AGENDA ITEM SUMMARY

1. NAME OF ITEM: New Academic Program: B.S. in Aviation, UMA

2. INITIATED BY: James H. Page, Chancellor

3. BOARD INFORMATION: BOARD ACTION: X

4. BACKGROUND:

The University of Maine at Augusta proposes the creation of a Bachelor of Science in Aviation program. This 4-year program is designed for students interested in becoming FAA certified commercial pilots while earning a comprehensive baccalaureate degree from an accredited university.

The new B.S. in Aviation will consummate the collaboration/partnership between University of Maine at Augusta (UMA) and Maine Instrument Flight (MIF) so each can market the degree to potential students and take advantage of what is expected to be a growing market for commercial airline pilots. The program will enhance UMA’s traditional professional focus on workforce development opportunities and will attract students from Maine, veterans, other military personnel, out-of-state and international students.

External reviewers provided constructive feedback which strengthened the proposal. The Chancellor, President, and Chief Academic Officers endorsed the creation of this new program. Additionally, strong support was expressed from community leaders such as, William Bridgeo, City Manager, Augusta Board of Trade, Kennebec Savings Bank, Eaton Peabody, and Bernstein Shur. Details of the program’s intent to plan and letters of recommendation are attached.

5. TEXT OF PROPOSED RESOLUTION:

That the Board of Trustees approve the creation of Bachelor of Science in Aviation at the University of Maine at Augusta.

01/17/2013
January 7, 2013

Dr. James Page,
Chancellor
University of Maine System

Dear Chancellor Page,

This will acknowledge that UMA has received comprehensive feedback from three external evaluators on UMA’s proposed BS in Aviation. As you will recall, UMA will be collaborating with Maine Instrument Flight, a long-time FAA certified flight school here in Augusta, to deliver the program which includes FAA licenses and certifications up through and including Commercial Pilot and Instrument Flight Instructor. We are pleased and honored that UMA will be the only such school in Maine and one of only three in New England.

Feedback from the three reviewers addressed a number of adjustments for the curriculum, and all were useful. In a number of areas, we have already begun preparing proposals for our Curriculum Committee and Senate. We anticipate these being addressed as soon as the groups meet in January.

Here are some of the areas we have already begun working on: separation of the ground school from the flight instruction classes at each of the four professional pilot levels; repurposing the Senior Seminar course to focus on aviation safety and human factors; writing a mission statement and codifying program learning outcomes; adding additional financial disclosures for potential students and parents; adding a multi-engine training as an option for upper level students; finalizing the MIF/UMA professional services agreement; advertising for a masters prepared aviation professor to begin as early as fall of 2014; and adding additional quality controls for flight training by introducing periodic stage checks by an FAA certified UMA representative. And finally, once we are operational and as soon as it makes sense for UMA, we will investigate and pursue Aviation Accreditation Board International (AABI) accreditation.

We believe the external review process has worked well for us. Not only did UMA receive useful information, it was also encouraging to hear similar comments from all three aviation experts and of course, we appreciated the notes of support throughout.

As always, I am happy to provide additional information should you or any of the Board members have additional questions.

Sincerely,

Allyson Hughes Handley, Ed.D
President
UMA’s response to external reviews:

The three external reviewers for the B.S. in Aviation program have made a variety of recommendations, all of which UMA has considered carefully. Some of these recommendations have already resulted in UMA making changes to the program. This section summarizes UMA’s responses to the most significant recommendations and the changes that are already in process as a result of this external review process.

The external reviewers have made several recommendations regarding the curriculum for the program. All three reviewers as well as our internal consultant have recommended that UMA increase the focus on safety in the curriculum. In response, UMA has already redeveloped the aviation capstone course, AVI 460, to focus on aviation safety. Safety is also a thematic component for all AVI ground and flight training courses. This revised safety-focused capstone course is before UMA’s curriculum committee at its January 18 meeting. In response to the recommendations that UMA hire its own faculty to teach the ground training courses, UMA has developed curriculum to separate each of the flight training courses from the ground training courses. There are no immediate plans for UMA to teach these courses, as they are part of the FAA certified Maine Instrument Flight (MIF) curriculum. Nevertheless, the division of the curriculum into flight and ground courses will enable UMA to do so, if necessary, in the future. UMA has also developed a program mission statement and student learning outcomes for the program in response to recommendations. Finally, UMA is developing a proposal to add a multi-engine and multi-engine commercial and instrument qualification to the curriculum in consultation with MIF. These courses will initially be added as electives for the final year of training in the program.

