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D E C I S I O N
of 20 July 2004

Case Number: T 0382/03 - 3.5.1

Application Number: 96308035.3

Publication Number: 0774724

IPC: G06F 17/40, G05D 1/00

Language of the proceedings: EN

Title of invention:
Wireless frequency-agile spread spectrum ground link-based aircraft data communication system

Patentee:
HARRIS CORPORATION

Opponents:
Penny & Giles Aerospace Limited
SITA Société Internationale de Télécommunications Aéronautiques

Headword:
Wireless ground link/HARRIS

Relevant legal provisions:
EPC Art. 10(2)(a); 54; 56; 99(1)
EPC R. 55(a); 56(1); 88; 101(1),(4),(9)

Keyword:
"Inadmissible opposition - ambiguous identity of opponent"
"Sub-authorisation of professional representative - standard of proof"
"Novelty (yes), inventive step (no)"

Decisions cited:
G 0003/99, T 0025/85, T 0219/86, T 0870/92, T 0270/94, T 0154/95

Catchword:
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Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0382/03 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 20 July 2004

Appellant: (Proprietor of the patent)
HARRIS CORPORATION
1025 West NASA Boulevard
Melbourne
Florida 32919 (US)

Representative:
Schmidt, Steffen J., Dipl.-Ing.
Wuesthoff & Wuesthoff
Patent- und Rechtsanwälte
Schweigerstrasse 2
D-81541 München (DE)

Respondent(s): (Opponent 01)
Penny & Giles Aerospace Limited
Spirent House, Crawley Business Quarter,
Fleming Way
Crawley
West Sussex RH10 2Ql (GB)

Representative:
Gibson, Stewart Harry
Urquhart-Dykes & Lord LLP
Three Trinity Court
21-27 Newport Road
Cardiff CF24 0AA (GB)

(Former Opponent 02)
SITA
3100 Cumberland Boulevard
Suite 200
Atlanta, GA 30339 (US)

Representative:
Ungerer, Olaf, Dipl.-Ing.
Eisenführ, Speiser & Partner
Arnulfstrasse 25
D-80335 München (DE)

Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 31 March 2003 revoking European patent No. 0774724 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: S. V. Steinbrenner
Members: K. J. K. Bumes
B. J. Schachenmann
W. E. Chandler
V. Di Cerbo

Summary of Facts and Submissions

I. This appeal lies from the Opposition Division's decision to revoke the appellant's European patent No. 0 774 724 for lack of novelty. That ground for opposition had been raised only by opponent 02, whereas both opponents had raised an obviousness objection. The patentee had contested the admissibility of opposition 02 on the ground that the opponent's identity had not been established before the expiry of the opposition period. In its decision based on the evidence available to it, the Opposition Division considered the opposition by opponent 02 to be admissible. A request to correct the opponent's address was not allowed.

II. The appellant patentee requested that:

– the decision under appeal be set aside, and

– European patent 0 774 724 be maintained as granted.

Moreover, he requested that opposition 02 be rejected as inadmissible.

III. Independent claims as granted (see EP-B1-0 774 724, denoted "B1" hereinafter)

A. The (only) independent system claim reads:

"1. A system for providing a retrievable record of the flight performance of an aircraft comprising:

a ground data link unit that obtains flight performance data representative of aircraft flight performance

during flight of the aircraft, said ground data link unit comprising:

a) an archival data store operative to accumulate and store flight performance data during flight of the aircraft, and

b) a wideband spread spectrum transceiver coupled to said archival data store, and comprising a transmitter that is operative after the aircraft completes its flight and lands at an airport to download the flight performance data that has been accumulated and stored by said archival data store during flight over a wideband spread spectrum communication signal;

an airport based wideband spread spectrum transceiver comprising a receiver that receives the wideband spread spectrum communication signal from the aircraft and demodulates the signal to obtain the flight performance data

an airport based archival data store coupled to said airport based wideband spread spectrum transceiver that receives and stores said flight performance data and

an airport based processor coupled to said archival data store for retrieving flight performance data from the airport based archival data store for further processing."

B. The (only) independent method claim reads:

"17. A method of providing a retrievable record of the flight performance of an aircraft comprising the steps of:

acquiring flight performance data of an aircraft during flight of the aircraft;

accumulating and storing within an archival memory of a ground data link unit the flight performance data during flight of the aircraft;

after the aircraft lands at an airport at completion of the flight, downloading the flight performance data that has been accumulated and stored within the archival data store during the flight over a wideband spread spectrum communication signal to an airport based spread spectrum receiver;

demodulating the received spread spectrum signal to obtain the flight performance data:

storing the demodulated flight performance data within an airport based archival data storage; and

retrieving the flight performance data via an airport based processor for further processing."

IV. The appellant further requested accelerated proceedings in view of the fact that the procedure before the Opposition Division had already been given accelerated processing following a request by the professional representative who had filed opposition 02.

V. The professional representative, Mr U., who had filed opposition 02 requested that the appeal be dismissed.

VI. Respondent 01 (opponent 01) did not submit any request in writing during the appeal procedure. However, at the oral proceedings before the Board (see below), Mr U. claiming to also represent respondent 01 requested on its behalf that the appeal be dismissed.

VII. During the appeal proceedings, the identity of opponent 02 was discussed in particular on the basis of the following documents:

C36: Business Information Printout concerning "SOCIETE INTERNATIONALE DE TELECOMMUNICATIONS AERONAUTIQUES, LTD.", from a business registration database maintained by the Georgia Secretary of State (US), Corporations Division; printed on 8 October 2002 from the Internet site of said Corporations Division.

C37: SITA Activity Report 2000.

C45: Results of a search for "SITA" on the Internet site of the Corporations Division of the Georgia Secretary of State (US), as of 4 December 2002.

