College Mission Statement
Honolulu Community College’s mission is to:

• Serve the community as an affordable, flexible, learning centered, open-door comprehensive Community College that meets the post-secondary educational needs of individuals, businesses, and the community.

• Serve the Pacific Rim as the primary technical training center in areas such as transportation, information technology, education, communications, construction, and public and personal services.

Program Mission Statement
The Aeronautics Maintenance Technology program's mission is to:

• Provide students with the opportunity to gain the documented knowledge and experience to qualify for certification as aircraft mechanics as required by Part 65 and in the manner prescribed by Part 147 of the Federal Aviation Regulations, as approved by the Honolulu Flight Standards District Office.

• Enable students to attain their personal educational goals by becoming highly qualified Aviation maintenance technicians, meeting the needs of the aviation industry and thereby promoting safety in aviation.

• Provide specialized training as necessary for prospective aircraft technicians and industry.

Part I: Quantitative Indicators for Program Review
Part II: Analysis of the Program

• List the names of your instructional faculty who taught in the Fall 2008/Spring 2009 semesters.

• List the names of your instructional lecturers who taught in the Fall 2008/Spring 2009 semesters.

• List the names of any non-instructional (support) faculty or staff in your program for the

  Instructional faculty for Fall 2008/Spring 2009 were Brian Isaacson, Bill Rothe, Evelyn Greene and Ken Sullivan; non-instructional faculty and support staff were Mike Willett and Brian Quinto; no lecturers were used during this time frame.

• What are the strengths of this program?

  The AERO program is the only Federal Aviation Administration, Federal Aviation Regulations Part 147 approved aeronautics maintenance technical training school in the Pacific Basin. AERO provides the education needed for students to receive Federal Aviation Administration (FAA) certification as an airframe and/or powerplant mechanic at an affordable price. Students who earn the certification have acquired a level of technical knowledge and experience that is recognized worldwide, not just in the aviation industry but throughout all technical and industrial fields. AERO certified mechanic are considered part of a high income wage group.

• What are the weaknesses of this program?

  The aviation industry is still under that shadow of the problems generated in the aftermath of 9/11 and the public perception that the industry is in trouble and not a desirable career field. The current volatile fuel oil prices and world’s economic conditions have only contributed to this perception.

  New student starts have dropped over the past 5 years; therefore new student recruitment remains a major concern along with increasing current student retention. The Fall 2009 semester has seen an increase in new student numbers.

  The daily contact hours for the Aero student is higher than any other technical training curriculum offered by HCC. The Aero Program is regulated by the Federal Aviation Administration, thereby mandated to the number of hours required for a particular rating. The Aero student must attend class daily Monday thru Friday, for six-hours and forty-five minutes. Each Aero class requires 250 hours with a total requirement of 2000 hours to complete the entire Aero Program. This schedule places a huge burden on many of the students who have family obligations and/or a full time job.

• What opportunities exist for the program?
Strong growth in the industry is projected over the next decade. If the Federal Aviation Administration and the Bureau of Labor Statistics projections for the next decade are accurate, the need for aircraft mechanics will grow twice as fast as the average for all occupations, approximately 2.5 percent annually. Several studies indicate a strong need for new-hire aircraft mechanic positions to replace a current aging workforce. The average age of the current aircraft mechanic workforce is about 55-60 years old.

Since a number of the existing aircraft maintenance training schools have closed their doors, opportunities for training to cover the existing and projected shortages of mechanics are at hand. Domestic aircraft manufacture Boeing made a cooperate decision to place FAA certified mechanics on their new aircraft production-line replacing non-certified personnel. U.S. operators are having difficulty finding qualified mechanics. Boeing has been unable to meet their aircraft mechanic needs.

Some U.S. airline’s have relocated their aircraft repair, maintenance and overhaul operations to overseas faculties. The need for U.S. trained and FAA certificated foreign mechanics is on the rise. Having successfully trained mechanics for Northwest Airline’s, China and Japan operations, the time is ripe for marketing mechanic training over seas. Boeing has been receptive to market HCC with future air carrier customers.

With the military conflicts in the Middle East coming to a close, a number of the returning troops will seek non-military aircraft maintenance training and FAA certification if they choose to continue their aviation maintenance careers.

• What challenges (threats) exist for the program?

The current worldwide economic slow down or another 9/11 will have a temporary affect on the aviation industry. The current volatile high fuel oil prices and its direct effect on the operating cost of air commerce will influence the total number of airline passengers.

Out-sourcing of domestic aircraft maintenance and repairs to foreign repair stations in an attempt to avoid U.S. Environmental Protection Agency polices and labor unions will affect the total number of domestic aviation jobs.

The expanding world wide use of; computer web communication, electronic social networking, advancements in telecommunication, on-line conferencing platforms and satellite technology may lead to a reduction in non-essential air travel.

