How To: Write A Winning Business Plan

THOMAS H. FRANK, Ph.D

1. Why Write a Business Plan

- It forces you to put a plan together, to put all parts and considerations in the business, usually for the first time and always for the first time in detail.

- You can examine the consequences of different strategies at no risk or cost.

- You can appraise how your potential organization works as a team.

2. The Essence Of Any Good Business Plan

- The product description and background
- Principals of the organization
- The market size and description
- The marketing plan: A strategy
- The financial plan
  - Present financial objectives
  - Proforma statement and basis of projections

3. The Contents Of Your Business Plan

1. Executive Summary
2. Background of the Plan
3. The Team, Organization Chart
4. Product Description
5. Ownership
6. The Market & Competition
7. Marketing Strategy
8. Operations
9. Research & Development
10. Staffing
11. Financial Strategy
12. Contingency Plans
13. Benefit of Investors

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12. Contingency Plans
13. Benefit of Investors

Appendices

1. Market Analysis
2. Personal Resumes
3. Technical Articles
4. List of Competitors

References

1. Baty, G.B., Entrepreneurship Playing to Win, Reston, 1974.

2. Shames, W.H., Venture Management, Free Press, 1974.

3. White, R.M., The Entrepreneur's Manual, Chilton, 1977.

4. Some Business Plans You Can Read and Review

- A medical technology company
- A publishing company
- A Service company
- Two high-technology firms

Mancuso, J.R., How to Start, Finance, and Manage Your Own Business, Prentice-Hall, 1978.

5. Some Facts and Myths About Venture Capital

Myths

1. Venture capital avoids start-up situations.
2. Venture capitalists are only interested in high technology.
3. It is Whom you know that counts in raising venture capital.
4. It takes a year or more to raise money.
5. Venture capitalists require a complete management team.
6. Most firms seek a major interest in their investments.

Facts

1. Venture capitalists are highly selective.
2. A complete business plan is the best approach to a venture capitalist.
3. Investors seek a substantial after tax return on their invested capital.
4. Investors are willing to advance substantial funds once they decide to participate.

Reference, HBR, Jan-Feb, 1982, pp. 152-156.

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Reference, HBR, Jan-Feb, 1982, pp. 152-156.

Sources of Additional Information

1. The Small Business Administration.

2. The "Growing Concerns" section of Harvard Business Review.

3. Inc. Magazine.

4. Speakers at this conference from: government, universities, and other small businesses.

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BUSINESS

CONFIDENTIAL

MEMO TO: Kevin Maxwell

FROM: Norm Latker NJL

SUBJECT: Requested Plan

At our meeting on January 24th, you asked for a "plan" to:

I. Create a new database of licensable new products and processes.

II. Improve the P&L of the USET license brokerage business.

The plan for both these items is attached.

Number I. includes a discussion of:

A. The Opportunity
B. Sources Of Licensable Technology
C. The Competition
D. MCC's Advantage
E. Marketing
F. Financial Requirements To Create A Database Of Licensable Technology.

Number II. includes a discussion of:

A. The Problem
B. Recommended Changes In The Practices Of The License Brokerage Business.

If you wish to proceed further, I believe that an oral presentation providing more detail would be helpful.

I. CREATION OF A NEW DATABASE OF LICENSABLE NEW PRODUCTS AND PROCESS

A. The Opportunity

Industry and entrepreneurs everywhere have recognized that they are in the midst of a worldwide explosion of new technology that may enure to the benefit of their competition unless they themselves can pursue its application. The pursuit of technologies developed by universities, government laboratories and other laboratories has become essential, as the cost of some internal research and development projects is increasingly moving out of reach even in large companies.

At the same time governments who fund research are creating new incentives to encourage exchange of scientific and technical information especially between business and government supported research institutions. This is being done to expedite application of research by industry and to justify the continuing government investment in R&D. These facts have created an unprecedented environment in which government supported research institutions who own their technology are under increasing pressure to collaborate with industry manufacturers in order to complete the innovation process and produce jobs.

Because the scientific journals are not the most efficient or timely way of communicating a new product or process to industry or to entrepreneurs, an increasing number of institutions with large government funded programs have employed Technology Managers to supplement journal publications with other disclosures tailored to attract industry's attention.

In addition to the support provided to research institutions, governments like the U.S. have recently started funding small businesses to test concepts and develop prototypes of new products and processes that have been evaluated by government review bodies to be potentially useful. These small businesses are the backbone of America, and account for a substantial portion of the technological breakthroughs that produce new jobs.

Because of these new funding programs there exists an opportunity to match industry manufacturers with technologies from innovative, aggressive small businesses who have won awards. Abstracts of the 18,000 awards which cover an investment of over $1.5 billion dollars since the programs began are publicly available in hardcopy. These abstracts have been accumulated from participating Federal agencies for inclusion in our database. Surprisingly this database is not presently available from any on-line vendor.

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Finally, there is a growing number of large industrial firms that have begun licensing technology that they perceive to be in excess of their own needs. For instance, some of these technologies are valuable industrial processes being used by the creating company but believed to have other uses. There is no known single source for hardcopy disclosures of this class of technology.

There is a rapidly growing cottage industry feeding off parts of the above described hardcopy information for the purpose of selling information services to industry. Some technology sources indicate they are uneasy dealing with this group because "they have no staying power" i.e., they do not have the strong financial backing to ensure an adequate and stable institutional framework for continual growth and update of available technology information.

CONCLUSION:

There is clearly no single credible entity in the worldwide business of identifying the finite number of organizations attempting to license technology, accumulating those technologies in a database, and then selling access to industry. The preliminary findings of a market study conducted on behalf of USET indicate that industry would be interested in subscribing to such a database. This is not surprising since the database will create savings over that which they themselves would have to incur to find the same information. MCC has some of the resources necessary to take advantage of this opportunity in place now and with reasonable effort can rapidly become a dominant force in this arena.

B. Sources of Licensable Technology

In the last six months we have identified a core of licensable technology sources who are likely contributors to a database which can be demonstrated to have "staying power". It is not predictable in advance how many of those identified would cooperate with MCC if we decided to proceed. However, it is clear that many have Technology Managers that pursue outreach programs that include hardcopy dissemination of technology available for licensing. To facilitate dissemination, this information is not copyrighted. These existing hardcopy abstracts could clearly serve as the initial critical mass to support the marketing of a licensable technology database. However, future additions of technology sources would necessarily proceed more slowly much like the addition of new journals to Pergamon Press.

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industry users, i.e., performing organization, inventors, technical description, advantages over prior art, patent coverage, availability of licenses, etc. Given staff that can accurately identify these fields, new optical scanning technology which permit machine tagging of fields can create an electronic database with a uniform format. Our experiments with this scanning technology while converting 5,000 of the total 18,000 abstracts of awards to small businesses to electronic form has produced near 100% accuracy and is not resource intensive.

If we proceed and gain credibility, we could convince some technology sources to manage their technology with software being developed by T.I.C. This software will include an up-load to our electronic database. When the software is available this could be done immediately with technology from the ten clients USET exclusively manages.

With the above in mind the following are potential licensable technology sources listed in order of importance[1]

1) 150 U.S. Universities

We have identified the technology management contacts including telephone numbers and addresses at 150 U.S. universities with an R&D budget in excess of $10 million dollars. Many of the technology managers are familiar with USET personnel, which we hope will foster their cooperation. Preliminary discussions with some of the Technology Managers make it clear that by close collaboration we can secure new potential technology disclosures for our technology database even prior to submission of the research for publication or issuance of patents. This arrangement would maintain us at the cutting edge of technology. Clearly the 10 USET clients in the listing are obligated to participate. Further, in a dry run we contacted a small number of non-clients and were able to solicit abstracts of over 300 technologies. The technology managers in this group are networked through the Society of University Patent Administrators. Continued credibility with the Society to gain membership cooperation is essential to development of the database. (At our request Pergamon Press has agreed to assist the Society in publishing a bi annual journal. Other inexpensive initiatives can also be undertaken as a means of gaining cooperation.)

2) 305 U.S. and Foreign Industrial Concerns Who Have

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3

Indicated Their Desire to License Company Technology

We have identified the technology management contact including telephone number and address at each of 305 businesses who have announced in Licensing Executive Society publications their interest in licensing their excess technology. In a dry run we accumulated a number of abstracts from technology conferences. This group of technology managers is networked through the Licensing Executive Society. Continued credibility with this organization also is essential.

3) The Small Business Innovation Research Program (SBIR)

The U.S. SBIR program was created in 1982 by Public Law 97-219. The law requires that all federal agencies set aside 1-1/4% of their annual R&D budget to fund development of promising technology in the hands of small businesses. Since 1983 approximately $1.5 billion dollars has been spent on 10,000 awards. Uncopyrighted descriptions of each award and the technology involved is available from each funding agency. All 10,000 announced awards have been accumulated from the 11 agency contact points and are now being converted into an electronic database. Since only 1 of 8 submissions from small businesses are granted funding, industry should be very interested in the technology that survived the government evaluation and screening process. As noted, while hardcopy is publicly available, no on-line vendor is managing the database.

4) The D.O.E. Energy Related Inventions Program

The D.O.E. program was created by statute in 1976. The law creates a funding program to develop energy related products and processes brought to the attention of D.O.E. by small businesses and individuals. The evaluation and recommendations for funding have been assigned to the National Bureau of Standards. In the last 10 years NBS has recommended funding of 8,000 technologies. We have uncopyrighted hardcopy abstracts of these technologies and are proceeding to convert them into an electronic database. Recent legislation has expanded NBS's evaluation service to all other inventors not just those with an energy oriented technology. How this authority will be implemented remains to be seen but could result in an increase in evaluated technologies.

5) The Pergamon Journals

Editors of the Journals could as part of the review process ask authors whether the paper submitted describes any new product or process which he or his organization was interested in licensing or further developing. If so, an abstract of that paper could be created for inclusion in our database. The submitter's incentive to participate would be explained as

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possible royalty return or additional research funding from industry.

6) Foreign Sources of Licensable Technology with Agreements to Disclose to USET

The British Technology Group--serves as the nonexclusive licensing agent for the United Kingdom's government funded research institutes.

GKSS--A German Funded environmental research institute that licenses its own technology.

INRA--A French funded agricultural research institute that licenses its own technology.

7) Foreign Sources of Licensable Technology Who Have Not Been Contacted But Are Likely Contributors

Licensingtorg--The designated exclusive licensing agent for all technology from USSR funded research institutes.

Invar--The designated nonexclusive licensing agent for France's government funded research institutes.

JITA--The designated exclusive licensing agent for Japan's government funded research institutes. (JITA's technology has been disclosed to the Dvorkowitz proprietary database.)

Technical Research Centre of Finland--Licenses technology from 35 research institutes funded by the Finnish government.

AKADIMPEX--Licensing agent for Hungary's government funded research institutes.

Austrian Trade Commission--Nonexclusive licensing agent for Austrian businesses.

Canadian Patents and Developments Ltd.--Exclusive licensing agent for Canadian research institutes and some Canadian universities.

Israeli Industry Center for R&D (MATIMOP)--Nonexclusive licensing agent for Israeli businesses.

Italian Trade Commission--Nonexclusive licensing agent for Italian businesses.

Swedish National Board for Technical Development--Swedish licensing agent--claims to cover all sources of technology in Sweden.

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8) Existing Electronic Databases Disclosing Technology

Before listing the possibilities of using existing databases, it is important to discuss the problems they entail. First, with one exception, none of the accessible databases are limited to licensable technology. Further, other than the U.S. Patent Office's Official Gazette, none appear to be limited to new products and processes. They all appear to commingle scientific and technology results which are not limited to new products and processes. Further, to the extent they are copyrighted, the right to screen them for licensable technology may be limited.

However, to the extent that the information on such an electronic database can be obtained on a media (i.e., magnetic tapes) that can be leased and moved to a MCC site with no copyright or other conditions attached, disclosures of licensable new products and processes can be electronically screened out, reformatted and used in our database. We believe that this can be undertaken with the sorting software being developed at T.I.C.

Since the following NTIS and U.S. Patent Office databases are uncopyrighted and meet this access test they are being acquired or being considered for acquisition to screen for licensable technology and reformatting:

Federal Research In Progress Database--Summaries of U.S. government research and engineering projects currently funded by 10 Federal agencies primarily at universities (141 K records). Project description includes title, starting date, investigator, performing and sponsoring organization and detailed abstract.

Federal Applied Technology Database--Contains abstracts of selected processes, instruments, materials, equipment, software, and techniques generated by federal laboratories (20 K records).

Bibliographic Database--Contains the abstracts from all foreign and domestic technical reports announced by NTIS (1.5 million records).

The U.S. Patent Office Weekly Official Gazette--Contains the abstracts of patented inventions issued during the week prior to the Gazette's publication date.

It is emphasized that this plan does not address the T.I.C. proposed initiative of using its new sorting software to develop an on-line technology database consisting of existing copyrighted databases. The T.I.C. exercise is aimed at creating a comprehensive technology database for use by business in reviewing prior art (whether or not licensable) for the primary purpose of determining whether investments in selected R&D programs are justified. This can be an important business but is

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not limited to a database of licensable technology.

9) Biomedical Business International (BBI) (MacMillan)

BBI solicits abstracts of new medical products and processes for disclosure in their newsletters. We do not know the extent to which they have gained the cooperation of relevant technology sources but it appears insubstantial in comparison to what is available. Indeed, they solicit abstracts from USET periodically without much success.

10) U.S. Government Laboratories

In 1986, federal laboratories were given the authority for the first time to license their technology. These laboratories are actively creating the infrastructure to proceed and a few have appointed technology managers who function much like university technology managers. Over a period of time this area will be extremely fertile grounds for technology disclosure aimed at industry but presently is in a state of flux. However, we are assisting the National Center for Toxicological Research in converting their technology database into electronic format. If this is successful we believe other laboratories will wish to participate.

CONCLUSION:

While the above list of technology sources is not complete, it does suggest that the critical mass for a licensable technology database could be reached rapidly. The databases under development have a value in and of themselves. If MCC does not proceed with the licensable technology database in a restructured USET, they are identified below for use by another MCC component able to undertake their maintenance:

1. SBIR Abstracts
2. Energy-Related Inventions Abstracts
3. University Technology Manager Database
4. Industry Technology Manager Database

C. **The Competition**

All existing businesses offering services based on an accumulation of licensable technology do so as follows:

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1) Solicit abstracts of current technology on a specified format;

2) Create a database that is searchable by only its employees, and

3) Sell hardcopy access to only technology areas in which subscribers have indicated an interest. (We are not aware of anyone using CD-ROM or floppy disks to communicate the results of a search to subscribers.)

Another characteristic that is not entirely common to the companies reviewed is a conference capability. Conferences are structured around sources of technology interested in licensing and those looking for new technology. Both the technology sources and the lookers pay to attend. Not only does the conference supplement income, it also builds the business's database.

The following are companies generally following the approach described above:

Dr. Dvorkowitz & Associates, Ormond Beach, FL--Dr. Dvorkowitz is franchising his database overseas and solicits a great deal of foreign technology. Dr. Dvorkowitz, who is 72 years old, recently sold his conference capability and is also interested in selling his database activity which purportedly includes 20 K technologies. Subscriptions for selected technology areas are $10K annually.

Lloyd Patterson, International, Ormond Beach, FL--Lloyd Patterson has only twenty one clients which he services on a very personal basis including small conferences. Patterson is interested in being acquired. He claims to have 20 K technologies in his database. Subscriptions for selected technology areas are $30K annually.

NERAC, Tolland, CT--NERAC searches not only the database it has solicited, but other on-line databases to address specific technology problems. Most of NERAC emphasis is "batch" searching to solve technology problems. Subscriptions are $6K annually.

Technology Catalysts, Washington DC--Technology Catalysts claim that its database has much technology from small businesses. They have a conference capability. Subscription rates unknown.

Technology Insights, Englewood, NJ--Technology Insights discloses its technology by newsletter. Technology Insights puts great emphasis on reviewing the Patent Office's weekly Gazette for new patents with high technology potential. It is not limited to licensable new products and processes. Subscription rate for newsletters are approximately $250 annually.

Technology Insights, Englewood, NJ--Technology Insights discloses its technology by newsletter. Technology Insights puts great emphasis on reviewing the Patent Office's weekly Gazette for new patents with high technology potential. It is not limited to licensable new products and processes. Subscription rate for newsletters are approximately $250 annually.

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TECHSTART International, New York, NY--TECHSTART indicates that Arthur Anderson Company is their alliance partner. While access is provided by hardcopy, they indicate that floppy disks will be available in the future. Subscription rates unknown.

BBI (MacMillan), Tustin, CA--BBI discloses its technology by newsletter. They limit themselves to the Life Sciences and also have a conference capability. They are now part of MCC through the MacMillan acquisition.

Regis McKenna, Inc. (Center for Technology Licensing), Palo Alto, CA--Not much is known about Regis McKenna, though most of their activity appears to be focused on the electronic industry. However, on February 2, 1989 the company offered a seminar entitled "University Research: The R&D Gold Mine."

While, in theory, all the companies have access to all technology sources, it does not appear that any one company has attempted to pursue all available sources. There appears to be little evidence that the federal laboratories are being tapped at all. NERAC, Patterson, and Technology Catalysts appear uninterested in universities. Most provide a surprising amount of technology available from industry sources.

With the possible exception of Technology Catalysts, there is no evidence that these companies have tapped the SBIR abstracts.

As best as could be determined, all the companies are running in the black. While this is in no means an exhaustive study of the companies reviewed, it will assist in designing any service we intend to provide around a proprietary technology database.

D. MCC's Advantage

If MCC proceeds with the licensable technology database gathered from the technology sources identified we believe that the following factors will make it superior to that in the hands of competitors.

1. Better access to a greater number of technology sources (i.e., Pergamon Journals, universities, foreign licensing agents, government laboratories, etc.).

2. More efficient creation and, therefore, a larger electronic database from hardcopy through use of new optical scanning technology.

3. Inclusion of SBIR database.

4. Inclusion of Energy-Related Invention database.

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3. Inclusion of SBIR database.