C49: "Crucial data network role for little-known co-operative" by Kim Thomas, Financial Times, 2 May 2001.

C53: Excerpt from the Brussels register of commerce relating to "SOCIETE INTERNATIONALE DE TELECOMMUNICATIONS AERONAUTIQUES", Société coopérative, abbreviated as S.I.T.A., registered on 30 April 1971.

C54: ".air" TOP LEVEL DOMAIN APPLICATION of SITA Information Networking Computing BV [SITA INC] for submission to ICANN, dated 29 September 2000; printed from www.icann.org.

VIII. The subject-matter of the opposed patent was compared with
prior art in particular in relation to the following evidence:

C0: US-A-5 359 446

C1: US-A-4 729 102

C2: US-A-5 445 347

C3: AEEC Letter 91-079/DLK-391 to AEEC Members, dated April 5, 1991, entitled "CIRCULATION OF GATELINK AD HOC MEETING REPORT AND STRAWMAN MATERIAL", including Attachments 1 to 3.

C4: ARINC Specification 632, published December 30, 1994, entitled "GATE-AIRCRAFT TERMINAL ENVIRONMENT LINK (GATELINK) - GROUND SIDE".

C5: ARINC Characteristic 751, published January 1, 1994, entitled "GATE-AIRCRAFT TERMINAL ENVIRONMENT LINK (GATELINK) - AIRCRAFT SIDE".

C39: Affidavit (1 November 2002) by Mr Alvin H. Burgemeister, attendee of the meeting reported on by C3.

C40: Excerpts from IEEE standard P802.11, document lists 1992 to 1994.

C43: Excerpts from a textbook entitled "Spread Spectrum Systems" by Robert C. Dixon, 2nd edition 1984, John Wiley & Sons, New York, pages 108 and 325.

C46: AEEC Letter 91-029/DLK-381 to AEEC Members, dated February 4, 1991, entitled "REPORT OF THE GATELINK SUBCOMMITTEE MEETING HELD JANUARY 7-8, 1991 IN SUNRISE, FLORIDA", including Attachments 1 to 6.

IX. The Board summoned the parties to attend oral proceedings scheduled for 20 July 2004. In an annex to the summons, the Board informed the parties that it intended to grant the request for accelerated proceedings. Further, the Board elaborated the issues to be discussed at the oral proceedings:

– Admissibility of opposition 02 with respect to the opponent's identity.

– Authorisation and representation status of Mr U.

– Novelty of the subject-matter of the independent claims in particular over C2.

– Inventive step from the prior art put forward by the oppositions and/or acknowledged in the introductory portion of the patent.

– Availability of the meeting report C3 to the public in the light of Affidavit C39.

X. By fax of 15 July 2004, professional representative Mr E. of the association of professional representatives UDL representing respondent 01 informed the Board "that we shall be represented by [Mr U.] (Professional representative No. [...]) at the Oral Proceedings on Appeal T 382/03-351 of 20 July 2004."

XI. Oral proceedings before the Board took place as scheduled (20 July 2004) during which the following issues were discussed.

A. Issue of representation of respondent 01

(a) Mr U. declared that he intended to represent both respondents at the oral proceedings and submitted a written authorisation from the association UDL signed by Mr E.

To establish that (also) respondent 01 wanted to be represented by him at the oral proceedings, Mr U. referred to said fax from the association UDL (15 July 2004) and in addition submitted

C51: A printout of an e-mail from Mr S., Curtiss-Wright Controls, Inc. (US), to Mr U., dated 13.07.2004.

According to C51, Curtiss-Wright Controls, Inc. was the parent company of respondent 01. Mr S. was General Counsel of the parent company and also Secretary of respondent 01, authorised to act on its behalf on this matter. C51 was to confirm that a sub-authorisation from the association UDL to Mr U. was acceptable to respondent 01.

As a general argument, Mr U. referred to his status as a professional representative and to the overwhelming interest of the public in having the validity of an opposed patent examined ("G 1/84"). Therefore, a formalistic approach on the authorisation issue should be avoided.

(b) In the appellant's opinion, Mr U. was not authorised to represent respondent 01. Firstly, there was no evidence on file as to whether this opponent's initial representative, Mr G., was entitled to give sub-authorisations. Moreover, Mr G. was no longer a member of the association UDL, and Mr E., the current representative of respondent 01, had not been a member of that association at the time of filing of opposition 01.

Secondly, the appellant denied any evidential value of the unsigned e-mail C51 and also raised doubts about its author's legal status by referring to

C52: A printout from an Internet site (www.investor.reuters.com, updated 20 July 2004) listing company officers and directors of Curtiss-Wright Corp (NYS).

That list mentioned a General Counsel Mr D. but not Mr S.

(c) The Board decided, for the reasons given below, to consider Mr U. as being sub-authorised to represent respondent 01 at the oral proceedings.

B. Issue of admissibility of opposition 02

(a) The appellant argued that opponent 02 was not unambiguously identifiable at the end of the opposition period. The notice of opposition 02 mentioned merely "SITA" as the opponent's name, in relation to an address in Atlanta, Georgia (US), where in fact two legal entities "SITA SC" and "SITA INC" were located.

(b) Mr U., the professional representative who had filed the notice of opposition 02 in the name of "SITA", pointed out that he had erroneously indicated the Atlanta address instead of an intended address in Brussels (BE) where SITA SC had its headquarters (C53). Indicating the Atlanta address was against the client's explicit instructions, as evidenced by an e-mail dated 29 May 2001 (filed with Mr U.'s letter of 4 June 2002). A (retroactive) correction of the address under Rule 88 EPC should be available. The acronym "SITA" was well-known - in particular to

competitors like the proprietor - to stand for "Société Internationale de Télécommunications Aéronautiques" (see C37, for example). That full name provided a direct link to document C36, which in turn identified the Atlanta-based SITA as a foreign company under Belgian jurisdiction. The unambiguous conclusion was that SITA SC was the opponent 02 because only SITA SC was headquartered in Belgium, as evidenced by C53.

