

OPUS 2

INTERNATIONAL

Horizons Issues - Alan Bates & Others v Post Office Limited

Day 1

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1 Monday, 11 March 2019
 2 (10.30 am)
 3 MR JUSTICE FRASER: Mr Green.
 4 Housekeeping
 5 MR GREEN: May it please your Lordship. One of the matters
 6 your Lordship was going to deal with first thing today
 7 I think was the question of when the common issues
 8 judgment might formally be handed down and whether the
 9 claimants may have permission in the event that they
 10 receive a draft to disclose the draft to the steering
 11 committee of the claimants.
 12 MR JUSTICE FRASER: Yes. I think Mr Warwick's email said
 13 two members of the steering committee. I don't know how
 14 many people are on the steering committee.
 15 MR GREEN: Yes.
 16 MR JUSTICE FRASER: This is the draft which is currently
 17 embargoed.
 18 MR GREEN: Indeed.
 19 MR JUSTICE FRASER: Right and my position on this is as
 20 follows. I have no difficulty with two members of the
 21 steering committee seeing the draft, subject to
 22 conditions. One is the names of those two people have
 23 to be notified to my clerk in an email and that email
 24 should come from one of the claimants' legal advisors.
 25 It should identify who they are by name and the fact

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1 that they have been specifically told the terms of the
 2 embargo and that to breach the terms is a contempt and
 3 what the possible consequences of the contempt are.
 4 MR GREEN: My Lord, I'm grateful.
 5 MR JUSTICE FRASER: If those three elements are satisfied
 6 then they can be shown the draft --
 7 MR GREEN: I'm most grateful.
 8 MR JUSTICE FRASER: -- under terms of the embargo.
 9 MR GREEN: I'm most grateful, my Lord.
 10 MR JUSTICE FRASER: Now, handing it down, that ball is
 11 rather in your court and when I saw "your" court I mean
 12 the Post Office's court, although I know it is not
 13 Mr De Garr Robinson's side of it.
 14 MR GREEN: Side of it yes.
 15 MR JUSTICE FRASER: I was expecting or had invited typos to
 16 be provided by Wednesday.
 17 MR GREEN: Indeed.
 18 MR JUSTICE FRASER: Depending on the extent and scope of
 19 those I intend to hand the judgment down on Friday, but
 20 if there are an enormous quantity and it was a judgment
 21 that was sent out more in draft than I would ordinarily
 22 hope for, on Thursday morning I might say to you it's
 23 not going to be Friday, it's going to be the beginning
 24 of next week so I can use the weekend just to deal with
 25 the typos.

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1 MR GREEN: Most grateful, my Lord. Would it be possible for
 2 us to deal with any consequential matters the following
 3 Friday rather than this Friday?
 4 MR JUSTICE FRASER: No, you can have longer than that.
 5 MR GREEN: I'm most grateful.
 6 MR JUSTICE FRASER: The important thing on consequential
 7 matters is that when I hand it down I make the order in
 8 the relevant terms for the parties to give them the
 9 necessary extension of time so that time doesn't run.
 10 I don't intend to put the parties in the position that
 11 time is running for the purposes of any consequential
 12 applications during this trial.
 13 MR GREEN: My Lord, I'm most grateful.
 14 MR JUSTICE FRASER: So you don't even necessarily need to
 15 come when it is formally handed down, depending on when
 16 that is.
 17 MR GREEN: I'm most grateful.
 18 MR JUSTICE FRASER: Is that clear? Yes, good.
 19 MR GREEN: My Lord, in terms of use of the time for
 20 claimants' oral opening, what I propose to do -- because
 21 I know your Lordship has obviously had sight of the
 22 expert reports and joint reports already.
 23 MR JUSTICE FRASER: Yes.
 24 MR GREEN: I propose to highlight a few key areas of
 25 agreement at a fairly high level, highlight a few key

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1 areas which we will say at this stage are likely to be
 2 important battle grounds for the trial, highlight the
 3 importance of the difference of approach of the two
 4 experts and the approach we're going to respectfully
 5 invite the court to adopt and then, which we hope will
 6 be useful for the court, take your Lordship through one
 7 worked example of a bug.
 8 MR JUSTICE FRASER: One worked example of..?
 9 MR GREEN: Of a particular bug, so that your Lordship can
 10 see practically how a KEL works and practically how it
 11 relates to a PEAK -- or one or most PEAKs or one or more
 12 KELs because your Lordship will have probably
 13 appreciated that you can have multiple KELs referring to
 14 one or more PEAKs and vice versa -- the practical
 15 realities of the information flow between Post Office
 16 and Fujitsu in their system and the extent of the impact
 17 that one bug can have, the limitations on the sources of
 18 information available to the experts.
 19 MR JUSTICE FRASER: You seem to be counting on your figures
 20 but I don't know what number you've got to.
 21 MR GREEN: I'm sorry. I will give your Lordship just
 22 a narrative overview to start with.
 23 The limitations of the sources of information
 24 available to the experts and what knowledge Post Office
 25 had of that bug and when, to inform the court as to its

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1 approach to these bugs and that will hopefully give
 2 the court at least at the outset of the trial both
 3 a practical understanding, in addition to what the court
 4 has already gleaned from the experts' reports, of how it
 5 actually worked, upon which we are going to place
 6 I think greater emphasis possibly than the defendant,
 7 and to provide a sort of microcosm illustration of what
 8 we, the parties and the court, now have, what those
 9 documents do and do not do, what the claimants have had
 10 to do, what Post Office doesn't do and what Post Office
 11 has known in relation to that bug all along.

12 So with that brief introduction --
 13 MR JUSTICE FRASER: We also at some point, and I would like
 14 to do it before lunch if possible because I don't want
 15 to cut into Mr De Garr Robinson's time, need to address
 16 in outline terms whether either or each of you want an
 17 adjustment to part 2 of the timetable to deal with
 18 experts' cross-examination, which was an email I sent
 19 out about two weeks ago.

20 MR GREEN: My Lord, yes.
 21 MR JUSTICE FRASER: So we just mustn't forget that.
 22 MR GREEN: At the moment I think our position is we are not
 23 seeking one and we are content to deal with it in that
 24 way.
 25 MR JUSTICE FRASER: "We" being you?

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1 MR GREEN: The claimants. But there may be a different
 2 view.
 3 MR JUSTICE FRASER: Well, I'm in a much more developed
 4 position than I was at the pre-trial review and I'm
 5 obviously raising the point for a reason but we can deal
 6 with it in outline terms at about 5 to 1, and please
 7 don't forget that the shorthand writers need a short
 8 break between about quarter to 12 and 10 past.
 9 MR DE GARR ROBINSON: My Lord, I wonder whether now would be
 10 a good time to discuss that question. It has been
 11 something that's been bearing on my mind.
 12 MR JUSTICE FRASER: All right.
 13 MR DE GARR ROBINSON: Your Lordship will be aware from the
 14 PTR that my judgment is four days is needed with
 15 Mr Coyne. That remains my judgment. Now that
 16 your Lordship may have had an even greater opportunity
 17 to read the expert reports and their length and assess
 18 the complexity of their contents and their length,
 19 your Lordship may have a different reaction to that
 20 submission than the one that you had during the PTR.
 21 MR JUSTICE FRASER: Well, my position -- I will tell you
 22 what the situation is and then we can revisit at the end
 23 of the day if necessary, although because today is silks
 24 day there is a ceremony for the new silks at quarter to
 25 5 which means we will have to stop bang on half past 4.

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1 My position at the pre-trial review was fairly
 2 clearly based on anticipation of future expert
 3 agreements because I knew that they were still
 4 continuing to meet. I knew what your position was about
 5 four days and I was fairly robust about that.
 6 MR DE GARR ROBINSON: Yes.
 7 MR JUSTICE FRASER: Robustness being the word of the moment.
 8 Given what has happened since then, I am now more
 9 open minded to you having longer than two and a half
 10 days if you consider you need longer than two and a half
 11 days. I know originally Mr Green said he wanted I think
 12 three but he seems broadly content with two and a half.
 13 There's also something of a difficulty brewing in the
 14 wings in respect of other litigation on Friday 5 April
 15 because as you know this court sits usually on Fridays
 16 on other business, so part 2 of the trial, by which
 17 I mean the expert evidence onwards, seems to me,
 18 Mr De Garr Robinson, if you tell me you need four days,
 19 I am going entirely to rejig the second half of this
 20 trial so you can have your four days.
 21 MR DE GARR ROBINSON: I'm much obliged to your Lordship.
 22 MR JUSTICE FRASER: So if you just want to mull that over
 23 and we obviously need to set the timetable in more
 24 outline terms, though nothing is set in stone, either
 25 today or tomorrow and that might mean we need to

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1 readdress when the closing arguments are going to be.
 2 MR DE GARR ROBINSON: Yes. My Lord, I was thinking more
 3 time with the experts and then perhaps oral closing
 4 arguments at the beginning of next term, but I have
 5 heard what your Lordship said and I'm grateful for the
 6 indication.
 7 MR JUSTICE FRASER: And that's not impossible either, that
 8 way forward. It would break those two weeks, which are
 9 currently the first week after the break, expert
 10 cross-examination, and the second week, closings; it
 11 would break them into a week for the claimants' expert
 12 to be cross-examined by you, however many days of the
 13 next period Mr Green would want to cross-examine
 14 Dr Worden and whether that's two and a half or three,
 15 there's not really much difference, and then whatever we
 16 do about closings. That's to give you my outline
 17 thinking.
 18 MR DE GARR ROBINSON: I'm grateful.
 19 MR JUSTICE FRASER: All right, Mr Green.
 20 Opening submissions by MR GREEN
 21 MR GREEN: Most grateful, my Lord.
 22 My Lord, there is, as your Lordship has seen, some
 23 fairly high level agreement. Obviously the Horizon
 24 architecture is broadly uncontroversial and Horizon
 25 support, at least the outline of it, how it was provided

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1 is uncontroversial.
 2 MR JUSTICE FRASER: Are there four statements now?
 3 MR GREEN: There are four joint statements. I think the
 4 fourth doesn't take it that much further.
 5 MR JUSTICE FRASER: But there are four?
 6 MR GREEN: There are four.
 7 And the experts agree that the PEAKs and KELs, the
 8 known error logs KELs and the PEAKs, which are the
 9 higher level record created in relation to a KEL, it
 10 goes up the support line; the experts agree that the
 11 PEAKs and KELs together form a useful source of
 12 information about bugs in Horizon, but while they are
 13 the best available resource to the experts, they provide
 14 a limited and incomplete window on what happened and so
 15 cannot paint a comprehensive picture and that's the
 16 agreed view of the experts, just to give your Lordship
 17 a brief outline of the landscape of the evidence they
 18 predominantly relied upon.
 19 It is also true that there are a number of other
 20 documents they have had reference to, as your Lordship
 21 would expect, I think various emails, Fujitsu
 22 presentations and other things which we will come to,
 23 how they provide greater insight.
 24 The PEAKs are created by Fujitsu's third and fourth
 25 line support teams. So your Lordship has in mind how it

1 works, the first line support seeks to identify whether
 2 there is an existing known error log entry that might
 3 relate to a support call. If not, the second line
 4 support will create a new KEL, a new known error log
 5 record, and then it is the third and fourth line of
 6 support teams that create and investigate PEAKs. And if
 7 your Lordship wants a reference just as a description of
 8 PEAKs there's a helpful one in joint 2 at 0.5, the
 9 reference of which is {D1/2/27} which is where the
 10 experts agreed:
 11 "PEAKs record a timeline of activities to fix a bug
 12 or problem. They sometimes contain information not
 13 found in KELs about specific impact on branches or root
 14 causes - what needs to be fixed."
 15 Then there is some agreement about bugs and errors,
 16 robustness and potential for errors and measures and
 17 controls. It is agreed that there were multiple bugs
 18 with the potential to have a financial impact on branch
 19 accounts and your Lordship will probably have seen from
 20 joint 2, paragraph 1.15 {D1/2/29} the range of views is
 21 between 12 and 29 bugs that the experts have identified
 22 as distinct for which they have seen strong evidence of
 23 the bug causing a lasting discrepancy in branch
 24 accounts. So that's the range of opinion at the moment
 25 and for your Lordship's reference the table where

1 Mr Coyne refers to those is {D2/4/16}, which is in
 2 Mr Coyne's supplemental report, which if we can just
 3 bring that up on Magnum, your Lordship will see there is
 4 an "Evidence of branch impact" column and where it says
 5 "Yes", that's where the relevant bugs that he has
 6 counted up to 29 are said to have strong evidence of
 7 potential impact on branch accounts.
 8 The areas of robustness where there is at least
 9 outline agreement, the experts agree that overall the
 10 system is relatively robust. They agree that computer
 11 systems are considered more robust if access to the
 12 back-end database is restricted tightly and they agree
 13 that in 2012 Post Office's auditors observed that there
 14 were inappropriate system privileges in this regard and
 15 that's found at paragraphs 3.2 to 3.3 of joint 3, which
 16 is at {D1/4/3}. And the source -- so that's
 17 paragraphs 3.2 to 3.3, your Lordship will see at the top
 18 there. And the source for that is the Ernst & Young
 19 management letter which is at {F/869/32}, which over the
 20 page at 33 {F/869/33} identifies:
 21 "There are inappropriate system privileges assigned
 22 to the APPSUP role and SYSTEM_MANAGER role at the Oracle
 23 database level on the branch database server ...
 24 inappropriate privileged access ..."
 25 And so forth. On page 34 over the page {F/869/34}

1 they say:
 2 "Unrestricted access to privileged IT functions
 3 increases the risk of unauthorised/inappropriate access
 4 which may lead to the processing of unauthorised or
 5 erroneous transactions."
 6 And then at the bottom they say:
 7 "We noted that there is currently no process to
 8 review POLSAP user accounts or HNGX back-end user
 9 accounts on a periodic basis to determine that user
 10 access is appropriately granted given the job
 11 responsibilities. As a result, our review revealed the
 12 following ..."
 13 And over the page they set out examples of what they
 14 have found and the bottom entry:
 15 "Whilst we noted that there was a monitoring control
 16 in place for privileged access to POLSAP whereby
 17 accounts associated to the SAP_ALL profile are reviewed
 18 and monitoring of failed and successful login attempts
 19 for SAP*, DDIC and BASISADMIN accounts is performed,
 20 this control does not include accounts associated to the
 21 SAP_NEW privileged profile."
 22 And so forth. So that was a document which the
 23 experts identified in relation to that point.
 24 Then at the level of undetected errors, in joint 3,
 25 paragraph 3.6, which is {D1/4/3}, the experts agree

1 that:
 2 "PEAKs show that some defects have lain undetected
 3 in Horizon for extended periods without being diagnosed
 4 and fixed."

5 And your Lordship will anticipate we will look at
 6 that carefully through the prism of Dr Worden's
 7 countermeasures which he relies on for robustness and
 8 detection of errors and correcting them in a timely way.

9 Then as to the effectiveness of the countermeasures
 10 themselves, the experts agree that the effectiveness of
 11 various countermeasures has changed throughout the life
 12 of Horizon. The existence of the countermeasures has
 13 changed as well and your Lordship finds that at joint 3,
 14 paragraph 3.11 and 3.20; that's {D1/4/4}. Your Lordship
 15 will see there 3.11:

16 "The effectiveness of various countermeasures
 17 changed throughout the life of Horizon."

18 And if we go over the page {D1/4/5}, at 3.20:

19 "As Horizon has changed throughout its lifetime, the
 20 existence and effectiveness of any countermeasures has
 21 too. To have considered the time dependence of all
 22 robustness countermeasures over 20 years would have made
 23 the expert reports impossibility lengthy. There was not
 24 the time to do so."

25 There is a final point on this page, while I'm

1 there, which is also we say highly pertinent to one of
 2 the difficulties which is at the core of this
 3 litigation, which is that the experts are agreed at 3.22
 4 that:

5 "Many software bugs can have the same effects as
 6 a user error (as illustrated, for instance, by the
 7 Dalmellington bug, which produced a remming error)."

8 Your Lordship will anticipate how that will feed
 9 into an analysis of attribution of fault when
 10 a subpostmaster raises something and the experts now
 11 agree that many software errors will look like user
 12 errors.

13 Then moving on, as to reconciliation and transaction
 14 corrections, about which the court has heard quite a lot
 15 of evidence already in the common issues trial, the
 16 experts agree on the mechanics at least of
 17 reconciliation and TCs and just briefly as to that, it
 18 is clear that the process of data comparison between
 19 third party client data and Post Office held data, much
 20 of that appears to be automated to identify where there
 21 are discrepancies and some of those comparisons are
 22 carried out within Horizon itself, as defined, while
 23 others may not be, so there's a difference I think in
 24 terms of system about exactly where the automated
 25 comparison of external third party client data and

1 Post Office held data is carried out and we can see that
 2 at {D2/4/22} which is Mr Coyne's second report at 3.37
 3 to 3.38 which is essentially agreeing with Dr Worden's
 4 comments about reconciliation.

5 Then in relation to the manual allocation of
 6 responsibility and TCs, essentially the experts agree
 7 that there is a human or manual process which is
 8 inevitably subject to errors and in a sense to some
 9 extent that is as far as Dr Worden goes, subject to
 10 a point which I will return to as to the role that
 11 transaction corrections play in this trial.

12 In relation to other quick topics where there is
 13 broad agreement, issues 2 and 14, which is Horizon
 14 alerting and reporting facilities, there are two big
 15 agreements about that. One is that Horizon doesn't
 16 alert SPMs to bugs and errors itself and that's joint 2,
 17 paragraph 2.1 at {D1/2/38}. And then in relation to
 18 functionality for SPMs obviously it's agreed that
 19 Horizon's functionality allowed subpostmasters to check
 20 cash and stock by counting the same and inputting those
 21 figures. The experts generally agree on the steps and
 22 processes in dealing with discrepancies and they agree
 23 that it was not possible to record a dispute on Horizon
 24 itself and that's joint 2, paragraphs 14.1 to 14.3 at
 25 {D1/2/40}.

1 And the two last areas of high level agreement are
 2 Horizon shortfalls data and reporting for
 3 subpostmasters, which is 8 and 9. There is fairly high
 4 level agreement about available data and reporting.
 5 They agree factually about what transaction data and
 6 reporting functions were available to subpostmasters and
 7 Post Office respectively and that's joint 3 at 8.2
 8 {D1/4/10}. And they agree, importantly -- although
 9 your Lordship has already heard some evidence about this
 10 in the common issues trial -- that Post Office had
 11 access to several sources of information to which
 12 subpostmasters were not privy, which is joint 3 at 8.1,
 13 which is {D1/4/10}.

14 MR JUSTICE FRASER: Right. I'm a bit puzzled at some of
 15 your references although you were going quite quickly so
 16 it might be that I missed some of them. You said
 17 joint 2, paragraph 14.1 to 14.3. I'm not sure if you
 18 actually turned that up, did you? Was that turned up on
 19 the common screen?

20 MR GREEN: {D1/2/40} is 14.1 to 14.3, my Lord, at the bottom
 21 of page 40.

22 MR JUSTICE FRASER: Yes.

23 MR GREEN: So that's where the expert agreement is and the
 24 reference is -- they haven't set out.

25 MR JUSTICE FRASER: No, I was looking for a different --

1 I was looking for subparagraphs of the earlier number 14
 2 which was euro discrepancies which was on page 12, which
 3 is also a paragraph 14 but it doesn't have
 4 subparagraphs.
 5 MR GREEN: Indeed.
 6 MR JUSTICE FRASER: Yes, so ...
 7 MR GREEN: I'm sorry if I'm going too fast but this is
 8 just --
 9 MR JUSTICE FRASER: Well, I don't know -- when you refer me
 10 to these I don't know whether you are expecting me
 11 hurriedly to look at them on here before you go on to
 12 the next one or not.
 13 MR GREEN: I will perhaps indicate if I invite your Lordship
 14 to look carefully at it.
 15 In relation to remote access and editing of
 16 transactions, your Lordship will appreciate this is
 17 going to be something of a hot potato during the trial .
 18 There is a measure of agreement that certain categories
 19 of access or tool have been available at various times
 20 and at the moment I don't want to go into that in too
 21 much detail save to identify what the types are, if
 22 I may.
 23 So there is Post Office remote access which was at
 24 a minimum read only access to all branch transaction
 25 data, which is referred to at joint 3, paragraph 7.2

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1 which is {D1/4/10}. I'm not asking your Lordship to
 2 look at it particularly .
 3 There is the Fujitsu ability to insert transactions,
 4 one such tool being the balancing transaction tool used
 5 by Fujitsu 's SSC, system support centre, third line
 6 support, which has been used on at least one admitted
 7 occasion {D1/5/5}, which is joint 4 at 10.3.
 8 There is privileged users with the capability to
 9 edit or delete transaction data and there are some logs
 10 relating to this access but what's recorded in those
 11 logs has changed significantly over time. That's
 12 joint 4 at 11.3 {D1/5/10}.
 13 There is accounts altered without consent which is
 14 changes to an SPM's branch transaction data made without
 15 a subpostmaster's consent which your Lordship will find
 16 for example at Dr Worden's report, paragraph 1136
 17 which is {D3/1/248}.
 18 And there is also reference there to the rebuilding
 19 of branch transaction data --
 20 MR DE GARR ROBINSON: I'm sorry, I don't understand
 21 my learned friend's reference to paragraph 1136. It may
 22 not be helpful but I wonder if he could explain what he
 23 means about Dr Worden agreeing.
 24 MR GREEN: So if your Lordship sees, there is a table at
 25 1136 where Dr Worden sets out what he says can be done

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1 and it has got "Data amendment" as the first column and
 2 he says:
 3 "Whether Post Office has had the ability to:
 4 "Inject/inject: yes, global users have had that
 5 ability .
 6 "Edit/delete: no."
 7 And then "without the knowledge of subpostmaster:
 8 no"; "without the consent of subpostmaster: yes".
 9 So I'm just trying to summarise the effect of what's
 10 in that column.
 11 MR JUSTICE FRASER: That's how I read it .
 12 MR GREEN: I hope that's helpful to my learned friend .
 13 MR DE GARR ROBINSON: I'm grateful.
 14 MR GREEN: Then the final one is the transaction repair tool
 15 which is referred to at {D1/5/3-4}. It is at the bottom
 16 of that page:
 17 "The earlier transaction repair tool affects only
 18 [this is Dr Worden] back-end copies ..."
 19 And then he lists some of the others.
 20 MR JUSTICE FRASER: Sorry, where were you just looking at?
 21 MR GREEN: Sorry, the bottom bullet point on that internal
 22 page 3, which is actually --
 23 MR JUSTICE FRASER: The one that begins "The earlier
 24 transaction repair tool ..."
 25 MR GREEN: Exactly:

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1 "... affects only back-end copies of transaction
 2 data [this is Dr Worden's view] and so does not enable
 3 remote access."
 4 And then he refers to other things. On that,
 5 my Lord, I just invite your Lordship to note on page 7
 6 {D1/5/7}, at 10.11, the experts agree:
 7 "We have not been provided with logs or audits from
 8 the transaction repair tool (TRT)."
 9 So just trying to pick out the broad landscape,
 10 where the big disputes will be, one of the big areas of
 11 difference between the parties is as to robustness and
 12 has a couple of facets to it: one is its utility in
 13 terms of determining the individual other issues in the
 14 trial and we have referred to that on page 9 of our
 15 written opening {A/1/9} including at, for example,
 16 paragraph 17.1.
 17 The issue of robustness has been a fairly focal
 18 point of the defendant's case throughout. They first
 19 raised the contention that the Horizon computer system
 20 is robust in their response to the Panorama documentary,
 21 which is at {F/1422/1}. Your Lordship will probably
 22 remember this document from it before, but the
 23 Post Office was responding to the Panorama programme on
 24 17 August 2015 and it says that the allegations are
 25 based on partial, selective and misleading information:

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1 "The Post Office does not prosecute people for
 2 making innocent mistakes and never has.
 3 "There is no evidence that faults with the computer
 4 system caused money to go missing at these Post Office
 5 branches.
 6 "There is evidence that user actions, including
 7 dishonest conduct, were responsible for missing money."
 8 And so forth and then it refers to the allegations
 9 and then the last paragraph before "Background facts" is
 10 where they say:
 11 "The Horizon computer system is robust and effective
 12 in dealing with the six million transactions put through
 13 the system every day by our postmasters and
 14 employees ..."
 15 And so forth:
 16 "It is independently audited and meets or exceeds
 17 industry accreditations."
 18 Then the letter of response makes four references to
 19 "robust". I won't take your Lordship to them. The
 20 generic defence then reflects that language at
 21 paragraph 16, paragraph 50 and paragraph 153, which are
 22 respectively -- we don't need to turn them up, but are
 23 respectively for reference at {C3/3/5}, {C3/3/21} and
 24 {C3/3/61}.
 25 And then the third CMC, Post Office themselves

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1 particularly proposed issue number one, "Is Horizon
 2 robust and extremely unlikely to be the cause of
 3 shortfalls" and for reference -- we don't need to turn
 4 it up -- that's the skeleton argument at {C8.4/2/25}
 5 and then that becomes the focal point of Dr Worden's
 6 report and we respectfully say feeds into his approach
 7 to the evidence as a whole. So what he does, in
 8 contra-distinction to Mr Coyne, is Dr Worden looks at
 9 the idea of robustness in a particular way, which I will
 10 break down in a moment, and then through the prism of
 11 robustness then looks at the other issues and we
 12 respectfully will invite the court to adopt an approach
 13 more consistent with Mr Coyne's approach which is to
 14 look at what actually happened with particular examples
 15 and trace them through to a reasoned and careful
 16 conclusion and then from the ground up, as it were, draw
 17 inferences upwards rather than from an overarching
 18 hypothesis downwards.
 19 Your Lordship has probably seen that in addition to
 20 that we have questioned the extent to which something
 21 being said to be robust provides any solace to an
 22 individual postmaster and that's at page 10 in -- it is
 23 {A/1/10}
 24 MR JUSTICE FRASER: Page 10 of?
 25 MR GREEN: In our written submissions. And the short point

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1 there, my Lord, is what's different about this is this
 2 is not a provider of an IT system and the customer and
 3 the customer being able to aggregate and deal with
 4 things in the round with the provider. We're looking
 5 one hop over and it is no solace to an individual SPM
 6 who faces an unexplained shortfall which might be a lot
 7 of money for them, even though a small amount of money
 8 relatively for Post Office, to be told "But don't worry,
 9 it's a rare occurrence", and so we respectfully say that
 10 the entire universe of transactions is not the right
 11 comparator for answering at least the other questions
 12 and possibly the question of robustness in this trial.
 13 We have made clear from the latest our generic reply
 14 that we respectfully say that a low chance multiplied by
 15 a high number of transactions is totally consistent with
 16 the levels of claims being advanced by the claimants in
 17 this case. My Lord, if I can just very briefly take
 18 your Lordship to that, {C3/4/21}. It's at paragraphs 36
 19 and 37 of the reply.
 20 MR JUSTICE FRASER: Which paragraphs?
 21 MR GREEN: It is paragraphs 36 to 37:
 22 "Notwithstanding the various checks and
 23 controls ..."
 24 MR JUSTICE FRASER: It is really 35 to 37, isn't it?
 25 MR GREEN: It really is, my Lord, your Lordship is right.