4. Inclusion of Energy-Related Invention database.

5. Availability of technology management and up-load software as incentive for technology source cooperation.

6. Superior database sorting and retrieval software to more efficiently serve subscribers.

7. Screening and reformatting of existing electronic databases for licensable technology made more efficient by T.I.C. sorting software. The Patent Office Official Gazette offers an important opportunity that does not appear to have been electronically exploited by competitors. This makes for the possibility of a much more comprehensive database than competitors.

8. Distribution on CD-ROM or floppy disk to subscribers who wish to create their own searchable database in their area of interest. On-line searching for subscribers limited to their designated area of interest is also a possibility and could be the delivery mechanism of choice given superiority of T.I.C.'s sorting software. This approach is in contrast to that of our competitions' who limit searching to their employees.

E. Marketing

While we feel we could create an outstanding database of licensable new products and processes it is essential that we develop a first class marketing effort to make this program a financial success. Since USET does not have a marketing staff, we recommend that some assistance be obtained from BBI, BRS, or Orbit, all of which have database marketing experience, to develop a marketing plan.

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F. Financial Requirements for Creation of a Database of Licensable Technology

The following table and attached notes present the resources required for creation of an effective database of licensable technology. This is based on the best information currently available.

FOUR YEAR OPERATING STATEMENT
for
DATABASE PROGRAM
(Amounts in 000's)

	1st	2nd	3rd	4th
SUBSCRIPTION REVENUE (A)	$ 250	$1,700	$2,880	$3,960
Cost of sales				
TIC (C)	543	250	260	280
Washington (D)	344	368	393	420
Addition Data Operators (D) (Input - Output)	277	585	592	654
Computer Center (E)	75	150	175	200
Marketing (B)	345	927	1,172	1,193
Administration (5% of Revenue (F)	25	83	143	198
Depreciation	50	50	50	50
TOTAL COST	$1,659	$2,413	$2,785	$2,995
NET PROFIT (LOSS)	$(1,409)	$ (713)	$ 95	$ 965

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FOOTNOTES

(A) Revenue Projection (Amounts in 000s)

	1989	1990	1991	1992
1st year 100	$ 250	$ 950	$ 780	$ 720
2nd year 150		750	1,350	1,140
3rd year 150			750	1,350
4th year 150				750
	$ 250	$1,700	$2,880	$3,960

- Assumes that annual subscriptions are $10,000.
- Assumes 80% renew after 1st year; 90% renew after second year and 100% after third year.

(B) Marketing Costs - Marketing plan must be worked out with the assistance of Orbit, BRS & BBI. For purposes of this plan we assumed that the marketing function consisted of the director of marketing and three support people. The sales effort would be performed by Telemarketing and/or independent agents or other Maxwell organizations on a commission basis. Commission is included at 33% on new subscriptions and 100% on subscription renewals.

	1989	1990	1991	1992
Market Staff Expenses	$262	$407	$ 434	$ 447
Commissions	83	520	638	746
TOTAL MARKETING	$345	$927	$1,172	$1,193

(C) TIC software development is included at 1989 budgeted expenditure level for 1989. The plan assumes that 50% of TIC's effort is required after software package is completed to maintain and enhance system.

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(D) Washington would be the operation's center for the database business. All input to database would be obtained and inputted and all call-ins from subscribers would be handled through to the Washington office. In addition to the executive administration function, a function would be established to handle the input-output from the database. The staffing of the Washington office is budgeted at the following levels:

	Management Administration Office	Data Base Operations	Total
1989	3	9	12
1990	3	10	13
1991	3	12	15
1992	3	15	18

(F) It is assumed that the general administration would be handled out of another Maxwell organization. For purposes of the plan, a cost of 5% of revenues is assumed.

(E) Estimated computer center. Cost for proprietary data base.

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[B]-The Significance Under the Current Act of Publication Having Occurred Prior to January 1, 1978

On January 1, 1978 common law copyright as to most works terminated by reason of federal preemption.<21> Prior thereto, common law copyright existed in a work from the moment of its creation and continued unless and until the work was published.<22> But upon publication of a work prior to January 1, 1978, the owner's common law protection therein was lost, through a forfeiture imposed by law.<23> For this reason common law copyright was often referred to as the right of first publication.<24> Likewise, publication was generally a condition precedent to obtaining statutory protection under the 1909 Act,<25> the duration of the copyright being measured from the date of first publication.<26> Furthermore, the right to statutory protection might not be claimed in the first instance,<27> or if once claimed would thereafter be lost if publication were made without observance of statutory formalities.<28>

All of this was true under the 1909 Act. But of what significance are such pre-1978 acts of publication under the current Act? Their significance lies in the fact that in each such instance the act of publication may have resulted in a work being injected into the public domain under the law as it existed prior to January 1, 1978. If that occurred, it is of crucial relevance, because no work in the public domain prior to January 1, 1978 may be protected under the current Act.<29> Because some works created prior to 1978 and not theretofore injected into the public domain will continue to be protected under statutory copyright until 75 years after publication,<30> or until 50 years after the author's death,<31> it will remain necessary at least until the year 2053,<32> and in some instances thereafter,<33> to be concerned with whether an act of publication occurred prior to January 1, 1978.<34>

Quite apart from the question of whether publication injected the work into the public domain, a pre-1978 publication continues to be relevant under the current Act for the purpose of determining when the initial copyright term ends and the renewal term begins with respect to those works which under the current Act remain subject to the renewal provisions.<35>

---------- FOOTNOTES ----------

21 See S 1.01[B] SUPRA. In National Broadcasting Co. v. Sonneborn, 630 F. Supp. 524, 533 (D. Conn. 1985), the plaintiff argued that federal preemption required the court to apply the current Act's definition of publication to actions that occurred prior to its passage. The court properly rejected that construction. ID. at 533-34.

22 Even if a work remained unpublished, it lost its common law copyright if it were registered for statutory copyright as an unpublished work under S 12 of the 1909 Act. Jones v. Virgin Records, Ltd., 643 F. Supp. 1153, 1158

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(S.D.N.Y. 1986) (1909 Act) (Treatise cited). See S 7.16[A][2][c][ii] INFRA.

23 Bobbs-Merrill Co. v. Straus, 210 U.S. 339 (1908); G. Ricordi & Co. v. Haendler, 194 F.2d 914 (2d Cir. 1952); White v. Kimmell, 193 F.2d 744 (9th Cir. 1952); Letter Edged in Black Press, Inc. v. Public Bldg. Comm'n of Chicago, 320 F. Supp. 1303 (N.D. Ill. 1970); Clemens v. Belford, 14 F. 728 (C.C.N.D. Ill. 1883); Hill & Range Songs, Inc. v. London Records, Inc., 142 N.Y.S.2d 311 (Sup. Ct. 1955); Public Affairs Assocs., Inc. v. Rickover, 284 F.2d 262 (D.C. Cir. 1960), VACATED FOR INSUFFICIENT RECORD 369 U.S. 111 (1962); See S 4.13[D] INFRA.

24 E.G., Werckmeister v. American Lithographing Co., 134 F. 321, 324 (2d Cir. 1904); Stanley v. CBS, 35 Cal.2d 653, 221 P.2d 73 (1950); Chamberlain v. Feldman, 300 N.Y. 135, 89 N.E.2d 863 (1949); Palmer v. De Witt, 47 N.Y. 532, 537 (1872).

25 See S 7.16[A][2][b] INFRA.

26 Hearst Corp. v. Shopping Center Network, Inc., 307 F. Supp. 551 (S.D.N.Y. 1969) (preceding nine lines of Treatise quoted). See S 9.01[C] INFRA.

27 17 U.S.C. SS 8 & 10 (1909 Act). See Public Affairs Assocs., Inc. v. Rickover, 284 F.2d 262 (D.C. Cir. 1960), VACATED FOR INSUFFICIENT RECORD, 369 U.S. 111 (1962); DeSilva Constr. Corp. v. Herrald, 213 F. Supp. 184 (M.D. Fla. 1962); Gray v. Eskimo Pie Corp., 244 F. Supp. 785 (D. Del. 1965); Gardenia Flowers, Inc. v. Joseph Markovits, Inc., 280 F. Supp. 776 (S.D.N.Y. 1968).

28 Holmes v. Hurst, 174 U.S. 82 (1899); National Comics Publications, Inc. v. Fawcett Publications, Inc., 191 F.2d 594 (2d Cir. 1951); Metro Associated Servs., Inc. v. Webster City Graphic, Inc., 117 F. Supp. 224 (N.D. Iowa 1953); Klasmer v. Baltimore Football Club, 200 F. Supp. 255 (D. Md. 1961); Rexnord, Inc. v. Modern Handling Sys., Inc., 379 F. Supp. 1190 (D. Del. 1974). See S 7.04 INFRA.

29 Brown v. Tabb, 714 F.2d 1088 (11th Cir. 1983) (Treatise cited). See S 2.03[G] SUPRA.

30 This assumes that the work was published with proper notice, or otherwise obtained statutory copyright as an unpublished work, prior to January 1, 1978, and was thereafter renewed. See S 9.01[C] INFRA.

31 This assumes that the work remained unpublished and protected by common law copyright until January 1, 1978. See S 9.01[B] INFRA.

32 If the 75 years from publication term is applicable. See S 9.01[C] INFRA.

33 If the life plus 50 term is applicable (see S 9.01[B] INFRA), and the author died after 2003.

34 Roy Export Co. Establishment v. Columbia Broadcasting Sys., Inc., 672 F.2d 1095 (2d Cir.) (Treatise cited), CERT. DENIED, 459 U.S. 826 (1982).

35 See S 9.01[C] INFRA. This is true only as to those works in which a pre-1978 copyright was originally secured by publication with notice rather

34 Roy Export Co. Establishment v. Columbia Broadcasting Sys., Inc., 672 F.2d 1095 (2d Cir.) (Treatise cited), CERT. DENIED, 459 U.S. 826 (1982).

35 See S 9.01[C] INFRA. This is true only as to those works in which a pre-1978 copyright was originally secured by publication with notice rather

than by registration as an unpublished work.

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[C]-Three Levels of Analysis

The legacy of the BCIA is three levels of analysis.<14> The BCIA, apart from promulgating its new rules prospectively, explicitly retains existing standards for works already published in accordance under the Copyright Act of 1976 as initially enacted,<15> which in turn retains pertinent standards from the 1909 Act for works published during its effective period.<16>

[1]-1909 Act Publications. Under the 1909 Act, a work had to bear a valid copyright notice upon publication in order to secure copyright protection.<17> Works with defective notice were injected into the public domain immediately upon publication,<17.1> from which there has been no rescue even after passage of the current Act and the BCIA. Thus, as to all works published anywhere in the world prior to January 1, 1978, protection is gauged under the strictures of the 1909 Act.<18>

[2]-Decennial Publications. Under the current Act as initially passed, to secure copyright protection a work had to bear a valid copyright notice<19> upon publication, but omission of such could be cured by subsequent reasonable efforts to affix notice and registration within five years.<20> If not cured, however, such defectively noticed works were also injected into the public domain, from which there has been no rescue even after passage of the BCIA. Thus, as to all works published anywhere in the world from January 1, 1978 to March 1, 1989, their protectibility hinges on the standards of the 1976 Act before its amendment by the BCIA.<21>

[3]-Berne Era Publications. Under the BCIA, notice is no longer required at publication, and absence of notice will no longer consign a work to the public domain, either immediately (as under the 1909 Act) or without the satisfaction of conditions subsequent (as under the 1976 Act). Nonetheless, the BCIA preserves an incentive for use of the same type of copyright notice that has been required under the 1976 Act.<22> Copyright proprietors using the prescribed notice will absolutely<23> defeat a defense in an infringement action based on allegedly innocent<24> infringement in mitigation<24.1> of actual or statutory damages, when urged by a defendant who had access<25> to the noticed copies or phonorecords.<26> In addition, even during the Berne era it is useful to affix a U.C.C. copyright notice<27> for protection in the score of nations adhering to the Universal Copyright Convention<28> but not to the Berne Convention.<29>

Given that notice continues to have an operative effect during the Berne era, plaintiffs have an incentive to uphold the validity of their copyright notices no matter which act governs, albeit that incentive is markedly reduced during the Berne era. First, valid notice for Berne era publications is merely one device out of several<30> for securing a procedural advantage. Second, any unnoticed publication before March 1, 1989, threatened the validity of the copyright under U.S. law. Assuming, for instance, that in 1980 an author published 1000 noticed copies of a work, and that his licensee published 100

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unnoticed copies, it was a matter of some urgency for the copyright proprietor to excuse those latter publications<31> or to show that the licensee's omission of notice contravened the terms of the license.<32> By contrast, the same course of conduct during the Berne era is of only minimal concern to the copyright proprietor - the unnoticed publications do not threaten the viability of the copyright<33> and arguably may not even foreclose the copyright proprietor from taking advantage of the preclusion of innocent infringement defense in mitigation of damages.<34>

Therefore, as to works published on or after March 1, 1989,<34.1> notice no longer enters into the calculus of copyright protection.<34.2> However, as to works previously published, even if the subject of an infringement only after that date, the BCIA explicitly reenacts the pre-existing notice provisions ''[w]ith respect to copies and phonorecords publicly distributed by authority of the copyright owner<35> before the effective date of the Berne Convention Implementation Act of 1988. ... ''<36>

At this point, the three levels of analysis concerning copyright notice should be clear. First, as to works published<37> after March 1, 1989, the BCIA excuses all copyright notice requirements as a condition to copyright.<38> Second, with respect to any work published before March 1, 1989, the BCIA leaves prior standards intact,<39> both with respect to decennial publications and 1909 Act publications. By way of examples,<40> a novel published in 1973 without copyright notice entered the public domain immediately; a song published in 1983 without any copyright notice and never registered with the U.S. Copyright Office entered the public domain no later than 1988; neither is rescued by the BCIA. Similarly, a computer program published on February 28, 1989, without any copyright notice and never registered with the U.S. Copyright Office was governed, at time of publication, by the requirement of registration and cure within five years.<41> Even after March 1, 1989, such registration and cure is required; if not undertaken by February 28, 1994, that work also will thereupon enter the public domain.<42> Third, the 1976 Act itself preserved, in several respects, the notice provisions of prior law, i.e. the 1909 Copyright Act.<43> Thus, to evaluate in 1990 whether a work initially published in 1969 remains protected by United States copyright, the pertinent provisions of the 1909 Act must also be consulted.<44>

---------- FOOTNOTES ----------

14 The three levels here are geared to the four ages of U.S. copyright law, as set forth in the Overview SUPRA. Ironically, far from simplifying U.S. formalities to make them compatible with Berne standards, the result has been increasing complexity. See S 17.01[C][2][b] INFRA.

15 See S 7.02[C][2] INFRA.

16 See S 7.02[C][1] INFRA.

17 17 U.S.C. Secs. 10, 19 ET SEQ. (1909 Act). New Era Publications Int'l, ApS v. Carol Pub. Group, 904 F.2d 152, 161 (2d Cir.), CERT. DENIED, 111 S. Ct. 297 (1990) (Treatise cited). Limited exceptions to this requirement are canvassed in the text below.

16 See S 7.02[C][1] INFRA.

17 17 U.S.C. Secs. 10, 19 ET SEQ. (1909 Act). New Era Publications Int'l, ApS v. Carol Pub. Group, 904 F.2d 152, 161 (2d Cir.), CERT. DENIED, 111 S. Ct. 297 (1990) (Treatise cited). Limited exceptions to this requirement are canvassed in the text below.

17.1 Stewart v. Abend, 110 S. Ct. 1750, 1766 (1990) (Treatise cited).

18 See S 7.12[D][2] INFRA. Note that the 1909 Act has not been definitively construed for publications abroad. See ID.

19 17 U.S.C. Secs. 401-402 (pre-BCIA).

20 17 U.S.C. Sec. 405 (pre-BCIA). Again, limited exceptions to this requirement are canvassed in the text below.

21 See S 7.12[D][1] INFRA. Note that Value Group, Inc. v. Mendham Lake Estates, L.P., 800 F. Supp. 1228, 1232 n.5 (D.N.J. 1992) (Treatise cited), misstates the cut-off date as March 1, 1988.

22 Obviously, the BCIA does not attempt to codify the large body of case law that is summarized in succeeding sections. Absent a compelling reason for finding a change warranted, however, the pre-BCIA standards from cases governing copyright notice should be construed to continue to control notices during the Berne era.

23 The BCIA does not, of course, give defendants in unnoticed publication cases an unconditional right to be considered innocent infringers. Thus, even without using the prescribed copyright notice, a plaintiff in an infringement case may establish, as a factual matter, that the defendant acted with a degree of knowledge and therefore cannot legitimately claim innocent intent. S. Rep. (BCIA), p. 44. Thus, the benefit of notice during the Berne era is to establish a bright line rule for preclusion of this defense; notice is not, however, a SINE QUA NON for preclusion of the defense.

24 But a defendant acting with innocent intent nonetheless may obtain remission of statutory damages as provided in the last sentence of 17 U.S.C. Sec. 504(c)(2). See S 14.04[B][2][a] N. 17 INFRA. In this respect, the BCIA follows the House bill rather the Senate bill. Senate Joint Explanatory Statement on Amendment to S. 1301, contained in 134 Cong. Rec. S14556 (daily ed. Oct. 5, 1988), reprinted in Appendix 33. See H. Rep. (BCIA), p. 45, reprinted in Appendix 32.

24.1 See S 14.04[B][2][a] INFRA.

25 The legislative history contains the following statement: ''In order to benefit from this provision, the copyright proprietor need not prove that notice was placed on ALL published copies of the work; but the proprietor must prove that the copies to which the defendant had access bore such notice.'' S. Rep. (BCIA), p. 44 (emphasis original). That commentary is flawed to the extent that it intends to equate ''access'' with ''possession.'' ''Access'' means that the means existed whereby the defendant COULD have obtained possession of the subject work. See WEBSTER'S NEW COLLEGIATE DICTIONARY (1981) (defining ''access'' as ''freedom or ability to obtain or make use of''). Moreover, copyright law has developed a sizable jurisprudence defining the term ''access,'' based on the proposition that it is typically impossible to prove that a defendant actually viewed a particular exemplar of plaintiff's work. See S 13.02[A] INFRA. It would undermine the theory of those cases - as well as rendering the benefits of notice chimerical - to place a gloss on

(defining ''access'' as ''freedom or ability to obtain or make use of''). Moreover, copyright law has developed a sizable jurisprudence defining the term ''access,'' based on the proposition that it is typically impossible to prove that a defendant actually viewed a particular exemplar of plaintiff's work. See S 13.02[A] INFRA. It would undermine the theory of those cases - as well as rendering the benefits of notice chimerical - to place a gloss on

''access'' that requires a plaintiff to show actual possession. On that basis, it is unnecessary to prove that a defendant had physical possession of a particular noticed copy or phonorecord, as long as noticed copies or phonorecords were in circulation available to that defendant. See also S 7.03 N. 14 INFRA.

