

UK industry was not left behind when put into technical competition at an early stage with much larger overseas R&D teams. It is important to point out that in the main all the arrangements entered into in this case were non-exclusive. If such licensing arrangements were not possible, a National body such as NRDC might have to confine its activities strictly to the R&D capabilities available inside or outside industry in its own country and so possibly delay the introduction internationally of an invention of potential benefit to the world at large.

All the above I trust has conveyed some sense of a very busy and active development and licensing effort but I must now return to where I started — *Chance*. It is our experience that although many inventions 'are called' very few 'are chosen' insofar as their ultimate commercial value and success is concerned. NRDC has never made any secret of the fact that although in terms of numbers it has several hundred licences and licensed inventions, the majority of its income derives from only a very few of these. In particular I have referred to the Cephalosporin group of antibiotics which now account for a large proportion of our overseas royalties.

The current portfolio of licensed cases contains a number of other significant inventions in terms of royalty income and there are others either only now emerging or still to emerge such as Alkali-Resistant Glass Fibres which optimistically should result in substantial royalties. Not all such inventions will necessarily be licensed overseas but it is obvious from what I have said before that it will always be necessary to consider licensing many of them abroad, if the return to the UK is measured in royalties or technology is to be maximised.

However, major innovations in high technology deriving from academic, Government or private inventors are historically few and far between. Organisations such as NRDC and there are now quite a number of similar bodies in Europe, Scandinavia, the Far East and even in the Antipodes, have to establish a minimum bread and butter business to ensure statistically the chance of being involved in one or more major revenue earning situations. It is unlikely to happen more frequently than once in 15-20 years. This is the 'chance' to which I referred.

The 'chance' however has to be turned into successful business and will only be achieved in our experience by a prolonged investment of competent professional effort by the licensor covering technical, patent, legal and commercial aspects and over long periods of time e.g. ten years or more.

One additional point. Earlier I referred to the relative success we have had with inventions from Research Councils and Academic Institutes. This needs a little qualification. There is no doubt that commercially significant new discoveries can be made in biological chemistry by very small teams in such an environment and the industry which is international and used to Speculative R&D will take them up at an early stage. In other branches of science and engineering it is rather less likely to happen (again in our experience) but statistically it can and no doubt will over a long enough period of time.

Finally I thought you might like to see a few more slides to illustrate a selection of our inventions and some of which I have referred to in this talk:

1. Cephalosporin, Brotzu conducting Board Room Meeting.
2. Hovercraft, Tin Cans, SRN 4
3. Hovertank
4. Carbon Fibre, Bicycle, Honeycomb Structure, Floor Boards
5. Fumeless Refining of Steel
6. Pam Motors, Westinghouse machine
7. Glass Reinforced Cement
8. Hoverbed, Lady lying face down
9. Silicone Rubber Membrane, Professor Melrose & Dr. Nora Burns, Rat obtaining oxygen through the film

from water

10. Ultrasonic Blind Aid
11. Chimney Stack Stabiliser

*\*About the Speaker: Jim Cain joined the National Research Development Corporation in England in 1955. He has held a number of executive appointments in the Corporation and is now a Member of the Board and Chief Executive of one of its two operating departments. His responsibilities include general oversight of the NRDC's licensing activities.*



*John H. Martin*

## FOREIGN LICENSING OF MILITARY PRODUCTS

*by  
John H. Martin\**

A little over five years ago I had the pleasure of speaking at a meeting of this Society at the Kona Kai Club in San Diego. On that occasion I discussed with you Lockheed's program for licensing its "by products" — an activity which it had pioneered in the aerospace industry. I told you then that we had found this a most worthwhile and profitable undertaking. We still do.

Today I have been asked to talk for a few minutes about another licensing activity which Lockheed's experience has shown to be equally worthwhile and even more profitable — the foreign licensing of our military products.

I am particularly pleased to discuss this subject because I have found it a singularly fascinating and personally satisfying activity ever since I became involved in it almost 15 years ago.

