAA accreditation include already possessing accreditation from other agencies (such as the Accreditation Board of Engineering and Technology [ABET] and the National Association of Industrial Technology [NAIT]); having a currently successful program, thus making CAA accreditation unnecessary; lack of institutional support; time and fiscal constraints; negative view of the CAA; and lack of awareness about the CAA accreditation process. From surveying the entire population of prospective programs that are not currently accredited by the CAA, it was discovered that the majority of these programs are satisfied with the current level of quality and success of their respective programs and feel no need to pursue CAA accreditation. This view could have far-reaching impacts on the CAA. In essence, those institutions currently accredited may be the only institutions interested in doing so. If the CAA is to increase the number of accredited programs, as suggested in the strategies to follow, the organization must make a concerted

effort to enhance the value of accreditation by adopting various value-added services and benefits.

What role is the CAA playing in the international aviation academic community?

The CAA is “committed to its role as the world’s leader in the advancement of aviation accreditation [and] this global commitment is integral to all organizational activities” (“Mission,” n.d.). As Brady (personal communication, July 7, 2005) explains, aviation is by its nature a worldwide activity. In this vein, the CAA decided as a body to become an international accrediting organization, and, in addition to having an international office in Montreal, has recently undertaken an international review of its CAA Standards as the organization continues a more concentrated focus on the international aviation academic community. The Standards Committee has been actively involved with revising the Accreditation Standards to allow institutions outside the United States to apply for accreditation. Removing all specific references to U.S.-specific names and terms and replacing them with state-neutral terms has been one approach to this effort. Further efforts continue on changing the name of the CAA to reflect its international scope, as well as discussions about the quality of the language as written and concerns about changing the intent/content of many of the existing Standards. Specifically regarding a name change, Kiteley (personal communication, July 28, 2005) explains that in some countries the CAA is synonymous with the country’s civil aviation authority. Thus, the CAA is transitioning to become the Aviation Accreditation Board International (AABI). To successfully accomplish this re-branding effort, The Day Group (a marketing firm in Seattle) has been retained by the CAA to further develop this new brand and effectively market the AABI on a worldwide scale.

Although the CAA currently does not have any international aviation academic programs accredited, the organization has accepted Hankuk Aviation University in South Korea and Seneca College of Applied Arts and Technology in Toronto as candidates for accreditation, while applications have also been received from additional institutions in Canada, as well as New Zealand and possibly Brazil. Brady suggests that the organization will likely evaluate its first international program (Hankuk) this year. This, according to Merkt, will further enhance the overall awareness of the CAA both within the U.S. and around the world. With a strong international membership component, this move toward international accreditation was only natural and expected. (“Candidates,” n.d.; Knauer, 2005; “Mission,” n.d., para 1; “Standards committee continues,” 2005; T. Brady, personal communication, July 7, 2005; J. Merkt, personal communication, July 18, 2005).

This move toward international accreditation is also occurring in other specialized accrediting organizations. According to a 2001 survey by the CHEA, almost 43 percent of specialized accreditors are operating internationally. In fact, those organizations responding to the survey (which also included national and regional accreditors) reported accrediting activity in 65 countries (ranging from Australia to Venezuela). As a result, the CHEA developed International Principles in 2001 in an effort to provide a framework for U.S. accreditors working internationally (CHEA, 2002).

What are some possible strategies the CAA may adopt to increase the number of CAA accredited programs?

The CAA Membership Committee is responsible for seeking additional ways to involve CAA members, provide a forum for issues regarding membership to be reported to the Board, and to work with the Executive Director to actively recruit new members in all categories (CAA, 2003b). The CAA has recognized the need to increase the number of accredited programs as one of the organization's top five goals (G. Kiteley, personal communication, July 28, 2005). This is admirable, as the CAA has one of the lowest percentages of accredited programs in their field of study (compared to other specialized accrediting organizations). That said, however, Kiteley (personal communication, July 28, 2005) reminds us that the CAA did not plan on seeing 100 percent of programs becoming accredited. More realistically, he explains, is a 40-50 percent accreditation rate (among UAA institutional members).