26 17 U.S.C. Secs. 401(d), 402(d).

27 See S 7.07[B] INFRA.

28 See SS 17.01[B][2], 17.08 INFRA.

29 See H. Rep. (BCIA), pp. 26-27.

30 See N. 23 SUPRA.

31 See S 7.13 INFRA.

32 See S 7.03 INFRA.

33 Whereas a pre-March 1, 1989, defect provides a defense to all possible infringers (see S 7.14[A][2] INFRA), a defect after that date only opens the door to particular targets to raise a defense at trial. As added by the BCIA, Sections 401(d) and 402(d) provide that when a defendant had access to noticed copies and phonorecords, then ''no weight shall be given to SUCH A DEFENDANT'S interposition of a defense based on innocent infringement in mitigation of statutory damages ... .'' 17 U.S.C. Secs. 401(d), 402(d) (emphasis added).

34 See S 7.03 INFRA.

34.1 Direct Marketing of Virginia, Inc. v. E. Mishan & Sons, Inc., 753 F. Supp. 100, 104 n.8 (S.D.N.Y. 1990).

34.2 In the Visual Artists Rights Act of 1990, a law passed subsequent to the BCIA, Congress went even further towards adopting Berne standards into U.S. law. See S 8.21[B][2] INFRA. Yet ironically, that law injects new marking provisions as a prerequisite to exercise the artists' rights that that law creates. See S 8.21[B][2][a] N. 71 INFRA.

35 Given the reference to works distributed ''by authority of the copyright owner,'' what status do works NOT distributed by authority of the copyright owner occupy? As to such works, the negative pregnant in the BCIA is that they did not need to bear a proper copyright notice. Nonetheless, given that even under the original text of the Copyright Act of 1976, such works did not need to bear a proper notice, see S 7.03 INFRA, the BCIA's reference to ''authority of the copyright owner'' is probably otiose. See S 7.03 N. 6 INFRA.

36 17 U.S.C. Secs. 404(b), 405(a), 406(a). See 17 U.S.C. Secs. 405(b), 406(b), 406(c). Query whether that reference to ''publicly distributed'' imports a meaning different from publication as a term of art under copyright law? See S 7.06[A] Ns. 3 & 13 INFRA.

37 This rule applies equally to works first published and works republished during the Berne era. Thus, a work first published in 1980 needed to bear a

406(b), 406(c). Query whether that reference to ''publicly distributed'' imports a meaning different from publication as a term of art under copyright law? See S 7.06[A] Ns. 3 & 13 INFRA.

37 This rule applies equally to works first published and works republished during the Berne era. Thus, a work first published in 1980 needed to bear a

copyright notice; if republished in 1990, a copyright notice on the work is strictly voluntary, except, arguably, in the case of curing prior unnoticed publication. See S 7.13[B][2] N. 54 INFRA.

38 Of course, as noted in the text above, it remains advisable to affix such notice to take advantage of the preclusion of the innocent infringement defense. Moreover, even during the Berne era copyright notice remains, ''in all probability, the cheapest deterrent to infringement which a copyright holder may take.'' H. Rep. (BCIA), p. 27.

39 Princess Fabrics, Inc. v. CHF, Inc., 922 F.2d 99, 102 n.1 (2d Cir. 1990). Some works required no copyright notice even under former law. See S 7.12 SUPRA. As to such works, the BCIA obviously continues their protected status notwithstanding absence of copyright notice.

40 Note that, for purposes of these examples, it is assumed that the subject works were published in the United States under authority of the copyright owner and in large quantities, thus making unavailing the various excuses for unnoticed publication under the 1976 and 1909 Acts. See generally SS 7.03, 7.12-7.13 INFRA.

41 See S 7.13[B] INFRA.

42 See S 7.13[B][2] N. 54 INFRA.

43 See S 7.04 INFRA.

44 The conclusion will follow either that the work achieved statutory copyright by proper copyright notice in 1969, or else that it thereupon entered the public domain. See S 7.13[A][2] INFRA.

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S 7.03 Copyright Notice-The Triggering Factor of Publication with Authorization by the Copyright Owner

We have already seen that the notice ''requirement'' under U.S. copyright law varies depending on the governing statutory scheme.<1> The following sections flesh out the constituent elements of that notice requirement. At the threshold, however, it must be borne in mind that the requirement of notice is triggered only upon publication<2> of copies<3> and phonorecords.<4> With respect to unpublished copies and phonorecords, it has never been necessary to affix a copyright notice.<5> Moreover, the notice requirements are applicable only to such copies or phonorecords of a work as are published ''by authority of the copyright owner.''<6> Thus, with respect to decennial publications under the current Act,<7> as under the 1909 Act,<8> a public distribution of copies or phonorecords will not trigger the legal consequences of a publication without notice<9> unless it is shown that such public distribution occurred by or under the authority of the copyright owner.

The same rule applies to Berne-era publications,<10> even though the legal consequences of notice for such works differs from the legal consequences of 1909 Act and decennial publications.<11> To the extent that valid notice is placed on published works to which the defendant had access, then that defendant is foreclosed from raising a certain defense.<12> To the extent that unnoticed public distribution occurs, but without the copyright owner's authority, then the defense is unaffected.<13> Finally, to the extent that unnoticed publication occurs under authority of the copyright owner, then the owner should probably be foreclosed from invoking the evidentiary significance of the copyright notice to preclude the defense.<14>

For purposes of requiring publication with authority, the statutory reference to ''copyright owner'' should be deemed to be the owner of copyright at the time publication occurs. Thus, when an author (typically foreign)<15> licenses unnoticed publications outside the United States, and subsequently assigns the United States copyright to an American plaintiff, that plaintiff cannot take refuge in the argument that he is now the ''copyright owner'' and that he did not authorize the unnoticed publications. Instead, the plaintiff obtains ownership of the copyright subject to any blemishes in title incurred by his predecessor, the assigning author.<16> Conversely, however, if the plaintiff obtains ownership of the copyright in the United States, and subsequently the author allows unnoticed publication abroad, then the plaintiff can legitimately maintain that he was the copyright owner at time of publication, that the foreign publication occurred without his authority, and therefore that any notice defect is not chargeable against him under Section 401(a).<17>

The consequences of unnoticed publication pertain when a licensee fails to place a proper notice on copies or phonorecords, if the licensee<18> was authorized by the copyright owner to make such a publication.<19> If, however, the affixing of a proper copyright notice is a condition to a copyright

401(a).<1/>

The consequences of unnoticed publication pertain when a licensee fails to place a proper notice on copies or phonorecords, if the licensee<18> was authorized by the copyright owner to make such a publication.<19> If, however, the affixing of a proper copyright notice is a condition to a copyright

license, the failure of the licensee to affix such a notice on published copies or phonorecords of a work will render the publication unauthorized under the license, and hence the absence of a proper notice will not affect the copyright.<20> This was true of publications occurring under the 1909 Act prior to January 1, 1978,<21> as well as publications occurring thereafter under the current Act. However, Section 405(a)(3) of the current Act, which is applicable solely to decennial publications,<22> suggests a change in the application of this principle. This section provides that omission of the copyright notice will not invalidate the copyright if ''the notice has been omitted in violation of an express requirement in writing that, as a condition of the copyright owner's authorization of the public distribution of copies or phonorecords, they bear the prescribed notice.'' The negative implication of the above would seem to be that if the condition requiring the placement of notice is implied rather than express, or even if express, if it is not in writing, it will not serve to protect the copyright against the consequences of a publication without notice. Despite some arguably contradictory language in the current Act,<23> it appears by reason of Section 405(a)(3) that as regards decennial publications, unless the copyright owner has subjected his consent to publication to an express written condition requiring the proper affixation of notice, the failure to observe the notice requirements will not be excused on the ground of lack of authority from the copyright owner.<24>

However, publications without notice occurring prior to 1978 will not serve to inject such works into the public domain if made in violation of a condition imposed by the copyright owner requiring the affixation of notice, even if such condition was oral or implied.<25> Moreover, as to such pre-1978 publications it was held that the defendant has the burden of establishing that the absence of a proper copyright notice<26> resulted from the consent or ''fault'' of the copyright proprietor.<27> Indeed, the Fifth Circuit court of appeals concluded that unless the licensor manifested an intent to dedicate his copyright to the public domain, a licensee's failure to affix a proper copyright notice violated an implied condition imposed by the licensor, and hence as regards pre-1978 publications, did not inject the work into the public domain.<28> However, whether pre-1978 or thereafter, if a licensee has published vast numbers of copies without a proper copyright notice, all of this with the full knowledge of the licensor and without the latter voicing any objection to such practice, the licensor will not thereafter be heard to claim that such publication without notice was in violation of either an express or implied condition of the license.<29>

---------- FOOTNOTES ----------

1 See S 7.02[C] SUPRA. Indeed, in the Berne era the ''requirement'' of notice is a misnomer - notice exists solely to extinguish a particular defense and does not serve as a prerequisite to copyright protection. See S 7.02[C][3] SUPRA.

2 As to what constitutes publication, see Chap. 4.

3 17 U.S.C. Sec. 401(a).

4 17 U.S.C. Sec. 402(a).

2 As to what constitutes publication, see Chap. 4.

3 17 U.S.C. Sec. 401(a).

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5 Conversely, a notice affixed only to those copies for internal distribution will not satisfy the notice requirement if the published copies, i.e. those publicly distributed, do not bear such a notice. Data Cash Sys., Inc. v. JS&A Group, Inc., 628 F.2d 1038 (7th Cir. 1980). Note that even if a copyright notice is defective, this will not trigger copyright divestment if there is no publication of the copies bearing such defective notice. American Vitagraph, Inc. v. Levy, 659 F.2d 1023 (9th Cir. 1981).

6 17 U.S.C. Secs. 401(a); 402(a). See also 17 U.S.C. Sec. 405(a). This express statutory reference is probably redundant, given that the very concept of publication implies the authority of the copyright owner. See S 4.04 SUPRA.

7 Midway Mfg. Co. v. Artic International, Inc., 547 F. Supp. 999 (N.D. Ill. 1982), AFF'D, 704 F.2d 1009 (7th Cir. 1983); Nintendo of America, Inc. v. Elcon Industries, Inc., 564 F. Supp. 937 (E.D. Mich. 1982) (Treatise cited).

8 Twentieth Century-Fox Film Corp. v. Dunnahoo, 637 F.2d 1338 (9th Cir. 1981); Gerlach-Barklow Co. v. Morris & Bendien, Inc., 23 F.2d 159 (2d Cir. 1927); Synercom Technology, Inc. v. University Computing Co., 462 F. Supp. 1003 (N.D. Tex. 1978). However, a publication without notice which occurs after assignment, although without the consent of the assignor, will not avoid the consequences of publication without notice if the assignee, who has become the copyright proprietor, causes such publication. Walker v. University Books, Inc., 602 F.2d 859 (9th Cir. 1979).

9 See S 7.02[C] SUPRA; S 7.14 INFRA.

10 It may be predicted that the jurisprudence of unauthorized publications, which is extensive with respect to 1909 Act and decennial publications, will halt to a trickle with respect to Berne era publications. For the benefits of Berne era notice are minimal and are obtainable through other means. See S 7.02[C][3] & N. 23 SUPRA. Against those minimal benefits are the difficult factual issues canvassed in the text below. Litigants will therefore likely choose to focus their arguments elsewhere.

11 See S 7.02[C] SUPRA.

12 17 U.S.C. Sec. 401(d) (''If a notice of copyright in the form and position specified by this section appears on the PUBLISHED COPY OR COPIES to which a defendant in a copyright infringement suit had access ...'') (emphasis added); 17 U.S.C. Sec. 402(d) (same with respect to phonorecords).

13 The evidentiary weight of copyright notice for Berne era publications is set forth in 17 U.S.C. Secs. 401(d) & 402(d). Note that 17 U.S.C. Secs. 401(a) & 402(a), even after amendment by the BCIA, both preserve reference to publication ''by authority of the copyright owner,'' and that 17 U.S.C. Secs. 401(d) & 402(d) both refer back to the type of copyright notice ''specified by this section.'' Further, the reference in those latter subsections to a defendant having access to ''published'' copies and phonorecords subsumes within it an implication of authorization. See N. 6 SUPRA. The conclusion follows that the evidentiary weight of copyright notice is affected only by authorized distribution.

May it be argued in opposition that the explicit reference in 17 U.S.C.

defendant having access to ''published'' copies and phonorecords subsumes within it an implication of authorization. See N. 6 SUPRA. The conclusion follows that the evidentiary weight of copyright notice is affected only by authorized distribution.

May it be argued in opposition that the explicit reference in 17 U.S.C.

Secs. 401(a) and 402(a) to ''published ... by AUTHORITY OF THE COPYRIGHT OWNER'' and the absence of such italicized language from Secs. 401(d) and 402(d) imply that the reference to ''published'' in the latter should not be construed to include authorization of the copyright owner? Such a result does not appear to have been intended by the BCIA, given that subparagraph (d) of those sections contains the language ''notice of copyright in the form and position specified by this section,'' thus invoking parallel requirements for subparagraphs (a) and (d). See S 7.02[C][3] SUPRA.

14 Before its amendment by the BCIA, the current Act required that copyright notice ''shall be placed on ALL publicly distributed'' copies and phonorecords. 17 U.S.C. Secs. 401(a) & 402(a) (emphasis added). Both the House and Senate bills changed the mandatory ''shall'' to an optional ''may'' and otherwise left the quoted language unaffected. The BCIA as passed, however, effected the further change of eliminating the word ''all.'' It could be argued that that change reflected an intent that as long as a defendant had access to SOME noticed copies or phonorecords, that defendant was precluded from raising a defense based on innocent infringement in mitigation of damages, even if the notice was not in fact placed on ALL published copies. This interpretation finds some support in the legislative history: ''In order to benefit from this provision, the copyright proprietor need not prove that notice was placed on ALL published copies of the work; but the proprietor must prove that the copies to which the defendant had access bore such notice.'' S. Rep. (BCIA), p. 44 (emphasis original). See S 7.02[C][3] N. 25 SUPRA (criticizing that legislative pronouncement).

On the other hand, it is difficult to believe that Congress intended to validate a practice of noticing a handful of copies or phonorecords and then publishing thousands of unnoticed works consistent with the evidentiary significance of notice, given the frequent references in the legislative history to encouraging unaltered affixation of copyright notice following implementation of the BCIA. See H. Rep. (BCIA), p. 45 (''a new provision designed to stimulate voluntary notice by according evidentiary significance to its use''); S. Rep. (BCIA), p. 43 (''an additional incentive for notice''). Further undercutting the interpretation from the preceding paragraph is the statutory language in 17 U.S.C. Secs. 401(d) & 402(d) precluding the innocent infringement defense when the defendant had access to ''THE published'' copies or phonorecords bearing proper notice, not merely to ''some'' or ''any'' such copies or phonorecords.

15 Non-American authors tend to license unnoticed publications for two reasons. First, no copyright notice is required under the domestic law of many foreign nations, see Chap. 17 INFRA; notwithstanding that fact, United States copyright law requires copyright notice even on items published abroad, see S 7.12[D][1] INFRA. Second, some items subject to American copyright may not be within the scope of other nations' copyright protection. E.G., Hasbro Bradley, Inc. v. Sparkle Toys, Inc., 780 F.2d 189 (2d Cir. 1985) (no notice affixed to toys manufactured and published in Japan because such toys not copyrightable in Japan and Japanese copyright law in any event does not require copyright notice).

16 Hasbro Bradley, Inc. v. Sparkle Toys, Inc., 780 F.2d 189, 194 (2d Cir. 1985) (''it is axiomatic that an assignee of a copyright can take no more than his assignor has to give''). See S 7.13[B][3] INFRA. In adopting this

copyrightable in Japan and Japanese copyright law in any event does not require copyright notice).

16 Hasbro Bradley, Inc. v. Sparkle Toys, Inc., 780 F.2d 189, 194 (2d Cir. 1985) (''it is axiomatic that an assignee of a copyright can take no more than his assignor has to give''). See S 7.13[B][3] INFRA. In adopting this

approach, Judge Friendly specifically disapproves of the language in Wales Industries, Inc. v. Hasbro Bradley, Inc., 612 F. Supp. 510 (S.D.N.Y. 1985), and Midway Mfg. Co. v. Artic Int'l, Inc., 547 F. Supp. 999 (N.D. Ill. 1982), AFF'D, 704 F.2d 1009 (7th Cir.), CERT. DENIED, 464 U.S. 823(1983). See ID. at 194 n.7.

17 See S 10.02[C][2] & N. 55.1 INFRA, discussing Nintendo of America, Inc. v. Elcon Industries, Inc., 564 F. Supp. 937 (E.D. Mich. 1982). See also S 7.12 [D][1] N. 62 INFRA.

18 For the converse situation, in which the licensor breached a contractual obligation to affix a copyright notice, see M & A Associates, Inc. v. VCX, Inc., 657 F. Supp. 454 (E.D. Mich. 1987).

19 Atlantic Monthly Co. v. Post Publishing Co., 27 F.2d 556 (D. Mass. 1928); Scandia House Enterprises, Inc. v. Dam Things Establishment, 243 F. Supp. 450 (D.D.C. 1965); Bell v. Combined Registry Co., 397 F. Supp. 1241 (N.D. Ill. 1975) (Treatise cited), AFF'D, 536 F.2d 164 (7th Cir. 1976) (Treatise cited). Cf. McDaniel v. Friedman, 98 F.2d 745 (7th Cir. 1938). In determining the effect of the absence of notice, ''plaintiffs are generally responsible for the acts of their chosen agents, including their manufacturers, performed in the course of their agency.'' First Amer. Artificial Flowers v. Joseph Markovits, Inc., 342 F. Supp. 178, 182 (S.D.N.Y. 1972). See Fantastic Fakes, Inc. v. Pickwick International, Inc., 661 F.2d 479 (5th Cir. 1981) (Treatise cited).