In response to recommendations regarding a clearly defined contract with MIF, UMA is in the final stages of developing a detailed memorandum of understanding with MIF. This memorandum of understanding has been developed in close cooperation with UMS attorneys and will be in place before UMA admits its first class in the aviation degree program.

External reviewers recommended that UMA hire an experienced flight instructor, independent of MIF, as well as a faculty coordinator for the program. UMA has already hired Mr. Ted Westlake, whose qualifications appear in the appendix to this document, to help with the initial development of the program. Mr. Westlake is an experienced flight instructor and has already contributed significant time and energy to the development of the aviation degree program. In addition, UMA is committed to hiring an assistant professor of aviation, who has the requisite experience and education. This faculty member will coordinate the program and be UMA’s liaison with MIF and ensure the quality of the aviation program.
AVIATION ADMISSIONS REQUIREMENTS:
- Documented proof of passing the FAA medical Exam

BACHELOR'S DEGREE REQUIREMENTS:
- Minimum 121 Credit Hours
- Writing Intensive Course
- Minimum Cumulative G.P.A.: 2.00
- 30 Credit Hours of Residency courses
- 9 Credits of Major Upper-Level Residency courses
- Minimum G.P.A. in the Major: 2.00

Basic Skills Requirement: All required placement examinations and/or academic assessments must be completed prior to any course registration. To ensure that students have the best possible opportunity to succeed in their major, students testing into developmental coursework are advised to complete the recommended courses within the first semesters of attendance.
- Not Required
- Recommended: ENG_REA_MAT

PROGRAM MAJOR REQUIREMENTS (69 credit hours):
- AVI 120 Aviation History (3)
- AVI 141 Private Pilot Ground (3)
- AVI 142 Private Pilot Flight (3)
- AVI 241 Instrument Rating Ground (3)
- AVI 242 Instrument Rating Flight (3)
- AVI 341 Commercial Pilot Ground (3)
- AVI 342 Commercial Pilot Flight I (4)
- AVI 343 Commercial Pilot Flight II (6)
- AVI 320 Aviation Law (3)
- AVI 420 Homeland Security in Aviation (3)
- AVI 441 Flight Instructor Ground (3)
- AVI 442 Flight Instructor Flight (3)
- PHY 115 Physics I (4)
- PHY 116 Physics II (4)
- MTRM 101 Meteorology (4)

Aviation Management Concentration (15)
- BUA 101 Financial Accounting for Management and Decision Making (3)
- BUA 223 Principles of Management (3)
- BUA 365 Organizational Behavior (3)
- BUA/MAT 355 Operations Research (3)
- AVI 460 Aviation Safety Seminar (3)

GENERAL EDUCATION REQUIREMENTS (45 credit hours):
- COM 101 Public Speaking (3)
- ENG 101 College Writing (3)
- ENG 317W Professional Writing (3)
- Fine Arts* (3)
- Humanities* (6)
- one of the following (3):
  - PHI 135 Critical Thinking
  - PHI 335 Formal and Informal Logic
- CIS 100 Introduction to Computing (3)
- CIS 330 Systems Analysis and Design (3)
- MAT 115 Elementary Statistics I (3)
- MAT 111 Algebra II (3)
- MAT 112 College Algebra (3)
- ECO 201 Introduction to Economics I (Macroeconomics) (3)
- ECO 202 Introduction to Economics II (Microeconomics) (3)
- PSY 100 Introduction to Psychology (3)

GENERAL ELECTIVES (9 credit hours):

*Course options continued...
Bachelor of Science, AVIATION continued...

<table>
<thead>
<tr>
<th>Fine Arts Theory</th>
<th>Name:</th>
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<tbody>
<tr>
<td>ART 1xx any 100-level Art course</td>
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<tr>
<td>DRA xxx any Drama course</td>
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<tr>
<td>ENG 351 Creative Writing I</td>
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<tr>
<td>ENG 452 Creative Writing II</td>
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<tr>
<td>MUS 1xx any 100-level Music course</td>
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<td>PHO 1xx any 100-level Photography course</td>
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<tr>
<th>Humanities</th>
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<tr>
<td>AME xxx any American Studies course</td>
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<tr>
<td>ARH 105 History of Art &amp; Architecture I</td>
<td></td>
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<tr>
<td>ARH 106 History of Art &amp; Architecture II</td>
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<tr>
<td>DRA xxx any Drama course</td>
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<tr>
<td>ENG xxx any English course (except ENG 101 or 317w)</td>
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<tr>
<td>FRE xxx any French course</td>
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<tr>
<td>HGH xxx any Holocaust, Human Rights &amp; Genocide course</td>
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<tr>
<td>HTY xxx any History course</td>
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<tr>
<td>HUM xxx any Humanities course</td>
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<tr>
<td>PHI xxx any Philosophy course (except PHI 135 or 335)</td>
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<tr>
<td>SPA xxx any Spanish course</td>
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<tr>
<td>WST xxx any Women's Studies course</td>
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</tbody>
</table>

Students are encouraged to contact their faculty advisor and the Advising Center for academic advising and support services throughout their stay at UMA.