According to those interviewed, one possible strategy the CAA might consider to increase the number of CAA accredited programs, is enhanced marketing to educate industry of the benefits of hiring graduates from CAA accredited programs, so that CAA preferences become part of the hiring criteria from top to bottom. If this occurred, schools on the fence would attempt accreditation; otherwise, their graduates would be at a disadvantage. In essence, CAA accreditation must benefit students once they graduate (P. Craig, personal communication, June 27, 2005).

Yet another strategy is to enhance the existing industry-educator forums, which are conducted at each CAA meeting. Industry is able to provide input to academia in this setting, something which, according to Brady, is difficult for aviation programs to get anywhere else. As explained by Kiteley, CAA has reached a turning point in which the organization is receiving support and recognition from industry. As an additional strategy, efforts should be focused on educating institutional members of the UAA of the value-added service of CAA accreditation. According to Craig, it is a tool used inside the university that proves a big advantage for the aviation program. Possibly a forum could be held at an annual UAA meeting allowing administrators of CAA accredited programs to discuss the many benefits of CAA

accreditation. Another suggestion is to implement a more robust internet search engine for the CAA. As prospective students search for “quality aviation program,” for instance, a link to CAA accredited programs would provide tremendous enhancement to their search effort. Additional strategies include being more attentive to smaller programs and their unique needs and constraints, attending and exhibiting at various industry trade shows, and evaluating the current fee structure (T. Brady, personal communication, July 7, 2005; G. Kiteley, July 28, 2005; P. Craig, personal communication, June 27, 2005).

The CAA could also assist accredited programs in further educating prospective students by sharing suggestions presented by the CHEA. Students, according to the CHEA, usually ask three questions: (a) how does accreditation work; (b) what are the assets and the weak points of the institutions or programs in which I am interested; and (c) what skills and capacity can enrollment in your institutions or program help me to achieve (Eaton, 2004, p. 2).

A strategy which has been adopted by the CAA (based on recommendations by the CHEA) is the transition from content-based standards to outcomes-based standards. Once this transition is complete (expected in Fall 2007), programs seeking accreditation will no longer be required to offer certain courses, require a certain number of credit hours, or have certain facilities available to students. Rather, the CAA will set various goals (or outcomes) and programs will be required to meet these goals and achieve the stated outcomes. In stark contrast to the current standards, the CAA will be less concerned with how you get there, than the fact that you are there and have achieved certain objectives in the process. As indicated by 67 percent of respondents to the survey of CAA officers and educator trustees, the transition to outcomes-based standards will likely renew interest in CAA accreditation and result in more aviation programs pursuing CAA accreditation.

Obviously, the move toward outcomes-based standards will introduce flexibility in the process of accreditation (both for programs and the CAA). Although the self-study will be more critical, requiring the visiting team to be assured of program objectives and measurements, it is believed that these new standards will enable more programs to successfully seek CAA accreditation. One administrator, in particular, is awaiting these new standards prior to applying for accreditation. Further, according to Kiteley (personal communication, July 28, 2005), the new outcomes-based standards will also mesh well with international accreditation efforts. Appendix H of the current CAA Accreditation Standards Manual (2003a) may provide some insight into the direction these new standards will take (see Appendix B).

RECOMMENDATIONS

In consideration of these issues (as well as the comments which may be found in Appendix C), several recommendations resulted from this research effort. In an effort to further enhance the role of the CAA and increase the number of CAA accredited programs, most of these recommendations appropriately center around education—educating industry, educating prospective students and parents, and educating non-CAA accredited programs.

Industry

1. Advertise the benefits of CAA accredited programs in industry publications (such as AAAE Airport Magazine).
2. Attend and exhibit at various industry trade shows (such as the American Association of Airport Executives [AAAE] and National Business Aviation Association [NBAA]) for the purpose of educating industry as to the value of graduates of CAA accredited programs.
3. Further enhance the CAA Industry/Educator forum.

Prospective students and parents

1. Create a marketing brochure explaining both the purpose of the CAA and value of CAA accredited programs and send to high school guidance counselors nationwide.
2. Create a more user-friendly website that is indexed in all major internet search engines. The website should have a students section that persuasively presents the benefits of attending and graduating from a CAA accredited school, as well as an up-to-date searchable database of accredited institutions and programs.
3. Advertise in publications attractive to high school students interested in aviation (such as Aircraft Owners and Pilots Association [AOPA] Flight Training magazine).
4. Reach out to Alpha Eta Rho (aviation fraternity) in the form of mentors, and marketing brochures, for example.
5. With the assistance of industry, create a scholarship program for high school seniors that choose to enroll in a CAA accredited aviation program.

