has not been studied in the context of the nation's total energy strategy for the next 15 years—it is conceivable that if the Administration sought meaningful conservation measures with a fervor matching that applied by Whitaker in his pursuit of the OCS, the nation could be as close to energy self-sufficiency by 1985 as it would be under the Whitaker plan. (Under the full-steam-ahead program, Interior estimates that the OCS would be supplying 15 percent of the nation's oil needs by 1985. Oil from the Gulf of Mexico now supplies about 10 percent of the country's oil needs. One-third of the total is imported.)

Environmentalists and many members of Congress believe Interior's haste could be disastrous. First of all, they believe priorities for OCS exploration should not be set until the results are in from environmental baseline studies now being conducted by the National Oceanic and Atmospheric Administration. They also say that most coastal states are unprepared to plan for the onshore effects of offshore drilling which, with their social and economic as well as environmental aspects, are considered to be far more complex and significant than the matter of oil spills. They believe coastal states should be allowed more time to make plans, as provided for under the Coastal Zone Management Act of 1972, whose purpose is to aid states in integrated planning for economic development and environmental protection for their coastal areas and wetlands. The first planning grants were awarded only this year, and only one or two states are expected to be ready this year for second-stage grants to implement the plans. States have the power to prevent oil companies from laying pipelines within their 3-mile territorial limit, but not many are equipped to decide whether they want to participate in offshore development, much less how to plan for orderly adaptation to a coastal oil economy.

Even if the environmental picture were clearer, there remains the question of whether oil companies have the capital and equipment to buy leases and explore the tracts in a prompt and orderly fashion. Interior seems to think it is possible, but even Frank Ikard of the American Petroleum Institute thinks the department is being overly optimistic. Many companies would like to see a more gradual leasing schedule so they would have a chance to jump into the act later when they could better afford it.

Many critics say the availability of such a large quantity of undersea acreage will inevitably depress prices paid for leases, thus short-changing the U.S. Treasury. Interior insists it will not accept bids it considers too low, but it has a history of undervaluing tracts,

Ray's Shift to State Department Will

Secretary of State Henry Kissinger has been speaking in recent months about a need for upgrading science in the State Department and for making it an effective ingredient in foreign relations. The appointment of so prominent and vigorous a figure as Atomic Energy Commission chairman Dixy Lee Ray to head up the State Department's new bureau for oceans, the environment, and scientific affairs will put the Secretary's interest, and that of his senior associates, to a practical test.

According to one scientist who has spoken with Kissinger recently, the new relationship is likely to be a productive one. Kissinger is said to believe genuinely in the urgency of integrating science and technology with American foreign policy, and he is "expecting to do precisely the right things that need to be done."

So says William Nierenberg, the director of the Scripps Institution of Oceanography. A frequent adviser to the government on ocean affairs, Nierenberg may not be an entirely unbiased observer, but he is in a good position to know the Secretary's mind. In September, after months of delay, the White House picked Nierenberg to become the assistant secretary of state in charge of the new science and technology bureau. After an hour's talk with Kissinger, Nierenberg accepted the job. Then, for personal reasons, he withdrew his acceptance on 24 September.

Although he didn't know it at the time, Nierenberg's withdrawal helped the White House solve a potentially sticky political problem. The Office of Management and Budget had already decided that the new Energy Research and Development Administration (ERDA) would not be headed by the chairman of the soon-to-be-dissolved AEC. In bowing out, Nierenberg opened a perfectly respectable job for one of former President Nixon's more popular appointees and the government's best known woman executive. The White House announced Ray's appointment as Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs on 29 October (*Science*, 6 November).

Created by Congress last year, the new bureau was formed from a mélange of small and separate staffs that have dealt with such matters as population, environment, fisheries and wildlife, and general science policy. The bureau, with a staff of about 78, was regarded as a fresh start for science in the State Department—or at least it would be as soon as an assistant secretary arrived on the scene and brought it to life (*Science*, 13 September).

Nierenberg, among others, believes that the new bureau's fortunes will depend heavily on the bureaucratic skills of the new assistant secretary. "Absolutely superb relations" with the heads of the federal science and technology agencies, he says, will be an essential requirement to building systematic and consistent policy in five broad areas: oceans and natural resources; the triad of food, population, and environmental protection; energy; health; and technology transfer.

The last category is a catchall for issues centering on the controls and prices applied to American technological exports such as computers to the Soviet Union, nuclear reactors for the Middle East, or industrial techniques for Latin American nations.

The subject of technology transfer may be remote and unexciting to most Americans, but Nierenberg notes that it's an increasingly important part of Kissinger's agenda in his global travels. "It's coming up in almost every negotiation he faces."

For Dixy Lee Ray, moving from a multibillion dollar agency with 7000 employees to a bureau with 78 persons

which are later sold for far higher prices than the department has estimated. And if cheap bids are accepted, many fear that speculators will move in, then sit on their tracts until oil prices move high enough to make production outstandingly lucrative.

