

News and Comment

Moon Race: Russian Disavowal of Lunar-Landing Plans Poses New Problem for Space Program

How can you feel inspired to keep up with the Joneses if the Joneses lie down and call it quits? This is a good piece of the problem that now afflicts the space effort since Premier Khrushchev, this past weekend, said he was dropping out of the moon race and wished the United States *bon voyage*.

Administration leaders promptly replied that the Khrushchev announcement was irrelevant to their plans, which is no doubt true at this point in the costly and controversial space game; but what the cagey Soviet Chairman had to say is by no means irrelevant to the domestic political reality in which the space program must exist. For throughout the short but lively history of the Kennedy moon program, the principal prod to which Congress has responded has been the fear that the Russians would get there first. Now that they say they are dropping out of the race, why should we hurry? The answer offered by the administration is that our space effort has been formulated in terms of what's good for the United States, and that, with or without the Russians, we should move quickly. NASA, in fact, has been fighting budgetary cuts this year with the contention that it is cheaper to go fast than slow, that stretching out the program would actually add to the total cost. This may be the case, but many congressmen, drawing on personal experience that ranges from do-it-yourself book-case construction to the Air Force missile program, are yet to be convinced that speed is an aid to economy.

In terms of evaluating the significance of Khrushchev's declaration, the critical question of course is, Can we believe him? It has been noted by NASA supporters that the Soviets secretly carried out massive preparation for the resumption of nuclear testing in

1961, and, they submit, prudence calls for recognizing the possibility that someday Khrushchev may deposit a Cosmonaut on the moon, and say, "I fooled you." The difficulty here is that NASA administrator James Webb has repeatedly told Congress that he "knows" we're going to win the moon race because the Soviets are yet to show a sign of possessing anything like the gigantic Saturn rocket that we are developing for the moon voyage. Of course, they can guard their intentions, but with the Soviet Union ringed by American radar, it is virtually impossible for them to send anything like a Saturn aloft without producing telltale signs. No such sign has yet appeared, Webb and other space officials have insisted in defense of their contention that massive expenditures will assure us first place, despite the Soviets' early lead. However, with Congress in a mood to save money, Khrushchev publicly abjuring a race, and NASA's earlier statements clearly supporting the Premier's position, it seems quite likely that Congress is going to cut meat as well as fat.—D. S. GREENBERG

Science and the Small College: To Compete With the Universities Colleges Decide To Hang Together

Yellow Springs, Ohio—Midwesterners were enjoying the fine, warm fall weather but worrying a little about an unseasonable dryness turning the woods to tinder last week as faculty members from the dozen colleges of the Great Lakes Colleges Association (GLCA) met on the campus of Antioch College to discuss another kind of drought which seems to be threatening science in the liberal arts colleges.

The GLCA, which is now in its second full year of operation, has member colleges in three states—Antioch, Denison, Kenyon, Oberlin, Ohio Wesleyan, and Wooster in Ohio; Albion, Hope, and Kalamazoo in Michigan,

and DePauw, Earlham, and Wabash in Indiana. Representatives of the science and mathematics departments of these 12 diverse and independent-minded colleges were meeting to explore not only how their colleges can cooperate to improve science education but, as more than one delegate put it, "if we can cooperate."

One mark of the meeting was the participants' determination to be ruthlessly realistic in exploring what is generally conceded to be the competitive disadvantage of the small college vis-à-vis the big university in the era of big science. The Antioch talks were based on the following rather grim assumptions. (i) The number of science majors in small colleges has not risen in proportion to the general increase in enrollment; (ii) graduates of liberal arts colleges have greater difficulty in gaining admission to leading graduate schools and doing well there than good students with more specialized backgrounds; (iii) liberal arts colleges are finding it increasingly difficult to hire and retain able and well-trained young faculty members because of inferior facilities, poorer prospects of winning research support, and the absence of colleagues working in their specialties; (iv) professors in small colleges in many cases have failed to adapt their courses and methods to new conditions brought about by improvements in science and math curricula and teaching in the high schools.

As a consequence, the small colleges are finding it difficult to attract the ablest high school graduates interested in science. Such students are lured by the reputations of larger institutions boasting impressive facilities and faculty who have made a mark in research.

If the Antioch gathering had some of the signs of a mutual anxiety society, it should be noted that the colleges involved, though certainly not a homogeneous lot, stand in the upper ranks of small colleges in respect to reputation and affluence.

Some, at least, of its members would be included in almost anybody's list of the top 25 small colleges in the country, and two—Oberlin and Wabash—have been listed in the top 30 institutions, large and small, in point of endowment per student. In addition, conversation at the meetings indicated that, in fact, these particular schools are drawing more rather than fewer science majors these days, are carrying