ON DECEMBER 1, 2006, the Federal Rules of Civil Procedure (the “Rule(s)”) were amended to address discovery of electronically stored information, which is information generated by, stored in, retrieved from, and exchanged through computers. These amendments change both the scope and timing of how discovery issues involving electronic documents must be addressed in federal court litigation, and reflect recognition by the courts and Congress that “the discovery of electronically

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stored information presents markedly different issues from con-

ventional discovery of paper records." While these rules apply
only to civil litigation in the federal courts, they will set a stan-
dard for managing and conducting electronic discovery in other
courts as well.³

The amended Rules are broken down into five general cate-
gories: (i) amending Rules 16, 26(a) and 26(f) to provide early
attention to electronic discovery issues; (ii) amending Rule
26(b)(2) to provide better management of discovery into elec-
tronically stored information that is not reasonably accessible;
(iii) amending Rule 26(b)(5) to add a new provision setting out
a procedure for assertions of privilege after production; (iv)
amending Rules 33, 34, and 45 to clarify their application to
electronically stored information; and (v) amending Rule 37 to
add a new section to clarify the application of the sanctions in a
narrow set of circumstances unique to the discovery of electroni-
cally stored information.⁴

Each of these newly amended Rules presents new and chal-
lenging questions for practitioners and courts alike, given the
explosion of information that is maintained in electronic form
by individuals, businesses, and government agencies. Moreover,
the nature of litigation involving the global aviation industry
presents separate and unique issues in light of these Rule
changes. A substantial amount of data maintained by the gov-
ernment and private carriers that involves the commercial air
industry, and that may be relevant to civil litigation, is main-
tained in electronic form.⁵ For example, information recorded
on flight data recorders (FDRs) and cockpit voice recorders

² See Judicial Conf. Comm. on Rules of Practice & Procedure, Report of
the Judicial Conference Committee on Rules of Practice and Procedure 4

shall take effect on December 1, 2006, and shall govern in all proceedings there-
after commenced and, insofar as just and practicable, all proceedings then pend-
ing." Supreme Court Order (Apr. 12, 2006), http://www.uscourts.gov/rules/
Letters_Orders.pdf.

⁴ Judicial Conference 2005 Report, supra note 2, at 7-15; Comm. on Rules
of Practice & Procedure, Report of the Civil Rules Advisory Committee 10

⁵ See, e.g., James L. Simmons & Jeffrey S. Forrest, United States Aviation Safety
Data: Uses and Issues Related to Sanctions and Confidentiality, 70 J. Air L. & Com. 83,
84-85 (2005) [hereinafter Aviation Safety Data].
(CVRs), as well as information regarding maintenance history, weather patterns, and product history are kept electronically. In many cases, that information can only be evaluated and understood when reviewed in electronic form, either because it reflects a dynamic, changing description of events or because of the unique structure of the information. Understanding how these new Rules affect a party’s ability to request and obtain this information in electronic form and to respond to such requests by the government and other litigants is essential.

This Article focuses on the changes to Rules 34 and 45 and the best practices to be used for collecting, reviewing, and producing electronically stored information in light of the recent amendments.

I. OVERVIEW

The text of Rule 34 has been amended to add “electronically stored information” as another category of information subject to production, in addition to “documents” and “things” in the prior Rule. This change reflects the Advisory Committee’s recognition that there are significant and growing differences between electronically stored information and the traditional types of documents and things that have been expressly covered by the Rule. Rule 34 has also been amended to add procedures for requesting and responding to the form in which information is produced, and to provide “default” forms of production. Again, these changes are necessary because of fundamental differences between production of electronically stored information and traditional paper documents. Hard copy documents can generally be produced in only one form, while electronically stored information may exist and can be produced in a number

6 See id. (providing a useful overview of these systems, as well as other safety systems that may be of interest in aviation litigation).

7 While this Article focuses on the request and production of electronically stored information as part of a document request and/or a third-party subpoena, the changes to the Rules that relate to identification of electronically stored information that is inaccessible or the requirement that potentially relevant information be preserved, Federal Rules of Civil Procedure 26(b)(2)(B) and 26(f), must be consulted when fashioning a strategy for propounding or responding to requests for electronic information. See, e.g., Zubulake v. UBS Warburg LLC, 220 F.R.D. 212, 216–18 (S.D.N.Y. 2003) (discussing duty to preserve).

8 Fed. R. Civ. P. 34(b) advisory committee’s note, subdiv. (a), reprint in Advisory Committee Report, supra note 4, at 63–64.