Approved to Receive Degree

<table>
<thead>
<tr>
<th>Enrollment Services</th>
<th>Date</th>
<th>College Dean</th>
<th>Date</th>
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</thead>
</table>
**AVIATION ADMISSIONS REQUIREMENTS:**
- Documented proof of passing the FAA medical exam

**BACHELOR'S DEGREE REQUIREMENTS:**
- Minimum 120 Credit Hours
- Writing Intensive Course
- Minimum Cumulative G.P.A.: 2.00
- 30 Credit Hours of Residency courses
- 9 Credits of Major Upper-Level Residency courses
- Minimum G.P.A. in the Major: 2.00

**Basic Skills Requirement:** All required placement examinations and/or academic assessments must be completed prior to any course registration. To ensure that students have the best possible opportunity to succeed in their major, students testing into developmental coursework are advised to complete the recommended courses within the first semesters of attendance.

**PROGRAM MAJOR REQUIREMENTS (69 credit hours):**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>AVI 120 Aviation History</td>
<td>3</td>
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<tr>
<td>AVI 141 Private Pilot</td>
<td>6</td>
</tr>
<tr>
<td>AVI 241 Instrument Rating Flight</td>
<td>6</td>
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<tr>
<td>AVI 341 Commercial Pilot I</td>
<td>6</td>
</tr>
<tr>
<td>AVI 342 Commercial Pilot II</td>
<td>9</td>
</tr>
<tr>
<td>AVI 320 Aviation Law</td>
<td>3</td>
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<tr>
<td>AVI 420 Homeland Security in Aviation</td>
<td>3</td>
</tr>
<tr>
<td>AVI 441 Flight Instructor</td>
<td>6</td>
</tr>
<tr>
<td>PHY 115 Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 116 Physics II</td>
<td>4</td>
</tr>
<tr>
<td>MTRM 101 Meteorology</td>
<td>4</td>
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</table>

**Aviation Management Concentration (15):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUA 101 Financial Accounting for Management and Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>BUA 223 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUA 365 Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>AVI 460 Aviation Senior Seminar</td>
<td>3</td>
</tr>
<tr>
<td>BUA/MAT 355 Operations Research</td>
<td>3</td>
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**GENERAL EDUCATION REQUIREMENTS (42 credit hours):**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>COM 101 Public Speaking</td>
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</tr>
<tr>
<td>ENG 101 College Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 317W Professional Writing</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts*</td>
<td>3</td>
</tr>
<tr>
<td>Humanities*</td>
<td>3</td>
</tr>
<tr>
<td>PHI 135 Critical Thinking</td>
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<tr>
<td>MAT 115 Elementary Statistics I</td>
<td>3</td>
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<td>MAT 111 Algebra II</td>
<td>3</td>
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<tr>
<td>MAT 112 College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201 Introduction to Economics I (Macroeconomics)</td>
<td>3</td>
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<tr>
<td>ECO 202 Introduction to Economics II (Microeconomics)</td>
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<td>PSY 100 Introduction to Psychology</td>
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**GENERAL ELECTIVES (9 credit hours):**

- Course options continued...