23

1 Then in 37, second line:
 2 "In fact, the relatively small chance of errors
 3 admitted by the defendant, would be likely to produce
 4 the very picture reflected in the claimants' case. The
 5 existence of money in the defendant's
 6 suspense account(s) ... shows that errors generate
 7 financial consequences by which the defendant receives
 8 money to which it does not believe it is entitled, and
 9 credits those sums to its profits."
 10 That's a reflection of the suspense accounts being
 11 credited profits after three years which we will turn to
 12 when we get to Dr Worden's evidence.
 13 "This too is consistent with the claimants'
 14 case ..."
 15 And if we go over the page {C3/4/22}, it identifies
 16 the publicly maintained position and if we can go
 17 forward to page 29 of that document which is {C3/4/29},
 18 we look at paragraph 52:
 19 "... the claimants repeat its primary case pleaded
 20 in GPOC and aver that the terms identified are onerous,
 21 oppressive ..."
 22 Et cetera and that relates back -- that's the
 23 position on the common issues reflecting the 52.5, the
 24 identification of some errors and so forth. So that's
 25 how that fed back into the trial your Lordship has

24

1 already heard.
 2 In relation to robustness there's the sort of second
 3 big area, but it's absolutely dovetailed with
 4 Dr Worden's definition of robustness, which is his
 5 definition of countermeasures which your Lordship will
 6 have seen. He has identified these countermeasures and
 7 he has drawn inference about their effectiveness and as
 8 a result of those inferences concluded that the Horizon
 9 system is robust and the most extraordinary of these is
 10 the treatment of transaction corrections as
 11 a countermeasure, because Post Office's position, we
 12 respectfully say, is illogical and effectively a one-way
 13 ratchet in Post Office's favour. So the approach is to
 14 say that the process of making transaction corrections
 15 is relevant as a countermeasure but not within this
 16 trial, that's effectively the position adopted, and it
 17 is we respectfully say an unusual position.

18 If we look at {A/2/44}, this is Post Office's
 19 written opening for the Horizon issues trial, and we can
 20 see at paragraph 114 the opening line of that:

21 "Post Office's reconciliation processes are outside
 22 the scope of the Horizon issues."

23 So that's the prism through which the Post Office
 24 invites your Lordship to be constrained for the purposes
 25 of this trial.

1 Now, we compare that to what Dr Worden refers to at
 2 {D3/1/71} and we see at paragraph 257 that Dr Worden
 3 says:

4 "In my opinion, the countermeasure of UEC was so
 5 essential in Horizon, and it was effectively
 6 implemented. Because of this, many software errors
 7 resembling user errors were also corrected."

8 Now, there what he is talking about is user error
 9 correction, which is not the correction of user errors,
 10 it's subpostmasters spotting software errors and drawing
 11 them to the attention of Post Office and that feeding
 12 through to Fujitsu. And we will look carefully at what
 13 the information flow in real life looks like, but UEC is
 14 not just an important countermeasure, in it Dr Worden's
 15 opinion UEC, which is SPMs spotting system errors and
 16 pointing them out successfully, UEC was "so essential in
 17 Horizon".

18 If we then go to page 78 in that document {D3/1/78},
 19 I would invite your Lordship to look carefully at
 20 paragraph 294, flatly contrary to Post Office's position
 21 in its written opening:

22 "The processes of reconciliation, TAs and TCs are
 23 a very important part of the robustness countermeasures
 24 built into Horizon - particularly for UEC."

25 So, my Lord, that ties back to that paragraph we

1 have just looked at.

2 Then just as an extra point, when Dr Worden is
 3 presented with KELs in which it appears there might have
 4 been a financial impact on branch accounts, he
 5 frequently infers that TCs would have been issued to
 6 correct the position and therefore it's robust. We will
 7 explore some examples of that with Dr Worden in due
 8 course. And therefore it would be certainly helpful if
 9 my learned friend could clarify what Post Office's
 10 position is about the relevance of TCs. If they do not
 11 form part of the Horizon system, robustness of which
 12 they have insisted is in issue in issue 1, then to the
 13 extent that that robustness is dependent on transaction
 14 corrections, the system is not robust. If it is in then
 15 it is dependent on that process of transaction
 16 corrections and your Lordship will obviously appreciate
 17 from the previous trial what that involved in practical
 18 terms.

19 So ultimately, the approach of Dr Worden more
 20 globally we respectfully say has an element of
 21 circularity about it because what we find is that where
 22 bugs are detected -- so where we have been able to find
 23 evidence of bugs -- Dr Worden prays that in aid to show
 24 that "Well, they can be detected, so the system is
 25 working, so it is robust", where bugs have not been

1 detected by the system that's prayed in aid as the
 2 absence of bugs and where bugs have been found that have
 3 gone undetected for a long time, but are finally found
 4 several years later, that is still said to be evidence
 5 that the system and controls are all robust. So in fact
 6 the position is that it is not possible to identify any
 7 evidence which could ever lead to the conclusion the
 8 system is not that robust on that basis and we
 9 respectfully invite the court to scrutinise that
 10 approach with some care.

11 The big difference which I have already indicated
 12 between the approach of Mr Coyne and the approach of
 13 Dr Worden is Mr Coyne has started with the primary
 14 source material and the PEAKs and KELs -- and we will
 15 illustrate this in a moment in relation to
 16 Dalmellington -- and has tried to build up the picture
 17 from those, whereas Dr Worden has looked at everything
 18 through the prism of the robustness countermeasures that
 19 I have just been describing.

20 The third big area of dispute is remote access.
 21 Your Lordship will appreciate that the position on
 22 remote access has developed somewhat to say the least.
 23 It is worth just briefly recapping how that position has
 24 developed. Your Lordship will remember that Post Office
 25 originally made its public statement in response to the

1 Panorama programme which denied any ability remotely to
 2 alter branch data. That's at {F/1422/2} and you see
 3 there halfway down the page:
 4 "There is also no evidence of transactions recorded
 5 by branches being altered through 'remote access' to the
 6 system. Transactions as they are recorded by branches
 7 cannot be edited and the Panorama programme did not show
 8 anything that contradicts this."
 9 Your Lordship will remember Mr Roll appeared on the
 10 Panorama programme.
 11 We have set this section out at page 22 of our
 12 written opening {A/1/22} and we have traced through the
 13 development of the position. It is clear that what
 14 Post Office told the public in response to the Panorama
 15 programme was not true.
 16 At paragraph 65:
 17 Following the claimants' letter of claim ...
 18 Post Office admitted (in their 28 July 2016 letter of
 19 response) that in fact Post Office and/or Fujitsu did
 20 have some limited capacity remotely to access and edit
 21 transactions ..."
 22 Then at the GLO hearing my learned friend said to
 23 the master -- wanted to deal with the remote access
 24 point upfront and explained that the people who gave
 25 that response thought it was correct. He said:

29

1 "... Horizon system is a very complicated system.
 2 It involves lots of departments in ... both in Fujitsu
 3 and in the Post Office. And the people who are
 4 responsible for the correspondence didn't know that in
 5 fact there were these two other routes. Very few people
 6 at Post Office knew that there were these two other
 7 routes. They were ... they were routes that are
 8 under ... essentially under the control of Fujitsu who
 9 is the expert independent contractor ..."
 10 And then at the bottom:
 11 "... the point having been discovered, the
 12 Post Office wasted no time in ... in bringing the
 13 truth ... the accurate ... and accurate set of facts to
 14 the knowledge of the claimants."
 15 And at the end of that section:
 16 "... the fact that there is a possibility to alter
 17 remotely itself is ... not in issue, it now having been
 18 discovered and the fact that there are these clever
 19 routes by which they can be done."
 20 MR JUSTICE FRASER: I think you have gone over the page
 21 to 23.
 22 MR GREEN: I have indeed, my Lord, yes.
 23 So that was what the court was told at the GLO
 24 hearing, that it shouldn't be in issue because it had
 25 now been admitted, and then the generic defence, we

30

1 identified what was admitted at that point paragraph 57
 2 of the generic defence which is {C3/3/25}. In fact can
 3 we just go back one page to 24 {C3/3/24}. There's an
 4 admission at the bottom there:
 5 "... bugs or errors ... have resulted in
 6 discrepancies and shortfalls or net gains ..."
 7 Go over the page and then that deals with those bugs
 8 and errors. You come down to the "Remote editing of
 9 branch transaction data" heading at 57 and then
 10 subparagraph 1 says:
 11 "Neither Post Office nor Fujitsu has the ability to
 12 log on remotely to a Horizon terminal in a branch so as
 13 to conduct transactions."
 14 MR JUSTICE FRASER: What's the name of the Post Office or
 15 the person who signed the statement of truth on the
 16 generic defence? There is just a signature on it but
 17 I can't see what the name is. {C3/3/75}.
 18 MR DE GARR ROBINSON: My Lord, it is Jane MacLeod.
 19 MR JUSTICE FRASER: Jane MacLeod, right. Thank you.
 20 MR GREEN: Your Lordship will see that the case is then set
 21 out in the subsequent subparagraphs:
 22 "A Post Office employee with 'global user'
 23 authorisation can, when physically present at a branch,
 24 use a terminal ..."
 25 And then:

31

1 "Any transactions effected by a global user are
 2 recorded against a global user ID and are readily
 3 identifiable ..."
 4 Then 3 {C3/3/26}:
 5 "Fujitsu (and not Post Office) has the ability to
 6 inject transactions into branch accounts (since the
 7 introduction of Horizon Online in 2010, transactions of
 8 this sort have been called 'balancing transactions')."
 9 Then halfway down 3:
 10 "They may be conducted only by a small number of
 11 specialists at Fujitsu and only in accordance with
 12 specific authorisation requirements. They are rarely
 13 used. To the best of Post Office's information and
 14 belief, only one balancing transaction has ever been
 15 made so as to affect a branch's transaction data, and
 16 this was not in a branch operated by a claimant.
 17 A balancing transaction is readily identifiable as
 18 such."
 19 And so that's the account that we get which appears
 20 on its face to conclude the allegation which had been
 21 originally made by Mr Roll in Panorama, subject to --
 22 MR DE GARR ROBINSON: My Lord, just to be clear -- I'm sorry
 23 to interrupt, but just to be clear, your Lordship may
 24 recall an argument in the pleadings, this is talking
 25 about Horizon Online, paragraph 57 is principally about

32

1 Horizon Online not about Legacy Horizon and it is
2 important not to swerve between the two different forms
3 of Horizon in relation to which different forms of
4 remote access were possible.

5 MR GREEN: My Lord, I agree it is important not to swerve
6 between them.

7 The development of the case in terms of evidence
8 essentially followed the service of Mr Roll's witness
9 statement, Mr Roll's first witness statement {E1/7/3}.
10 Now, in fact that statement was dated 11 July 2016 --
11 your Lordship will understand why a witness statement
12 was taken at that stage before a pleading of this
13 type -- and it was served on 28 September 2018 and at
14 paragraph 18 of that witness statement, for example,
15 Mr Roll says:

16 "The ability to remotely access the Horizon system
17 at branch level was extensive, in that we were able to
18 change not only data and transaction information, but we
19 also had the ability to insert transactions and transfer
20 money remotely without the subpostmaster knowing.
21 Obviously this was not done by me, however I can recall
22 thinking that a third party may have been able to do
23 that if they could have remotely accessed the system in
24 the way that we could (which may or may not have been
25 possible)."

33

1 So he is being qualified there about him not having
2 done it himself.

3 We then on the same day are served the witness
4 statements of Mr Godeseth and Mr Parker, Mr Godeseth
5 first witness statement on 28 September 2018. He says
6 that any remotely injected transaction would be easily
7 identifiable as such because it would have a counter
8 number greater than 32 and the reference to that is
9 {E2/1/17}, 58.10. And it is right to distinguish
10 between Legacy Horizon and Horizon Online:

11 "In Legacy Horizon any transactions injected by SSC
12 would have used the computer server address as the
13 counter position which would be a number greater than
14 32, so it would be clear that a transaction had been
15 injected in this way."

16 So that's served on the same day as Mr Roll's first
17 statement.

18 Then we get the 16 November 2018 statement of
19 Mr Parker, Parker 1, {E2/11/5}, at paragraph 22. He
20 says -- notwithstanding that he is responding to
21 Mr Roll, he says:

22 "It is correct that the 'remote access' described
23 above could have been carried out without the permission
24 of a subpostmaster. However, any additional
25 transactions inserted remotely would be identifiable as

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1 such from the transaction logs that are available to
2 subpostmasters from Horizon."

3 So the effect of those two witness statements, one
4 at the same time as Mr Roll and one responding to
5 Mr Roll, is to preclude a transaction appearing as if it
6 has in fact been done by a subpostmaster when actually
7 it hasn't and to do so clearly .

8 Then Dr Worden says that Post Office's evidence
9 accords with his experience with support staff more
10 generally and we see at {D3/1/244}, paragraph 1114, he
11 effectively takes a view on the conflict of evidence
12 between Mr Roll and Mr Godeseth and sides with
13 Mr Godeseth saying that it accords with his experiences:

14 "... that support staff should have a facility like
15 this, so that branch accounts could be corrected in
16 exceptional circumstances - without resorting to DBAs."

17 And if we go forward to page {D3/1/245},
18 paragraph 1119, he said:

19 "Mr Roll worked in the SSC and I established
20 above ... certain SSC users had the ability to transact
21 injections ..."

22 I think it might be the other way round, inject
23 transactions:

24 "... although these would have become visible to
25 subpostmasters. So in my opinion Mr Roll could not have

35

1 made these changes to branch accounts 'without the
2 subpostmaster knowing'"

3 So that's Dr Worden's conclusion on that, that's
4 7 December and then if we -- your Lordship will remember
5 that Mr Roll's second statement explained how those were
6 to be made and in response to that Mr Parker serves
7 a witness statement confirming that Mr Roll is right and
8 we see that at {E2/12/9} which is paragraph 27, where he
9 says:

10 "In paragraph 20 of Roll 2 [which we will look at in
11 a second] Mr Roll describes a process by which
12 transactions could be inserted via individual branch
13 counters by using the correspondence server to
14 piggy-back through the gateway. He has not previously
15 made this point clear. Now that he has, following
16 a discussion with colleagues who performed such actions
17 I can confirm that this was possible. I did not mention
18 this in my first witness statement because, when faced
19 with a less clear account in Mr Roll's first statement,
20 my recollection was that if it was necessary for the SSC
21 to inject a transaction data into a branch's accounts,
22 it would have been injected into the correspondence
23 server (injecting via the server was the default option
24 which was followed in the vast majority of cases)."

25 MR JUSTICE FRASER: So apparently it is all Mr Roll's fault .

36

1 MR GREEN: Apparently.
 2 MR JUSTICE FRASER: Well, I dare say that will be pursued in
 3 due course.
 4 MR GREEN: Indeed. And the final reference, just so
 5 your Lordship has a reasonably complete picture about
 6 this, is {D3/6/21} which is Dr Worden's second report,
 7 which postdates Mr Parker's second statement, at
 8 paragraphs 83 to 85. If we go to {D3/6/21} and if we
 9 look at 83 to 85:
 10 "It seems to me that I require further factual
 11 information before I can comment on this evidence.
 12 Which 'specific person'? Under what circumstances? How
 13 frequently? Until I have that information, it remains
 14 possible in my view that any transaction which 'would
 15 appear to the subpostmaster as though it had been
 16 carried out through the counter in branch' might only be
 17 a transaction that he had given his consent for, as the
 18 'specific person' - and which had in effect been made on
 19 his behalf.
 20 "Therefore, Mr Roll's new evidence does not cause me
 21 to alter the opinion expressed at paragraph 1119 of my
 22 first report, when commenting on Mr Roll's first witness
 23 statement, that he could not alter branch accounts
 24 without the subpostmaster knowing."
 25 85:

1 "In paragraphs 27-34, Mr Parker provides detailed
 2 and specific commentary on Mr Roll's paragraph 20, using
 3 his knowledge and the appropriate contemporary
 4 documents, where they have been found. Here he
 5 acknowledges that Fujitsu could insert transactions into
 6 branches by a piggy-back process. I am not yet able to
 7 comment on Mr Parker's evidence or the documents he
 8 cites."
 9 So that's the manner in which Dr Worden engaged with
 10 the picture that emerged in that way through those
 11 witness statements.
 12 So, my Lord, that's the background to those big
 13 issues and the sort of key features of them. I don't
 14 know whether it is worth taking a very slightly earlier
 15 break.
 16 MR JUSTICE FRASER: I would maybe go on a bit.
 17 MR GREEN: Shall I push on a bit?
 18 MR JUSTICE FRASER: Yes.
 19 MR GREEN: Because I'm about to begin just tracing through
 20 the Dalmellington bug to see how that arises.
 21 The Dalmellington bug is a shorthand name for
 22 a particular bug and it takes its name from an iteration
 23 of the bug which occurred in October 2015 and it is in
 24 the Horizon Online system, particularly, but probably
 25 not exclusively, affecting transfers of cash between

1 core branches and outreach branches, which are small
 2 part-time branches that use mobile equipment. Cash is
 3 sent from Post Office to a core branch and then it is
 4 transferred from the core branch to an outreach branch.
 5 When the barcode for the cash was scanned at the
 6 outreach branch, the number of remittances would
 7 multiply so that Horizon showed far more cash on the
 8 system than was physically present. And just so
 9 your Lordship knows, or has an idea of how it seemed to
 10 the postmistress Ann Ireland who was affected in
 11 Dalmellington, what in fact appears to have happened is
 12 that at the remming in stage the post mistress was
 13 presented with the "Enter" button, she presses it, that
 14 should take her on to a new screen, but it stays there
 15 and it is pressed again and again, and it appears that
 16 there is a reasonable inference that the multiple of
 17 cash reflects the number of times -- that looks to be
 18 how it works. So she ends up with trying to rem in
 19 an £8,000 cash remittance into the outreach branch and
 20 actually the Horizon system recording her account as
 21 having remmed in 32,000. So four enters effectively, so
 22 she is over by £24,000.
 23 My Lord, we say that this is quite an interesting
 24 bug to look at because of the precise way in which it
 25 arose because unusually, in a lot of other cases the

1 postmistress or postmaster is trying to work out what's
 2 happened, without knowing, but in this case they are on
 3 both ends of the transaction because they see a receipt
 4 that they have printed out going out and they are at the
 5 outreach branch and they see what they get at the
 6 outreach branch and they can literally hold them up and
 7 go "That cannot possibly be right". So this is a good
 8 example of a very particular bug which was at literally
 9 one end of the spectrum of visibility to subpostmasters,
 10 in contrast to a number of others, and we will see that
 11 in the documents that we go through.
 12 My Lord, can I begin by taking your Lordship to
 13 {F/1389} which is the PEAK. I say "the PEAK" and I will
 14 explain in a little more detail in a minute. So this is
 15 PEAK PC0246949 which for convenience I will refer to as
 16 the 949 PEAK. And just to show your Lordship how the
 17 PEAK document works -- it may be absolutely apparent
 18 already -- "Call type", "Live incidents/defects" and
 19 then there's a "Priority", priority C, "Non-critical".
 20 And then there's a summary "Horizon -- transaction
 21 discrepancies", as we come down, and then "All
 22 references" your Lordship will see as a heading, "Type"
 23 and "Value" and there under SSCKEL, that is system
 24 support centre known error log, your Lordship can see
 25 the acha621P KEL. Just as a practical matter, in terms

1 of knowing what a KEL is about, the way the KEL system
 2 was set up, the KELs are named after the person who does
 3 them, not the issue. So you can't tell anything about
 4 the KEL from the name.

5 Then your Lordship then sees "Clone call", PC0246997
 6 which for convenience I will refer to as the 997 PEAK.
 7 So that's an associated PEAK.

8 Then just following this document through, the
 9 progress narrative has a very brief summary of the
 10 fuller data above, so you can see "Call type: L", means
 11 "Live", "Call priority: C", cross-references to
 12 non-critical and so forth. And we then come down. The
 13 date of the record in the sort of yellowy-beige section
 14 is 13 October at 2.46 in the afternoon, 14.46.

15 MR JUSTICE FRASER: Where are you looking?

16 MR GREEN: Just halfway down the page, my Lord, when it goes
 17 from a duck egg blue colour to a yellowy colour.

18 MR JUSTICE FRASER: I see, but date time is the day before
 19 at 5.10.

20 MR GREEN: Exactly.

21 So the record there in yellow is 13 October and the
 22 transfer note begins:

23 "Please can PEAK investigate this discrepancy issue.
 24 NBSC has confirmed that following discussions and checks
 25 with the user that this is not a user error issue ..."

