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BARBARIANS AT THE GATE: MILITARY RULES OF EVIDENCE 702-705, SCIENTIFIC EVIDENCE, AND THE MILITARY JUDGE'S GATE KEEPING FUNCTION UNDER *DAUBERT V. MERRELL DOW PHARMACEUTICALS, INC.*

A Thesis
Presented to
The Judge Advocate General's School
United States Army

The opinions and conclusions expressed herein are those of the author and do not necessarily represent the views of either The Judge Advocates General's School, The United States Army, or any other governmental agency.

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United States Marine Corps

43D JUDGE ADVOCATE OFFICER GRADUATE COURSE

April 1995

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ABSTRACT: This thesis examines the effect of the Supreme Court's holding in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, on the treatment of scientific evidence under the Rules for Courts-Martial, the Military Rules of Evidence, and military appellate case law. The key focus is on the Supreme Court's imposition of an independent "gate keeping" function on the trial judge. An examination of the Rules for Courts-Martial shows that such a gate does not currently exist in military practice, leading to difficulties for both judge and counsel in handling scientific evidence. The thesis proposes a number of changes to the discovery process and pretrial motion practices to create a true procedural gate. A further examination of the existing evidentiary rules and appellate case law will show that the imposition of this independent duty on the military judge requires substantial changes to the way scientific evidence is evaluated and presented to the trier of fact. Finally, this thesis proposes an analytical framework that integrates the holdings of *Daubert*, current case law and the proposed amendments to the Rules for Courts-Martial into a coherent procedural and substantive gate for the military judge to keep.

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MAJOR JEFFREY G. MEEKS*

I. Introduction

A host of barbarians, in the guise of scientific evidence, stand at the gate of the military courtroom, prepared to enter and alter the way triers of facts view traditionally "clear cut" evidence. On one side of the gate are these scientific theories, manipulated by aggressive partisan counsel with their theory of the case to advance. On the other stands the trier of fact, uneducated in the myriad of scientific theories that explain

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phenomena in the natural world. Between them stands military judges, armed with the provisions of Military Rule of Evidence (Mil.R.Evid.) 702 through 705 and shielded by their judicial discretion.[1] For practitioners, the "battle of the experts" holds the great appeal of bolstering the credibility of their "traditional" evidence with the stamp of scientific authority, while exposing the empirical weakness of their opponents' case.

Unfortunately, inadequate procedural safeguards and ambiguous case precedent make the gate that judges guard rickety at best. This hampers their ability to protect the trier of fact and ensure that only "helpful" scientific evidence is admitted, while imposing no significant sanctions if they fail in this task. The result is procedural and substantive confusion for both practitioners and factfinders.

In the case of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*,[2] the Supreme Court grappled with the standards for admissibility of scientific evidence and the nature of the judge's "gate keeping" function under Fed.R.Evid. 702 through 705.[3] The principles announced by the Supreme Court represent a substantial departure from prior practice in federal courts.[4] Analysis of the military justice system's existing procedural and substantive scheme for handling of scientific evidence in light of *Daubert* discloses a number of problems. Although military courts, since the Court of Military Appeals' decision in *United States v. Gipson*,[5] have applied a form of the analytical framework *Daubert* propose, both the procedural scheme for

handling scientific evidence and the substantive interpretation of the Mil.R.Evid. 702-705 fail to accomplish the level of judicial scrutiny that *Daubert* requires. Change is needed.

In this article, I will discuss the Court of Appeals of the Armed Forces' (C.A.A.F.) treatment of the admissibility of scientific evidence, both in light of the procedural provisions contained in the Rules for Courts-Martial (R.C.M.)[6] and the substantive evidentiary aspects of Mil.R.Evid. 702-705 and related eviditiary rules. I will discuss the implications of *Daubert* on the handling of scientific evidence in the military, with special emphasis on the "gate keeping function" of the trial judge that the Supreme Court expounds. I will show that the current procedural scheme for handling scientific and other "expert" evidence has significant flaws. These flaws include:

1. devaluation of the role of the military judge as a gate keeper, by placing the decision to raise issues concerning scientific evidence in hands of partisan counsel, with their decisions being evaluated under the "plain error" doctrine;

2. inadequate discovery provisions that fail to require sufficient disclosure of scientific evidence issues prior to trial on the merits, leading to potential ambush and surprise during trial; and

3. pretrial motion practice which either fails to resolve

scientific evidence issues prior to trial due to military judges deferring their rulings until the trial on the merits, or, if the judges rule, does not ensure that their decision will be final.

To correct these flaws, I will propose a number of procedural changes under the Rules for Courts-Martial which will ensure full discovery, encourage pretrial litigation of scientific evidence issues, and empower military judges to fully exercise their gate keeping function.

The proposed procedural changes will have a significant impact on the analysis of scientific evidence. After proposing these procedural changes, I will address the impact that *Daubert's* judicially centered approach should have on the current state of military appellate case law. I will specifically focus on the analytical framework established by *United States v. Houser,*[7] and show that the absence of military judges empowered by an independent duty to determine the scientific validity, logical relevance, and admissibility has created the following problems:

1. the recognition of potentially unreliable scientific theories without engaging in an explicit reliability analysis;

2. the acceptance of witnesses as "experts" who possess neither the scientific knowledge to explain the methodology used to arrive at the theory on which they rely, nor the ability to

ensure that their application of the theory is "helpful" to the trier of fact;

3. confusion as to what constitutes sufficient facts and data "reasonably relied upon" by experts in a field, thus rendering opinions by experts suspect;

4. the imposition of hypertechnical semantic rules on the issue of relevance, leading to the exaltation of form over substance; and

5. the use of ambiguous categorical distinctions to admit or exclude evidence, without engaging in an analysis of scientific validity or logical relevance.

Throughout this examination of the law, I will propose the elements of an analytical framework which synthesizes the requirements of *Daubert, Houser* and the Military Rules of Evidence. This framework shifts the onus of analysis to military judges who fulfill their independent duty to determine scientific validity, logical relevance and admissibility, and ensures that no scientific theory is presented to the trier of fact without passing through the crucible of judicial scrutiny.

