



EUROPEAN COMMISSION

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PUBLIC VERSION

MERGER PROCEDURE  
ARTICLE 6(1)(b) DECISION

**To the notifying party:**

Dear Sirs,

**Subject: Case No COMP/M.1858 – THOMSON-CSF/RACAL (II)**

Notification of 08.05.2000 pursuant to Article 4 of Council Regulation No 4064/89

1. On 08 May 2000, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EEC) No 4064/89 (Merger Regulation) by which Thomson-CSF (“Thomson”) acquires control of Racal Electronics Plc (“Racal”).
2. After examination of the notification, the Commission has concluded that the notified operation falls within the scope of the Merger Regulation and does not raise serious doubts as to its compatibility with the common market and the functioning of the EEA Agreement.

**I. THE PARTIES**

3. Thomson is a French company active in professional electronics and defence systems. It is jointly controlled<sup>1</sup> by Thomson SA (a holding company wholly owned by the French State, and also having interests in consumer electronics) and by Alcatel (active in communications, transportation and energy infrastructure). Racal is a UK-based company active in defence and industrial electronics, and in transportation services.

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<sup>1</sup> See case IV/M.1121-Alcatel/Thomson SA – Thomson-CSF

## II. CONCENTRATION

4. Following an agreement between Thomson and Racal (“the Parties”), Thomson made a recommended cash offer for Racal’s entire issued share capital. By means of this offer, Thomson intends to acquire sole control of Racal, so that the notified operation constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.
5. The combined aggregate world-wide turnover of the parties to the concentration exceeded EUR 5,000 million in 1998 and each of the undertakings concerned had a Community-wide turnover of more than EUR 250 million. The undertakings concerned did each not achieve more than two-thirds of their aggregate turnover within one and the same Member State. The notified operation therefore has a Community dimension. It does not constitute a co-operation case under the EEA Agreement.

## III. COMPATIBILITY WITH THE COMMON MARKET

### A. CIVIL SECTOR

#### *Relevant product markets*

6. Both Thomson and Racal have activities in the following areas: (i) air traffic management systems, (ii) satellite communication systems, (iii) navigation and mission computers for helicopters, (iv) cellular base-station antennas, (v) supply of telecommunication systems and services to the rail industry (vi) transportation telematic activities, (vii) information systems security, (viii) payment and card related products.

#### Air traffic management systems (ATMs)

7. The notifying party identifies a market for the supply of complete ATM systems encompassing the functions of communication, navigation, surveillance, automation, as well as relating services. The market investigation has confirmed this position of the notifying party.
8. Within the ATMs market, the Commission's market investigation revealed the existence of a distinct market for a specific navigation aid, namely, the VHF Omnidirectional Range (VOR), which includes Doppler VORs (DVORs) and conventional VORs (VORs-C). These are aeronautical beacons which provide to aircraft their angular bearing with respect to such beacons. VORs are used to define airways and to help pilots during approach sequences before landing phase.

#### Satellite communication systems (Satcoms)

9. Satcoms are aimed at transmitting data to aircraft through satellite networks. The notifying party identifies two distinct and complementary product markets namely, (i) the avionics subsystem and (ii) the antenna subsystem. The antenna market is further sub-divided (due to differences in technical features and manner of installation) in two distinct markets of airlines antennas and business aircraft antennas. This position was confirmed by the results of the market investigation.

#### Navigation and mission computers for helicopters

11. The notifying party identifies a distinct product market of navigation and mission computers for helicopters, i.e., equipment designed to elaborate the position, the navigation and to perform the flight plan management of the helicopter. The Commission's investigation supports this position.
12. It also emerges from the Commission's investigation that the markets for the production and supply of navigation and mission computers are currently separate for military and civil helicopters, mainly due to the fact that different functional and certification requirements are still demanded by military and civil helicopter operators.