41

1 So confirmed not a user error issue, which in this
 2 particular case was very easy for reasons I will show.

3 "... but an issue within the system requiring
 4 Fujitsu investigation."

5 And then there's the message:

6 "Hi Eden, need to raise an incident for below issue
 7 and ... provide Fujitsu re ... it's been confirmed with
 8 SM"

9 Then you get the same text effectively again about
 10 confirming that it is not a user error. And if
 11 your Lordship comes down to just under
 12 "Problem/request":

13 "User has discrepancies when transferring cash from
 14 one branch to another (specifically between their main
 15 branch to their outreach branch); OUTREACH BRANCH ISSUE.

16 "User said instead of the system logging it as
 17 £8,000 transaction, it recognises it as £32,000
 18 transaction.

19 "User already contacted NBSC and was rightaway
 20 directed to us ..."

21 And the amounts are logged at the bottom: star
 22 £8,000 over £32,000. I think the amount should be
 23 actually over 24,000 but I think they are recording what
 24 it actually did is 32,000.

25 MR JUSTICE FRASER: Well, it says it should have been £8,000

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1 but it has been recorded as 32,000.

2 MR GREEN: Exactly.

3 And the subsequent pages of the PEAK record the
 4 dealings with the PEAK in a bit more detail. I will
 5 come back to some more specific aspects of that. If we
 6 can just go back to the first page for a second
 7 {F/1389/1} and we look at "Clone call" and the 997 PEAK,
 8 if we go to {F/1389.1} this is the 997 PEAK, which
 9 appears to be a PEAK cloned from the other one. So
 10 "Release PEAK", there's a reference to another PEAK
 11 there and the clone master is the 949 PEAK that we have
 12 just looked at. So this is a clone of the master PEAK
 13 and it refers to another release PEAK and it also refers
 14 to the KEL, the acha621P KEL which is the same KEL
 15 referred to in the previous one. And your Lordship will
 16 see under "Progress narrative", this 997 PEAK is opened
 17 on 14 October by someone called Anne Chambers who we see
 18 quite a bit and then it appears to paste in what's
 19 happened on the 13th below it, so it's not actually in
 20 chronological order going downwards.

21 And we get a bit more information there in the
 22 middle set out quite helpfully:

23 "Branch has a discrepancy of £24,000. 4 other
 24 branches have had a similar problem in the last
 25 2 months."

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1 And your Lordship will see in a minute that she is
 2 unable to go back more than two months at that stage to
 3 see what else has happened.

4 "3 of these resolved by remming out the excess.
 5 Since these were all branch to branch rems and there is
 6 no cross-branch accounting within Horizon this removes
 7 the discrepancy."

8 And then if we can then go to {F/1393}, this is
 9 PEAK 207, which is just for your Lordship's note not the
 10 other release PEAK that was mentioned in the previous
 11 document, because that ends 024, it is a third one. And
 12 here we can see halfway down that the date is 21 October
 13 we're in now and there is email correspondence involving
 14 Mr Parker as the originator -- your Lordship will see
 15 "Originator" about halfway down the page, just below
 16 where it goes from sort of green to duck egg green or
 17 duck egg blue, 21 October 2015, 13.35.01. Four lines
 18 down:

19 "Originator: Parker Steve ..."

20 Which we understand to be Mr Stephen Parker who is
 21 giving evidence in this trial. And we can see that
 22 there is correspondence from Tony Wicks to Anne Chambers
 23 about Anne Chambers having done most of the
 24 investigation into this. If we look at the bottom we
 25 see Tony Wicks on 20 October 2015 at 15.25 to

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1 Sandie Bothick saying:
 2 "Hi Sandy,
 3 "Looking at PEAK [949] ..."
 4 Which --
 5 MR JUSTICE FRASER: That's the one we started with.
 6 MR GREEN: Exactly, so that's effectively the master -- it
 7 is treated as the clone master PEAK:
 8 "Looking at PEAK [949] it appears to be derived from
 9 I7991774 and I found TFS incident ..."
 10 And there is a number there:
 11 "There is no problem record raised for this, however
 12 PEAK [997] was used by development to investigate this .
 13 A code fix has been developed, but requires official
 14 testing and releasing. I've made enquiries and
 15 unfortunately LST are unable to take the fix for testing
 16 and release 12.88 without significantly impacted that
 17 release to live .
 18 "As the condition can be avoided by postmasters,
 19 ie by making them aware of the condition and advising
 20 them not to press enter multiple times, I propose that
 21 this is KELed and included in the counter release
 22 13.05."
 23 And just a bit further down {F/1393/2},
 24 Sandie Bothick is replying. She is saying:
 25 "Hi POA DM ..."

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1 Duty Manager:
 2 "Have PEAK make you aware of this issue?
 3 "Do you have a PR open ..."
 4 And so forth. And then below is what she sent to
 5 Atos earlier :
 6 "Hi Katie, I'm coming in blind on this. Looking at
 7 the incident this is our update from PEAK TFS
 8 connector ..."
 9 And so forth. Then there are further references to
 10 the 997 PEAK:
 11 "We are continuing to investigate the problem ..."
 12 Just over halfway down:
 13 "... but any fix will not retrospectively change the
 14 branch accounts."
 15 MR JUSTICE FRASER: Yes.
 16 MR GREEN: "So we are aware of the issue and are continuing
 17 to investigate but NBSC should be able to sort the
 18 discrepancy out in the meantime."
 19 MR JUSTICE FRASER: I think if you are going to move on to
 20 another document I think we should take a break.
 21 MR GREEN: Shall we take a break there?
 22 MR JUSTICE FRASER: Yes. Come back again at 12.
 23 (11.54 am)
 24 (Short Break)
 25 (12.00 pm)

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1 MR GREEN: My Lord, can I just highlight a couple of
 2 remaining points in this PEAK. If we can begin at
 3 {F/1393/4} please.
 4 MR JUSTICE FRASER: This is still in PEAK 207, is it?
 5 MR GREEN: It is still in PEAK 207, exactly.
 6 Now, your Lordship will see at the bottom of that
 7 page, Monday October 19th, 2015 at 5.33 pm.
 8 MR JUSTICE FRASER: Yes.
 9 MR GREEN: "IT-Solutions R SPM Post Office incident
 10 management".
 11 "Hi Ibrahim, as this incident is not getting
 12 resolved can we have a concall set up between NBSC &
 13 Fujitsu .
 14 "The site had transaction discrepancy. As per
 15 Fujitsu , they have found 4 other instances (outreach
 16 branches ..."
 17 It gives the name:
 18 "... and all but the last removed the discrepancy by
 19 completing a rem out for the excess ..."
 20 Then if we go back to the previous page {F/1393/4},
 21 there is an email which is on 20 October 2015 at 9.53 at
 22 the top of the page, part of it, and if we come down
 23 four paragraphs -- well, let's maybe take it from the
 24 second line :
 25 "She was concerned as she had never seen this

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1 before. She balanced core and it was correct, but
 2 outreach was £24,000 short.
 3 "Although the core had sent only one lot of £8,000,
 4 the outreach had accepted 4 lots of £8,000 in one
 5 transaction!
 6 "She has spoken to NBSC ref 1358666 who told her it
 7 was a technical issue.
 8 "She then phoned the IT help desk ref I7972295. She
 9 was unconvinced they understood the problem although
 10 they said they could probably 'rectify remotely'. After
 11 waiting till the end of day she called back and
 12 escalated to option 7 and spoke to Rich who told her to
 13 phone NBSC.
 14 "I don't think the helpline understood what's
 15 happened. I can understand that as you would think it
 16 is not possible. But incredibly Anne's outreach Horizon
 17 now shows £24,000 short and it does not exist. As you
 18 can imagine, Anne is concerned and I have told her not
 19 to touch the outreach unit until this is resolved for
 20 her.
 21 "The incident was passed to Fujitsu who have advised
 22 that in order to resolve the issue the branch/NBSC must
 23 'complete a rem out for the excess to correct the cash
 24 holding' which Fujitsu are unable to do. The NBSC has
 25 subsequently advised that they cannot assist as this is

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1 an IT issue, however Fujitsu are also advising that they
2 cannot assist. As a result, the issue has been passed
3 back and forward for over a week.”

4 Then if we go back a page {F/1393/3} to 20 October
5 at 10.42, Kendra Dickinson at the Post Office says:

6 "Could I enlist your help and support on the below
7 issue please?"

8 MR JUSTICE FRASER: This is underneath "Hi Rod/Dawn"?

9 MR GREEN: Exactly.

10 "Whilst I am happy for NBSC to try and support where
11 they can, the concern I have with the below is that we
12 have no process for managing this type of issue and we
13 are unable to see any of the back-end accounting for
14 this branch. Therefore, any advice that we try and
15 provide could end up making matters worse - this is
16 already showing a 24K loss. I am not happy for NBSC to
17 give advice on something that is not a process that
18 exists within the knowledge base.

19 "Similar to a disconnected session, NBSC would have
20 no understanding as to the implications on branch
21 accounting if they were to advise the branch as
22 suggested below."

23 And then if we go up there, there is more about the
24 difficulty of NBSC giving help and advice with
25 insufficient information, top of that page, which is

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1 under Tuesday 20 October at 11.57:

2 "... an explanation of the root cause to be supplied
3 by Fujitsu via Atos so that both our Finance Service
4 Centre and NBSC colleagues can be assured that the right
5 advice is given, there is no impact to the branch
6 account and a full audit trail is available. It does
7 not feel right for Atos and Fujitsu to be giving
8 instruction to NBSC to speak to branches with advice
9 with insufficient information.

10 "If this has happened in this case it would be
11 useful to see that in this email trail.

12 Then if we go back a page to {F/1393/2}, halfway
13 down the page -- this is in the Sandie Bothick email
14 that appears to start at the top and appears to include
15 what she sent to Katie, who I think I referred
16 your Lordship to already. If we come halfway down does
17 your Lordship see "POA-Horizon".

18 MR JUSTICE FRASER: No. Oh yes, I see it.

19 MR GREEN: Just there and then you have "Provider ref" and
20 a reference to the 949 PEAK.

21 MR JUSTICE FRASER: This is the one we have seen already.

22 MR GREEN: Indeed. It says:

23 "Resolution details: update by Anne Chambers:
24 category 70 - final - avoidance action supplied: we have
25 found that if there is a log-out before a user has fully

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1 logged on, then subsequently a pouch is remmed in
2 manually (most likely at an outreach branch), then after
3 the rem in slip has been printed, the same screen is
4 redisplayed and the user is likely to press enter again
5 and duplicate the remittance, possibly several times.
6 A different screen should be displayed which would
7 prevent this happening.

8 "A rem in slip is printed each time, showing the
9 same details but different session numbers, and
10 a transaction log search confirms the repeated rems."

11 And then importantly, we would respectfully say, she
12 says:

13 "This is not an area that has changed for several
14 years so it is likely to have happened before but we
15 have no record of it having been reported to us. I can
16 only check back two months; I've found 4 other instances
17 [of the outreach branches] ... and all but the last
18 removed the discrepancy by completing a rem out for the
19 excess ..."

20 MR JUSTICE FRASER: Those four must be in the last two
21 months, mustn't they?

22 MR GREEN: Precisely. So pausing there --

23 MR JUSTICE FRASER: On the face of the document they must be
24 the last two months.

25 MR GREEN: Exactly. So pausing there, your Lordship will be

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1 beginning to get a feel for the fact that it is quite
2 difficult to identify with confidence from a particular
3 KEL that you have necessarily found any related KELs, or
4 from a particular PEAK that you have necessarily
5 identified all of the PEAKs that relate to that problem
6 and there is obviously some information flow
7 practicalities, both in relation to what information
8 flows to the affected subpostmaster and whether there's
9 a clear process for that, and also internally about the
10 reporting of these issues by Post Office through its
11 processes back to Fujitsu because the reporting of those
12 issues is obviously essential to one of Dr Worden's
13 countermeasures in terms of fixes being applied to
14 correct the system errors.

15 From there can I invite your Lordship just to see
16 {F/1389} and {F/1389} is -- that's 949 that we have
17 identified as the PEAK we have looked at and then when
18 we look at the reference to the additional receipts
19 being produced we need to look at a couple of
20 documents --

21 MR JUSTICE FRASER: Do you mean on the same PEAK?

22 MR GREEN: Yes, this is still -- this is all cross-referring
23 to the same ones. We've got {F/1386}, and, my Lord,
24 this makes good the advantage to a subpostmaster --
25 "advantage" is a relative term, but compared to some

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1 other software issues. By being on both ends of the
 2 transaction she is able to produce what has gone out and
 3 in. So we've got the remming in money which should be
 4 £8,000 and you've got on the right-hand side four
 5 separate remming ins of £8,000, all effectively in the
 6 same -- within one minute of each other, those four
 7 separate receipts coming down the right-hand side and
 8 one slightly on the left, numbered 1 to 4.

9 If we then go to 1392 we've got the events log which
 10 the subpostmistress was able to see showing rem out slip
 11 on the left-hand side where she has written "Rem out"
 12 and then on the right-hand side she has identified
 13 multiple receipts being printed which are the four
 14 receipts we have just looked at. So on this particular
 15 bug this subpostmistress at Dalmellington had both ends
 16 of the data, as it were, and was able to say "Look, this
 17 cannot possibly be right."

18 MR JUSTICE FRASER: Yes.

19 MR GREEN: And that is obviously reflected in the
 20 recognition internally within Post Office of what's then
 21 happened.

22 Then if we just briefly go back, your Lordship will
 23 notice that the date of the event itself is 8 October
 24 and then we get the record created at 12th and notes at
 25 13th and then the later ones where they are arguing

1 about the fact it has been bounced back between helpline
 2 and Fujitsu are dated the 20th, just to get the timeline
 3 clear in that respect.

4 Can I take your Lordship now to the underlying KEL
 5 which is at {F/1426}. So this was a KEL raised by
 6 Anne Chambers on 15 October 2015, so on the face of it
 7 looks like prior to that date the ach6 -- it is
 8 difficult to see, prior to that date of 15 October 2015,
 9 to what extent there was an existing KEL identifying
 10 this on the face of the documents.

11 MR JUSTICE FRASER: Yes.

12 MR GREEN: And the symptoms are described:

13 "A cash pouch was received at an outreach branch and
 14 scanned into Horizon. The manual process was followed
 15 and 2 Delivery Receipts printed. Then the clerk pressed
 16 Enter to complete the process, and a Rem In slip was
 17 printed. They were then able to press Enter again and
 18 another Rem In slip was printed - and the same amount of
 19 cash was recorded a second time. They may have repeated
 20 several times before using Cancel to escape, resulting
 21 in much more cash being recorded on the system than they
 22 actually have."

23 And "Solution - ATOS" at the bottom -- they refer to
 24 the problem they have identified which is a problem
 25 your Lordship has already seen. "Solution":

1 "Known problem should now be fixed so any further
 2 occurrences need to be investigated - send call to PEAK.

3 "Outreach branches can avoid the problem by making
 4 sure that they do not press Enter again after they have
 5 printed both Delivery Receipts and the Rem In slip - if
 6 they find the Rem In screen is still displayed they
 7 should press Cancel to get out of it, ignoring the
 8 message that not everything has been printed."

9 So actually what's reflected there, my Lord, just
 10 pausing, is that what's shown on the screen is actually
 11 positively misleading and that is in fairness to some
 12 extent reflected in the next sentence on {F/1426/2},
 13 where they say:

14 "However, they are unlikely to notice immediately
 15 that they are on the wrong screen, and will probably
 16 have duplicated the rem in before realising something is
 17 wrong."

18 Because if you successfully press the enter button
 19 it's meant to move on to the next screen, so when it
 20 doesn't go away they just keep pressing it.

21 MR JUSTICE FRASER: That says in the third paragraph:

22 "The cause of the problem is being investigated ..."

23 MR GREEN: Indeed.

24 MR JUSTICE FRASER: And can we go back to the previous page,
 25 page 1 {F/1426/1}:

1 "Known problem should now be fixed ..."

2 What does "known problem" mean?

3 MR GREEN: My Lord, this is one of the points -- there are
 4 two tasks I'm trying to do, which is to try to
 5 interrogate the documents as helpfully as I can for
 6 the court, but at the same time try to identify to
 7 the court the difficulties that one is -- anyone is
 8 faced with when looking at the incomplete picture that
 9 the experts have referred to.

10 MR JUSTICE FRASER: All right, understood. Let's go on to
 11 page 2 again please {F/1426/2}.

12 MR GREEN: And your Lordship will see again there:

13 "... but it will not retrospectively correct the
 14 accounts at affected branches."

15 So that's noted again there.

16 Now, what in fact happened was there was external
 17 third party interest in this problem and that resulted
 18 in a Fujitsu presentation on 10 December 2015. To be
 19 fair to Post Office, Post Office wanted answers but
 20 wanted an identification of root cause and there's also
 21 some pressure from a blogger at the time which we will
 22 see later, and at {F/1415}, there is a Fujitsu
 23 presentation on 10 December 2015 on the branch outreach
 24 issue. "Initial findings", the first page confirms it
 25 is for Post Office's internal purposes only as

1 confidential . If we go over the page {F/1415/2} it
 2 confirms there are potentially two separate issues at
 3 play. It:
 4 "Doesn't correctly close down on the post log on
 5 script. This leaves the script on the 'stack' of
 6 incomplete processes."
 7 And also:
 8 "The pouch delivery script thinks it has completed
 9 doesn't explicitly finish".
 10 And there's some consideration of that.
 11 If we look at page 3 {F/1415/3}, as
 12 at December 2015, the date of this presentation,
 13 Post Office knew from Fujitsu that there had been 112
 14 occurrences that Fujitsu had identified of duplicate
 15 pouch IDs over the past five years, three issues with
 16 duplicate pouches, 47 outreach cases, 19 using the
 17 "Previous" button after a pouch scan, which was said to
 18 have been fixed March 2010, 46 remitted at multiple
 19 counters, fixed January 2011, 108 items corrected at the
 20 time either by transaction correction or subpostmaster
 21 referral, four items still to be confirmed, no items
 22 related to the period where the mediation scheme --
 23 MR JUSTICE FRASER: What does BLE stand for at the top?
 24 MR GREEN: I'm not --
 25 MR JUSTICE FRASER: If you don't know it doesn't matter.

1 MR GREEN: I'm not sure I know, my Lord. I was going to
 2 hazard a guess but I'm not sure I'm right. Maybe we can
 3 check that.
 4 And if we go forward to page 7 {F/1415/7} of that
 5 document please, in 2010/2011 there were 65 incidents of
 6 a slightly different iteration where the "Previous"
 7 button -- if you used the "Previous" key during or just
 8 after the pouch barcode scans you get a multiple remming
 9 in problem and:
 10 "No more occurrences found post fix."
 11 And then 46 remittances at two counters, that's the
 12 same pouch being remitted at the same branch at more
 13 than one counter. 46TCs reviewed and applied by
 14 Post Office and then a fix applied in January 2011, "No
 15 more occurrences found post fix", fully aware of both at
 16 the time.
 17 MR JUSTICE FRASER: And are these -- I think you said
 18 previous iterations?
 19 MR GREEN: Previous iterations of related but not identical
 20 code issues that led to multiple remming in.
 21 MR JUSTICE FRASER: Because they are not all under the same
 22 PEAK number, are they?
 23 MR GREEN: They're not. So tracing exactly where it is
 24 found is not absolutely straightforward.
 25 MR JUSTICE FRASER: Because part of the document you showed

1 me before was the people involved trying to find out if
 2 it there was an existing PEAK number to which it
 3 related.
 4 MR GREEN: Precisely.
 5 Then if we go over to page 8 {F/1415/8}, this goes
 6 to the flow of information from Post Office to Fujitsu
 7 in order to ensure timely corrections of the software.
 8 One transaction correction completed by Post Office,
 9 five remittance transactions completed by PMs, zero
 10 calls raised with Fujitsu. Nine incidents in 2012, zero
 11 calls with Fujitsu. Seven incidents in 2013, zero calls
 12 with Fujitsu. Two unknown outcomes noted in 2013,
 13 £25,000 and 2,500. And those, until I think it was
 14 yesterday or the day before, we didn't have clarity on
 15 what had happened on those. There is now greater
 16 clarity as a result of some additional documents that
 17 we've got from Post Office.
 18 The further "Detailed preliminary findings" on
 19 page 9 {F/1415/9}, identify 2014, nine incidents, no
 20 calls and then 2015 to 2016, one call raised with
 21 Fujitsu, which is effectively the call which I think is
 22 Ann Ireland's call which I think ultimately goes
 23 through. Then "January 2016 fix to be applied".
 24 So that gives your Lordship a feel for how in this
 25 particular example the information flow appears to have

1 worked. There had been a five-year period over which
 2 double remming system errors had been detected, there
 3 had been some fixes of aspects of that, but it's
 4 uncertain -- it's difficult to analyse precisely the
 5 genesis of all of those incidents.
 6 If we now go to {F/1399}, we can see that
 7 Computer Weekly was running an article about the problem
 8 that the CWU was looking into and if we look on page 3
 9 of that document {F/1399/3}, we can see at the top of
 10 the page:
 11 "The alleged problem investigated by the CWU
 12 involves the process where subpostmasters transfer money
 13 from a core Post Office branch to a remote branch
 14 created to serve rural areas, known as an outreach,
 15 which is basically a branch on a laptop. These
 16 processes are known as remittances."
 17 And so forth. So "Post Office department recognises
 18 duplication problem" at the bottom:
 19 "Following a post on a web forum, another postmaster
 20 recognised the problem as something she had experienced
 21 in the past, and the financial department of the
 22 Post Office in Chesterfield was contacted on her advice.
 23 "According to the postmasters' branch of the CWU,
 24 the financial department recognised the issue and told
 25 the postmaster they would need to send a positive

1 monetary change to the Horizon branch accounts ..."
 2 So that was following a post on a web forum. So
 3 although it is clear that there are cases that have been
 4 identified and have been corrected, precisely how that
 5 has happened may vary from case to case.
 6 At the bottom:
 7 "The alleged fault, if proved, would question the
 8 Post Office's continued claims that there are no
 9 systemic faults in Horizon."
 10 So that was what was happening in November. There
 11 is a follow-up article at {F/1405} which is
 12 a Computer Weekly article, on 18 November 2015.
 13 MR JUSTICE FRASER: I'm not sure we are there yet. Where do
 14 you want to go now?
 15 MR GREEN: I'm not going to take you to the detail of it.
 16 Just so your Lordship knows, there is a follow-up to the
 17 point --
 18 MR JUSTICE FRASER: Which is at F/1405?
 19 MR GREEN: This is at F/1405.
 20 So just stepping back from this, this bug is
 21 significant in the sense that not only was it one that
 22 was at the top end of the visibility for proof for the
 23 subpostmaster, who actually got both ends of the
 24 receipts, but there is also public pressure being
 25 applied in the media specifically on the issue

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1 in November and then we have actually got the Fujitsu
 2 presentation about it, so there's an unusually rich
 3 source of information available to the claimants and
 4 the court in respect of that.
 5 There are then internal Post Office emails at
 6 {F/1495.1/5} and the first four pages of this are
 7 redacted but it is an email from Paula Vennells, the
 8 chief executive, citing a blog post by Mr McCormack, who
 9 was a fairly energetic blogger on this topic and
 10 I haven't taken your Lordship to his blogs but they were
 11 happening in parallel, and she says:
 12 "Dear both,
 13 "This needs looking into please ... can I have
 14 a report that takes the points in order and explains
 15 them.
 16 "Tim McCormack is campaigning against PO and
 17 Horizon. I had another note from him this am which Tom
 18 will forward, so you are both in the loop.
 19 "We must take him seriously and professionally.
 20 "This particular blog is independent of Sparrow but
 21 clearly related in that it appears to present similar
 22 challenges that were raised in the course of the scheme.
 23 "I'm most concerned that we/our suppliers appear to
 24 be very lax at handling 24k."
 25 Pausing there, that appears to be a reference to the

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1 triple sum rather than to any of the outstanding cases
 2 they haven't traced because they were 2,500 and 25,000.
 3 And response on the same day at {F/1495.2/1} from
 4 a Rob Houghton who was head of IT at Post Office, so we
 5 there get:
 6 "I need an urgent review and mini <taskforce> on
 7 this one."
 8 MR JUSTICE FRASER: Where are you reading?
 9 MR GREEN: Sorry, immediately under Rob Houghton's response
 10 at the top, third of the way down, copied in to Angela
 11 van den Bogerd, "The Dalmellington error in
 12 Horizon/problems with POL" which was the news article.
 13 "I need an urgent review and mini <taskforce> on
 14 this one. It probably needs to link up heavily with
 15 Angela's work as FSC are mentioned extensively ..."
 16 This is 1 July 2016, my Lord:
 17 "... - Angela cfi."
 18 Copied for information presumably:
 19 "I don't know how we respond to this but can we
 20 section a few inside people to get all over it and give
 21 me/Al/Paula evidence and understanding."
 22 And then at the top of the page the response at
 23 11.59, which is difficult to fit into the chronology,
 24 appears to be on the same day, Friday 1 July:
 25 "Can you stand down on this please?"

