REVIEWER NOTES

A Review by Richard Kraemer of the Paper "Strategic Identification Of Domestic Air Express Markets: Assessing Alabama's Market Potential"

Professor Henry B. Burdg provides a well documented history and description of the air express market which has quadrupled in the past ten years. The major metropolitan areas are becoming saturated with blossoming companies scrambling for a piece of the action. Serious interest in developing methodology for evaluating marginal market is surfacing.

The author presents a simple model for predicting the expected number of express parcels generated per day as a function of the number of employees in industry classifications and a useage rate per employee for that industry. Census data provides the employee and industry numbers. Survey data from air express carriers was used to calculate useage rates per industry.

The author's well documented look at the elasticity of demand for air express relative to the standard variables raises some interesting characteristics. Studies that show a zero price elasticity are supported by the previously discussed express urgency characterisitic "where the price of the service loses its significance in relation to the concept of place utility". This along with a strongly positive income elasticity and a positive rather than negative impact from other means of freight services all seem to support the author's simple model.

The author applies his model to data for the state of Alabama producing reasonable values of potential and valuable information about the regions of the state where that potential exists. This well written and well documented thesis may prove to be a valuable tool for the air express industry to analyze market potential in detail. Detailed market knowledge will produce better business decisions resulting in continued success of the industry and maximum service to the users.

A Review by Richard Kraemer of the Paper "Facilities Planning For Aviation Education"

Professors Hutchings and Geibel have provided us with a thorough, detailed chronology in theory and in practice of the "right way" to go about planning facilities for aviation education. The tasks and activities in the state of the art of the facilities planning process are initially introduced and defined clearly, concisely and briefly enough to be valuable to those of us not trained in these matters. The rest of the paper is a well articulated discussion of the application of these principles and methodology at the University of Illinois Institute of Aviation facilities.

The comprehensiveness required for most effective facilities planning is demonstrated in the breadth of academic and facility development studies pursued and the depth of the methodology applied to the physical planning done. The superior product produced from the application of such detailed, complex, professional planning expertise demonstrates the need for this expertise and the need for continuous interaction between the aviation faculty users and the design professionals. This need so strongly emphasized and demonstrated in the paper is also reflected in the disciplines of the co-authors.

The Institute Of Aviation tapped a highly competent and cost effective source of comprehensive facilities planning assistance through their collaboration with the School Of Architecture at U. of Ill. The professional and personal interaction of the two different faculty groups was much more than would have occurred with commercial consulting and the benefit to the university is twice as great. Besides the professional growth of the faculty, the professional and educational experience provided to the students by the activities is at the highest level of the goals of our educational institutions.

The requirement for flexibility and adaptability of facilities planning is demonstrated by the evolution of the Institute plan over the 10 year period of major activity in the recent past. The Institute Of Aviation experience has demonstrated the fruits of perserverence described as one of the binding ingredients of the formula for success in the quest for facilities. The hard work that was done when no funds were available paved the way for creating and maximizing the benefit of funding sources. As facility funding opportunities arise, maximum advantage will be obtained because of the comprehensive and thorough planning that has been prepared.

A Review by Richard Kraemer of the Paper "Curriculum Development/Integration Single Concept Simulation"

Professor Richard A. Molenaar has described a learning enhancement scheme, being developed at the University of North Dakota. The aim is to improve the rate, depth, and timeliness of acquiring understanding of individual flight training elements of knowledge or "single concepts". This is accomplished through the use of "simulation" at an earlier stage of training and in a simpler and less costly format than has been traditionally done.

Although not well described, the simulation format appears to be an application of student interactive computer programming using the mini/micro computer industry hardware and software. If there has been any development or utilization of hardware, software, or curriculum associated with this project it is unfortunate that these were not described in more detail in the paper.