II. Military Rules of Evidence 702 and the Death of *Frye*

A. *A Brief History of Frye*

Prior to the advent of the Military Rules of Evidence, the admissibility of expert testimony was governed, in large part, by the theory of admissibility articulated in *Frye v. United States.*[8] This case, which involved the admissibility of the "systolic blood pressure deception test" (a precursor to the polygraph) at a criminal trial, focused on the standard that courts should use to determine the admissibility of scientific evidence. After recognizing a principle of admissibility of expert testimony remarkably consistent with Mil.R.Evid. 702,[9] the court rejected the proffered evidence, stating:

> Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained *general acceptance in the particular field in which it belongs.*[10]

The "general acceptance" doctrine soon dominated the judicial scrutiny of scientific evidence, becoming, for many

courts, the sole criterion for determining whether such testimony should be admitted.[11] Often, the courts further truncated this process by searching out the holdings of other jurisdictions to determine if a particular theory had gained judicial recognition.[12] If other courts had recognized the particular theory, then general acceptance had occurred; if not, then *Frye* kept this testimony out.

In practice, the determination of "general acceptance" was predicated on the statements of a properly credentialed "expert," who stated, in simplistic terms, that the science used as the basis for the opinion constituted "good science" and was therefore "generally accepted."[13] Once the court had found that the expert's credentials were adequate and, based on the expert's representations, that the theory "generally accepted," any attack on the theory went to the weight of the evidence before the trier of fact, not to its legal admissibility.

In 1980, the military adopted in substance the Federal Rules of Evidence by promulgation of the Military Rules of Evidence as part of the Manual for Courts-Martial.[14] The analysis of the admissibility of scientific evidence came under the scheme set forth in Mil.R.Evid. 702, with its liberal test for the admissibility of expert testimony.[15] The key features of this rule are:

1. The broad definition of an expert as someone who knows more than the trier of fact; and

2. the focus on expert's specialized knowledge being "helpful" to the trier of fact as the touchstone for admissibility.

The advent of Mil.R.Evid. 702 broadened the potential use of expert testimony in courts-martial.[16] However, the Rule failed to address the level of scrutiny that scientific evidence should be subjected to in order to determine its "helpfulness." The drafters of the Military Rules of Evidence were aware of this failing when they examined the Federal Rules of Evidence, noting that the continued viability of *Frye* had not been addressed. They explained that Mil.R.Evid. 702 "may be broader" than prior Manual provisions "and may supersede [*Frye*], an issue now being extensively litigated in the Article III courts."[17] In the federal courts, a sharp split of opinion concerning *Frye* remained unresolved until the Supreme Court's *Daubert* decision in 1993.[18]

B. *Gipson and the Death of Frye*

In 1987, The Court of Military Appeals (C.M.A.) resolved the issue against the continuing viability of the *Frye* test as an independent criteria of admissibility. In *United States v. Gipson,*[19] the court examined the trial judge's refusal to allow either the defense or the government to lay a foundation for polygraph testimony. The trial judge based his decision on the lack of general acceptance of the polygraph by both the

scientific and judicial communities--very much the same issue presented in the *Frye* case.[20] The C.M.A. initially reviewed the reliability of polygraph in general. They found that the greater weight of authority indicated that the procedure "can be a helpful scientific tool."[21]

After finding the potential for Mil.R.Evid. 702 "helpfulness" in admitting the polygraph testimony, the court went on to classify the types of scientific evidence which may be presented to military courts, and the level of scrutiny to which these scientific methods should be subjected. The C.M.A. stated that:

> Scientific principles can be divided into three levels. At the top, the principles underlying the expertise are so judicially recognized that it is unnecessary to reestablish those principles in each and every case. In effect, the validity of these sciences and techniques are judicially noticeable; and into this group fall "fingerprint, ballistics, or x-ray evidence." At the bottom lies a junk pile of contraptions, practices, techniques, etc., that have been so universally discredited that a trial judge may safely decline even to consider them, as a matter of law. To that level have been relegated such enterprises as phrenology, astrology, and voodoo. In the middle is that range of scientific and technical

endeavor that can neither be accepted nor rejected out of hand. To this group, based on the information available to us, we assign the polygraph.[22]

The court rejected the *Frye* test as the basis for determining the admissibility of scientific or technical evidence that occupies this second tier of scientific evidence.[23] Instead, the C.M.A. adopted the approach used by 3d Circuit Court of Appeals in *United States v. Downing*.[24] That approach involves an examination of three factors:

1. the soundness of the process or techniques used in generating the evidence (Mil.R.Evid. 702-703 reliability);[25]

2. the possibility that admitting the evidence will overwhelm, confuse or mislead the jury (Mil.R.Evid. 403 balancing);[26] and

3. the proffered connection between the scientific research or test result to be presented, and particular disputed factual issues in the case (Mil.R.Evid. 401/402 "logical relevance.").[27]

Although the C.M.A. explicitly rejected the *Frye* test as the sole criteria for making a reliability determination, the court acknowledged that one of the most effective tools for evaluating scientific evidence was a scientific test or procedure's general

acceptance in the scientific community.[28] It noted, however, that this was only one factor for the judge to consider, and that other factors may be just as persuasive or significant.[29] The C.M.A. directed that counsel be allowed to attempt to lay a foundation that satisfied the criteria for this newly enunciated test.[30] The responsibility to make this reliability and relevance determination vested in the trial judge.[31]

Equipped with these tools, the military courts appeared armed with a sufficient procedural edifice and substantive evidentiary weapons to ensure that only properly accredited experts presented their valid scientific theories to the trier of fact. Phrenologists and witch doctors need not to apply, although a polygrapher could at least knock at the gate.

C. *The Advent of Daubert*

Gipson and its progeny failed to address the scope of the role of the judge in evaluating scientific evidence--that is, should judges actively engage in the *Gipson* analysis *sua sponte*, or should they allow counsel to try their cases and act only upon objection or the commission of plain error. This issue also presented a problem to the federal courts, and revolved in part around the conflict produced by the interpretation of *Frye* and Fed.R.Evid. 702.