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1 Redacted:
 2 "Any specific actions and I will revert.
 3 "My apologies."
 4 Pausing there, the claimants' letter of claim was
 5 sent on 28 April 2016 and the Post Office sent its
 6 letter of response on 28 July 2016 so nearly four weeks
 7 after the decision to stand down on the investigation of
 8 that bug. So as at the date that the Post Office was
 9 responding in its letter of response, it had front and
 10 centre in its mind the existence of this bug.
 11 Now, that bug was not disclosed in the letter of
 12 response. The bugs that were disclosed in the letter of
 13 response were the three that Second Sight had already
 14 found and Post Office letter of response, if we can just
 15 turn to {H/2/95}, stated --
 16 MR JUSTICE FRASER: That's the letter of response, is that
 17 right?
 18 MR GREEN: Yes.
 19 MR JUSTICE FRASER: This is the schedule 6 rebuttal, is that
 20 right?
 21 MR GREEN: Precisely.
 22 This is where the Post Office obviously rebuts the
 23 allegations that have been made in the letter of claim
 24 and at 1.5:
 25 "Second Sight only reported on a number of already

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1 resolved defects in Horizon (which they called 'bugs').
2 Second Sight did not discover these defects through its
3 investigations . These were issues already known to and
4 remedied by Post Office . It was Post Office that
5 disclosed them to Second Sight."

6 So those are the three. Then 1.6 deals with the
7 lack of attribution of any shortfall in the scheme to
8 Horizon. Then 1.7:

9 "The letter of claim also presents no evidence that
10 a defect in Horizon has caused a postmaster to be held
11 wrongfully liable for any shortfall in their branch.

12 "Nevertheless, you make repeated references to the
13 existence of historic defects in Horizon in order to
14 give a false impression that Horizon deeply suffers from
15 major defects, that Post Office does nothing about them
16 and that these errors have caused postmasters losses
17 which have gone unremedied. In order to dispel any
18 myths around the defects reported on by Second Sight and
19 cited by other sources, we have set out below in detail
20 what happened in these instances. To be clear -
21 Post Office does not claim that these have been the only
22 defects in Horizon."

23 So what they do do is they respond to the three that
24 were known about, but they don't give any account of the
25 Dalmellington bug or of its true extent which they well

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1 knew about from the Fujitsu presentation -- sorry,
2 Dalmellington related issue on multiple remmings,
3 because there are a number of different PEAKs and
4 different software code problems that relate to multiple
5 remming.

6 So if we just look over the page, just
7 parenthetically , my Lord, if we may, at {H/2/96}. In
8 relation to the Callendar Square, Falkirk issue, that is
9 said to be an issue that only affects one branch and it
10 is ruled out in the -- at the bottom:

11 "... also raised as part of a defence in a civil
12 action by Post Office against a former postmaster,
13 Lee Castleton ... The Court accepted the evidence from
14 'Fujitsus witness, Anne Chambers, and found 'no
15 evidence' of the Falkirk bug in Mr 'Castletons branch."

16 We now know from Mr Godeseth's witness statement of
17 16 November that this bug affected 30 branches and
18 resulted in mismatches at 20 branches.

19 So it's not just in the letter of response that they
20 don't deal with Dalmellington, but it's not a full
21 account perhaps of what was being said.

22 MR JUSTICE FRASER: The Callendar Square one affected
23 30 branches.

24 MR GREEN: Indeed.

25 MR JUSTICE FRASER: That's different to the Dalmellington

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1 one.

2 MR GREEN: Completely separate.

3 MR JUSTICE FRASER: Is there a list of those 30 branches
4 somewhere?

5 MR GREEN: I think we've got -- I will trace where it is .

6 MR JUSTICE FRASER: Just give me the reference in due
7 course.

8 MR GREEN: Of course.

9 Coming back to Dalmellington, so what in fact
10 happens is it is not disclosed in the letter of response
11 and then the experts are then provided essentially with
12 8,000 KELs and about 220,000 PEAKs. My Lord, just for
13 your Lordship's note, in the appendix we have dealt with
14 how we obtained the KELs and the genesis of that
15 disclosure at {A/1/12-14} and then we have set it out in
16 greater detail in the appendix.

17 MR JUSTICE FRASER: Which is at 106 I think.

18 MR GREEN: Indeed.

19 So what in fact happens is there is the --
20 eventually we get the KELs.

21 MR JUSTICE FRASER: I made an order I think, didn't I?

22 MR GREEN: Your Lordship made an order, exactly. And they
23 had first been -- the KELs had been requested in the
24 letter of claim and your Lordship made observations
25 about the response to that earlier .

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1 What in fact happens is Mr Coyne is the person who
2 discovers the existence of the Dalmellington bug in his
3 first report. If we look at that, it's {D2/1/58}. And
4 he actually locates it -- it is paragraph 5.16 -- and
5 your Lordship will see at paragraph 5.16 he explains
6 what's happened and footnote 46 is the email thread and
7 then he also finds the duplicated branch receipts and
8 then if we can just go to page 60 of that document --

9 MR JUSTICE FRASER: Page 60 of which document?

10 MR GREEN: Of Mr Coyne's first report {D2/1/60}.

11 Your Lordship will see that although he does refer to
12 a KEL at 5.23:

13 "... evidence of cash declaration discrepancies
14 arising from clerks duplicating remittance in
15 transactions ... because of wrong messages being
16 presented on the Horizon counter screen ..."

17 MR JUSTICE FRASER: Yes.

18 MR GREEN: He has not at that stage worked out that this is
19 the Dalmellington bug. So it just gives your Lordship
20 an insight into how we had to discover what was done.

21 Then Mr Parker and Mr Godeseth's evidence is
22 significant because the bug was not dealt with in the
23 first round of the Post Office's evidence at all and
24 only after it was referenced by Mr Coyne was it dealt
25 with in the first statement of Mr Parker and the second

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1 of Mr Godeseth and Mr Parker confirmed the link between
 2 the KEL and Dalmellington and says temporary financial
 3 impact which was rectified by a transaction correction
 4 being issued. Mr Godeseth then discloses the 112
 5 instances of duplicate bar codes and then appends the
 6 analysis that I have already mentioned to the court.

7 Then Dr Worden's initial analysis, which is
 8 7 December 2018, does not reference Dalmellington, so
 9 Post Office appear not to have told him about it, or he
 10 has not dealt with it, we don't know which it is, and
 11 despite the fact that it had actually been referenced by
 12 Mr Coyne in Coyne 1 and he is responding to it, and
 13 referenced in Godeseth 2 and Parker 1, which are
 14 statements which Dr Worden -- I'm sorry, I was corrected
 15 by my learned friend earlier, I have forgotten to say
 16 that: my Lord, Dr Worden pronounces his name Dr Worden,
 17 I have been pronouncing it wrongly.

18 Despite the fact that Dr Worden has referred to the
 19 defendant's witness statements on other matters. He did
 20 mention the KEL and he regarded it as having --

21 MR JUSTICE FRASER: Are you talking about Worden 2 now or
 22 Worden 1?

23 MR GREEN: This is Worden 1. Then Mr Coyne, in Coyne 2,
 24 identifies further PEAKs on his own without any
 25 assistance from Post Office and sets those out -- no

1 need to turn it up, I will just give the references
 2 {D2/4/105} and the PEAKs concerned are the 207 PEAK
 3 which we have looked at which is {F/1393}, and 949 PEAK,
 4 {F/1389}.

5 MR JUSTICE FRASER: Sorry, can you give me the first one
 6 again?

7 MR GREEN: Sorry, the 207 PEAK is {F/1393} and the 949 PEAK
 8 is {F/1389}. Then Mr Coyne then attempts to look for
 9 PEAKs with FAD codes of those branches whose situations
 10 are unresolved and can't find anything. There are four
 11 unresolved of which two are a significant sum and he
 12 mentions that at Coyne 2, paragraph 4.53, we don't need
 13 to go there but it is {D2/4/107}.

14 Then in Dr Worden's second report he does refer to
 15 Dalmellington, explaining he didn't realise that the KEL
 16 he was looking at related to Dalmellington and he
 17 concludes that there was no permanent error due to the
 18 branch account because it was resolved by a TC, a PEAK
 19 and KEL were created, so the system worked well and it
 20 was fixed, and his opinion is re-enforced by the small
 21 maximum financial impact that he has estimated of
 22 incorrect TCs. He doesn't actually expressly mention
 23 the 112 occurrences, the 87 other branches affected or
 24 there that it lay undetected for five years, at least
 25 for some parts of that aspects of it appear to have been

1 corrected by various fixes, the lack of calls put into
 2 Fujitsu or actually directly address the four branches
 3 where there is no outcome confirmed.

4 So stepping back, your Lordship will now have
 5 a picture of the task and the information available, why
 6 the experts are agreed that the KELs and PEAKs have
 7 relevant information in them but not a complete picture,
 8 and how this particular bug was addressed.

9 Now, the postscript to this is that four hours and
 10 45 minutes after our written opening had been filed with
 11 the court, so at 4.45 on 4 March, PO disclosed for the
 12 first time 36 additional documents.

13 If we look at {H/232} --

14 MR JUSTICE FRASER: Are these documents other than the ones
 15 you mention in one of your paragraphs as being
 16 outstanding that Mr Coyne had asked for?

17 MR GREEN: My Lord, they are -- well, I think they overlap
 18 because they relate to the Dalmellington bug, some of
 19 them.

20 MR JUSTICE FRASER: So 36 new documents. Where are we going
 21 now?

22 MR GREEN: This is {H/232}, so this is the letter on
 23 4 March, 4.45 in the afternoon, so after written
 24 openings had been filed with the court and it says:

25 "During preparation for trial a number of further

1 documents which relate to the Horizon issues trial have
 2 come to Post Office's attention.

3 "Disclosure of these documents is being provided by
 4 way of enclosed disclosure list. The enclosed list also
 5 contains those documents which have been provided to the
 6 claimants but not yet formally disclosed."

7 My Lord, I'm not going to deal with the contents of
 8 those documents now, but I am going to have to take
 9 Dr Worden to them and some of the witnesses to them, but
 10 in fact what seems to have happened, there's some sort
 11 of investigation that has been done in relation to the
 12 two outstanding branches that we said were unremedied in
 13 our opening and a conclusion is reached that it is
 14 probably all fine, if I can put it in fairly neutral
 15 terms at the moment.

16 There are other bugs which we are obviously
 17 concerned about whether we got the full picture on but
 18 that will emerge in the evidence.

19 The background, my Lord, if I can just very quickly
 20 take your Lordship through it. There is correspondence
 21 which covers the disclosed documents here and the
 22 Dalmellington bug, which starts on 2 October 2018 at
 23 {H/122} in which we refer to the bug or error, we refer
 24 to bugs which are in addition to those acknowledged in
 25 the letter of response and ask for all documents

1 relating to these bugs and errors.
 2 MR JUSTICE FRASER: Yes.
 3 MR GREEN: So that's when it starts. My Lord, I'm not going
 4 to take your Lordship through all the correspondence.
 5 Can I just give you the references.
 6 MR JUSTICE FRASER: Go on.
 7 MR GREEN: There's a chaser on 13 December 2018 {H/147},
 8 there's the 11 January 2018 letter from Wombles at
 9 {H/165} offering voluntary disclosure of documents,
 10 providing 162 documents for Dalmellington; there's the
 11 22 January 2019 letter at {H/173/6} referring to the
 12 four unknown branches that I have just been talking
 13 about.
 14 MR JUSTICE FRASER: That's a letter from your solicitors?
 15 MR GREEN: From my solicitors.
 16 1 February, we've got Mr Coyne's second witness
 17 statement at 4.51 to 4.53 {D2/106}, 11 February, some
 18 disclosure, but 4 March these actual documents relating
 19 to those outstanding branches.
 20 MR JUSTICE FRASER: Thank you very much.
 21 MR GREEN: My Lord, that's hopefully a helpful introduction
 22 to what the micro texture of the facts looks like,
 23 trying to build up and answer the question.
 24 Can I just very briefly take your Lordship to
 25 a couple of documents which give an overview from the

1 internal perspective of Post Office and your Lordship
 2 will have in mind that if we just quickly turn to
 3 {F/1325/145}, Post Office's public position in its
 4 response to Second Sight of 11 March 2015, paragraphs 18
 5 and 19:
 6 "Questions were raised about Post Office's plans to
 7 change to a new system when the Post Office's current
 8 contract with Fujitsu in respect of Horizon comes to an
 9 end in March 2017.
 10 "Post Office's intention to move to a new system
 11 does not reflect any dissatisfaction or lack of
 12 confidence in Horizon. It is simply that the current
 13 contractual arrangements are due to expire."
 14 So that's the public position. And there are
 15 a number of documents -- given the time I will just take
 16 your Lordship to a couple of them -- which suggest that
 17 there were concerns with both the overall IT system and
 18 also the back office aspects of that and the ability
 19 properly to control and understand the sorts of issues
 20 that would be required in reconciling data.
 21 If we can go very briefly to {F/1557}, this is
 22 22 October 2016, paragraph 3:
 23 "Our back office also struggles with the
 24 complications of dealing differently with each of our
 25 many clients, heavily manual processes, reconciling

1 disparate sources of data, retrospective financial
 2 controls and a lack of flexibility. This backlog of
 3 challenges, poor support contracts and a lack of skills
 4 have led to a prohibitive cost of change, preventing the
 5 about improvements that should occur as part of
 6 a business as usual."
 7 And if we go then forward please to {F/1587/1}.
 8 This is a draft document dated 28 November 2016, so
 9 I qualify it with the fact that it is a draft, and
 10 "Context" it says:
 11 "This document forms an update to the IT strategy
 12 approved in July by the POL board. In July we outlined
 13 that IT was not fit for purpose, expensive and hard to
 14 change."
 15 If we go to page 3 of that document {F/1587/3},
 16 paragraph 1:
 17 "The IT strategy outlined a view of the current
 18 state of technology within POL as failing to meet POL
 19 aspirations on any assessment lens (cost, risk, delivery
 20 or service)."
 21 And paragraph 5:
 22 "Our greatest 'run the business' risk areas where we
 23 are outside of appetite are age and state of the legacy
 24 environment (eg Horizon availability, back office
 25 estate, lack of resilience and [disaster recovery] of

1 core platforms ...) ..."
 2 Then Mick 24.11.16 appears to be repeatedly
 3 referenced throughout this document. One of the main
 4 risk drivers over the page at {F/1587/4} is lack of
 5 a robust IT and controls environment in the table at
 6 paragraph 7, that's one of the main risk drivers
 7 identified in this document in November 2017. Then if
 8 we can just briefly go to the final version of that
 9 document at {F/1610}, that's dated 30 January 2017 and
 10 your Lordship will note from that page that in context
 11 again the line that was in the draft has survived the
 12 considered review that doubtless took place before it
 13 was finalised:
 14 "In July we outlined that IT was not fit for
 15 purpose, expensive and difficult to change."
 16 And the conclusion refers to reporting on the IT
 17 strategy in July. And at page 2 {F/1610/2}, the first
 18 indented bullet point:
 19 "We need to quickly rationalise and resolve
 20 misaligned contracts enacted to support legacy IT,
 21 obsolescence, a lack of PO technical competence,
 22 particular focus on Fujitsu and Accenture."
 23 And on page 3 of that document {F/1610/3} at bullet
 24 point 1:
 25 "The IT strategy outlined a view of the current

1 state of technology within PO as failing to meet PO
2 aspirations on any assessment lens ...”

3 Which is the quote I have already identified to
4 your Lordship. And quite a lot more of the same. The
5 only last page I would refer your Lordship to just very
6 briefly -- we will have to go to these in more detail
7 with other witnesses, but at page 8 of that document
8 {F/1610/8} there's a diagram on page 8 and it is
9 introduced by the bullet point just above it:

10 "The following highlights the current operational
11 risk areas referred to earlier in the document and the
12 initiatives underway or proposed ... to migrate these
13 into risk appetite - purple - severe risk, red -
14 high risk, amber - within appetite but attention
15 required ...”

16 And your Lordship will note that the Horizon branch
17 systems box is in red in the Post Office’s own internal
18 document.

19 MR JUSTICE FRASER: Which means it is high risk.

20 MR GREEN: It means it is high risk.

21 MR JUSTICE FRASER: Yes.

22 MR GREEN: My Lord, in overview then, your Lordship will be
23 hearing some important factual evidence which we
24 respectfully say is going to be an absolutely essential
25 bedrock for the experts then to give their considered

1 opinions on, after the factual evidence that Post Office
2 has put forward has been properly tested, because I’m
3 afraid we’ve got some aspirational "would have" evidence
4 and conclusions feeding through into the expert reports.

5 The three key points are the parties radically
6 differ on their approach to working out the answers. We
7 are going to commend the approach of what actually
8 happened rather than the hypotheses. The second is that
9 we are confident that the factual enquiry that will be
10 undertaken will enable your Lordship to have a more
11 robust basis for drawing any inferences as to the
12 answers than without it. And the final point is that
13 the question of robustness we respectfully say, while
14 relevant, is not going to be the determinative prism
15 through which those issues fall to be answered.

16 MR JUSTICE FRASER: Final question. Trial management, we
17 are starting with Mr Latif tomorrow.

18 MR GREEN: My Lord, yes.

19 MR JUSTICE FRASER: He is on the video, is that right?

20 MR GREEN: He is. He is travelling specially to Islamabad
21 to get a better connection.

22 MR JUSTICE FRASER: In view of time difference do you want
23 to start at 10 rather than 10.30?

24 MR GREEN: My Lord I think it is all teed up for 10.30.

25 MR JUSTICE FRASER: That’s fine. I need not interfere any

1 more.

2 Okay, so 2 o'clock.

3 (1.00 pm)

4 (The luncheon adjournment)

5 (2.00 pm)

6 Opening submissions by MR DE GARR ROBINSON

7 MR DE GARR ROBINSON: My Lord, good afternoon. I will just
8 say something briefly first of all about the claimants’
9 history, Mr Green’s history, of how we got here. He
10 devotes 25 pages of his opening submissions to those
11 questions. My submission is that those questions are
12 mostly a distraction from the important questions in
13 this case, which is the Horizon issues. Many of the
14 points that he makes are unfair and some of them we say
15 are downright wrong, but I will not take up time I don’t
16 have in addressing them in this opening. Instead,
17 subject to your Lordship, I propose to deal with them in
18 writing in our written closings. If I have time at the
19 end of these submissions I may say a few brief things
20 about some of them, but I suspect I won’t have time.

21 Laying those points to one side, the Horizon issue
22 consists of 15 questions and, as your Lordship will have
23 seen from our submissions, we say they can be
24 conveniently divided into three groups. In descending
25 order of importance, the first question is is Horizon

1 robust or does it cause branch shortfalls? The second
2 group of questions can be summarised as was Fujitsu --
3 because we are talking about Fujitsu here -- secretly
4 manipulating Horizon data? And then thirdly there’s
5 a miscellany of factual questions about the function and
6 operation of the system.

7 Your Lordship has already heard from Mr Green
8 indicating that the operational/functional issues are
9 largely agreed. Despite the apparent differences
10 between the experts on proper analysis we say there is
11 no material disagreement between them. They are agreed,
12 for example, that subpostmasters could run over 100
13 different types of report covering transactions
14 conducted at the branch. In the ordinary course these
15 reports would show enough information for
16 a subpostmaster to be able to balance his or her
17 accounts.

18 My Lord, these reports can be used to identify the
19 causes of some types of discrepancies but not others
20 because to do more would require knowledge of complex
21 back-end systems which subpostmasters cannot be expected
22 to have and for your Lordship’s note that’s in the
23 second joint statement at paragraph 9.3 {D1/2/39}.

24 It is important to note that it is not suggested by
25 the claimants that the -- or at least by Mr Coyne at any

1 rate -- that subpostmasters should be given direct
 2 access to information of a back-end kind and indeed in
 3 his second report your Lordship will note that Mr Coyne
 4 positively disclaims any suggestion of that sort. He
 5 deals with that at paragraph 5.380 which is at
 6 {D2/4/225}.

7 So why are those issues here? They are here because
 8 it is the claimants' pleaded case that there was
 9 something wrong with the way in which Horizon was
 10 designed and operated for subpostmasters. For example,
 11 they say there was an asymmetry of information which was
 12 inappropriate. Horizon did not give them the
 13 information that they should have done. Amongst other
 14 things, the suggestion seems to be that it should have
 15 notified them of bugs, it should have given them far
 16 more information than it did to enable them to dispute
 17 shortfalls .

18 Your Lordship will see that from paragraph 19.3 of
 19 the generic particulars of claim. I won't take
 20 your Lordship to it but for your note the reference is
 21 {C3/1/7}, where there is a reference to limitations on
 22 subpostmasters' ability to access, identify and
 23 reconcile transactions recorded on Horizon and the lack
 24 of any or any adequate report writing features as
 25 repeatedly raised by Mr Bates.

1 Now, that is what is noted by Dr Worden in his first
 2 report and he discerns an assumption, he says, in the
 3 claimants' case that there is something wrong with the
 4 level of information that's provided to subpostmasters
 5 and your Lordship will see that, for example, in
 6 paragraph 954 of his first report, the reference to
 7 which is {D3/1/213}.

8 My Lord, in my submission he correctly discerned
 9 that allegation in the claimants' case, but in
 10 Mr Coyne's second report, paragraph 5.380, that's
 11 {D2/4/226}, Mr Coyne has now firmly disassociated
 12 himself from that suggestion. So that's good news, it
 13 means we can put that aspect of the claimants' case to
 14 one side.

15 But the claimants' opening does go further. It
 16 spends a great deal of time addressing the effectiveness
 17 of the information that was provided to subpostmasters,
 18 the reports that are covered in the functional and
 19 operational issues. In my respectful submission, that
 20 is unnecessary and inappropriate for the purposes of
 21 this trial. It is not a Horizon issue -- the
 22 effectiveness of those reports, what can be done with
 23 them is not a Horizon issue. Whether in any given case
 24 a report is sufficient to enable a subpostmaster to
 25 identify the root cause of a discrepancy depends on the

1 nature of the discrepancy that he or she is faced with.
 2 It is essentially a breach issue and it is not something
 3 that should take any time up in this trial. There is
 4 already quite enough to be arguing about.

5 So we can put the operational issues largely to one
 6 side. We say, as your Lordship will be well aware, that
 7 the critical issue is one of robustness. The claimants
 8 seem to think that this is the wrong question. Indeed,
 9 they criticise Post Office for seeking to include it in
 10 the Horizon issues, even though all that Post Office did
 11 was seek to formulate issues that reflected the
 12 pleadings.

