HEW Chief Seeks to

By Stuart Auerbach
Washington Post Staff Writer

David Mathews, the soft-spoken southerner who as the new Secretary of Health, Education and Welfare sits on top of the tment with the largest budget in nment, wants to bridge the worlds ions and ideas.

part of the process of educating him- — he took over as secretary two s ago today—Mathews wants to run hink tanks on broad philosophical ocial issues every couple of weeks leading scholars from around the y.

cial historian and former University bama president, Mathews, 39, told a of reporters yesterday:

world of thought and the world of are different, but hopefully not un- . It will never be a perfect fit, but processes ought to go along at the ime."

rambling dialogue in which he d committing himself on any of the major issues facing HEW. Mathews said he holds daily seminars on major programs in the department — which spends one out of every three dollars in the federal budget.

He also spends an hour a day on specific issues that he feels are just about to come to the front burner ,and he travels to one of the HEW's agencies each day. Wednesday, for example, he met with health officials in the Parklawn Building in Rockville.

But Mathews said he understands that he won't be able to keep up this learning expericence much beyond mid-September.

"I have no illusions," he said, "that I'm going to be able to sit up here and drink coffee and think."

Mathews, the youngest member of President Ford's Cabinet, said one of his aims is to cut the flow of paperwork in HEW.

"I'm interested in as much information as possible," he said, "but all paper is not information."

Another aim is to persuade the HEW

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specialists—he said social anthropologists would call them a "subculture"—to modify the bureaucratic jargon they use in memos and speech.

Every group has its own special language, he said, and he's trying an accommodate himself to HEW's. But he said he'd like some sort of compromise "so the language of this subculture matches the direct language of the rest of the country."

The problem, he said, is that HEW is made up of specialists such as doctors and educators who fear that a generalist will oversimplify and fail to grasp the complexities of their fields.

Mathews said "my point of view is a consumer, and I think properly so."

He described himself as apolitical, which he said means he confuses [illegible] in politically-oriented Washington, because I don't fit into the pigeon [illegible]. We don't use that kind of (political) characterizations in Alabama academia."

Mathews said President Ford did [illegible] his views on major issues nor did he give instructions on what positions the HEW secretary should take. "It seems to me," Mathews said, "the President gives people a charter to operate and relies on their advice."

Mathews was equally cautious about telling reporters how he felt on such major issues as civil rights or welfare reform. Although he said some issues are hanging out "ripe for the doing," Mathews declined to name any or to set priorities.

"It's like being on the beach and saying, 'Which grain of sand do you like the most?'"

One thing, though, "scares the willies out of me," he said. That is "the overly high expectations" that some people have about what he can do in HEW because of his youth, his southern background and his intellectual experience.

"Nothing I've learned shows that the problems of this department yield to any individual," he said.

By James K. W. Atherton—The Washington P

Mathews: expectation "scares the willies out of m

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LEGAL RESTRICTIONS ON INTERNATIONAL TECHNOLOGY TRANSFER

by David R. Murphy[1]

Abstract

Legal restrictions on the international transfer of technology are described. These restrictions relate primarily to the exportation of inventions and know-how. Restrictions and sanctions under United States law are described in depth. A comparison is made between the laws of the United States and those of Germany, France, and the United Kingdom among others. Applicable international treaties and their effect are discussed.

Introduction

Why should there by any restrictions at all on the transfer of technology in international commerce? Restrictions on the international transfer of technology like most export restrictions are based upon national interests as viewed by the law-making body of each restricting country. Such restrictions are ancient in origin. These restrictions may even predate the days of ancient Rome during which considerable efforts were expended in keeping secret the mixture of sulfur, pitch and charcoal known as "Greek fire."[2]

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The assistance of Ms. Ruth Morduch in the preparation of this paper is acknowledged with appreciation.

2. See Encyclopedia Britannica, 10, 820 (1961).

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2. See Encyclopedia Britannica, 10, 820 (1961).

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The formula for gunpowder may have been imported into Europe from China by Venetian traders during the early Renaissance.[3] More recently, the development by the Allied Powers of radar and of the atomic bomb gave the Allied Powers strategic advantages that few will deny.

It seems, therefore, that historically, legal restriction on technology transfer has been based on restricting the exportation of technology from a country only when such technology could be damaging to the originating country when in the hands of a potential aggressor.

