II

*(Acts whose publication is not obligatory)*

# COMMISSION

## COMMISSION DECISION

**of 21 December 1988**

**relating to a proceeding under Articles 85 and 86 of the EEC Treaty (IV/30.979 and 31.394, Decca Navigator System)**

**(Only the English and Dutch texts are authentic)**

(89/113/EEC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community,

Having regard to Council Regulation No 17 of 6 February 1962 First Regulation implementing Articles 85 and 86 of the Treaty [1], as last amended by the Act of Accession of Spain and Portugal, and in particular Articles 3 and 4 thereof,

Having regard to the notifications made by Racal Group Services under Article 4 of Regulation No 17 on 20 May 1983 and on 14 November 1984,

Having regard to the applications made to the Commission by 'Landesfischereiverband Schleswig-Holstein' on 21 December 1983 and Rauff & Sørensen on 26 February and 9 April 1985, to find pursuant to Article 3 of Regulation No 17 that Racal-Decca Navigator Limited (which became Racal-Decca Marine Navigation Limited on 3 December 1985) had infringed Article 86,

Having regard to the information obtained by the Commission pursuant to Articles 11 and 14 of Regulation No 17,

Having regard to the Commission Decision of 30 September 1987 to initiate proceedings in this case,

Having given the undertakings concerned the opportunity to make known their views on the objections raised by the Commission, in accordance with Article 19 (1) of Regulation No 17 and with Commission Regulation No 99/63/EEC of 25 July 1963 on the hearings provided for in Article 19 (1) and (2) of Council Regulation No 17 [2],

After consulting the Advisory Committee on Restrictive Practices and Dominant Positions,

Whereas :

### I. THE FACTS

**The undertakings involved in these proceedings**

(1) (a) Racal-Decca Marine Navigation Ltd (hereinafter called Racal Decca), is an affiliate company of Racal Electronics plc, a holding group operating world-wide and incorporated in the United Kingdom. Racal Decca's principal activities are the design, manufacture and marketing of navigational aids and other electronic equipment. Racal Electronics plc's total turnover in 1987/88 was £ 1 370 million.

(2) (b) AP Radiotelefon A/S (hereinafter called 'AP') incorporated in Denmark, is an affiliate company of the world-wide Philips group, which is headed by NV Philips Gloeilampenfabrieken in the Netherlands.

(3) (c) Polytechnic Marine plc of the United Kingdom, later Polytechnic Electronics plc, hereinafter referred to as 'PE', is a manufacturer of civil and military navigation systems. Since 1985 it has had a majority interest in Navstar SA of Switzerland which is its principal distributor.

[1] OJ No 13, 21. 2. 1962, p. 204/62.

[2] OJ No 127, 20. 8. 1963, p. 2268/63.

## The DNS system

(4) The Decca Navigator System (DNS) is an international radio navigation system operated throughout the world and is used for navigation at sea, on land and in the air. It consists of (i) transmission of signals by land-based stations operating in groups (known as 'chains'), and (ii) devices placed on board the means of transport which receive these signals (the 'receivers').

(5) The relevant DNS for the purpose of the present proceedings is that for sea use, which is the main use in terms of sales (value and volume).

(6) The DNS is a hyperbolic navigation system. It is based on the mathematical law according to which all points whose distances from two fixed points differ by a constant amount lie on a specific curve or hyperbola. In the DNS, these two fixed points are two stations of one chain ('Master' and 'Slave' stations) transmitting accurately synchronized radio signals radiated as continuous waves. The locations of such families of hyperbolae are recorded on special sea charts. By measuring the difference in phase of the signals of one pair of stations, the receiver placed on board a ship can identify the hyperbolic line on the earth's surface along which the difference in the geographic distances to the stations corresponds to the measured difference in phase. By measuring the corresponding data transmitted by a second pair of stations (one station may be common to each pair) intersecting lines are obtained and hence an accurate navigation position is fixed.

(7) According to Racal Decca, there are eleven marine radio navigation aids in existence today. They may vary as to accuracy, transmission range and geographic coverage. A description of these navigation aids according to these characteristics is set out in the Annex.

It appears from the Annex that:

— DNS, Loran C, Differential Omega, Rana, Toran, Radar and GPS have high accuracy. GPS, however, is not yet operating and is not expected to operate for several years,

— DNS, Loran C, Omega and Differential Omega, NNSS (Transit) and GPS have high transmission range,

— only DNS, Radar, Marine Radio Beacons and NNSS (Transit) cover Denmark, the UK and the Channel.

For certain types of navigation in offshore waters and/or on long routes and for fishing, a radio navigation aid of the highest accuracy is required. This is the case for ocean-going vessels, commercial or naval ships, and also for certain coasters and fishing vessels. The system is needed when these vessels navigate offshore, or the position of fishing grounds has to be repeated, or the vessel's track relative to the movement of the fish has to be established.

In a substantial part of the offshore waters in the northern part of the Community, the DNS operating from Denmark and the United Kingdom is the only system available of those listed in the Annex. Indeed, it is the only one which combines the accuracy, range and coverage required.

The DNS transmitted from the United Kingdom chains is very important, even for commercial vessels operating from other European countries, as most of these vessels have sooner or later to pass through the areas covered by these chains, particularly the Channel.

(8) Although the patents on DNS have expired, there are other barriers to entering into competition in the transmission of signals with a system of such high accuracy, extensive coverage and wide range as the DNS, including:

— the difficulty of obtaining the required licence from the relevant national authority to use the frequencies which it controls, particularly if it means duplicated transmission in the same area.

The frequencies allocated by the International Telecommunications Union (ITU) for navigation systems for Region 1, which covers Europe, are in the 70 to 130 KHz band. These frequencies are divided into slots. A large slot (90 to 110 KHz) is allocated to Loran C, whereas four smaller slots (70 to 72, 84 to 86, 112 to 117,6 and 126 to 129 KHz) are allocated to the DNS. Racal Decca has argued that there is room in the 84 to 86 KHz slot for two more channels. However, this is not enough for a system which could compete with DNS which has 25 chains in Europe.

Moreover, chains sharing the same channel have to be set up at least 2 000 km apart,

— the very high cost of erecting a set of transmission stations with a scope similar to DNS.

## The manufacturers

### *Racal Decca*

(9) In the period relevant to these proceedings, Racal Decca has been the only provider of DNS signals in Denmark and the United Kingdom. The main

manufacturers of DNS receivers are : Racal Decca, the only main producer together with some licencees until 1982 ; AP, PE and Rauff & Sørensen (hereinafter called 'RS').

(10) The DNS was first developed during World War II by one of Racal Decca's predecessors, the Decca Navigator Company Ltd, for military purposes, mainly for operations in the Channel. In 1946 this company obtained the agreement of the British Government to the commercial development of the system. Racal Decca, apart from being the only manufacturer of receivers, owned the transmitting stations and operated them at its own expense. In 1947 the 1946 agreement was replaced by a working arrangement which regulated the activities of Decca Navigator and the Ministry of Transport in the development of the system which was extended in 1956. This agreement provides, *inter alia*, that 'in view of the responsibilities placed upon him by the Merchant Shipping Act in matters affecting the safety of ships, he (the Minister) considers it important that this Ministry should be closely associated with the development of the Decca Navigation Systems...' and in point 8 ('Approval for Navigation') that '... the Ministry will promulgate their approval of use of the English chain and similarly of subsequent chains by Notices to Mariners'. Racal Decca decided that the basis of the operation would be to hire receiving equipment to users for an annual fee in order to be able to cover investment and maintenance costs.

(11) The basic Racal Decca patents, which prevented any third party from manufacturing legally without a licence any receiver for use with the DNS transmission, expired in the mid-1960's.

(12) From 1946 on, a growing number of chains were brought into operation along the coasts of the United Kingdom and of other European countries (such as Denmark, Norway, Germany, Ireland, the Netherlands, France, Finland, Sweden and Spain — excluding its Mediterranean coast). Such chains also exist along coastlines in various other parts of the world. In total there are now 25 DNS chains operating within Europe and 26 outside.

The two United Kingdom chains and the Danish chain, whose transmission range is relevant for the definition of the geographical market for the transmission of DNS signals, represent over 20 % of the 14 chains operating in the Community.

Almost all DNS transmitting stations are currently owned and operated at its own expense by the host government.

— The Irish chain and the Holland chain are owned by the government but operated respectively by Racal Decca and another subsidiary of the Racal Electronics group at government expense. The German chain is owned and operated by Racal Decca at United Kingdom Ministry of Defence expense (principal use of the chain : NATO forces).

— The Danish chain was entirely owned by Racal Decca until July 1987. An agreement with the Danish Governement for permission to transmit was made in 1947 and renewed later. In a report of a working group of the Danish Ministry of Defence in December 1983 it was stated that 'application of the service of radio station has to be as general as possible' and that 'it is necessary that the Post Office ... secures that the public is admitted to use the transmission of stations'.

Further to the notice of this agreement given by Racal Decca in 1986, a contract was made between the Danish Ministry of Defence and Racal Decca on 9 July 1987. Under this contract, all the Danish stations are owned by the government but operated by RDN/AS, a subsidiary of Racal Decca, at the expense of the Danish Government. In respect of this contract, the Ministry of Defence has given notice of termination, effective on 31 December 1988.