13 Now, why is robustness critical? It is explained in
 14 our opening at paragraphs 23 to 26. When the court
 15 decides individual claims an important question will be
 16 whether Post Office can generally rely on accounting
 17 data from Horizon as evidence of what the postmaster or
 18 his staff keyed in at the relevant time, or whether the
 19 relevant claimant can say the court should infer or
 20 presume that the shortfall shown by the accounting data
 21 was caused by a bug. The question of robustness is not
 22 dispositive of that question. What the court decides in
 23 any breach trial will depend on the evidence of that
 24 particular case. For example, it could be shown that
 25 the shortfall was caused by a particular bug operating

1 in a particular way at a particular time, or it could be
 2 shown that the shortfall was caused by a particular
 3 transaction correction and that that transaction
 4 correction was erroneous, but these are individual
 5 breach issues which will turn on the facts of the
 6 individual breach trials. This trial is to decide the
 7 generic issues. Hence the wording of the Horizon issues
 8 themselves. I don't know whether your Lordship has
 9 a copy of --

10 MR JUSTICE FRASER: Well, the ones I'm using are at your
 11 annex.

12 MR DE GARR ROBINSON: Well, I'm grateful.

13 MR JUSTICE FRASER: They are in a few places but it seemed
 14 the most useful.

15 MR DE GARR ROBINSON: Yes, we hoped that would be helpful to
 16 your Lordship.

17 Issue 1:

18 "To what extent was it possible or likely for bugs,
 19 errors or defects of the nature alleged to the
 20 effects ..."

21 Set out there. Your Lordship will note that the
 22 issue did not stop at the word "possible". It is common
 23 ground that it's possible. No one is claiming that
 24 Horizon is perfect, no one has ever claimed that Horizon
 25 is perfect. The interesting question is not whether

1 it's possible; we know it has happened. The interesting
2 question is whether it is likely .

3 Similarly with issue 3:

4 "To what extent and in what respects is the Horizon
5 system robust and extremely unlikely to be the cause of
6 shortfalls in branches?"

7 That asks an extent question. It asks a likelihood
8 question. Why? Because as I have sought to explain to
9 your Lordship, that's a useful issue which will then
10 have a bearing on the conduct of breach trials to be
11 conducted in the future.

12 Similarly with issue 4:

13 "To what extent has there been potential for errors
14 in data recorded within Horizon to arise in data entry
15 and so on?"

16 Again, it is another extent question. And, my Lord,
17 in paragraph 6, Horizon issue 6:

18 "To what extent did measures and/or controls that
19 existed in Horizon prevent, detect, identify, report, or
20 reduce to an extremely low level the risk of the
21 following ..."

22 That's a risk question, an extent of risk question.

23 So, as I say, my Lord, the critical question that's
24 raised by the Horizon issues, the relevant Horizon
25 issues here is not whether it's possible that bugs have

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1 occurred in Horizon which have caused branch shortfalls ;
2 we know it's possible, it's actually happened. That's
3 not even an issue on the pleadings, my Lord. The
4 critical issue is the issue that's raised in
5 paragraph 16 of the generic defence and perhaps I could
6 ask your Lordship to look at that. It's at bundle
7 {C3/3/5}. Paragraph 16 reads:

8 "Highly generalised and speculative allegations are
9 made that Horizon ... is unreliable or vulnerable to
10 manipulation and thus may have been the root cause of
11 some of the losses in branches. Like any IT system,
12 Horizon is not perfect, but Post Office maintains that
13 it is robust and that it is extremely unlikely to be the
14 cause of losses in branches."

15 My Lord, that means it is extremely unlikely -- in
16 any given case, when you see a loss in a branch, it is
17 extremely unlikely that that loss is going to be caused
18 by a bug.

19 So, as I say, my Lord, the question is not whether
20 it's possible for Horizon to create shortfalls, the
21 question is whether in relation to any given shortfall
22 Horizon is likely or unlikely, or extremely unlikely, to
23 have caused those shortfalls. In my submission that's
24 the essential question at the heart of this trial. It
25 will allow the parties to know whether at any breach

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1 trial the accounting information on Horizon for the
2 relevant branch and the relevant month is a valid
3 generally reliable starting point.

4 MR JUSTICE FRASER: I'm not in any way being difficult ,
5 I think we may as well just deal with it upfront at the
6 beginning. Am I to read "robust" as meaning "extremely
7 unlikely to be the cause", or is there more meaning to
8 "robust" than that? Because I think whatever it is, we
9 all have to make sure we are using the word the correct
10 way, or the same way.

11 MR DE GARR ROBINSON: The concept of robustness is a concept
12 which involves reducing to an appropriate low level of
13 risk, the risk of problems in Horizon causing shortfalls
14 which have a more than transient effect on branches. So
15 it involves both measures to prevent bugs arising in the
16 first place but those measures are never going to be
17 perfect and it includes measures which operate once
18 a bug has actually occurred and triggered a result. It
19 is both aspects of the equation.

20 I don't say that the word "robust" necessarily means
21 "extremely low level of risk", but what we say is that
22 if you have a robust system it produces a result in
23 which the system works well in the overwhelming majority
24 of cases and when it doesn't work well there are
25 measures and controls in place to reduce to a very small

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1 level the risk of bugs causing non-transient lasting
2 shortfalls in any given set of branch accounts.

3 MR JUSTICE FRASER: All right, thank you very much.

4 MR DE GARR ROBINSON: So it is not necessary or indeed in my
5 submission appropriate to investigate all the bugs or
6 errors that have ever been found in Horizon if those
7 bugs have no real impact on branch accounts. There
8 simply isn't the time for that.

9 The important thing is to focus on bugs which have
10 a financial impact on the branch accounts. And, as
11 I have already sought to explain to your Lordship, one
12 needs to bear in mind that robustness does not mean bugs
13 can't occur, or will almost never occur; it includes the
14 controls and measures which have the effect that when
15 they do occur they are likely, very likely, to be picked
16 up and remedied.

17 One consequence of that is that some bugs may have
18 an effect on branch accounts which is only going to be
19 transient because the system supporting Horizon will
20 pick up the impact and correct it as night follows day
21 in the ordinary course of the business.

22 Let me give your Lordship an example. The example
23 of remming in and remming out. My learned friend spent
24 some time this morning explaining the Dalmellington bug
25 and what he described as linked bugs, some other linked

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1 bugs that were also dealt with in the report that
 2 your Lordship saw. Actually those other bugs were
 3 separate bugs -- they had a similar symptom but they
 4 were separate bugs.
 5 In remming it is an easy case. It is particularly
 6 easy when it is an internal rem, as it were, from the
 7 branch to an outreach branch. There are a very small
 8 number of outreach branches. But also more generally
 9 when you are remming in cash that has been provided by
 10 Post Office and is sent to the branch, the Post Office
 11 will have its own record of how much money was sent out
 12 and the branch will have its own record of how much
 13 money was received. If those two numbers don't
 14 reconcile that is going to be picked up as night follows
 15 day and that is going to be the result of some process
 16 which will result in the problem being resolved.
 17 Your Lordship will have seen from the Dalmellington bug
 18 report itself that you saw this morning that a large
 19 number of the impacts that were discussed in the course
 20 of that report were sorted out by transaction
 21 corrections without the need for any intervention by
 22 Fujitsu or anybody else.
 23 In fact, Fujitsu still fixed those bugs,
 24 your Lordship will note, so Fujitsu picked up on the
 25 bugs even though they weren't the result of reports from

1 subpostmasters to Fujitsu. So Fujitsu itself -- it's
 2 quite a good example of how problems in the system, in
 3 reconciliation, will result in Fujitsu becoming aware of
 4 things because of its own automatic systems and sorting
 5 them out. But the important point is that it will be
 6 extraordinarily rare for a remming in or a remming out
 7 problem ever to produce a result that would have
 8 a lasting effect that will cause a branch to suffer
 9 a shortfall which leaves it powerless to resist. That's
 10 simply not in the nature of the remming process and the
 11 reconciliation processes that are associated with it.
 12 While dealing with reconciliation, my learned friend
 13 I noticed tried to kick me in the heels by inviting me
 14 to state what my case is on reconciliation generally and
 15 transaction corrections --
 16 MR JUSTICE FRASER: I always ignore those sorts of comments.
 17 MR DE GARR ROBINSON: My Lord, it is a tempting thing for
 18 him to do, I understand why he did it, perhaps I would
 19 have done it if I was in his position, but the important
 20 thing to note is that the reconciliation process, we all
 21 know how it works, it is essentially automated and
 22 discrepancies are picked up between the system and when
 23 discrepancies are picked up they are then investigated.
 24 There isn't enough time in this trial to investigate
 25 the processes -- and there are many of them -- by which

1 discrepancies are investigated. It simply wouldn't be
 2 possible and that's why those issues were positively
 3 excluded from the Horizon issues. There was a debate
 4 about it and that part of the process was excluded and
 5 that's why your Lordship will see from Horizon issues 5
 6 and 15 which deal with reconciliation and TCs,
 7 your Lordship will see that those questions are
 8 essentially factual.
 9 So to the extent that my learned friend is
 10 suggesting that one can only have a Horizon trial if one
 11 had disclosure of every single reconciliation process
 12 that has been operating in Post Office or Horizon for
 13 the last 20 years and every single transaction
 14 correction that's ever been sent in the last 20 years,
 15 my learned friend is in my respectful submission
 16 obviously wrong.
 17 Now, does that mean, as my learned friend would like
 18 to pretend, that it is therefore not possible to have
 19 a trial of the robustness question? And the answer
 20 is: obviously not. We all know that the process by
 21 which reconciliation happens means that where there are
 22 irreconcilable figures, where there are discrepancies
 23 between figures that should be the same, they will be
 24 looked at and in the vast majority of cases they will
 25 result in conversations, they will result in enquiries,

1 which will cause the problem to be resolved in
 2 a satisfactory way.
 3 My learned friend wants to say "Well, sometimes" --
 4 it being a human process -- "sometimes the corrective
 5 process will come to the wrong conclusion." Well,
 6 my Lord, that doesn't alter the fact that the process
 7 itself is a corrective process, it's a process that will
 8 tend to improve the reliability of the ultimate figures
 9 rather than take away from the reliability of the
 10 ultimate figures.
 11 So, my Lord, that's the very short answer to
 12 my learned friend's question. If he wants a longer one,
 13 or if your Lordship wants a longer one, we can of course
 14 discuss it later.
 15 My Lord, another example of measures which prevent
 16 problems from arising is in relation to recoverable
 17 transactions. Your Lordship will have seen some
 18 discussion of recoverable transaction in the expert
 19 reports and also in some of the witness statements. So,
 20 for example, when the system crashes, there's a power
 21 failure or something similar, it is always possible that
 22 a transaction being undertaken at the branch will not at
 23 that point have reached the Horizon system, for example
 24 because the outage occurs before the basket for the
 25 relevant transaction is closed. It is when the basket

1 is closed that the transaction gets added to the
 2 branch's Horizon accounts.
 3 Now, in that situation the accounts will not show
 4 the transaction that has been done and it might be that
 5 that transaction has already resulted in cash having
 6 changed hands. My Lord, does that mean there's
 7 a problem in Horizon? Is that the result of a bug which
 8 is a matter of some criticism? My Lord, the answer is
 9 no because what Horizon does have is a system which
 10 enables the transaction that hasn't been recovered to be
 11 identified and your Lordship will see from the witnesses
 12 who are addressing this issue, Mrs Burke for example,
 13 that the unrecovered transaction was actually
 14 specifically identified to her and your Lordship will
 15 also see that Post Office, because of its own
 16 reconciliation processes, was aware of it and was able
 17 to deal with it and Mrs Burke's -- or rather Mr Burke's
 18 branch did not suffer a lasting loss as a result of what
 19 happened on that day.

20 So, my Lord, those are just two very broad examples
 21 of mechanisms in place that have a tendency to reduce to
 22 an even smaller level the risk of lasting discrepancies,
 23 lasting shortfalls being inflicted on branch accounts as
 24 a result of bugs.

25 But to take a step back, the critical point I would

1 like to address your Lordship on is that it is not
 2 helpful simply to ask the question whether it is
 3 possible that there are bugs out there which affect
 4 branch accounts. We know it is possible. The question
 5 is, the interesting question for your Lordship is
 6 whether bugs are likely or unlikely to affect a given
 7 set of branch accounts in a given month in a given
 8 breach trial and, my Lord, on that question possibility
 9 is not the same as probability. You can't simply say
 10 "Well, it's possible it happened", that's not enough.

11 Now, in their submissions the claimants at times
 12 appear to recognise this, but neither they nor their
 13 expert Mr Coyne acts on it. My learned friend took
 14 your Lordship to paragraph 17 of the claimants' opening
 15 submissions this morning. Perhaps we could have another
 16 look at that. It is at {A/1/9}. The claimants say:

17 "As to the precise wording of the issues, the
 18 claimants previously made clear that they consider the
 19 wording of some of the issues insisted upon by
 20 Post Office to be unhelpful, but their inclusion was
 21 ultimately agreed by the claimants in order to reach
 22 agreement with Post Office. Post Office had very clear
 23 views on two particular points.

24 "First, on issue 1 (Robustness): Post Office was
 25 insistent on including this issue, formulated by the

1 defendant is whether Horizon is 'robust' and 'extremely
 2 unlikely' to cause shortfalls. This reflects language
 3 pleaded in [the defence], and indeed 'robustness' has
 4 been one of Post Office's 'narrative boxes' and
 5 a favoured term in Post Office's public relations
 6 pronouncements... Coincidentally or otherwise, it has
 7 also featured in the NFSP's defence of Post Office
 8 relied upon by Mrs Van den Bogerd. However, as the
 9 claimants made clear in their [reply], whereas the
 10 claimants' is that it is relatively robust and has
 11 become more robust over time - but not so as to be an
 12 answer to the Claim (and in so far as 'robustness' has,
 13 in this case, a sufficiently clear meaning - addressed
 14 further herein). The combination of Horizon's admitted
 15 imperfections (and discovered bugs and remote access)
 16 and the volume of many millions of transactions, 14 is
 17 entirely consistent with the levels of errors reflected
 18 in the Claimants' case."

19 My Lord, two points are being made in that
 20 paragraph. The first one I can deal with quickly. It's
 21 that the claimants' own case is that Horizon is
 22 relatively robust.

23 The second point is that the combination of admitted
 24 imperfections -- and I apprehend my learned friend would
 25 now say the impressions that have been shown as a result

1 of Mr Coyne's analysis -- and the volume of the many
 2 millions of transactions that are done through Horizon,
 3 is consistent with the level of shortfalls in relation
 4 to which the claimants make their claims in this
 5 litigation.

6 My Lord, as to the first point, it is simply wrong.
 7 Mr Green has shown you paragraph 37 of his reply, that's
 8 at bundle {C3/4/21}, where it is specifically denied
 9 that Horizon is robust. So on the pleadings at least it
 10 is not the claimants' case that Horizon is relatively
 11 robust, the claimants obviously don't like that, but
 12 after seeing the expert evidence the claimants, as
 13 I apprehend Mr Green, are now admitting the central
 14 issue which was previously denied. In my submission
 15 that's a major achievement from having this trial. In
 16 my further submission it is the opposite of unhelpful to
 17 have raised it as an issue in this trial.

18 My Lord, the second point -- perhaps we could look
 19 at paragraph 37 -- well, we can pick it up in
 20 paragraph 17.2. What the claimants are saying is that
 21 the relatively small chance of bugs in Horizon, because
 22 of the volume of transactions undertaken in Horizon, is
 23 likely they say to produce the very picture that's
 24 reflected in the claimants' case.

25 Now, what's important to understand about that is

1 that the claimants are relying on the concept of
 2 likelihood to support their case, so, as in my
 3 submission they have to, they are groping towards
 4 a numbers argument, the very kind of numbers argument
 5 that Dr Worden makes in his reports and about which they
 6 have so many critical things to say in their
 7 submissions. They say that the level of bugs in Horizon
 8 is likely to reflect the fact of the claimants' case.
 9 But what's entirely unstated in their evidence is how
 10 the level of bugs encountered in Horizon is likely to
 11 produce anything like the £18.7 million of shortfalls
 12 that the claimants say should not have been included in
 13 their accounts. My Lord, and it is unsupported by their
 14 expert who refuses point blank to engage in any
 15 numerical analysis at all and yet at the same time they
 16 criticise Dr Worden for trying.

17 So in my submission, my Lord, the claimants are in
 18 an awkward position. In making the case which I have
 19 just referred to in paragraph 17.1 they are engaging in
 20 an intellectual process which their own expert refuses
 21 to engage in and which when Dr Worden tries to engage in
 22 it they then criticise him.

23 The best that they can say is that having found 29
 24 bugs it is possible that other bugs have arisen, but
 25 they won't say anything about how likely it is other

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1 bugs have arisen, how big the effects of those bugs are
 2 likely to be, they won't engage in any kind of questions
 3 of that sort at all.

4 Now, in their submissions the claimants say that
 5 they will challenge Dr Worden's numerical analyses.
 6 That is to be welcomed. It will assist your Lordship to
 7 assist the soundness of his calculations. At the moment
 8 there is no engagement really by Mr Coyne with any
 9 questions of likelihood or extent, there are just some
 10 criticisms made of some of the assumptions that
 11 Dr Worden makes in his report.

12 Now, it is worth noting that Dr Worden has a number
 13 of different calculations, some of which are more
 14 complicated and some of which involve more assumptions
 15 than others. Let me just deal with one very simple
 16 calculation. This requires no understanding of
 17 statistics or mathematics. It is set out in section 8.5
 18 of Dr Worden's first report which starts at {D3/1/148}
 19 and it has changed a little bit in Dr Worden's second
 20 report but we don't need to address that in any detail
 21 at this stage.

22 MR JUSTICE FRASER: I should just tell you for interest I do
 23 understand mathematics and statistics. I'm not being
 24 funny, but I do.

25 MR DE GARR ROBINSON: No, that's very helpful, my Lord.

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1 I thought I did, my Lord, I have several maths A-levels,
 2 but I realised that my own sense of my own mathematical
 3 abilities was rather greater than it turned out to be.

4 MR JUSTICE FRASER: I mean this one is just a simple
 5 multiplication, isn't it?

6 MR DE GARR ROBINSON: Exactly.

7 MR JUSTICE FRASER: I think most school children would
 8 probably follow this one.

9 MR DE GARR ROBINSON: Exactly. It is one I understand:

10 Over the period 2000 to 2018 the Post Office has had
 11 on average 13,650 branches. That means that over that
 12 period it has had more than 3 million sets of monthly
 13 branch accounts. It is nearly 3.1 million but let's
 14 call it 3 million and let's ignore the fact for the
 15 first few years branch accounts were weekly. That
 16 doesn't matter for the purposes of this analysis.

17 Against that background let's take a substantial bug
 18 like the Suspense Account bug which affected 16 branches
 19 and had a mean financial impact per branch of £1,000.
 20 The chances of that bug affecting any branch is tiny.
 21 It is 16 in 3 million, or 1 in 190,000-odd. The chances
 22 of affecting a claimant branch are even tinier because
 23 the claimant branches tended to be smaller than ordinary
 24 branches. One could engage in all sorts of
 25 calculations, but your Lordship may recall from

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1 Dr Worden's second report that he ends up with
 2 a calculation of a chance of about 1 in 427,000-odd. So
 3 for there to be a 1 in 10 chance for a bug of this scale
 4 to affect one set of monthly account for a claimant
 5 branch, one would need something like 42,000 such bugs.

6 Of course there's a much simpler way of doing it
 7 which really is just a straight calculation. There have
 8 been 3 million sets of monthly accounts so the chances
 9 of the Suspense Account bug affecting any given set of
 10 monthly accounts is 60 in 3 million or about 5 in
 11 a million, so to get a one in 10 chance of such a bug
 12 you would need to have 50,000 bugs like it.

13 But, my Lord, all the roads lead to the same basic
 14 result which is that even for a significant bug of that
 15 sort, the number of bugs that would need to exist in
 16 order to have any chance of generating even a portion of
 17 the losses that are claimed by the claimants would be
 18 a wild number that's beyond the dreams of avarice. It
 19 is untenable to suggest that there are 40,000 or 50,000
 20 bugs of that scale going undetected in Horizon for
 21 20 years.

22 Dr Worden explains that in paragraphs 643 and 644 of
 23 his first report and the reference to that is
 24 {D3/1/152}. And it is interesting, my Lord, that the
 25 claimants very sensibly do not suggest that there will

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1 have been bugs of that scale in that number operating --
 2 lurking secretly in Horizon for the last 20 years and
 3 they don't suggest it because they can't. It's a matter
 4 of common sense. And in my respectful submission just
 5 that calculation demonstrates that the claim made at the
 6 end of paragraph 17.1 of the claimants' submissions is
 7 untenable. A combination of Horizon's impressions with
 8 the volume of transactions done in Horizon is not
 9 entirely consistent with the errors reflected in the
 10 claimants' case. In my respectful submission it is
 11 obviously inconsistent with that.

12 Just to be clear, that's not to say that a claimant
 13 could not have been hit by a bug. As I hope I have made
 14 clear to your Lordship, Horizon is not perfect. It
 15 remains a possibility, but the important point is how
 16 unlikely it is. But of course the question of whether
 17 an individual claimant has suffered an impact as
 18 a result of a bug is not a point for this trial. That
 19 is a breach issue to be dealt with in an individual
 20 case. This trial is about setting a baseline for
 21 Horizon's reliability, not a final conclusion that will
 22 govern every single breach case that comes before
 23 your Lordship.

24 Now, before addressing the expert reports on
 25 robustness it is worth noting the large measure of

1 agreement that now exists between the experts. There is
 2 no dispute about the architecture or capabilities of
 3 Horizon. There's no suggestion that Horizon lacks
 4 important capabilities or that it doesn't generally
 5 perform satisfactorily. There is no suggestion of any
 6 systemic problem lurking in Horizon.

7 In short, it is accepted that Horizon works well for
 8 the overwhelming majority of cases and consistently with
 9 that it is now common ground between the experts that
 10 Horizon is robust and that its robustness has improved
 11 over time and your Lordship already has the reference,
 12 it is the joint statement, the third joint statement,
 13 page 2, {D1/4/2}.

14 Now, what does relatively robust mean? It means
 15 robust as compared with comparable systems -- big
 16 systems, systems that keep aircraft in the air, that run
 17 power stations and that run banks.

18 My Lord, by the same token it is common ground that
 19 the Horizon is not infallible. It has and will continue
 20 to suffer faults every now and then. Sometimes, in
 21 a really small number of cases, those faults will have
 22 an effect on branch accounts, but it should be
 23 remembered that robustness is not just about preventing
 24 bugs from appearing in the first place, it is also about
 25 limiting the lasting detrimental effects when they do

1 appear.

2 Your Lordship will hear evidence that bugs affecting
 3 branch accounts are given a high priority when they are
 4 addressed by Fujitsu. They are not ignored. And,
 5 my Lord, the evidence also shows that bugs which have an
 6 effect on branch accounts occur only very rarely indeed.
 7 There is a dispute between the experts as to precisely
 8 how rarely, but in the context of a huge system that's
 9 been in continuous operation for 20 years, that dispute
 10 in my submission does not have a material bearing on the
 11 outcome of this trial. In the overwhelming majority of
 12 cases, branch accounts will not contain a shortfall
 13 caused by a bug and the scale of bugs that would be
 14 needed to undermine that simple fact would be enormous.

15 Putting the point another way, the difference now
 16 being played out between the experts is at the margins.
 17 They accept that there are imperfections in the Horizon
 18 system with the result that in some rare cases bugs
 19 affecting branch accounts occur and will not be
 20 immediately fixed. The issue between them is how slight
 21 are the relevant imperfections.

22 The scale of this difference is magnified by the
 23 adversarial process but in the scheme of things, in my
 24 submission, it is in fact tiny and to plagiarise
 25 Lord Justice Lewison in section 1 of his first chapter

1 in the interpretation of contracts, the lazy reader can
 2 stop here.

3 My Lord, we say that what is already common ground
 4 between the parties means that the claimants must fail
 5 in their primary endeavour to persuade the court to draw
 6 the inference or make the presumption that they want
 7 the court to make or to draw or make, to the effect that
 8 when faced with a shortfall in a set of branch accounts
 9 the shortfall was caused by a bug in Horizon.