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*Course options continued...*
<table>
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<tr>
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<tr>
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<tr>
<td>DRA 101 Introduction to Theatre</td>
</tr>
<tr>
<td>DRA 265 The American Movie</td>
</tr>
<tr>
<td>DRA 280 Introduction to Films</td>
</tr>
<tr>
<td>INT 129 Understanding the Arts</td>
</tr>
<tr>
<td>MUS 123 Understanding Music</td>
</tr>
<tr>
<td>MUS 160 World Music</td>
</tr>
<tr>
<td>MUS 190 Women in Western Music</td>
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<tr>
<td>MUS 225 The Mysterious Power of Music</td>
</tr>
<tr>
<td>MUS 227 Music of the Classical Era: Haydn, Mozart, Beethoven</td>
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<tr>
<td>MUS 333 History &amp; Literature of Music I</td>
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<tr>
<td>MUS 334 History &amp; Literature of Music II</td>
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<tr>
<td>MUS 337 Tradition and Innovation: Western Art Music Since the Romantics</td>
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<tr>
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<tr>
<td>AME/WST 304 American Girls: Identity, Culture, &amp; Empowerment</td>
</tr>
<tr>
<td>ARH xxx any art history course</td>
</tr>
<tr>
<td>DRA 101 Introduction to Theatre</td>
</tr>
<tr>
<td>DRA 265 The American Movie</td>
</tr>
<tr>
<td>DRA 280 Introduction to Films</td>
</tr>
<tr>
<td>ENG xxx any literature course</td>
</tr>
<tr>
<td>HUM xxx any humanities course</td>
</tr>
<tr>
<td>INT 129 Understanding the Arts</td>
</tr>
<tr>
<td>MUS 110 Popular Music</td>
</tr>
<tr>
<td>MUS 117 The Dream Machine: A History of Rock &amp; Roll</td>
</tr>
<tr>
<td>MUS 123 Understanding Music</td>
</tr>
<tr>
<td>MUS 124 Music of the Twentieth Century</td>
</tr>
<tr>
<td>MUS 160 World Music</td>
</tr>
<tr>
<td>MUS 190 Women in Western Music</td>
</tr>
<tr>
<td>MUS 223 Music of the United States</td>
</tr>
<tr>
<td>MUS 333 History &amp; Literature of Music I</td>
</tr>
<tr>
<td>MUS 334 History &amp; Literature of Music II</td>
</tr>
<tr>
<td>PHI xxx any philosophy course</td>
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<tr>
<td>POS 390 Survey of Political Theory</td>
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</table>
Sample Curriculum 1/02/2013

First Semester
ENG 101 English Comp 3
MAT 111 Algebra II 3
AVI 120 History of Aviation 3
AVI 121 Private Pilot Training - Ground 3
AVI 122 Private Pilot Training - Flight 3
15

Second Semester
CIS 100 Computer Applications 3
BUA 101 Accounting 3
MAT 115 Statistics 3
BUA 223 Principles of Management 3
COM 101 Public Speaking 3
15

Third Semester
PHY115 Physics I 4
MAT 112 College Algebra 3
PSY 100 Intro to Psych 3
AVI 241 Instrument Rating Ground 3
AVI 242 Instrument Rating Flight 3
16

Fourth Semester
PHY116 Physics II 4
MTRM 101 Meteorology 4
one Fine arts 3
BUA 365 Organizational Behavior 3
14

Fifth Semester
ENG317 Professional Writing 3
PHI 135 or PHI 335 3
ECO 201 Macroeconomics 3
AVI 341 Commercial Pilot Ground 3
AVI 342 Commercial Pilot Flight Part 1 4
16

Sixth Semester
AVI 320 Aviation Law 3
one general elective 3
ECO 202 Microeconomics 3
AVI 343 Commercial Pilot Flight Part 2 6
15

Seventh Semester
AVI 420 Homeland Security in Aviation 3
one humanities 3
one general elective 3
AVI 441 Flight Instructor Ground 3
AVI 442 Flight Instructor Flight 3
15

Eighth Semester
CIS 330 Systems Analysis 3
AVI 460 Aviation Safety Seminar 3
one general elective 3
one humanities elective 3
BUA/MAT 355 Operations Research 3
15

Total Credits earned 121

*not all students will complete flight training courses in the semester of initial registration
November 2, 2012

Dr. Allyson Handley
President
University of Maine at Augusta
46 University Drive
Augusta, Maine 04330

Dear Allyson,

Please allow me to add my voice to those advocating for the establishment of a BS degree in Aviation to be offered in conjunction with Augusta-based Maine Instrument Flight. I see this as a superb opportunity for collaboration between higher education and the private sector. MIF is a well-established, highly regarded operation ideally suited to such a program and, of course, UMA's mission is well aligned with a program like this.

I can envision only benefit from this proposed program including an important new educational opportunity and source of growth for UMA, enhanced job opportunity for our area residents, and associated business development in the Capital region.

I very much hope that the system Board of Trustees supports this initiative.

Sincerely,

William R. Bridgeo
City Manager
Augusta Board of Trade

November 5, 2012

University of Maine at Augusta
46 University Drive
Augusta, Me.  04330

RE: UMA Bachelor of Science in Aviation Proposal

Dear Allyson:

I am writing, as Chair of the Augusta Board of Trade, to offer our unconditional support for the aforementioned Program currently under review by the UMS Trustees.

The Board of Trade’s long history of helping to build and develop UMA precludes that we should continually support new educational offerings that clearly enhance the future enrollment and quality of the institution. From a regional economic development standpoint, this program will provide a scope of study that severely needs new entry level candidates addressing an acute need in the Aviation industry.