In *Daubert v. Merrell Dow Pharmaceuticals*,[32] the Supreme Court addressed the issue of the continued viability of *Frye*, the

role of the judge as a gate keeper in the area of scientific evidence, and the standards for determining the scientific validity, logical relevance and admissibility of scientific evidence under Fed.R.Evid. 702. The court initially resolved the issue of the *Frye* test, then proceeded to:

1. impose an independent duty on the trial judge to act as a "gate keeper" in determining the scientific validity and "fit" of scientific evidence introduced at trial; and

2. expound an analytical methodology for the trial judge to use in executing this independent duty.

Both of these actions by the Supreme Court should have profound implications on the way scientific evidence is handled in the military courts, both procedurally and substantively.

III. *Daubert* and the Role of the Judge in Evaluating Scientific Evidence

The procedural context of *Daubert* is important in revealing the expanded role of the judge. This case involved a suit to recover damages for birth defects allegedly caused by the use of the drug Bendectin during pregnancy. The plaintiffs' scientific evidence came from well credentialed experts who had not

conducted independent testing of the drug itself, but instead had reevaluated the existing epidemiological data and discovered significantly different results. Merrell Dow moved for summary judgment against the plaintiffs. They based this motion on the failure of the plaintiffs' scientific evidence to meet the standard of "general acceptance" under the *Frye* test.[33] Applying *Frye*, the trial judge found for Merrell Dow, and the Ninth Circuit affirmed.[34]

The Supreme Court determined to resolve the issue of the continued viability of *Frye* under the more liberal provisions of Fed.R.Evid. 702.[35] Of chief concern was the fact that *Frye* limited the judge's role to a simple determination of whether experts were credible when they state that a method or technique was in fact "generally accepted."[36] Under this interpretation of *Frye*, control of the evidentiary gate belonged to the party able to marshal the most reputable experts. As Merrell Dow possessed the power of the pocket book in procuring the best experts, the *Daubert* plaintiffs sought a more liberal test to overcome what was, for them, the draconian effect of *Frye*.

The Supreme Court, applying the same rationale as the C.M.A. had in *Gipson,*[37] held that *Frye* had been superseded by the adoption of Fed.R.Evid. 702.[38] The court did not stop with this rejection of the *Frye* test, however. Instead, it focused on the scope of the judge's duty to determine the admissibility of the scientific evidence. The court held that, under Fed.R.Evid. 702, "the trial judge *must ensure* that any and all scientific

testimony or evidence is not only relevant, but reliable."[39] In describing the duty envisioned by the Rules, the court stated:

> Faced with a proffer of expert scientific testimony, then, the trial judge *must determine* at the outset, pursuant to Rule 104(a), whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue. This entails a *preliminary assessment* of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue[40]

This imposition of a broader duty on the judge represents a significant departure from prior federal practice. On remand, the 9th Circuit, in reviewing their new duties under *Daubert*, expounded this interpretation of the Supreme Court's holding:

> Our responsibility, then, unless we badly misread the Supreme Court's opinion, is to resolve disputes among respected, well-credentialed scientists about matters squarely within their expertise, in areas where there is no scientific consensus as to what is and what is not "good science," and to occasionally reject such expert testimony because it was not "derived by the

scientific method." Mindful of our position in the hierarchy of the federal judiciary, we take a deep breath and proceed with this heady task.[41]

The 9th Circuit was not alone is this perception. The 3d Circuit, in *In Re. Poali R.R. Yard PCB Litigation,*[42] also acknowledged the significance of this shift, and went on to describe the method the judge should employ in exercising this duty. The court stated:

> We now make it clear that it is the judge who makes the determination of reasonable reliance, and that for the judge to make the factual determination under Rule 104(a) that an expert is basing his or her opinion on a type of data reasonably relied upon by experts, *the judge must conduct an independent evaluation into reasonableness.*[43]

These two holdings demonstrate that the Supreme Court has imposed a different, broader based, and activist role on the judge, substantially greater than that which existed under prior case law. A natural consequence of this new "gate keeping" function is that the judge must independently resolve the issues of admissibility of scientific evidence--regardless of the actions counsel take in raising the issue.

Both of these cases cited above involved motions for summary

judgment at civil trials.[44] Although motions *in limine* are permitted under both the Federal Rules for Criminal Procedure[45] and the Rules for Court-Martial,[46] these motions, as they deal with the admissibility of scientific evidence, are neither required nor case dispositive. The trial judge has broad discretion to delay ruling on the motions until the trial on the merits. This raises the issue of when and how judges in a criminal trial should exercise their *Daubert* "independent duty" to screen scientific evidence.

One approach has been adopted by the 2d Circuit in the case of *United States v. Locascio*,[47] which involved the trustworthiness analysis of the underlying facts and data considered by an expert under Fed.R.Evid. 703. The court stated:

> We decline, however, to shackle the district court with a mandatory and explicit trustworthiness analysis. The district judge, who has the ideal vantage point to evaluate an expert's testimony during trial, already has the authority under Fed.R.Evid. 403 to conduct an explicit trustworthiness analysis should she deem one necessary. In fact, we assume that the district court consistently performed a trustworthiness analysis *sub silentio* of all evidence introduced at trial. We will not, however, circumscribe this discretion by burdening the court with the necessity of making an explicit determination for all expert testimony.[48]

This approach is inconsistent with *Daubert's* requirement for the judge to determine, at the outset, the reliability of scientific evidence under Fed.R.Evid. 104(a). The chief failing of the Second Circuit's approach is that issues are not necessarily developed by counsel on the record, evidence permitted under Fed.R.Evid. 104(a) is not presented to the court, and the judge's exercise of discretion remains undocumented. This approach negates the practical impact of *Daubert's* holding concerning the role of the judge, working counter to a clearly recognized judicial "gate keeping" role. An explicit requirement appears to be the better approach.