(c) In a second line of argument, Mr U. asserted that only SITA SC was registered officially (C36) - and therefore had a principal place of business - at the Atlanta address, while SITA INC had its principal place of business in Amsterdam (NL) (see C54, e.g. section I "General Information"). As far as SITA INC was concerned, the Atlanta address was only a branch or contact office. Hence, SITA SC was identifiable as the opponent in an objective and unambiguous manner.

The fact that C36 qualified the Société Internationale de Télécommunications Aéronautiques as "Ltd." rather than "SC" was only due to registration regulations in Georgia (US).

(d) In a third line of argument, Mr U. emphasised that SITA SC was a non-profit company (see C36), whereas SITA INC was a for-profit company (see C54). As the proprietor knew who his competitors were in the market, he must have been able to distinguish which one of the SITA companies was his actual opponent. An e-mail (dated 14 February 2002) which the proprietor sent to "SITA.Int" to

offer a licensing agreement showed that the proprietor was aware of the opponent's identity. (A hardcopy of that e-mail had been filed with Mr U.'s letter of 13 June 2002).

(e) The Board decided, for the reasons given below, to reject opposition 02 as inadmissible. Therefore, Mr U. was allowed to represent only respondent 01 during the rest of the oral proceedings.

C. Issue of novelty of the claimed subject-matter with respect to C2

(a) While the Opposition Division considered C2 as novelty-defeating (and revoked the patent for that reason), the appellant pointed out a conceptual difference of the claimed system: The thrust of the patent was to facilitate the acquisition of a long-term picture of flight performance data, with a view to improving the safety of an aircraft (or aircraft fleet), whereas C2 related to a near real-time monitoring of a train or an aircraft. The different concepts translated into different functional features: While the system of C2 generated sequential snapshots of parameter values (relayed by plural NSIUs 22 arranged along a path of travel), the patent aimed at accumulating a bulk of data during the travel (flight) and transmitting the accumulated data at the end of the travel (after landing). Large storage and transmission capacities had to be provided accordingly, on board and on the ground, in contrast to the aircraft and ground facilities of C2.

(b) According to respondent 01, the system as claimed was anticipated by C2. He emphasised that C2 related explicitly to train and aircraft implementations and had in fact been filed by an aircraft company. As far as novelty was concerned, any different intention of use was immaterial so long as the prior art system was objectively suitable for that use. The wording of claim 1 could be read onto C2 because the claim did not specify the amount of data to be accumulated and transmitted; hence, one sensor data snapshot taken during the flight of an aircraft and transmitted after landing (corresponding to a train stop in C2) to a ground computer (at a maintenance facility or control centre) constituted flight performance data falling within the definition of claim 1.

D. Issue of novelty of the claimed subject-matter with respect to C3

(a) The appellant questioned whether C3 was still in the proceedings after the rejection of the (inadmissible) opposition 02 which had introduced that document. In any event, he did not consider C3 as available to the public, since C3 was a report to the attendees of a meeting, i.e. to a finite list of addressees, all of them being representatives of airlines rather than forming the public.

The affidavit C39 was meant to prove the public availability of C3 but was questionable itself: It presented a blunt statement of a critical issue ("Gatelink connection utilizing the IEEE 802.11 standard") instead of providing supportive circumstances. It was strange that the affidavit C39 referred precisely to a critical standard (IEEE 802.11) which was missing from the large number of standards reiterated in the exhaustive report C3. The affidavit thus lacked credibility at least in this respect.

Turning to the contents of C3, that document did not disclose a complete system, the only resemblance to claim 1 consisted in the general idea of Gatelink, i.e. a communication link for transmitting data between an aircraft (parked at a gate) and the airport. In particular, C3 mentioned neither the origin nor the destination of the data to be communicated over the Gatelink connection.

(b) According to respondent 01, document C3 was available to the public, as evidenced by affidavit C39 which stated that the recipients of C3 were even encouraged to distribute C3 to third persons.

C3 disclosed not only a general aircraft-to-airport communication link but also the concept of using spread spectrum transmission (C3, Attachment 2, page 5, paragraph 3). The data source (aircraft black box) and data destination (ground-based analysis centre) were inherent to the technical environment of a Gatelink, since a regular evaluation of accumulated flight performance data

(stored in the black box) was a requirement established by flight safety authorities such as the FAA (Federal Aviation Administration, US). Hence, the overall teaching of C3 anticipated the system of claim 1 of the patent.

E. Issue of inventive step of the claimed subject-matter

(a) According to respondent 01, the system of claim 1 was rendered obvious by any of the following combinations of prior art:

- C2 with general knowledge as exemplified by C0 or C1;
- C3 (Gatelink technology) with C4 or C5 (components) and C40 (IEEE standard 802.11);
- C4 (or C5) with C2.
- C3 with C2.

It was difficult to see what the contribution by the patented subject-matter was. Spread spectrum transceivers were acknowledged by the proprietor as forming part of the prior art (B1, column 19, lines 14 to 27). Thus, the patent might be directed only to a use of the spread spectrum transceivers in an airport environment but that specific use was suggested by C2 or C3. The choice reflected a normal trade-off between component economy and transmission speed, as apparent from a synopsis of advantages and disadvantages (C46, Attachment 1). The prior art provided sufficient pointers and incentives to remove drawbacks (e.g. C0, column 1, lines 25 to 33). When looking for wireless data communication technology, the

skilled person obtained a promising solution from C2, for example.

(b) The appellant commented on those prior art objections essentially as follows.