The Board would also extend a thank you for your continued thoughtful initiatives that enhance the cultural and economic needs of our region. In addition, the Board of Trade would like to offer our assistance in any aspect that brings this project to fruition.

As always, please do not hesitate to call upon us should any development need arise. We collectively congratulate you and wish you great success in this endeavor.

Sincerely,

John V. Finnegan, Chair
Augusta Board of Trade

P.O. Box 2346, Augusta, ME 04338-2346
Telephone: 207.622.9100
November 6, 2012

Dr. Allyson Hughes Handley, President
University of Maine at Augusta
46 University Drive
Augusta, ME 04330

Dear Allyson:

I am pleased to lend my support behind the proposal to add a new BS in Aviation program at the University of Maine at Augusta, to be offered in collaboration with Maine Instrument Flight. This seems to me to be the perfect kind of innovative public/private partnership that has the potential to bring new students to UMA and to benefit the community at large.

I wish you well on this journey. If I can provide any additional assistance along the way, please don’t hesitate to contact me.

Best regards,

Mark L. Johnston
President
(mjohnston@kennebecsavings.com)
November 7, 2012

President Allyson Handley
University of Maine at Augusta
46 University Drive
Augusta, ME 04330

RE: Support for New UMA BS in Aviation Program Proposal

Dear President Handley,

I am writing to you in support of the efforts being undertaken by the University of Maine at Augusta to launch a new Bachelor of Science degree program in aviation. While I serve on the UMA Aviation Program Advisory Council, my interest in this initiative precedes that role considerably. As a former Commissioner of the Maine Department of Transportation serving throughout Governor King’s Administration, I became familiar with Maine’s aviation resources statewide. I was particularly supportive of the unique state-local partnership present at the Augusta State Airport. That partnership will take on new meaning and significance with the aviation initiative UMA is now pursuing.

The Augusta State Airport and its proximity to UMA is a selling point to be sure but of greater importance is the extent and nature of the Airport facilities and operations which in my view are well suited to accommodate the needs of students enrolling in this program. The long established business of Maine Instrument Flight, which is located at the Airport and is expert in the field of flight instruction, provides strong assets to support the proposed program.

The rest of the story is that my youngest son looked at five higher education aviation programs across the country when looking to go on to college. He was accepted at all of them but in the end chose to attend the University of Southern Maine and simultaneously pursue aviation through Maine Instrument Flight. In a real sense he test marketed the concept for you. This was an exceptionally good academic and economic decision. I can recall one institution he considered that would, in addition to standard tuition, charge for flight instruction an amount three times more than we ended up paying. That institution, in spite of the price tag, would give no assurance that a single aviation license would be secured. By the time my son graduated from USM he had his private license, his instrument rating and was within weeks of securing his commercial license and had much of the work done to become a flight instructor.

Please share these perspectives with those who must review and approve this proposal. You have my full support in advancing this important educational opportunity.

Sincerely,

John G. Melrose
Managing Director
November 2, 2012

President Allyson Handley
University of Maine at Augusta
46 University Drive
Augusta, ME 04330

Re: BS Aviation

Dear Allyson:

We know there is nothing more important than education over the long haul to transform lives. As a corollary I believe leadership almost always matters most. America is a great country in no small part because of its long standing commitment to affordable public education. I am so proud of the progress UMA is making under your leadership generally and the leadership of the Board, both personally and professionally. I am not surprised, because I knew that would happen the first time I met you.

One of your graduates who was employed by our office, who worked so hard and so long to overcome obstacles to achieve her degree, will now be working as Deputy Director of Maine Renewable Energy Association. I am so proud of her and grateful for the opportunity UMA provided to her. She is just the best person, but she could not have achieved her dream without UMA.

I believe in a liberal arts education, but more and more it’s not for everybody because jobs are so tight and opportunities so few in Maine. I’ve heard about consideration of a BS in Aviation degree being introduced at UMA. As soon as I heard the idea, it struck me as one of those “Why didn’t I think of that” ideas. I support the initiative without reservation.

Students will come. Business will develop around the initiative, more lives will be changed and improved and our community will become healthier and more diverse economically.

I know of another bright talented college graduate who went back to college, after his undergraduate degree gave him no entrance into the employed world of adults. He went on to receive a degree required for a career he chose, traveling to Alaska, and went through additional training and is now an air traffic controller. He has a great job, he can afford a home, and he can begin to build a life.