It all began in 1959 when I represented Lockheed in its negotiations with various foreign governments in connection with the licensing of the F-104 Starfighter. This Mach 2+ airplane had been originally designed, developed and produced in the mid-1950's under contracts with the United States Air Force. It was, and is, the most advanced single-engine fighter ever built. Despite its age, it is still in service in 12 countries throughout the Free World.

Our first license agreement was entered into in March, 1959, with the Federal Republic of Germany. Within the next three years we entered into similar agreements with The Netherlands, Belgium, Italy, Canada and Japan. Altogether there were more than 60 separate major agreements involved.

Since 1959 more than 1600 F-104's have been built

under license at a total cost in excess of \$2.5 billion. The airplane is still being produced under license for the Italian Air Force, and we are currently negotiating a new license with a new country.

While my experience has been primarily related to the licensing of what have come to be known as "weapons systems," my remarks will relate to those aspects of foreign licensing which are different from commercial, or peculiar to military, products generally.

First I would like to outline and discuss briefly the principal U.S. laws and regulations which restrict or otherwise impact on your activities as a potential licensor. Then I have a few comments to make on some special problems or situations you are likely to encounter with your licensee.

In the military licensing field the first questions which must be resolved are the extent to which your rights in your product, as well as your right to license your product, have been limited by the United States Government.

Since your product is, by definition, a "military" product, the chances are quite good that you have either developed it or improved it under contract with the United States Government. You will certainly have sold it to the Government. In any case, your contracts will have been subject to the Armed Services Procurement Regulations (ASPR) which apply to all contracts with the Department of Defense.

Under these Regulations both your legal rights in the product, and your right to dispose of those rights may be severely restricted.

The most significant regulations with which you will be concerned are found in Section 9 of the ASPR. This section covers both Patent Rights and Rights in Data.

The Patent Rights part (ASPR 9-100, *et seq*) sets forth in considerable detail (i) Government policies concerning who gets what rights (as between the Government and the contractor) to inventions resulting from work performed under a Government contract, and (ii) prescribes specific contract clauses in implementation of the Government's policies.

Under these Regulations (which are applied on a contract-by-contract basis) the Government may, depending upon the type of contract involved, do a variety of things with respect to "any inventions made in the course of or under a contract."

It may acquire *exclusive rights throughout the world* to such inventions. In this case, the Government has title and the contractor has no rights at all.

On the other hand, it may keep title but grant the contractor a non-exclusive royalty-free license to the invention.

Or, it may permit the contractor to acquire the principal or exclusive world-wide rights, subject to the Government's acquiring "at least an irrevocable non-exclusive royalty-free license throughout the world for Governmental purposes."

Whatever rights you have (or don't have) will depend entirely upon the *specific* Patent Clause contained in your contract with the Government.

So, as you can see, the first part of your problem is to determine the extent of your rights in any inventions which may be utilized in connection with your product.

The next step is to make a similar determination concerning your rights in the technical data related to your products.

ASPR 9-200, *et seq*, sets forth the DOD policy and contract clauses with respect to its acquisition of rights in technical and other data under its contracts with the private sector.

Under this part of Section 9, the Government may, by contract, acquire either limited or unlimited rights in data.

By "limited rights" the Government means:

"rights to use, duplicate, or disclose technical data in whole or in part by or for the Government, with the express limitation that such technical data may *not* be re-

leased outside the Government, or used, duplicated, or disclosed, in whole or in part, for manufacture or procurement, except for:

"(i) emergency repair or overhaul work by or for the Government where the item or process concerned is not otherwise reasonably available to enable timely performance of the work; or

"(ii) *release to a foreign government, as the interests of the United States may require*". . .

The term "unlimited rights" means:

". . . rights to use, duplicate, or disclose technical data in whole or in part, *in any manner and for any purpose whatsoever, and to have or permit others to do so.*"

What kind of data are we talking about? Well, just for openers, ASPR 9-201 states:

"*Examples of technical data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications and related information.*"

Furthermore, ASPR 9-202.2 (c) specifically provides that certain technical data may be acquired by the Government with *unlimited rights*, even though it pertains to "items, components or processes *developed at private expense.*"

Again, the extent of the rights the Government has in "your" data depends upon which "data" clause is incorporated in your contract.