#### Cellular base-station antennas

13. The notifying party identifies a distinct product market for the provision of cellular base-station antennas (placed at the centre of cells corresponding to their coverage area and allowing the transmission of voice and, to a limited extent, data communications to and from mobile telephone handsets) to either mobile telecommunication operators or OEMs. The market investigation has fully confirmed this position. The market investigation also confirms the position expressed in the notification that the market for associated products and services is a distinct one.

#### Supply of telecommunications systems and services to the rail industry

14. The notifying party identifies a distinct product market for railway related operational telecommunications market. This is limited to the market for the provision of services and support which are necessary to allow the efficient and safe running of the rolling stock and vehicles, as opposed to the provision of all telecommunications equipment to the rail industry. The results of the market investigation largely confirm this distinction.

#### Transportation telematics activities

15. In this emerging and growing sector, the notifying party identifies the following distinct markets in which Thomson and/or Racal are active: (i) telematics for private fleet management, (ii) telematics for public transportation, (iii) telematics for long-haul transportation operators (defined as a "niche" market to private fleet management). The market investigation has confirmed this distinction.

#### Information systems security (ISS)

16. ISS aim at securing networks in order to avoid intrusions, hacking, viruses etc. The market investigation has revealed different views as to the segmentation of the ISS sector, including all or some of the following segments: anti-virus, firewalls, virtual private networks, authentication, encryption, public key infrastructure, security management. No objections emerged to an assessment of the competitive impact of the operation upon the overall ISS market.

### Payment and card-related products

17. The notifying party identifies a distinct product market for stand-alone payment terminals, within the retail workstations market.<sup>2</sup> These products are purchased by the merchant acquiring departments of banks which then typically rent them out to retailers for whom the banks act as a merchant acquirer in respect of their credit and debit transactions. The Commission's market investigation has confirmed this product market definition.
18. However, for the purposes of this case, it is not necessary to further delineate the relevant product markets in all the above-mentioned sectors as in all alternative market definitions considered, effective competition would not be significantly impeded in the EEA or any substantial part of that area.

### *Relevant geographic markets*

#### Air traffic management systems (ATMs) and VORs

19. The market investigation confirms the position of the notifying party that the relevant geographic market for ATMs is world-wide. The same applies to the geographic market for VORs.

#### Satellite communication systems (satcoms)

20. According to the notifying party all identified distinct markets in the satcoms sector are worldwide in scope. This was confirmed by the Commission's market investigation.

#### Navigation and mission computers for helicopters

21. The market investigation appears to confirm that the market for navigation and mission computers for helicopters (as for avionics products in general) is worldwide in scope. However, since the parties are exclusively active in their respective home markets providing the equipment in question to prime contractors (Thomson-CSF being an exclusive supplier to Eurocopter (civil market) and Racal being almost exclusive supplier to Westland and to the UK MoD (military market)) the notifying party submits that the markets for the production and supply of navigation and mission computers for helicopters are national in scope at least in France and in the UK.

#### Cellular base-station antennas

22. The notifying party submits that the activity of production and supply of cellular base-station antennas clearly takes place at a worldwide or EEA-wider level. This position has been fully confirmed by the results of the Commission's market investigation.

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<sup>2</sup> In its decision IV/jv 225 Fujitsu/Siemens (30 September 1999) the Commission considered that financial workstations and retail workstations may be set apart for the purpose of merger control examination. The market investigation concerning the notified operation has confirmed that this is still the case.

### Telecommunications systems and services to the rail industry

23. The notifying party submits that the relevant geographic market for railway related operational telecommunications systems and services is national and in the UK (where Racal is active) regional or even local. This is mainly due to (i) strong national preferences in the industry (ii) specific requirements of each rail operator as regards the level of safety and training of its workforce, need of certification by the infrastructure owner of the services to be provided (iii) need for the telecommunication systems operators, by the very nature of the activity involved, to be located near to the customers. It also appears that the fact that a prime contractor's products and services in this sector are conceived to meet the specifications of a national railway network, may preclude this prime contractor from providing them across the border. The market investigation has largely confirmed the above.

