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MEMORANDUM FOR FILES

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SUBJECT: The Implementation of P.L. 96-480: Current Perceptions

The Stevenson-Wydler Technology Innovation Act of 1980 addresses a number of areas related to technology and innovation. The major part of the law requires the Department of Commerce and the National Science Foundation (NSF) to establish Centers for Industrial Technology. These sections of the law were initiatives that grew out of President Carter's Domestic Policy Review. Under the Reagan Administration, however, it is felt that the basic thrust of these efforts involves undue government intervention into the industrial arena. This runs counter to a major theme of the new administration, which is to lessen government control and thereby allow the normal private sector forces to operate, to spur on technological innovation. Because of this ideological clash, it is unlikely that these sections of the law will be implemented. As an editorial in Business Week put it, these programs most likely will die of "aggressive neglect" under the Reagan Administration.

There are, however, other sections of the law which are compatible with the basic philosophy of the new administration, and which appear more likely to be implemented. We will focus this discussion on one such area, Section 11, "Utilization of Federal Technology."

Section 11 of P.L. 96-480 requires that:

- 1) Every Federal laboratory establish an Office of Research and Technology Applications (ORTA);
- 2) Labs with annual budgets exceeding 20 million dollars assign at

least one full-time professional to staff the office; and,

- 3) Each Federal agency having one or more R&D laboratories set aside 1/2 of one percent (0.5%) of its annual R&D budget to fund these technology transfer activities at the agency and its laboratories.

It further allows that the head of each Federal agency may waive requirements (2) and (3) above, if an explanation of the reasons for the waiver and alternate plans for conducting the technology transfer function are provided to the Congress.

The current status of implementation is murky for a number of reasons. The most important being that many of the key positions at the assistant secretary and deputy secretary levels in the agencies have not yet been filled by the Reagan Administration. Thus, the most crucial level of management where policy is formulated and implemented simply does not exist, and the people who are "acting" in these positions are reluctant to make policy decisions. In addition to this, there is great inertia within the Federal establishment which prohibits sudden large changes. Systems this large can only change in small incremental ways until sufficient momentum has been built. We are presently seeing such changes in a number of agencies and laboratories as they begin to respond to P.L. 96-480.

The following pages summarize our perception of these actions for each of the major agencies affected by this law. For each agency, we indicate what (if any) action has been taken to meet the three major requirements: (1) Establish ORTA, (2) Large labs assign a full-time professional, and (3) Funding set-aside. Any special considerations or other relevant comments that affect the implementation of this law are also included.

NATIONAL SCIENCE FOUNDATION (NSF)

Establish ORTA

NSF intends to establish an ORTA in each of its six (6) national centers.

Full-Time Professional

NSF has two centers with annual budgets exceeding 20 million dollars, the National Center for Atmospheric Research (NCAR), and the National Radio Astronomy Observatory (NRAO). A full-time professional will staff the ORTA at NCAR, but NSF waives the requirement for a full-time person at NRAO, and provides a reasoned argument for this in a letter to Congress (Enclosure 1).

Funding Set-Aside

Since Enclosure (1) does not waive the set-aside requirement, it is presumed that NSF will make available at least 0.5 percent of its R&D budget to support the ORTA's and otherwise perform the required technology transfer functions at the Foundation and its centers.

Special Comments

Most of NSF's dedicated technology transfer efforts are in the Intergovernmental Program in STIA. The Federal Laboratories Program is the one most directly related to P.L. 96-480. At this time it is not clear exactly what effect the recent NSF reorganization ultimately will have on these programs. Of far greater importance, however, is the proposed elimination of the entire Intergovernmental Program in the revised NSF budget. It is not yet clear how this will affect the Foundation's ability to meet the requirements and the intent of P.L. 96-480.

DEPARTMENT OF COMMERCE (DOC)

Establishing ORTA

The National Bureau of Standards (NBS) has established an ORTA. The other laboratories which report directly or indirectly to the Secretary of Commerce apparently have not taken any actions yet primarily because of vacancies in key policy positions, but since this requirement is not waivable, it is presumed that ORTA's will be established when the now vacant positions have been filled.

Full-Time Professional

NBS has assigned three full-time professionals to perform the technology transfer functions in its ORTA. Since no waiver letter has been sent to Congress, it is presumed that the other laboratories having annual budgets exceeding 20 million dollars will assign at least one full-time professional when their ORTA's are established.

Funding Set-Aside

Since no waiver letter has been sent to Congress, it is presumed that DOC will provide 0.5 percent of its R&D budget to support the agency and laboratory efforts in this area.

Special Comments

Most of the DOC organizations affected by P.L. 96-480, are still in limbo, awaiting appointments of key personnel. It appears that the Office of Productivity, Technology, and Innovation (OPTI) will be abolished. It is not clear how the functions of that Office will be distributed within DOC. This has

a direct bearing on the Center for Utilization of Federal Technology (CUFT), which was legislatively established by P.L. 96-480. Aside from a part-time acting director reporting to the head of NTIS, however, CUFT has neither budget nor staff. Barring unexpected changes, it seems unlikely that CUFT will assume the role envisioned in P.L. 96-480. This places a greater responsibility on the Federal Laboratory Consortium (FLC) if the Federal laboratories are to be effectively linked and utilized.

DEPARTMENT OF DEFENSE (DOD)

Establish ORTA

ORTA's are being established at all DOD laboratories.

Full-Time Professional

The Naval Research Laboratory (NRL) has assigned two full-time professionals to its ORTA. Three other DOD laboratories, the Naval Underwater Systems Center (NUSC), the Naval Air Development Center (NADC) and the Harry Diamond Laboratory (HDL) also have one or more full-time professionals to staff the ORTA. In general, however, DOD has waived this requirement and offered evidence (Enclosure 2) that it is essentially meeting the intent in other ways.