10 Now, against that background let me say a few words
 11 about the experts. The claimants submissions are most
 12 unfair to Dr Worden. Your Lordship will see those at
 13 {A/1/33}. First of all, it is quite wrong to accuse him
 14 of bias. He is an independent expert whose views are
 15 his own. He is not a mouthpiece for Post Office's case
 16 and the claimants should not be suggesting that he is,
 17 as I see that they appear to do in their submissions.

18 Secondly, the submissions give the impression that
 19 Dr Worden's analysis is limited to the three admitted
 20 bugs that -- the three bugs that were discussed with
 21 Second Sight and that were then the subject of the
 22 pre-action correspondence and your Lordship gets that
 23 from paragraph 156 of their submissions {A/1/54} where
 24 they say:

25 "Dr Worden's analysis extrapolates from only three

1 bugs which happen to be those previously acknowledged by
 2 Post Office. It appears that Post Office had not
 3 disclosed to him the existence of other bugs, which he
 4 could not have taken into account."

5 My Lord, that is an unfair and incorrect account of
 6 the evidence that's given by -- or will be given by
 7 Dr Worden.

8 If your Lordship would go to Dr Worden's first
 9 report, annex D -- and, my Lord, it starts at
 10 {D3/2/95} -- your Lordship will see a very lengthy
 11 appendix which describes itself as containing:

12 "... some tables of KELs which are referred to in
 13 the report. The tables are:

14 "First a sample of 30 randomly selected KELs
 15 (selection of every 100th KEL in alphabetically sorted
 16 list), with commentary on the robustness countermeasures
 17 which acted in the case of each KEL, as well as its
 18 potential financial impact."

19 Then secondly:

20 "62 KELs mentioned in Mr Coyne's report, for which
 21 I have also analysed which robustness countermeasures
 22 applied and analysed the possible impact on branch
 23 accounts."

24 Third:

25 "A further sample of 50 randomly selected KELs (also

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1 every 100th KEL in an alphabetically sorted list) which
 2 I have analysed for possible financial impact, but
 3 I have not tabulated my analysis for robustness
 4 countermeasures."

5 And fourth:

6 "A sample of 50 KELs which each include the symbol
 7 'E' in their text - because in my opinion, this makes
 8 them more likely to be concerned with possible financial
 9 impact on branch accounts."

10 So your Lordship will see that Dr Worden was not
 11 simply looking at the three admitted bugs and then
 12 performing all sorts of mind games on the basis of those
 13 bugs, nor did he overlook and ignore the Dalmellington
 14 bug which Mr Green addressed your Lordship on this
 15 morning; he looked at all of them. He looked at more
 16 than just the bugs that were identified by Mr Coyne, he
 17 took random selections and he tried to use a form of
 18 searching which would disclose bugs that were more
 19 likely to have a financial impact on branch accounts.

20 So, my Lord, that's a first point I should make to
 21 your Lordship. It would be quite wrong to proceed, as
 22 I apprehend my learned friend would have you proceed, on
 23 the basis that Mr Coyne has done an in-depth analysis of
 24 the problems in Horizon, whereas Dr Worden has just
 25 looked at some pretty pictures about three admitted

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1 bugs. That isn't what Dr Worden did at all.

2 My Lord, the second point I should note is that in
 3 his second report Dr Worden increased the number of KELs
 4 and PEAKs that -- I should say he looked at the
 5 associated PEAKs as well, he didn't just look at KELs --
 6 he increased the number of samples that he reviewed to
 7 200.

8 And thirdly I need to make it clear to your Lordship
 9 that the review that he conducted was thorough, we say
 10 much more thorough than Mr Coyne's review. What
 11 Mr Coyne intended to do -- this will be obviously
 12 investigated with the witnesses -- is Mr Coyne tended to
 13 find phrases in particular documents that indicated
 14 a problem and he would stop there. He didn't,
 15 for example, seek to ascertain in JC1, in his first
 16 report, he didn't seek to ascertain whether any
 17 particular bugs would actually have a branch effect at
 18 all. That's not the exercise that he did. What he did
 19 in his first report was just find as many problems as he
 20 could. But what Dr Worden did was he considered both
 21 potential branch impact and he considered the operation
 22 of the countermeasures in practice.

23 Your Lordship will apprehend that Dr Worden is
 24 criticised for engaging in some kind of armchair
 25 analysis of countermeasures on the basis of design

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1 aspirations. My Lord, that characterisation is quite
 2 unfair, we would say. But more importantly what
 3 Dr Worden did is that he looked at the operation of the
 4 system, the PEAKs and the KELs relating to particular
 5 problems, and he looked to see how the countermeasures
 6 he had identified he had seen built into the system, how
 7 those countermeasures worked in any particular case.
 8 My Lord, that's an important function to perform if one
 9 is engaged in the process of seeking to obtain
 10 a balanced view of the robustness or otherwise of an IT
 11 system and it is important to note that it is not
 12 something that Mr Coyne did at all, certainly not in his
 13 first report. Even in his second report he goes no
 14 further than saying "Well, there are some bugs which
 15 were missed by the countermeasures." Well, my Lord, so
 16 there are, of course there are going to be bugs that get
 17 missed by all countermeasures. It is not suggested that
 18 it is impossible for bugs to arise which have a lasting
 19 impact on branch accounts. The critical question is how
 20 likely it is that such bugs will lurk in the system and
 21 be undetected in the way that the claimants would have
 22 you find.

23 It is in that respect worth noting that Dr Worden
 24 found more bugs with non-transient branch impacts than
 25 Mr Coyne did in his report and your Lordship will see

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1 that from our opening submissions at paragraph 219.3 and
2 for your Lordship's note the reference is {A/2/76}.

3 Your Lordship will be aware that of the 29 bugs that
4 are now listed in JS2, Dr Worden thinks there is
5 evidence to suggest there may be up to 12 bugs that had
6 a non-transient financial effect on branch accounts. Of
7 those 12 it is worth noting that Dr Worden identified
8 five of them.

9 So this is not a case, my Lord, where some kind of
10 blindfold -- the picture that my learned friend seeks to
11 paint of the process that Post Office went through and
12 the process that Dr Worden undertook in arriving at his
13 report was one in which he was blindfolded by
14 Post Office and somehow stumbled into providing
15 a positive report which just considered the three bugs
16 that Post Office had already identified. My Lord,
17 that's simply a travesty of the true facts.

18 On the basis of the documents he reviewed, Dr Worden
19 took a balanced view of the design of Horizon and its
20 countermeasures and of the operation in practice of its
21 countermeasures as evidenced by PEAKs and KELs and
22 associated documents. My Lord, and he also took
23 a balanced view of the service history of Horizon, the
24 support function provided by Fujitsu and its efficiency.

25 Now, that will be a battleground in the rest of this

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1 trial, I know, but even the documents that your Lordship
2 saw this morning with the Dalmellington bug,
3 your Lordship will see the rigour that's applied.
4 There's concern that postmasters aren't given advice
5 that might be incorrect. The rigour associated with
6 that process and the determination of Fujitsu and the
7 other people involved, the other stakeholders, to get to
8 the bottom of what happened is quite striking in my
9 submission.

10 In relation to the Dalmellington bug they did get to
11 the bottom of what had happened. They identified 112
12 potential branches with financial impact, 108 of which
13 had been fixed or made good. Of the other four only two
14 had a significant problem and, my Lord, of those two
15 further research showed that those two branches were not
16 actually affected by the Dalmellington bug at all, they
17 just had similar symptoms that were the result of an
18 entirely separate cause and that were fixed entirely
19 separately and my learned friend gave you I think the
20 reference to the document which shows that.

21 So by January 2016 the Dalmellington bug had been
22 fully investigated and it was quite clear what the
23 results of that bug were and my learned friend seeks to
24 suggest that there was more investigation to be done and
25 that Post Office somehow stopped that further

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1 investigation being done. That's not right at all.
2 By January 2016 Dalmellington had been fully analysed
3 and its consequences bottomed out and my learned friends
4 took your Lordship to a number of emails from
5 Post Office, they were from July 2016, six months later.

6 So, my Lord, Dr Worden's conclusion is that Horizon
7 is well designed and well supported by a team of people
8 who have been working on it from the start and who are
9 very thorough when investigating possible bugs and
10 your Lordship will I'm sure bear in mind Mr Parker's
11 witness statement where he says that they would keep
12 going until they spotted the problem. My Lord, that's
13 Mr Parker's second witness statement at paragraphs 20 to
14 23 and for the transcript it is at {E2/12/7}.

15 Now, contrast the work that Dr Worden did with the
16 work that Mr Coyne did. In the first joint report
17 before the experts even did their work on -- produced
18 their reports, he said that he was going to look for
19 bugs. And the reference is {D1/1/3-4}. Now, of course
20 both parties were looking for bugs, but Dr Worden, as
21 I say, found more branch-affecting bugs than Mr Coyne
22 did with lasting effects. But, my Lord, Dr Worden tried
23 to do more than that. He tried to take a balanced view
24 of how Horizon operated in practice and how well its
25 countermeasures operated in fact and that is something

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1 that Mr Coyne didn't do and as a result it shows a want
2 of quality of his analysis, we would submit.

3 Now, let's look at the bugs in issue. Could I ask
4 your Lordship to go to bundle {D1/2/3} which is the
5 joint statement, the second joint statement. If we
6 could pick it up at page 3, my Lord. Now, it is a long
7 table. It looks as if the experts are moving away from
8 each other, but in fact it's a very useful list. This
9 represents the first opportunity the experts have had to
10 identify where they agree and where they disagree on
11 these bugs and to explain what they say about them. I'm
12 not sure how we would have managed if a document like
13 this hadn't been produced.

14 It is worth bearing in mind how we arrived at this
15 list of 29. Your Lordship will see the heading "Table
16 of bugs/errors/defects with acknowledged or disagreed
17 evidence of financial impact". Mr Coyne's first report
18 didn't specifically look at branch-affecting bugs. His
19 report was more a catalogue of bugs of all sorts and all
20 shapes and sizes. It was a scattergun analysis. A few
21 of the bugs that he identified at great length were
22 branch-affecting.

23 Now, it was Dr Worden who looked for
24 branch-affecting bugs and in his first report he noted
25 what Mr Coyne had done and what he had not done. The

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1 result was that Mr Coyne responded in his second report,
 2 which starts at {D2/4/1} and in his second report -- and
 3 my learned friend took you to it this morning -- at
 4 paragraph 3.21 of that report he set out a table
 5 consisting of 22 bugs, of which 21 were said to be
 6 branch-affecting and, my Lord, the reference is
 7 {D2/4/15}.

8 Several of those bugs had not been seen before, had
 9 not been mentioned before. So in JR2, this was the
 10 first opportunity that Dr Worden had to comment on and
 11 address those bugs and through discussion between the
 12 experts, seven additional bugs were added to the list .
 13 Bugs 23 to 26 are bugs that are referred to in
 14 paragraph 742 of Dr Worden's first report, the reference
 15 to which is {D3/1/170} and these are identified as
 16 potentially branch-affecting bugs and those were added,
 17 they were not already part of Mr Coyne's 22 bugs.

18 Bugs 27 to 29 were added as a result of discussions
 19 between the experts.

20 So if we look at the heading of the table, bugs with
 21 acknowledged or disagreed evidence of lasting financial
 22 impact {D1/2/3}. So I think we are intended to take it
 23 that this is a table consisting of 29 bugs which
 24 Mr Coyne says all have financial impact.

25 It is acknowledged that there is evidence in 12

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1 cases for lasting financial impact and the ones where
 2 they are acknowledged, my Lord, just for your note, it
 3 is bug 1, which is a receipts and payments mismatch and
 4 your Lordship will see from Dr Worden's comments that
 5 a subpostmaster report wasn't necessary for that bug.
 6 Bug number 2, that's the Callendar Square bug. Bug
 7 number 3, that's the Suspense Account bug. And,
 8 my Lord, not Dalmellington because that would have been
 9 picked up as a normal remming reconciliation as night
 10 follows day.

11 By the way, contrary to the suggestion that the
 12 claimants at points make in their submissions, Dr Worden
 13 did analyse that bug in his first report.

14 Next is bug number 10 which is a Data Tree build bug
 15 which occurred very early in 1999, right at the
 16 beginning of Horizon. It was very noticeable, says
 17 Dr Worden, and very quickly fixed .

18 Bug number 13, "Withdrawn stock discrepancies" and
 19 it may be worth noting that Dr Worden's opinion that it
 20 wouldn't have lasted very long.

21 Bug number 14, bureau discrepancies. Bug number 18,
 22 concurrent log-ins. Again that's a very early one in
 23 1999, 1999/2000. Bug number 23, bureau de change. Bug
 24 number 24, wrong branch customer change. Bug number 25,
 25 like a top-up. Bug number 27, TPS. And bug number 28,

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1 drop and go.

2 My Lord, it is worth noting that there is a link to
 3 JR2. I would invite your Lordship to look at that link
 4 in due course. It is a link in which Dr Worden includes
 5 an assessment of the financial impact of those 12 bugs
 6 with his own base estimate and then a more generous,
 7 a more conservative estimate -- he describes it as
 8 conservative anyway -- favouring the claimants.

9 In fact could we look at that. It is the link to
 10 JR2 which is {D1/2/1}. It might not be possible,
 11 perhaps not. Your Lordship can do it on Magnum anyway,
 12 your Lordship will see there is a link --

13 MR JUSTICE FRASER: Is that the one-page document?

14 MR DE GARR ROBINSON: It is two pages.

15 MR JUSTICE FRASER: Is it? I thought it was one page.

16 MR DE GARR ROBINSON: My Magnum seems to be disappeared. In
 17 any event --

18 MR JUSTICE FRASER: The mean impact spreadsheet?

19 MR DE GARR ROBINSON: Yes and then there is a second page
 20 which is his comments on it. So if your Lordship looks
 21 at the comments he says:

22 "This is an estimate of the mean financial impact on
 23 all branches across the Post Office network ..."

24 MR JUSTICE FRASER: The link is just coming up with the
 25 spreadsheet.

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1 MR DE GARR ROBINSON: I see. There should be a second tab
 2 to the spreadsheet. Is that not there?

3 MR JUSTICE FRASER: I'm not sure that's loaded on, because
 4 I did have a look for this. I have seen this and
 5 I haven't seen any text that goes with it .

6 MR DE GARR ROBINSON: I downloaded it from Magnum yesterday
 7 but it may be that it hadn't quite got --

8 MR GREEN: There is an "Explanation" tab, if you mean the
 9 one on there.

10 MR JUSTICE FRASER: I see. You can't see it at the bottom
 11 of the screen.

12 MR DE GARR ROBINSON: I see. Does it go on forever?

13 MR GREEN: No, the "Explanation" tab.

14 MR JUSTICE FRASER: I've got it now. Is that the one -- it
 15 has 13 cells with text in and the first says "This is an
 16 estimate".

17 MR DE GARR ROBINSON: Yes. Can one click on the explanation
 18 of calculations on the second sheet?

19 MR JUSTICE FRASER: I think on Magnum the tab has dropped
 20 off the bottom of the common screen but there is
 21 a second page -- well, I've got mine up anyway,
 22 Mr De Garr Robinson.

23 MR DE GARR ROBINSON: I'm very grateful to your Lordship.

24 Your Lordship will see the first paragraph Dr Worden
 25 explains that he has estimated the mean financial impact

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1 and he has given his central estimate in relation to 12
2 bugs. Second paragraph he says:

3 "For each of these bugs the table contains a very
4 approximate estimate of the financial impact of the bug
5 if that impact had not been corrected by Post Office in
6 some way ..."

7 And your Lordship will appreciate I say that's a big
8 "if":

9 "... and my estimate of the probability that any
10 financial impact would have been corrected. My central
11 estimate of impact on the SPM reflects that probability
12 whereas my conservative estimate does not."

13 Then he says:

14 "As can be seen from the table, my opinion is that
15 the larger financial impacts would have been corrected
16 with high probability. Smaller financial impacts might
17 not have been corrected."

18 If your Lordship goes back to the table
19 your Lordship will see there is a column -- the 12 bugs
20 are identified that I have listed to your Lordship with
21 the associated KELs where there is one. There's an
22 estimate of financial impact column. Then there's
23 a probability that the postmaster was compensated column
24 and then there's Dr Worden's estimate of loss to
25 postmasters and then on the final column there's a loss

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1 to postmasters assuming that none of them were made good
2 during reconciliation or other processes. So
3 your Lordship sees --

4 MR JUSTICE FRASER: When you say "made good" though I think
5 you need to be clear what you mean because "made good"
6 has a technical meaning in terms of the accounting.
7 I think you mean remedied.

8 MR DE GARR ROBINSON: I mean where there is a financial
9 discrepancy caused in the accounts that discrepancy is
10 corrected by some kind of financial transaction.

11 MR JUSTICE FRASER: Yes. Because making good under the
12 accounting system meant the SPM paying it in.

13 MR DE GARR ROBINSON: I'm so sorry. You are ahead of me.

14 MR JUSTICE FRASER: That's why I'm just checking.

15 MR DE GARR ROBINSON: It is the common issues trial
16 nomenclature that I have to be careful of.

17 MR JUSTICE FRASER: But that's what you meant when you
18 explained how you did just then. I understand.

19 MR DE GARR ROBINSON: Yes.

20 Your Lordship will see that Dr Worden's previous
21 estimate had been £1,000. He increased that to £2,029.
22 That's per SPM. But in the other column your Lordship
23 will see "Total impact" of all these bugs was £165,000,
24 mean impact per SPM who was affected, £13,800 and that
25 compared with his previous estimate of £6,000. So the

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1 figures have gone up a bit and as he explains in his
2 commentary it is mainly because of the Data Tree build
3 bug, the 1999 bug, of £105,000.

4 Your Lordship will see it is those sort of figures
5 that then lead one to the calculation I explained to
6 your Lordship before which leads one to a requirement of
7 tens of thousands of these bugs in order to have any
8 hope of being responsible for even a relatively small
9 portion of the £18.7 million claims made by the
10 claimants.

11 So that's the agreed bugs.

12 As regards the disagreed bugs, a number of short
13 observations that I would like to advance to
14 your Lordship.

15 First of all, Mr Coyne refers to bugs where there
16 was no bug at all in the PEAK he has cited. This is
17 something we will explore with him. For example, bug
18 number 17 relates to branch customer discrepancies in
19 Legacy Horizon. This was not caused by a bug in
20 Horizon. The system crashed part way through
21 a transaction for an unknown reason and then it was
22 successfully detected and the missing transaction was
23 recovered. I explained to your Lordship before how the
24 recovery system works to identify transactions that may
25 have been missed. That's not an example of a bug,

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1 that's an example of Horizon working. And it is worth
2 noting, my Lord, that this issue was spotted not as
3 a result of any human intervention by a subpostmaster,
4 it was spotted as a result of an automated report that
5 was available to Fujitsu.

6 My Lord, secondly, Mr Coyne includes bugs, we say,
7 which were only found in testing and didn't make it into
8 the live system. An example of that is bug number 21,
9 dealing with transaction corrections issues. He makes
10 a reference to one particular bug referring to a PEAK at
11 {F/314/1}.

12 The important point to note about this bug is that
13 it was eradicated before the relevant software even
14 reached the live system. It was spotted in testing.
15 That's what testing is for.

16 My Lord, a third point observation to make is that
17 Mr Coyne includes bugs which have automatic fixes which
18 Mr Coyne himself acknowledges. I have referred to
19 remming in my opening already. Just one example would
20 be bug 5. It was a remming in issue. Mr Coyne's own
21 analysis correctly records that this could cause
22 a duplicate pouch of cash to be remmed in by the user
23 causing a shortfall, but what he doesn't say is that
24 Post Office's reconciliation processes check the pouches
25 sent out by Post Office and pouches received by the

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1 relevant branches, an automatic report is run which
 2 defects all sort of remittance discrepancies whether
 3 caused by user error, bugs or otherwise and then
 4 transaction corrections are generated to correct the
 5 problem. So it may be a bug, but, my Lord, it's a bug
 6 which in the ordinary course of things is almost never,
 7 if ever, going to result in a lasting loss to any
 8 subpostmaster.

9 Finally, there are some bugs which both experts
 10 agree had no financial impact, or at least one bug.
 11 My Lord, that's bug 21. So perhaps the heading to the
 12 table in the joint statement should be corrected. It's
 13 not 29 bugs that are said to have financial impact, it
 14 is 28.

15 But whether it is 12 or 28, my Lord, does not
 16 matter. In a system handling the volumes of transaction
 17 that Horizon handled, which was used by the number of
 18 branches that used it, over a period of 20 years, bugs
 19 of this number and scale can have no material impact on
 20 the overall robustness of Horizon, or putting the point
 21 more pertinently, the chances of one of these bugs
 22 affecting a given set of accounts is vanishingly small.
 23 Even if you sum them all up, the chances of any one of
 24 these bugs affecting a given set of accounts is
 25 vanishingly small.

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1 So what are we left with? We are left with
 2 a suggestion that it is possible that there are other
 3 undetected bugs in the system which may have an effect
 4 on branch accounts but, my Lord, as I have said
 5 possibility is not the same as probability. Mr Coyne
 6 does not say anything about probability. He makes no --
 7 in fact he disclaims any ability to make any inferences
 8 about how many bugs there are, what their scale is
 9 likely to be and what their impact is likely to be.

10 Now, in my respectful submission that is the
 11 approach which is not helpful. Mr Green and Mr Coyne
 12 describe it, in my submission rather curiously, as
 13 a bottom-up approach. It might be more accurate to
 14 refer to it as a bottom-down approach. Mr Coyne stays
 15 at the bottom, sticks just with the bugs that he has
 16 found and says nothing more, nothing about the
 17 implications of those bugs on the overall robustness of
 18 the Horizon system. He refuses to say anything on that
 19 question, so we are left with his agreement that the
 20 Horizon system is robust.

21 So he doesn't grapple with the critical question
 22 whether the court should infer or presume that the
 23 shortfall is shown in any given branch accounts was
 24 caused by a bug, my Lord, and it is not a realistic
 25 approach either. My Lord, it is common ground that if

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1 you have a bug it may well have a range of impacts, some
 2 may be smaller, some may be larger, some may affect more
 3 than one branch, but in the scheme of things where you
 4 have a bug which has different effects on different
 5 people, one has to ask oneself what are the chances of
 6 that bug evading any detection by anyone as a result of
 7 any of its impacts at any time? That's always going to
 8 be relatively low. And if one were to postulate a tiny
 9 bug which had an impact of a few pence, my Lord, there
 10 would need to be millions of those bugs in order to
 11 begin to be significant, to have a significant bearing
 12 on the robustness of Horizon.

13 In the real world we are concerned with bigger bugs,
 14 with a wider range of impacts, such as the
 15 Suspense Account bug and I ask forensically or
 16 rhetorically: how likely is it that there are tens and
 17 tens of thousands of such bugs lurking in the system,
 18 escaping detection for year after year? In my
 19 submission the answer is obvious.

20 My Lord, before -- I perhaps have a few minutes just
 21 to address one point that has a bearing on robustness
 22 before moving on. Your Lordship will see both in the
 23 claimants' submissions and in Mr Coyne's report
 24 frequently repeated assertions that Post Office operated
 25 in accordance with the cost-benefit analysis. I think

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1 the impression is sought to be achieved that because
 2 Post Office addressed some problems by adopting
 3 a cost-benefit analysis, this means that the procedures
 4 in place for dealing with or identifying bugs and fixing
 5 them and so on were not robust, that there was some kind
 6 of threat to the system because Post Office was cutting
 7 corners or something like that. But, my Lord, one needs
 8 to be careful with the evidence that is cited in support
 9 of these claims. Many of the claims of this sort rely
 10 on two or three pieces of paper, no more than that.

11 It is worth looking at one example of the evidence
 12 that's relied on in this case. My Lord, it is the claim
 13 in paragraph 144.1 of the claimants' submissions
 14 {A/1/50}. I don't know if your Lordship has a hard copy
 15 of it there.