— All DNS transmitting stations in the United Kingdom are owned by Racal Decca. The stations are operated by Racal Decca under its contract of 1 April 1987 with the General Lighthouse Authorities at the expense of the latter, except for the Shetland slave of the Vestlandet (Norway) chain (at Racal Decca's expense) and the Orfordness slave of the Holland chain which is operated by Racal Decca under contract with and at the expense of the Dutch Governement. The Donegal slave of the Hebridean chain is operated by Racal Decca at its own expense.

(13) In a brochure, 'The Decca Navigator System and its uses', submitted by Racal Decca with the notification on 20 May 1983, it was stated that more than 10 000 merchant ships of over 80 different countries and over 12 500 fishing vessels of all types were fitted with Decca receivers. The DNS was also in use throughout most NATO member states and more than 30 navies had been equipped with Decca receivers. The system was also used by land forces and by both civil and military aircraft.

(14) Racal Decca policy, until 1983 at least, was to hire out its receivers for commercial use and not to sell them. It only sold receivers to military forces and those which were to be placed in ships navigating outside the Community. The market for receivers for pleasure-boats had not developed, *inter alia*, because non-commercial users had generally no incentive for paying the high rental charge demanded.

(15) Amongst the receivers developed in the course of its activity, Racal Decca announced in November 1983 a new integrated receiver offered for sale or hire, the MNS 2000. This receiver automatically selected the most appropriate system, DNS, Loran C, Omega or Transit (reported in the magazine *'Technical'*, 22 November 1983). Racal Decca started to market this receiver in 1985.

(16) The total turnover of Racal Decca for DNS in 1984/85 was £ (...)(1) of which £ (...) was received from hire. The remaining income was received from product sales, chain operations and chain sales. According to their own accounts the 'gross margin' was £ (...) or (...) % of the 'total cost of sales' £ (...). The net profit before finance and taxation (adjusted to exclude exceptional profit) was £ (...), representing a return of (...) % on the capital employed during the period. The internal accounts of the company indicate an average 'gross margin' for commercial DNS receivers, when hired out, of (...) % and an average 'gross margin' for the same receivers, when sold, of (...) %, both calculated on the basis of the costs involved. However, in its internal calculations Racal Decca apportions all of the transmitter costs to the costs relating to hired receivers. If a part were instead apportioned to the costs relating to the receivers sold by Racal Decca (including pleasure boat receivers), the difference between the gross margin rates for hired and sold commercial receivers would increase, as it would also if the transmitter costs were reduced by the amount received in royalties (or a part thereof).

AP

(17) In 1981 AP started to market its own compact DNS-compatible receiver which was available for outright sale at a price then roughly equal to the yearly rental of a Decca receiver (£ 1 500). Its price, ease of use, technologically-advanced design and power consumption meant that it was also attractive to users of pleasure-boats.

RS

(18) RS, which produces a range of marine electronic devices, started to manufacture and promote its DNS receivers, the Shipmate RS 4000 series, in 1982, and in 1983 the activities relating to this series were transferred to a personally-linked associated company, Shipmate Navigator Aps.

PE

PE, a manufacturer of civil and military navigation systems, developed and manufactured marine user receivers (601 D and 602 D) for DNS use from 1983.

**Market shares**

(19) The tables below show the number of DNS commercial and pleasure boat receivers sold or hired out in the EEC (excluding Spain and Portugal before 1986) in the periods concerned, for use with the DNS, along with their yearly market shares. The figures have been provided by each of the four companies individually.

*Receivers used in commercial boats*

| | 1982 | | 1983 | | 1984 | | 1985 | | 1986 | | 1987 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Units (1) | % | Units (1) | % | Units (1) | % | Units (1) | % | Units (1) | % | Units (1) | % |
| Racal Decca | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] |
| AP | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] |
| PE | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] |
| RS | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] |
| Totals | [...] | 100,0 | [...] | 100,0 | [...] | 100,0 | [...] | 100,0 | [...] | 100,0 | [...] | 100,0 |

(1) Hired out yearly or sold.

(1) In the published version of the Decision, some information has hereinafter been omitted, pursuant to the provisions of Article 21 of Regulation No 17 concerning non-disclosure of business secrets.

*Receivers used in pleasure-boats* (1)

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|
| Racal Decca (2) | [...] | [...] | [...] | [...] | [...] | [...] |
| AP | [...] | [...] | [...] | [...] | [...] | [...] |
| PE-Navstar | [...] | [...] | [...] | [...] | [...] | [...] |
| RS | [...] | [...] | [...] | [...] | [...] | [...] |

(1) For the purpose of this proceeding which as regards Article 86 concerns the behaviour of an undertaking holding a dominant position in the market for DNS commercial receivers, it is not necessary to define the product market to which the DNS pleasure-boat receivers belong nor to give market share in this market.

(2) From 1983 as a distributor of AP in the United Kingdom and Ireland.

The table below shows the yearly turnover obtained by each undertaking from selling or hiring out the said receiver in the same period, along with their yearly market shares.

*Receivers used in commercial boats*

| | 1982 | % | 1983 | % | 1984 | % | 1985 | % | 1986 | % | 1987 | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Racal Decca | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] |
| AP | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] |
| PE | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] |
| RS | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] | [...] |
| Totals | [...] | 100,0 | [...] | 100,0 | [...] | 100,0 | [...] | 100,0 | [...] | 100,0 | [...] | 100,0 |

*Receivers used in pleasure-boats*

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---|---|---|---|---|---|---|
| Racal Decca | [...] | [...] | [...] | [...] | [...] | [...] |
| AP | [...] | [...] | [...] | [...] | [...] | [...] |
| PE | [...] | [...] | [...] | [...] | [...] | [...] |
| RS | [...] | [...] | [...] | [...] | [...] | [...] |
| Totals | [...] | [...] | [...] | [...] | [...] | [...] |

**Racal Decca's behaviour *vis-à-vis* its competitors**

(20) This behaviour consisted in : (i) reaction to competitors' entry into the market ; (ii) negotiation ; and in certain cases (iii) agreements with competitors. Racal Decca's behaviour *vis-à-vis* the main competitors, (a) AP, (b) RS and (c) PE is described hereinafter.

(a) *Racal Decca — AP*

1. Reaction to AP's entry into the market

(21) After AP started to market its DNS receiver in 1981 the options available for reaction were examined at a Racal Decca internal meeting of 12 March 1981. These included competing on price or suitable products, switching off or modifying the transmission and making a licence agreement with Philips. The chairman considered that 'the company should endeavour to maintain its market share until a competitive product can be marketed and perhaps the way to do this is to sell to our present hirers at the best possible price'.

(22) As to copyright, it was said that 'the position on copyright was probably not very hopeful'. However, it was agreed that further research on this point would be made. No mention was made of any other proprietary rights.

(23) In an internal report of Racal Decca of 5 May 1981 on its legal position in several countries, it was concluded that there was no basis for claiming copyright on transmission, but copyright might be claimed for the lists containing details of the chains (such as mast position, frequencies, speed of propagation and first lane offset), known as the

*Decca chain data sheets* ('DCDS'). However, it was stated that 'also this case is no more than arguable and not necessarily right. The odds are probably against us'. On the occasion of RS' entry into the market, an internal report of Racal Decca of 24 October 1983 established that this information could in fact be obtained independently of Racal Decca. As to unfair competition, the situation was assessed differently, depending on the countries concerned.

(24) As to the alteration of signals, it was stated that 'the theory behind this (to use basic non-technical language) is to so alter the transmission signals so as to impair their use with AP receivers but to leave RDN receivers as accurate as ever before'.

(25) On 18 November 1981, the head of Racal Group Services' legal department considered that 'the reason an unfair competition action was not commenced at the time it was investigated, was because it was decided that alterations to the transmissions would be by far the best method of preventing AP sales'. He also considered that 'to commence a legal action without any real chance of success, without any real legal basis, would cause, sooner or later, embarrassment'.

(26) In the second part of 1981, Racal Decca started to make changes in the transmission in Denmark, the United Kingdom, Germany and the Netherlands without prior notice to the public, which caused great disturbance to the shipping community. The competent authorities of these countries required Racal Decca to return the transmission to normal, except for the United Kingdom authorities who requested that the Hydrographer of the Navy be notified of future changes four months in advance.

(27) Thereafter, Racal Decca presented the changes of signals as improvements. However, in a Racal Decca legal department note of 18 June 1982 it was stated that 'obviously we do not want to have to reply' (to questions from the Danish authorities) 'so that the hydrographers and others in similar positions in the other surrounding European countries will be able to conclude that the improvements are shams and intended to do no more than frustrate competitive products'. In the same note the change of signals was referred to as 'our strongest weapon' in the fight against AP.

With respect to legal actions against Philips, it was stated that 'we have now decided that we will take out proceedings against AP on the basis of unfair competition legislation generally ...'.

(28) Moreover, Racal Decca advised AP, AP dealers and users of the AP receiver of its 'rights and of its intention to protect those rights against users of non-Decca equipment.'

2. Racal Decca — AP negotiations

(29) At the end of 1981, in response to Racal Decca pressure, AP carried out research into the legal situation and the practical means of adapting its receivers to the signals altered by Racal Decca. AP concluded that adaptation to the signals would probably take at least two months of research in each case.