9 Advisory Committee Report, supra note 4, at 54–55.

10 Id. at 56–58.
of different forms, only some of which may be appropriate for
discovery.\textsuperscript{11}

Rule 45 has been modified under the new Rules to keep it "in
line with the other amendments addressing electronically stored
information."\textsuperscript{12} Under the revised Rule, a third party subpoena
may specify the form in which electronically stored information
is produced, and a responding third party can object to this
form of production.\textsuperscript{13} In addition, the default form of produc-
tion has been changed to be in accord with revised Rule 34.\textsuperscript{14} A
responding party is also protected from having to produce infor-
mation that is "not reasonably accessible," similar to the limita-
tion in the amended Rule 26(b)(2)(B).\textsuperscript{15}

These combined changes not only modify how parties have to
interpret and respond to document requests and third-party
subpoenas in connection with federal civil litigation, they also
require parties to reevaluate their strategies for discovery across
the board.

A. Changes to Rule 34(a)

The key change to Rule 34(a) is the addition of a third cate-
gory of information that is subject to requests for production in
addition to "documents" and "things" as those terms were used
in the prior Rule.\textsuperscript{16} The changes to the existing Rule are as
follows:

(a) \textbf{Scope.} Any party may serve on any other party a request (1)
to produce and permit the party making the request . . . to in-
spect, copy, test, or sample any designated documents or electroni-
cally stored information—including writings, drawings, graphs,
charts, photographs, sound recordings, images, and other data or
data compilations \textit{stored in any medium} from which information
can be obtained[,]—translated, if necessary, by the respondent
into reasonably usable form, or to inspect, copy, test, or sample
any designated tangible things which constitute or contain matters
within the scope of Rule 26(b) and which are in the possession,
custody or control of the party upon which the request is served
. . . .\textsuperscript{17}

\begin{footnotesize}
\begin{enumerate}
\item Id. at 56.
\item Id. at 81.
\item Id. at 83.
\item Id. at 81.
\item Id.
\item Id. at 60–61.
\item FED. R. CIV. P. 34(a) (emphasis added).
\end{enumerate}
\end{footnotesize}
Under this new structure and language, electronically stored information stands on an "equal footing" with paper documents. As a result, the new Rule makes it clear that electronically stored information includes all kinds of computer-based information and data, even types that are not currently contemplated or developed. In addition, the Advisory Committee Note makes it clear that, even if a requesting party does not explicitly request electronically stored information in a document request served under Rule 34, a responding party should assume that electronically stored information is being requested. By doing so, the amended Rule focuses on the need for parties to civil litigation in the federal courts to provide responsive information, regardless of the form of storage.

The new Rule has also modified what had been a parenthetical that followed the term "documents" in the prior Rule. During the public comment period, the Committee heard concerns that the listed items in the parenthetical might be read as only referring to "documents." By changing the listed items from a parenthetical to a separate clause set off by dashes, the Committee wanted to make clear that the items listed refer, as applicable, to either electronically stored information or documents or to both.

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18 Fed. R. Civ. P. 34 advisory committee's note, subdiv. (a), reprinted in Advisory Committee Report, supra note 4, at 64.

19 Although the language of the prior Rule did not expressly refer to electronically stored information, courts have long recognized that such information was subject to the reach of the Rule, either by treating any such electronically stored information as "documents" or by fitting such information within the terms "data or data compilations" that were added in 1970. See Fed. R. Civ. P. 34 advisory committee's note, subdiv. (a), reprinted in Advisory Committee Report, supra note 4, at 63-64. The Advisory Committee considered carefully whether to continue this approach or to separate out electronically stored information as its own category and, ultimately, decided that "[r]ather than continue to try to stretch the word 'document' to make it fit this new category of stored information," it would create a new and separate category. Advisory Committee Report, supra note 4, at 54-55.

20 Fed. R. Civ. P. 34 advisory committee's note, subdiv. (a), reprinted in Advisory Committee Report, supra note 4, at 64.

21 Id. The parenthetical followed the word "document" and defined it by "including writings, drawings, graphs, charts, photographs, phone records, and other data compilations from which information can be obtained, translated, if necessary, by the respondent through detection devices into reasonably usable form." Fed. R. Civ. P. 34.

22 See Advisory Committee Report, supra note 4, at 55.

23 Id.
Another important change to the Rule clarifies that a party can request to “inspect, copy, test or sample any designated documents or electronically stored information.” This change was made to clarify that the Rule expressly permits a party to request that it be allowed to test and sample responsive information, in addition to inspecting and copying it. This change would allow, for example, a party to request that it be allowed to test and sample electronic information contained in a responding party’s systems and servers if that is necessary to evaluate and understand the information being provided. The Committee recognized, however, that expressly allowing for the right to test and sample electronically stored information may raise issues of confidentiality or privacy; therefore, it is expressly stated in the Advisory Committee Note that this added language “is not meant to create a routine right of direct access to a party’s electronic information system, although such access may be justified in some circumstances,” and it is suggested that courts should address the issues of burdensomeness and intrusiveness under Rules 26(b)(2) and 26(c). Although the Advisory Committee Note does not specify under what circumstances such direct testing and sampling may be required, a strong case can be made that when the electronically stored information being produced can only be read or understood using an application or hardware in the responding party’s sole possession, some form of testing or sampling on the producing parties’ systems is appropriate.