16 MR JUSTICE FRASER: I do.

17 MR DE GARR ROBINSON: Your Lordship will see the claim made
 18 in 144.1:

19 "It has been identified that known issues/bugs were
 20 often deferred and dealt with on a cost-benefit basis."

21 So your Lordship will see the point and
 22 your Lordship will see exactly what they are trying to
 23 make of the point.

24 Footnote 105 refers to a paragraph in Mr Coyne's
 25 first report, paragraph 5.161. That paragraph refers to

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1 a document which is at {F/11/40}. This is minutes of
 2 a risk and compliance committee on 16 September 2013 and
 3 your Lordship will see the attendees. If I could ask
 4 your Lordship to go forward --
 5 MR JUSTICE FRASER: Were any of those attendees legally
 6 qualified?
 7 MR DE GARR ROBINSON: I'm so sorry?
 8 MR JUSTICE FRASER: Are any of those attendees legally
 9 qualified?
 10 MR DE GARR ROBINSON: My Lord, I'm not in a position to
 11 answer that question.
 12 MR JUSTICE FRASER: Maybe you could just find out because
 13 that might affect what I do in terms of ordering
 14 a review of the redactions, that's all.
 15 MR DE GARR ROBINSON: My Lord, I should tell your Lordship
 16 that questions have been raised about redactions and
 17 a further review has been undertaken by my instructing
 18 solicitors and also by junior counsel --
 19 MR JUSTICE FRASER: It has been done already, has it?
 20 MR DE GARR ROBINSON: Yes.
 21 MR JUSTICE FRASER: All right. I assume the result of that
 22 review was that they were properly redacted?
 23 MR DE GARR ROBINSON: The result of the review is that there
 24 are a relatively small number of cases where a different
 25 judgment call has been made, usually where one can see

1 why a different decision was made, but in the main the
 2 redactions have remained.
 3 My Lord, I can tell your Lordship that
 4 Susan Crichton was general counsel.
 5 MR JUSTICE FRASER: Susan Crichton.
 6 MR DE GARR ROBINSON: Who is the first attendee. In fact
 7 the chair.
 8 MR JUSTICE FRASER: Can you just -- not now, because I don't
 9 want to know now, but can you just identify for me on
 10 how many separate occasions the review led to disclosure
 11 being made where they had previously been redacted,
 12 following the review you have just told me about. Not
 13 now.
 14 MR DE GARR ROBINSON: I will find out.
 15 If we could go forward to page 3 {F/1140/3} the
 16 document says:
 17 "It was reported that following the recent Ernst &
 18 Young external audit four risks [have] been identified.
 19 Three of the risks raised had been addressed, however
 20 the final risk, relating to the communication by Fujitsu
 21 of changes made to the Horizon system, was still
 22 outstanding.
 23 "It was identified that it would cost over
 24 £1 million to implement the mitigation being suggested
 25 by the audit and that this was not proportionate to the

1 risk being managed."
 2 And the decision made was that:
 3 "The committee agreed that the risk be accepted with
 4 Dave Hulbert as the owner and Lesley Sewell being
 5 ultimately responsible."
 6 My Lord, this is evidence that is asserted by
 7 Mr Coyne and adopted by the claimants as evidence that
 8 known issues/bugs were often deferred and dealt with on
 9 a cost-benefit basis. So you will see how high the
 10 claim is put, but it is worth looking at the Ernst &
 11 Young report that's referred to. My Lord, that's at
 12 bundle {F/1127}, or rather a committee meeting which
 13 considers the Ernst & Young recommendations. This is
 14 a risk and compliance committee meeting relating to the
 15 acceptance of risk following Ernst & Young audit of
 16 2012/2013. "Purpose":
 17 "The purpose of this paper is to:
 18 "Update the risk and compliance committee to a risk
 19 that IT&C have 'accepted' following the 2012/13 Ernst &
 20 Young IT audit.
 21 "Background.
 22 "2.1. The 2012/13 Ernst & Young IT audit found no
 23 significant exceptions but did identify a small number
 24 of improvement opportunities. Four high level
 25 improvement opportunities were recorded. Three have

1 progressed and are either complete or in the process of
 2 completing. For one, IT&C believe we have sufficient
 3 process and mitigation in place to accept this risk.
 4 This paper is to highlight this decision to the Risk &
 5 Compliance Committee."
 6 And paragraph 2.2 reads:
 7 "The specific observation was with regard to change
 8 management monitoring control. The actual observation
 9 read 'management should make use of a system-generated
 10 list of changes in performing the monitoring control to
 11 further enhance its effectiveness.'
 12 2.3:
 13 "The risk being that changes may be made to the
 14 system that are not approved and not found through
 15 monitoring."
 16 So it's a process suggestion, my Lord, it's not
 17 something that has any bearing on the quality of any
 18 changes to the system.
 19 3:
 20 "The Post Office service management team currently
 21 monitor IT system changes on a monthly basis by
 22 cross-referencing known and approved changes against
 23 a list produced by Fujitsu. E&Y observed that this
 24 could be enhanced if the list was generated by the IT
 25 system rather than by change records.

1 "IT service management engaged with Fujitsu to
 2 understand how this could be achieved and it was
 3 concluded a very difficult and potentially expensive
 4 approach to adopt this as all changes are recorded as
 5 'events' within the IT system of which there are
 6 multiple thousands per day with changes only being
 7 a small percentage. The cost and difficulty in
 8 extracting these specific change events on a regular
 9 basis would outweigh the value in monitoring the
 10 change."
 11 So the options considered were:
 12 "1. Continue with the existing approach of using
 13 a list generated by the change records."
 14 Or:
 15 "2. Develop an approach with Fujitsu to generate
 16 a list from the IT system of events."
 17 And then over the page, my Lord {F/1127/2} the
 18 proposal at paragraph 5:
 19 "To continue with the existing process of monitoring
 20 but to additionally raise this as a risk within IT&C and
 21 to monitor any exceptions found through the existing
 22 process. If exceptions are found then reconsider the
 23 proposal from E&Y and assess the impact of the change
 24 versus the benefit."
 25 And, my Lord, if we then go down to paragraph 7 "Key

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1 risks/mitigation":
 2 "There is a risk that some changes may not be
 3 monitored using the existing process. In mitigation of
 4 this, the current process has never uncovered any
 5 changes that have not been monitored and that is
 6 supported by the annual IT audits by Ernst & Young."
 7 So, my Lord, that's the decision. That explains
 8 what the proposal was, how carefully it was considered
 9 and what the conclusion was. That is not evidence for
 10 the proposition that when a bug arises, quite often what
 11 Post Office and Fujitsu would do was do nothing because
 12 it costs them money. Your Lordship will bear in mind
 13 Mr Parker's witness evidence in which he said that bugs
 14 with a branch impact were always treated as high
 15 priority.
 16 So, my Lord, obviously I have not made my case just
 17 simply by referring to one document, but I would invite
 18 your Lordship to be cautious when dealing with
 19 submissions of that sort from the claimants and indeed
 20 from Mr Coyne.
 21 MR JUSTICE FRASER: We are probably going to have to have
 22 a break.
 23 MR DE GARR ROBINSON: We are.
 24 MR JUSTICE FRASER: Is now a good time?
 25 MR DE GARR ROBINSON: It is a perfect time, my Lord.

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1 MR JUSTICE FRASER: We will come back in at 25 past and
 2 don't forget at the very end we just have to deal with
 3 that timetable point.
 4 (3.15 pm)
 5 (Short Break)
 6 (3.27 pm)
 7 MR DE GARR ROBINSON: My Lord, having dealt with the
 8 operational issues and robustness I was now going to
 9 move as quickly as I could to remote access. To save
 10 time I'm proposing to take your Lordship to some
 11 relevant paragraphs in our opening submissions and for
 12 that purpose I would invite your Lordship to go please
 13 to paragraph 40 of those submissions, which is at
 14 {A/2/17}. This is a context point. It's a really
 15 really important context point. It's a point that
 16 applies to transaction corrections as well, but for
 17 present purposes I'm making it in relation to remote
 18 access. It is the second order issue that your Lordship
 19 I'm sure will be familiar with now. At paragraph 40 we
 20 say:
 21 "On a number of issues on which Mr Coyne places
 22 considerable emphasis in questioning Horizon's
 23 robustness, Mr Coyne overlooks that they are second
 24 order issues that can only have minimal effect. At best
 25 they represent a very small fraction of a very small

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1 fraction of any cases. Remote access is one such issue.
 2 Transaction corrections are another."
 3 Paragraph 41 reads:
 4 "Taking remote access as an example, the need for
 5 remote intervention affecting branch accounts will
 6 obviously be rare. On any view, the occasions on which
 7 privileged users at Fujitsu have exercised their ability
 8 to remotely inject, edit or delete branch transactions
 9 or accounting entries will represent a tiny percentage
 10 of the relevant transactions/accounting entries. And
 11 the occasions on which they have done so negligently or
 12 dishonestly will, in turn, represent a very small
 13 percentage of those occasions. So, compared with the
 14 volume of business recorded in branch accounts, the
 15 number of cases in which false data will have been
 16 remotely introduced will be extremely small (multiplying
 17 a small chance by a small chance). This is a 'second
 18 order effect' ... which is, by definition, extremely
 19 unlikely to have any significant impact on the
 20 robustness of Horizon."
 21 My Lord, if we take a step back and think again
 22 about the 3 million sets of monthly branch accounts that
 23 have occurred over the last 20 years, I ask rhetorically
 24 how many interventions, insertions, deletions, editing
 25 would one need into branch accounts -- and I emphasise

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1 into branch accounts, not other kinds of remote access,
 2 we're talking about interventions which have an impact
 3 on branch accounts, transactions done in the branch or
 4 stock or cash held at the branch, those kind of things,
 5 how many of those interventions would one need in order
 6 to generate a material risk that any given branch's
 7 accounts are likely to be wrong? You would need
 8 hundreds of thousands because the chances of any
 9 intervention actually being wrong -- all human
 10 intervention is subject to error so there will be an
 11 error rate, or there might be an error rate, but it's
 12 going to be a relatively low error rate on any view, so
 13 one would need hundreds of thousands of those even to
 14 produce the number of interventions that could have even
 15 a small impact on the general body of branch accounts.
 16 The numbers would have to be unimaginably huge for this
 17 to have any material impact on the issues with which
 18 your Lordship will be wrestling in the Horizon issues
 19 trial.
 20 It is hard to overstate the importance of this
 21 point, my Lord. These remote access issues are here
 22 because of concern expressed that Fujitsu -- and we are
 23 only talking about Fujitsu, who are professionals -- was
 24 using its administrator rights in such a way and on such
 25 a scale as to undermine the reliability of the

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1 claimants' branch accounts. And it is vital to
 2 understand, in my submission, that in the real world
 3 this is not going to be an answer to that question, this
 4 is not going to have a bearing on the robustness of the
 5 system and on the reliability of any given branch
 6 accounts in any given month.
 7 So, my Lord, that is a first and in my respectful
 8 submission critical point of context that should always
 9 be borne in mind. There's a sense of unreality. It is
 10 quite understandable, the issues here are quite
 11 eye-catching, my learned friend quite understandably has
 12 developed his submissions as to how the history of this
 13 issue has arisen and how matters have been revealed in
 14 the course of time, one quite understands why he has
 15 done that, but when looking at the history of the case
 16 and when looking at the witnesses and what they say
 17 about remote access it's really important to bear in
 18 mind in my submission that even if the claimants' case
 19 succeeds at its highest, it's never actually going to
 20 have a material impact on the reliability of branch
 21 accounts. That's just not what this activity is about.
 22 MR JUSTICE FRASER: Now, this is the same point I think, is
 23 it not, that where the dispute used to be this couldn't
 24 be done, now the dispute is in theory it can be done but
 25 in practice it never would have been; is that a fair

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1 summary?
 2 MR DE GARR ROBINSON: No, my Lord, I would put it as
 3 follows. If your Lordship would like me to address on
 4 what --
 5 MR JUSTICE FRASER: No, it is just so that I understand
 6 firstly that it's the same point that Mr Green developed
 7 along those lines and secondly if it is the point which
 8 I accurately understand the way you are putting it, it
 9 is that Fujitsu did have the ability to do that but in
 10 practice never would.
 11 MR DE GARR ROBINSON: No, my Lord, I'm going to take you to
 12 this in a few minutes, but let me -- first of all one
 13 has to distinguish between Legacy Horizon and
 14 Horizon Online.
 15 MR JUSTICE FRASER: Correct.
 16 MR DE GARR ROBINSON: Horizon Online, there has been one
 17 occasion when a transaction was inserted into one
 18 branch's accounts at the BRDB, one occasion, and
 19 my learned friend wants it to be more, so does Mr Coyne
 20 and there will be evidence given on that question.
 21 In relation to Legacy Horizon it is different.
 22 There's a complication because whereas with
 23 Horizon Online access was made to a central database, or
 24 server I should say; with Legacy Horizon the data in the
 25 first instance was maintained on server's held at the

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1 branch, or what were called counters. So there there
 2 was an element -- there was a greater complication
 3 because counters held data and counters could go wrong
 4 and they would need backups. Transactions could
 5 sometimes be inserted into branch accounts when there
 6 had been problems. It's a very different process from
 7 the position in relation to Horizon Online and I'm not
 8 seeking to give you a full account of Legacy Horizon,
 9 that's in the evidence and I don't want to be taken to
 10 be summarising it.
 11 There were transactions insertions made into
 12 counters on occasion. There were also occasions when
 13 counters broke and their data had to be basically backed
 14 up from another source. It was called replicating from
 15 another source. And there were variants of those two
 16 processes. My Lord, those were occasions therefore when
 17 it could be said that what we mean by remote access took
 18 place.
 19 So I don't say remote access never took place but
 20 what I say is, take the claimants' case at its highest,
 21 how many occasions of remote access of that sort in
 22 Legacy Horizon would there have to be in order to
 23 generate a material risk to the reliability of any given
 24 set of branch accounts?
 25 MR JUSTICE FRASER: I understand that point and I understand

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1 that's your case and in a way that is central to the
 2 different way in which the two parties are approaching
 3 it and I'm not in any way suggesting that one of those
 4 ways is preferred at the moment. All I was doing was
 5 seeking to establish -- all it comes down to really,
 6 Mr De Garr Robinson, is are you and Mr Green using the
 7 term, or using your broad categorisation in the same
 8 way, that's all.

9 MR DE GARR ROBINSON: No we're not and that's one of the
 10 difficulties.

11 MR JUSTICE FRASER: That then brings me on to my next point.
 12 You don't appear to be using the terms in the same way.

13 MR DE GARR ROBINSON: That is one of the problems.
 14 My learned friend -- and I think Mr Coyne also -- adopts
 15 a construction of the phrase "remote access" which is
 16 unimaginably wide. It includes, for example,
 17 transaction corrections, because transaction corrections
 18 are a process by which Post Office presses a button in
 19 some office somewhere and something pops up on the
 20 screen and then a postmaster has to decide whether or
 21 not to allow that change, which is specifically notified
 22 to the postmaster to allow that change into his or her
 23 accounts. My learned friend treats that as an example
 24 of remote access. That's not how I understand it at all
 25 and indeed it is not how I understand the pleadings.

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1 But it shows your Lordship the width of -- I would say
 2 the lack of utility of the definition that he is seeking
 3 to propose.

4 I on the other hand have a more practical approach
 5 which is what's this question about? It's about whether
 6 or not people remotely could make changes to branch data
 7 such that their branch accounts would be wrong. There
 8 are all sorts of things that could be done remotely that
 9 would have no impact on branch accounts. You might have
 10 a counter for example in Legacy Horizon that was locked,
 11 there was a binary bit that was on a zero instead of a 1
 12 and it needed to be turned to a 1. There was a process
 13 by which Fujitsu could unlock the locked counters,
 14 locked items of that sort. That had no conceivable
 15 impact on branch accounts. Now, one could call that
 16 remote access if one wanted to, but it's not a relevant
 17 form of remote access.

18 When I talk about remote access I'm talking about
 19 action taken remotely to either inject new transactions
 20 or to edit existing transactions or to delete existing
 21 transactions in a way that could change the accounting
 22 position of the relevant branch.

23 MR JUSTICE FRASER: And by Fujitsu only? Because I think
 24 you started this passage by saying only Fujitsu.

25 MR DE GARR ROBINSON: Yes, only Fujitsu.

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1 MR JUSTICE FRASER: That's very helpful because that defines
 2 for me the way you are using the term.

3 MR DE GARR ROBINSON: I'm grateful.

4 MR JUSTICE FRASER: All right, thank you very much.

5 MR DE GARR ROBINSON: So your Lordship has the second order
 6 issue.

7 MR JUSTICE FRASER: Yes.

8 MR DE GARR ROBINSON: As I say, in my submission it
 9 overwhelms everything else. It makes the next
 10 40 minutes really rather -- I don't want to say
 11 irrelevant, that's disrespectful, but of marginal
 12 importance.

13 My Lord, further points of context I would ask
 14 your Lordship to note. If I could move on in the
 15 submissions to page 83, paragraph 243 {A/2/83},
 16 paragraph 243, headline point, my Lord, irrelevance of
 17 or immateriality -- is that a word, I'm not sure -- of
 18 the suggestion of some master criminal sitting in
 19 Fujitsu's offices manipulating branch data for his
 20 personal benefit:

21 "Although claimants will probably draw attention to
 22 a dramatic, but only theoretical, possibility of the
 23 malicious alteration of transaction data by a rogue
 24 employee of Fujitsu, there's no evidence that this ever
 25 took place, nor any allegation to that effect. It is

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1 unlikely to assist the court for the parties to engage
 2 in speculation as to what might have happened, in
 3 theory, if there had been some rogue employee who had
 4 abused his or her access rights. If there is any
 5 reason, in a specific case, to think that it might have
 6 happened, that can of course be explored ... but there
 7 is no generic issue as to any malicious alteration of
 8 transaction data."

9 So again this is a real world point, my Lord.
 10 Your Lordship will see speculation -- well, a discussion
 11 in Mr Roll's witness statements about speculation as to
 12 whether it might be possible to pay a gas bill or make
 13 a bank transfer using the transaction insertion facility
 14 that was available in Legacy Horizon, but that is all it
 15 is, it's just a theoretical possibility that need not
 16 detain the court for five minutes.

17 And in paragraph 244 we continue:

18 "The real thrust of claimants' case is that, in the
 19 course of using their abilities to insert, edit or
 20 delete data to correct problems arising in the operation
 21 of Horizon, Fujitsu personnel might accidentally have
 22 introduced a further or different error into transaction
 23 data. This is a clear example of what Dr Worden calls
 24 a second order issue ..."

25 And I have addressed your Lordship on that. As we

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1 say at the end of that paragraph:
 2 "Such second order issues are, for this reason
 3 alone, not viable candidates to explain any significant
 4 proportion of disputed shortfalls."
 5 So having got rid of the master criminal theory and
 6 having made it clear of how peripheral this issue really
 7 is, let's then move on to the position and let's move on
 8 to paragraph 246 (A/2/83):
 9 "... the picture is complex. There are different
 10 Fujitsu methods for altering different kinds of data
 11 remotely, and Fujitsu's current methods are themselves
 12 different from the tools and methods that are available
 13 under Legacy Horizon. The Fujitsu witnesses have done
 14 their best to recollect, investigate and to some extent
 15 hypothesise as to what may have been possible in the
 16 fairly distant past.
 17 "The picture is also complicated by the fact that
 18 the parties do not agree on what counts as remote
 19 alteration of data."
 20 My Lord, this addresses the question your Lordship
 21 has just asked.
 22 For example, Mr Coyne includes transaction
 23 corrections. Curiously, my Lord, it is worth noting
 24 that although Mr Coyne includes transaction corrections
 25 as a form of remote access, he excludes the predecessor

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1 that applied until 2005, namely error notices. So error
 2 notices weren't, TCs were and the reason he gives for
 3 that is because TCs are electronic, that they were
 4 communicated to the branch through the system rather
 5 than being sent by post. This to him is a major
 6 difference. I say it is a distinction without
 7 a difference.
 8 Then, my Lord, paragraph 248, another red herring to
 9 do with global users. I say red herring, that's perhaps
 10 unfair to my learned friend. There is an issue between
 11 the parties as to whether global user rights could be
 12 exercised outside the branch. It is quite clear that
 13 there were some people who did have the privileges
 14 needed to go into a branch and make changes to the
 15 branch, to use the branch machines if that's what they
 16 wanted to do. That's common ground. There's an issue
 17 as to whether it was possible to use those rights
 18 remotely, go to somewhere else from some kind of central
 19 office at Fujitsu and use your global user rights to
 20 make changes to the branch. My Lord, Fujitsu's evidence
 21 is that that is not possible, but it is challenged by
 22 Mr Coyne and the claimants, so that's an issue that
 23 your Lordship will have to decide.
 24 Then, my Lord, another important contextual point is
 25 in paragraph 249 (A/2/84). There are complications of

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1 terminology and this is to do with different kinds of
 2 data:
 3 "Mr Coyne discusses the deletion of session data and
 4 the deletion of transaction data as though these were in
 5 essence the same thing. That is misleading. Horizon
 6 holds more than just transaction data; it stores and
 7 tracks a lot of other forms of data that are needed to
 8 make the system operate properly, including data that
 9 does not relate to customer transaction and which does
 10 not affect a branch's accounting position. Session data
 11 is a good example of this: it may well not include
 12 transaction data at all; it can consist entirely of
 13 other types of data associated with a counter session
 14 (such as the data 'flag' that determines whether a stock
 15 unit is locked or unlocked and available for use). The
 16 deletion of data of that kind does not affect branch
 17 accounts and cannot create a discrepancy. It merely
 18 affects the availability of the system to a [postmaster]
 19 or an assistant wishing to perform transactions or
 20 conduct other branch business."
 21 So again it is very important to be clear about what
 22 kind of data we are talking about, when we are talking
 23 about editing, deleting or inserting data, what kind of
 24 data are we talking about, because there are all sorts
 25 of irrelevant data the ability to change which is

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1 utterly benign and indeed is important, an important
 2 part of the system and the system wouldn't work without
 3 it. So that's an important distinction as well.
 4 Having made those contextual points clear, my Lord,
 5 let me just say a very few things. Most of these points
 6 will be clear to you already.
 7 First of all, we are not really concerned about the
 8 reading of data, we are concerned about the addition,
 9 editing or deletion of data, obviously.
 10 Secondly, the position is very different now from
 11 what it was when Legacy Horizon was in operation about
 12 nine or ten years ago. Horizon Online's data, all the
 13 data is written directly to the BRDB, the central
 14 databases maintained I think at Fujitsu's offices, but
 15 with Legacy Horizon data was held on counters before
 16 being downloaded to the central data services, I think
 17 as I recall, at the end of the day. So where remote
 18 access is concerned it was possible that access could be
 19 obtained to counters until 2010, but it's different now.
 20 It's important to understand that.
 21 MR JUSTICE FRASER: Well, I can understand why you make that
 22 submission and it is important, but I have to consider
 23 Legacy Horizon and Horizon Online.
 24 MR DE GARR ROBINSON: Oh, of course. I'm not suggesting any
 25 different.