(30) Racal Decca and AP entered into negotiations in 1982 with the participation of other representatives of the Philips group. Among the reasons for AP reaching an agreement (internal document of 1982) the following were mentioned: legal action announced by Racal Decca in 1981 and Racal Decca 'experiments' with United Kingdom chains. Among the points which would make selling easier the following were mentioned: the importance of the pleasure boat market in Europe (600 000 boats), the stability of signals, that Racal Decca would sue intruders and Racal Decca's withdrawal from the pleasure boat market in Europe.

(31) The negotiations started on 24 August 1982 with the 'one precondition' that Racal Decca alone would continue with the rental business in the traditional professional market (AP minute of the meeting). One of the possible frameworks of cooperation discussed was 'Decca solely does the traditional market. AP Radio does the yacht market'. In this respect Racal Decca said that 'maybe consideration could be given to dividing the market between pleasure-boat and professional users' and it was agreed to 'consider the legal and commercial aspects of dividing the markets' (Racal Decca minute) in order to prevent the products sold in the pleasure-boat market from reducing the number of Racal Decca's commercial hirings.

(32) In Philip's minute of the meeting of 26 October 1982 it was reported that Philips wanted to 'share a monopoly':

'— Decca to take care of the professional market,

— Decca to take care of the "grey" area between the professional market and the pleasure-boat market ...

— Decca to leave the pleasure-boat market to Philips.

Philips to limit its activity to the pleasure-boat market

...

Decca agreed that such a market division by product could protect the Decca professional market and, as such, could help to safeguard Decca's chains. However, Decca could not exclude itself from the yacht market, nor could it guarantee that other competitors would leave the yacht market alone. According to Decca the above arrangement would not be in conflict with the Treaty of Rome, as Decca felt it could grant anybody a copyright licence ...

Philips commented that a market-sharing arrangement with Decca would possibly be in conflict with common market rules, as Philips was of the opinion that copyrights would be very difficult to be maintained by Decca (example : the obtaining by Philips of all necessary data by independent survey).'

The Racal Decca minute of this meeting reported that : 'Philips enquired as to what deterrents might be available to keep other parties out of the market. They acknowledge the market can be lucrative for both parties if structured properly and asked for comments.'

(33) The Philips minute of a later meeting on 16 November 1982 reported : 'Alternative I — Sharing the market

1. Racal handed over a draft agreement to Philips

...

2. Again, Philips stressed that it was Philips intention to share a *"de facto"* monopoly position with Racal. Philips would aim to try to keep any newcomers out of the market, and if that was not possible then, at least, Philips would insist on sharing control of these new competitors. At the same time Philips recognized that such a practice could be in conflict with the Treaty of Rome. Racal, however, maintained that legal "ways and means" could be found.

3. It was again stressed by Philips that, because of overall good relations, Philips did not want to compete with Racal. Specifically asked to do so by Racal, Philips was therefore prepared to leave the professional market to Racal, but would insist on exclusive access to the yacht market, i.e. Racal would have to withdraw from the yacht market. A further Philips' condition would be that no agreement be in conflict with any law.

Maintaining that this was legally possible, Racal agreed to leave the yacht market to Philips and to confine the Racal Decca activities to the professional market, provided a practical method could be agreed upon to prevent crossing sales from one market sector into the other.'

(34) At the meeting of 30 November 1982 Philips expressed the desire that 1. the entrance of third parties into the market for pleasure boat receivers should be mutually agreed upon, that 2. the agreement should be mutually exclusive, that 3. Racal Decca's action against intruders ought not affect Philips equipment, that 4. parties should mutually defend each others' positions and 5. there should be a steering committee.

(35) Eventually a licence agreement relating to the Decca Navigator System was signed on 14 January 1983.

An internal note of Philips' corporate legal department, dated 6 March 1984, containing the minutes of the steering committee meeting of 1 March 1984, states that Philips' management 'already at the signature of the licence agreement had doubt about the real existence of any rights of Racal Decca in the Decca Navigator System. Said doubt has not diminished during the 14 months following said signature, on the contrary'.

3. The Racal Decca/AP agreements

(36) (i) The 'licence agreement relating to the Decca Navigator System between Racal Decca Navigator Limited and AP Radiotelefon AS' (period of validity : 10 years) was based on the fact that 'Racal invented, designed and developed the DNS (as hereinafter defined) and owns copyright and other proprietary rights (hereinafter called "the rights") in the DNS.'

The main provisions are the following :

'Racal grants to AP the non-exclusive right by way of licence...

2.1.1. to reproduce and use the rights or any part thereof in order to manufacture and to dispose of pleasure-boat receivers only in the territory for use on the DNS...

2.1.2. to dispose of pleasure-boat receivers in the territory to owners of pleasure-boats for use on pleasure-boats only.

...

2.3. AP undertakes with Racal that all pleasure-boat receivers manufactured by it shall be manufactured in accordance with the features specification set out in Appendix A hereto. No other features will be incorporated other than by mutual agreement of Racal and AP and in particular the disallowed features' (downgraded receivers).

According to Racal Decca, the disallowed features which are listed in Appendix A to the agreement (among which the Decca coordinates) are important for a commercial user but are not considered to be important or necessary for a 'pleasure-boat' user. Downgraded receivers do not, therefore, meet all the requirements of commercial users.

'...

2.4. AP undertakes that from the date hereof it will retain all legal title in each pleasure-boat receiver manufactured by it in the way described in this agreement.

...

12.1. AP shall ... assign in writing to Racal ... all AP's right title and interest in each pleasure-boat receiver disposed by it.'

The parties agreed that the 'users card', as set out in Appendix C to the agreement, would be used for the supply of each pleasure-boat receiver. The users card is a standard form to be signed by the purchaser (called the 'special purchaser') of a receiver and by the dealer. It indicates that the receiver is only to be used on a pleasure-boat as defined in the standard form. The purchaser has to give details of the vessel on which the equipment is to be used and to certify that its use is for pleasure only. The same has to be certified by the dealer. The purchaser recognizes the 'retention of title' by AP. He engages to dispose of the equipment to a third party only where this party is prepared to give the same undertakings.

(37) Certain obligations, such as the one to supply to users of pleasure-boats only, had to be imposed by AP on its distributors and by these distributors on their dealers for the 'special sale' to the final users (Article 8).

(38) As to the transmission of DNS signals, it was agreed that in implementing 'future changes' in the transmission, at least six months prior to the implementation Racal Decca would advise AP in reasonable detail of such changes (Article 17).

(39) The agreement also provided for a steering committee, chaired alternately by Racal Decca and AP, to discuss the situation with respect to the agreement and the DNS generally (Article 13).

Racal Decca agreed to discussion with AP before granting a licence to any third party (Article 6). Racal Decca agreed to take legal action against unlicensed manufacturers or sellers of DNS receivers, if any (Article 21). AP agreed to pay damages to Racal Decca in the case of a pleasure-boat receiver being supplied by AP (or its distributors) to an 'unauthorized user' (Article 11).

(40) (ii) According to a 'distributor agreement' of 1 January 1983, to remain in force as long as the licence agreement above was in force, Racal Decca was made the sole distributor in the United Kingdom and Ireland for the pleasure-boat receivers producted by AP. This agreement also provided that Racal Decca would not produce or sell competing pleasure-boat receivers without the permission of AP and that it would pay damages to AP for receivers it manufactured itself and supplied for use on pleasure-boats.

(41) (iii) Under another agreement of 20 September 1983, to remain in force until 31 December 1992, AP granted a non-exclusive licence to Racal Decca for the manufacture and distribution of the commercial AP receiver, known as the Mark II. This licence is in reality exclusive, because in a side-letter of the same date AP undertook not to manufacture or to grant licences to any third party in any country as long as Racal Decca's copyright and other proprietary rights in the DNS were upheld in that country.

(42) This agreement was supplemented by another agreement under which Racal Decca bought AP's existing stock of commercial receivers.

(43) In a letter of 21 January 1983, announcing the 'licence' agreement to their dealers, AP mentioned *inter alia* that 'Racal Decca withdraw immediately their Decca yacht navigator from the pleasure-boat market . . .'. AP would stop delivery to those dealers who sold the pleasure-boat receivers outside the pleasure-boat market. The contents of the agreements were also explained to the AP dealers at a meeting on 2 February 1983 in Copenhagen. Several dealers expressed disagreement and doubts on the agreements and on the existence of Racal Decca rights.

(44) The formation of the steering committee was the subject of a meeting on 25 May 1983 between Racal Decca and AP. In the minutes it is stated that the parties considered that it was 'absolutely essential to have regular meetings to make sure full understanding of each other's position'. The steering committee would discuss operational aspects and legal issues and subjects of policy and principle. The agendas of the steering committee meetings contain subjects such as changes of transmission signals, legal actions, competitive equipment and a territory by territory appraisal, both commercial and legal. The minutes contain summaries of detailed discussions on the advances made by 'intruders' or unlicensed suppliers and the actions to be brought and/or actually brought against them.

(45) On 10 November 1987, all the agreements between Racal Decca and AP were terminated with effect 'as from 1 January 1987'.