### Transportation telematics activities

24. According to the notifying party the markets for private fleet management and public transportation telematics are national in scope. The market of telematic services to long-haul road transportation operators takes place on a European continent basis. The market investigation has confirmed the above.

### Information security systems (ISS)

25. The notifying party submits that the geographic market for ISS is worldwide, a position confirmed by the market investigation.

### Payment and card-related products

26. The market investigation has confirmed the Commission's position (case Fujitsu/Siemens) that the geographic market for retail workstations is EEA-wide. It appears, however, that presently, the UK (and Irish) market are characterised by a certain degree of specificity, because, among other reasons, operators active in the UK (such as Racal) develop their products and services in view of the Association of Payment and Clearing services ("APACS") protocol. As a consequence these services require substantial modification in order to become marketable in other EU countries. It is expected, however, that these specificity will be eliminated, in the short-run, due to the adoption of common European standards (such as, spread and consolidation of the use of smart cards in the UK).
27. However, for the purposes of this decision it is not necessary to further delineate the geographic market for all the above-mentioned sectors, as in all alternative market definitions considered, effective competition would not be significantly impeded in the EEA or any substantial part of that area.

### *Competition assessment*

#### Air traffic management systems (ATMs) and VORs

28. Thomson is active in ATMs market as a complete system integrator through Airsys ATM (60/40 joint venture with Siemens Aktiengesellschaft) and also through a jointly controlling interest in the company Indra with important ATM activities in Spain. In addition, Alcatel and Dassault contributed their ATM products and activities to

Thomson-CSF in 1998. Racal is a "niche" player in the conventional navigation aids market which includes the VOR market.

29. The new entity's market share in the ATMs market worldwide amounts to [between 10 and 20%].
30. As regards the VOR market, the Commission's market investigation has revealed that the operation is not expected to alter significantly the present competition situation in which Thomson remains the main player among a number of other competitors worldwide. Racal's turnover has significantly declined over the last two years whereas current production is aimed at clearing two remaining commitments to customers.

#### Satellite communication systems (satcoms)

31. Racal is active on the avionics sub-system market through an agreement with Honeywell. Racal is also present in the business aircraft antennas market. The only Thomson activity in the satcoms sector is in the airlines antennas market through its subsidiary Detexis, with a market share declining from [between 25 and 35% in 1996] to [between 5 and 15% in 1998]. Racal has no activities in the airlines antennas market. Therefore, the parties have no overlapping activities in the various markets identified in the satcoms sector. Moreover as it emerged from the Commission's investigation, the fact that the new entity will be in a position to make a global product offer does not have a material impact upon the satcoms sector as a whole, due to the way the market functions on the demand side.

#### Navigation and mission computers for helicopters

32. Thomson (through its subsidiary Thomson-CSF Sextant) sells navigation and mission computers exclusively to Eurocopter (civil market), an activity which represents a worldwide market share of [between 10 and 20%]. Racal produces this equipment exclusively for the separate military helicopters' market and has a worldwide market share of [less than 10%]. Both companies remain strongly subject to their main customers' buying power, whereas it has already become apparent from recent procurement procedures, that the new entity will face intense competition worldwide.

#### Cellular base-station antennas

33. Racal's worldwide market share amounts to [less than 10%] whereas Thomson's (through Alcatel) amounts to [less than 10%]. The new entity will be subject to intensive competition both at EU level where it will have the third position and at worldwide level where it will have the fourth position in relation to its competitors.

#### Telecommunications to the rail industry

34. Racal is active only in the UK through its subsidiary Racal Services (Communication) Ltd, where it has a market share of [between 60 and 70%]. Thomson is historically present on the Portuguese market [between 25 and 35%], the Italian market [between 10 and 20%] and the German market [(between 1 and 5%)]. Considering that Racal's products and services are conceived for the UK market where Thomson has never developed any activities, as well as the technical and to some extent regulatory barriers to enter into national markets, it may be concluded that the notified operation will have no impact upon any national market and that, should entry be more

attractive, there would be other possible contenders to enter the markets in which each of the parties is present.