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1 Thirdly, I should mention the way in which the
 2 evidence has developed in relation to Legacy Horizon.
 3 I will be absolutely frank with your Lordship, I wish it
 4 hadn't developed in quite the way that it has, but we
 5 are talking about the state of affairs that persisted
 6 during 2000 and 2010, it's a long time ago. The
 7 system -- there is no Legacy Horizon system still in
 8 operation that people can go and check, that people are
 9 still operating. People are working off their
 10 recollections and off design documents that are now very
 11 elderly and that problem has been compounded by the fact
 12 that when Mr Roll made his witness statement in 2016 --
 13 it was provided in September last year -- the things
 14 that he said in that witness statement were quite hard
 15 to follow and we will see how hard they were to follow
 16 when he gives evidence later on this week. The result
 17 is that the responsive evidence by Fujitsu witnesses
 18 wasn't as focused as it should have been and wasn't as
 19 clear as it should have been and wasn't as accurate in
 20 certain respects as one would like it to have been and
 21 I must face up to that completely, but what I do suggest
 22 to your Lordship is that it wouldn't be right to draw
 23 any great inferences as a result of the way in which
 24 this the evidential position has developed.
 25 I make no criticism of Mr Roll for giving his

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1 evidence in the way that he did, he is not being blamed
 2 for this process, it is simply a fact of the matter,
 3 it's simply what happened and it is only right that
 4 your Lordship should be aware of that.
 5 Against that background, my Lord, it may be helpful
 6 to have a summary of what I would include as remote
 7 access in this case and, my Lord, that's in
 8 Mr Godeseth's third witness statement, which is {E2/14}.
 9 I would like to pick it up at page 4 of that witness
 10 statement {E2/14/4}. He says at paragraph 14:
 11 "Having further explained that global users and the
 12 TIP repair tool cannot insert, inject, edit or delete
 13 transaction data remotely, to the best of my knowledge,
 14 the following types of remote access as defined in
 15 paragraph 3 above, are or have been possible:
 16 "14.1. Privileged users could, theoretically,
 17 inject, edit or delete transaction data in
 18 Legacy Horizon ..."
 19 "As far as I am aware", he says, "this has never
 20 happened."
 21 14.2:
 22 "Members of the SSC could inject transaction data
 23 into a branch's accounts in Legacy Horizon."
 24 And then, my Lord, when we are still talking about
 25 Legacy Horizon it may help to jump forward to

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1 paragraph 14.5:
 2 "In Legacy Horizon ..."
 3 And Legacy Horizon alone:
 4 "... Fujitsu could cause data to be rebuilt from
 5 copies of the same data as described ..."
 6 In Mr Parker's second witness statement.
 7 So this is a simplified summary. There are
 8 complications particularly in relation to the rebuilding
 9 of data referred to in 14.5, but your Lordship has
 10 a sense of the three basic categories of remote access
 11 that we say was possible in Legacy Horizon and, my Lord,
 12 as regards remote access in Horizon Online, at
 13 paragraph 14.3:
 14 "Privileged users can, theoretically, inject, edit
 15 or delete transaction data in Horizon Online. As far as
 16 I am aware, this has never happened."
 17 And 14.4:
 18 "Members of the SSC can inject additional
 19 transactions into a branch's accounts in Horizon Online
 20 using a designed piece of functionality called
 21 a balancing transaction (BT). Audit records show that
 22 this has happened once."
 23 So your Lordship will see the scope of the dispute.
 24 It is disputed by the claimants that there's only ever
 25 been one balancing transaction in Horizon Online.

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1 I believe it is not accepted by the claimants that
 2 privileged users didn't use their privilege user rights
 3 to muck about with branch accounts, if I can put it that
 4 way, but I'm not sure about that. I'm not sure what
 5 their positive case is. I think their case may be just
 6 that it was possible, not that it actually happened.
 7 And then in Legacy Horizon it was possible to inject
 8 transactions and that happened more frequently than has
 9 happened with balancing transactions and it is possible
 10 to rebuild data from machines which had problems.
 11 So is that a helpful summary of what I say --
 12 MR JUSTICE FRASER: Yes.
 13 MR DE GARR ROBINSON: I'm grateful.
 14 MR JUSTICE FRASER: Thank you.
 15 MR DE GARR ROBINSON: Now, Mr Roll deals with the
 16 Legacy Horizon position. He worked in third line
 17 support in the software support centre at Fujitsu. In
 18 that capacity he could make transaction insertions and
 19 he could rebuild data. But his evidence is quite
 20 unclear about this, or at least his evidence in his
 21 first witness statement is not very clear and it will
 22 need to be unpicked as to what data he is talking about.
 23 Your Lordship will have seen in paragraph 14 there's
 24 a reference to the TIP repair tool, the transaction
 25 information processing repair tool. My learned friend

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1 addressed your Lordship on that this morning. That's
 2 addressed by Mr Godeseth at paragraph 10. I say it is
 3 a red herring. Paragraph 10 {E2/14/3} he explains how
 4 Mr Coyne is confusing balancing transactions with
 5 exercises of the TIP repair tool and then he explains
 6 why the TIP repair tool doesn't have an impact on branch
 7 accounts:

8 "The TIP repair tool (which was available in
 9 Legacy Horizon and is available in Horizon Online) is
 10 used on data that has failed validation on the transfer
 11 between the BRDB and the TPS system on Horizon Online
 12 and is therefore quarantined within TPS. I understand
 13 from speaking with colleagues that it served a similar
 14 role in Legacy Horizon in relation to data moving
 15 between the Riposte Message store and the TPS system."

16 And, my Lord, this is important:

17 "The TPS system is used to transfer data out of
 18 Horizon and on to other external systems. The TPS
 19 system (in either Horizon Online or Legacy Horizon) does
 20 not hold or generate data that is used to produce
 21 a branch's accounts from a subpostmaster's perspective.
 22 Accordingly, an error or change in TPS data will not
 23 affect a branch's accounting position.

24 "The TIP repair tool is used where the format or
 25 content of the data output from Horizon is incompatible

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1 with the systems to which it is being delivered. For
 2 example, a system may require that certain data fields
 3 are populated. If these criteria are not met, the
 4 receiving system may reject the data. The TIP repair
 5 tool is used to correct these incorrect or missing
 6 attributes. The correction does not change the core
 7 information about the transaction."

8 And then there is a reference to a PEAK which shows
 9 mandatory fields were omitted from four messages and the
 10 TIP repair tool was used to insert suitable values:

11 "These are all time stamps so have no impact on
 12 accounts, but the receiving system expects the fields to
 13 be there. In practice, there are multiple time stamps
 14 in messages, so other, appropriate time stamps would
 15 have been used (which may differ by a few seconds from
 16 the missing one)."

17 My Lord, here is an important point:

18 "The changes are made to the data in the TPS system
 19 not in the BRDB (or the Riposte Message store in
 20 Legacy Horizon)."

21 Your Lordship has already heard submissions about
 22 front of the system and the back-end of the system.
 23 Branch accounts are in the front end of the system, they
 24 are within Horizon, Horizon generates accounts for the
 25 branch. The data that is in the Horizon system then has

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1 to be extracted from the Horizon system into the
 2 back-end systems, so Post Office and Fujitsu -- mainly
 3 Post Office -- so that it can be used by Post Office for
 4 its accounting functions. The most important accounting
 5 system that Post Office currently uses is called POLSAP.
 6 It deals with all its internal financial matters from
 7 paying rent on buildings to salaries and also movements
 8 resulting from Horizon transactions. POLSAP draws data
 9 down from the front end. The important thing is that
 10 the TIP repair tool changes the data that is taken from
 11 Horizon and put into POLSAP, but changing data in POLSAP
 12 would not change anything in the branch accounts. It's
 13 just -- they're just different things. My Lord, the
 14 accounting systems are separate. The only way in which
 15 POLSAP could be used in such a way as to result in
 16 a change to branch accounts would be if Post Office used
 17 POLSAP to decide to issue a transaction correction,
 18 Post Office then issued a transaction correction to the
 19 branch and the postmaster accepted that transaction
 20 correction. That's the only way it could happen.

21 So it is really important to understand the
 22 fundamental difference between facilities which enable
 23 changes to be made to back-end systems and facilities
 24 which enable changes to be made to branch accounts.
 25 And, my Lord, that is overlooked in the claimants'

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1 submissions. A good example of that is at paragraph 273
 2 and perhaps we could look at that. For the record it is
 3 {A/1/94}. Paragraph 273, my Lord.

4 MR JUSTICE FRASER: Yes, I've got it on the common screen.

5 MR DE GARR ROBINSON: "Mr Coyne's view is that the above
 6 tools have the potential to affect transaction data and
 7 potentially branch account data by way of incorrectly
 8 altering the transactions prior to entering the
 9 recipient systems such as POLSAP and external clients
 10 (after processing by the counter). The end result may
 11 be the issuing of a flawed TC by Post Office who may not
 12 be aware of the error."

13 My Lord, actually the point is well made there and
 14 I apologise because I was suggesting this was
 15 a paragraph which showed that the point wasn't
 16 understood. The point is that when we're talking about
 17 changes to back-end systems like this we're not talking
 18 about second order issues, we're talking about third
 19 order issues. We're talking about a change to the
 20 POLSAP figure as a result of some intervention which is
 21 wrong, which results in a mistake being made by
 22 Post Office in deciding to issue a transaction
 23 correction, which then results in a mistake being made
 24 because the postmaster accepts the transaction and it is
 25 loaded into his accounts.

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1 One is not going to find an answer to the question
 2 whether Horizon is robust by referring to tools which
 3 can affect the data that goes into POLSAP.
 4 My Lord, I note that the claimants and Mr Coyne
 5 place emphasis on what they say is a failure to follow
 6 proper permission controls by Fujitsu and there is
 7 a reliance on an audit recommendation by Ernst & Young
 8 in 2011. That is referred to again and again and again
 9 in Mr Coyne's report and again and again and again in
 10 the claimants' submissions. My learned friend took
 11 your Lordship to it. It's at {F/869} and it is referred
 12 to -- well, it is referred to in many many paragraphs,
 13 but including paragraphs 5.161 and 5.196 in Mr Coyne's
 14 first report, the references to which are {D2/1/97} and
 15 {D2/1/107}. And it is also referred to in paragraph 282
 16 of the claimants' opening submissions, for the
 17 proposition that Fujitsu had weak user management
 18 controls.
 19 My Lord, could we go to that document please. It is
 20 {F/869}. You have already seen it once. My Lord, but
 21 your Lordship hasn't seen the first page, or rather --
 22 if it your Lordship goes to --
 23 MR JUSTICE FRASER: I think you mean the second page.
 24 MR DE GARR ROBINSON: It is the second page {F/869/3}.
 25 Paragraph 1 "Executive summary":

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1 "The finance leadership team at Post Office Limited
 2 has implemented and process improvements throughout the
 3 organisation during the past financial year.
 4 "In particular, focussed management action has
 5 addressed many of the issues raised in our prior year
 6 management letter and led to significant improvement in
 7 the overall payroll control environment. The
 8 recommendations we have made in this report should be
 9 seen as refinements rather than fundamental control
 10 deficiencies in comparison."
 11 My Lord, they are put forward in the evidence as
 12 fundamental control deficiencies. Again this doesn't
 13 win me the case but I do invite your Lordship -- when
 14 your Lordship sees frequent references to documents, it
 15 can sometimes be very beneficial to read the whole
 16 document carefully. My Lord, that's my first submission
 17 about that document.
 18 The second submission I would make about the
 19 document is that although Mr Coyne refers to it several
 20 times and indeed there's a suggestion that Ernst &
 21 Young's recommendations aren't being carried into
 22 effect, he doesn't refer to a later document, Ernst &
 23 Young control themes and observations 2013, which is at
 24 {F/1138}. If I could ask your Lordship to go to page 2
 25 of that document {F/1138/2} and again it is the letter

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1 which introduces this document, second paragraph down:
 2 "As part of our audit of the financial statements,
 3 we obtained an understanding of internal controls
 4 sufficient to plan our audit and determine the nature,
 5 timing and extent of testing performed. Although the
 6 purpose of our audit was to express an opinion on the
 7 financial and not to express an opinion on the
 8 effectiveness of internal control, discover weaknesses,
 9 detect fraud or other irregularities (other than those
 10 which would influence us in forming that opinion) and
 11 should not, therefore, be relied upon to show that no
 12 other weaknesses exist ..."
 13 I'm so sorry, my Lord, I'm actually reading the
 14 wrong text.
 15 MR JUSTICE FRASER: "... to show that no other weaknesses
 16 exist or areas require attention."
 17 In other words we have identified some of them but
 18 don't reply on that as saying there aren't any others.
 19 MR DE GARR ROBINSON: Exactly. If your Lordship goes on to
 20 page 4 {F/1138/4}
 21 MR JUSTICE FRASER: Page 4? "Overview". Is that the one?
 22 MR DE GARR ROBINSON: Third paragraph down:
 23 "Focused management action in the past few years has
 24 addressed many of the issues raised in prior year
 25 management letters. Whilst there continue to be

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1 challenges in areas including POL's IT environment,
 2 management have taken steps to ensure these challenges
 3 are and continue to be addressed."
 4 So, my Lord, what your Lordship gets from a reading
 5 of the documents as a whole that the audit processes
 6 which were regularly undertaken by Ernst & Young of
 7 Fujitsu and of its permission controls and operating
 8 controls, regulations, the picture actually to be
 9 derived from those documents is not that Fujitsu was not
 10 doing the right thing, the picture to be derived was
 11 that Fujitsu was being monitored for proper conduct and
 12 although there could on occasion be improvements, they
 13 were essentially acting in the right direction.
 14 My Lord, unless I can assist your Lordship further,
 15 that summarises my overview of remote access.
 16 MR JUSTICE FRASER: That's very helpful. I have read
 17 everything that I have been asked to -- I haven't read
 18 everything obviously in terms of the database, but
 19 I have read all of the documents that both of the
 20 parties asked me to read, and that's very, very useful,
 21 thank you very much.
 22 MR DE GARR ROBINSON: My Lord, I was going to address
 23 your Lordship -- your Lordship may not want to be
 24 addressed on this -- on two points which I apprehend are
 25 included by way of prejudice. One is on the process of

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1 disclosure that's been followed in this case and the
 2 other is the so-called shadow expert allegation.
 3 I don't know whether your Lordship would feel the need
 4 to hear any submissions about any of those things.
 5 MR JUSTICE FRASER: Well, I would have thought the best
 6 place to do that is probably in closing because actually
 7 at the moment whatever the situation is suggested to be
 8 vis-à-vis shadow experts, or so-called shadow experts,
 9 it will become a lot clearer after the
 10 cross-examination, I would have thought, but I'm not
 11 shutting you out from addressing me on it if you want
 12 to.
 13 MR DE GARR ROBINSON: No, my anxiety is to help
 14 your Lordship not to set hares running.
 15 MR JUSTICE FRASER: I would have thought closing.
 16 MR DE GARR ROBINSON: Very well. My Lord, all I would say
 17 about shadow experts is two things. First of all, dark
 18 inferences are drawn as if having an advisor advising
 19 you before you have actually appointed an expert is
 20 something that is somehow untoward or inappropriate.
 21 My Lord, in cases of this scale it is commonplace in my
 22 experience.
 23 MR JUSTICE FRASER: Well, it depends on what they have been
 24 doing, which is why it is probably best left until after
 25 the cross-examination I would have thought.

1 MR DE GARR ROBINSON: My Lord, that brings me to my second
 2 point. There appears to be if not a suggestion then an
 3 implication sought to be achieved that the technical
 4 advisor has in some way been used in order to shield the
 5 experts and the parties from adverse documents.
 6 My Lord, if that is the suggestion being made, it is
 7 wrong and it should not be made. I can tell
 8 your Lordship that all the documents reviewed by the
 9 advisor were reviewed with a view to ascertaining
 10 whether any of them constituted adverse documents and
 11 any adverse documents that were revealed as a result of
 12 that review have been disclosed and it is important that
 13 your Lordship should not allow yourself to be -- it's so
 14 easy in cases of this kind to be drawn into the sort of
 15 painting of pictures. My learned friend is actually
 16 creating something out of nothing and it is --
 17 MR JUSTICE FRASER: I don't think you need concern yourself
 18 that I am easily drawn into painting pictures.
 19 MR DE GARR ROBINSON: I'm very glad to hear it, my Lord.
 20 So, my Lord, assuming your Lordship doesn't wish to
 21 hear me on disclosure and the procedure that was adopted
 22 and your Lordship has submissions in the annex to our
 23 opening -- written opening submissions, all that remains
 24 is for me to talk about timings, the trial timetable.
 25 MR JUSTICE FRASER: Yes.

1 Housekeeping
 2 MR DE GARR ROBINSON: Since the PTR I have been giving
 3 anxious thought as to the extent to which I can properly
 4 cross-examine Mr Coyne within the compass of two and
 5 a half days and were I required to do that then I would
 6 do that.
 7 MR JUSTICE FRASER: Of course.
 8 MR DE GARR ROBINSON: It is my view, having thought about it
 9 quite carefully, that it would be very, very difficult
 10 to get it under three days and three and a half days
 11 would be doable but under three would be very hard
 12 indeed, but if your Lordship were to say it should be
 13 two and a half days then it can be done in two and
 14 a half days.
 15 MR JUSTICE FRASER: Mr De Garr Robinson, I will -- and just
 16 for the purpose of everyone in court because obviously
 17 counsel know this but not everybody will. I separately
 18 raised this point of my own volition --
 19 MR DE GARR ROBINSON: You did.
 20 MR JUSTICE FRASER: -- about three weeks ago after I read
 21 the first joint statement which emerged from the meeting
 22 which I think was taking place the very day of the PTR
 23 or possibly a couple of working days later, so the trial
 24 timetable that was set down for the PTR was not chiseled
 25 into granite and I expressly invited this debate on

1 Day 1.
 2 If you are going to have longer, and on current
 3 understanding of the different expert issues it seems to
 4 me that that's sensible, we just have to grasp the
 5 nettle now about how that's going to impact the second
 6 half of the trial. I mentioned this morning
 7 difficulties in respect of another case on Friday the
 8 5th anyway. It seems to me that the best way forward is
 9 to keep the shape of the first half the same, that the
 10 week commencing 1 April you should be given your four
 11 days to cross-examine Mr Coyne. We then won't sit on
 12 the 5th and on Monday the 8th we will start with
 13 Dr Worden, which if Mr Green wants three days he can
 14 have them, if he wants four days he can have them but
 15 I know he said at the pre-trial review he would only
 16 want three but what's sauce for you is sauce for him,
 17 which means we are going to have to address closings.
 18 Now, I know from time to time I have come across as
 19 somewhat more robust about counsels' availability but
 20 obviously in this case that's slightly different now
 21 because we are starting the trial and this is an
 22 alteration and I know at the pre-trial review Mr Green
 23 had some observations about going into the week after
 24 that and you said this morning that the beginning of the
 25 next term might be a better time for them.

1 So I'm open to suggestions and debate about that,
2 but the primary decision is when do we do the evidence
3 and it seems to me you want your four days and I'm
4 prepared to give you your four days.
5 MR DE GARR ROBINSON: Well, my Lord, I certainly want three
6 to three and a half days.
7 MR JUSTICE FRASER: All right, if you go three and a half
8 days what we will do is do a hard start with Mr Coyne on
9 the Monday morning, because apart from anything else
10 people need to plan or organise their diaries and it's
11 bad practice to start an expert just before the weekend
12 and then he is in purdah and Mr Green can't speak to
13 him, or vice versa.
14 MR DE GARR ROBINSON: Yes.
15 MR JUSTICE FRASER: So that's my current thinking.
16 MR DE GARR ROBINSON: I'm grateful. Shall I discuss it with
17 Mr Green and then we can come back to your Lordship with
18 hopefully an agreed approach.
19 MR JUSTICE FRASER: Mr Green, two things. Longer for
20 cross-examination, I have made that clear.
21 MR GREEN: My Lord, I'm anticipating within three days.
22 MR JUSTICE FRASER: All right, that's fine. You will have
23 to discuss it with Mr De Garr Robinson about when you
24 might do your closings.
25 MR GREEN: Indeed.

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1 MR JUSTICE FRASER: The beginning of the term afterwards at
2 the moment I'm supposed to be on TCC business but that
3 can and will be rearranged to fit around you. I think
4 term starts on 1 May which is a Wednesday, so you could
5 have 1 and 2 May, or you could have two days the week
6 after. I think any longer than that it's beginning to
7 get difficult in terms of the timetable for the whole
8 year and actually the difficulties in the timetabling
9 are probably more my difficulties than yours because I'm
10 the one that has to write the judgment.
11 So do you want to have a chat about that, about
12 closings, but for the moment as far as cross-examination
13 of the experts, Mr Coyne will be called on Monday,
14 1 April and you, Mr De Garr Robinson, can have as much
15 of the four days that week up to and including Thursday
16 the 4th as you want and the same the other way round:
17 Dr Worden will be called on Monday the 8th and you can
18 have as much of the three into three and a half days
19 that week to cross-examine him as you want.
20 MR GREEN: My Lord, I think the Thursday is Maundy Thursday,
21 I don't know whether that --
22 MR JUSTICE FRASER: No, I think that's a week out, isn't it?
23 I think Maundy Thursday is the following week because
24 Easter is so late.
25 MR GREEN: Yes exactly. It is so late.

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1 MR JUSTICE FRASER: So that whole week we don't have any
2 Easter issues at all that week.
3 MR GREEN: That's excellent.
4 MR JUSTICE FRASER: All right? Is that helpful?
5 MR DE GARR ROBINSON: My Lord, it is extremely helpful,
6 thank you.
7 MR JUSTICE FRASER: Couple of other admin points. I have
8 obviously been working on hard -- well, I have actually
9 been working on the system but I've got three screens
10 already and if I bring my laptop down I'm going to end
11 up with four screens so I would like a file please from
12 you of your witness statements that actually have the
13 trial bundle pages printed on them. I don't need the
14 exhibits. And the same for you, Mr De Garr Robinson,
15 just a file of your evidence of fact at the moment with
16 the trial bundle pages printed on them.
17 Obviously I would like yours for tomorrow morning.
18 MR GREEN: My Lord, yes.
19 MR JUSTICE FRASER: Yours can come at some stage during the
20 week and at some point I would like a hard copy file of
21 your two experts' reports in the same file, no
22 appendices, again with the trial bundle pages on them
23 and the same for your expert as well.
24 MR DE GARR ROBINSON: Your Lordship may prefer to have the
25 appendices as well because there is quite a lot of work

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1 done in the appendices of the --
2 MR JUSTICE FRASER: I've got the appendices -- actually if
3 you think -- you are right, it is probably sensible to
4 have those with the trial bundle references on. The
5 reason I said no appendices was simply to try and reduce
6 the amount of work you have to do, that's all. Is that
7 quite clear?
8 MR GREEN: It is easy to do.
9 MR JUSTICE FRASER: And obviously the witnesses will need to
10 have, as they did in the common issues trial, a bundle.
11 MR GREEN: Indeed.
12 MR JUSTICE FRASER: And I think there have been some recent
13 statements, haven't there, just making corrections
14 et cetera.
15 MR GREEN: My Lord, yes, there are some small changes.
16 MR JUSTICE FRASER: So I imagine examination-in-chief will
17 be quite straightforward.
18 MR GREEN: Yes.
19 MR JUSTICE FRASER: Is that everything? Thank you both very
20 much and tomorrow morning.
21 MR DE GARR ROBINSON: My Lord, actually having nodded when
22 your Lordship said "Is that everything" I should mention
23 that Mr Henderson and Mr Draper will be doing some
24 cross-examining --
25 MR JUSTICE FRASER: I had guessed that.

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1 MR DE GARR ROBINSON: So in proper reflection of my real
 2 role in this case I will be allowing them to take pole
 3 position.
 4 MR JUSTICE FRASER: Just so that you know, because I think I
 5 did say this at the beginning of the common issues trial
 6 but I will just say it to you, as far as counsel are
 7 concerned I don't mind where you sit, where they sit.
 8 They can sit up front -- there's actually a practice
 9 direction about this for the Rolls Building
 10 specifically. So please don't think that if you would
 11 rather have Mr Henderson next to you or Mr Draper next
 12 to you all the time, that as junior counsel they have to
 13 sit behind you, because as far as we are concerned we
 14 don't do that. But I anticipated they would be doing
 15 some of the cross-examination and I'm sure that might be
 16 the case for the other side as well.
 17 Is that everything?
 18 MR DE GARR ROBINSON: Yes.
 19 MR JUSTICE FRASER: Thank you all very much. Tomorrow
 20 morning.
 21 (4.15 pm)
 22 (The court adjourned until 10.30 am on Tuesday,
 23 12 March 2019)
 24
 25

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