Non-CAA accredited programs

1. Present success stories from accredited programs to administrators of non-accredited programs (possibly in the form of marketing brochures and presentations at UAA meetings).

2. Create a seminar to be held at UAA conferences to enable attendees to better understand the accreditation process and the benefits of obtaining CAA accreditation.
3. Create a marketing brochure revealing how effective CAA accreditation is and the many benefits it has for programs and their graduates and send to program and institutional administrators of non-CAA accredited programs.
4. Establish a sort of mentor network that allows institutions considering applying for CAA accreditation to receive personal guidance and wisdom from those most familiar with the CAA accreditation process.
5. Attend National Intercollegiate Flying Association [NIFA] regional and national competitions to promote CAA accreditation and become more familiar with those programs that are not currently accredited.

Additionally, various recommendations focus on the purpose and objectives of the CAA, as well as the strategic direction of the organization.

CAA purpose

1. Be more attentive to smaller schools and newer programs (including associate degree programs).
2. Continue the successful transition to outcomes-based standards.
3. Evaluate the current CAA fee structure (possibly implementing, similar to other accrediting agencies, varying fee levels depending on the size of the program or number of graduates).
4. Adopt and display a culture of helping programs (in addition to accrediting programs).
5. Further develop value-added benefits to CAA accreditation.

CONCLUSION

Based on the extensive case analysis performed on the CAA, examining past, present, and future issues, it is obvious that this organization has achieved a significant feat in a short amount of time. After accrediting the first program only 13 years ago, the organization currently recognizes 60 accredited programs at 21 institutions nationwide. However, raising the standards involves continuous improvement, and the CAA, although clearly meeting the needs of some institutions, must examine itself in an approach similar to this research effort to enable this organization to more fully meet the needs of aviation programs in the U.S. and throughout the world.

In looking toward the future, 15 years from now, Kiteley estimates that students will want to be graduates of CAA accredited programs because the

industry will expect that. In addition, he estimates that 70-80 percent of aviation programs will be accredited by the CAA. Industry support will be even stronger as companies desire to be part of the process. He also estimates the CAA will become totally independent and will have a staff three times the current size (G. Kiteley, personal communication, July 28, 2005).

In sum, this author firmly believes the CAA is meeting a critical need in the aviation academic community. Setting national academic standards for aviation programs elevates both accredited programs and the entire aviation academic community to a higher level. By acting on the various alternative strategies presented above, the CAA can more fully meet the needs of the aviation academic community, as well as industry, resulting in greater demand for graduates of CAA accredited programs and subsequently increasing the number of CAA accredited programs.

REFERENCES

- About accreditation. (n.d.). Retrieved June 10, 2005, from <http://www.caaaccreditation.org/aboutacc.html>
- Berg, B. L. (2004). *Qualitative research methods for the social sciences* (5th ed.). New York: Pearson.
- Brennan, L. L., & Austin, W. W. (2003). Addressing the need for management processes for higher education accreditation. *Innovative Higher Education*, 28(1), 49-62.
- Candidates. (n.d.). Retrieved June 22, 2005, from <http://www.caaaccreditation.org/candidates.html>
- Council on Aviation Accreditation. (1999a). *Information and procedures for the visiting team (Form 106)*. Auburn, AL.
- Council on Aviation Accreditation. (1999b). *Outline for a self-study report (Form 104)*. Auburn, AL.
- Council on Aviation Accreditation. (1999c). *Steps to accreditation (Form 112)*. Auburn, AL.
- Council on Aviation Accreditation. (2003a). *Accreditation standards manual (Form 101)*. Auburn, AL.
- Council on Aviation Accreditation. (2002b). *Dues and fees schedule (Form 103)*. Auburn, AL.
- Council on Aviation Accreditation. (2003c). *Bylaws (Form 100)*. Auburn, AL.
- Council for Higher Education Accreditation. (2002). *International quality review and accreditation: The role of U.S. recognized accrediting organizations*. Washington, DC.

- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Eaton, J. (2004, March). *Balancing competing goods: Accreditation and information to the public about quality*. Washington, DC: Council for Higher Education Accreditation.
- Ewell, P. (1998). Rethinking quality assurance. *Change*, 30(4), 4.
- Fagan, T. K., & Wells, P. D. (2000). History and status of school psychology accreditation in the United States. *School Psychology Review*, 29(1), 28-51.
- Farr, J. V., & Bowman, B. A. (1999). ABET accreditation of engineering management programs: Contemporary and future issues. *Engineering Management Journal*, 11(4), 7-13.
- Johnson, J. A., & Lehrer, H. R. (1995). The feasibility of developing a non-engineering aeronautical/aerospace science doctoral degree program in U.S. universities. *Journal of Studies in Technical Careers*, XV(4), 245-255.
- Knauer, C. (2005). Choosing a school? Look for CAA accreditation. *Avionics News*, January, 28-29.
- Kuhns, R. M. (1994). *Kansas aviation education: A comparison against national norms*. Unpublished doctoral dissertation.
- Lindseth, P. D. (1996). *Identifying indicators of program quality in U.S. baccalaureate aviation programs*. Unpublished doctoral dissertation.
- Lindseth, P. D. (1998). Developing a model of four-year aviation program quality: A grounded theory approach. *Collegiate Aviation Review*, 11-23.
- Lindseth, P. D. (1999). Assessing the environment and outcomes of four-year aviation programs: Does program quality make a difference? *Collegiate Aviation Review*, 40-52.
- Mabrey, T. (1998). Accreditation decisions in social work education: Looking for patterns, 1985-92. *Journal of Social Work Education*, 34(1), 21-30.
- McMillan, J. H. (2004). *Educational research: Fundamentals for the consumer* (4th ed.). New York: Pearson.
- Mission (n.d.). Retrieved June 8, 2005, from <http://www.caaaccreditation.org/mission.html>
- Roller, R. H., Andrews, B. K., & Bovee, S. L. (2003). Specialized accreditation of business schools: A comparison of alternative costs, benefits, and motivations. *Journal of Education for Business*, 78(4), 197-204.
- Smith, D. E. (2002). The demise of collegiate aviation programs with the best of intentions. *Journal of Aviation/Aerospace Education & Research*, 12(1), 13-14.
- Standards committee continues international review. (2005, Spring). *Collegiate Aviation News*, 27.

University Aviation Association. (2003). *Collegiate Aviation Guide*. Auburn, AL.

University Aviation Association. (n.d.). *UAA Membership List*. Auburn, AL.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.

APPENDIX A**WHY HAS YOUR PROGRAM/INSTITUTION DECIDED NOT TO PURSUE CAA ACCREDITATION?**

Source: Actual comments provided as responses to email survey of non-CAA accredited institutions (July/August 2005). Response rate: 25 %

Curriculum requirements/standards

In the case of . . . [our] Aviation Management [program], we have been wrestling with the CAA requirement that we require some sort of calculus class in the Aviation Management program in order to be accredited. That is the largest of the issues. There are some other curriculum adaptation issues that we might well be able to take care of but the calculus issue makes it such that, for us, the benefits of accreditation still are not large enough for us to proceed with the process given this requirement. As you can imagine, one of the ancillary issues for . . . [this institution] is that we also offer the . . . program at off campus locations. To restructure the program around CAA requirements AND to add calculus would likely make the program both more expensive and less accessible than it currently is. This is not an acceptable alternative. . . .

The CAA-recommended curriculum for Aviation Management is not much different than a business degree with some aviation courses thrown in at the end. I do not believe that the CAA has fully developed this curriculum option to the fullest extent to which they are capable of taking it.

We are an Associate Degree granting institution and our programs are designed according to specific state-wide standards. The programs are limited to a total of 68 credit hours and within that maximum, further limited in relation to the mix of occupational core, support, general studies and elective credits...with the emphasis being upon the occupational core and core support. We cannot change the programs to accommodate for the more 'academic' mission/level taxonomy CAA certification is based around.....nor would we want to.

I felt that . . . [the CAA was] trying to control our program and what we offer, they sometimes fail to realize we are regionally accredited.

The curriculum approvals would require major changes in our curricula for our degrees.

[Our program] . . . has gone through a recent curricular revision that would not make us eligible for accreditation until Fall 2006 at least. Also, we have had problems with retaining faculty. We hope that we will be able to have a stable faculty group if and when we decide to seek accreditation in 2007 or 2008.