This is particularly true under the Rules for Courts-Martial. There, the role of the judge has been weakened by the procedures governing discovery, litigation of pretrial motions, and the handling of objections under Mil.R.Evid. 103.[49] The result is a system which detracts from the independence of the military judge in making determinations concerning scientific evidence. The effect is creation of precedent based on errors of omission. The sources of these problems, and some possible solutions, are described below.[50]

IV. The Rickety Gate: The Procedural Scheme Governing Scientific Evidence

The viability of substantive rules which ensure that only reliable expert testimony comes before the trier of fact ultimately depends on the procedures that bring these rules into play. These procedural rules form the gate which *Daubert* requires the military judge to keep. The greatest weakness of the military procedural scheme is that, with few exceptions, judges act in response to the actions of counsel, who trigger the gate by making motions or raising objections. Because the analysis of the reliability and relevance of scientific evidence is dependent on the actions of counsel, the technical skill and tactical scheme of a partisan advocate becomes the key initiator of a judicial determination of admissibility.

A. Mil.R.Evid. 103 and Partisan Advocates

Prior to the advent of the Military Rules of Evidence, the Manual for Courts-Martial, 1969, took an arguably paternalistic approach to evidentiary practice. Although the primary obligation to make objections to inadmissible evidence fell upon the counsel litigating the case, the Manual expressly provided that:

> When offered evidence would be excluded on objection,

> the military judge . . . may as a matter of discretion bring the matter to the attention of any party entitled, but failing to object to its admission. . . . In the interest of justice, the military judge . . . may on his . . . own motion exclude inadmissible evidence.[51]

This rule carried over in large part to the Manual for Courts-Martial, 1984, R.C.M. 913(c)(4), but contained this significant caveat in the discussion:

> The military judge should not exclude evidence which is not objected to by a party except in *extraordinary* circumstances. Counsel should be permitted to try the case and present the evidence without *unnecessary* interference from the military judge.[52]

Unfortunately, the terms "extraordinary" and "unnecessary" are not defined. This leaves the parties with substantial latitude over how to litigate their cases. For the accused, the consequences for failure to object to erroneous admissions may be severe. Under Mil.R.Evid. 103(d), unless there is "plain error" that "materially prejudices substantial rights"[53] of the accused or an error that violates requirements imposed by the Constitution,[54] failure to object to the admissibility of evidence constitutes waiver of the issue on appeal.

This rule produces some anomalous results, especially when applied to the evaluation of the reliability and relevance of scientific evidence. The typical case involving expert testimony, where the parties do not litigate the issues before the trial on the merits, has the expert witness take the stand in the presence of the members. The proponent counsel begins to "lay the foundation" for both the expertise of the witness and the helpfulness of the testimony offered.[55] Counsel ask the foundational questions for a dual purpose: first, to satisfy the military judge that the testimony meets the requirements of Mil.R.Evid. 702 and appellate case law--purely legal issues; and second, to begin to establish the expert's credibility with the members and ensure that the testimony will advance their theory of the case--purely tactical considerations.[56]

When faced with the presentation of scientific evidence that does not fully satisfy the *Gipson* test, military judges have three options:

1. do nothing in the absence of "extraordinary circumstances" to avoid "unnecessary" interference with counsel trying their case;

2. call the issue to the attention of counsel, if the error is "extraordinary;" or

3. conduct their own independent *Gipson* inquiry as part of

their role of ensuring that only reliable and relevant evidence is presented to the trier of fact.

Under the current procedural scheme, options 1 and 2 are the default methods. As will be shown, much of the substantive law in the area of scientific evidence is decided in the vacuum created by "plain error" analysis, where both the military judge and counsel did nothing when presented with potentially unreliable or irrelevant scientific evidence.[57]

Opposing counsel, faced with the presentation of scientific evidence, has several options as well. First, counsel can object to the legal admissibility of the testimony. In normal practice, the appropriate time to object occurs when the witness is tendered to the court to be recognized as an expert, when the witness declares that a particular theory is valid or generally accepted, or when an opinion concerning the facts of the case is tendered.[58] At that point, opposing counsel has the option to attack the foundation by "voir dire"--that is, by engaging in a preemptory cross-examination of the expert before any information is before the court.

The purpose of this "voir dire" process is for the opposing counsel to demonstrate to the military judge that an inadequate foundation exists for admission of the scientific evidence. Because admissibility is a preliminary question, the military judge's decisions is governed by Mil.R.Evid. 104(a).[59] In making the determination, the military judge can rely on a whole battery

of otherwise inadmissible evidence, including affidavits, stipulations, curriculum vitae, learned treatises and statements of professional organizations.[60] This evidence is not published to the members.

"Voir dire" has tactical implications as well. Counsel conducting voir dire seek to expose the expert's weaknesses to the trier of fact before the proponent of the expert has the opportunity to elicit an opinion.[61] Because the counsel proffering the expert began the process of laying the foundation in the presence of the members, a simple fairness argument supports the idea that the voir dire should occur in the presence of the members as well.

This mixture of litigating both factual and legal issues in the presence of the members creates a difficult scenario for the judge. Competing with the concept that counsel should be permitted to try their own cases is the military judge's duty, discussed in *Gipson*, to prevent "the possibility that admitting the evidence will overwhelm, confuse or mislead the jury."[62] In advising the judge on handling this circumstance, Mil.R.Evid. 103(c) requires that

> in a court-martial composed of a military judge and members, proceedings shall be conducted, to the extent practicable, so as to prevent inadmissible evidence from being suggested to the members by any means, such as making statements or offers of proof or asking

questions in the hearing of members.[63]

Unfortunately, by the time the expert is on the stand answering questions necessary to lay the foundation for his expertise and opinion, the members may very well have been exposed to inadmissible evidence, by way of counsel introducing an unreliable theory to the members during voir dire, opening statement,[64] by testimony of prior witnesses which relate the Mil.R.Evid. 703 foundational facts or data that support the theory,[65] and by the very nature of the expert's response to foundational questions. In the face of a sustained objection, these prior statements before the trier of fact become irrelevant at best, prejudicial at worst, and have the potential of causing the waste of time and confusion of the issues that Mil.R.Evid. 403 is designed to prevent.[66]