(b1) C0 mentioned a limited exchange of data between an aircraft computer and a ground-based computer but did not relate to accumulated flight performance data (C0, column 1, lines 11 to 24). C0 addressed a number of ways to transfer data from the aircraft to the ground: floppy disk, digital radio, fiber optic cable, and a free-space high-speed optical communication system. The latter constituted the preferred solution of C0, while digital radio was dismissed as unsuccessful. Hence, C0 taught away from radio frequency (RF) transmission rather than providing a realistic pointer to C2 or any other spread spectrum literature.

(b2) According to C1, flight performance data was stored on a data carrier that had to be picked by airline personnel after landing. Wireless data transmission was provided only for in-flight data snapshots or telegrams.

(b3) The monitoring system for vehicles, in particular trains, described in C2 took only snapshots of parameter values with the help of relay stations (NSIUs 22) which could not be equated with an airport. Neither the relay stations (22) nor the on-board monitoring units (SMDUs 12) comprised an archival memory capacity for holding long-term

flight performance data. Upon transmitting a data snapshot from the passing vehicle to one of the relay stations (22), the on-board monitoring units (SMDUs 12) just turned off (column 4, lines 53 to 61; column 5, lines 2 to 5). Subsequent data snapshots according to C2 might not indicate any abnormality of a parameter when in fact the parameter may have been out of tolerance between the snapshots. Conversely, an archival (long-term) data store according to the patent would record that malfunction for later analysis.

(b4) C3 (if considered public) in conjunction with C4/C5 and C46 represented the most realistic starting point because it documented the true approach (Gatelink) of experts at the time of the invention. The AEEC members contemplated a long list of options (RF, VHF, UHF, microwaves, satellite communication, fibre optic cables) for realising the Gatelink connection, and they had four years to select one of the options. They encountered real problems ("no vendors have been identified which provide wireless point-to-point connections using other [than infrared] technologies", see C3, Attachment 2, page 7, paragraph 4). Although the AEEC specialists had all the technical means at hand, they did not opt for spread spectrum technology. Hence, it would be unfair for non-specialists to conclude today, from theoretical paperwork compiled with the benefit of hindsight, that spread spectrum transmission was an obvious choice.

C4/C5 contemplated only two solutions: Free-space optical infrared [IR] transmission, and an umbilical fibre optical IR cable. The actual technological evolution thus went in a direction other than to spread spectrum transmission.

While C46 mentioned wireless media, such media did not mean spread spectrum transmission. The IEEE standard 802.11 was not mentioned in C46. The advantages of spread spectrum technology (resistance to interference, low power density; no frequency shortage) supported the presumption of an inventive step.

F. At the end of the oral proceedings, the chairman pronounced the Board's decision.

Reasons for the Decision

1. The appeal complies with the formal requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC. It is therefore admissible.

2. In response to the appellant's request, the Board granted accelerated processing of the appeal in accordance with the "Notice from the Vice-President Directorate General 3 dated 19 May 1998 concerning accelerated processing before the boards of appeal" (OJ EPO 1998, 362). While no infringement litigation was asserted, the Opposition Division had provided accelerated processing following a request by Mr U. (13 June 2002), professional representative of "SITA",

reporting a major impact on investments and an uncertainty on the global market.

3. *Admissibility of opposition 01*

The notice of opposition 01 meets the formal requirements of Articles 99(1) and 100 and Rules 1(1) and 55 EPC. It is therefore admissible. The admissibility of opposition 01 has not been in dispute.

4. *Admissibility of opposition 02*

4.1 According to established jurisprudence of the Boards of Appeal, the identity of an opponent has to be clearly identifiable before the expiry of the opposition period in order for the opposition to be admissible, see T 25/85, OJ EPO 1986, 81 (points 6 and 7) as confirmed by G 3/99, OJ EPO 2002, 347 (point 12). A number of reasons for that requirement are listed in point 9 of T 25/85; the present Board complements that list by referring to the possibility of a decision apportioning costs to an opponent under Article 104 EPC. Where the identity of an opponent is ambiguous, each of the potential opponents could deny being the origin of the opposition to escape payment.

4.2 A correction, under Rule 88 EPC, of an opponent's name or address after expiry of the 9-month opposition period has been allowed only where the identity of the opposing entity was unambiguous at the end of the opposition period despite the incorrect information given in the notice of opposition, see e.g. T 219/86, OJ EPO 1988, 254 (point 5) and T 870/92 of 8 August 1997 (point 1.2).

4.3 The notice of opposition 02 was filed on 30 May 2001 (last day of the opposition period) and indicated the following name and address of the opponent:

SITA
3100 Cumberland Boulevard
Suite 200
Atlanta, GA 30339
USA.

4.4 The above address in Atlanta is shared by at least two legal entities named SITA, viz. SITA [SC] and SITA INC, see C37 and C54.

While the Board accepts "SITA" to be identifiable as a business or market place acronym of "Société Internationale de Télécommunications Aéronautiques", this still leaves the problem that more than one legal entity called "SITA" had their place of business at the address given in the notice of opposition.

No authorisation was filed with the notice of opposition 02. In his capacity as a professional representative, Mr U. was indeed not required to file an authorisation (Decision of the President of the European Patent Office dated 19 July 1991 on the filing of authorisations, OJ EPO 1991, 489). However, as a consequence, the identity of the opposing legal entity "SITA" cannot be established from an authorising document.

4.4.1 The ambiguity could be resolved if only one of the SITA companies had its "principal" place of business (Rule 55(a) EPC) at the Atlanta address while other SITA companies had only a branch office there. However, as pointed out by Mr U. with reference to C53 via C36, the first SITA company was headquartered and registered in Brussels (SITA SC), whereas the second SITA company (SITA INC) was headquartered in Amsterdam (C54). Hence, following Mr U.'s own argument, the shared SITA office in Atlanta did not constitute a principal place of business to any of the SITA companies referred to above.