(b) *Racal Decca — RS*

1. Racal Decca legal actions to oppose RS' entry into the market

(46) In May 1982, Racal Decca was informed by Delta Marine (at that time the main dealer of RS in the United Kingdom) of its intentions to import and to market the RS 4000. On 4 June 1982 Racal Decca objected to this proposal. It claimed, *inter alia*, that 'DNS is a private system run by Racal Decca for its own customers' and that 'non-Decca receivers infringe Racal Decca's copyright in information and data sheet relating to the DNS'. Racal

Decca also informed Delta Marine of its intention to commence copyright and/or unfair competition actions in other European countries and that 'changes to improve the transmission', made in the past 'will be continuing with the full approval of the British Government, and consequently we do not consider any non-Decca receiver can be relied upon whilst it continues to try and use the DNS transmissions'.

(47) An exchange of letters followed between Racal Decca, Delta Marine and RS. Racal Decca continued to claim the copyright that RS did not recognize. Following the exhibition of an RS 4000 by Delta Marine at the London Boat Show, on 6 January 1983, Racal Decca announced its intention to commence legal proceedings for copyright infringement.

(48) Since then Racal Decca has brought legal actions against RS and companies importing the RS 4000 in a number of countries, in most cases for unfair competition, on the grounds that the costs carried by Racal Decca put it at a competitive disadvantage when marketing its receivers in competition with RS, since these other companies do not contribute to Racal Decca's costs in the DNS. The 'Hanseatisches Oberlandesgericht' in Bremen on 12 February 1985 and the 'Hoge Raad' of the Netherlands on 27 June 1986 both rejected that claim although in the first case not on the merit. The Hoge Raad considered *inter alia* that Racal Decca was transmitting signals which could be used legally by anybody in possession of an appropriate receiver and which could be constructed legally on the basis of information which belonged to the public domain.

The 'Sø- og Handelsretten' in Denmark accepted Racal Decca's claim on unfair competition. However the 'Vestre Landsret' (an appeal Court) of Denmark on 9 December 1985, rejecting a Racal Decca request for an injunction against RS, considered that 'In the transmission permission of 30 March 1971 (the Danish Government's permission to Racal Decca) it is unambiguously stated that it is a condition for the permission to make Decca transmissions from its Decca stations situated in this country that these transmissions may be used by anybody, irrespective of the make of the receivers used and irrespective of the existence in individual cases of an agreement with Decca concerning the use of the transmissions ... On this background ... (the Court) finds it totally probable that (Racal Decca) today is bound by the said condition ... Since access to receive Decca transmissions without access to use the transmissions by means of the necessary technical information is meaningless, (the Court) finds that the condition must be so understood that anyone is also entitled to use the said technical information.'

(49) At the steering committee meeting of 25 May 1983 'Philips were extremely concerned about stopping Rauff & Sørensen's progression in the total market' and 'about Racal Decca's lack of legal action to prevent RS' encroachment into the market area'.

(50) In an AP internal telex of 8 September 1983, it is reported on the basis of Racal Decca information that 'Racal Decca's tactics towards Rauff & Sørensen is to exhaust them by cases in eight countries at a time. Racal Decca pursue the consistent policy of asking a long series of questions in each single case, questions which demand an answer from RS, and Racal Decca reckon to fatigue RS on legal questions rather than beat them on legal ground'.

(51) In a letter from Philips International Eindhoven to Philips Electronic London of 2 March 1984 it is stated :

'We from our side are not inclined to make the rope by which Racal Decca can hang us. Consequently we are starting seriously to think of terminating the agreement on the ground that we do not think any more that Racal Decca really do have any rights in the Decca Navigator System :

(i) the absence of copyrights as a basis for their Danish, German and Norwegian legal actions ;

(ii) the judgement in the Dutch injunction action ; as well as

(iii) their obvious distrust in their own ability to stop Rauff & Sørensen in their Danish process as seen from their yesterday's request to AP to stop Rauff & Sørensen ...'.

This was confirmed in Philips' internal meeting of 15 March 1984.

2. Changes in transmission of signals

(52) On a number of occasions Racal Decca announced modifications in the transmissions from certain stations in the United Kingdom by means of an Admiralty Notice to Mariners and by advertisements paid for by Racal Decca (21 October 1983, 19 April 1984, 25 September 1984, 1 October 1984, 1 March 1985, 1 October 1985 and 12 May 1986), although the last three were not implemented. The notices and advertisements gave no information as to the nature of the changes, but the advertisements explicitly warned users that the RS 4000 might give erroneous readings.

In the proceedings brought against RS in Denmark, Racal Decca admitted that changes in the signals were made in order to cause the RS 4000 to malfunction. Racal Decca refused to supply RS with details of planned or implemented modifications in the signals (letter to RS of 21 October 1983), but indicated that such details would be made available if RS entered into a licence agreement (telex of Racal Decca to RS of 27 September 1983, Racal Decca letter to RS of 26 September 1984).

(53) By the end of 1983 reports appeared in the press about the damage caused to navigators using Racal Decca's own equipment by the changes in the transmissions. The delegates of the National Federation of Fishermen's Organizations (NFFO) took the view that the changes were designed to foil the use of competitors' equipment (*Fishing News,* 2 December 1983). The press reported cases where skippers had lost their gear and had to face 'very dangerous conditions' because of the jamming (*Fishing News,* 16 December 1983).

(54) In a letter of 19 July 1985 supporting the complaint lodged by RS against Racal Decca, the Danish Fisheries Association ('Dansk Fiskeriforening') informed the Commission that the modifications to the signals from the United Kingdom had caused Danish fishermen to be very uncertain as to the RS 4000.

(55) Concern for the transmission of signals was also expressed :

— by the International Association of Lighthouse Authorities (IALA) (letter to Racal Decca of 2 July 1984), which sought assurance that any future change 'will only be made for proper technical reasons and after prior notice to mariners such that all users of the system can be informed in advance',

— in March 1982 and in June 1984 by the German and Dutch Governments within the framework of the International Maritime Organization (IMO), a UN body.

3. Negotiations between Racal Decca and RS

(56) In parallel with the court proceedings and changes in the transmission of signals, Racal Decca and RS were in negotiation from March 1983 with a view to finding a 'practical solution'. Throughout the negotiations it was the implied understanding that the legal actions would be stopped if a settlement could be reached. RS in particular sought an agreement for the market for commercial receivers but Racal Decca would only grant a licence limited to pleasure-boat receivers. On several occasions Racal Decca refused RS' requests for a licence for the market for commercial receivers. Later, in a letter of 9 March 1984 Racal Decca offered to let RS produce commercial receivers if RS paid an annual lump sum of £ 1 million. According to RS this sum was more than twice the profit made by RS on the RS 4000 and the offer was not accepted.

In July 1985 Racal Decca outlined a system which, according to them, would lead to a fee of £ 2 750 for a commercial receiver (based on cost plus an element of profit), and in October 1985 they informed RS that the fee could be reduced to £ 2 103 until 31 December 1986.

A settlement agreement providing for discontinuance of any legal action between the parties was signed on 5 November 1987 by Racal Decca and on 4 December 1987 by RS.

(c) *Racal Decca — PE and Navstar*

1. Racal Decca's reaction to PE's entry into the market

(57) Towards the end of 1982 PE had developed a compact DNS-compatible receiver (601 D) which was aimed in particular at the top end of the yacht market but which could satisfy all marine user requirements. Another receiver (602 D), aimed particularly at the commercial market, was also developed.

(58) At the beginning of 1983, PE and Navstar were requested by Racal Decca not to manufacture or distribute any receiver designed to use the DNS and they were informed that otherwise legal proceedings would be brought against them for breach of Racal Decca's copyright in the DCDS (see paragraph 23 above).

(59) Legal proceedings were brought against PE and Navstar in the United Kingdom and Navstar in Switzerland for unfair competition.

The changes in transmissions made by Racal Decca in 1983 and 1984 referred to above also affected PE-Navstar.

2. Racal Decca — PE and Navstar negotiations

(60) On the occasion of the Commission's inspection of PE's business records on 18 February 1986, the following information was obtained : PE had not obtained an unequivocal legal opinion as to the existence of the alleged copyright. They had admitted that Racal Decca had a right to ensure the financing of DNS and had decided to enter into negotiations with a view to finding a settlement. PE and Navstar were interested in obtaining a licence for the commercial market, but Racal Decca would only grant a licence for downgraded pleasure-boat

receivers on the ground that the commercial hirings were necessary for Racal Decca to enable it to fund the DNS. In order to overcome this problem, PE and Navstar suggested that an integrated circuit should be inserted in their commercial receivers which would automatically stop operating after, say, one year. The user would then have to buy a new integrated circuit and the continuous income could thus be ensured. This suggestion was not accepted by Racal Decca on the grounds that it posed logistical problems and might lead to customer dissatisfaction.

3. The agreements between Racal Decca, on one side, and PE and Navstar, on the other

(61) On 25 May 1984 PE and Navstar entered into three agreements with Racal Decca which were notified to the Commission on 14 November 1984.

(62) (i) Under the licence agreement based upon Racal Decca 'copyright' and 'other proprietary rights' (period of validity: 10 years), Racal Decca granted to PE and Navstar a non-exclusive licence to manufacture and supply pleasure-boat receivers for use on pleasure-boats only for all countries except Japan and South Africa (Article 2). These receivers had to comply with a defined list of features, the object of which was to ensure that they would not be attractive to, and consequently would not be used by, commercial mariners. PE and Navstar were also obliged to retain ownership in the receivers and to assign the same to Racal Decca (Article 2 (12)). In contrast to the licence agreement relating to DNS between AP and Racal Decca (paragraph 36 above), the agreement explicitly excluded any participation by PE or Navstar in the control, running or development of the DNS, and any right of consultations for PE and Navstar with Racal Decca on any matters relating to such control, running or development (Article 29).