The Regulations relating to Patent Rights and Rights in Data are both complicated and difficult of application and interpretation. Furthermore, the implementing clauses will vary from contract to contract, depending upon the type of procurement involved. I strongly suggest consultation with counsel experienced in the interpretation of Government contracts.

In the process of determining the extent of your "residual" rights in inventions and data you should also examine the extent to which Government funds have been expended in the initial development of your product. This is because ASPR 4-110 provides, in substance, that it is the Government's policy to recoup a portion of its investment in the development cost of "major defense equipment" when such equipment is sold or *licensed* to any foreign buyer (including foreign governments and international organizations). Major defense equipment is defined as any weapon or weapon system having an R&D cost in excess of \$50,000,000 or total production cost in excess of \$200,000,000. (Under certain circumstances the \$50,000,000 R&D cost may be reduced to \$10,000,000.)

The Regulation also sets forth a formula for determining the precise amount of non-recurring costs to which the Government is entitled. In my judgment this formula, while at least rational when applied to the *sale* of products, can often result in an unrealistically high number when applied to a licensing situation. Fortunately, the Secretary of Defense may waive the Government's rights, in whole or in part, if he finds such action to be "in the best interests of the Government."

Once you have reached a satisfactory solution to your patent, data and development cost sharing problems you are, temporarily, at least, finished with the Department of Defense and ready to tackle a couple of other components of the Executive Branch.

The Department of State controls the exportation of data relating to articles designated in the United States Munitions List as "arms, ammunition, or munitions of war." This authority is derived from Section 414 of the Military Security Act of 1954, as amended. (22 USC 1934)

The Munitions List, together with pertinent procedures, is set forth in the International Traffic in Arms Regulations.

Since what we are talking about are military products, it is certain that *whatever* it is you want to license will be on the Munitions List.

You *must* obtain State Department permission to export any data (as that term is defined in the Regulations) prior to such exportation. This is true regardless of whether the data is or is not classified from a military security standpoint. In other words, the mere fact that certain (or even all) data is unclassified does not necessarily make it exportable without a State Department license.

I cannot urge too strongly that you exercise extreme care in complying with the Traffic in Arms Regulations. Failure to do so cannot only abort your licensing program before it takes off, but also can get you and your company into serious trouble.

One final aspect of U.S. law which may be of concern is administered by the Department of Justice.

Because of (i) the nature of your product, and (ii) limitations which will likely be imposed upon you by Defense and State, you may well find yourself compelled to grant an exclusive license and to impose severe territorial and other restrictions on your licensee.

I am informed by counsel skilled in these matters that such provisions *could* be *per se* violations of the Sherman Act. Since this is a field of law in which I have no particular competence, I leave the resolution of this matter to you and your own attorneys. However, my experience has been that there are appropriate and acceptable solutions.

While we are on the subject of antitrust laws, there is one particular legal problem relating to military licensing within the European Economic Community of which you should be aware.

I am sure you are all fully familiar with the provisions of Articles 85 and 86 of the Treaty of Rome, as well as the Anti-trust regulations which have been issued pursuant thereto. If not, you certainly should study these documents with great care if you contemplate any licensing military or commercial — in Common Market countries, because they set forth a comprehensive system of legal and economic controls which closely parallel our own anti-trust laws. (There are those who feel that, in some areas, the EEC rules are even more strict than ours.)

What you may not be aware of are the provisions of Article 223 of the Treaty. This Article provides in effect that the EEC Council may *exempt* "arms, ammunition and war material" from the provisions of Articles 85 and 86. This exemption is in the form of a decree listing the products covered, much like our own Munitions List. It may be amended from time to time by unanimous vote of the Council.

It is my understanding that the initial decree was promulgated in April 1958.

You should examine the list carefully to be sure your product is covered, and thus exempt from the provisions of the Regulations issued pursuant to Articles 85 and 86.