The discussion of this issue makes clear, however, that in amending Rule 34 to expressly provide that electronically stored information is subject to production, the Advisory Committee did not mean to undermine the general principle that discovery requests for both traditional hard copy documents and electronically stored information remain subject to the burdensomeness analysis of Rule 26(b)(2)(iii). This is extremely important,

24 FED. R. CIV. P. 34.
25 FED. R. CIV. P. 34 advisory committee’s note, subdiv. (a), reprinted in ADVISORY COMMITTEE REPORT, supra note 4, at 65.
26 Id.
27 See id.
28 FED. R. CIV. P. 26(b)(2)(c)(iii) provides that a court may limit discovery if “the burden or expense of the proposed discovery outweighs its likely benefit, taking into account the needs of the case, the amount in controversy, the parties’ resources, the importance of the issue at stake in the litigation, and the importance of the proposed discovery in resolving the issues.” The application of this Rule presupposes that a responding party has a thorough understanding of how
given that the cost and burdensomeness of responding to requests for electronically stored information can be substantial. In fact, courts have been using this analysis to evaluate demands for production of electronically stored information and have limited such requests, at times shifting the costs of responding to such requests based on this analysis.\textsuperscript{29}

B. Changes to Rule 34(b)

Rule 34(b) has been amended to address an issue that generally does not come up in connection with traditional paper discovery: given that electronically stored information can exist and be produced in a variety of formats, which format must be used when responding to a document request during civil discovery? The amendment provides a structure and procedure for a requesting party to identify the form in which the electronically stored information should be produced and guidance for a responding party on how to respond.\textsuperscript{30}

The revised Rule allows, but does not require, that the requesting party specify that electronically stored information be produced in a specific form or format that is suitable for use in the litigation:\textsuperscript{31}

(b) Procedure. The request shall set forth, either by individual item or by category, the items to be inspected, and describe each with reasonable particularity. The request shall specify a reasonable time, place, and manner of making the inspection and performing the related acts. The request may specify the form or forms in which electronically stored information is to be produced. Without leave of court or written stipulation, a request may not be served before the time specific in Rule 26(d).\textsuperscript{32}

\textsuperscript{29} See Wyeth v. Impax Labs., Inc., No. 06-222-JJF, 2006 U.S. Dist. LEXIS 79761, at *3-*6 (D. Del. Oct. 26, 2006) (holding that requesting party did not demonstrate a particularized need for the production of electronically stored information in its native format, along with metadata); CV Therapeutics, Inc., 2006 U.S. Dist. LEXIS 38909, at *27-*32.

\textsuperscript{30} Advisory Committee Report, supra note 4, at 56.

\textsuperscript{31} Id.

\textsuperscript{32} Fed. R. Civ. P. 34(b) (emphasis added).
These changes reflect that the form of production is more important with respect to electronically stored information than traditional hard copy paper documents. In addition, different forms of production may be appropriate for different types of electronically stored information. For example, a party may want to designate that certain forms of electronic documents—emails, Excel spreadsheets, or Word documents—be produced in separate electronic file formats or even as hard copy documents. With respect to other electronic data—for example, complex databases showing air traffic patterns or dynamic radar or weather patterns—a party may want it to be produced in a form that would allow the requesting party to load it into a specific system or application for evaluation and assessment.

A responding party can object to the form of production requested; if the responding party objects to a requested format—or if the original request does not specify a form of production—the responding party must state the form or forms that it intends to use:

The party upon whom the request is served shall serve a written response within 30 days after the service of the request. A shorter or longer time may be directed by the court or, in the absence of such an order, agreed to in writing by the parties, subject to Rule 29. The response shall state, with respect to each item or category, that inspection and related activities will be permitted as requested, unless the request is objected to, including an objection to the requested form or forms for producing electronically stored information, stating the reasons for the objection. If objection is made to the requested form or forms for producing electronically stored information—or if no form was specified in the request—the responding party must state the form or forms it intends to use. The party submitting the request may move for an order under Rule 37(a) with respect to any objection to or other failure to respond to the

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54 Advisory Committee Report, supra note 4, at 56.

