

side has a really clear idea of what the role should be—party differences on the matter are now considerably narrowed.

In general, both sides are thus promising strong support for science and technology, with basic research seen as a key area. But campaign promises have a habit of running up against post-election realities, and this year the reality will be

an enormous federal deficit that will put a heavy strain on the budget. The problem this poses for R&D is twofold: research programs, as opposed to pensions and other entitlement programs, mostly fall in the segment of the budget that can be relatively easily controlled, and if there is a squeeze on the R&D budget, some large programs that have been initi-

ated over the past few years could edge out other areas of research.

"There's going to be increased scrutiny and I think basic research will withstand that scrutiny well, but there is going to continue to be pressure on research," predicts George A. Keyworth, II, President Reagan's science adviser.

—COLIN NORMAN

White House Slashes Landsat Subsidy

In a last minute shift, the White House has changed the rules on commercializing the Landsat system by refusing to pay more than \$250 million in subsidies. Since this is about half what was originally promised, and about half what most observers think is needed, only one potential operator is still interested in Landsat—and there may be insufficient money to develop a genuinely competitive system in the future.

On 8 March 1983, after an acrimonious debate stretching well back into the Ford and Carter Administrations, President Ronald Reagan signed a decision memorandum that said, in effect, "Go commercialize Landsat" (*Science*, 11 February 1983, p. 752; 25 March 1983, p. 1410). Among other things, the memorandum recognized that the new Landsat operator would need subsidies of up to \$150 million per year in the early years while he developed the market.

Since Landsat was the responsibility of the National Oceanic and Atmospheric Administration (NOAA), which is under the Department of Commerce, it fell to Commerce Secretary Malcolm Baldrige to work out the details. Taking the President at his word, Baldrige issued a request for proposals to operate existing Landsats and to develop follow-on systems.

Seven bids arrived on Baldrige's desk earlier this year. Most featured total subsidies on the order of \$500 million, but since that was comfortably in line with the \$150 million per year figure mentioned in the President's memorandum, Baldrige moved ahead.

On technical grounds the seven proposals were quickly winnowed down to three: Space America Corporation, a start-up firm in Bethesda, Maryland; EOSAT, a joint venture of RCA and Hughes Aircraft; and a partnership of Kodak and Fairchild. Space America, which reportedly had the bid requiring the lowest subsidy, was subsequently dropped in June on the grounds that its proposal was less technically advanced and that, as a new company, it had no track record. Baldrige then proceeded toward a final selection between the remaining two bidders.

Enter OMB director David Stockman. In midsummer, when Stockman learned that Baldrige was near a selection, he reportedly hit the roof: Baldrige had no right to approve subsidies of such magnitude, Stockman ruled; he would have to take the question before the Budget Review Board [a committee of key White House officials who pass judgment on this kind of issue].

The Board met in the office of White House chief of staff James Baker on 17 July. By coincidence, that also happened to be the day that Reagan signed into law the Land Remote-Sensing Commercialization Act of 1984, a careful-

ly crafted piece of legislation that ratified both the Commerce Department's bidding procedure and the concept of subsidies. However, the fanfare and press releases had little effect in Baker's office. The board ruled that, except for \$75 million already in the pipeline, there was to be zero subsidy for Landsat.

The next day, Baldrige appealed to the President himself. He pointed to the 8 March 1983 decision memorandum, the Commercialization Act, and the press releases. He pointed to the seven bids. He pointed to the years of controversy and compromise-building. And he asked, Does the Administration really want to collapse the whole house of cards now?

Reagan reportedly listened, told Stockman, Baldrige, and Baker to work it out among themselves, and left the meeting. In the end, Baker overruled Stockman and split the difference: the cap on Landsat subsidies would be \$250 million, total.

Baldrige asked the top officials at NOAA to see if EOSAT and Kodak would still be willing to go forward with that low a ceiling. Officially, the answer turned out to be Yes: both bidders have continued to talk. Unofficially, however, Kodak has told Commerce what it can do with its subsidy and has effectively withdrawn. That leaves EOSAT. In mid-September Baldrige is expected to announce his choice of the winning bid to Congress. Somehow, no one feels much suspense.

Thus, in the name of economy, the Administration has managed to narrow the free and open competition for Landsat down to a single bidder by changing the rules in mid-game. As one weary veteran says, "The whole decision-making process in this Administration is appalling. I don't know what to treat seriously as a decision."

"We're crossing our fingers and holding our breath," adds another observer on Capitol Hill. It looks as though Landsat will have an operator. But at best it will be a very lean system, and there is serious question now whether it will ever become a serious competitor on the international scene—especially since the French will soon be launching their highly subsidized SPOT remote-sensing satellite. Congress's General Accounting Office and its Office of Technology Assessment are looking into the matter.

After the operating agreement is signed, the Landsat Commercialization Act does give Congress 30 days to rectify any deficiencies. But it now looks as if those 30 days will fall right before the November elections, so it is not clear that Congress will have time to act.

"My worry," says a Hill staffer, "is that after the election, the cap will go right back down to zero."

—M. MITCHELL WALDROP