20 As to Berne era publications, no aspect of notice affects the subsistence of the copyright. See S 7.02[C][3] SUPRA.

21 National Comics Publications, Inc. v. Fawcett Publications, Inc., 191 F.2d 594 (2d Cir. 1951); American Press Ass'n v. Daily Story Publishing Co., 120 Fed. 766 (7th Cir. 1902); County of Ventura v. Blackburn, 362 F.2d 515 (9th Cir. 1966); National Council of Young Israel, Inc. v. Feit Co., 347 F. Supp. 1293 (S.D.N.Y. 1972); Judscott Handprints, Ltd. v. Washington Wall Paper Co., 377 F. Supp. 1372 (E.D.N.Y. 1974) (Treatise cited); see Perkins Marine Lamp & Hardware Corp. v. Long Island Marine Supply Corp., 185 F. Supp. 353 (E.D. N.Y. 1960); Peter Pan Fabrics v. Martin Wiener Corp., 274 F.2d 487 (2d Cir. 1960) (dissenting opinion); Gerlach-Barklow Co. v. Morris & Bendien, Inc., 23 F.2d 159 (2d Cir. 1927); cf. Altman v. New Haven Union Co., 254 Fed. 113 (D.C. Conn. 1918); Kipling v. G. P. Putnam's Sons, 120 Fed. 631 (2d Cir. 1903); Hiawatha Card Co. v. Colourpicture Publishers, Inc., 255 F. Supp. 1015 (E.D. Mich. 1966).

22 As amended by the BCIA, all of Section 405(a) applies only ''[w]ith respect to copies and phonorecords publicly distributed by authority of the copyright owner before the effective date of the Berne Convention Implementation Act of 1988 ... .''

23 Note that even if there is a failure to satisfy the express written condition requirement of Section 405(a)(3), as well as a failure to satisfy the ''relatively small number of copies or phonorecords'' requirement of Section 405(a)(1) (see S 7.13[A] INFRA), and the registration and reasonable effort requirements of Section 405(a)(2) (see S 7.13[B] INFRA), this merely means, under the preamble of Section 405(a), that ''the omission of the

23 Note that even if there is a failure to satisfy the express written condition requirement of Section 405(a)(3), as well as a failure to satisfy the ''relatively small number of copies or phonorecords'' requirement of Section 405(a)(1) (see S 7.13[A] INFRA), and the registration and reasonable effort requirements of Section 405(a)(2) (see S 7.13[B] INFRA), this merely means, under the preamble of Section 405(a), that ''the omission of the

copyright notice prescribed by sections 401 through 403 from copies or phonorecords publicly distributed BY AUTHORITY OF THE COPYRIGHT OWNER does ... invalidate the copyright in the work ...'' (emphasis added). Likewise, the notice requirements of sections 401(a) and 402(a) are triggered only in the event of publications ''by authority of the copyright owner.'' If the authority to publish has been withheld by reason of the failure to satisfy an oral or implied condition imposed by the copyright owner (requiring the affixation of notice), there would not be a publication by authority of the copyright owner. Since arguably the notice requirements of Sections 401(a) and 402(a) therefore would not be applicable the need to satisfy the exemption provision of Section 405(a)(3) would not arise. It may, then, be argued that Section 405(a)(3) is redundant. The House Report lends some support to such a conclusion: ''... section 405(a) makes DOUBLY clear that a copyright owner may guard himself against errors or omissions by others if he makes use of the prescribed notice an express condition of his publishing licenses.'' H. Rep., p. 144 (Emphasis added.) The Courts are unlikely to follow such a strict reading of the Act, since there is hesitancy to render any statutory provision meaningless if a meaningful construction is available. The general requirements of ''authority'' under Sections 401(a) and 402(a) can be reconciled with the express written condition requirement of Section 405(a)(3) in the following manner. Under Sections 401(a) and 402(a), there is no notice requirement unless the publication occurred under the authority of the copyright owner, but such authority may be either written or oral, and either express or implied (subject to the writing requirements of Section 204(a) as respects exclusive grants). If, however, there is such authority, then the notice requirement will not be excused by reason of the failure to satisfy a condition to such authority requiring the placement of notice unless such condition is express and in writing as required by Section 405(a)(3).

24 This construction of the current Act was adopted in Fantastic Fakes, Inc. v. Pickwick International, Inc., 661 F.2d 479 (5th Cir. 1981). See Donald Frederick Evans and Assoc. v. Continental Homes, Inc., 785 F.2d 897 (11th Cir. 1986), in which the copyright owner's contract with its licensee required the owner's written permission for any publication of its work. Given the copyright owner's failure to enforce that provision, its failure to take any steps to halt multiple unnoticed publications about which it was well aware, and the contract's lack of ''an express requirement in writing [that the licensee's works] bear the prescribed notice,'' Sec. 405(a)(3), the court rejected the copyright owner's argument of lack of authority. ID. at 908-09 (Treatise cited). See House of Hatten, Inc. v. Baby Togs, Inc., 668 F. Supp. 251, 256 (S.D.N.Y. 1987) (Section 405(a)(3) applies to only to licensees, and thus cannot be asserted by plaintiff whose wholly-owned manufacturing company allegedly violated condition of affixing notice).

What of a settlement agreement whereby the alleged infringer is permitted to publish his infringing copies without affixing the alleged copyright owner's notice? Arguably this constitutes an authorization by such copyright owner to publish without notice. However, in H.M. Kolbe Co. v. Armgus Textile Co., 315 F.2d 70 (2d Cir. 1963), it was held that where as part of a settlement agreement, the copyright owner consents to the infringer's sale of such infringing copies (bearing no copyright notice) which he has theretofore produced, this will not consitute such consent as to cause the copyright to be divested upon the subsequent publication of such copies. The court reasoned that such consent was ''mere acquiesence in a course of action it was

F.2d 70 (2d Cir. 1963), it was held that where as part of a settlement agreement, the copyright owner consents to the infringer's sale of such infringing copies (bearing no copyright notice) which he has theretofore produced, this will not consitute such consent as to cause the copyright to be divested upon the subsequent publication of such copies. The court reasoned that such consent was ''mere acquiesence in a course of action it was

powerless to control'' and that in any event it ''was clearly a part of a larger endeavor to limit infringing sales ... insofar as that could be accomplished by an out-of-court settlement. ...'' In Judscott Handprints, Ltd. v. Washington Wall Paper Co., 377 F. Supp. 1372 (E.D.N.Y. 1974), a license was granted pursuant to a settlement agreement, but subject to the condition that the licensee would affix a copyright notice in the name of the licensor to all previously made infringing copies. An issue of fact arose as to whether the licensor, the plaintiff in the present action, had in fact enforced this condition. The court resolved the factual issue in favor of the plaintiff, but indicated that even in the absence of such a condition, under the doctrine of the KOLBE case a publication of such copies without notice would not inject the licensor's work into the public domain. Greeff Fabrics, Inc. v. Malden Mills Indus., 412 F. Supp. 160 (S.D.N.Y. 1976), indicates that the KOLBE doctrine will not be applied where the settlement agreement permits the infringer to manufacture additional copies for some limited period after the date of settlement. In such circumstances at least such additional copies must bear a proper notice. Subject to this qualification, it seems likely that the courts will continue to follow the KOLBE doctrine under the current Act.

25 It may be necessary, however, to distinguish between a covenant and a condition. Some courts have held that in the absence of a contrary expression, there is an implied ''condition'' that a licensee will protect the rights of the licensor by taking whatever steps are necessary to preserve the copyright in the work, Johnson v. Salomon, 197 U.S.P.Q. 801 (D. Minn. 1977), while other courts have found this to constitute an implied ''covenant.'' April Prods. v. Schirmer, 308 N.Y. 366, 126 N.E.2d 283 (1955); see County of Ventura v. Blackburn, 362 F.2d 515 (9th Cir. 1966); Judscott Handprints, Ltd. v. Washington Wall Paper Co., 377 F. Supp. 1372 (E.D.N.Y. 1974) (''... publication without notice is normally not authorized.''); cf. Mills Music, Inc. v. Cromwell Music, Inc., 126 F. Supp. 54 (S.D.N.Y. 1954). See S 10.11[B] INFRA. Violation of a covenant may give rise to a breach of contract action, and nevertheless not render the publication unauthorized. See S 10.15 INFRA.

26 Even if the notice employed by a licensee were technically improper, if it nevertheless did not result in injecting the work into the public domain (see S 10.01[C][2] INFRA), there was then no violation of an implied condition regarding notice imposed by the licensor. Fantastic Fakes, Inc. v. Pickwick International, Inc., 661 F.2d 479 (5th Cir. 1981).

27 Modern Aids, Inc. v. R.H. Macy & Co., 264 F.2d 93 (2d Cir. 1959); Judscott Handprints, Ltd. v. Washington Wall Paper Co., 377 F. Supp. 1372 (E.D.N.Y. 1972) (Treatise cited); Goldman-Morgen, Inc. v. Dan Brechner & Co., 411 F. Supp. 382 (S.D.N.Y. 1976); Greeff Fabrics, Inc. v. Malden Mills Indus., 412 F. Supp. 160 (S.D.N.Y. 1976). see SS 7.13[C] and 12.11 INFRA.

28 See Fantastic Fakes, Inc. v. Pickwick International, Inc., 661 F.2d 479 (5th Cir. 1981).

29 Letter Edged In Black Press, Inc. v. Public Bldg. Comm'n of Chicago, 320 F. Supp. 1303 (N.D. Ill. 1970); Scandia House Enterprises, Inc. v. Dam Things Establishment, 146 U.S.P.Q. 342 (D.D.C. 1965). See Florabelle Flowers, Inc. v. Joseph Markovits, Inc., 296 F. Supp. 304 (S.D.N.Y. 1968); Synercom Technology, Inc. v. University Computing Co., 462 F. Supp. 1003 (N.D. Tex. 1978) (Treatise cited).

29 Letter Edged In Black Press, Inc. v. Public Bldg. Comm'n of Chicago, 320 F. Supp. 1303 (N.D. Ill. 1970); Scandia House Enterprises, Inc. v. Dam Things Establishment, 146 U.S.P.Q. 342 (D.D.C. 1965). See Florabelle Flowers, Inc. v. Joseph Markovits, Inc., 296 F. Supp. 304 (S.D.N.Y. 1968); Synercom Technology, Inc. v. University Computing Co., 462 F. Supp. 1003 (N.D. Tex. 1978) (Treatise cited).

But cf. National Council of Young Israel, Inc. v. Feit Co., 347 F. Supp. 1293 (S.D.N.Y. 1972) (licensee's failure to comply with notice requirement held not fatal to copyright notwithstanding licensor's failure to police such compliance).

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[g]-Withholding Taxes on Fees. Unless specific provision is made to the contrary, the license fees will be payable by the foreign licensee net after the deduction of any taxes required to be withheld or paid directly under the tax laws and regulations of the foreign licensee's country. American licensors often insert a clause in the agreement requiring the licensee to pay royalties without deduction of withholding taxes, except in countries which do not allow this. Such provisions need not always be inserted, because under Section 901 of the Internal Revenue Code of 1954, United States nationals, United States domestic corporations, and certain alien residents are entitled within limits, to credit foreign income, war profits, and excess profits taxes-or foreign taxes in lieu thereof-against the United States tax liability on such income.<7.1>

It is often preferable for the American licensor to pay the foreign taxes on licensing fees and then claim the United States foreign tax credit for such foreign taxes, thus avoiding the necessity for claiming that such foreign taxes were paid by the licensee on behalf of the licensor in the face of a contractual agreement to the contrary. Although the bargaining positions of the licensor and the licensee are frequently unexpressed on this point, the licensor should be able to secure a higher licensing fee by authorizing the licensee to deduct foreign taxes, rather than shifting this burden to him.

The situation is somewhat different where the licensor is a foreign base company and where the United States foreign tax credit for the withholding taxes is postponed until the foreign base company pays dividends to its parent.<8> In this situation, the licensor may often secure a higher immediate net return by stipulating that the licensee shall pay the foreign taxes on the license fees.

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7.1 See Chapter 9 INFRA.

8 IBID.

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[c]-Withholding of Tax. Generally, payments made to nonresident aliens are subject to a 30 percent withholding tax.<135> The same withholding rate applies to payments to foreign corporations.<136> The withholding rate for both individuals and corporations may be reduced by an applicable tax treaty between the United States and the foreign recipient's country. No withholding is required if the item of income (other than compensation for personal services) is effectively connected with the conduct of a trade or business within the United States, and is included in the gross income of the individual nonresident alien for the taxable year.<137>

For taxable years beginning after December 31, 1986, corporations organized in Guam, American Samoa, the Northern Mariana Islands, or the U.S. Virgin Islands may avoid withholding on U.S. source income by meeting several special requirements.<138> Otherwise, withholding generally cannot be avoided for payments made to foreign corporations, in the absence of a treaty provision reducing or eliminating withholding on certain classes of payments. While the I.R.C. provides for the possible elimination of withholding when a foreign corporation is engaged in a trade or business in the United States,<139> the Treasury Regulations are so restrictive that the provision has virtually no application.<140>

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135 I.R.C. S 1441(a), (b).

136 I.R.C. S 1442(a).

137 I.R.C. SS 1441(c), 871(b)(2). See Appendix 8, Vol. 14A.

138 P.L. 99-514, S 1273, amending I.R.C. SS 1442(c), 881(b), 957(c). See Appendix 8, Vol. 14A.

139 I.R.C. S 1442(b).

140 Treas. Reg. S 1.1441-4(f).

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[1]-Transactional Taxes

Included under this heading are turnover taxes, value-added taxes (VATs), sales taxes, stamp taxes, and other taxes not based on income. Such taxes may be levied by city, state, and provincial authorities as well as by national governments. The taxes are deductible from royalty income in computing income subject to United States income tax, but are not creditable against that tax.<1> Such taxes therefore directly reduce the net royalty amount received by the United States licensor and must be taken into account in setting the royalty figure or through specific provisions in the license agreement.

The laws of each country must be examined by a prospective licensor to determine the impact of transactional taxes on his licensing operations. The tax rate is often substantial. Withholding by the licensee may be required.<2> If it is, the question of the legal incidence of the tax also is important. If the legal incidence is on the licensor, he must assure himself that the licensee actually remits the amounts withheld to the taxing authorities. Sometimes, the licensor must file a return and is responsible for the remission of the tax.

In some countries the entire burden of a transactional tax can be shifted to the licensee if the license agreement so provides. Generally, for this to be possible, the tax must be shown as a separate item on an invoice or other bill presented to the party to be charged. Where the licensee files a periodic royalty report and simultaneously pays the indicated royalty, this requirement is difficult to meet. Perhaps an appropriate license clause, which requires the licensee to pay the tax and show it as a separate item on the royalty report, will suffice. This type of detail must be considered each time licenses are proposed in a foreign country.

Tax treaties usually do not have any effect on transactional taxes. Generally, countries with whom the United States has tax treaties impose transactional taxes without taking the treaty into account.

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1 I.R.C. SS 901(b)(1), 903. Only ''income, war profits, and excess profits taxes'' and taxes ''in lieu of'' such taxes are creditable against United States income tax, subject to certain limitations. SEE, E.G., Rev. Rul. 56-635, 1956-2 C.B. 501.

2 For example, under Italian law, royalties paid to non-resident companies which maintain a permanent establishment in Italy are subject to a 21 percent withholding tax, while no tax is due if the company does not maintain a permanent establishment in Italy. W. Diamond, Foreign Tax and Trade Briefs, Western Europe 134.1 (Matthew Bender).

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In Canada, the Goods and Service Tax (essentially a value added tax) has no impact on the export of intellectual property from Canada. The import of intellectual property into Canada, as by a license, will attract a tax only if the supplier is otherwise deemed to be carrying on a business in Canada. SEE Burshtein, IMPACT OF CANADA'S NEW TAX, 27 Les Nouvelles 102 (1992).

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[2]-Choice of Credit or Deduction

A taxpayer may choose to deduct creditable foreign taxes in computing his taxable income or to credit these taxes against his federal tax liability computed without this deduction.<5> The choice is applicable to all creditable foreign taxes, but the taxpayer must either deduct or credit all creditable foreign taxes.<6> There is no requirement that the taxpayer make an irrevocable ''election'' between the credit and the deduction. The method chosen on the return may be changed at any time before the expiration of the statute of limitations for the taxable year.<7> For purposes of the deduction or credit, a creditable foreign tax is ''paid'' when it is withheld from income at the source, even though the foreign government does not receive the tax from the withholding agent until a later taxable year.<8>

[3]-Taxes Subject to Credit

A credit is allowed only for taxes ''imposed by the authority of any foreign country or possession of the United States.''<9> ''Foreign country'' includes any foreign state or its political subdivision.<10> The foreign taxes that are creditable are ''income, war profits, and excess profits taxes''<11> as well as taxes paid ''in lieu of'' such taxes.<12>

Foreign taxes of all designations and descriptions have been held to be income taxes. The basic criterion is the resemblance to an income tax under United States tax concepts.<13> The tax need not be imposed on all categories of income,<14> or even be called an income tax to qualify.<15> The governing test, in determining the scope of the term ''income ... taxes'' in IRC Section 901(b)(1), is that the phrase covers all foreign income taxes designed to fall on some net gain or profit and includes a gross income tax if, but only if, that impost is almost sure, or very likely, to reach some net gain because costs or expenses will not be so high as to offset the net profit.<16> A tax payment cannot be a creditable income tax unless the taxpayer is under an actual or apparent obligation to make the payment.<17>

The concept of taxes ''in lieu of'' income tax has caused considerable difficulty. If a tax is imposed in addition to a general income tax, it is not imposed in lieu of income tax.<18> But a tax on gross earnings is an income tax because the United States itself uses such a tax base for nonresident aliens.<19>

[4]-Statutory Limitations on the Foreign Tax Credit

A taxpayer is limited in the amount of the foreign tax credit available. After the basic requirements of IRC Section 901 are met (i.e., the tax is an income, war profits, or excess profits tax), a taxpayer must ascertain that

[4]-Statutory Limitations on the Foreign Tax Credit

A taxpayer is limited in the amount of the foreign tax credit available. After the basic requirements of IRC Section 901 are met (i.e., the tax is an income, war profits, or excess profits tax), a taxpayer must ascertain that

the amount of creditable foreign taxes sought to be credited against United States tax does not exceed the statutory limitation contained in IRC Section 904.<20> The credit is limited because, from an equitable standpoint the foreign tax credit for any taxable year should not be greater than the United States tax assessed against the foreign source income that generated the creditable foreign tax.