In order to prevent contamination of the members by discussion of legal issues in their presence, the judge's remedy at this point of trial is an Article 39(a) session and litigation of the issues outside of the presence of the members. The following scenario may then occur. The judge is bound by the practical pressures caused by the members waiting, the witnesses languishing in the waiting room, the docket backing up and counsels' lack of preparation to fully address the issue. Counsel scramble to research the issue and prepare argument. Although the issue is potentially ripe for scholarly reflection and written briefs, counsel argue orally, resulting in an

incomplete "fleshing out" of all matters on the record.[67] A rapid decision follows, addressing the narrow issue that led to the request for the Article 39(a) session. The judge concludes this session with an admonition to litigate this issues in a motion session prior to trial to avoid waste of the court's time.[68]

The reasons why counsel often fail to litigate scientific evidence issues in advance of trial may be a function of procedure. A review of the Rules for Courts-Martial will reveal the absence of procedural requirements to fully discover and develop issues of scientific evidence prior to trial on the merits. This inadequacy begins with the discovery process.

B. *Discovery and Gamesmanship*

R.C.M. 701 purports to establish a scheme of discovery which assists both counsel and the court to fully develop the issues at the earliest stage of trial, to promote efficiency, and to permit effective disposition of cases.[69] One of the chief evils the drafters sought to avoid was "gamesmanship," wherein counsel manipulate the system in order to obtain a tactical advantage over the opposing party. As stated by the drafters in their analysis of R.C.M. 701:

> The rule is intended to promote full discovery to the maximum extent possible consistent with legitimate

needs for nondisclosure and *eliminate "gamesmanship" from the discovery process.* . . . Providing broad discovery at an early stage reduces pretrial motions practice and surprise and delay at trial. It leads to better informed judgment about the merits of the case and encourages early decisions concerning the withdrawal of charges, motions, pleas, and composition of the court-martial. In short, experience has shown that broad discovery contributes substantially to the truth-finding process and to the efficiency with which it functions. *It is essential to the administration of justice; because assembling the military judge, counsel, members, accused, and witnesses is frequently costly and time consuming, clarification or resolutions of matters before trial is essential.*[70]

The rules do not accomplish this intent, however. Instead, the rules create three gaps in pretrial discovery:

1. Counsel are not required to disclose either the explanative theory that acts as the basis for the scientific evidence they intend to introduce or the complete field of facts or data on which the scientific evidence will be based;

2. Counsel are not required to disclose the credentials of their experts in order to facilitate determination of their

qualifications and helpfulness; and

3. The rules permit the trial counsel to force the defense to fully disclose their theory of the case and the means by which scientific evidence will support it as a prerequisite to the defense obtaining expert assistance in the preparation of their case.

In discussing the rules below, I will examine their effect from the point of view of the both "aggressive" counsel who seeks the manipulate the rules to obtain a benefit for their client and the "passive" counsel who does no more than the rules require. It is these two extremes, and their impact on the system, that frequently create the issues that the appellate courts must decide. From this perspective, I will demonstrate the cause of these procedural gaps below.

1. *Disclosure of the Major and Minor Premises of Scientific Testimony*--The drafters intended to facilitate early resolution of evidentiary issues before trial on the merits. To accomplish this, the discovery rules should ensure disclosure of all factors essential to making a reliability determination under Mil.R.Evid. 702 and 703.[71] Disclosure of this information would assist in early resolution of these issues. Examination of the interface between these rules show that this intent is not fulfilled.

First, R.C.M. 701(a) requires the government to permit

examination, upon request by the defense, of the following limited information relating to scientific evidence in the case:

> Any results or reports of physical or mental examinations, and of scientific tests or experiments, or copies thereof, which are within the possession, custody or control of military authorities, the existence of which is known to the trial counsel, and which are material to the preparation of the defense or are intended for use by the trial counsel as evidence in the prosecution case-in-chief.[72]

At first blush, this provision appears to be provide a broad field of scientific facts and data of the type that experts can "reasonably rely upon" in forming their opinion under Mil.R.Evid. 703. These disclosures are adequate to the extent that experts rely on documentary evidence as a basis for their opinions.[73] This provision ignores or excludes, however, disclosure of the theoretical basis for "major premise" testimony, as well as the non-documentary bases for the "minor premise" and opinion under Mil.R.Evid. 703.[74] Both of these items of information are integral to a reliability determination.[75]

The "major premise" of expert testimony consists of the explanative theory experts uses to arrive at their specific opinion concerning the facts of the case.[76] The reliability of the major premise is generally established by an "expert" taking

the stand and explaining a scientific, medical or psychiatric theory which has been validated by acceptable scientific methodology.[77] This major premise is then applied to the "minor premise," which consists of the specific application of the theory to the facts of the case.

R.C.M. 701(a) only requires disclosure of the minor premise facts that have been reduced to writing and are in the possession of the government.[78] Excluded from disclosure is the underlying theory experts use to explain the facts or data. Also excluded is a broad field of the facts or data an expert is permitted to consider in forming an opinion; under Mil.R.Evid. 703, the experts may base their opinions not only on paper "reports," but also upon facts and data "perceived or made known to the expert, at or before the hearing."[79] This may include undocumented examinations of the physical evidence or interviews of the complaining witness, observations of witnesses or evidence made in the courtroom during trial, and the presentation of the testimony of other witnesses to the expert on the witness stand in the form of a hypothetical question.