Lester F. Wilkinson Jr.
lwilkinson@bernsteiushur.com
November 2, 2012
Page 2 of 2

Education changes lives, but the connection between education and employment is going to be more and more important if America is going to get back on track for the long haul.

Education in our times must integrate a bit more, degrees that put students on track for a job that is worthy of their education. Prestigious private colleges are graduating students with enormous student debt, and bankrupting the parents of these students to get their degrees. More balance is required and UMA is a great place to continue to deliver balance and value.

UMA, with the BS in Aviation initiative, together with the leadership of the Board and your leadership, can become a more integral part of bringing the economy in Maine, and particularly the economy in Central Maine, out of the doldrums for decades. It strikes me as an investment that should be made.

This next step for UMA will further infect the community that hosts UMA and Maine and beyond with optimism. Optimism is a force multiplier as one of my heroes, Colin Powell, advocates.

Dare we make investments by reconsidering what kinds of education and degrees are necessary for the next thirty years, not the last thirty years, and transform lives by supporting and investing in our young people and those people tired of heart, or just young at heart, making a career change? Isn’t this initiative, offering a BS in Aviation, the next step in the proud history and role of UMA, to become what it is meant to be, not just a player, but a leader in the transformation of a national educational system that needs reformation?

Keep up the great work you and the Board are doing. Although on firm letterhead, you should understand these comments are my personal comments.

Respectfully,

Lester F. Wilkinson Jr.

LFW
Allyson Handley  
President  
University of Maine at Augusta  
46 University Drive  
Augusta, Maine 04330

November 27, 2012

Dear President Handley

I am writing this letter in support of the proposed UMA Bachelor of Science in Aviation. I have read the proposal for the program and discussed it with Tom Abbott of UMA and Bill Perry of Maine Instrument Flight. This is a unique opportunity to combine the flight training capability of Maine Instrument Flight, the infrastructure of the Maine State Airport and the educational capacity of UMA to serve the ongoing need for pilot education and training. I strongly support it.

Although not currently active I am a licensed pilot and based a plane at The August State Airport for almost 20 years. While based at the airport I completed my instrument rating and did my recurrent training at Maine Instrument Flight. The airport facility and the training offered by Maine Instrument Flight are both first rate. The airport is not heavily used which makes it ideal for flight training and the instrument approaches available are equal to all but the elite all weather commercial airports. Both the airport and the flight training offered should be capable of handling the needs of the new program.

This program looks to be ideal for UMA and its student base. With minimal investment in additional faculty, curriculum or facilities this BA will give UMA the opportunity to tap into national demand for aviation degrees. Demand for trained pilots is high and programs like this are limited in number. As older pilots retire and airline capacity expands demand for commercial pilots will increase. The plan outlined in the proposal is a solid one and with the growing demand it should be sustainable and strong financially.

This program will also be welcomed and supported by the greater Augusta community. If you have any questions or I can be of any other help please let me know.

Sincerely,

Charles (Wick) Johnson  
President  
Kennebec Technologies
November 16, 2012

Dear President Handley,

I am writing this letter of support for UMA’s new BS in Aviation offered in collaboration with Maine Instrument Flight of Augusta.

Quality air transportation including passenger and air freight are critical to the future success of Maine’s economy. Our air service is Maine’s important link to the global economy.

This BS in Aviation program will be unique in Maine and fill a definite need to supply pilots and aviation management support in this state.

Our airport, and most of Maine’s airports, are growing at a steady pace. This is an endeavor with a great future that will draw students from a wide range.

Roger R. Pomerleau

Phone: 207-430-2801  email: roger.nrl@roadrunner.com
BACHELOR OF SCIENCE IN AVIATION
NEW PROGRAM PROPOSAL

Prepared by:

Joseph Szakas, Ph.D.
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Dean, College of Professional Studies

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Dean, College of Arts and Sciences

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Dean of Libraries and Distance Learning

Constance Holden, Ed.D.
Professor of Developmental Mathematics and Science

University of Maine at Augusta
46 University Drive
Augusta, ME 04330
1-877-UMA-1234
I. Program Title.

Bachelor of Science in Aviation

II. Program Objectives:

A. Description of Program and Rationale

This degree provides a Bachelor of Science degree in Aviation to students interested in becoming FAA certified commercial pilots while earning a comprehensive baccalaureate degree from an accredited university.

The new BS in Aviation will consummate the collaboration/partnership between University of Maine at Augusta (UMA) and Maine Instrument Flight (MIF) so each can market the degree to potential students and take advantage of what is expected to be a growing market for commercial airline pilots.

B. Program Goals

The program will offer Maine students an inexpensive way to achieve FAA certifications along with a Baccalaureate degree.