[a]-Overall Limitation. There is an overall limit on the foreign tax credit.<21> This limitation requires a taxpayer to consolidate all foreign source income, regardless of the countries sourceand the tax rates applied by the various countries, and insert this amount into the formula laid out in I.R.C. Section 904(a).

That formula is:

$$\text{FTC limitation} = \text{U.S. Tax} \times \frac{\text{Taxable foreign source income}}{\text{Total taxable income}}$$

If the amount of foreign tax paid or accrued is greater than the statutory limitation amount, the excess amount may be carried to other years,<22> but it may not be used as either a credit or a deduction for the current year.

Special treatment is given to foreign source capital gains. First, taxable income from sources outside the United States includes capital gain only to the extent of foreign source capital gain net income.<23> In addition, in the case of individuals, estates and trusts, because the maximum marginal rate of tax on ordinary income is greater than the maximum marginal rate of tax on capital gains, foreign source capital gain net income, capital gain net income, and net foreign source capital loss, must all be reduced proportionately to the amount of the rate differential (I.E., the difference between the highest regular bracket rate (currently 31 percent) and the maximum capital gains rate (currently 28 percent).<24>

[b]-Separate Income Limitations. In addition to the overall limitation on the amount of the credit, taxpayers must compute that limit separately for certain categories of foreign-source income.<25> The purpose is to prevent distortion of the credit where a category of income is typically subject to very high or very low rates of foreign tax, or where it can easily be earned in a low-tax country and thus used to inflate the credit limitation.<26> The separate categories are: general limitation income (i.e., taxable income not specifically described in any of the other categories); passive income (except that passive income that is taxed at a higher rate in the country in which it is earned than would apply to it in the United States is general limitation income); high withholding tax interest; financial services income; shipping income; dividends from non-controlled ten-percent-owned subsidiaries; certain DISC dividends; FSC foreign trade income; and certain FSC distributions.<27>

[5]-Miscellaneous Provisions for Applying the Statutory Limitation

[a]-Foreign Source Losses. IRC Section 904(f) concerns the recapture of foreign losses and relates specifically to a taxpayer who suffers a net loss in foreign operations and thereafter generates a foreign gain, or incorporates in a foreign country transferring to the corporation assets that generated a loss. Foreign losses that reduce United States source income reduce the net

[a]-Foreign Source Losses. IRC Section 904(f) concerns the recapture of foreign losses and relates specifically to a taxpayer who suffers a net loss in foreign operations and thereafter generates a foreign gain, or incorporates in a foreign country transferring to the corporation assets that generated a loss. Foreign losses that reduce United States source income reduce the net

United States income tax since taxable income is calculated on a worldwide basis.<28> When a foreign business that previously generated a loss that reduced United States source income begins to generate a profit, the profits may be taxed at the foreign level and those taxes may generate a foreign tax credit reducing the United States tax due without a replacement to United States source income for the loss previously deducted.

IRC Section 904(f) provides that a taxpayer who suffers an overall foreign loss from foreign operations that reduces United States source income, must reflect the loss in a loss account. Thereafter, as long as there is a positive balance in the loss account, the taxpayer will not be able to take full advantage of foreign tax credits otherwise available, but must, in effect, treat foreign source income as United States source income until the loss advantage previously generated is recaptured.<29>

Taxpayers must apply any loss in one category to any income in another category, or to overall foreign income, and only the remaining loss, if any, may reduce U.S. income. In other words, netting all incomes and losses in the various separate categories must yield an aggregate loss, and it is only this net loss, if any, which may be deducted from U.S. net income. If a loss in one category is used to reduce income from more than one other category, the reduction is allocated to the other categories on a proportionate basis. If a loss category shows income in a later year, the income is recharacterized to the extent, and in the proportion, that it was used to reduce income in other categories.<30>

With respect to U.S. losses, they are to be allocated among the separate foreign income categories, and used to reduce them, on a proportionate basis.<31>

[b]-Affiliated Groups. The Treasury is authorized to resource the income of any member of an affiliated group, or to modify the consolidated return regulations, in order to prevent circumvention of the foreign tax credit limitations. For this purpose, the definition of an affiliated group is expanded to include corporations which group members own indirectly as well as directly.<32>

For example, where one corporation includible under the standard rules indirectly controls another such corporation through a non-includible corporation, the Treasury may by regulation recharacterize the includible corporations' foreign source income as U.S. source income. The result would be to ensure that the includable corporations' aggregate U.S. tax liability, for foreign tax credit purposes, is no less than what it would be if they filed a consolidated return.<33>

[6]-Carryback and Carryforward of Excess Foreign Tax Credits

If a taxpayer pays a substantial amount of income taxes during the taxable year, the statutory limitation fraction may limit the amount of the taxes which may be used as a foreign tax credit.<34> In order to balance a taxpayer's foreign income tax burden and the available foreign tax credit, IRC Section 904(c) authorizes a limited form of carryforward and carryback of excess foreign tax credits. The amount of taxes paid in excess of the statutory limitation amount is first to be carried back two years before the

year, the statutory limitation fraction may limit the amount of the taxes which may be used as a foreign tax credit.<34> In order to balance a taxpayer's foreign income tax burden and the available foreign tax credit, IRC Section 904(c) authorizes a limited form of carryforward and carryback of excess foreign tax credits. The amount of taxes paid in excess of the statutory limitation amount is first to be carried back two years before the

year in which the foreign taxes were paid or accrued; the excess may then be carried forward five years.<35> However, the taxes actually paid or accrued, plus the taxes carried back or forward to the other year, may not exceed the statutory limitation amount for that year.<36>

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5 I.R.C. SS 164(a)(3), 275(a)(4), 901. I.R.C. S 275(a)(4)(A) prohibits a deduction under I.R.C. S 164(a)(3) for any taxable year that the taxpayer elects the credit.

6 Reg. S 4.901-1(c),(h)(2). If a taxpayer elects to take the creditable foreign taxes as a credit, any noncreditable foreign taxes which otherwise qualify for a deduction may still be deducted. And SEE I.R.C. S 901(j)(3).

7 I.R.C. S 901(a); Reg. SS 1.901-1(d), 1.905-2.

8 Lederman v. Comm'r, 6 T.C. 991 (1946). However, the United States taxpayer generally must present a receipt showing that the withholdings have actually been paid over to the foreign government. Reg. S 1.905-2.

An accrual basis domestic corporation that contests a foreign tax assessment cannot accrue the tax until the amount due is finally determined. However, for purposes of the foreign tax credit, the tax is attributable to the year for which it is levied, not the year in which the amount is determined. Rev. Rul. 84-125, 1984-2 C.B. 125. Any portion of a contested foreign tax that is actually paid is accruable for the taxable year in which it is paid even though the amount of the tax liability has not been determined. Rev. Rul. 70-290, 1970-1 C.B. 168.

Note, however, that I.R.C. S 6511(d)(3)(A) extends the normal three-year period of limitations to ten years, under certain circumstances, on claims for refund or credit with respect to foreign taxes paid or accrued. Furthermore, the I.R.S. has ruled that it may adjust a foreign subsidiary corporation's earnings and profits to offset the amount of a claim for refund made by the corporation's domestic parent under the I.R.C. S 6511(d)(3)(A) extended ten-year period of limitations even though the parent corporation's normal three-year statute of limitations under I.R.C. S 6501(a) has expired. Rev. Rul. 83-80, 1983-1 C.B. 130.

9 I.R.C. S 901(b)(1).

10 Reg. S 4.901-2(h), e.g., taxes paid to a province of Canada are combined with Canadian national taxes and treated as taxes paid to Canada. Rev. Rul. 65-273, 1965-2 C.B. 240.

Income taxes are not eligible for the foreign tax credit if they are paid to governments (1) which the United States does not recognize, (2) with which the United States does not maintain diplomatic relations, or (3) which the United States deems to support acts of international terrorism. I.R.C. S 901(j).

11 I.R.C. S 901(b)(1).

governments (1) which the United States does not recognize, (2) with which the United States does not maintain diplomatic relations, or (3) which the United States deems to support acts of international terrorism. I.R.C. S 901(j).

11 I.R.C. S 901(b)(1).

12 I.R.C. S 903; Reg. S 4.903-1(a). The Court of Claims held that a tax on gross banking income was not a creditable ''income tax'' because it was payable even when no net gain was realized from bank operations. Bank of America National Trust and Savings Association v. United States, 459 F.2d 513 (1972), CERT. DENIED, 409 U.S. 850.

The IRS takes the position that when a foreign tax is imposed on insurance premiums instead of a regular corporate income tax, it is eligible for credit, but not when both taxes are levied. Rev. Rul. 72-84, 1972-1 C.B. 216.

When a domestic association, taxable as a corporation, is treated as a partnership by a foreign country, the corporation is denied a foreign tax credit for the tax paid by the stockholders to the foreign country. Each stockholder, however, is entitled to his share of the credit. Rev. Rul. 72-197, 1972-1 C.B. 215. If a proper allocation would have resulted in no tax liability to a foreign subsidiary, then a domestic parent corporation to which income is reallocated is not allowed a credit for foreign income tax paid by the subsidiary on such income. Rev. Rul. 72-370, 1972-2 C.B. 437. A domestic parent corporation is entitled to credit for foreign tax withheld on royalty income paid by its foreign subsidiary to a sister foreign subsidiary but allocated to the parent; the limit of the credit is the amount which would have been withheld had the parent received the royalty and not the amount actually withheld. Rev. Rul. 72-371, 1972-2 C.B. 438.

13 SEE Reg. S 4.903-1(b); Biddle v. Comm'r, 302 U.S. 573, 58 S. Ct. 379 (1938), stating that a taxpayer must pay the tax to the foreign government within the meaning of United States laws; Bank of America National Trust and Savings Association v. United States, 459 F.2d 513, 515 (Ct. Cl. 1972), where the court stated that the question of whether a foreign tax is an ''income tax'' is to be decided under the revenue laws and court decisions of the United States and the foreign tax credited must be the substantial equivalent of an income tax as that term is understood in the United States.

In addition, to the extent that foreign taxes are used to provide a direct or indirect subsidy to the taxpayer, they are not to be treated as taxes for any purpose of the I.R.C. This rule applies to subsidies to the taxpayer, to related persons, and to any party to the subsidy transaction or a related transaction, as long as the subsidy is directly or indirectly determined by the amount of tax or the tax base. I.R.C. S 901(i). And SEE Nissho Iwai American Corp. v. Comm'r, 89 T.C. 765 (1987).

14 E.g., Philippine tax on interest paid to a United States corporation not doing business in the Philippines qualifies as an ''income tax.'' Rev. Rul. 66-65, 1966-1 C.B. 175.

15 E.g., New Zealand dividend withholding tax imposed under a ''Social Security Act'' is an income tax. I.T. 4021, 1950-2 C.B. 48.

16 Bank of America National Trust and Savings Association v. United States, 459 F.2d 513 (Ct. Cl. 1972), CERT. DENIED, 409 U.S. 949; ACCORD Bank of America National Trust and Savings Association v. Comm'r, 61 T.C. 752 (1974).

17 SEE Rev. Rul. 80-4, 1980-1 C.B. 169, where a certain payment to the Netherlands Antilles was found to be made pursuant to a legal liability; Rev.

16 Bank of America National Trust and Savings Association v. United States, 459 F.2d 513 (Ct. Cl. 1972), CERT. DENIED, 409 U.S. 949; ACCORD Bank of America National Trust and Savings Association v. Comm'r, 61 T.C. 752 (1974).

17 SEE Rev. Rul. 80-4, 1980-1 C.B. 169, where a certain payment to the Netherlands Antilles was found to be made pursuant to a legal liability; Rev.

Rul. 77-267, 1977-2 C.B. 243, where the portion of United Kingdom taxes claimed but not refunded to the taxpayer was found to be a creditable tax since the taxpayer exhausted all effective and practicable administrative remedies in seeking the refund before reaching a settlement. Cf. Kenyon Instrument Co. v. Comm'r, 16 T.C. 732 (1951), where state franchise taxes were held nondeductible to the extent the taxpayer knew at the time of payment that it was not liable for them; Cooperstown Corporation v. Comm'r, 144 F.2d 693 (3d Cir. 1944), CERT. DENIED, 323 U.S. 772 where the court stated that a deduction for a tax payment would be disallowed if there was no legal liability for such payment.

18 SEE, E.G., Rev. Rul. 58-3, 1958-1 C.B. 263 (Mexican ''mercantile revenue'' tax).

19 Rev. Rul. 71-498, 1971-2 C.B. 434.

20 If a 50 percent or more United States owned foreign corporation with ten percent or more of its gross income attributable to United States source income makes a distribution or interest payment, the portion of the distribution or interest payment attributable to United States source income is treated as United States income. This provision applies only to Subpart F and foreign personal holding company inclusions, dividends, and interest which would otherwise be treated as foreign source income, and in no event does it apply where less than ten percent of the foreign corporation's earnings and profits are attributable to United States sources. I.R.C. S 904(g).

21 I.R.C. S 904(a).

22 I.R.C. S 904(c).

23 I.R.C. S 904(b)(2)(A).

24 I.R.C. S 904(b)(2)(B), (3)(D), (E).

25 I.R.C. S 904(d).

26 H. Rept. No. 99-841, p. II-561.

27 I.R.C. S 904(d)(1); Reg. SS 1.904-4 through -7.

28 I.R.C. S 61(a).

29 Under I.R.C. S 904(f)(2), net loss is foreign source income reduced by deductions properly apportioned or allocated against that income. For further detail, SEE R. Rhoades & M. Langer, Income Taxation of Foreign Related Transactions, S 5.04[4] (Matthew Bender).

30 I.R.C. S 904(f)(5)(A), (B), and (C).

31 I.R.C. S 904(f)(5)(D). Note that for affiliated corporations, the IRS may resource income, or modify the consolidated return regulations, in order to prevent avoidance of the foreign tax credit limitations. SEE S 9.04[5][b], INFRA.

31 I.R.C. S 904(f)(5)(D). Note that for affiliated corporations, the IRS may resource income, or modify the consolidated return regulations, in order to prevent avoidance of the foreign tax credit limitations. SEE S 9.04[5][b], INFRA.

(c) The Licensee, on or before the [last] day of [January, April, July and October] of each year shall deliver to the Licensor a true and accurate report, certified by an officer of the Licensee, stating the total billings of Licensee and its sublicensees during the calendar quarter just closed subject to royalty under this license, and the computation of royalty thereon, and therewith shall make payment of the royalty due against such billings. If no royalties are due, it shall be so reported. When Licensee or any of its sublicensees sells royalty-bearing apparatus in [Canada], the royalty payable in accordance with the provisions of this paragraph shall be computed on the net sales value in currency of [Canada], and shall be converted into United States dollars at the official rate of exchange in effect on the last day of the calendar quarter just closed. Amounts payable to Licensor on sales in [Canada] in accordance with the provisions of this license, shall be reduced by the amounts, if any, that Licensee or its sublicensees are required to withhold from Licensor in accordance with the laws of [Canada]. At the request of Licensor, Licensee and its sublicensees shall cooperate with Licensor in all lawful ways, to obtain any necessary exchange permits and to minimize taxes.

Ad shall submit to Alpha monthly reports setting forth the type, quantity, and price of the . . . . . .with respect to which payment is being made, and any other information necessary for the proper determination of the amount of the technical assistance fees payable hereunder. Ad shall keep detailed books of account containing information appropriate for the preparation of such monthly reports. Alpha shall have the right to inspect the relative book of account during reasonable business hours.

Ad shall withhold from any technical assistance fees remitted to Alpha the proper amount of Japanese taxes, giving Alpha full credit with the Japanese Government for having paid such taxes, and sending to Alpha an official receipt showing the payment thereof.

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3.04 The payments provided for in this Article III shall be paid in United States Dollars at the office of ACME, in an amount to be calculated and established at the time payment is due such that after deduction for any taxes (including, but not limited to, turnover, corporate income, local and net value taxes), assessments and charges levied, assessed or imposed (other than by the Government of the United States) which ACME or LICENSEE or any other party shall be required to pay or withhold in respect to or calculated with reference to such amount, the remainder actually received by, and due and payable to, ACME shall be the amounts specified in this Article III.

3.05 Should, at any time, payments required of LICENSEE hereunder be subject to Government regulations or prohibitions, LICENSEE shall use its best efforts to obtain such governmental authorization as may from time to time be required by applicable law in the Territory in order to promptly and duly meet the payment obligations hereunder. If such authorization is obtained, payments due shall be paid promptly. In the event any law or regulation for the time being in force shall prohibit or restrict the transfer of part or all of the funds envisioned hereunder, LICENSEE or its designee shall deposit in national currency, at the governing rate of exchange, any sum or sums that may become due and payable pursuant to the provisions of this Agreement to the credit of ACME with such bank or other institution operating in that country or elsewhere, if permitted, as ACME may direct. In these instances, LICENSEE will deliver to ACME the certificate or bank deposit by LICENSEE in the account of ACME of any funds due. But nothing contained in this Agreement shall be construed to relieve LICENSEE of its obligations to make payments and to be diligent in its efforts to remit all payments required under this Agreement to ACME in United States currency whenever there are no legal impediments.

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effecting a repeated reversal drive of said motor so as to cause fore-and-aft reciprocating motion of said lumbar plate between said forward and backward reciprocation limits for a predetermined period of time in a periodic manner, thereby providing a comfortable touch of dynamic or moving support to the lumbar part of said occupant sitting on the seat; and

permitting an interval operation mode for causing repeated reversal drive of said motor to provide one cycle of said fore-and-aft reciprocation motion of said lumbar plate, with at least one pause interval, during which the reciprocation of lumbar plate is to be effected at a predetermined number of times with said pause interval.