Similar accreditation

. . . [We] are thinking of pursuing ABET accreditation instead of CAA accreditation. I believe [we] . . . are doing so because [we] . . . have been encouraged to do so by The Boeing Company.

Our program and department is accredited under National Association of Industrial Technology (NAIT). There is no reason to seek further accreditation. With the budget crunch in our State, it would not make economic sense.

We are accredited by the Southern Association of Colleges and Schools (SACS) and approved by the FAA (FAR Part 141 and 147). These are sufficient for our students to transfer their credits to four year institutions, receive grant funding at the state and federal levels and be recognized by the FAA to issue certificates and ratings.

We rely on our own college accreditation process, and the FAA licensing and standards, to obtain the accreditation we need.

Since my program is already certified by the FAA, accredited by the state and NCATE, why should I seek CAA accreditation?

Currently successful

We have discovered no compelling reason to pursue CAA certification from the perspective of the matrix we use to measure our program's success. For example, our recently released 2005 Graduate Employment Report indicates near 100% employment of our graduates (3 programs) with graduate reported wage levels well beyond the College average wage (72 programs represented).

[We] . . . are already an accredited institution which establishes a high quality of education. We are an FAA approved 141 Flight School which governs our curriculum used for flight training. We belong to other organizations: NBAA, AOPA, UAA, EAA, etc. The program started in 1967

so our graduates have provided excellent connections with various entities within the industry. Based on these and other issues we have chosen to not spend the money to join CAA.

Our students fair quite well in the job market after graduation and we are not accredited. We have a very high job placement rate.

We believe we have unique and valuable degree programs.

Lack of support/demand

At least in principle, we have no objections to CAA accreditation. I tried twice to initiate accreditation. However, we lacked faculty support for CAA, and no one else was willing to take the baton when I got [another, higher priority] . . . assignment. But the second time, I was 'shot down' by the Associate Dean, who thought we would embarrass ourselves by going for accreditation at that point in time. It was his opinion that we needed to get our act together first. I tried to point out that doing the self-study would force us to face that very issue, but I was ignored by him, peers, and colleagues. [Now] the Chair has decided it's time to re-address this issue and pursue accreditation. Unfortunately, no one has seriously done anything that would move us in that direction.

I have never had a prospective student ask if we were accredited by CAA.

Time/expense/effort versus benefits

All advice I get is it is a very large project, and will take a couple of years and some money. Money and time, of course, limit everything.

Cost/effort vs benefit.

Time restraints delay the [seeking of accreditation]

For us, accreditation would just be a money drain with no really tangible benefit. From my perspective, the CAA needs us.....NOT that we need them.

I need to see what CAA would bring to us before I could gauge its value for us on top of what we have now.

It is . . . not a good fiscal cycle to look at such major changes.

For an aviation program, there is no external reason why a program should be accredited by CAA. That is, my program does not receive any negative impact in the aviation community by not seeking accreditation. The only reason to become accredited is to meet my home institution's needs.

Smaller programs

As you know most of the schools not accredited are medium to small programs. Two years ago when we upgraded to a full BS degree I joined CAA thinking it would help us and went to their convention in Florida. At the convention they seemed only interested in the larger schools, were not friendly to the new schools, and had next to nothing on the agenda that related to us. They do not realize that our budgets and programs are not like the big schools. The accrediting process is very extensive and expensive.

Schools that have small aviation programs (perhaps less than 100 students) usually don't have the funds to spend annually on memberships in the UAA and CAA and the fees for the accreditation team to visit. This may be small change for large programs, but not so for small programs. We contract the flight training so we don't easily meet the standards for accreditation, but we could should we hire additional faculty to participate in the flight training. But, why should we? The FAA has its standardized program for pilot training for each rating. An FAA examiner awards the ratings, NOT the schools.

My perspective from attending the CAA meetings is that the accreditation process is skewed towards institutions that offer flight as part of their program. Also, it appears that one institution, Embry Riddle, has a disproportionate influence on the CAA guidelines and that the guidelines are skewed towards that institution.

Lack of awareness

What is the CAA?