The program will train students to be employed as airline pilots, many aviation occupations require bachelor’s degrees as well as certification.

This program will enhance UMA’s traditional professional focus on workforce development opportunities.

This program will attract international students.

This program will attract veterans and military personnel.
C. Student outcomes and behavioral objectives

Graduates will be able to be hired within the air transportation industry.

Graduates will be able to teach others to fly under FAA certification.

Graduates will understand the physical, meteorological, mathematical, legal, security and historical aspects of flight.

Graduates will fulfill UMA’s general education requirements including written and oral communication, fine arts, humanities, social and natural science and mathematics.

Graduates will exhibit an understanding of ethical and professional responsibilities within the aviation industry.

III. Evidence of program need.

A. Existence of educational, economic and social needs to include citations or specific authorities or studies consulted.

The need for this degree has become evident in the last several years. First, the aviation industry has a mandatory retirement age of sixty-five. It is estimated by ABC News that over 1,500 pilots will be required to retire this year alone from an aging bubble of commercial airline pilots. Second, the downsizing of the US military has caused a notable decline in the number of military pilots becoming civilian pilots. As described in numerous industry articles more and more young flight instructors are being recruited from the schools to fill the growing vacancies at the commercial level and concern is growing about who will fill their slots. According to the Journal of Aviation Management and Education, “the global demand for highly trained and experienced airline pilots should increase sharply over the next five years and remain strong for at least 15 years.” The US Bureau of Labor Statistics predicts that the job outlook for airline pilots will increase by about eleven percent over the decade from 2010-2020. UMA was approached by MIF seeking this partnership and UMA is pleased to be able to help make it possible.

1 http://abcnews.go.com/WNT/story?id=131220&page=1#T6vKflIXt3s
3 http://www.bls.gov/oco/ocos135.htm
B. For 2-year programs, indicate potential employers who have requested the program and their specific employment projections. (Support data to be attached.)

N/A

C. Detailed survey of similar programs that are offered within the University System, other higher education institutions or other agencies within the State.

None

D. Enrollment projections for five years.

IV. Program content

A. This program will prepare students to fly with four FAA certifications incorporated in the program: private pilot in the first year, instrument-rated flight in the second year; commercial pilot in the third year and flight instructor in the fourth year for a total of 33 credits. Four new Aviation (AVI) courses: history, law, homeland security and an aviation capstone course have been developed (12 credits). The general education (42 credits) and general elective (9 credits) components complete the 120 credit degree requirements.

Partnering with the University of Maine at Machias (UMM), will supply the meteorology course (4 credits) in leveraging system resources using two current physics courses (8 credits). This includes a concentration in aviation management consisting of four business courses (12 credits).

B. development of new courses and/or what they may displace;

Pilot training aviation courses: AVI 141 Private Pilot, AVI 241 Instrument Rating Flight, AVI 341/342 or AVI 343 Commercial Pilot and AVI 441 Flight Instructor.

Aviation core requirements: AVI 120 Aviation History, AVI 320 Aviation Law, AVI 420 Homeland Security in Aviation, and AVI 460 Aviation Senior Seminar.

No displacement of current offerings.
C. type of research activity, if any, in program design;

None

D. nature of independent study, clinical experience, and/or field practicums employed in curriculum design;

All flight training will be held at a FAA Part 141 certified facility.

E. impact of program on existing programs on the campus.

Increased enrollment in general education, science, mathematics and business courses.

V. Program resources.

A. Personnel.

The proposed academic courses can be offered with the existing personnel at UMA. The flight training at all levels is now being provided by MIF. As the program grows additional certified flight instructors will be required and that process will be managed by MIF, with the instructors being certified by the FAA and approved by UMA. We are hiring an aviation consultant, Ted Westlake, who will oversee and coordinate the initial implementation of the partnership between UMA and MIF. A search will be conducted for a full-time coordinator after program approval.

1. Vita of faculty who will assume major role for program to be include in appendix.

   See Ted Westlake curriculum vita in Appendix B.

2. Specific effect on existing programs of faculty assignments to new program. List necessary faculty adjustments.

   Minimal effects on current full-time faculty at UMA
B. Current library acquisitions available for new programs.

Some additional access to aviation materials may be required. At this time MIF maintains necessary materials for their pilot training. UMA and MIF will collaborate for the purchase of any new materials that are required for the proposed program.

C. New equipment necessary for new program and plan for its acquisition and implementation.

All equipment required for core aviation courses is available at UMA. All air planes, simulators and other training technologies are currently owned by MIF and are located at their location in Augusta about three miles from UMA.

