Guest Column/Peter H. Diamond

Pioneers gave lives for space

Yesterday seven pioneers gave their lives in the cause of science and mankind, the first time since the beginning of the space program that more than one astronaut has been lost in a single mission. These heroes, members of the Challenger crew, have become the latest examples of the dedication and bravery that characterize all who have flown into space.

In the wake of this tragedy, I fear that some will rally around the disaster like vultures, pointing to the space program's cost and inherent dangers, demanding that we slow down or cease space activities. It is true that the vehicles do cost over a billion dollars apiece, and do ride on the most advanced computer-controlled explosion to date; but it is also true that we accept the risks, and therein lies the rub. The vast benefits which we believe outweigh them. The space program is still in its infancy, barely 25 years old. As with every___

advantage, our journey into space is bound to encounters hazard.

As Americans, we owe the very existence of our country to the thousands of brave pioneers who died in the 16th and 17th centur__

ies, struggling to colonize a new land for their fellow settlers, we must persevere. This tragedy must not become the downfall of our space program, but the event which focuses our commitment to make the exploration and development of space a reality.

(Editors note: Peter Diamond's is the founding chairman of Students for the Exploration and Development of Space, an international organization)

Column/Alan Szarawarski

Reform will be difficult but possible

Before every semester I look back on the past term and vow to break my bad habits. Well-rested and optimistic, I resolve that in the coming term I will stop procrastinating, finish every assignment, and stay alert in class. My actual performance, however, never quite equals my expectations.

At MIT we often try to reform the undergraduate curriculum reform at MIT will follow a similar pattern by generating lofty goals that are not achieved. Political scien__

tists have identified a number of factors that hinder the design and implementation of new policies. These are particularly relevant to MIT's struggle to reform the undergraduate curriculum.

One factor complicating policy-making is the conflict between different goals. Students at MIT receive superior education, qualifying them for top graduate schools and exciting employment. Maintaining this technical excellence is universally cited as a goal of curriculum reform. But technological excellence is not enough. Technical professionals need more than their problem-solving skills that form the bulk of an MIT education. Broadening the educational experience of MIT students is the second goal of curriculum reform.

Given MIT's legendary work ethic, problem-solving skills are often at the expense of humanities exposure. Students at MIT typically major in science and mathematics, preferring courses in computer science and physics over those in the humanities. Once they begin to view humanities as a waste of time, they lose the necessary understanding to take on the roles of policy makers.

The third factor complicating curriculum reform is the political process. The practice of packing as much technical training as possible into four years. Broadening the curri__

criculum while maintaining technical superiority is possible, but it will require making trade-offs. Policy makers tend to maintain the status quo. Without strong commitment to reform, beneficial changes will not be made.

The second factor that complicates implementation of new policies is the conflict of different constituencies. Committees and many more administrators are currently shaping MIT education. The Institute has to accommodate students in over twenty different majors. Integrating everyone's views into a coherent policy will be a long and difficult process.

Delegation will also complicate the implementation of policies once they have been adopted. The Institute may adopt new policies, but change will not happen unless everyone supports the policy in practice. The effects of any new policies will be determined by the hundreds of professors who teach undergraduates. Because the success of curriculum reform depends on its having widespread support, the input of the entire community must be sought in the coming months.

The third factor complicating curriculum reform is the difficulty of changing attitudes. Policies aimed at changing specific actions are often ineffective when they are used to seek to change attitudes. The force of tradition is much stronger than it is in most other areas of life. Campus attitudes will dampen the implementation of curriculum reform.

The lesson of political science is that change underg__

undergraduate education at MIT is impossible, only that it will be difficult. MIT has the potential to develop a new generation of technical professionals whose capabilities transcend engineering innovation and scientific discovery. But it requires the willingness of the entire community and willingness to take risks.

NOTE THE CYLINDRICAL APPENDAGE GROWING FROM THE MOUTH. IT IS THIS STRANGE, FOAM-SEALING MUTATION THAT HAS PLACED HOMO SAPPHENS ON THE ENDANGERED SPECIES LIST.