Everyone agrees that certain technology clearly has militaristic value or more popularly, defense value. No one will argue the "defense" value of "Greek fire" at the time that it was developed. Neither is the great "defense" value of the atomic bomb debatable today. On the other hand, legislators, in fashioning laws to protect the exportation of "big fish" technology, have fashioned a net so fine that it typically strains even all the sardines from the sea. "How will we know," say the legislators, "which technology has defense value unless we look at all of it?" For these reasons, restrictions are typically placed on exportation of all technology that is the subject of patent applications. These restrictions extend to all fields of technology including without limitation (a) foodstuffs (armies must eat), (b) pharmaceuticals (soldiers get sick), (c) and even ladies' perfume (one can only imagine the increase in effectiveness of Tokyo Rose had she had this weapon in her arsenal).

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3. See Encyclopedia Britannica, 11, 9, (1961).

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The Spectrum of Technology

There is of course a broad spectrum of "technology." Towards the lower end of the spectrum, we find technology that is already widely disseminated, such as the boiling and melting points of various well known compounds. At the upper end of the spectrum, we find inventions that clearly constitute important advances that are so great that they are not obvious[4] to those of ordinary skill in the art to which the invention pertains. Also near the upper end of the spectrum we find trade secrets. Somewhere in between, we find a broad class of technology generally referred to as "know-how." Know-how can be defined as technology that a skilled artisan would eventually develop given enough time and money. Know-how is generally embodied in optimum formulations of chemical compositions giving preferred ingredients and preferred amounts; and in blueprints for the construction of production plants or for the manufacture of machinery and equipment. Know-how is also present in operating instructions on plants, training manuals for operators, and even in quality control and inspection techniques. The term "technical data" is frequently employed to embrace inventions, trade secrets and know-how.

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Legal restrictions on international technology transfer are found among the patent laws, the commerce laws and the defense laws of the United States. In fact under certain circumstances it is necessary to obtain licenses from the U.S. Commerce Department, the Patent Office and the State Department.

Restrictions in Patent Laws

The export from the United States of inventions is prohibited by portions of the United States Patent Law.[5] Only "inventions" and not know-how are covered, but all fields of technology are covered irrespective of the presence of any imaginable defense use of the invention. In the United States, inventions are covered if they are made in the United States.[6]

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5. The U. S. Patent Statute states: "Except when authorized by a license obtained from the Commissioner [of Patents] a person shall not file or cause or authorize to be filed in any foreign country prior to six months after filing in the United States an application for patent or for the registration of a utility model, industrial design, or model in respect of an invention made in this country. A license shall not be granted with respect to an invention subject to an order issued by the Commissioner pursuant to section 181 of this title without the concurrence of the head of the departments and the chief officers of the agencies who caused the order to be issued. The license may be granted retroactively where an application does not disclose an invention within the scope of section 181 of this title.
The term 'application' when used in this chapter includes applications and any modifications, amendments, or supplements thereto, or divisions thereof." 35 USC 184.

6. Ibid.

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6. Ibid.

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By way of comparison in the United Kingdom, inventions are covered if they are made by an inventor who is a resident of the United Kingdom.[7] A resident of the United Kingdom who makes an invention while in the United States presumably could not file first in the United States without violating United Kingdom law prohibiting filing outside the United Kingdom by an inventor who is a United Kingdom resident. The same inventor presumably could not file first in the United Kingdom without violating United States law which requires first filing in the United States when an invention is made in the United States. The laws of the United States and those of the United Kingdom should provide some relief from this dilemma but apparently they do not.

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7. The U. K. Statute states: "No person resident in the United Kingdom shall, except under the authority of a written permit granted by or on behalf of the comptroller, make or cause to be made any application outside the United Kingdom for the grant of a patent for an invention unless--

(a) an application for a patent for the same invention has been made in the United Kingdom not less than six weeks before the application outside the United Kingdom; and

(b) either no directions have been given under subsection (1) of this section or under section twelve of the Atomic Energy Act, 1946, in relation to the application in the United Kingdom, or all such directions have been revoked:

Provided that this subsection shall not apply in relation to an invention for which an application for protection has first been filed in a country outside the United Kingdom by a person resident outside the United Kingdom."
U.K. Patents Act, 1949, Section 18 (5).

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The laws of Germany and Canada appear to have no such restrictions[8] on foreign filing of patent applications. Residents of these countries appear to be able to file abroad first and they appear frequently to do so.

The sanction against exporting U.S. technology by filing a patent application in a country foreign to the United States without a license is the loss of all U.S. patent rights.[9] This loss of U.S. patent rights occurs whether or not the invention ultimately had any effect on national defense, atomic energy or space.[10] This harsh result is somewhat ameliorated by provisions that exist in United States law for the granting of retroactive licenses for foreign filing.[11] However,

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8. Of course one can never prove a negative to a certainty. It can in truth only be said that a cursory review of the laws of these countries and consultation by this author with practitioners in these countries fails to reveal any restrictions.