4.4.2 It has been established that an Atlanta-based SOCIETE INTERNATIONALE DE TELECOMMUNICATIONS AERONAUTIQUES, LTD. was registered as "a foreign non-profit company" (i.e. possibly pointing to SITA SC) with the Corporations Division of the Georgia Secretary of State (US) (see C36), while no such official registration at the Atlanta address has been shown to exist for SITA INC. However, the legal nature of this registration under the law of Georgia is not clear to the Board and the parties did not submit any information to this effect. Hence, the Board hesitates to regard such a registration (C36) as a clear and unambiguous exclusive pointer to one opponent.

In any event, there are only two possibilities:

(a) Either SOCIETE INTERNATIONALE DE TELECOMMUNICATIONS AERONAUTIQUES, "LTD." corresponded to SITA "SC", as asserted in Mr U.'s main line of argument. Then the registration C36 cannot be considered in isolation from C53

according to which Brussels was the principal place of business of SITA SC, and the "Ltd." company registered in Atlanta (C36) did not have an autonomous legal status as opponent.

(b) Or SOCIETE INTERNATIONALE DE TELECOMMUNICATIONS AERONAUTIQUES, "LTD." did not correspond to SITA "SC" but was a third SITA company at the Atlanta address which could file an opposition in its own name. Then the identity of opponent "SITA" would be even less transparent.

4.4.3 Nor can the identity of the opponent be resolved from the fact that the company registered in Georgia was a non-profit organisation (i.e. possibly SITA SC) while SITA INC was profit-oriented. Any conclusion drawn from this fact would be speculative and, thus, cannot establish the requisite legal certainty as to the identity of an opponent.

4.4.4 Finally, the identification of an opponent (at the end of the opposition period) must be possible for the proprietor as well as the public, the Opposition Division and the Board of Appeal (T 25/85, point 7). Hence, even if the proprietor knew his competitors on the global market and may have known or guessed which SITA company was the actual opponent, such *inter partes* knowledge would not be sufficient to establish the identity of an opponent under admissibility aspects. Incidentally, the e-mail of 14 February 2002 from the proprietor to "SITA.Int" did not differentiate between SITA SC or SITA INC and, thus, entailed the same ambiguity as the notice of opposition 02 did. Hence, even if a proprietor's knowledge of an opponent's

identity was a sufficient criterion, the Board would not be able to derive from that e-mail whether or not the proprietor knew the opponent's identity.

4.5 For these reasons, the Board holds opposition 02 inadmissible (Article 99(1) in conjunction with Rule 56(1) EPC).

5. Representation of respondent 01 by Mr U. at the oral proceedings before the Board

5.1 The notice of opposition in the name of opponent 01 (Penny & Giles Aerospace Limited) was signed by professional representative Mr G. who was a member of the association of professional representatives UDL. No authorisation by opponent 01 in favour of Mr G. or the association UDL was filed with the notice of opposition or any subsequent letter.

5.2 Rule 101(1) first sentence EPC requires representatives to file, upon request, a signed authorisation within a period to be specified by the European Patent Office. Rule 101(1) second sentence EPC in conjunction with Article 10(2)(a) EPC empowers the President of the European Patent Office to determine the cases where an authorisation is to be filed.

The President of the EPO made use of this mandate by issuing a Decision dated 19 July 1991 on the filing of authorisations (OJ EPO 9/1991, 489). According to Article 1(1) of that Decision, a professional representative whose name appears on the list maintained by the European Patent Office and who identifies himself as such shall be required to file a

signed authorisation only in specific circumstances set out in paragraphs (2) and (3) of the Article. Those paragraphs read:

"(2) If the European Patent Office is informed of a change of representative involving professional representatives who are not members of the same association, without being notified that the previous representative's authorisation has terminated, the new representative must file, together with the notification of his appointment, an individual authorisation (original and one copy) or a reference to a general authorisation already on file. If he does not, he shall be requested to do so within a period to be specified by the European Patent Office. If the European Patent Office is informed before the end of the specified period that the previous representative's authorisation has terminated, such request may be disregarded. The European Patent Office shall send the previous representative a copy of the individual authorisation or notify him of the number of the general authorisation and the name of the new representative, and inform him that the subsequent proceedings will be conducted with the new representative.

(3) The European Patent Office may require that an authorisation be produced if the circumstances of a particular case necessitate this, particularly in case of doubt as to the professional representative's entitlement to act."

5.3 Pursuant to the provisions referred to above, Mr G. would have been required to submit an authorisation from opponent 01 only if the European Patent Office had raised doubts as to Mr G.'s entitlement to act; that was not the case.

Moreover, other professional representatives of the same association (i.e. the association UDL) were allowed to act on behalf of opponent 01 without filing authorisations. That conclusion derives from Article 1(2) of the President's Decision of 19 July 1991 referred to above.

Hence, effectively all the professional representatives practising within the association UDL were *prima facie* authorised to act on behalf of respondent 01 without filing authorisations. That presumptive authorisation of the members of the association UDL prevailed even when a member left the association (Mr G.) and/or a new professional representative joined (Mr E.).

5.4 According to Article 1(2) of the President's Decision of 19 July 1991, a different situation may arise where a new representative is appointed to act on behalf of a party which was represented by a representative from a different association: If the EPO is not notified that the previous representative's authorisation has terminated, the new representative must file an individual authorisation or a reference to a general authorisation already on file.

In the present case, previous representative Mr E. from the association UDL filed a fax (15 July 2004) to announce that Mr U., who was not a member of this

association, would appear for respondent 01 at the oral proceedings before the Board. Mr E. did not notify the Board that his association's authorisation was terminating. Hence, that was a situation where the President's Decision of 19 July 1991 required the new representative, Mr U., to prove that he was authorised to act on behalf of respondent 01.