10. Please revise Claim 5 in support of the above-suggested second main claim, by deleting the first passage "said automatic mode may be excecuted by operation of an automatic switch".

11. Please add sub claim depending the above-suggestad second main claim, to the effect that said automatic mode may be executed by operation of an automatic switch.

12. Please revise Claim 6 in a proper manner depending from the above-suggested second main claim.

13. Please retain Claim 10 in a proper manner depending from the above-suggested second main claim.

14. We would suggest to revise the independent product Claim 12 and other sub claims 13 to 18, as below, in dependency from the above-proposed all method claims, with a view to keeping them all alive in the present application. Please consider the possiblity of such whole revisions.

(i) A device for effecting the method in the above-suggested first main product claim, comprising: a motor causing the fore-and-aft movement of said lumbar plate; a fore-and-aft switch means for executing said manual control mode; an automatic switch means for executing said automatic control mode; a position detecting means for detecting said forward reciprocation limit, said backward limit point and said backward reciprocation limit, of said lumbar plate; and a central processing unit which processes an input data according to a predetermined program to control the drive of said motor.

(ii) Please revise Claim 13 in association with the (a) of item 6. above

mode; an automatic switch means for executing said automatic control mode; a position detecting means for detecting said forward reciprocation limit, said backward limit point and said backward reciprocation limit, of said lumbar plate; and a central processing unit which processes an input data according to a predetermined program to control the drive of said motor.

(ii) Please revise Claim 13 in association with the (a) of item 6. above

(ii) Please revise each of Claims 14, 15, 16 and 17 properly in dependency from the above-suggested second main claim given in the item 9. above.

(iv) Claim 18 may be retained if you judge it is possible.

forward reciporcation limit (Ls)

forward reciporcation limit (Ls)

32 I.R.C. S 904(i).

33 Revenue Reconciliation Act of 1989, H.R. 3299, Statement of the Managers, p.98.

34 I.R.C. S 904(a).

35 I.R.C. S 904(c).

The foreign tax credit for any given year is limited to the same proportion of United States tax as foreign source income bears to the taxpayer's total taxable income. Therefore, taxpayers could not carry over foreign taxes to, and claim a foreign tax credit in, a taxable year in which they had no foreign source income. Smith v. Comm'r, 48 T.C.M. 1205, T.C. Memo 1984-509.

36 IBID.

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al markets through export operations alone, therefore establish manufacturing facilities es not have the necessary capital to invest, nowledge of the local conditions in the foreig s not wish to make a direct investment for ot ny instances, personnel specially trained in i erce and sufficiently familiar with local sa ns, and commercial laws are not available. l in which he conveys his know-how abroad, n of his employees in international trade. H ts, who are sent abroad to service the licer onvey the know-how, gain valuable experienc of experts forms the nucleus for the licensor enterprise.

a next step, the American industrialist may ore foreign subsidiaries which either contin icense agreements of the parent company o enter into new license agreements. In the lat gn subsidiaries may grant sublicenses as t parent company. Such subsidiaries may als tal and invest in manufacturing subsidiari ufacturing subsidiaries are the final objectiv icense contract is fixed accordingly.

1 other instances, the foreign licensing ac erican manufacturer may have expanded to ecomes necessary to centralize them in a sep abroad.

he base company used for licensing should ntry whose tax laws either exempt extrater m taxation or tax it at a low or reduced ra intain contact conveniently with the majority nsees, the base company itself or one or uld be situated in the center of the licensin s base company, the foreign license income, r taxes have been paid, can be accumulated ar r expansion abroad.

[c]—License Fees v. Dividends

[*i*]—*Withholding Taxes.* Licensing agreeme rtant where the United States company ha ts through export operations alone, and that he establish manufacturing facilities abroad, of- ve the necessary capital to invest, lacks suffi- of the local conditions in the foreign countries, h to make a direct investment for other reasons. ces, personnel specially trained in international sufficiently familiar with local sales methods, commercial laws are not available. During the h he conveys his know-how abroad, he can train employees in international trade. His technical are sent abroad to service the license contracts know-how, gain valuable experience. Often this s forms the nucleus for the licensor's future for- e.

ep, the American industrialist may organize one gn subsidiaries which either continue to service reements of the parent company or, if they ex- o new license agreements. In the latter case, such diaries may grant sublicenses as the licensee of mpany. Such subsidiaries may also accumulate nvest in manufacturing subsidiaries. If foreign g subsidiaries are the final objective, the term of ntract is fixed accordingly.

nstances, the foreign licensing activities of an nufacturer may have expanded to a point where cessary to centralize them in a separate corpora-

ompany used for licensing should be located in a se tax laws either exempt extraterritorial income n or tax it at a low or reduced rate. In order to ntact conveniently with the majority of the foreign e base company itself or one or more branches tuated in the center of the licensing activities. In mpany, the foreign license income, on which only ve been paid, can be accumulated and used for fur- ion abroad.

cense Fees v. Dividends

ithholding Taxes. Licensing agreements are also im- ere the United States company has wholly owned

foreign manufacturing subsidiaries. Such manufacturing operations are frequently established in highly industrialized countries, which as a rule impose high taxes on corporate income and tax dividend remittances as well. These highly industrialized countries, however, frequently have low or no withholding taxes on royalties paid by licensees located there. This relatively light tax burden may be further reduced by having the licensing and know-how handled by a base company incorporated in a country that has concluded treaties for the avoidance of double taxation. Even without a tax treaty, however, it may be advantageous to have the wholly owned subsidiary pay license fees to a foreign base company where the withholding taxes on the licensor are less than the income taxes payable by the licensee or are less than the withholding taxes on dividends.

[*ii*]—*Deduction of Royalties.* The creation of a deduction to a wholly owned foreign manufacturing subsidiary through the payment of deductible royalties to a foreign base company is important where the manufacturing subsidiary is subject to potentially high excess profits taxes. For example, in a country where this would be true, the effective withholding tax on royalties and technical service fees is roughly 20 percent, and the corporate income and excess profits taxes rise to 46 percent on profits in excess of a 6 percent return on the original capital investment, surplus, and reserves. On the other hand, it should be recognized that in some countries there are severe limitations on the tax deductibility of royalties paid to foreign base licensors.

[*iii*]—*Foreign Tax Credit.* Another interesting aspect of foreign licensing is the United States tax treatment of a royalty or other compensation which a domestic company derives from its foreign manufacturing subsidiary, under the provisions of Section 902 of the Internal Revenue Code of 1954. This section provides that credits may be taken for foreign taxes paid by a foreign subsidiary, under the stated conditions, when a royalty or other compensation is paid to the United States parent in consideration for property received pursuant to a contractual agreement under which the domestic corporation agrees to furnish services or property.[1]

[1] See generally Chapter 9 *infra.*

Chapter three

A PRELIMINARY INNOVATION EVALUATION INSTRUMENT

**

THE PURPOSE OF ANY INITIAL INNOVATION EVALUATION IS NOT LIMITED TO IDENTIFYING IDEAS OR INVENTIONS OF MERIT. IT MUST ALSO PROVIDE FEEDBACK TO THE ORIGINATOR ABOUT THE NATURE OF THE INNOVATION PROCESS AND, MORE SPECIFICALLY, ABOUT THE RELATIVE STRENGTHS AND WEAKNESSES OF THE INVENTION. THUS, AN EARLY EVALUATION NOT ONLY REDUCES THE AMOUNT OF EFFORT WASTED ON IDEAS OR INVENTIONS WITH LOW POTENTIAL, BUT IT CAN ALSO SUGGEST STRATEGIES FOR THEIR FUTURE DEVELOPMENT.

MOST IDEAS AND INVENTIONS HAVE SOME MERIT. PERHAPS AS MANY AS 80% TO 90% OF THOSE EVALUATED BY THE OREGON INNOVATION CENTER HAVE SOME MERIT. THAT IS, THEY CANNOT BE CALLED "BAD" IDEAS. UNFORTUNATELY, HOWEVER, MOST OF THESE "GOOD" IDEAS ARE NOT COMMERCIALLY FEASIBLE BECAUSE THEY LACK THE NECESSARY INGREDIENTS FOR SUCCESS. IN OTHER WORDS, THEY SUFFER FROM SOME DEFICIENCY (WHICH MIGHT OR MIGHT NOT BE CORRECTABLE) SUFFICIENT TO RENDER THE IDEA UNFEASIBLE. FOR EXAMPLE, A SMALL FIRM RECENTLY INTRODUCED A NEW PRODUCT FOR WHICH THERE WAS A DEFINITE NEED. RESEARCH INDICATED THAT SALES OF APPROXIMATELY ONE MILLION DOLLARS COULD BE EXPECTED. HOWEVER, THE FIRM FAILED TO RECOGNIZE THAT THE USERS OF THE PRODUCT WERE WIDELY DISPERSED. THE COST OF COMMUNICATING WITH THEIR POTENTIAL CUSTOMERS PROVED TO BE SO HIGH (A "DEFICIENCY" IN THIS CASE) THAT THE FIRM WAS FORCED TO ABANDON THE PRODUCT. CONVERSELY, THERE ARE IDEAS WHICH APPEAR, INITIALLY, TO BE LACKING IN MERIT, BUT WHICH ACTUALLY HAVE UNDERLYING POTENTIAL. ONE CLASSIC EXAMPLE OF SUCH AN INVENTION IS THE XEROX MACHINE. NOW A MAJOR INDUSTRY, THE XEROX PROCESS WAS REVIEWED BY A NUMBER OF FIRMS WHICH COULD FIND NO POTENTIAL IN CHESTER CARLSON'S NEW DEVICE...THEREBY COMMITTING THE ERROR OF "OMISSION."

FORMAT

THE FORMAT OF THIS CHAPTER WILL BE SIMILAR TO THAT USED BY THE OREGON INNOVATION CENTER TO EVALUATE IDEAS AND INVENTIONS SUBMITTED TO IT. AS NOTED PRE-

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VIOUSLY, THIS INSTRUMENT IS THE RESULT OF EXTENSIVE RESEARCH INTO AND EXPERIENCES WITH INNOVATION EVALUATION.

AFTER REVIEWING CHAPTERS FIVE THROUGH NINE, THE READER MIGHT WISH TO RETURN TO THIS CHAPTER AND USE IT TO EVALUATE AN IDEA OR INVENTION. TO DO SO, THE READER SHOULD FOLLOW THE INSTRUCTIONS PROVIDED BELOW.

DIRECTIONS:

CHECK THE RESPONSE THAT BEST CORRESPONDS TO YOUR EVALUATION FOR EACH CRITERIA. BE SURE YOU ANSWER ALL QUESTIONS. NOTE THAT "DON'T KNOW" AND "NOT APPLICABLE" RESPONES ARE CODED "DK" AND "NA". BE SURE TO USE THEM WHEN APPROPRIATE.

AFTER EACH GROUP OF FACTORS, A SPACE IS PROVIDED FOR YOUR WRITTEN COMMENTS RELATIVE TO THAT SECTION. IF YOU HAVE ANY SPECIFIC INFORMATION, COMMENTS, OR SUGGESTIONS, USE THIS SPACE. THESE COMMENTS ARE HIGHLY USEFUL IN PROVIDING THE INVENTOR WITH ADDITIONAL INFORMATION AND INSIGHTS.

SOCIETAL FACTORS

1. LEGALITY: IN TERMS OF APPLICABLE LAWS (PARTICULARLY PRODUCT LIABILITY), REGULATIONS, PRODUCT STANDARDS, THIS IDEA/INVENTION/NEW PRODUCT...

   _____ WILL NOT MEET THEM, EVEN IF CHANGED.

REGULATIONS, PRODUCT...

_____ WILL NOT MEET THEM, EVEN IF CHANGED.

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_____ WILL REQUIRE SUBSTANTIAL REVISION TO MEET THEM. _____ DK
_____ WILL REQUIRE MODEST REVISION.
_____ WILL REQUIRE MINOR CHANGES. _____ NA
_____ WILL MEET THEM WITHOUT ANY CHANGES.

2. SAFETY: CONSIDERING POTENTIAL HAZARDS AND SIDE EFFECTS, THE USE WILL BE:

_____ VERY UNSAFE, EVEN WHEN USED AS INTENDED.
_____ UNSAFE UNDER REASONABLY FORSEEABLE CIRCUMSTANCES. _____ DK
_____ RELATIVELY SAFE FOR CAREFUL, INSTRUCTED USERS.
_____ SAFE WHEN USED AS INTENDED, WITH NO FORSEEABLE HAZARDS. _____ NA
_____ VERY SAFE UNDER ALL CONDITIONS, INCLUDING MISUSE.

3. ENVIRONMENTAL IMPACT: IN TERMS OF POLLUTION, LITTER, MISUSE OF NATURAL RESOURCES, ETC., USE MIGHT...

_____ VIOLATE ENVIRONMENTAL REGULATIONS OR HAVE DANGEROUS EXPERIMENTAL CONSEQUENCES.
_____ HAVE SOME NEGATIVE EFFECT ON THE ENVIRONMENT. _____ DK
_____ HAVE NO EFFECT ON THE ENVIRONMENT IF PROPERLY USED.
_____ HAVE NO EFFECT ON THE ENVIRONMENT. _____ NA
_____ HAVE A POSITIVE IMPACT ON THE ENVIRONMENT.

4. SOCIETAL IMPACT: IN TERMS OF THE IMPACT (BENEFIT) UPON THE GENERAL WELFARE OF SOCIETY, USE MIGHT...

_____ HAVE SUBSTANTIAL NEGATIVE EFFECT.
_____ HAVE SOME NEGATIVE EFFECT. _____ DK
_____ HAVE NO EFFECT IF PROPERLY USED.
_____ HAVE NO EFFECT ON SOCIETY. _____ NA
_____ HAVE A POSITIVE BENEFIT TO SOCIETY.

COMMENTS:

BUSINESS RISK FACTORS:

5. FUNCTIONAL FEASIBILITY: IN TERMS OF INTENDED FUNCTIONS, WILL IT ACTUALLY DO WHAT IT IS INTENDED TO DO?

DO WHAT IT IS INTENDED TO DO?

13

_____ THE CONCEPT IS NOT SOUND; CANNOT BE MADE TO WORK.
_____ IT WON'T WORK NOW, BUT MIGHT IF MODIFIED. _____ DK
_____ IT WILL WORK, BUT MAJOR CHANGES MAY BE NEEDED.
_____ IT WILL WORK, BUT MINOR CHANGES MIGHT BE NEEDED. _____ NA
_____ IT WILL WORK - NO CHANGES NECESSARY.

6. PRODUCTION FEASIBILITY: WITH REGARD TO TECHNICAL PROCESSES OR EQUIPMENT REQUIRED FOR PRODUCTION, THIS INVENTION WILL...

_____ BE IMPOSSIBLE TO PRODUCE NOW OR IN THE FORSEEABLE FUTURE.
_____ BE VERY DIFFICULT TO PRODUCE. _____ DK
_____ HAVE SOME PROBLEMS WHICH CAN BE OVERCOME.
_____ HAVE ONLY MINOR PROBLEMS. _____ NA
_____ HAVE NO PROBLEMS.

7. STAGE OF DEVELOPMENT: BASED ON AVAILABLE INFORMATION, THERE IS...

_____ ONLY AN IDEA WITH DRAWINGS AND/OR DESCRIPTION: NO PROTOTYPE.
_____ A ROUGH PROTOTYPE WHICH DEMONSTRATES THE CONCEPT, BUT IS NOT FULLY DEVELOPED AND TESTED. _____ DK
_____ A ROUGH PROTOTYPE WITH PERFORMANCE AND SAFETY TESTING COMPLETED.
_____ A FINAL PROTOTYPE WITH TESTING COMPLETED: HOWEVER, MINOR CHANGES MIGHT BE NEEDED. _____ NA
_____ A MARKET-READY PROTOTYPE.

8. INVESTMENT COSTS: THE AMOUNT OF CAPITAL AND OTHER COSTS NECESSARY FOR DEVELOPMENT TO THE MARKET-READY STAGE WOULD BE:

_____ GREATER THAN RETURNS - SHOULD BE DROPPED.
_____ EXCESSIVE - MIGHT NOT BE RECOVERABLE. _____ DK
_____ HEAVY - PROBABLY RECOVERABLE.
_____ MODERATE - RECOVERABLE WITHIN FIVE YEARS. _____ NA
_____ LOW - RECOVERABLE WITHIN TWO YEARS.

9. PAYBACK PERIOD: THE EXPECTED PAYBACK TIME (TIME REQUIRED TO RECOVER INITIAL INVESTMENT) IS LIKELY TO BE:

_____ LESS THAN ONE YEAR.
_____ 1 TO 3 YEARS. _____ DK

_____ 1 TO 3 YEARS.

14

_____ 4 TO 6 YEARS.
_____ 7 TO 10 YEARS. _____ NA
_____ OVER 10 YEARS.

10. PROFITABILTIY: PROFITABILITY IS DEFINED AS THE EXTENT TO WHICH ANTICIPATED REVENUES WILL COVER THE RELEVANT COSTS (DIRECT, INDIRECT, AND CAPITAL). ANTICIPATED REVENUES:

_____ WILL NOT COVER ANY OF THE RELEVANT COSTS.
_____ WILL COVER DIRECT COSTS BUT CONTRIBUTE MINIMALLY TO INDIRECT AND CAPITAL COSTS (REQUIRED RETURN ON INVESTMENT). _____ DK
_____ WILL COVER DIRECT AND INDIRECT COSTS BUT MIGHT NOT MEET CAPITAL COSTS (ROI).
_____ WILL COVER DIRECT AND INDIRECT COSTS AND MEET MINIMUM CAPITAL COSTS (ROI). _____ NA
_____ WILL COVER DIRECT AND INDIRECT COSTS AND EASILY EXCEED CAPITAL COSTS.

11. MARKETING RESEARCH: THE MARKETING RESEARCH REQUIRED TO DEVELOP A MARKET-READY PRODUCT IS ESTIMATED TO BE:

_____ EXTREMELY DIFFICULT AND COMPLEX.
_____ RELATIVELY DIFFICULT AND COMPLEX. _____ DK
_____ MODERATELY DIFFICULT.
_____ RELATIVELY EASY AND SIMPLE. _____ NA
_____ VERY SIMPLE AND STRAIGHTFORWARD.