The agreement contains clauses similar to the AP agreement with regard to the imposition of some essential PE-Navstar obligations on distributors up to supply to the final users (Article 8), the 'user card' (Article 2), changes in the transmissions (Article 16), and legal action to be brought by Racal Decca against 'unlicensed' manufacturers and sellers (Article 20).

(63) (ii) By the technology agreement (period of validity: unspecified) PE and Navstar sold and transferred to Racal Decca technical information and know-how on those parts of the 600 series relating exclusively to the DNS. Racal Decca also received from PE and Navstar 'a sole and exclusive royalty-free licence to use other information and know-how relating exclusively to the 601/602 receivers (but not specifically relating to use of the DNS signals) for manufacture of receivers designed to make use of the signals from the transmitting stations of the DNS system'. It was further stipulated that Racal Decca would only use the integrated circuits supplied by PE and Navstar when producing the receivers which had been developed by PE and Navstar and that, over a period of three years, Racal Decca would order a total of 1 500 601 D and 602 D receivers from PE with such modifications as Racal Decca might require.

(64) (iii) Under the 'technology licence-back agreement' (period of validity: unspecified) PE and Navstar received from Racal Decca a limited licence in relation to certain receivers for commercial use in order to fulfil existing orders from third parties.

(65) In a side letter to the agreements Racal Decca informed PE and Navstar that it would forthwith instruct its lawyers to discontinue the actions brought against Navstar in Switzerland and against PE and Navstar in the United Kingdom.

(66) With respect to the technology agreement and the technology licence-back agreement, Annex IV to the notification contains the statement that the acquisition by Racal Decca of PE's and Navstar's technology in DNS receivers for commercial use had the aim of ensuring that the benefits of this technology would be available for incorporation in new products, 'if it can advantageously be so used, without imperilling the sources of the continuing income required by Racal Decca in relation to the DNS transmission network'.

(67) Racal Decca has, in fact, never placed any order with either PE or Navstar for integrated circuits without which it is not possible to implement the overall architecture of the receivers developed by PE and Navstar. Indeed Racal Decca never even produced these receivers. Racal Decca indicated to the Commission that 'this chip was no longer appropriate as the basis for modern receiver design'.

(68) Pursuant to the 'technology agreement' Racal Decca acquired from PE about 1 000 602 D type receivers including modifications requested, but most of these have merely been stocked by Racal Decca. According to Racal Decca this was because this receiver type was not accepted in the market for commercial receivers and therefore could not

fill the gap between the MK 21 and MK 30 receivers and the new MK 53 in course of development. As a result, the market for the receivers currently hired or sold to commercial users by Racal Decca has not been affected by receivers produced by PE. Racal Decca did not accept an offer made by PE to supply further quantities, in excess of the 1 500, at a price considerably lower than the annual rent charged by Racal Decca. Racal Decca, in fact, indicated that it did not intend to place orders for all of the 1 500 units, leaving the matter to be resolved through payment instead.

(69) By an agreement dated 3 August 1987 the relationship existing between the parties through the agreements entered into in May 1984 was abandoned.

(d) *Solutions considered by Racal Decca in its relations with government authorities and the Commission*

(70) In a Racal Decca meeting of 12 March 1981 the possibility was discussed that the Danish Government might take over the stations and the receivers by the end of 1982, when the agreement between the Government and the company in relation to the running of the chain in Denmark expired. The Danish Government also proposed an alternative to the take-over. It could pass a law requiring users of AP receivers to obtain a licence. The licence fee received by the Government could then be passed back to Racal Decca as a contribution to Racal Decca's transmission costs.

(71) In a briefing note of Racal Decca's chairman of 15 March 1982 it is stated that 'By serving notice on the Ministry of Defence we could force the Danish authorities to purchase the chain from us in December 1983, failing which, the chain would simply cease operation ... If such an action were contemplated it would be necessary first to clear the frontier with local lawyers as to the level of compensation the company would receive'.

(72) A meeting was held on 15 September 1982 between Racal Decca representatives and officials of the Danish Ministry of Defence to discuss the use of DNS receivers on the Danish Racal Decca chains. Racal Decca stated that 'it wished obviously to continue to operate the system, but present events, if they remain unchanged, would place us in an impossible situation'. In that period Racal Decca did not seek to persuade the Danish Government to take over the chains, but rather to accept the Racal Decca action against competitors, namely the changes in the transmissions (see Racal Decca minutes of June to September 1982). The agreement with the Danish authorities was later renewed, and expired on 1 July 1987.

(73) Racal Decca considered the option of persuading the British Government to buy the United Kingdom chains and take over the cost of running and maintaining them (briefing note of 15 March 1982 mentioned above at paragraph 71). However, Racal Decca considered, with regard to the Government's position, that 'it was also improbable that any action would be taken to take over the chains until it was commercially impossible for Racal Decca to continue'. Racal Decca did not demonstrate to the United Kingdom authorities that it was commercially impossible to continue.

(74) At a meeting with Commission officials on 11 July 1986 Racal Decca representatives proposed amongst other solutions that the signals from the United Kingdom could be encoded and consequently then only be used by authorized users in possession of a decoder supplied by 'approved selected' suppliers. They presented four possibilities: (a) to carry on licence agreements; (b) to attempt to conclude arrangements with the British Government for the same funding of the costs of operating the United Kingdom chains; (c) to encode the transmission signals, or (d) to switch off all chains under Racal Decca ownership and operation.

The Commission officials indicated to Racal Decca that (a) was not acceptable, (b) or (c) would be acceptable and (d) was a matter for Racal Decca. Racal Decca maintains that in a meeting with British Government officials they were advised that encoding would not be acceptable.

## Proceedings

(a) *Notifications*

(75) Racal Group Services notified to the Commission:

— on 20 May 1983, its licence agreement with AP (paragraphs 36 to 39 above),

— on 14 November 1984, the other agreements with AP (paragraphs 40 to 42) and its agreements with PE and Navstar (paragraphs 61 to 66 above).

(b) *Complaints*

(76) The Commission received a complaint on 21 December 1983 from a German Fisheries Association, 'Landesfischereiverband Schleswig-Holstein', in relation to the licence agreement between Racal Decca and AP. The Commission received further complaints from RS on 26 February 1985 and 9 April 1985 alleging abuse of a dominant position by Racal Decca. These complaints were supported by the Danish Fisheries Association ('Dansk Fiskeriforening') in a letter of 19 July 1985.

(c) *Article 15 (6) of Regulation No 17*

(77) On 6 December 1984, the Commisson issued to Racal Decca an announcement of a decision under Article 15 (6) of Regulation No 17, alleging that the main agreement infringed Article 85 (1) of the Treaty and that the application of Article 85 (3) was not justified.

In their replies, the parties argued that the restrictions were indispensable to the maintenance of the DNS, which required a continuous income.

(78) The Article 15 (6) procedure was not pursued because complaints alleging breach of Article 86 were received (see paragraph 76 above) and because the results of subsequent investigations indicated that the scope of the case was wider than that originally envisaged in the Article 15 (6) proceeding.

(d) *Statement of objections*

(79) On 19 October 1987, the Commission issued a statement of objections to all the undertakings involved in the present proceeding. These undertakings made known in writing their views on the statement of objections, pursuant to Article 3 of Regulation No 99/63/EEC, PE on 7 January 1988, AP and Philips on 29 February 1988 and Racal Decca on 1 March 1988.

None of the undertakings involved put forward their arguments orally pursuant to Article 7 of the said Regulation.

(e) *Actual involvement of the groups in the case*

(80) The parent companies or other subsidiaries (*inter alia* Racal Group Services Limited) of the groups concerned not only were aware of but also participated in the activities which are relevant for this case on the occasion of intergroup relations and contacts with third parties, as well as contacts with the Commission.

## II. LEGAL ASSESSMENT

(81) Racal Decca has infringed Articles 85 and 86. AP, PE and Navstar have infringed Article 85.

(82) Each of the three groups, Racal Electronics, Philips and PE, is considered as a single undertaking for the purposes of this proceeding. The parent companies and some subsidiaries were involved in the activities which are relevant for this proceeding. In any event, the fact that the parent companies have the control of their subsidiaries suffices to consider the groups as single undertakings. Therefore, each of these groups is held responsible for infringements of Article 85 and/or Article 86 and is the appropriate addressee of this Decision.

### Article 86

*The relevant service market and product market*

(83) DNS radio signals are not really interchangeable in terms of characteristics and use with other radio signals and more generally with other navigation aids (for instance charts, compasses) (paragraph 7 above).

(a) In the relevant geographical market (paragraph 88 below) some commercial vessels and naval ships for the purpose of navigating offshore and/or on long routes and for fishing, tracking or repeating fishing positions require an accuracy in the determination of their navigating position which only DNS can provide. Racal Decca has referred to other types of radio signals but they either cannot provide the same accuracy or are not sufficiently available for these uses in the relevant geographic market, because of lack of geographic coverage or transmission range.

(b) The owners of DNS-only compatible receivers installed in other categories of boats, namely pleasure-boat receivers, cannot change to other signals unless they buy or hire different receivers instead of those compatible with DNS. This can only be expected to happen towards the end of the life of the DNS receiver.