In short, expert witnesses could conceivably testify concerning both their major and minor premises based on information completely independent of the required disclosures under R.C.M. 701(a). This creates the potential for ambush at trial by an aggressive advocate. Counsel can circumvent the intent of the rules by keeping the theory and bases of an expert's opinion off of paper, or by surprising the opponent who

has not adequately interviewed the witnesses or independently developed the scientific issues in the case. This procedural posture mitigates against the early resolution of expert issues that the drafters of the Rules apparently intended.[80]

2. *Disclosure of the Identity and Background of Expert Witnesses*--R.C.M. 701(a)(3) and 701(b)(1) require both trial and defense counsel to disclose of the names and addresses of witnesses to the opposing party "before trial." This disclosure is mandatory. These rules have the salutary benefit of putting opposing counsel on notice that an expert will be called. They provide no other information about the expert. Parties need not reveal the professional capacity of their expert witnesses or the source of their "knowledge, skill, experience training or education."[81] Opposing counsel are left to their interviewing skills to develop this information, as well as to divine the major and minor premises that the experts are relying on, the field of facts or data not disclosed in the discovery process which support these premises, and the precise opinions the experts will offer at trial. This guessing game leads to the conceivably anomalous result of a defense counsel challenging the Mil.R.Evid. 702 qualifications of expert witnesses, the reliability of their major premises, the foundation for their minor premises, or their ultimate opinion, only to have trial counsel stand up and state that the government had no intent to use their experts for that purpose.[82]

For the passive counsel confronted with a case involving scientific evidence, the result is obvious--lack of thorough preparation and grounding in the potential explanative theories lead to incomplete interviews of experts and surprise at trial. This reliance on interview skills as opposed to overt disclosure allows the aggressive counsel to circumvent discovery by simply instructing their experts to, when interviewed, answer only the questions asked. Such an instruction does not deny opposing counsel access to witnesses and evidence; it merely places opposing counsel at the risk of missing both the glaringly obvious and subtle distinctions, based solely on their failure to asked the right questions.

3. *Defense Access to Expert Assistance*--One logical remedy to this gap of knowledge rests in opposing counsel becoming well versed in the potential major premises which relate to the field of data available in a given case. This detailed knowledge will then direct their investigatory efforts. For the defense,[83] the most expedient method for accomplishing this goal is to retain expert assistance in the preparation of the case, as provided by R.C.M. 703(d)[84] and *United States v. Garries*.[85] Armed with a defense expert's careful review of the facts and data available, defense counsel can conduct probing interviews of government experts. The defense counsel then verify the answers received via their own experts.

In practice, the defense is burdened from the beginning of

the case with the difficulty of acquiring expert assistance. Under R.C.M. 703(d), the defense is entitled to expert assistance and testimony at government expense only after submitting a request to the convening authority. This request must include "a complete statement of reasons why employment of the expert is necessary."[86] This statement of necessity constitutes an additional form of discovery for the government.

In expanding on this defense right to expert assistance, the C.M.A. in *Garries* adopted the Supreme Court's rules governing defense access to experts[87] and applied them to the military defendant. The court stated:

> Nevertheless, as a matter of military due process, service members are entitled to investigative or other expert assistance when necessary for an adequate defense, without regard to indigency. Unlike the civilian defendant, however, the military accused has the resources of the Government at his disposal. In the usual case, the investigative, medical, and other expert services available in the military are sufficient to permit the defense to adequately prepare for trial. When an accused applies for the employment of an expert, he must demonstrate the necessity for the services.[88]

This requirement to show "necessity" includes, as an

integral component, a discussion of the Mil.R.Evid. 702 aspects of the defense case. This grants the trial counsel the opportunity to preview the defense theory of the case in writing early in the discovery process. For the aggressive trial counsel, it further creates the opportunity to recommend denial of the request to the convening authority and force the defense to litigate the Mil.R.Evid. 702 issues as part of their showing of necessity. The defense does not possess a similar mechanism to force this type of discovery from the government as a precondition for the government obtaining expert assistance. As Judge Cox put it in his dissent in *United States v. Robinson*,[89] when it comes to the control of the purse strings by the government, "this is a classic case involving the golden rule: He who has the gold, rules."

The practical effects of this rule are three fold:

1. The government has unlimited access of the experts that it controls.[90]

2. The government can force litigation of the defense request .[91]

3. The government, by forcing litigation, gets a preview of the defense "theory of the case" without revealing their own.[92]

In presenting this gap in the discovery process, I do not

propose that the rule itself should be changed. The requirement to show necessity is consistent with Supreme Court precedent and represents a broader degree of access to expert assistance than exists in civilian practice. However, the practical application of the rule creates an inequity in the discovery process, tilting the required disclosures in favor of the government. Requiring earlier and more complete disclosures of all aspects of scientific evidence by all parties will resolve the inequity, by removing any benefit derived from gamesmanship involving requests for expert assistance. By doing so, the field of discovery will again be level.

D. *R.C.M. 905 and 906 Pretrial Motion Practice*

As stated above, military discovery practice leaves significant gaps in disclosures of scientific evidence prior to trial. This process is also weighed in favor of a tactically aggressive trial counsel who is supported by the convening authority. On the other hand, the rules do permit a balancing of these inequities by allowing counsel to raise motions *in limine*. The parties can then force discovery through the litigation process, and develop the scientific evidence issues prior to taking the case in front of the members.

R.C.M. 905 provides that "any defense, objection, or request which is capable of determination without the trial of the general issue of guilt may be raised before the trial."[93]

Although not requiring these issue to be raised, R.C.M. 906(b)(13) permits a motion for appropriate relief concerning a "preliminary ruling on admissibility of evidence."[94] At first blush, this procedural scheme appears to be a "gate" wherein the military judge can act to ensure that only relevant and reliable scientific evidence is brought before the trier of fact.

The benefit of these rules is diluted by the discretionary nature of motion practice, both by tasking counsel with the decision to raise the issues[95] and permitting the judge to delay decision if the motion is raised.[96] Based on the procedural uncertainties associated with this gate, counsel may want to avoid early determination of the admissibility of expert testimony for several reasons:

1. **A sense of futility.** The judge's ability to delay ruling "for good cause" has the potential of fostering a belief in counsel that military judges, claiming that they do not have a "crystal ball" and cannot see how the issue will develop in the context of the case, will delay ruling on issues until they arises in hope that the issues will go away.[97] When counsel may have fully litigated the issue in a pretrial motion, the result of the judge deferring a decision is confusion. Counsel are left in no better position than they would have been without raising the issue, while still unclear about how to modify their case based on prospective actions of the judge. A counsel that experiences this approach by the judge on a number of occasions

is taught that pretrial motions merely waste time without making a real difference in the case.