The author makes a good case for the specific advantages of single concept simulation with well documented learning enhancement principles such as rapid reinforcement, non-threatening environment, utilizing knowledge in situations requiring active participation, and the multi-sensory see, hear and do. However, I disagree with most of the generalities and opinions the author states in the beginning of the paper concerning the integration of flight and ground curriculums. Almost any pilot educator would disagree with some of the statements made by the author. None of those statements are necessary for the communication of the single concept simulation idea or the establishment of its potential value in pilot training curricula. Readers can be unnecessarily antagonized or alienated before reaching the material the author really wants to talk about. If page two were removed and replaced later on with a page describing more of what the author is actually doing or directing to be done, the paper could be a better piece of work.

A Review By Richard Kraemer of the Paper "An Integrated, Module Based, Flight Training Program"

Dr. John H. Schultz states what we in the business all know to be true about college flight training: "That the training program, except for the quality of the ground school classes, on the whole, (is) only marginally better than that which (can) be gotten at any good independent (commercial) flight school". This is because most college programs do not control the flight training.

A few changes were made in the flight training program at Daniel Webster College. The college secured exclusive use of a complement of new conventional and unconventional training aircraft and took complete control of the flight training component of their program. They designed a four year degree program around eight basic training modules. These were based on the mastery of a body of aeronautical knowledge and critical flying skills appropriate to the developmental level of the student at that stage of training. They are not based on FAA minimum standards or license certification requirements. The modules combine the use of classroom instruction, texts and other professional reading, video learning labs, advanced computer managed flight simulators free to students, and intensive aircraft flight instruction in a range of machines, from motor gliders to standard and advanced trainers, including high performance aerobatic trainers. The intent was to attract those professional career minded students who have the motivation, intelligence and commitment to take advantage of it while recapturing the spirit which attracts students to flight and sustaining that interest once they had made the commitment.

The author has carefully, quietly and competently reported to the world that every pilot educator's wildest dream is alive and well at Daniel Webster College. I have personally designed this same program in collaboration with several faculties at several colleges as have many others in the field of pilot training. Dr. Schultz and company have succeeded magnificently where I have always failed miserably. My hat is off to you as I am sure is true for the vast majority of college pilot training faculty.

It is important to realize the all important but very subtle ingredient in the success of this effort. Without the political and financial support and commitment of the college, this outstanding program would be another stack of proposals gathering dust along with the rest of ours. The college listened to the faculty, believed they knew what they were doing and took the risk to let them try it. The result, as every faculty tries to convince their college, is a unique program where "flight students can be exposed to 40% more material and significantly higher quality experiences yet with a substantial net decrease in cost". "The overwhelming response of the students (is) reflected in the highest retention rate among flight students that the college has ever experienced". The faculty is proud and happy, the students are proud and happy, the college is proud and happy. Are you listening administrators, deans and presidents? Your aviation faculty is.

A Review by Richard Kraemer of the Paper "Aviation Curriculum Design"

Dr. Pamela M. McDermott has researched the education literature to determine accepted organizational steps in curricular design models. She has selected one seven step model, and used it to "discuss some strategies for developing aviation (pilot) curricula".

The seven step curricula design organization model chosen by the author is surprisingly similar to the seven step F.A.A. standard lesson plan organization model learned by all F.A.A. flight instructors: Objective, Elements, Schedule, Equipment, Instructor's Actions, Student's Actions, Completion Standards. We have all carried this organizational model with us as we have "cross-qualified" from flight instructors to college educators. It is comforting to learn that this "checklist" is probably a very good one. However, continuing with the author's airplane checklist analogy; there are many check lists that begin with the step "exterior inspection complete". We need to know more of the meat of exactly what must be done, why it is important, and how these actions relate to the total success of the aircraft operation.

If the author, as chairperson of a university flight department, has actually designed a flight training or other aviation curriculum, as indicated in the references for this paper, then sharing that creation and any experience in using it would be most beneficial. Dr. McDermott has apparently done substantial and creative work in determining appropriate content for pilot training curricula as alluded to in the body of the paper being reviewed here. Having been the recipient of F.A.A., university, and military pilot and flight instructor training, I would be very interested in the author's list of 765 flight training elements and those included in the 94% that were validated for training up to specialization. That information would be something that could help improve university pilot training curricula because it is the validated substance of the content to be selected from in step 3 of Dr. McDermott's chosen curriculum design organizational model.