#### Transportation telematics activities

35. Racal is active (through Global Telematics, a 50/50 jv with European Telecom) on the private fleet management market, on the basis of two contracts exclusively relating to the UK territory. On the Thomson side, activities are carried out through Euteltracks, (a 100% subsidiary of Thomson-CSF/Alcatel ) on the telematics market for long-haul transportation operators. Thomson has started activities (through its 100% subsidiary Syseca) in the public transportation market, but no turnover was achieved in 1996-99.
36. There are no material overlaps between the parties' activities since they address different customer needs and are based on fundamentally different underlying technologies, i.e., satellite communications for long-haul transportation operators, GSM/SMS systems for the other telematic activities. In the event that the above markets were to converge in the medium or long run, the new entity, with a current share in all telematic services of [less than 10%] at all geographic levels, would face strong competition.

#### Information security systems (ISS)

37. Thomson (as well as Alcatel) and Racal are minor players in the ISS sector as a whole. Competition in the sector is very strong, and the new entity's share will remain far below the share of the 3 main players both worldwide and in Europe.

#### Payment and card-related products

38. As mentioned above, Racal produces only the products which are specifically required for the UK and Irish market where Thomson has no activities. The market share of the new entity in the EU market will be below 15%.
39. Consequently, the proposed concentration does not create or strengthen a dominant position in all the above-mentioned sectors as a result of which effective competition would be significantly impeded

### **B. DEFENCE ELECTRONICS**

#### *Relevant product markets*

40. Both Thomson and Racal are active in defence electronics. They operate both at the prime contractor level, where they offer military communication systems, military command, control and information systems, airborne radars, electronic warfare, and ground based systems; and also at the sub-contractor level, where they supply defence electronics equipment or sub-systems to the systems prime contractors.
41. Military communications include mobile radiocommunication systems, fixed or deployable ground backbone networks, aeronautical and naval communication systems, and satellite communication systems (ground segment). The notifying party submits that all these activities should be combined within a single product market for military communications, on the basis that the key technologies and skills required are

identical for all military communication activities, and that military communication producers usually produce many or all of the networks and systems concerned.

42. Command, control and information systems (“C2I”) are used by the armed forces, by security forces or emergency services for the conduct of their operations. As indicated in previous Commission decisions<sup>3</sup>, in the military field these are computerised systems shared between fixed military infrastructure and tactical systems of the armed forces, that allow operationalists at all levels to establish at a given time the situation of different forces, their means, the orders in force, and to plan, order and supervise the appropriate action. In line with the Commission’s findings in the *British Aerospace/GEC Marconi decision*<sup>4</sup>, Thomson submits that a distinction should be made between military C2I and civil C2I, because military systems are much more sophisticated and customer-specific than their civil counterparts. This has been broadly confirmed by the results of the Commission enquiry.
43. Airborne radars include two distinct product categories : (i) fire control radars, which are installed on combat aircraft so as to detect, follow and guide missiles to targets; and (ii) surveillance radars, which are installed on manned or unmanned aircraft so as to determine the location of aerial or earth device, and are especially used for the surveillance of air or terrestrial areas. The results of the Commission enquiry suggest that these two product categories belong to distinct product markets, because fire control and surveillance radars are usually very different in terms of functionality and performance, and also because, on the supply-side, there appear to be significant barriers to entry from one product category to another.
44. Electronic warfare (“EW”) essentially fulfils the following two functions : (i) detection of radiated electromagnetic energy, and (ii) jamming and deception of the hostile electromagnetic signal. Given that detection and jamming equipment are usually combined to form integrated EW systems, and are therefore generally purchased together by customers, the notifying party submits that the proposed transaction should be assessed on the basis of a single product market for EW. This has been generally confirmed by the results of the Commission investigation.
45. Ground based systems (“GBS”) are those systems the core function of which is to provide ground-based protection against air or ground threats. These systems essentially include ground sensors (air surveillance/air defence radar, ground surveillance radar, weapon locating radar) and automated command and control centres, either sold separately or in the context of integrated systems. Thomson submits that there is a single product market for GBS, insofar as all components are required for the provision of an effective ground-based protection, and as ground-based systems producers must therefore be able to offer the three components together. Most of the third parties who replied to the Commission enquiry supported this view, given in particular the low sales volumes for the individual product categories concerned.
46. As indicated in the *Alcatel/Thomson SA – Thomson-CSF decision*<sup>5</sup>, a distinction can also be made between the prime contractor markets, where integrated systems (e.g. a