2. **A fear that challenging the opponent's position means defending one's own.** If counsel force the issue concerning their opponents' expert testimony, they may also be required to litigate the admissibility of their own. Although full litigation of these issues promotes efficiency at trial, aggressive counsel remains aware that, especially against passive counsel, they may succeed in smuggling potentially objectionable evidence to the trier of fact if their opponent fails to object. Raising the issue pretrial also increases the probability that the passive counsel will engage in a "tit for tat" motion;[98]

3. **A hope that gamesmanship will confer an advantage.** Counsel may desire to spring a new, exciting and unknown theory on opposing counsel who failed to either interview the expert or ask the right questions. This desire is coupled with the aggressive counsel's hope that by keeping their opponent uncertain about the full status of their scientific evidence case, they can force their opponent to commit to a theory of the case which can then be ambushed and discredited in the middle of the trial.[99]

These three factor weigh against raising motions *in limine*.

Furthermore, the military judge's ability to defer ruling forces counsel to remain alert for the issue to arise during trial, then make an appropriate objection. If counsel fails to make this objection, the judge has no obligation to revisit the issue *sua sponte* when it arises, absent plain error. Failure to raise the issue and relitigate it when it arises results in waiver of the issue, regardless of how skillfully it was raised and litigated before the trial.[100] From this perspective, the motion *in limine* wastes counsel time while yielding marginal results.

Even if the judge makes a ruling before trial, the operation of the C.M.A.'s current interpretation of the objection requirements under Mil.R.Evid. 103 removes any confidence that a judge's *in limine* ruling is final. This harsh reality of this fact is demonstrated in the two recent cases: *United States v. Munoz,*[101] which dealt with the admissibility of uncharged misconduct evidence under Mil.R.Evid. 404(b), and *United States v. Johnson,*[102] which dealt with the admissibility of scientific evidence testimony.

Munoz involved charges of indecent acts with a minor. The defense made a pretrial motion *in limine* to exclude testimony concerning prior bad acts under Mil.R.Evid. 404(b).[103] The defense sought to exclude the testimony of an older sister of the victim, whom the accused had allegedly subjected to both indecent acts and oral and anal sodomy twelve years earlier.[104] The trial counsel represented that the sister's testimony would not include the acts of sodomy. Based on this representation, the judge

denied the defense motion to exclude the more relevant indecent acts.[105]

In front of the members, trial counsel went beyond the scope of the judge's ruling by presenting the acts of sodomy, and the defense failed to object. The trial judge took no action *sua sponte* to enforce his ruling.[106] At the C.M.A., the majority suggested that this failure to object constituted waiver under Mil.R.Evid. 103(d), even though the defense had challenged the issue previously and the judge's "final" ruling on the motion was based on the restriction that the trial counsel exceeded.[107]

The suggestion of waiver was only one of the bases that the court used to find no prejudicial error in *Munoz*. In *Johnson*, however, the court used this interpretation of the waiver doctrine to find no prejudice in the case. Here, the defense counsel carefully litigated the Mil.R.Evid. 702 issues in a motion *in limine*, then failed to object when trial counsel exceeded the scope of the ruling. The military judge took no action *sua sponte* to ensure that his ruling was obeyed.[108] Although the lower court found that the expert had not exceeded the scope of the military judge's ruling, the C.M.A. assumed that the witness in fact had exceeded the scope of the ruling and counsel had failed to object.[109] Concerning this failure, the court stated:

> The next logical question is whether the objection was preserved. We conclude that it was not. Once the

judge limited the scope of Mrs. Unger's testimony, it was incumbent upon the defense to protest transgressions thereof. Further, it does not follow that error occurred merely because the limits may have been exceeded. The purpose of the objection is to allow the parties and the judge the opportunity to address the relevance and admissibility of each piece of evidence. Therefore, in order for appellant to prevail on this appeal, it must now appear that erroneous testimony was permitted which constituted plain error and had the effect of "materially prejudicing the substantial rights of the accused."[110]

The holdings in *Munoz* and *Johnson* directly contravenes the C.M.A.'s earlier ruling on this issue in *United States v. Gamble*,[111] which involved a trial counsel transgressing the limits of the judge's decision in a motion *in limine*.[112] After discussing the ability of the judge to delay his ruling until the issue arises in the case on the merits, the court stated:

If [the judge] does rule, however, and if his ruling leaves no doubt that he intends for it to be final, then it is final for purpose of appellate review. Insisting on a subsequent defense objection at the time the evidence is offered in order to preserve the issue for appeal would be a classic insistence on form over

substance.[113]

The interpretation of Mil.R.Evid. 103 in *Munoz* and *Johnson* represents a substantial broadening of the plain error doctrine as it applies to motions *in limine* where the judge has made a final ruling.[114] Counsel in military courts now operate in a forum where form is exalted above substance. Confronted with the ephemeral nature of a "final" ruling and the fact that their obligation to protect the record remains the same as if the motion had never been made, counsel can logically conclude that motions *in limine* are of marginal value. The passive counsel views litigation of the issue to be a waste of time and effort, while the aggressive counsel is encouraged to push the boundaries of a ruling in order to gain a tactical advantage. At best, this approach to motions *in limine* invites uncertainty and discourages early litigation; at worst, it encourages gamesmanship.

E. *The Result of the Procedural Scheme*

The procedural framework of the Rules for Courts-Martial, although designed to encourage early resolution of issues and promote judicial economy, contain a fertile ground for misdirection, manipulation, and gamesmanship. Too much deference is paid to the skill and tactics of partisan advocates in framing the issues for early resolution. Except in extraordinary circumstances, the military judge is relegated to the role of

passive referee, and exercises no independent duty unless and until the issue is fully joined during trial on the merits. A judge's failure to act to exclude unreliable evidence, if not subject of an objection, is reviewed based on Mil.R.Evid. 103(d)'s plain error standard. To this extent, the Rules have failed in their purpose. If the judge is to be a gate keeper as envisioned by the Supreme Court in *Daubert*, these Rules must be modified to create that gate.