12. RESEARCH AND DEVELOPMEMT: THE RESEARCH AND DEVELOPMENT REQUIRED TO REACH THE PRODUCTION-READY STAGE WILL BE:

_____ EXTREMELY DIFFICULT AND COMPLEX.
_____ RELATIVELY DIFFICULT AND COMPLEX. _____ DK
_____ MODERATELY DIFFICULT.
_____ RELATIVELY SIMPLE AND EASY. _____ NA
_____ VERY SIMPLE AND STRAIGHTFORWARD.

COMMENTS:

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DEMAND ANALYSIS FACTORS

13. POTENTIAL MARKET: THE TOTAL MARKET FOR PRODUCTS OF THIS TYPE MIGHT BE:

_____ VERY SMALL - VERY SPECIALIZED OR LOCAL IN NATURE.
_____ SMALL - RELATIVELY SPECIALIZED OR REGIONAL IN NATURE.
_____ MEDIUM - LIMITED NATIONAL MARKET.
_____ LARGE - BROAD NATIONAL MARKET.
_____ VERY LARGE - EXTENSIVE NATIONAL AND POSSIBLE INTERNATIONAL MARKET.

_____ DK

_____ NA

14. POTENTIAL SALES: EXPECTED SALES OF THIS PRODUCT MIGHT BE:

_____ VERY SMALL.
_____ SMALL.
_____ MEDIUM.
_____ LARGE.
_____ VERY LARGE.

_____ DK

_____ NA

15. TREND OF DEMAND: THE MARKET DEMAND FOR PRODUCTS OF THIS TYPE APPEARS TO BE:

_____ RAPIDLY DECLINING - PRODUCT MIGHT SOON BECOME OBSOLETE.
_____ DECLINING.
_____ STEADY - DEMAND EXPECTED TO REMAIN CONSTANT.
_____ GROWING SLOWLY.
_____ RAPIDLY EXPANDING.

_____ DK

_____ NA

16. STABILITY OF DEMAND: THE FLUCTUATION IN DEMAND IS LIKELY TO BE:

_____ HIGHLY UNSTABLE - SUBJECT TO SEVERE UNPREDICTABLE FLUCTUATIONS.
_____ UNSTABLE - SUSCEPTIBLE TO MODERATE UNPREDICTABLE FLUCTUATIONS.
_____ PREDICTABLE.
_____ STABLE - VARIATIONS CAN BE ACCURATELY FORESEEN.
_____ HIGHLY STABLE - NOT SUSCEPTIBLE TO FLUCTUATIONS.

_____ DK

_____ NA

17. PRODUCT LIFE CYCLE: THE PRODUCT LIFE CYCLE IS LIKELY TO BE:

_____ LESS THAN TWO YEARS.

_____ LESS THAN TWO YEARS.

16

_____ TWO TO FOUR YEARS. _____ DK
_____ FIVE TO SEVEN YEARS.
_____ EIGHT TO TEN YEARS. _____ NA
_____ MORE THAN TEN YEARS.

18. PRODUCT LINE POTENTIAL: THE POTENTIAL FOR ADDITIONAL PRODUCTS, MULTIPLE STYLES, QUALITIES, PRICE RANGES, ETC., IS:

_____ VERY LIMITED - SINGLE PRODUCT ONLY.
_____ LIMITED TO MINOR MODIFICATIONS ONLY. _____ DK
_____ MODERATE - MULTIPLE MARKETS/USE POTENTIAL.
_____ HIGH - NEW PRODUCT SPIN-OFFS LIKELY. _____ NA
_____ VERY HIGH - COULD BE FOUNDATION OF A NEW INDUSTRY.

COMMENTS:

MARKET ACCEPTANCE FACTORS

19. COMPATIBILITY: COMPATIBILITY WITH EXISTING ATTITUDES AND METHODS OF USE IS:

_____ VERY LOW - WILL BLOCK MARKET ACCEPTANCE.
_____ LOW - SOME CONFLICT: WILL SLOW MARKET ACCEPTANCE. _____ DK
_____ MODERATE - NO NEGATIVE EFFECTS.
_____ HIGH - COMPATIBILITY WILL AID MARKETING EFFORT. _____ NA
_____ VERY HIGH - WILL GIVE MARKET ACCEPTANCE A STRONG BOOST.

20. LEARNING: THE AMOUNT OF LEARNING REQUIRED FOR CORRECT USE IS:

_____ VERY HIGH - EXPENSIVE AND/OR TIME CONSUMING TRAINING REQUIRED.
_____ HIGH - DETAILED INSTRUCTIONS REQUIRED. _____ DK
_____ MODERATE - NORMAL INSTRUCTIONS SUFFICIENT FOR MOST USERS.
_____ LOW - MINIMAL INSTRUCTIONS NEEDED _____ NA
_____ VERY LOW - NO INSTRUCTIONS NEEDED.

21. NEED: THE LEVEL OF NEED FILLED OR UTILITY PROVIDED BY THIS INNOVATION IS:

21. NEED: THE LEVEL OF NEED FILLED OR UTILITY PROVIDED BY THIS INNOVATION IS:

17

_____ VERY LOW - GIMMICK SOON FORGOTTEN BY THE OWNER.
_____ LOW - WOULD ONLY SUPERFICIALLY FULFILL PSYCHOLOGICAL NON-ESSENTIAL NEEDS. _____ DK
_____ MODERATE - FULFILLS BOTH PSYCHOLOGICAL AND PHYSICAL NON-ESSENTIAL NEEDS.
_____ HIGH - FULFILLS EITHER BASIC PSYCHOLOGICAL OR PHYSICAL NEEDS. _____ NA
_____ VERY HIGH - FULFILLS BOTH PSYCHOLOGICAL AND PHYSICAL NEEDS.

22. DEPENDENCE: THE DEGREE TO WHICH THE SALE OR USE OF THIS PRODUCT IS DEPENDENT UPON OTHER PRODUCTS, PROCESSES, OR SYSTEMS IS:

_____ VERY HIGH - NO MARKET CONTROL.
_____ HIGH - LITTLE MARKET CONTROL. _____ DK
_____ MODERATE - REASONABLE MARKET CONTROL.
_____ LOW - STRONG MARKET CONTROL. _____ NA
_____ VERY LOW - COMPLETE MARKET CONTROL.

23. VISIBILITY: THE ADVANTAGES AND BENEFITS ARE:

_____ VERY OBSCURE - VERY DIFFICULT AND/OR COSTLY TO COMMUNICATE.
_____ OBSCURE - REQUIRES SUBSTANTIAL EXPLANATION. _____ DK
_____ VISIBLE - REQUIRES SOME EXPLANATION.
_____ VISIBLE - EASILY COMMUNICATED. _____ NA
_____ VERY VISIBLE - MIGHT GENERATE WORD-OF-MOUTH COMMUNICATION.

24. PROMOTION: THE COSTS AND EFFORT REQUIRED TO PROMOTE THE ADVANTAGES, FEATURES, AND BENEFITS ARE LIKELY TO BE:

_____ VERY HIGH - PROHIBITVE IN RELATION TO EXPECTED SALES.
_____ HIGH RELATIVE TO EXPECTED SALES. _____ DK
_____ MODERATE - COMMENSURATE WITH EXPECTED SALES.
_____ LOW RELATIVE TO EXPECTED SALES. _____ NA
_____ VERY LOW RELATIVE TO EXPECTED SALES.

25. DISTRIBUTION: THE COST AND DIFFICULTY OF ESTABLISHING DISTRIBUTION CHANNELS ARE LIKELY TO BE:

25. DISTRIBUTION: THE COST AND DIFFICULTY OF ESTABLISHING DISTRIBUTION CHANNELS ARE LIKELY TO BE:

18

_____ VERY HIGH - PROHIBITIVE IN RELATION TO EXPECTED SALES.
_____ HIGH RELATIVE TO EXPECTED SALES. _____ DK
_____ MODERATE - COMMENSURATE WITH EXPECTED SALES.
_____ LOW RELATIVE TO EXPECTED SALES. _____ NA
_____ VERY LOW RELATIVE TO EXPECTED SALES.

26. SERVICE: THE COST AND DIFFICULTY ASSOCIATED WITH PROVIDING PRODUCT SERVICE IS LIKELY TO BE:

_____ VERY HIGH - WILL REQUIRE FREQUENT SERVICE AND PARTS.
_____ HIGH - WILL NEED PERIODIC SERVICE AND PARTS. _____ DK
_____ MODERATE - WILL NEED OCCASIONAL SERVICE AND PARTS.
_____ LOW - NEED FOR SERVICE AND PARTS.WILL BE INFREQUENT. _____ NA
_____ VERY LOW - WILL REQUIRE LITTLE OR NO PARTS AND SERVICE.

COMMENTS:

COMPETITIVE FACTORS

27. APPEARANCE: RELATIVE TO COMPETITION AND/OR SUBSTITUTES, APPEARANCE IS LIKELY TO BE PERCEIVED AS:

_____ VERY INFERIOR - NO CUSTOMER APPEAL.
_____ INFERIOR - LITTLE CUSTOMER APPEAL. _____ DK
_____ SIMILAR TO OTHER PRODUCTS.
_____ SUPERIOR - HAS CUSTOMER APPEAL. _____ NA
_____ VERY SUPERIOR - HAS STRONG CUSTOMER APPEAL.

28. FUNCTION: RELATIVE TO COMPETING AND/OR SUBSTITUTE PRODUCTS, SERVICES, OR PROCESSES, THE FUNCTION PERFORMED MAY BE PERCEIVED AS:

_____ VERY INFERIOR.
_____ INFERIOR - OFFERS NO IMPROVEMENT. _____ DK
_____ SIMILAR - NOT NOTICEABLY BETTER.
_____ SUPERIOR - A NOTICEABLE IMPROVEMENT. _____ NA
_____ VERY SUPERIOR - A MAJOR IMPROVEMENT.

29. DURABILITY: RELATIVE TO COMPETITION AND/OR SUBSTITUTES, DURABILITY OF

_____ SUPERIOR - A NOTICEABLE IMPROVEMENT. _____ NA
_____ VERY SUPERIOR - A MAJOR IMPROVEMENT.

29. DURABILITY: RELATIVE TO COMPETITION AND/OR SUBSTITUTES, DURABILITY OF

THIS PRODUCT WILL BE PERCEIVED AS:

_____ VERY INFERIOR - A DEFINITE COMPETITIVE DISADVANTAGE.
_____ INFERIOR - CANNOT BE PROMOTED AS AN IMPROVEMENT. _____ DK
_____ SIMILAR - NOT NOTICEABLY BETTER.
_____ SUPERIOR - MAY BE PROMOTED AS AN IMPROVEMENT. _____ NA
_____ VERY SUPERIOR - EASILY PROMOTED AS A MAJOR IMPROVEMENT.

30. PRICE: RELATIVE TO COMPETITION AND/OR SUBSTITUTE PRODUCTS, THE SELLING PRICE IS LIKELY TO BE:

_____ MUCH HIGHER - A DEFINITE COMPETITIVE DISADVANTAGE.
_____ HIGHER - A COMPETITIVE DISADVANTAGE. _____ DK
_____ ABOUT THE SAME.
_____ LOWER - A COMPETITIVE ADVANTAGE. _____ NA
_____ MUCH LOWER - AN IMPORTANT COMPETITIVE ADVANTAGE.

31. EXISTING COMPETITION: EXISTING COMPETITION FOR THIS INNOVATION APPEARS TO BE:

_____ VERY HIGH - NEW ENTRY WILL BE DIFFICULT AND COSTLY.
_____ HIGH - ONLY A SMALL MARKET SHARE CAN BE GAINED. _____ DK
_____ MODERATE - MARKET PENETRATION CAN GE GAINED WITH REASONABLE EFFORT AND EXPENSE.
_____ LOW - A SIGNIFICANT MARKET SHARE CAN BE GAINED. _____ NA
_____ VERY LOW - MARKET DOMINANCE POSSIBLE.

32. NEW COMPETITION: COMPETITION FROM NEW ENTRANTS OR COMPETITIVE REACTION IS EXPECTED TO BE:

_____ VERY HIGH - PRODUCT LEAD WILL BE VERY SHORT.
_____ HIGH - PRODUCT LEAD WILL BE RELATIVELY SHORT. _____ DK
_____ MODERATE - MARKET SHARE CAN BE MAINTAINED.
_____ LOW - PRODUCT LEAD WILL BE RELATIVELY LONG. _____ NA
_____ VERY LOW - A STRONG CHANCE TO SUSTAIN LARGE MARKET SHARE.

33. PROTECTION: CONSIDERING PATENTS (OR COPYRIGHTS), TECHNICAL DIFFICULTY, OR SECRECY, THE PROSPECTS FOR PROTECTION APPEAR TO BE:

_____ NO LEGAL PROTECTION OR SECRECY POSSIBLE.

OR SECRECY, THE PROSPECTS FOR PROTECTION APPEAR TO BE:

_____ NO LEGAL PROTECTION OR SECRECY POSSIBLE.

20

_____ NO LEGAL PROTECTION BUT SOME SECRECY MIGHT BE POSSIBLE.

_____ LIMITED LEGAL PROTECTION BUT SOME SECRECY MIGHT BE POSSIBLE.

_____ MAY BE PATENTED, COPYRIGHTED, AND/OR SHORT RUN SECRECY POSSIBLE.

_____ CAN DEFINITELY BE PATENTED, COPYRIGHTED, AND/OR LONG TERM SECRECY POSSIBLE.

_____ DK

_____ NA

COMMENTS:

21

UTC LOGO SLIDE

Use as is

BUSINESS OF UTC

- SERVE AS EXCLUSIVE LICENSING AGENT FOR MAJOR RESEARCH FACILITIES
- SCREEN ALL RESEARCH - NOT JUST HIGH POTENTIALS
- IDENTIFY INVENTIONS WITH COMMERCIAL POTENTIAL
- PROTECT THE INVENTIONS WITH PATENTS
- LOCATE COMPANIES NEEDING THE TECHNOLOGY
- NEGOTIATE LICENSES TO USE THE TECHNOLOGY
- SHARE ROYALTIES ON A 50/50 BASIS

MANAGEMENT OF UTC

° CARL WOOTTEN	PRESIDENT & CEO	ENGINEERING MEDICAL
° JOHN FRASER	EXECUTIVE VP & L.E.	LIFE SCIENCES MEDICAL
° DAVID STREVEL	L.E.	ELECTRONICS
° JACOB MACZUGA	L.E.	CHEM ENG/CHEM
° EDWARD HORNE	ASSOC. L.E.	INT'L MARKETING

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° STANLEY FISHER	SENIOR PARTNER: OBLON, FISHER et al.
° HAROLD PIERCE	CHAIRMAN, PIERCE CORP

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EDWARD CROFT III	MANAGING DIRECTOR, THE ROBINSON HUMPHREY CO. INC.

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° ROBERT GOLDSCHEIDER	THE INTERNATIONAL LICENSING NETWORK LIMITED, CHAIRMAN
° PRESTON GROUNDS	PROCTER & GAMBLE CO. MANAGER, UNIVERSITY LIAISON
° ROBIN SKELTON	MARCH PEARSON & SKELTON SOLICITOR, ENGLAND
° SHOZO SOATOME	DIA RESEARCH CHAIRMAN, JAPAN

UTC PHILOSOPHY

- CLIENT RETAINS TITLE TO INVENTIONS
  - CLIENT AND UTC SIGN LICENSE AGREEMENT
  - UTC ACTS AS THE AGENT
- ALL INVENTIONS REVIEWED BY INDUSTRY
- IF UNABLE TO LICENSE, RETURNED TO CLIENT
- UTC REQUIRES:
  - TOP MANAGEMENT COMMITTMENT - NOT PASSIVE APPROVAL
  - 150% EFFORT BY FULL-TIME TLO
- UTC SPLITS RESPONSIBILITY AND WORKLOAD
  - TLO SERVES AS STAFF TO THE RESEARCHER
  - UTC HAS INDUSTRY-SPECIFIC LICENSING EXECUTIVES

BENEFITS TO THE CLIENT

- SUPERVISION AND SUPPORT OF ~~FULL-TIME, IN-HOUSE~~ TECHNOLOGY LIAISON OFFICER
- SPECIAL COMPUTER SYSTEM FOR TLO OFFICE MANAGEMENT
- INDUSTRY SPECIFIC LICENSING EXECUTIVES AT UTC
- GROWING DATA BASE OF TECHNOLOGY REQUIREMENTS OVER 1500 COMPANIES

TLO FUNCTIONS

- SERVES AS STAFF TO THE RESEARCHER
- PREPARES :
  - INVENTION DISCLOSURES
  - EXECUTIVE SUMMARIES OF INVENTIONS
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- PUBLICIZES AVAILABILITY OF IN-HOUSE TLO SERVICES
- MAINTAINS INVENTORY OF ON-GOING RESEARCH
- PREPARES APPLICABLE REPORTS

INDUSTRY JOINT R&D MARKETING

- TLO IDENTIFIES ON-GOING RESEARCH
- KEYWORDS
- SENT TO UTC
- BASIC DESCRIPTION TO INDUSTRY BASED ON KEYWORD INTEREST
- REPEATED ON REGULAR BASIS
- BRING INDUSTRY MONEY FOR JOINT RESEARCH ON ROFR BASIS

INVENTION MARKETING PROCESS

- INVENTION DISCLOSURE
- KEYWORDS
- EXECUTIVE SUMMARY
- DATABASE MATCHING
- TECHNICAL PACKAGE
- CONTACT POTENTIAL LICENSEES
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LICENSING PROCESS

- LICENSE TERMS NEGOTIATED
  - EXCLUSIVE, NON-EXCLUSIVE
  - ROYALTY RATE, MINIMUM ROYALTIES
  - FOREIGN PATENTS
  - ONGOING RESEARCH SUPPORT
  - DUE DILIGENCE BY LICENSEE
  - INFRINGEMENT PROCEDURES