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<sup>3</sup> See, e.g., case IV/M.1309-Matra/Aérospatiale

<sup>4</sup> See case IV/M.1438 - British Aerospace/GEC Marconi

<sup>5</sup> See case IV/M.1121-Alcatel/Thomson SA – Thomson-CSF



radar, or a ground protection system) are offered to defence customers, and sub-contractor markets, where sub-systems (e.g. a radar) or equipment (e.g. a radar antenna) are sold to the prime contractors for use in the integrated systems.

47. However, for the purpose of this case, it is not necessary to further delineate the relevant product markets for defence electronics, as in all alternative market definitions considered, effective competition would not be significantly impeded in the EEA or any substantial part of that area.

#### *Relevant geographic markets*

48. The notifying party submits that the markets for defence electronics are national in scope for those Member States where a domestic supplier exists. As indicated in previous Commission decisions<sup>6</sup>, markets for defence equipment have shown a move towards a more international approach to procurement over the recent years. This has been confirmed by the results of the Commission investigation, where it appears that national competition is being widened to allow greater international involvement, both through the launch of international programmes and through increasing recourse to open international competition.
49. However, it appears that, for certain sensitive defence electronics sectors (such as C2I or EW systems), national security requirements may still impose that competition be limited to domestic prime contractors. Furthermore, it appears that national programmes are often based on the results of previous Research & Development contracts attributed by the national Ministries of Defence (“MODs”) to their domestic suppliers, so that these domestic producers have an advantage over their foreign competitors. And finally, despite the above evolution towards greater recourse to international competition, data provided by the parties suggest that prime contractors still account for a considerable proportion of the defence electronics products procured by their national defence customers.
50. On the other hand, where there is no domestic supplier, then, subject to other barriers such as export restrictions and other barriers connected with national security, competition generally takes place worldwide amongst suppliers of different countries.
51. In this context, for the present case, the impact of the operation has to be measured in particular in France and the UK as well as in the rest of the world, taking care to exclude those producers which are not significantly present outside the domestic markets. However, for the purpose of this case, it is not necessary to further delineate the relevant geographic markets for defence electronics, as in all alternative market definitions considered, effective competition would not be significantly impeded in the EEA or any substantial part of that area.

#### *Competition assessment*

##### National markets

52. At the national level, the only markets where both Thomson and Racal have significant activities are military communications in the UK, and ground based

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<sup>6</sup> See, e.g., cases IV/M.1121-Alcatel/Thomson SA – Thomson-CSF, IV/M.1309-Matra/Aérospatiale, or COMP/M.1745-EADS

systems in France, Germany and the UK. However, first, in military communications in the UK, the parties' overall market share [does not exceed between 15 and 20%]. The parties' overlap is higher in naval and aeronautical systems, but their combined shares of sales in that segment still [do not exceed between 20 and 25%]. Secondly, in ground based systems, the only substantial overlap between Thomson and Racal is in weapon locating radars, where the parties are both part of the EuroArt consortium (together with DASA and Lockheed Martin), which is responsible for the production of Cobra, a weapon locating radar procured by France, Germany and the UK. Given that the production phase of this contract has already started and that the prime contractor has already been selected, the operation therefore does not appear to affect the conditions of competition in these markets.