5.5 As Mr U. did not refer to a general authorisation from respondent 01, proof of an individual authorisation had to be provided to the Board. In principle, that was possible by filing a direct individual authorisation from opponent 01, or by filing a sub-authorisation from an authorised representative who was entitled to sub-authorise a third representative. In view of the sub-authorisation by the association UDL submitted by Mr U. at the oral proceedings, the only issue remaining was whether or not UDL was entitled to give such sub-authorisation.

As Mr G. filed the notice of opposition 01 without filing an authorisation, there is no evidence on file that Mr G. obtained the power to give sub-authorisations.

On the other hand, Mr S.'s e-mail (C51, 13 July 2004) declared that respondent 01 accepted a sub-authorisation to be given by the association UDL to Mr U., even though C51 did not comprise a handwritten signature. In the Board's view, the fact that C52 does not list Mr S. as a General Counsel of Curtiss-Wright Controls, Inc., the parent company of respondent 01, does not affect the evidential value of the e-mail C51,

since C52 lists officers and directors of Curtiss-Wright Corp. which is a different legal entity.

5.6 In the Board's view, the issue of whether or not a Board considers a representative as authorised by a party is a matter of proof including a free evaluation of the evidence and overall circumstances of an individual case. The abovementioned Decision of the President of the European Patent Office dated 19 July 1991 on the filing of authorisations indicates that flexible criteria are applicable to professional representatives whose names appear on the list maintained by the EPO. One of the reasons justifying that flexibility is that professional representatives are subject to statutory regulations of their profession.

5.7 To define an appropriate standard of proof with respect to a representative's authorisation, the Board takes account of the purposes of requiring an authorisation.

(a) A main purpose is to protect the authorising party's interest in being represented by a representative of the party's choice and trust, i.e. to ensure that the representative acts in the party's interest.

(b) A further purpose of requiring an authorisation from one party may be to protect the interest of the other parties to the proceedings in obtaining binding statements from a party's representative.

(c) A third purpose is to protect the EPO's interest in procedural economy. Procedural steps taken by non-authorised representatives are deemed not to have been taken (Rule 101(4) EPC) and, thus, may result in procedural loops or other delays.

5.8 The Board is convinced that the aforementioned purposes are met in the light of the circumstances and submissions of the present case.

The filed evidence shows that respondent 01 indeed wanted to be represented by Mr U. who acted on the opposing side and, thus, in the interest of respondent 01.

Moreover, Mr U.'s request on behalf of respondent 01 was identical with the original request of this opponent, i.e. to have the revocation of the patent confirmed. No new request was submitted by Mr U. which might have created an additional, potentially unreliable obligation of respondent 01.

Hence, the Board's acceptance of Mr U.'s sub-authorisation did not increase the risk of a procedural delay.

6. *Novelty of the claimed system (claim 1) over C2*

C2 discloses an automated wireless preventive maintenance monitoring system for trains and other vehicles (title), the other vehicles comprising airplanes (column 3, lines 22 to 28; column 6, lines 17 to 22 and lines 46 to 53; column 7, lines 10 to 17).

6.1 The only embodiment of the concept described in C2 refers to a magnetic levitation train with a path of travel along which wireless stationary relay transceivers (NSIUs 22) are arranged "in stations and at other fixed locations" through which the train/vehicle passes (Figures 1 and 2; column 2, lines 13 to 25).

The goal of that concept is to perform vehicle inspections "continuously in near real time" (column 2, lines 38 to 40; column 7, lines 48 to 53).

The stationary relay transceivers (NSIUs 22) interact with a wireless transceiver (60) of an on-board monitoring unit (SMDU 12; Figures 1 and 3) arranged on the train vehicle (engine 14 or car 16) to be monitored. The on-board monitoring unit (SMDU 12) obtains travel performance data representative of vehicle performance during travel of the vehicle (column 3, lines 52 to 66; column 4, lines 53 to 57), and comprises:

a) a data store (36) operative to store travel performance data of a portion of the travel of the vehicle (column 3, lines 45/46; column 4, lines 53 to 57), and

b) a wideband spread spectrum transceiver (60) coupled to said data store (36) and comprising a transmitter that is operative, when the vehicle is approaching one of the stationary transceivers (NSIUs 22), to download the travel performance data that has been stored by said data store (36) during a portion of the travel over a wideband spread spectrum communication signal (column 2, lines 20 to 25;

column 3, lines 35 to 40; column 4, lines 3 to 8 and lines 17 to 31; column 4, line 62 to column 5, line 5).

Each stationary transceiver (NSIU 22) is a wideband spread spectrum transceiver (Figure 4; column 2, lines 16 to 27; column 3, lines 29 to 32; column 4, lines 9 to 31) comprising a receiver that receives the wideband spread spectrum communication signal from the vehicle and demodulates the signal to obtain the travel performance data.

The monitoring system of C2 further comprises a ground based archival data store (mass memory 82 of maintenance control center 28 in Figure 5) coupled to said stationary wideband spread spectrum transceiver (NSIU 22), and that data store (82) receives and stores (and accumulates) said travel performance data (column 2, lines 25 to 33; column 4, lines 46 to 52; column 7, lines 48 to 58). As the computer 70 at the maintenance control center 28 of C2 is designed to establish statistics on the acquired component performance data (column 7, lines 53 to 56), the mass memory 82 of the maintenance control center 28 has to hold accumulated travel performance data even though each of the NSIUs 22 relays only a buffered data snapshot of a sub-interval of the travel.
In addition, the monitoring system of C2 comprises a ground based processor (70 in Figure 5) coupled to said ground based archival data store (82) for retrieving travel performance data from the ground based archival data store (82) for further processing (column 2, lines 28 to 31; column 4, lines 32 to 52; column 5, lines 25 to 56; column 7, line 38 to column 8, line 46).