55 Rule 34(a)(1), as recently amended, provides that a party may request electronically stored information “translated, if necessary, by the respondent into reasonably usable form.” Fed. R. Civ. P. 34(a)(1). The language of Rule 34(b) setting forth the procedure of how a party can request electronically stored information must be read in light of this provision. In addition, the Advisory Committee Note provides that, “[u]nder some circumstances, the responding party may need to provide some reasonable amount of technical support, information or application software to enable the requesting party to use the information.” Fed. R. Civ. P. 34 advisory committee’s note, subdiv. (b), reprinted in Advisory Committee Report, supra note 4, at 67.
request or any part thereof, or any failure to permit inspection as requested.\(^{36}\)

Requiring the responding party to identify the form of production in its written responses may permit the parties to identify and resolve any disputes before the expense and work of production actually begins.\(^{37}\) In practice, this may require that a party specify that different types of information will be produced in different formats.\(^{38}\) The Advisory Committee Note appears to contemplate that a responding party would identify the specific source of electronically stored information (email server, document server, desktop computer, PDA, etc.) and would state the file format for the information collected and produced from each of these different sources.\(^{39}\) If the parties cannot agree on the format for production of electronically stored information, the parties must meet and confer before the requesting party can make a motion to compel under Rule 37(a)(2)(B).\(^{40}\)

Finally, the new Rule provides that if the document request does not specify any specific form of production (and the parties do not otherwise agree or the court does not otherwise direct), the responding party should use a “default” form of production:

Unless the parties otherwise agree, or the court otherwise orders:

\[\ldots\]

(ii) if a request does not specify the form or forms for producing electronically stored information, a responding party must produce the information in a form or forms in which it is ordinarily maintained or in a form or forms that are reasonably usable; and

(iii) a party need not produce the same electronically stored information in more than one form.\(^{41}\)

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\(^{36}\) Fed. R. Civ. P. 34(b) (emphasis added).

\(^{37}\) The requirement within Rule 34—compelling parties to identify as part of their written requests and responses issues relating to the form of production—complements the changes to Rule 26(f) that require that the parties address electronic discovery issues at the initial conference between the parties. Rule 26(f) now expressly requires that, at the very beginning of the case, the parties meet and confer about issues relating to the preservation, collection, and production of electronically stored information generally. See Advisory Committee Report, supra note 4, at 15–16.

\(^{38}\) Fed. R. Civ. P. 34 advisory committee’s note, subdiv. (b), reprinted in Advisory Committee Report, supra note 4, at 66.

\(^{39}\) Id.

\(^{40}\) Id. at 67.

\(^{41}\) Fed. R. Civ. P. 34(b)(ii), (iii). These alternative forms of production were intended to be “functional analogues to the existing rule language that provides
In finalizing this language of the Rule, the Committee spent considerable time addressing what it means to produce electronically stored information in the “form in which it is ordinarily maintained,” and whether using this formulation would require parties to produce such information in “native format.” Native format refers to an associated file structure defined by the original creating application that was used to create the electronically stored information. For example, the native format of an email created in Microsoft Outlook® is as a .pst file. The Advisory Committee recognized that producing electronically stored information in native format can have substantial disadvantages, including an inability to redact privileged information from a document, an inability to bates-stamp for litigation management purposes, and an ability of a receiving party to create “documents” using the produced information.

choices for producing hard-copy documents [in] the form in which they are kept in the usual course of business or organized and labeled to correspond to the categories in the request.” ADVISORY COMMITTEE REPORT, supra note 4, at 56. Note that the “default” requirement that electronically stored information be produced in the form or forms in which it is ordinarily maintained or in a form of forms that are reasonably usable only strictly applies where the request does not specify the form of production, as distinct from the situation where the request specifies a form of production and the responding party has objected. The Advisory Committee Note suggests, however, that this formulation should be used by courts in evaluating the reasonableness of a responding party’s objection to a specified form of production. FED. R. CIV. P. 34 advisory committee’s note, subdiv. (b), reprinted in ADVISORY COMMITTEE REPORT, supra note 4, at 67. Stated differently, courts may presume that a party will be required to produce electronically stored information in a form that makes it reasonably usable, i.e., the information maintains the functionality, in terms of search capability and formatting, of the electronically stored information held and used by the responding party. See CP Solutions PTE, Ltd. v. Gen. Elec. Co., No. 04 CV 2150, 2006 U.S. Dist. LEXIS 27053, at *11 (D. Conn. Feb. 6, 2006) (“To the extent that these documents were created or received by any of the Defendants in a readable format, they must be produced for Plaintiff in a readable, usable format.”).
In fact, some courts have held that a party may be required to produce information in native format to ensure that the receiving party has the ability to read, manipulate, and search the information to the same extent as the producing party.\textsuperscript{45} To address this problem, the Committee decided that the alternative to producing electronically stored information in the form it is ordinarily maintained would be to produce the information in a “form or forms that are reasonably usable.”\textsuperscript{46} This may well vary among parties and depend upon how the specific information will be used during the litigation. Generally, for electronically stored information to be produced in a form that is reasonably usable, the produced information must have some or all of the functionality that the information had in the producing party’s systems.\textsuperscript{47} This may require that the information be searchable and that it can be manipulated and evaluated using other types of applications.\textsuperscript{48} The Advisory Committee Note specifically states that this “does not mean that [the] responding party is free to convert electronically stored information” into a different form that “makes it more difficult or burdensome for the requesting party to use the information in the litigation.”\textsuperscript{49} Thus, if the producing party normally “maintains the information in a form that makes it searchable by electronic means, the information should not be produced in a form that removes or significantly degrades this feature.”\textsuperscript{50}