53. The operation will also lead to a vertical integration between the parties' activities at the prime contractor level and their activities at the upstream sub-system or equipment level. In that context, a number of prime contractors have pointed to areas where they both competed with one of the parties and procured equipment or sub-systems from the other party.
54. It appears that, for most products concerned (such as travelling wave tubes, surface acoustic wave devices, etc.), prime contractors can turn to alternative sources of supply. In practice, potential concerns therefore relate to equipment and sub-systems specifically developed and produced for existing programmes, and for which prime contractors could not easily find an alternative source of supply in the short term. Those products may be sold in two contexts : the programme concerned, and export contracts. It appears that, for programme sales, it would be costly, commercially risky and economically irrational for the parties to terminate their existing supply contracts (since such a behaviour would not help the merged entity sell more systems and would reduce its equipment or sub-system sales). In export contracts, it is true that the merged entity might be tempted to weaken the competitive position of competing prime contractors by refusing to supply equipment or sub-systems competitively. However, there is no indication that such a behaviour could create or strengthen a dominant position, because of the presence of other large prime contractors which do not depend on Thomson or Racal for their supplies.
55. There is also a number of markets where Thomson or Racal has high market shares in its home market, and where the other party has similar activities albeit in other Member States. For instance, in airborne surveillance radars, Thomson has a market share of [between 70 and 80%] in France, while Racal has a market share of [between 45 and 55%] in the UK. Although the operation will not create overlaps *stricto sensu*, it is necessary to examine whether the proposed transaction will substantially strengthen the parties' respective market positions in their home markets.
56. There is no indication that the elimination of the competition between Thomson and Racal could create or strengthen a dominant position, because a number of actual competitors and of potential entrants, such as BAe Systems, EADS, Lockheed Martin or Raytheon, can provide effective competition to the merged entity. However, to the extent that the merged entity will be less dependent on each national MOD than Thomson and Racal previously were, the proposed transaction could change the competitive equilibrium between the parties and their programme customers. It is therefore necessary to assess whether the notified concentration might change the parties' incentives to participate in all programmes and give them the capability to

raise prices or impose unacceptable conditions for the programmes where they are expected to be involved.

57. There is no indication that this risk could materialise in the present case. Firstly, it appears that the operation should not substantially affect the relationship between Thomson and the French MOD, since Racal's defence turnover is almost 7 times lower than Thomson's. And secondly, in the UK, the merged entity will remain subject to the competition from other large defence electronics prime contractors (such as BAe Systems, Marconi, Lockheed Martin, Raytheon, etc.) both in and outside the UK.
58. Finally, the Commission maintains that when assessing market power of firms in the defence industry, account must be taken of the bargaining power of its main clients: the MODs of the states concerned. Given that MODs generally formulate the operational requirements and technical specifications of armament, their general opinions must therefore be taken in consideration when assessing the operation. In this respect, it should be noted that the MODs of the Member States concerned have been consulted by the Commission, and have not shown a negative attitude towards the proposed concentration.

#### World markets

59. At the prime contractor level, the parties' highest market position is in mobile radiocommunication systems, where their combined share of sales is [between 25 and 35%] worldwide. However, in that sector, they will remain subject to the competition from other large defence electronics prime contractors such as ITT (between 15 and 25% of sales). Furthermore, as indicated above, there are indications that the key technologies and skills required for mobile radiocommunications are similar to those used for other military communication systems. In that context, it should be noted that Thomson and Racal's combined market shares for military communication systems [between 10 and 15% worldwide].
60. There is no indication that the operation could create competition concerns on the other markets, where the parties will remain subject to the competition from other prime contractors, such as BAe Systems, Raytheon, Lockheed Martin, or EADS.
61. In the light of the above, it is concluded that the proposed concentration does not create or strengthen a dominant position in defence electronics markets as a result of which effective competition would be significantly impeded in the EEA or any substantial part of that area.

#### **IV. CONCLUSION**

62. In the light of the above, the Commission has decided not to oppose the notified operation and to declare it compatible with the common market and with the EEA Agreement. This decision is adopted in application of Article 6(1)b of Council Regulation (EEC) No 4064/89.

For the Commission,