6.2 The data store 36 used in the on-board monitoring unit of C2 (Figure 3, SMDU 12; column 3, lines 45/46) is not disclosed explicitly as an archival data store, or mass memory, in contrast to the ground based data store 82 of the maintenance control center 28 which is explicitly called a mass memory (C2, column 4, lines 46 to 48).

In order to determine whether C2 implicitly teaches the on-board data store 36 to be an archival data store, the function of the SMDU 12 has to be borne in mind. While the SMDU 12 keeps monitoring the associated vehicle throughout its travel (C2, column 4, lines 53 to 57), the data downloading operation of the SMDU 12 is described only with respect to intervals of the travel (C2, column 4, line 62 to column 5, line 5). The SMDU 12 downloads its memory content every time it travels past an NSIU 22, and then turns off (C2, column 5, line 5), i.e. it stops transmitting data to the NSIU 22 which has been passed. As the transmission takes place while the vehicle is passing, the transmission time is limited and so is the amount of data that can be transmitted during that time window. Moreover, the intervals between successive downloads will be short in order to assure the desired near real time monitoring (column 2, line 40; column 7, line 52). Therefore, the memory 36 of SMDU 12 needs to hold and transmit only a limited amount of performance data (a buffered data snapshot) covering only a portion of the travel.

Hence, as the on-board memory 36 of C2 is not required to have a large capacity, that memory does not translate directly into a mass memory (or archival memory). Therefore, document C2 might prompt the use of an on-board mass memory only indirectly, by reference to an aircraft implementation.

6.3 The crucial question is what is directly and unambiguously disclosed by document C2 with respect to an aircraft monitoring system mentioned generally in that document as a further field of application.

6.3.1 In the Board's judgement, there is no clear explicit or implicit teaching in document C2 as to what such an aircraft monitoring system would look like. Rather, a skilled person would have to fill the gaps of disclosure by his own evaluations and preferences, thereby making selections among different possibilities.

In particular, one might think of keeping the conventional flight data recorder ("black box") of an aircraft as a data store. Such an aircraft implementation would thus imply an on-board mass memory or archival memory within the meaning of claim 1, that memory accumulating performance data of the flight until landing of the aircraft. However, directly applying the teaching of C2, the on-board transceiver would still download only a portion of flight data (an incremental data snapshot) at each stationary transceiver, namely the portion of data that has been acquired since the previous contact with a stationary transceiver. It follows in this case that the subject matter of claim 1 still differs from the teaching of C2 by requiring the data that has been accumulated during

the whole flight to be downloaded after completion of the flight.

Furthermore, regarding the wireless transmission technology to be chosen, there are two alternatives disclosed in C2: low-power spread spectrum transmission technology which is preferred in C2 for a number of advantages, and conventional single-frequency communication (column 4, lines 3 to 31). Whereas the latter would be suitable to monitor aircraft at higher cruising altitudes, the former due to its limited operating range (400 to 800 metres) would be limited to low flying aircraft unless the stationary transceivers arranged along the path of travel were omitted and performance data of the entire flight were accumulated and downloaded after landing. However, such a modification would abandon both the goal (continuous monitoring) and structure (plural relay transceivers along the path of travel) of C2.

Hence, the application to aircraft monitoring systems is not sufficiently described in C2 to make the subject matter claimed in the patent in suit directly and unambiguously derivable for a skilled person. Consequently, the Board does not consider the claimed subject matter as anticipated by the prior art disclosed in C2.

7. Novelty of the claimed system (claim 1) over C3

7.1 With respect to C3, the appellant raised the question as to whether that document was still in the proceedings even though C3 had been introduced by the inadmissible opposition 02. (The same question applies

to C2 and the other documents introduced only by opposition 02.)

According to decision T 154/95, point 2 of the Reasons (summarised in the "Case Law of the Boards of Appeal of the European Patent Office", 4th edition 2001, chapter VII.C.9.3.3), documents are allowed to originate from an opposition that has been declared inadmissible, provided that at least one admissible opposition is left so that the proceedings continue.

The same applies to a ground for opposition (lack of novelty) that was raised only by the inadmissible opposition 02 (see decision T 270/94, summarised in chapter VII.C.9.3.4 of the abovementioned case law book).

7.2 The Board has no doubt that C3, which is a meeting report to AEEC members that had attended the meeting, was available to the public within the meaning of Article 54(2) EPC. At the meeting, eleven airline companies and manufacturers were represented to deal with the standardisation of a data communications link ("Gatelink") for use between an airport-based data processing terminal and an aircraft parked at a gate. Technical standardisation procedures are more likely to require publicity than secrecy. This general presumption is in line with the Affidavit C39 from one of the attendees stating that the recipients of the report C3 were even encouraged to distribute that letter to third persons.

On the other hand, the Board hesitates to take account of a critical technical detail ("IEEE 802.11 standard") which C39 points out as having been discussed at the meeting (or some other AEEC Gatelink meeting before the priority date of the patent in suit) while the meeting report itself is silent on precisely that detail and otherwise abundant in specific references to multiple standards.

7.3 C3 deals with a data communications link ("Gatelink") for use between an airport-based data processing terminal and an aircraft parked at a gate, see e.g. Attachment 3 (section 1 "Introduction" and section 2.1 "Uses of Gatelink"). The document considers a variety of technical implementations of the required communications link (Attachment 2, pages 2 and 5), notably wireless connections including infrared, microwave and "spread spectrum" (Attachment 2, page 5, paragraph 3).