In addition, in evaluating whether electronically stored information is being produced in a form that is reasonably usable, the parties and the court must take into account how the parties will actually use that information during the course of litigation. For example, all electronic files usually have metadata associated

\textsuperscript{45} See, e.g., Nova Measuring Instruments Ltd., 417 F. Supp. 2d at 1122. A different problem can arise if the requesting party insists on production in a form that is searchable in its own unique system, and thereby requiring the producing party to convert the electronically stored information into a different form. For example, under Rule 34(a), a requesting party can request that information be produced and “translated, if necessary . . . into reasonably usable form.” FED. R. CIV. P. 34(a).

\textsuperscript{46} ADVISORY COMMITTEE REPORT, supra note 4, at 57.

\textsuperscript{47} See id.

\textsuperscript{48} Id.

\textsuperscript{49} Id.

\textsuperscript{50} FED. R. CIV. P. 34 advisory committee’s note, subdiv. (b), reprinted in ADVISORY COMMITTEE REPORT, supra note 4, at 67.
with the file\textsuperscript{51} that may or may not be relevant to a dispute. Converting electronically stored information from one format to another—for example, from the document’s native format to an image file such as TIFF or PDF—usually results in the removal of metadata from a document.\textsuperscript{52} While some courts have required parties to produce metadata when producing electronically stored information, metadata is of limited evidentiary value and reviewing it is expensive, time-consuming, and often a waste of resources.\textsuperscript{53} Therefore, recent decisions have noted that “[e]merging standards of electronic discovery appear to articulate a general presumption against the production of metadata” absent a requesting party’s demonstrating a particularized need for that information.\textsuperscript{54}

\section*{C. Changes to Rule 45}

Rule 45 was modified to expressly provide that a third-party subpoena can request electronically stored information as an additional category of information, and that the requesting party be allowed to test or sample a producing party’s information and systems.\textsuperscript{55} The new Rule provides:

\begin{enumerate}
\item Every subpoena shall
\item \hspace{1cm} (C) command each person to whom it is directed to attend and give testimony or to produce and permit inspection, [and] copying, testing, or sampling of designated books, documents, electronically
\end{enumerate}


\textsuperscript{52} See Wyeth, 2006 U.S. Dist. LEXIS 79761, at *4.

\textsuperscript{53} Compare Wyeth, 2006 U.S. Dist. LEXIS 79761, at *4 (“Emerging standards of electronic discovery appear to articulate a general presumption against the production of metadata.”) (quoting Williams, 230 F.R.D. at 651) with Nova Measuring Instruments Ltd. v. Nanometrics, 417 F. Supp. 2d 1121, 1122 (N.D. Cal. 2006) (defendant ordered to produce electronically stored information in native format with metadata). See THE SEDONA CONFERENCE WORKING GROUP SERIES, THE SEDONA PRINCIPLES: BEST PRACTICES RECOMMENDATIONS & PRINCIPLES FOR ADDRESSING ELECTRONIC DOCUMENT PRODUCTION i, 46-48 (Jonathan M. Redgrave et al. eds., 2005) (“Unless it is material to resolving the dispute, there is no obligation to preserve and produce metadata absent agreement of the parties or order of the court”).

\textsuperscript{54} Wyeth, 2006 U.S. Dist. LEXIS 79761, at *4–*5.

\textsuperscript{55} ADVISORY COMMITTEE REPORT, supra note 4, at 81; Fed. R. Civ. P. 45 advisory committee’s note, reprinted in ADVISORY COMMITTEE REPORT, supra note 4, at 92–93.
cally stored information, or tangible things in the possession, custody or control of that person . . . .

The subpoena may also specify the form or forms in which electronically stored information is to be produced.

A command to produce evidence or to permit inspection, copying, testing or sampling, may be joined with a command to appear at trial or hearing or at deposition, or may be issued separately. A subpoena may specify the form or forms in which electronically stored information is to be produced.