(84) Because of the lack of real interchangeability with other services or products for a substantial number of users, the transmission of DNS signals constitutes a separate service market.

(85) For the purposes of those vessels mentioned above, DNS compatible receivers (not downgraded) are not interchangeable with other receivers to any extent, in terms of use and characteristics, for the reasons explained above, as the transmission of DNS signals is not interchangeable with the transmission of other signals.

DNS compatible receivers for commercial use (hereinafter called 'commercial receivers') therefore constitute a separate product market.

Racal Decca has argued that the DNS is a system which consists of various elements (transmitting stations, signals and receivers) which cannot be considered separately from an economic point of view. However, the existence of two different markets, the DNS service market and the DNS commercial receiver market, can hardly be refuted on the basis of Racal Decca's arguments for the following reasons.

As to the DNS transmission market

(86) (a) Racal Decca has alleged that DNS transmissions alone without a DNS-compatible receiver are of no value whatsoever as a navigation aid. However, this has not prevented the development of a distinct demand for DNS receivers

and, consequently, a distinct supply of these receivers in competition with Racal Decca's own receivers.

The fact that in Denmark and the United Kingdom the DNS transmission is not provided separately from the Racal Decca receivers is not objectively an economic feature, but is due to Racal Decca's deliberate refusal to so provide it. This subjective element cannot be relevant for the definition of the market which can only be based on objective considerations. Contrary to Racal Decca's allegations, the 'price' element (which is a market feature) is not lacking on objective grounds, but is the result of Racal Decca's own behaviour. As shown in paragraph 113, there were, in fact, means available to Racal Decca to receive a payment for the supply of the signals transmission. Moreover, Racal Decca has explained its refusal to supply DNS signals separately from its receivers on the grounds of the impossibility of obtaining a payment (which it called a 'contribution to the costs' but which, in fact, includes an element of profit). Racal Decca's own behaviour implies the recognition of the existence of a distinct market for the DNS transmission.

The lack of direct contact by Racal Decca with users is irrelevant in so far as a payment could have been obtained indirectly, *inter alia* through the schemes indicated in paragraphs 74 and 113.

Finally, in other countries, the DNS transmission is supplied by the State and, thus, separately from the receivers. This confirms the existence of a distinct market for transmissions, as the definition of a market cannot be made dependent upon the public or private nature of the supplies and/or the existence of a public service.

(b) In the report on the importance of the DNS in Denmark (paragraph 12 above), reference is made to the service and to its general use, and not to a system in which DNS signals and Decca DNS receivers are inseparable. The Danish Court of Appeal has confirmed this concept (paragraph 48 above).

As to the market for DNS commercial receivers

(87) In respect of receivers, not only producers but also Racal Decca have behaved as if these receivers constituted a separate market or at least an economic arena in which to face competition, as shown by the following facts:

(i) Racal Decca itself has started to sell multifunction receivers, which are compatible with DNS, Loran C, Omega and Transit. This receiver is not entirely dependent upon any of these systems and can enter into competition with any other receiver compatible with each of these systems, irrespective of the lack of interchangeability between the systems themselves (paragraph 15 above).

(ii) In the Racal Decca internal meeting on 12 March 1981, the chairman proposed to sell the receivers at the best possible price in order to maintain its market share (paragraph 21 above).

*The relevant geographical market*

(88) The relevant geographical market for DNS service was that part of the Community where signals transmitted from the United Kingdom and Denmark were received until 1 April 1987 and July 1987, respectively. This was the geographical area where (i) the criticized behaviour took place and (ii) in respect of the service supplied, the conditions of competition were similar.

In this area, the conditions of competition were similar because:

— the DNS service was supplied by an undertaking and not by a public authority,

— for the users of commercial vessels, signals which were interchangeable with DNS, or DNS signals from other chains, could not be received in most parts of this area.

(89) This area is a substantial part of the common market. The relevant DNS chains in the United Kingdom and Denmark represent about 20 % of DNS chains for transmission of DNS signals in the Community.

(90) In respect of commercial receivers the relevant geographical market is the Community. In this area conditions of competition are similar for all competitors. Like other receivers the commercial receivers are, or can be, traded in most Member States, no matter where DNS signals are received (paragraph 7).

*The dominant position*

(91) Racal Decca had a dominant position in each of the markets (i) for DNS signals, until April 1987 at least, and (ii) for commercial receivers, in the relevant geographical areas as defined above. It had a position of economic strength which enabled it to prevent effective competition from being maintained in each of these markets by giving it the power to behave, to an appreciable extent, independently of its competitors and its customers.

(92) Racal Decca's dominant position results from the following:

As to the market for the transmission of DNS signals:

(i) Racal Decca was the only supplier of DNS signals (paragraph 9);

(ii) there was no potential competitor for Racal Decca, considering the high administrative and financial barriers to entry (paragraph 8).

(93) Racal Decca has argued that it did not have customers for DNS signals transmission which is not a market and, in any event, it could not behave independently from them, as it had no effective way of even monitoring, let alone forcing, any direct payment from them. However, Racal Decca as the sole supplier of DNS signals could act independently of customers, i.e. users of these signals, in terms of investment, production, and also price, as it did have means to obtain a payment, at least by encoding the signals (paragraphs 74 and 113), over which customers, i.e. users, had no influence. The fact that the payment could not be obtained directly is irrelevant.

(94) In any event the users of DNS signals, for whom the transmission of the latter is not interchangeable with other services or products, were dependent on the sole supplier of them. This is sufficient for finding that Racal Decca held a dominant position *vis-à-vis* these customers, independent of the definition of a market for DNS signals transmission.

As to the market for commercial receivers

(95) The total market consists of all commercial DNS-compatible receivers sold and hired out. Racal Decca had a legal monopoly for these receivers, covered by patent. After the patents expired, Racal Decca held a *de facto* near-monopoly until 1982.

(96) Racal Decca's market shares in each of the years from 1982 to 1987 by themselves sufficed to give Racal Decca a dominant position. This dominant position was strengthened by the fact that Racal Decca was the only supplier of the signals transmission. The arguments put forward by Racal Decca against that finding, as also the Commission position in this respect, are indicated hereinafter.

(i) According to Racal Decca, figures for rental and sale should be treated differently. Sale has an effect on competition from hiring (but not sale) not only in the year of sale but also in subsequent years. Therefore, the sales of Racal Decca's competitors should be aggregated with sales made in earlier years to determine the total number of such receivers in the market in any one year.

According to the Commission, the method consisting in measuring each year the market strength of the competing undertakings for DNS commercial receivers enables the evolution of this power in the relevant period to be known. For this purpose the demand during any one year and how much of it is covered by each undertaking should be determined. In this case, the demand originates not only from new users of DNS commercial receivers but also from renters of these receivers from Racal Decca at the expiration of their contracts. In any event, the approach of measuring market shares in terms of value, which does not raise this question, confirms the dominant position of Racal Decca.

(ii) Racal Decca has argued that the Commission cannot reach any conclusion on dominance without examining the number of those users for which the DNS commercial receivers have no alternative.

Such an investigation, even if feasible within a reasonable time and able to produce reliable results (which the Commission contests), appears to be unnecessary and even disproportionate for the purpose of the present proceedings. In any event, the number of commercial vessels for which the DNS is interchangeable with other navigation aids is not significant. Sooner or later commercial vessels navigate offshore or through the Channel, areas in which they have no alternative to DNS, and fishing vessels using DNS seek to repeat fishing positions or to discover the vessel track, these being uses for which there is no alternative to DNS.

Racal Decca itself, in its memorandum of 4 March 1985 to the Commission's announcement of a decision under Article 15 (6) of Regulation No 17, stated

> '3.19. Marine users of DNS receivers fall into two general categories. — *Commercial marine users* — for many of whom a navigational aid such as DNS is practically essential; ...'.

The result of the approach defended by Racal Decca would only be a slight reduction of its market share. It would still be sufficient to give Racal Decca a dominant position.

*The abuse*

(97) The following actions constituted abuse of Racal Decca's dominant position and were therefore an infringement of Article 86 :

(a) The conduct leading up to and including the conclusion of all the agreements entered into with AP and PE-Navstar respectively ;

(b) The changes in signals made for the purpose of impeding the functioning of competing receivers.

(98) By the above conduct, Racal Decca aimed at protecting the monopoly position it enjoyed for commercial receivers.

By the agreements under (a) Racal Decca intended to exclude those competitors with which it entered into such agreements from the market for commercial receivers. By the conduct under (b) it obstructed and coerced those competitors who were unwilling to enter into such agreements.

(99) By so doing, Racal Decca abused its dominant position, not because it defended this position, but because the actions it took for this purpose went beyond normal competitive behaviour. Normal competitive behaviour would have been to compete with the newcomers in the market for commercial receivers in terms of price, quality and after-sales service. Moreover, Racal Decca's behaviour prejudiced users because it limited their freedom of choice in that market.

(a) The agreements with AP and with PE-Navstar

(100) The object and the effect of the agreements with AP, taken as a whole, were to allocate the respective outlets for commercial receivers and for pleasure-boat receivers between the parties to the agreements. By the undertaking not to compete with each other and Racal Decca's obligation to discuss with AP before granting any licence to a third party, Racal Decca :

(i) reserved for itself the market for commercial receivers ; and

(ii) gave to the other party, on a non-exclusive basis, substantial protection from competition for sales of DNS-compatible receivers for use in pleasure-boats only.