While C3 discusses several types of data to be transferred across the communications link (Attachment 2, pages 1 and 2, "Requirements Analysis"), it does not enter into the recording and downloading of flight performance data. There is only a general hint at "maintenance" as one of the Gatelink applications (Attachment 3, section 2.1). In the Board's view, that mention is not specific enough to imply and anticipate the overall concept of aircraft-based performance data accumulation and ground-based data evaluation as claimed.

8. Novelty of the claimed system (claim 1) over C4/C5

C4/C5 form an integral piece of prior art as those documents describe the final overall "Gatelink" system standard, with C4 relating to the ground side and C5 relating to the aircraft side.

The final standard for the communications link between an airport terminal and a parked aircraft adopted an infrared connection or an umbilical fibre optic connection (C4, page 5, sections 4.2.1 and 4.2.2; C5, pages 8 and 9).

While C4 (page 19) shows that the Gatelink connects to a ground-based database server, the spread spectrum transmission that was contemplated initially by the standardisation group (C3, Attachment 2, page 5, paragraph 3) does not play any role in C4/C5.

Hence, the system of claim 1 is novel at least in this respect.

9. Since the remaining prior art is more remote from the claimed subject-matter, the Board concludes that the subject-matter of the system claim 1 is novel over the available prior art (Article 54 EPC).

10. Issue of inventive step of the claimed system (claim 1) over the available prior art

10.1 As it cannot be obvious to modify the teaching of a document in a direction incompatible with the goal of that teaching, the Board does not use C2 as a starting point for the obviousness discussion. C2 aims at

monitoring flight performance data in near real time, while the claimed system relates to the downloading of data that has been accumulated until landing.

10.2 Report C3, on the other hand, constitutes an open-ended starting point. C3 presents a list of technologies available for communication between a parked aircraft and an airport terminal. A wireless connection is contemplated in Attachment 2 (page 5, paragraph 3; page 7, paragraph 4). In particular, spread spectrum technology is mentioned there.

Spread spectrum transmission uses a wide band of frequencies and, thus, avoids the problem of radio frequency allocation. It is known to have significant additional qualities (e.g. C2, column 4, lines 17 to 31):

– spread spectrum transmission is resistant to interference; and

– it can be operated at low power levels without a government license in the US, for example. That is a benefit sought by the opposed patent (see in particular paragraph [0008] therein).

It is true that spread spectrum transmission is no longer mentioned in the final version of the "Gatelink" standard documented by C4/C5. However, it remains a fact that spread spectrum transmission is listed in C3 as one of the options for assuring the communication of a parked aircraft. There may be various, e.g. commercial, reasons why the expert group laying down the final standard C4/C5 adopted an infrared or

umbilical fibre optic connection, such as the availability of off-the-shelf hardware to reduce the development costs (C3, Attachment 2, page 5, paragraph 4), or a lack of vendors of other technologies (C3, attachment 2, page 7, paragraph 4).

C3 does not rule out the spread spectrum technology which it mentions in its list of candidate technologies (Attachment 2, page 5, paragraph 3). C3 rather states that the "use of other technologies [i.e. other than infrared transmission] may prove to be beneficial in the future" (Attachment 2, page 7, paragraph 4, last sentence). As the advantageous effects of spread spectrum transmission are well-known (as mentioned above), the choice of spread spectrum transmission from said list of candidate technologies cannot represent a selection invention either.

Incidentally, spread spectrum transceiver chipsets became commercially available by the priority date of the patent (as acknowledged in its paragraph [0072]), thus removing this potential disincentive.

10.3 With respect to a wireless communication link according to C3 (spread spectrum variation), the system and method according to the independent claims of the patent in suit contribute the concept of downloading the accumulated flight performance data, after the aircraft completes its flight and lands at an airport, to an airport-based data store for further processing.

(a) The added concept solves the problem of enabling the accumulated flight performance data to be examined on the ground (where more powerful

processors may be available, or extensive data checks can be carried out while the aircraft is released for another flight, or statistical data of several aircraft can be compiled, and the like).

(b) That problem corresponds to a prior art recommendation (September 1995) by the US Federal Aviation Administration (FAA) that airlines look at the information provided by the digital flight data acquisition unit ("black box") of an aircraft at regular intervals, as acknowledged in paragraph [0003] of the patent (which claims a priority date of November 1995). Looking at the recorded information after landing constitutes an obvious variation of said FAA recommendation. The formulation of the problem does not, therefore, imply any non-obvious aspect.

(c) Instead of collecting the recorded information on a removable data carrier (e.g. floppy disc) to be picked up by safety personnel (paragraph [0004] of the patent), there is an evident and predictable practical advantage in using the wireless data link which exists in the ground data link according to C3 anyway and is designed in particular to transmit maintenance data (C3, Attachment 3, section 2.1).

It is true that a portable data carrier may provide a large storage capacity whereas a wireless link may have a limited bandwidth. However, as the aircraft is parked at the airport terminal, the amount of the accumulated flight

performance data is not a bottleneck to using a wireless link. Hence, employing one of the wireless technologies envisaged in C3 to accomplish the data flow required by official authorities (FAA) is obvious to a person skilled in the art.

At the same time, an inherent requirement of the FAA's recommendation is that the recorded and transferred data be processed and analysed. As ground-based processing obviously allows more computing power to be used and enables the flight data of several aircraft to be compared, for example, the skilled person will envisage an airport-based data store and data processor (as opposed to an air-borne data processing facility) to retrieve and further process the flight performance data.

(d) Therefore, the Board does not see any inventive contribution by the system claim 1 or corresponding method claim 17, contrary to the requirements of Articles 52(1) and 56 EPC.

Order

For these reasons, it is decided that:

1. Opposition 02 is rejected as inadmissible.

2. The appeal is dismissed.

The Registrar: The Chairman:

R. Schumacher S. V. Steinbrener