The responding third party can object to the subpoena on the grounds that producing electronically stored information in the form requested is unduly burdensome. In that event, the requesting party will not be entitled to see the information and will have to make a motion to compel. In addition, a provision has been added expressly providing that a person responding to a subpoena need not provide discovery of electronically stored information from sources that the person identifies as not reasonably accessible because of undue burden and cost. If the requesting party challenges this objection by motion to compel, the third party will be required to show the court that the requested information is, in fact, not reasonably accessible because of cost or burden.

If the responding party decides to respond to the subpoena by producing electronically stored information, but the subpoena does not specify the form of production, the responding party must produce the information in the form it is ordinarily maintained or a form that is reasonably usable.

II. HOW WILL THE RULES CHANGE LITIGATION?

The recent amendments to the Rules, and the specific changes to the process of propounding and responding to document requests, directly impact the role of outside and inside counsel handling litigation. First, these new Rules assume a basic level of literacy with respect to electronic discovery issues and

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56 Fed. R. Civ. P. 45(a)(1)(C); Advisory Committee Report, supra note 4, at 82 (emphasis added).
57 Id. (emphasis added).
60 Advisory Committee Report, supra note 4, at 81, 90.
62 Id.
the use and management of information in electronic form. While the Rules do not require that every lawyer become trained as a computer scientist, attorneys and clients involved in litigation who do not make an effort to understand, at least at a basic level, how information can be created, maintained, and managed electronically, will be at a distinct disadvantage in future litigation. The reality of the world is that the vast majority of information that is created today is done so electronically. Thus, understanding the basic means by which this information is managed, identified, and collected is essential when managing discovery and litigating effectively. More importantly, understanding the issues and questions to ask about electronically stored information during the discovery process and the needed resources to turn to in managing these issues in any kind of complex litigation are now required skills.

Second, the Rules are structured to require parties and courts to address these electronic discovery issues early and often in connection with litigation. For example, Rule 16 has been amended to invite a court to address the disclosure or discovery of electronically stored information at the initial Rule 16 conference and in the Rule 16 scheduling order. Rule 26(a) has been amended to clarify that parties have a duty to include in their initial disclosures electronically stored information covered by that Rule. Rule 26(f) has been amended to require that the parties discuss electronic discovery at the initial planning conference on discovery. Specifically, the parties are to discuss the form of producing electronically stored information, the issue of preservation, and approaches to addressing privilege or work product protection of electronically stored information after inadvertent discovery. Thus, these Rules will compel par-

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63 Judicial Conference 2005 Report, supra note 2, at 7; Advisory Committee Report, supra note 4, at 15–17.
64 Advisory Committee Report, supra note 4, at 15, 17–20.
65 Id. at 15. In modifying this Rule, the Advisory Committee considered a concern that this change could require parties to locate and review [electronically stored information] too early in the case. Such information, often voluminous and dispersed, can be burdensome to locate and review, and early in the case the parties may not be able to identify with precision the information that will be called for in discovery. Id. Ultimately, the Advisory Committee concluded that this concern, while real, did not outweigh changing the express language of the Rule to include electronically stored information. See id.
66 See id.
67 Id. at 16, 22–28.
ties and their counsel to address and be familiar with electronic
discovery issues presented by their case long before the parties
get to the process of serving document requests under Rule 34,
and serving third-party subpoenas under Rule 45.

In addition, Rule 26(b)(2), which describes the limitations on
discovery in general, has been amended to address the issue of
electronically stored information that is "inaccessible" due to
burdensomeness or cost. This Rule authorizes a party to re-


68 Id. at 34.
69 Id.
70 Id. at 34–37. What information is truly "inaccessible" will vary from case to
case and may turn on the unique costs and burdens presented in a specific case.
Examples [of inaccessible information] from current technology
include back-up tapes intended for disaster recovery purposes that
are often not indexed, organized, or susceptible to electronic
searching; legacy data that remains from obsolete systems and is
unintelligible on the successor system; data that was 'deleted' but
remains in fragmented form, requiring a modern version of foren-
sics to restore and retrieve; and databases that were designed to
create certain information in certain ways and that cannot readily
create very different kinds or forms of information.

\begin{footnotes}
68 \textit{Id.} at 34.
69 \textit{Id.}
70 \textit{Id.} at 34–37. What information is truly "inaccessible" will vary from case to
case and may turn on the unique costs and burdens presented in a specific case.
\end{footnotes}
To gain the protection of this Rule, however, a party must affirmatively identify the electronically stored information that it contends is inaccessible. This in turn requires that a party and its counsel understand what information that party has and how it is stored before the parties begin the actual document production process.