Until I got your email, I was unaware of [the CAA]

Reputation of the CAA

Although in general it is better to be accredited than a non-accredited program, the reputation of the accrediting agency does matter. Unfortunately, one cannot buy perception and CAA suffers from a lack of

reputation. Since CAA is very small and unknown, there is no pressure on us to pursue accreditation. Also, the operations of CAA appear to be informal rather than those of a professional organization. As an example, their web site is unprofessional and frequently there is outdated information on the site. We do have a tentative plan of seeking accreditation in a few years; however, this is not definite.

APPENDIX B

**COUNCIL ON AVIATION ACCREDITATION FUNDAMENTAL
SKILLS AND VALUES OF AVIATION GRADUATES
APPENDIX H – FORM 101**

Industry and education leaders in the aviation field identified the following important skills and values for aviation professionals that are typically not well developed in graduates of current programs. Consequently aviation programs are expected to pay particular attention to the development of these skills and values.

Critical Thinking Skills

Problem analysis; problem solving

Judgment and decision making (including resource identification and management)

Interpersonal Skills

Oral and written communications

Conflict management/conflict resolution

Team building; team maintenance; individual accountability

Values and Attitudes

Ethical standards; integrity

Flexibility; versatility; openness to change

Curiosity, imagination, creativity

Motivation

Passion

Dedication

APPENDIX C**WHAT ARE SOME POSSIBLE STRATEGIES THE CAA MAY ADOPT THAT WOULD ENHANCE THE VALUE OF CAA ACCREDITATION FROM YOUR PERSPECTIVE (AND POSSIBLY RESULT IN MORE PROGRAMS BECOMING ACCREDITED)?**

Source: Actual comments provided as responses to email survey of non-CAA accredited institutions (July/August 2005). Response rate: 25 %

Marketing/PR

Another . . . [strategy] would be a larger participation of industry employing aviation program graduates.

Be more aggressive about getting the word out about the benefits of accreditation.

It appears as though CAA is geared to all aspects of the industry. We only deal with one - Flight Training - For an operation such as ours, I would think more focus on the "Pilot" side of the industry would be more appealing.

Be more new school friendly and recruit us.

Have something on the agenda at the conventions that relate to our size school, not just what . . . the larger programs are dealing with.

Attend NIFA regionals and nationals to promote and get to know the other schools.

Publicize [the CAA] . . . [and] its mission and goals, [as well as] the benefits of accreditation by [the] CAA, etc.

Have representatives at [Professional Aviation Maintenance Association] PAMA and [Aviation Technician Education Council] ATEC conferences. Does [the CAA] . . . have an annual conference?

CAA Purpose

Concentrate on accreditation rather than professional development activities.

One already being addressed is the international aspect of the accreditation organization.

Remove all sense of historical and resident politics.

Non-accredited programs

Do what you are doing: Find out why non-accredited programs have remained non-accredited.

Curriculum

Refine the Aviation Management requirements to be less business degree-oriented and more oriented to AVIATION management.

Make the criteria more Associate Degree applicable and involve Associate Degree program representation in a meaningful advocacy process.

UAA

UAA could advocate/develop scholarships applicable to Associate Degree level program students participating in a CAA accredited program.

I'd recommend more one-on-one dialog with Department Chairs and College Deans. If they do not support it, their faculty won't either: there's no incentive for faculty to pursue the initiative without risking bad annual reviews. UAA has a role to play as well. Our (local) lack of faculty support comes largely from the perception that UAA is little more than a 'good old boys' flying club' with no solid academic respectability like other disciplines. So accreditation by CAA is actually irrelevant: it gains us little stature among peers in the college or the institution of which we are a part.

I think CAA could benefit from helping UAA improve the academic respectability of aviation educators as a discipline.

A one-hour overview seminar at the annual UAA conference might be helpful. I suppose I need to be convinced about the benefits of all that work. I want to do it, but it just isn't a priority today.

Fees

\$700 dues are very high for our budgets when we sense no value added.

If the CAA would eliminate the fees I think many more would seek accreditation. I know this probably won't happen, but for us small programs it's a big deal.

Enhance benefits

It comes down to how the college will benefit from the accreditation.

Develop a culture that we want to help your program, not just accredit it.

Provide some added benefit for having the accreditation. This process is usually time consuming and costly. Without an added benefit for students or for institutional funding, there is no logical reason to undertake the process.