Funding Set-Aside

DOD has waived the funding set-aside and offered evidence that it is essentially meeting this requirement already (Enclosure 2).

Special Comments

The Undersecretary for Research Development and Engineering has only recently been appointed and a number of key positions in DOD and each of the three services are still unfilled. A draft version of the DOD Instruction implementing P.L. 96-480 has been prepared, but is being held up until these positions are filled. Anticipating this instruction, the Navy has called a meeting of all its laboratories and appropriate command level personnel to prepare a service-wide response to this law. Similar meetings within the Army and Air Force are also being planned.

DEPARTMENT OF ENERGY (DOE)

Establish ORTA

A number of DOE labs have already established an ORTA or similar office. A definitive agency policy has not yet been formulated, but it appears that the remaining DOE labs will follow.

Full-Time Professional

DOE's Lawrence Berkeley Laboratory (LBL) has assigned a full-time professional to staff its ORTA. Lawrence Livermore National Laboratory (LLNL), Oak Ridge National Laboratory (ORNL), Los Alamos National Laboratory and Sandia Laboratory also have assigned full-time professionals to staff their offices. Unofficial information from DOE headquarters indicates that agency guidelines are presently being prepared that would request every DOE multi-program lab to assign a full-time professional to perform this function.

Funding Set-Aside

It has been reported that DOE will initially waive the funding set-aside with the request that its laboratories fund ORTA's from laboratory overhead accounts. This, however, is considered to be an interim measure, to be used until programmatic funding is made available, possibly through set-asides.

Special Comments

Prior to the passage of P.L. 96-480, DOE initiated a program with its laboratories to develop new cooperative arrangements with industry. A formal working relationship is presently beginning between National Laboratories and the Industrial Research Institute (IRI) whereby IRI will serve as advisors to Lab Research Programs from the perspective of commercial applications of these programs.

NASA

Establish ORTA

Every NASA research center has an office that performs the functions of an ORTA.

Full-Time Professional

Every NASA research center has at least one full-time professional performing these functions.

Funding Set-Aside

NASA has always had an active technology transfer and utilization program that probably exceeds the required 0.5 percent set-aside. A waiver letter has been

submitted (enclosure 3). This reflects the fact that NASA is already meeting this requirement.

Special Comments

Because of cost-overruns on the Space Shuttle program, the Reagan budget calls for significant cuts in NASA's Technology Utilization and Transfer Programs. It remains to be seen how much (if any) of this cut Congress will restore, but this could severely affect NASA's ability to meet the requirements of P.L. 96-480.

DEPARTMENT OF TRANSPORTATION (DOT)

Establish ORTA

DOT's largest laboratory, the Transportation Systems Center (TSC) is establishing an ORTA and it is believed the other labs will follow.

Full-Time Professional

TSC is assigning at least one full-time professional to staff its ORTA.

Funding Set-Aside

Unofficial information indicates that DOT is planning to set-aside 0.5% of its R&D budget to support its ORTAs and other technology sharing programs. DOT has been actively involved in technology sharing for a number of years and these actions reaffirm their commitment to these efforts.

Agriculture

Establish ORTA

It's unlikely that each agriculture lab will establish an ORTA because many of them are very small. The ORTA function will probably be coordinated regionally and at the agency level.

Full-Time Professional

Full-time staffing will probably occur regionally and at the agency level. No details are available yet.

Funding Set-Aside

No waiver letter has been submitted and it is presumed that the set-aside requirement will be met.

Special Comments

Agriculture has long had an active Technology Transfer program in its extension service and its Forest Services Programs. Recently, the Science and Education Administration (SEA) has been expanded and it looks as though this may become the focal point for technology transfer within Agriculture.

SUMMARY

Clearly, there has been a mixed response to P.L. 96-480, which in fact, was provided for in the law. Recognizing the great diversities that exist, each agency and its own laboratories have been provided great flexibility in meeting their requirements. Coupling this with the changes in administration, the delays in filling key positions in many agencies, and the major budgetary imperatives, this state of affairs is not surprising. In fact, given all these factors, the positive steps that have already been taken are encouraging signs for the ultimate implementation of this law as it was intended.

Recently there has been a lot of interest from different agencies concerning the status of implementation. The two major questions are: 1) What are the other agencies doing about it, and, 2) Will Congress be holding oversight hearings? The preceding pages answer the first, and recent conversations with the offices of Senator Schmitt, Senator Mathias, Congressman George Brown, and Congressman Wes Watkins confirm the second. Congress is serious about this law and will be holding oversight hearings in both House and Senate and possibly a joint hearing. These most likely will occur in late summer or fall of 1981 after the major budgetary issues are resolved.

The following table provides a capsule summary of the preceding pages. Although the agencies mentioned cover the vast majority of Federal laboratories, it should be mentioned that there are some other agencies having laboratories. They have not been included in this paper simply because we have no information on the status of implementation within them.

AGENCY	ESTABLISH ORTA	FULL-TIME PROF.	FUND SET-ASIDE	COMMENTS
ISF	YES	YES (NCAR) Waived (NRAD)	APPARENTLY	Budget cuts pose serious threat
DOC	YES	YES (partial)	APPARENTLY	<ol style="list-style-type: none"> 1. OPTI abolished 2. CUFT no budget or staff. 3. Key appointments not made yet.
DOD	YES	YES (4 labs) WAIVED IN GEN'L	WAIVED	Key appointments not made yet.
DOE	YES	YES (Probably)	APPARENTLY	
DOT	YES	YES (Probably)	APPARENTLY	
NASA	YES	YES	APPARENTLY	Budget cuts pose serious threat.
AGRICULTURE	?	?	APPARENTLY	