The Interior Department has ready answers for all these criticisms based on two premises. The first is that any delay in using domestic energy resources will contribute to inflation and economic deterioration. The second premise is that reduction of energy demand through conservation will have little or no effect on the nation's energy needs for years to come. Rapid OCS development, then, in the words of Carter, is "the only option." The critics' argument that we do not have enough information is a reason used by Interior for moving in. Environmental baseline studies will make a continuing input into leasing decisions, but we cannot afford to wait until they are complete, Carter says. And states will have time to complete their coastal zone management plans because no onshore developments will occur until oil has been found, and the minimum time between the leasing of a tract and the first oil production is 3 years. Critics argue that once oil is discovered, the pressure on states to accommodate onshore operations may become irresistible unless firm policies have been established beforehand.

Members of Congress most actively concerned with OCS development—the Commerce and Interior committees in the Senate, and the Interior subcommittee of the House Appropriations Committee—are not yet satisfied with Administration justifications which, according to a House staff member, consist largely of sweeping generalities.

Following the publication of Carter's memo, 21 senators, led by Ernest F. Hollings (D–S.C.), head of the Commerce Committee's Ocean Policy Study, wrote the President on 7 October to express their "surprise and dismay" that things seemed to be moving rather swiftly despite the fact that environmental baseline studies and coastal zone management efforts were "at a very early stage." They also requested a "factual justification" for the 10-million-acre plan. Around the same time, the Senate passed a resolution introduced by John V. Tunney, also of the Commerce Committee, echoing the same sentiments. Meanwhile the House interior subcommittee has asked Interior for a detailed justification of the 10-million-acre plan. Unless they get a good one, says a staff member, the committee will recommend that appropriations be made for leasing no more than 3 million acres in 1975. (The Administration is now preparing a request for a supplemental appropriation to cover the costs of

Test Kissinger's Interest in Science

may be something of a letdown. If it is, she hasn't indicated any disappointment with her new job and the White House hasn't indicated any with her. She is regarded as a quick learner, a competent administrator, and an effective advocate for nuclear energy, something the much-battered AEC badly needed.

But her effectiveness as an advocate aroused the enmity of environmental groups who saw Ray as accepting uncritically the nuclear industry's "line" that it wouldn't build reactors if they weren't clean and safe. Some of Ray's friends on Capitol Hill also believe her identification with nuclear technology might have been regarded as a liability for a new energy agency struggling to cultivate an image of technological neutrality.

One of Ray's achievements during her 2 years as AEC chairman was to establish for her agency a small but important new measure of independence from the domination of the congressional Joint Committee on Atomic Energy. In the long run, however, this victory may have worked to her personal disadvantage.

Long accustomed to holding the AEC on a short leash, the Joint Committee's old guard was surprised and infuriated in May of last year when Ray and two other commissioners presented the Joint Committee, as a kind of fait accompli, with a much needed reorganization of reactor safety research programs. Representative Chet Holifield (D–Calif.), one of the committee's dominant figures, was particularly angered, and his antagonism for the chairman persisted. At the end of last year, rumors circulated through the committee that Holifield had extracted an "understanding" from the White House under which he—as chairman of the all-important House Government Operations Committee—would expedite legislation to create ERDA if, among other things, the White House would not name Ray to head the new agency.

An aide to Holifield (who is retiring this term) said he doubted such an understanding had been reached. What Holifield did do was to ask 25 or 30 leading R & D managers in industry about the qualifications they considered desirable in an ERDA administrator. The answers, the aide said, supported Holifield's belief that Ray lacked the necessary experience for the job. The managers' letters were forwarded to the White House.

Ray's performance as an administrator is hard to judge from the outside. The five-member commission went about its business discreetly, but from time to time there were noises behind the curtain that suggested all was not serene. Ray was regarded as competent, and her assembly of a $10 billion energy R & D plan last year, under a difficult deadline, was considered more than creditable. But there were rifts and communication problems among the commissioners that damaged their effectiveness. As one close observer expressed it, "she sometimes acted more like the administrator of ERDA than the first among five co-equals."

Washington sophisticates have long since discarded the notion that Dixy Lee Ray, the lady biologist with the two famous dogs who lives in a mobile home, was simply a pleasant rustic from the Northwest woods. Her rise to and survival amid power in Washington was a noteworthy phenomenon in an administration otherwise notable for its colorlessness and corruption. Her continued survival, however, will depend on her diplomatic skills, both international and among fellow bureaucrats.

Nierenberg, for one, is confident that she'll succeed. Here again, though, he's not unbiased. It was Nierenberg, ironically, who recommended her to the Atomic Energy Commission two years ago.—ROBERT GILLETTE