- NEW COMPANY
  - EQUITY
  - UTC SHAREHOLDERS

OPTION AND RESEARCH CONTRACT

- GENERAL OPTION TERMS
  - CASH PAYMENT
  - OPTION LENGTH
  - WHAT IS OPTIONED
  - FOREIGN PATENTS
- RESEARCH WORK STATEMENT AND GOALS

(UTC LOGO)

UNIVERSITY TECHNOLOGY CORPORATION

=====

SUCCESSFUL TRANSFER OF UNIVERSITY TECHNOLOGY TO SOCIETY

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(UTC LOGO)

UNIVERSITY TECHNOLOGY CORPORATION

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SUCCESSFUL TRANSFER OF UNIVERSITY TECHNOLOGY TO SOCIETY

	$	Time	Dist	D/M	D/$
GT	80 (50.3)	16.5	32	1.9	0.29 (.46)
NSF FedEx '85 UMCP	57 (39.5)	13.5	28	2.07	0.44 (.63)
UCONN	41 (38.9)	9.5	16	1.68	0.49 (.52)
			76		

11/21

Since 11/15
01 – 3
02 – 6
03 – 11
04 – 6
05 –

26 × 6 (156)

26 × 6 (156)

as of 1/11/88 DISCLOSURE INFO

	#	Time	Disc	D/month	D/$
GT	80 / 50.3	17.5	35	~~1.9~~ 2.0	NSP .41 / .661
UMCP	57 / 39.5	14.5	34	2.35	NSP .6 / .86
U CONN	41 / 38.9	10.5	27 / 96	2.57	NSP .66 / .69
U IOWA		.5	6	12	

11/15/87

CHARLIE GOODWIN AS OF ~~10/8/87~~

START DATE: FEBRUARY 1987

1st QUARTER 1987		
INVENTION #	DISCLOSURE DATE	RECEIVED AT UTC
03-87-001 A	3-26-87	4-09-87

10/2M = 0.5/Mo

2nd QUARTER 1987		
INVENTION #	DISCLOSURE DATE	
03-87-002 A	4-09-87	6-03-87
03-87-003 A	6-22-87	6-28-87

20/3M = .6/Mo

3rd QUARTER 1987		
INVENTION #	DISCLOSURE DATE	RECEIVED AT UTC
03-87-004 R	4-14-87	7-02-87
03-87-005 R	4-14-87	7-02-87
03-87-006 I	4-14-87	7-02-87
03-87-007 I	4-14-87	7-02-87
03-87-008 R	4-14-87	7-02-87
03-87-009 R	6-08-87	7-09-87
03-87-010 A	7-02-87	7-09-87
03-87-011 A	7-02-87	7-11-87
03-87-012 A	7-02-87	7-11-87
03-87-013 A	7-02-87	7-11-87
03-87-014 A	7-04-87	7-11-87
03-87-015 I	*	
03-87-016 I	7-15-87	9-5-87
03-87-017 I	7-22-87	9-3-87
03-87-018 I	8-04-87	8-19-87
03-87-019 I	7-27-87	8-19-87
03-87-020 I	8-27-87	10-30-87

5.3

160/3M = ~~32~~/Mo

Minus. 4 garbage

120/3M = 4/Mo

4TH QUARTER 1987		
INVENTION #	DISCLOSURE DATE	RECEIVED AT UTC
03-87-021 I	10-09-87	10-30-87

1D/1.5 = .67/Mo

Total (-4) 16D/9.5 = 1.68/M.

$ = 41/M

* Denotes No Information Received

$D/\$ = \frac{16}{41M} \times \frac{D}{9.5} = 0.49$ actual

$ = 41/M

* Denotes No Information Received

$D/\$ = \frac{16}{41M} \times \frac{D}{9.5} = 0.49$ actual

11/15/87

WAYNE SWANN AS OF ~~10/8/87~~

START DATE: DECEMBER 1986

4th QUARTER 1986		RECEIVED
INVENTION #	DISCLOSURE DATE	AT UTC
02-86-016 I	12-02-86	12-29-86
02-86-017 R	12-10-86	12-29-86
02-86-018 A	12-19-86	1-08-87
02-86-019 A	12-19-86	1-08-87

4D/3M = 1.33/Mo

1st QUARTER 1987		RECEIVED
INVENTION #	DISCLOSURE DATE	AT UTC
02-87-001 R	01-10-87	1-30-87
02-87-002 A	01-28-87	2-26-87
02-87-003 I	01-20-87	2-26-87
02-87-004 A	02-17-87	2-20-87
02-87-005 I	02-17-87	2-20-87
02-87-006 A	03-02-87	3-09-87
02-87-007 A	03-12-87	3-16-87
02-87-008 R		4-07-87
02-87-009 R		4-07-87
02-87-010 R		4-07-87
02-87-011 R		4-07-87
02-87-012 R		4-07-87
02-87-013 R		4-07-87
02-87-014 A	03-10-87	4-13-87
02-87-015 A	03-13-87	4-13-87
02-87-016 I	03-30-87	4-13-87

Sheldon Turnbaugh

16D/3M = 5.3Mo

6
10.0/3M = 3.3Mo

2nd QUARTER 1987		RECEIVED
INVENTION #	DISCLOSURE DATE	AT UTC
02-87-017 A	6-15-87	6-22-87
02-87-018 A	5-15-87	5-21-87
02-87-019 A	6-01-87	6-06-87
02-87-020 A	6-04-87	6-11-87
02-87-021 A	6-22-87	6-29-87
02-87-022 I	6-25-87	6-30-87

6D/3M = 2D/Mo

3rd QUARTER 1987		RECEIVED
INVENTION #	DISCLOSURE DATE	AT UTC
02-87-023 A	7-10-87	7-23-87
02-87-024 A	1-30-87	9-04-87
02-87-025 I	9-15-87	9-21-87
02-87-026 I	9-04-87	9-21-87
02-87-027 I	9-04-87	9-21-87
02-87-028 I	10-6-87	10-12-87

6D/3M = 2D/Mo

4TH QUARTER 1987		RECEIVED
INVENTION #	DISCLOSURE DATE	AT UTC
02-87-029 A	9-29-87	10-06-87
02-87-030 A	10-16-87	10-26-87

2D/1.5M = 1.33/Mo

(a) Denotes Counted In 2nd Quarter 1987
(b) Denotes Counted In 1st Quarter 1987

$/$ = 57

D/$ = $\frac{28 \times 12}{57 \times 13.5} = \frac{0.44}{\text{Minus 6 garbage}}$

34D/13.5 = 2.5D/Mo.

280/13.5 = 2.07/Mo

02-87-027 I	9-04-87	9-21-87
02-87-028 I	10-6-87	10-12-87

4TH QUARTER 1987

INVENTION #	DISCLOSURE DATE	RECEIVED AT UTC
02-87-029 A	9-29-87	10-06-87
02-87-030 A	10-16-87	10-26-87

2D/1.5M = 1.33/Mo

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280/13.5 = 2.07/Mo

05-87-003	DWS	Portable Computer Based Assistive Device for Handicapped	Hurtig	I	11-23-87
05-87-004	JWM	Growth Inhibition of Fungi by Bisabolol	Weimer	I	12-11-87
05-87-005	JWM	Growth Inhibition of Fungi by PT-1	Weiner	I	12-11-87
05-87-006					
05-87-007	NA	Improved Phosphate Selective Membrane Electrode	Glazer	I	12-21-87
05-87-008	NA	Production of Streptavidin in synthetic medium	Cazin	I	12-21-87

REV. 12-03-878888

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01-87-016	LEN	JWM	Solid Oxide Hydrogen Sulfide Fuel Cell			Winnick	I	12-21-87
01-87-017		NA	Doppler Ambiguity Removal Technique (Dart)	X		Eaves	I	1-4-88
01-87-018		NA	GT has not sent anything on this				I	
01-87-019		NA	GT has not sent anything on this				I	11-23-87
01-87-020	953	DWS	Antireflection Surface Treatment	X		Gaylord	I	
01-87-021	961	CBW	Wave Guide Torque Sensor (01-87-001)			Hartman	A	
01-87-022	960	DWS	Low Sidelobe Reflector			Joy	I	
01-87-023	957	JWM	Visible Cont. Chemical Laser			Cole	I	11-19-87
01-87-024	958	JWM	Visible Pulsed Chemical Laser			Gole	I	11-19-87
01-87-025	962	EFH	Multilayer Woven Fabrics	X		Jayaraman	A	
01-87-026	955	DWS	Testing Toxicity of Chem. Subs. by Using Nematode		X	Miwa	I	11
01-87-027	MPS	DWS	Stable Superconductivity above 500 K			Erbil	I	11-02-87
01-87-028	RJK	NA	Chemical Vapor Desposition	X		Spauschus	I	12-22-87

REV. 12/03/87

+ 2 add - disclosures

02-87-030	JAF	Mono. Anti.for Discr. of Vari.Newcastle Dis.Viruses	X	Snyder	A	
02-87-031	JAF	Mouse Monoclonal Antibody against Ehrlichia risticii (02-86-003)		Dutta	A	
02-87-032	NA	Sublethal Immunological Bioassay KLT		Bradley	I	11-23-87
02-87-033	JWM	Voltage Dependent Molecular Switch		Colombini	I	12-03-87
02-87-034	JWM	Impr.Proc.for Anther Culture of Wheat		Marburger	I	12-03-87
02-87-035	DWS	Take off Touch Screen Selection Strategy-Finger Mouse		Shneiderman	I	12-21-87
02-87-036	NA	Wide Energy Range Electron Sprectometer		Moore	I	12-23-87

REV. 12/03/87

3-87-021	JAF	Chemotactic Factors	X	Elgebaly	I	10-30-87
3-87-022	NA	Detection Discharges and Faults in Electric Power Cables		Mashikan	I	12-09-87
3-87-023	NA	Underwater Video Laser Scanning Camera -High Scatter Rejection		Ouimette	I	12-09-87
3-87-024	NA	Digitizing Pantograph		Multer	I	12-09-87
3-87-025	NA	Video Laser Camera with Second Laser Beam - for therapy		Nudelman	I	12-09-87
3-87-026	NA	Video KPixel Spectrometer		Nudelman	I	12-09-87
3-87-027	NA	Ophthalmology-Video Laser Camera Systems		Nudelman	I	12-09-87
3-87-028	NA	Membrance Potential Meas. in Single Cells with New Cationic Dye Indic.		Loew	I	12-28-87
3-87-029	NA	Auto. Gas Chnromatography Sample Injector		Lavigne	I	12-28-87
3-87-030	NA	Laser Glazing of Hight Tc Superconductors on Metal Substrates		Kear	I	12-28-87
3-87-031	NA	Delivery of Contrast Agents for Impr.Imaging of Liver Tumors		Wu	I	1-6-88
3-87-032	NA	Cust. Composite Electrodes for use in Sensor, Detectors, etc.		Shaw	I	1-6-88

REV. 12/03/87

MILT STOMBLER AS OF ~~10/08/87~~ 11/15/87

START DATE: AUGUST 1986

3rd QUARTER 1986		RECEIVED
INVENTION	DISCLOSURE DATE	AT UIC
01-86-019 A	08-28-86	
01-86-020 A	03-03-86	
01-86-021 A	09-29-86	
01-86-022 I	09-26-86	

4

4th QUARTER 1986	
INVENTION #	DISCLOSURE DATE
01-86-023 R	?
01-86-024 R	10-13-86
01-86-025 R	10-22-86
01-86-026 R	10-17-86
01-86-027 A	10-18-86
01-86-028 A	09-23-86 (a)
01-86-029 R	11-20-86
01-86-030 R	11-24-86
01-86-031 A	07-10-86 (a)

9

1st QUARTER 1987		RECEIVED
INVENTION #	DISCLOSURE DATE	AT UIC
01-87-001 A	1-12-87	
01-87-002 R	2-04-87	2-26-87
01-87-003 A	2-13-87	
01-87-004 A	3-16-87	3-28-87
01-87-005 A	3-24-87	

5

22/52 weeks
.42/week
1.69/Mo

2nd QUARTER 1987		RECEIVED
INVENTION	DISCLOSURE DATE	AT UIC
01-87-006 R	*	
01-87-007 I	4-09-87	5-02-87
01-87-008 A	4-22-87	5-19-87
01-87-009 I		5-28-87
01-87-010 A	6-02-87	

4

3rd QUARTER 1987		RECEIVED
INVENTION #	DISCLOSURE DATE	AT UIC
01-87-011 I	5-28-87	8-20-87
01-87-012 A	7-17-87	
01-87-013 I	*	
01-87-014 I	*	
01-87-015 A	7-16-87	7-27-87
01-87-016 I	*	

3

25/15 = 1.67/Mo

(a) Denotes Counted in 3rd Quarter 1986
(b) Denotes Not Counted
(c) Denoted Counted in 3rd Quarter 1987
* Denotes No Information Received

01-87-016 I *

(a) Denotes Counted in 3rd Quarter 1986
(b) Denotes Not Counted
(c) Denoted Counted in 3rd Quarter 1987
* Denotes No Information Received

25/15 = .

4th QUARTER 1987

INVENTION #	DISCLOSURE DATE	RECEIVED AT UTC
01-87-017 I 1/4/88	*	12
01-87-018 I -30	*	
01-87-019 I 2nd	*	
01-87-020 I 11/23	*	11-23-87
01-87-021 A	9-25-87	10-09-87
01-87-022 I	9-01-87	10-08-87
01-87-023 A	8-17-87	10-08-87
01-87-024 A	9-21-87	10-08-87
01-87-025 A	10-19-87	11-04-87
01-87-026 I		11-17-87
01-87-027 I	10-26-87	11-02-87
01 87-028A		12-22-87

32/16.5=
1.9/month

(a) Denotes Counted In 3rd Quarter 1986
(b) Denotes Not Counted
(c) Denotes Counted In 3rd Quarter 1987
* Denotes No Information Received

$ 80M

$D/\$ = \frac{32}{280} \times \frac{12}{16.5}$

$= 0.29$ actual

CHARLIE GOODWIN AS OF 10/8/87

START DATE: FEBRUARY 1987

1st QUARTER 1987

INVENTION #	DISCLOSURE DATE	DISCLOSURE/VIABLE
03-87-001 A	3-26-87 4/9	1/1

2nd QUARTER 1987

INVENTION #	DISCLOSURE DATE	DISCLOSURE/VIABLE
03-87-002 A	4-09-87 6-3	2/2
03-87-003 A	6-22-87 6/29	

3rd QUARTER 1987

INVENTION #	DISCLOSURE DATE	DISCLOSURE/VIABLE
03-87-004 R	4/14 7-01-87 7/2	
03-87-005 R	4/14 7-01-87 7/2	
03-87-006 I	4/14 ? 7/2	
03-87-007 I	4/14 ? 7/2	
03-87-008 R	4/14 ~~7-01-87~~ 7-2	
03-87-009 R	6/8 ~~7-01-87~~ 7-2	
03-87-010 A	7-02-87 7-9	16/12
03-87-011 A	7-02-87 7-9	
03-87-012 A	7-02-87 7-11	
03-87-013 A	7-02-87 7-11	
03-87-014 A	7-04-87 7-11	
03-87-015 I	* 9-5	
03-87-016 I	7-15-87 9-3	
03-87-017 I	7-22-87 8/19	
03-87-018 I	8-04-87	
03-87-019 I	~~8/19~~ (10/30) SF	

87-20 - 8/27 (10/30)

87-21 10/9 10/30

SF - 7/27 8/19

19 Disclosures/8 Months = 2.38/Month

8 A	42.1%
7 I/1*	36.8%
4 R	21.1%

* Denotes No Information Received

* Denotes No Information Received

WAYNE SWANN AS OF 10/8/87

START DATE: DECEMBER 1986

4th QUARTER 1986

INVENTION #	DISCLOSURE DATE	DISCLOSURE/VIABLE
02-86-016 I	12-02-86 12-29	
02-86-017 R	12-10-86 12-29	
02-86-018 A	12-19-86 1-8	4/3
02-86-019 A	12-19-86 1-8	

1st QUARTER 1987

INVENTION #	DISCLOSURE DATE	
02-87-001 R	01-10-87 1/30	
02-87-002 A	01-28-87 2/26	
02-87-003 I	01-20-87 - 2/26	
02-87-004 A	2/16 02-17-87 — 2/20	
02-87-005 I	02-17-87	
02-87-006 A	03-02-87 3/9	
02-87-007 A	03-12-87 3/16	10/9
02-87-008 R	04-07-87 (a)	
02-87-009 R	04-07-87 (a)	
02-87-010 R	04-07-87 (a)	
02-87-011 R	04-07-87 (a)	
02-87-012 R	04-07-87 (a)	
02-87-013 R	04-07-87 (a)	
02-87-014 A	03-10-87 4-13	
02-87-015 A	03-13-87 4-13	
02-87-016 I	03-30-87 4-13	

never filed Dec 87-28 9/21/87 10/1
87-29 9/29 10/6
SA 10/87-30 10/16 10/21

2nd QUARTER 1987

INVENTION #	DISCLOSURE DATE	
02-87-017 A	6-15-87 6/22	
02-87-018 A	5-15-87 5/21	
02-87-019 A	6-01-87 6/6	
02-87-020 A	6/9 ~~6-04-87~~ 6/11 6/29	12/6
02-87-021 A	6-22-87	
02-87-022 I	6-25-87 6/30	

3rd QUARTER 1987

INVENTION #	DISCLOSURE DATE	
02-87-023 A	7-10-87 7/23	
02-87-024 A	1-30-87 (b) - 9/4 - Jim patent	
02-87-025 I	9-15-87 — 9/21	6/6
02-87-026 I - needle	9-04-87 - 9/21	
02-87-027 I	9-04-87 9/21	
02-87-028 I	10/6 87 10/12	

32 Disclosures/10 Months = 3.2/Month

15	A	46.9%
9	I	28.1%
8	R	25.0%

(a) Denotes Counted In 2nd Quarter 1987
(b) Denotes Counted In 1st Quarter 1987

32 Disclosures/10 Months = 3.2/Month

15	A	46.9%
9	I	28.1%
8	R	25.0%

(a) Denotes Counted In 2nd Quarter 1987
(b) Denotes Counted In 1st Quarter 1987

Ucomm.	Due.	Recd - UTC
03-87-019 I	7/27	8/19
87-020 I	8/27	10/30
87-021 I	10/9.	10/30