Once the parties reach the point in the litigation where they are propounding and responding to document requests, and they are serving or responding to document requests contained in third-party subpoenas, an understanding of the requirements and operation of Rule 34 and Rule 45 is key. Parties must evaluate, in connection with drafting initial discovery requests, what kind of discovery will be at issue in the case, what portion of information may be in the form of electronically stored information, and what procedure and methodology should be used to collect and produce that information. This in turn will dictate what type of information should be included in a Rule 34 request and, more importantly, what form of production should be included in that request. This may depend upon issues of authenticity and the functionality of the information in electronic form; that is, is the information used in a dynamic as opposed to a static environment, what applications and systems are required to evaluate the information, and what is the scope of a request consistent with the needs of the specific litigation.

While these issues are presented in any civil litigation, the unique sources of information that may be relevant to aviation cases may present unique challenges. Information captured on FDRs, CVRs, or other real-time systems may be extremely valuable to understanding what happened, but the ability to leverage that information in litigation may depend upon access to systems, applications, and data feeds that are unique or proprietary. Similarly, using discovery to obtain electronic information from dynamic, real-time systems showing weather patterns or radar signatures requires careful consideration about how that information can and will be used by the litigants in the case. The value of being able to examine and use information from a complex system detailing the movement of an aircraft must be weighed against the complexity, volume of the data, and expense needed to use that information effectively in the courtroom.

72 Id. at 36.
Similar considerations come into play when responding to a Rule 34 request that expressly or implicitly requests electronically stored information. Rule 34(b) requires that a party raise any objections to the form of production of electronically stored information, or it may be forced to produce that information in a form, such as native format, that is disadvantageous. This requires that a responding party have an understanding of any electronically stored information it has and in what format that information is maintained before responding to a Rule 34(a) request. In addition, if a responding party intends to object and suggest a different format for production, it must evaluate whether alternative forms of production are technically feasible and the extent to which the functionality of the electronic information can be maintained. Businesses create and maintain information in electronic form for a variety of reasons, including that it can be manipulated into different formats and applications, it can be searched, and it can be modified and updated with new data. In deciding how to produce this type of information in discovery, a responding party must evaluate the extent to which that functionality is important in the litigation and in understanding the information and, thus, how it can be produced "in a form or forms that are reasonably usable."

Moreover, in fashioning Rule 34(a) requests for information and in preparing responses to those requests under Rule 34(b), parties must carefully consider the cost and expense of collecting, evaluating, and producing electronically stored information. One of the challenges of electronic discovery is that it is created and retained in exponentially greater volume than hardcopy documents. Thus a document request that previously would have called for a file drawer of documents may now call for entire hard drives of information that is substantially more

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74 In addition, if a responding party is going to contend that a requesting party’s demand that production of electronically stored information in a certain format is inappropriate, the responding party must understand what form its information is in to be able to marshal its arguments about why the requested format cannot be used. See CP Solutions PTE, Ltd. v. Gen. Elec. Co., No. 3:04cv2151 (JBA) (WIG), 2006 U.S. Dist. LEXIS 27053, at *12-*14 (D. Conn. Feb. 6, 2006); cf. Treppel v. Biovail Corp., 233 F.R.D. 363, 374 n.6 (S.D.N.Y. 2006) ("The plaintiff requested production of electronic documents in native file format. Although Biovail objected to this request, it has provided no substantive basis for its objection. The documents shall therefore be produced in the form requested.").
75 Fed. R. Civ. P. 34(b) (ii).
76 Advisory Committee Report, supra note 4, at 56–57.
difficult and expensive to collect, review, and produce. Finally, parties need to be sensitive to the maxim that “what is good for the goose, is good for the gander.” There is no doubt that parties can use the cost and expense of e-discovery as a tool in and of itself. Parties will need to recognize, however, that propounding overly broad requests for electronically stored information may be turned against the requesting party, and will result in disfavor with the court.

Another untested, but interesting, aspect of the new Rules is the extent to which parties can seek to obtain information from the government and government agencies using a Rule 45 subpoena as distinct from or in addition to the more traditional Freedom of Information Act (FOIA) approach, and thereby take advantage of the new flexibility in the Rule to demand that electronically stored information be produced in a specific format, and that a requesting party be allowed to sample or test information using the responding party's systems. Serving a Rule 45 subpoena on the government or on an agency such as the Federal Aviation Administration implicates sovereign immunity issues; sovereign immunity generally has been deemed only to have been waived to the extent that it has been waived under the Administrative Procedure Act, 5 U.S.C. § 552 (the APA).

While the scope of the information that a federal

77 The Freedom of Information Act (FOIA) does expressly define a record to include “any information that would be an agency record subject to the requirements of this section when maintained by an agency in any format, including an electronic format.” 5 U.S.C.A. § 552(f)(2) (West 2007). In addition, the FOIA requires that the agency, “[i]n making any record available to a person under this paragraph . . . shall provide the record in any form or format requested by the person if the record is readily reproducible by the agency in that form or format.” 5 U.S.C.A. § 552(a)(3)(B). While these provisions could be read as requiring an agency to produce electronically stored information in the format in which it is maintained, if it is reproducible, the new provisions in Rule 45 are arguably more robust.