Once you have (i) determined what you have to sell, (ii) worked out any required development cost sharing with the U.S. Government, (iii) complied with the International Traffic in Arms Regulations, and (iv) hopefully found an eager customer for your product, you are then in a position to commence serious negotiations with your new customer.

As a general rule, your licensee will be either a foreign government or a manufacturer designated by that government. In any event, the ultimate purchaser and user of your product will certainly be a government. The fact that you will be dealing, directly or indirectly, with the sovereign will have a significant impact upon your negotiating ability in certain areas. This can be both "good news" and "bad news."

First, the "bad news."

In recent years the matter of which law shall be applicable to the interpretation and enforcement of your license agreement has become almost non-negotiable. Local law (i.e., the law of the State of the licensee) and submission to the jurisdiction of local courts are the rule in almost every country.

This is really no big thing when you are dealing with a common law or civil law country. But when your licensee is a country whose legal system is based upon unfamiliar concepts, you may have a problem.

In these latter situations I suggest you make an effort to get agreement on the law of some neutral territory. In the Middle East and parts of Africa it is sometimes possible to obtain acceptance of the law of either the Canton of Geneva or the Canton of Zurich. (The choice depends upon where the licensee has its money stashed away.) European countries will occasionally accept an international arbitration tribunal in lieu of their own courts, but they still insist on their law.

Under these circumstances it is *essential* that you have available the services of competent local counsel. And I emphasize "competent." Lawyers are easy to come by anywhere in the world, but good lawyers must be sought out in Athens and Kuala Lumpur, just as they must be in Atlanta and Kalamazoo. International banks, multi-national companies and occasionally the U.S. Embassy are good sources for recommendations of legal counsel.

Lockheed, for example, has local counsel in more than 25 foreign countries. We deal with about 16 of these on at least a monthly basis.

The next "bad news" item relates to currency fluctuation. Most Governments are, understandably, sensitive about the value of their own currency. They are particularly reluctant to admit in writing that it may be "soft" in terms of the U.S. Dollar. Therefore, it is often difficult to reach a satisfactory agreement regarding the "equalization" of royalty payments as between their currency and ours.

Obviously, this is *not* a problem today in light of the present "dollar crisis." Everyone is delighted to agree to fixed dollar payments. However, in more "normal" times (if there is such a thing as "normality") one can get into real head-knocking sessions on this subject with Finance Ministers throughout the world.

The last "bad news" item is foreign security classification. This is not very serious from an economic or contractual standpoint, but it can be a real headache and cause for occasional embarrassment.

We in the United States are accustomed to the security classification system imposed by the Department of Defense. Despite Watergate implications to the contrary, our system by and large is limited to *military* security matters. In many foreign countries, however, *their* security system is both military and *political*. They are not so much concerned about what their potential military enemies might find out as they are concerned about keeping secrets from their internal political foes. Thus, it sometimes happens that matters we and the Department of Defense would not consider classified under the most Orwellian of circumstances, they treat as extremely sensitive. Our experience has been that there is only one satisfactory solution to this problem. Once you have executed your license agreement, stop talking about it. No press releases, no speeches, no comments, no nothing — unless, of course, you have cleared with your customer. This will frustrate your P.R. people, but it will make *your* life easier in the long run.

Now for the "good news" in dealing with foreign governments.

Our experience has shown that foreign Defense Ministries are often much more flexible and easier to deal with on certain matters than is our own Government.

For example, given the proper approach, you can often negotiate the following advantageous arrangements as part of your license terms:

1. Any activity by your company in the foreign country which is in support of your license obligations *will not constitute a "permanent establishment" of your company in that country.* This has tremendous favorable tax and legal implications, of which I am sure

you are all aware.

2. They will indemnify you against third party claims resulting from defects in the design of your product.
3. Warranties can be limited to correction only of defective data which you might furnish.
4. Indemnification by you for any infringement of local patents will be waived without too much fuss.
5. If you can reasonably demonstrate the need, they will purchase necessary in-country technical assistance in support of the licensed production of your product. (This is an extremely important matter, since if you don't sell such assistance and, for any reason, your licensee gets in trouble, you will soon find yourself being pressured by DOD to give whatever help is necessary to solve the problem.)