D. Additional space requirements, if any, including renovations.

All aviation core courses can be offered within the existing UMA facilities. MIF already owns several hangars and a fleet of air planes, classrooms for ground school, all appropriate teaching technologies and will add to the fleet and teaching team as necessary. MIF maintains the maximum insurance coverage available for all aspects of their training activities. Additionally MIF is the Augusta, Maine Fixed-Base Operator for the airport so students will have the added advantage of seeing the entire operation in play.

MIF and UMA will consider the feasibility of offering this degree not only in Augusta, but also in Bangor, Brunswick and potentially statewide.

E. Extent of cooperation with other programs, both on the initiating campus and other campuses.

UMA will partner with UMM to offer MTRM 101 Meteorology, a required course. Programs supporting this degree are Justice Studies, Business, Science and Humanities.

VI. Total financial consideration.

A. Estimate of anticipated cost and anticipated income of the program for five years.

See Table 1 (p. 7)
B. Detailed information on first-year costs, including:

1. new personnel requirements (include employee benefits);
   
   Consultant ($2,000)
   Full-time Faculty including benefits ($75,000)

2. first-year revenue and identity of source;

3. how operational costs are to be absorbed into current campus operating budget over a 5-year period;

4. what additional funding is required to support the program (identify the source);

5. lifetime of outside or independent funding and plan for how and when program becomes part of E & G budget.
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<tr>
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<td>2014</td>
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<td>2016</td>
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<td><strong>Revenue</strong></td>
<td></td>
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<td>New full-time majors/yr</td>
<td>12</td>
<td>12</td>
<td>14</td>
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<td>Returning full-time majors/yr</td>
<td>0</td>
<td>12</td>
<td>26</td>
<td>42</td>
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<td>International students</td>
<td>0</td>
<td>2</td>
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<td>Total New Students Cohort</td>
<td>12</td>
<td>14</td>
<td>16</td>
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<tr>
<td>Total Students in Major</td>
<td>12</td>
<td>26</td>
<td>42</td>
<td>58</td>
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<td>Total UMM Credit Hours (MTWM-104)</td>
<td>48</td>
<td>56</td>
<td>64</td>
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<td>Total MIF Credit Hours</td>
<td>72</td>
<td>156</td>
<td>360</td>
<td>474</td>
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<td>Total UMA Credit Hours/yr</td>
<td>240</td>
<td>568</td>
<td>836</td>
<td>1202</td>
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<td>Total UMM Revenue (@$222/ CrHr)</td>
<td>$10,656</td>
<td>$12,432</td>
<td>$14,208</td>
<td>$14,208</td>
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<td>Total UMA Revenue (@$217/ CrHr)</td>
<td>$67,704</td>
<td>$170,128</td>
<td>$285,572</td>
<td>$402,752</td>
<td>$531,216</td>
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<td><strong>Expenses</strong></td>
<td></td>
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<td>New AVI Faculty Salary w/ Benefits</td>
<td>$105,560</td>
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<td>Part-Time Instructions w/ Benefits</td>
<td>$17,880</td>
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<td>Academic Coordinator w/ Benefits</td>
<td>$6,258</td>
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<td>Equipment</td>
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<td>Supplies and Materials</td>
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<td>Tuition Payment to MIF (50%)</td>
<td>$7,812</td>
<td>$16,926</td>
<td>$39,060</td>
<td>$51,429</td>
<td>$57,288</td>
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<td><strong>Total Expenses</strong></td>
<td>$146,510</td>
<td>$155,624</td>
<td>$177,758</td>
<td>$190,127</td>
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<td><strong>NET UMA Revenue</strong></td>
<td>($78,806)</td>
<td>$14,504</td>
<td>$107,814</td>
<td>$212,625</td>
<td>$335,230</td>
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Table 1
BS in Aviation: Projected Program Enrollments, Revenue and Expenses
VII. Program evaluation

A. A post audit of an approved new program must be made after two years.

Assessment will be carried out at the levels of course, department, college, and institution as part of the Annual Program Review. With support from Data Services and the Advising Center we will track:

- Mid-semester fall academic progress with the intention of early intervention when necessary.
- Fall to spring retention and then program completion at the end of the spring semester of their year at UMA.
- The number of students who enroll in the BS in Aviation
- The number of certifications awarded to students in this program

B. The results of the audit must be reported to the Vice Chancellor for Academic Affairs.

Submitted By:

[Signature]
Dean, College of Professional Studies

(Date)

Approved:

[Signature]
Chief Academic Officer

(Date)

[Signature]
President

(Date)