79 Id. at 598; but see Exxon Shipping Co. v. U.S. Dep't of Interior, 34 F.3d 774, 780 (9th Cir. 1994).

Pursuant to 5 U.S.C. § 301, executive branch agencies may prescribe regulations for their own internal governance, conduct of business, record keeping, and document custody. Such regulations are commonly known as “housekeeping” regulations, and do not authorize the agency to withhold information from the public. Housekeeping regulations that create agency procedures for responding to subpoenas are often termed “Touhy regulations,” in reference to the Supreme Court's decision in United States ex rel. Touhy v. Ragen. 340 U.S. 462 (1951). In Touhy, the Court ruled
agency deems to be responsive to a Rule 45 subpoena will generally correlate to what that agency would have produced if that same request had been made in the form of an FOIA request, courts may be more willing to dictate the structure and format of how that information must be produced given the explicit provisions that have been added to Rule 45.

An interesting example of this possible interplay, albeit not one directly involving electronic discovery, is Fischer v. Cirrus Design Corp. In this wrongful death action, plaintiff sought information from the Federal Aviation Administration (the FAA) regarding the agency's certification of the plane that crashed. Plaintiff first attempted to get the information under the FOIA, but the FAA responded by saying that some of the requested records would be withheld based on 49 C.F.R. § 7.13(c)(4) (Exemption 4), which exempted from FOIA statutory disclosure "[t]rade secrets and commercial or financial information obtained from a person and privileged and confidential." Defendant, Cirrus Design Corp., subsequently refused to authorize the release of the confidential information by the FAA. Plaintiff then served a third-party subpoena upon the FAA, which the FAA treated in the same way as the earlier FOIA request and refused to produce the requested confidential information.

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that agency employees may not be held in contempt for refusing to answer a subpoena, if prohibited from responding by a superior. COMSAT Corp. v. Nat'l Sci. Found., 190 F.3d 269, 272, n.3 (4th Cir. 1999). Examples of these types of regulations are 49 C.F.R. § 9.13 (2007); 15 C.F.R. § 903.1 (2007); 15 C.F.R. Part 4 (2007).

While federal agencies are required to make a broad range of information available to the public under the FOIA, the statute has nine exemptions that are often used to limit what an agency has to make public. See Lahr v. Nat'l Transp. Safety Bd., No. CV 03-8023, 2006 U.S. Dist. LEXIS 73831, at *25–*26, *28–*30 (C.D. Cal. Aug. 31, 2006).

The extent to which the courts should review an agency's compliance or lack of compliance with discovery requests, such as a Rule 45 subpoena, under the judicial review standards of the Administrative Procedures Act, 5 U.S.C.A. §§ 701–06 (West 2007), or under the standards of Rule 45, is an unsettled question. In re Sec. & Exch. Comm'n ex rel. Glotzer & Slansky, 374 F.3d 184, 191 (2d Cir. 2004); compare Linder v. Calero-Portocarrero, 251 F.3d 178, 180–81 (D.C. Cir. 2001) with COMSAT Corp., 190 F.3d at 277; see also Abdou v. Gurrieri, No. 05-CV-3946, 2006 U.S. Dist. LEXIS 68650, at *12 (E.D.N.Y. Sept. 25, 2006).


Id. at *2.

Id. at *4 & n.1.

Id. at *5.

Id. at *7.
Plaintiff then moved to enforce the subpoena in the district court.  

The district court acknowledged that plaintiff's application for enforcement of the subpoena to the FAA implicates sovereign immunity and, therefore, the court could only enforce the subpoena to the extent the FAA had waived its sovereign immunity under the Administrative Procedure Act. Noting that the scope of the court's review of the FAA's actions under the APA in this context "is at least modestly controversial," the court did not decide that issue and instead held that, under any standard, "the agency's refusal to honor the subpoena issued cannot pass muster." In rejecting Cirrus' arguments that the FAA should not be required to produce anything that it would not otherwise produce under the FOIA, the court noted the different role of discovery in civil litigation:

While FOIA is not designed as a discovery device, instead representing a compromise between interests of the government and the public's right of access to information and materials utilized by governmental agencies in performing their functions, a subpoena issued in a private litigation is such a discovery device. Though the FAA's regulations may prescribe that the procedures associated with FOIA requests are to be made applicable to subpoenas, they cannot override the legitimate interests of the court and litigants in a dispute between private parties in obtaining discovery from appropriate sources.

87 See id. at *8.  
88 See id. at *10–*11.  
89 Id. at *12.  
90 Id. at *21–*22.