While you can't count on getting all of these goodies all of the time, you can, with a little luck, usually get most of them.

In summary, I suggest the following approach to the foreign licensing of your military products:

1. Be sure you know exactly what rights you have *vis-a-vis* those of the U.S. Government.
2. Make your peace with DOD regarding development cost sharing — if any.
3. Be scrupulous in observing the requirements of the International Traffic in Arms Regulations.
4. Make your peace with the Department of Justice, if necessary.
5. Be alert to applicable FEC antitrust regulations when dealing in the Common Market.
6. Be alert to the problems of local law.

If you do all these things, you should have a base for a reasonably trouble-free and profitable foreign military licensing program. I wish you great success — so long as your product is not in competition with one of ours.

*\*About the Speaker: John H. Martin has been Chief Counsel of the Lockheed Aircraft Corporation since July 1971.*

*He has been with the Lockheed organization since 1957, first as assistant counsel in the corporate legal department, then, 1960, as chief European counsel, headquartered in Geneva and responsible for all corporate legal matters on the continent. His was the legal responsibility in negotiations during that period which led to the F-104 consortium with NATO countries — West Germany, Belgium, Netherlands, Italy, Canada, as well as the U.S. — co-producing the jet Starfighter. This was to be the largest international weapon system development and production program ever undertaken, 1962 — with Japan in the program, too — when the Lockheed jet was being produced under license in 7 countries on 3 continents.*

*Subsequent to his European assignment, Martin became Division Counsel for the Lockheed-California Company and served in that capacity until his election as Chief Counsel.*

## THE INTERNATIONAL LICENSING OF CHEMICAL TECHNOLOGY

by  
John S. Copp\*

The title of this talk is "The International Licensing of Chemical Technology". A fine title — a fine subject — *but* . . . I am carried back thirty-odd years when the War Office in the exercise of its well-known sense of humor posted me, who knew some Latin and Greek and a little law but nothing else, to the Corps of Royal Engineers. Short of losing me altogether the Engineers did the next best thing in sending me to Chemical Warfare, and my first job as a young officer was to deliver a lecture to a large audience of newly joined re-

cruits on "The Chemistry of the War Gases." I have a bad memory for numbers but one number I remember to this day — of that audience 41 held the degree of Bachelor of Science. In the last few days I have experienced the feelings that I had then. If only — if only — my audience knew less than I, what a good talk I could give.

You will not expect me to deliver a thesis on this subject — most of you could do this much better than I could — but what I want to do is to make a few general observations; of considerable obviousness, followed by a few more detailed points, in no particular order, which have bothered us from time to time.



John S. Copp

If I set these out so that they should like principles or rules, please accept them as principles or rules in my own thinking. I am not setting out to teach anybody.

When I sat down to think what I was going to say the first thing I did was to consider why there should be a talk on licensing of *chemical* technology. Does it differ in the licensing field from any other technology? Is there something different in the industry or in the technology itself? Well, it certainly innovates at a great rate, it is highly patent conscious and there's a great deal of licensing. When I'd got so far I remembered reading something that Mr. Shapiro of Du Pont had said and I looked back at it:

"The old days of licensing are over. Now you have to make the investment in plant on your inventions in order to get the best return."

That made me wonder what's different today. It always was more profitable to manufacture yourself than to take a royalty for teaching someone else to manufacture. There has, of course, been some change — quite a lot of it. Companies are getting bigger and bigger and (I think this is especially true of chemical companies) are getting more and more international — not only in the actual manufacturing process and in the choice of where to manufacture, but in the ability to move chemicals about. So there is a greater ability, because of a company's size and resources and its international character, for it to embark on manufacture itself wherever manufacture is needed.

There is another inducement to keep one's invention to oneself; look how Mr. Arnold made our flesh creep yesterday. The attack on the patents system — or rather on the freedom of licensing under patents — and on the ability to rely on confidentiality undertakings, in the USA particularly but in the EEC to some extent as well, certainly does not encourage a commerce in technology.

But I think we are not attending the funeral of technology