The agreements with PE-Navstar, taken as a whole, had the same object and substantially the same effect as under (i) above.

(101) Technical and economic progress was severely limited by the AP and PE-Navstar agreements. They eliminated all innovative competition for commercial receivers, and reduced such competition for pleasure-boat receivers by obliging AP and PE to supply only downgraded features.

(102) The fact that the agreements between Racal Decca and AP and Racal Decca and PE-Navstar had the object and the effect described above is confirmed by the following :

(a) the contents themselves of the several agreements in question, and in particular because the following provisions provided for an allocation of the markets (paragraphs 36 to 44 and 61 to 66) :

(i) the obligation on AP and PE-Navstar to restrict their sales to pleasure-boat receivers only ;

(ii) the obligation on Racal Decca not to produce or sell pleasure-boat receivers except as a distributor of AP receivers ;

(iii) the features specification (downgrading) which ensured an easy control of the market partitioning by ensuring that the AP and PE-Navstar pleasure-boat receivers were virtually useless for at least a major proportion of the commercial users ;

(iv) the retention of ownership in receivers supplied by AP and PE-Navstar as a means of recovering possession of a pleasure-boat receiver if it came into the possession of an allegedly unauthorized user ;

(v) the obligation on Racal Decca to pay damages to AP for commercial Racal Decca receivers supplied for use on pleasure-boats.

(103) (b) During the negotiations the parties, Racal Decca and AP themselves, spoke expressly about 'dividing the markets' and some statements in the minutes of the meetings between them in the course of the negotiations show that this was the real intent (paragraphs) 31 to 34). This intent was also confirmed by AP to their dealers (paragraph 43).

— Copyright and other proprietary rights

(104) In spite of the name 'licence agreement', the substance of the main agreements between Racal Decca and AP and PE-Navstar respectively has no relation to a real licence agreement. Certainly, in the preamble to these agreements it is stated that Racal Decca 'owns copyright and other proprietary rights' which, nonetheless, are not more precisely defined.

As to those 'other proprietary rights', however, Racal Decca no longer holds any industrial property rights, its patents having lapsed ; nor can it, nor does it, hold other proprietary rights ; there

is no legal property in the transmission of the signals, which is a service supplied, but only in the equipment, i.e. the chains. It cannot be seen, therefore, on what proprietary rights the licence is based.

As to the copyrights claimed by Racal Decca, it is not necessary to ascertain whether those copyrights really exist. The substance of the copyright alleged does not justify an agreement containing such far-reaching restrictions of competition. In any event, the object of these agreements is to allocate the markets. The principle established in respect of trademarks in the judgment of the Court of Justice of the European Communities of 30 January 1985 in Case 35/83, BAT Cigaretten-Fabriken GmbH v. Commission ([1985] ECR 375), applies also to the present case with regard to copyright. The Community system of competition does not allow an improper use of rights under national copyright laws which frustrates Community competition law.

(105) Racal Decca argues that it had 'perfectly legitimate commercial reasons for pursuing its claims to copyright protection', *inter alia* by ensuring that 'the infringing parties entered into agreements making an appropriate contribution to the DNS chain costs' and that 'the essential problem was how to secure adequate funding for the operation and maintenance of those parts of DNS owned and operated by Racal Decca at its own expense. Whether Racal Decca had rights was irrelevant to that need'. This confirms that the object and the effect of the agreements were not those of a normal licence agreement, but those criticised in paragraph 98.

(106) The other parties to the agreements were also doubtful as to the validity of the grounds for Racal Decca rights (paragraphs 50, 51 and 60). They were led to enter into agreements with Racal Decca above all under pressure of changes in the signals by Racal Decca, but also because of the commercial interest of sharing markets (paragraphs 30 to 34). In particular, these doubts led AP to consider seriously terminating the agreements (paragraphs 50 and 51).

(107) Subsequent to the Racal Decca-AP agreements of 1983, several AP distributors were also unconvinced of the soundness of Racal Decca copyrights (paragraph 43).

(b) Changes in the DNS signals

(108) The changes in DNS signals were abusive in that they were deliberately made in such a way as to cause the malfunctioning of the devices sold by unlicensed competitors. The intent to do so is proved by the following facts:

— on the entry of AP to the market, the alteration of signals was taken as a move by Racal Decca to defend itself against AP (paragraphs 24 and 27) as 'the best method of preventing AP sales' (paragraph 25), because it was its 'strongest weapon' (paragraph 27),

— this alteration of signals was used as an argument in Racal Decca's letters to RS as a means of discouraging them from entering the market (paragraph 46), and when it was actually carried out Racal Decca gave express warning to users about the consequent inaccuracy of RS 4000 receivers (paragraph 52),

— in the case brought against RS in Denmark, Racal Decca admitted the real reason for the changes (paragraph 52) as well as in its reply to the statement of objections.

(109) Complaints were made about the changes by customers (including users of Racal Decca devices) on several occasions, by governments within the IMO and by the International Association of Lighthouse Authorities, which pointed out what the real purpose of these changes was (paragraphs 53 to 55).

(110) The changes were effective and caused losses to customers (paragraph 53). In a Philips report on possible countermeasures, the conclusion was reached that the adaptation of the device, through the software, would take at least two months from the date of the signal change (paragraph 29). The attractiveness of a radio navigation receiver which might malfunction for two months after a signal change is necessarily seriously reduced.

*As to Racal Decca's claim of contribution to DNS costs*

(111) Racal Decca claims that:

(i) it required a very large sum of money to operate the DNS; and that

(ii) it needed to maintain its annual income from the hiring out of its own DNS receivers to pay the costs of transmissions.

(112) The Commission accepts that Racal Decca, which supplied a service, was prepared to do so only if it could obtain a price covering the costs of this service and a reasonable profit. For this purpose, however, Racal Decca, which had a dominant position for this service, was not entitled to use means which were illegal under Article 86 in as much as their object and/or effect were:

— the maintenance or the strengthening of its dominant position for DNS commercial receivers in a manner which is restrictive of competition,

— the limitation of the access of third parties to the market for DNS commercial receivers and of the freedom of choice of the consumer.

(113) No undertaking has the right to ensure the continuation of its business by means which infringe existing laws, *inter alia* competition law. Therefore, the criticized behaviour remains abusive even if there were no other alternatives to those of ceasing to supply and abandoning the market for DNS transmissions. However, other means were in fact available to Racal Decca to enable it to receive a reasonable price for the supply of the signal transmissions. This issue was limited to the recovery of the relevant costs of running the chains in the United Kingdom and in Denmark. In other EEC countries the chains were already operated at no cost to Racal Decca. The alternatives were at least the following:

(a) the take-over of the chain by the State, which was already the case in most countries and which would have permitted Racal Decca to continue that business for which it could obtain a remuneration (the operating of the chains and the sale of the DNS receivers). Until 1986, however, Racal Decca did not pursue as far as it could this possibility for either the United Kingdom or Denmark (paragraphs 70 to 74);

(b) the proposal made by PE in 1984, to insert a yearly renewable integrated circuit (a decoder) so as to ensure a continuous income for Racal Decca, was not accepted (paragraph 60), but a similar proposal was made by Racal Decca to the Commission services in 1986, after the latter had expressed informal objections to its behaviour (paragraph 74).

The fact alleged by Racal Decca that British government officials did not consider encoding a desirable solution is not sufficient, in the absence of further evidence, to prove that this opinion (a) was definitive, (b) was binding and (c) could not be overcome, for example, by proposing variations of the basic solution. Moreover, Racal Decca has alleged that encoding would have produced the same result as the transmission changes considered abusive by the Commission, i.e. the malfunctioning of 'non-contributing' receivers. This argument is not founded as, though used to seek the same results, the way is different. In the case of encoding, this is equivalent to obtaining a price contractually agreed on by the customer for a device with certain features. In the latter case, extra-contractual behaviour caused harm to devices, bought legitimately and in good faith on the market, and also had the object of monopolizing the market for commercial receivers.

*Effects of the abuse*

(114) The effects of the abusive behaviour are considerable, *inter alia* because the ancillary measures reinforcing the market-sharing also concern the independent distributors and thus directly affect users (retention of ownership, user cards provided for in Racal Decca agreements with AP and PE-Navstar). The success of the pressure exerted by transmission changes is demonstrated by the severe reduction of RS market share from 1983 (the year following the commencement of the infringement) to 1986 inclusive. From 1986 the market share rose again following the termination of the infringement (paragraph 19).

*Trade between Member States*

(115) Commercial and pleasure-boat receivers are traded throughout the EEC. The reduction in the supply of DNS receivers both for commercial and pleasure-boat use, which has been caused by Racal Decca's abusive behaviour, is apt therefore to affect trade between Member States.

(116) Moreover, Racal Decca's behaviour also has the effect of modifying the patterns of competition within the EEC. Investments, production capacities, and thus the number and impact of competitors, are altered. For these reasons, therefore, trade between Member States is affected.

**Article 85**

(117) The notified agreements:

(a) between Racal Decca and AP; and

(b) between Racal Decca and PE-Navstar

constitute infringements of Article 85 (1).