9. The U.S. Patent Statute states that a person who applies for a patent "shall not receive a United States patent for an invention if that person...without procuring the license prescribed in section 184 of this title, have made or consented to or assisted another's making, application in a foreign country for a patent or for the registration of a utility model, industrial design, or model in respect of the invention. A United States patent issued to such person, his successors, assigns, or legal representatives shall be invalid." 35 USC 185.

10. United States court cases in which patents were declared invalid include, among others:
(a) Beckman Instruments, Inc., v. Coleman Instruments, Inc., C.A., Ill., 1964, 338 F2d 573.
(b) Shelco Inc. v. Don Chemical Co., D.C. Ill. 1970, 322 F. Supp., 485.
(c) Thermorac Industries Corp. v. Virtis Co., D.C. N.Y. 1968, 285 F. Supp., 113.
(d) Union Carbide Corp. v. Microtron Corp., D.C. N.C. 1966, 254 F. Supp., 299.

11. 35 USC 184 supra Footnote 5.

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11. 35 USC 184 supra Footnote 5.

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the granting of such a retroactive license is a matter within the discretion of the Commissioner of Patents and Trademarks, and while it is reviewable in court, it is reversible only for a gross abuse of discretion.[12]

Anyone interested in rapid dissemination of technology can thank the legislators for one small favor. In general, in the United States and in most other countries, the legislators have not required special efforts in order to secure a license for foreign filing. In the United States, an automatic license to file abroad is given after a statutory waiting period of six months from the filing date in the United States.[13] This time period is typical, although in certain other countries the time is less.[14] These provisions of the law permit us to file patent applications in the United States and then file

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12. Barr Rubber Products v. Sun Rubber Co., D.C., N.Y., 1966, 253 F. Supp., 12.

13. The U.S. Patent Statute 35 USC 184 supra Footnote 5 only applies sanctions to applications filed abroad within "six months after filing in the United States." The absence of sanctions after six months is generally referred to as an automatic license although such a license is not embodied in any piece of paper.

14. In the United Kingdom the period is six weeks, Germany has no waiting period. Canada has no waiting period; Belgium has a waiting period of three months unless extended due to the nature of the subject matter; Italy has a waiting period of 60 days.

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these same applications in foreign countries six months after the United States filing date.[15] Administrative provisions are also provided in the United States to permit a U.S. applicant to file first in a foreign country and then in the United States.[16]

In this regard, there is a curious anomaly. There are no restrictions in the U.S. patent laws on the publication of an invention. Quite to the contrary, the effect of certain provisions[17] of the United States law is to give a one-year grace period for filing in the United States following publication of an invention in printed form such as in a technical journal. Therefore, if an invention is first published in an international technical journal and then made the subject of a patent application some six

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15. One Caveat. The Paris Convention for the Protection of Industrial Property grants priority rights in the case of design patents if they are filed within six months of first filing. This means that U.S. practitioners must always secure foreign filing licenses for design applications in order to get the benefits of the Paris Convention.

16. The U.S. Patent Office grants what are referred to as "P" Licenses based upon the submission to it of a patent application prior to the filing of that application in the U.S.A. In fact a license will be granted under appropriate circumstances irrespective of whether the application is ever filed in the U.S.A.

17. The U.S. Patent Statute bars the grant of a U.S. Patent only one year after publication and one year after first public use in the United States, 35 USC 102 (b). Most other countries are not so liberal.

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months later, there would seem to be little purpose in requiring a license for foreign filing. Nevertheless, it appears that while the publication is not in violation of any law of the United States, the publication does not relieve the applicant of the duty to secure a license for foreign filing. This is so even though the subject matter of the patent application has been made public.

We see then that inventions can be made public by publication. They can also be made public by the exportation of a device embodying the invention. The exportation of such devices does not appear to be in violation of any U.S. patent laws.[18] However, such exportation of a device and such publication may be a violation of U.S. commerce regulations and U.S. state department regulations.

Restrictions under U.S. Commerce Laws

Pursuant to its rule-making authority, the U.S. Department of Commerce has issued certain export administration regulations.[20]

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18. The U.S. Patent Statute 35 USC 184 supra Footnote 4 and 35 USC 185 through 188 appear to proscribe only exportation of technology in the form of filing patent applications in foreign patent offices.

19. But Cf 22 CFR 125.01.

20. Export Administration Regulations, 15 CFR Part 371. Export Administration Act 1969, amended 1972 and 1974.

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These export administration regulations state unequivocally that "an export of technical data must be made under either a U.S. Department of Commerce general license or a validated export license. A general license appears to be granted to technical data so widely known that there is no technological value in exporting it.[21] A validated export license must be secured to validly export technical data from the United States.[22] Criminal and civil penalties such as prison, fines and license revocation are provided for exportation of technical data without a license.[23] A license is required for the export of technical data to both communist and non-communist countries.