• Are the measurement of your Program and Course SLOs providing adequate information to evaluate student learning or should new measures be developed?

• How do you know that students are achieving your stated Program SLOs?

• What kinds of evidence can you provide? (You don’t have to include the evidence in this report. Just list some of the ways that you collect evidence on student learning. Examples include knowledge surveys, projects, writing samples, observations, portfolios, performance tests, capstone experiences, etc.)
• Do all of your instructors (both faculty and lecturers) include the course (not program) SLOs into their syllabus? How do you ensure that everyone is doing so?

• Where do the instructors get the course SLOs from? (Do they get them from the program coordinator? From the division secretary? From the HCC Website?)

Student learning objectives have current curriculum forms for the AERO courses, are included as part of the syllabus of each class, and are available to each instructor through the central file at the Aeronautics Department. SLO are derived directly from the FAA approved curriculum for the AERO Program and are not changeable except under the mandate of the FAA. In order to pass each class, and the program, the students must pass each assignment or project with a grade of 70 percent or better, measured against a fixed standard. Students also have to pass each written exam, including a final for each class, with a 70 percent or better score. Each class has from 10 to 14 exams for the class major subject areas, and dozens of assignments and projects. Completion of the courses means that the student has passed over 100 exams and over 400 assignments and projects.

As required by our Part 147 manual, per the Federal Aviation Regulations, student progression records are kept through each course and summarized at the end of the course on a Project Check List and Unit Completion Sheet. A Student Record Summary Sheet contains a record of grades for each course as well as the issuance of Certificates of Completion for the Airframe and/or Powerplant curriculums. With those Certificates, the students are eligible to take written, oral, and practical exams (3 each for the General, Airframe, and Powerplant subject areas) with FAA appointed Designated Mechanic Examiner, and by passing, are issued Mechanic certifications. Our passing rate is compiled quarterly by the FAA and has historically been within the national norms. One indication of the success of our program is the percentage of students who receive FAA certification, information available from the FAA. A study of the year 2007 reveals the following: 10 out of 12 resulted in certification a percentage of 83%. Whether students simply declined to take the FAA examinations or actually failed the exam is unknown. A more in depth method for tracking the progress of our alumni is warranted. This would give us a better indication of certification attempts, passes, and failures. Reasons for non-testing could also be tracked.

• Does the program have sufficient resources to promote student learning? Are other resources needed such as personnel, facilities, or equipment? If additional resources are required, what evidence/rationale is there to support this?

Although resources are adequate to promote student learning, AERO is using Perkins and Boeing grant funds to improve classroom training aid. Fortunately, local operators continue to donate aircraft, equipment and supplies that we can use in instruction. Over the last 18 months nearly $400,000 worth of equipment was donated. The materials and consumables that are needed to operate normally evaporate the limited supply budget.

• Are all safety issues addressed?
Aviation has inherent hazards, but the safety issues of the facility and equipment used in the program are addressed and the level of safety is maintained by regular surveys of the safety liaison, staff, and instructors. Everyone including students are safety observers, who can halt any observed unsafe situation. With AERO it is “safety first, safety always.”

Part III: Action Plan

• What tasks/goals have you accomplished from your previous action plan items on last year’s annual review report (include any strategic planning items that were funded / not funded – if not funded, where was your item prioritized on the strategic plan)?

• What tasks/goals have you set for the upcoming year (Fall 2009 / Spring 2010)?

• Who will be responsible for completing these tasks/goals?

• What is the timeline for achieving these tasks/goals?

Three areas that continue to need progress and development are recruitment, contract training development for industry, and foreign market training. Donated aircraft and equipment need to be solicited and then incorporated into the curriculum.

Program content revision is continuous. During the Fall 2008 semester, an instructor is detailed to update the student workbooks of our eight classes, digitizing text and graphics for future quick and easy modification. These workbooks average 150 pages each; completion is Spring 2009. Computer files are also being developed which will be used during the lecture period of each class. These will contain course outlines with links to digital pictures, graphics, and animations which when properly organized will permit the lecturing instructor to easily access and display this type of information to the class.

Most of the work towards completing the curriculum goals is accomplished by instructors and staff, as that is their area of expertise. Soliciting contract training and training for foreign markets need external assistance. Recruiting needs to be constant with complementary advertising.

Part IV: Resource Implications (physical, human, financial)

• Are there any budgetary impacts for carrying out your action plan?

• Do any of your action plan items require integration into the strategic plan? (If so, have you notified your division chair / Dean of this action?)

Most of the action items should be without cost, however, advertising, foreign training and contract training solicitation will have some small costs up front
for the initial contacts, and larger costs (travel, for example) as the parties come closer to agreements.

Part V: Strategic Planning Items

- Does your program have any funding requests on the current strategic plan (equipment, positions, etc.)? If yes, please write an explanation on how your program review report supports the need to fund the program’s strategic plan request.

The action plans compliment the overall strategic plan for the college.