(118) Taken together the groups of agreements respectively under (a) and (b) have the object and the effect of restricting competition. They provide for allocation of outlets and of customers (paragraphs 100 to 103):

(a) the agreements between Racal Decca and AP eliminate competition from AP for the supply of commercial receivers and competition from Racal Decca for the supply of pleasure-boat receivers;

(b) the agreements between Racal Decca and PE-Navstar substantially restrict competition from PE-Navstar for commercial receivers.

(119) The restrictive effects of these agreements are reinforced

(i) in the Racal Decca-AP agreements:

— by the retention of ownership, the assignment thereof to Racal Decca and the user card,

— by the obligation on AP to prevent its distributors from supplying commercial users,

— by the obligation on Racal Decca to pay damages to AP for comercial Racal Decca receivers supplied for use on pleasure-boats,

— by the undertaking by Racal Decca to discuss with AP any third parties to whom Racal Decca might consider granting a licence,

— by the establishment of the steering committee,

— by Racal Decca's obligation to take legal action against unlicensed suppliers;

(ii) in the Racal Decca — PE-Navstar agreements:

— by the retention of ownership and the assignment thereof to Racal Decca and by the user card,

— by PE-Navstar's obligation to prevent its distributors from supplying commercial users,

— by Racal Decca's obligation to take legal action against unlicensed suppliers.

*Effects of the agreements*

(120) Technical and economic progress is severely limited for the reasons mentioned in paragraph 101. The effects of the agreements are extended to the dealers and they directly affect customers (retention of ownership, user card).

*Trade between Member States*

(121) Trade between Member States is affected for the reasons set out in paragraphs 115 and 116.

*Article 85 (3)*

(122) As all the agreements in question arise from an abuse of a dominant position in violation of Article 86, they cannot benefit from the application of Article 85 (3), either by individual exemption or by general exemption provided by regulation.

(123) In any event, the notified agreements between Racal Decca and AP and between Racal Decca and PE-Navstar, considered together, would not fulfil the conditions of Article 85 (3).

(124) These agreements do not improve the production or distribution of goods or promote technical or economic progress. On the contrary, the object and effect of the agreements is to ensure that no DNS-compatible receiver is manufactured or distributed by the parties without the consent of Racal Decca (paragraph 100 above).

(125) The lack of compliance with one condition makes in unnecessary to assess the application of the others. Nevertheless, the other conditions are not fulfilled either. The agreements confer no benefit on consumers. They restrict the choice of users of commercial receivers. They also reduce the supply of pleasure-boat receivers, in number of competitors (a potential supplier such as Racal Decca cannot enter the market) and in quality (only downgraded versions for users of pleasure-boat receivers).

(126) The restriction of competition is not indispensable, as argued, to finance DNS transmission and hence to ensure the continuation of this service. Alternatives were available and there is no evidence that these alternatives were not suitable for this purpose.

(127) The agreements in question afforded the parties the possibility of eliminating competition in respect of a substantial part of the product in question. As a result of the agreements with AP and PE-Navstar, all competition from these companies was eliminated in the field of commercial receivers, and as a result of the agreement with AP, all competition from Racal Decca in the field of receivers for pleasure-boats was effectively excluded. The agreements with AP also increased the possibility for the parties to limit competition from third parties through obligations on Racal Decca to take legal action against 'intruders'.

Racal Decca has alleged that the exclusive distribution agreement with AP fell within the scope of Commission Regulation No 67/67/EEC of 22 March 1967 on application of Article 85 (3) of the Treaty to certain categories of exclusive dealing agreements [1]. Without prejudice to paragraph 122, as that agreement had effects which are incompatible with Article 85 (3), as shown in this section, it could not benefit from the application of the Regulation.

[1] OJ No 57, 25. 3. 1967, p. 849/67, as amended by Regulations (EEC) No 2591/72 (OJ No L 276, 9. 12. 1972, p. 15) and (EEC) No 3577/82 (OJ No L 373, 31. 12. 1982, p. 58).

*Article 90 (2)*

(128) This provision, which permits a derogation from the Treaty rules, cannot be invoked in this case in order to exclude the application of Articles 85 and 86. According to the judgment of the Court in BRT/Sabam [1], (a) the definition of the undertakings entitled to benefit from it must be narrowly construed and (b) the application of the derogation requires that the undertakings involved be entrusted with a service of general economic interest by a sovereign act of the public authority. There is no such act of the public authorities in the agreement between Racal Decca with the British authorities of 1947. Although it is strictly regulated and provides for an involvement of these authorities, it does not entrust Racal Decca with any particular and precisely defined task. This is also confirmed by the fact that the concepts of 'approval' and 'authorization' contained in the agreement can hardly be reconciled with the concept of 'entrust'.

(129) It follows that the question whether the operation of the DNS falls within the definition of a service of general economic interest need not be investigated.

(130) However, even if it were assumed that Racal Decca or its predecessor were indeed entrusted with the operation of the DNS as a service of general economic interest, it is not proved that the application of the competition rules would obstruct the performance of Racal Decca's operation of the DNS, since there were alternatives to the restrictions of competition which were either not accepted or not investigated by Racal Decca.

*Article 3 of Regulation No 17*

(131) Pursuant to Article 3 of Regulation No 17, a Commission decision may be adopted even though the conduct, which is the subject of this decision, has already been terminated. This is possible, not only for the purpose of imposing a fine in accordance with Article 15 (2) of Regulation No 17, but also since it is necessary in the public interest to clarify the legal situation because of its complexity and in order to prevent identical or similar infringements, also in markets other than those which are relevant in these proceedings [2].

(132) By this Decision the Commission finds that the behaviour referred to in paragraph 97 (a) and (b) constituted infringements of Article 86 and the behaviour in paragraph 117 constituted an infringement of Article 85.

*Article 15 (2) of Regulation No 17*

(133) Because of the complexity of the legal assessment of this case and the lack of precedents it cannot be found that Racal Decca's infringement of Article 86 was intentional or even due to negligence. Moreover, from the very beginning Racal Decca has brought its practices to the Commission's attention. In addition it has cooperated to bring this infringement to an end. Therefore no fine is imposed on it for the infringement of Article 86.

The agreements with AP and PE-Navstar having been notified at the time of their conclusion, no fine can be imposed on the participants for infringement of Article 85,

HAS ADOPTED THIS DECISION:

*Article 1*

The following constituted infringements of Article 86 of the EEC Treaty by Racal Electronics plc:

(a) the conduct leading up to and including the conclusion of all the agreements, in their entirety, entered into by its subsidiary Racal-Decca Marine Navigation Limited with AP Radiotelefon A/S, namely:

— the licence agreement relating to the Decca Navigator System dated 1 January 1983,

— the exclusive distribution agreement dated 1 January 1983,

— the licence agreement dated 20 September 1983;

(b) the conduct leading up to and including the conclusion of all the agreements, in their entirety, entered into by its subsidiary Racal-Decca Marine Navigation Limited with Polytechnic Marine plc, later Polytechnic Electronics plc, and Navstar SA, on 25 May 1984, namely:

— the licence agreement,

— the technology agreement,

— the technology licence-back agreement;

(c) the changes in the signals made by its subsidiary Racal-Decca Marine Navigation Ltd for the purpose of impeding the functioning of competing receivers.

*Article 2*

All the agreements indicated in Article 1 (a) and (b) constituted infringements of Article 85 of the EEC Treaty by Racal Electronics plc, NV Philips Gloeilampenfabrieken and Polytechnic Electronics plc.

[1] ECJ, 23. 3. 1974, 127/73, [1974] ECR p. 318.
[2] Case 7/82 'GVL' (1983), p. 483.

*Article 3*

This Decision is addressed to:

— Racal Electronics plc,
Western Road,
Bracknell,
UK-Berks RG12 1RG,

— NV Philips Gloeilampenfabrieken,
NL-5621 BA Eindhoven,

— Polytechnic Electonics plc,
Royal Oak Way,
Daventry,
UK-Northants NN11 5PJ.

Done at Brussels, 21 December 1988.

*For the Commission*

Peter SUTHERLAND

*Member of the Commission*

*ANNEX*

**Radio navigation aids**

| | DNS | Loran C | Omega | Differential Omega | RANA | Toran | Radar | Marine radio beacons | VHF lighthouse system | NNSS satellite navigation (Transit) | GPS (global position system) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Accuracy (in metres) | (d) 50 to 2 000<br>(n) 180 to 7 400 | 100 to 1 000 | 3 700 to 7 400 | 180 to 5 550 | 20 to 2 000 | 5 to 50 | 90 to 610 | (d) 1 850<br>(n) 3 700 | 920 to 2 780 | 460<br>frequency : every 90 minutes | 100 |
| Transmission range (in nautical miles) | (d) 480<br>(n) 240 | High (greater than DNS) | High | 300 | (d) 600<br>(n) 200 | 120 | 25 (normal range) | 20 to 40 | 15 to 30 | Not pertinent | |
| Geographic coverage in Europe | From Norway to the North of Spain | Northern Europe save the Channel, the southern part of the North and Baltic Sea | All Europe save the Scandinavian countries | All Europe save the northern United Kingdom, the Scandinavian countries and most of Germany | Western and north-western France (Bay of Biscay) and South-western United Kingdom | Western France and a small part of the Channel | All Europe | All Europe near critical points | Five points in the United Kingdom | All Europe | Not yet operating |

(d) = day.
(n) = night.