Data is not readily available on the total number of licenses for the export of technical data to all countries. However, the Department of Commerce reports that 78 applications for the export of unpublished and unclassified technical data to the U.S.S.R., Eastern Europe and the People's Republic of China were granted[24] during the six months ending September 19, 1976, and during this period, no applications were denied.[25] Applications for the export of technical data were approved relating to processes relating to Vitamin C, benzene, ammonia, diesel engines, ethylene, and light-emitting diodes, among others.[26] If licenses are so freely granted by the U.S. Commerce Department

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21. Export Administration Regulations 15 CFR §371.1.

22. Id. 15 CFR 371 (2).

23. Id. 15 CFR 387.

24. Export Administration Report, April-September, 1976, Page 21.

25. Ibid.

26. Id. Pages 25-27.

22. Id. 15 CFR 371 (2).

23. Id. 15 CFR 387.

24. Export Administration Report, April-September, 1976, Page 21.

25. Ibid.

26. Id. Pages 25-27.

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to export technical data to the communist countries, and if none are denied, then one might infer that licenses are also freely granted for the export of technical data to non-communist countries. Furthermore, a review of the reported enforcement activities for the second and third quarters of 1976 indicates that no enforcement activities were brought against potential defendants for unauthorized technical data export.[27] In every case of violation of the Export Regulations, the potential defendants had exported commodities.[28] Civil and criminal penalties were imposed.

Restrictions Under U.S. Department of State Laws

The exportation of technology such as data relating to arms, ammunition, and implements of war is generally subject to the International Traffic in Arms Regulations of the Department of State.[29] Separate approval is required to export technical data exceeding that used to support a patent application in a foreign country.[30]

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27. Id. Pages 74-75.

28. Ibid.

29. 22 CFR Parts 121-128.

27. Id. Pages 74-75.

28. Ibid.

29. 22 CFR Parts 121-128.

30. 22 CFR 125.01-125.05. Such approval is required whether the data is unclassified or classified. "Classified Data" appears on paper bearing the legend "CONFIDENTIAL", "SECRET" or "TOP-SECRET".

29. 22 CFR Parts 121-128.

27. Id. Pages 74-75.

28. Ibid.

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A State Department license is also necessary for exporting technical data relating to goods on the U.S. Munitions List[31] disclosed to foreign nationals either in the U.S. or abroad.[32] However, such licenses are unnecessary for technical data generally available to the public.[33] Technical data that needs a license for its export, whether classified or unclassified, must be submitted to the State Department with the appropriate form.[34] Penalties are imposed for non-conformation to these rules.[35] There appear to have been some attempts by the State Department to restrict the disclosure of technical data at scientific seminars although it seems that such disclosure may be protected by the free speech guarantees of the first amendment to the U.S. Constitution.

Proposed manufacturing license and technical assistance export agreements must include a statement that the subject matter is not to be re-exported to countries under communist control.[36]

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31. Categories XVII, XVIII and XXII include technical data.

32. 22 CFR 125.04.

33. 22 CFR 125.10 and 125.11.

34. DSP-5 for unclassified data, DP-85 for classified data.

35. 22 CFR 127.

36. 22 CFR 124.

34. DSP-5 for unclassified data, DP-85 for classified data.

35. 22 CFR 127.

36. 22 CFR 124.

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NATO Treaties

Various of the NATO countries have signed mutual agreements safeguarding the communication of technical information for defense purposes,[37] and regarding the secrecy of inventions relating to defense.[38] There is also a NATO agreement for cooperation regarding atomic information between these countries.[39] The NATO agreements concern the safeguarding of technical information after it has been exported from the parent country according to the laws and regulations of that country.

Summary and Conclusions

There are a number of legal restrictions on the international transfer of technology. Licenses for the export of technology appear to be freely granted by the United States Commerce Department and State Department. The filing of patent applications on inventions in other than the inventor's home country can cause problems. However, if patent applications are filed first in the inventor's home country, and then filed abroad after the prescribed statutory waiting period, an applicant's patent rights should not be adversely affected.

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37. NATO, TIAS 7064, October 19, 1970, signed by Belgium, Canada, Denmark, France, West Germany, Greece, Italy, Netherlands, Norway, Turkey, United Kingdom and United States.

38. NATO, TIAS 7853, September 5, 1973, signed by Belgium, Denmark, France, West Germany, Greece, Norway, United Kingdom and United States.

39. NATO, TIAS 5768, June 18, 1974, signed by Belgium, Canada, Denmark, France, West Germany, Greece, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, Turkey, United Kingdom and United States.

(last page)

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