V. The Procedural Solution: Creating a Gate

A. *Mandating Pretrial Disclosure*

My first proposals for change in the procedural framework of the Rules for Court-Martial begin with the discovery process. Current requirements for the discovery of scientific evidence are inadequate to meet the demands of fully developing and litigating Mil.R.Evid. 702 issues prior to trial. A more complete model is suggested by the Federal Rules of Criminal Procedure. (Fed.R.Crim.P.).

The drafters of the Federal Rules of Criminal Procedure recently faced the problem of expert testimony in Federal discovery practice.[115] The prior Rule 16(a), on which R.C.M. 701 was in large part based, proved to be inadequate, and led to trial by ambush in criminal trials.[116] In response to this problem, Fed.R.Crim.P. 16 was amended to more fully open

discovery on expert issues. Rule 16(a)(1)(E) now states:

> Expert witnesses. At the defendant's request, the government shall disclose to the defendant a written summary of testimony the government intends to use under Rules 702, 703, or 705 of the Federal Rules of Evidence during its case in chief at trial. This summary must describe the witnesses' opinions, the bases and the reasons therefor, and the witnesses' qualifications.[117]

This rule recognizes the need for early and full disclosure of the expert issues prior to trial on the merits in order to promote early litigation or resolution of issues and judicial economy. Its chief drawback, however, is that expert disclosures are still made at the request of counsel, allowing the potential for inartful practice or gamesmanship.[118] In order to begin to establish a working gate for the military judge to keep in the area of scientific evidence, these disclosures must be mandatory.

Ample precedent for such mandatory disclosures already exist under R.C.M. 701(a)(3) and 701(b)(1).[119] Here, both trial and defense counsel are required to disclose the names and addresses of their witnesses, including expert witnesses. Joining the requirement to disclose the names and addresses of expert witnesses with a disclosure requirement similar in substance to the federal rules will accomplish the purpose of mandatory

disclosure. I propose the following amendments to R.C.M. 701 to accomplish this purpose:

R.C.M. 701(a)(4)--Expert Witnesses:

(a) Before the beginning of trial on the merits, the trial counsel shall notify the defense of the names and address of the expert witnesses the trial counsel intends to call:

(1) in the prosecution's case in chief;

(2) in rebuttal of any defense witnesses of whom the government has received notice; and

(3) for any purpose under R.C.M. 1001(b) during sentencing.

(b) Accompanying the notice concerning expert witnesses, the government will provide the qualifications of the expert witness and a written summary of the testimony that the government intends to use under Rules 702, 703, or 705 of the Military Rules of Evidence during its case in chief, in rebuttal to any defense witnesses of whom the government has received notice, and during sentencing. This written

summary must describe the issue to which the witness' testimony is relevant, the witness' opinions, and the bases and reasons therefor. This written summary should include supporting documentation, including but not limited to learned treatise supporting the scientific validity of the expert's opinion and the facts or data supporting the opinion.[120]

This proposed revision couples the mandatory witness disclosure requirement with a requirement to disclose detailed information concerning the nature of the scientific evidence intended to be introduced at trial. These disclosures are similar to the content of the disclosures under Fed.R.Crim.P. 16, although modified to more appropriately fit the holding in *Daubert*.[121] These revisions to the Rules will accomplish the purpose of early discovery of Mil.R.Evid. 702-705 issues, as well as force counsel to begin the process of framing the issues in accordance with the *Daubert/Houser* analytical framework which will be discussed below.[122]

B. *Empowering the Military Judge*

1. *Presenting the Barbarians at the Gate*--The proposed changes to R.C.M. 701 should also contain the first step toward creating a true gate for the judge to keep in the field of scientific evidence. As I have previously shown, the military

judge receives pretrial information concerning scientific evidence issues only if the parties seek, by pretrial motion *in limine*, to challenge its admissibility. If the military judge is to perform an independent role as keeper of the gate, this approach will not work effectively.

Under *Daubert*, the judge now possesses an independent duty to determine the scientific validity and fit of expert testimony before it is presented to the trier of fact. In fulfilling this duty under Mil.R.Evid. 104(a), the judge is not bound by the rules of evidence, and may consider the hearsay information provided by both sides. This evidence may include learned treatises, statements of professional organization, and compilations of data on the subject, as well as the curriculum vitae of the expert witnesses. In order to begin the process of making the *Daubert* determinations, the judge needs this type information from both parties prior to the trial on the merits.

The most efficient method for getting the information to the judge in a format that will assist in making an early determination under Mil.R.Evid. 702-705 would be requiring counsel to submit this information, before trial, in the form of a motion *in limine* requesting admission under R.C.M. 916(b)(3). This motion would need to address all of the relevant factors that *Daubert* requires the judge to consider. If a genuine issue exists, counsel would be in the position to fully litigate the issues. Judges would still be able to rule on the issue *in limine*, or, if good cause exists to delay ruling, direct counsel

to develop the issue at trial. However, if no genuine issue of admissibility existed, judges may make their decisions based on the briefs submitted by counsel, thus promoting judicial economy.

Proposed R.C.M. 701(a)(4)(C) accomplishes this purpose by requiring submission of the issue to the military judge as a matter of course. This provision states:

> (C) The trial counsel shall provide the military judge the information required under subparagraphs (A) and (B) in the form of a motion as provided by R.C.M. 916(b)(13).[123]

Under this scheme, judges would possess sufficient information, based on the motions, to determine if Mil.R.Evid. 702-705 issues actually exist. If they are unsatisfied with the proffer of counsel, they have the option to direct more thorough litigation as the facts require. Regardless of the approach taken by military judges, the result of the process will be an explicit record of judges' actions. This will facilitate appellate review of the issues, based on the "abuse of discretion" standard applied to the active decisions of judges, not the plain error standard applied to counsel negligence.

2. *Causing the Military Judge to Rule*--The next procedural change I propose is to mandate that judges decide the issues raised by counsel's motions *in limine* prior to trial on the

merits, except for the "good cause" as permitted in R.C.M. 905(d). Having been provided with the detailed information required under the proposed revisions of R.C.M. 701(a) and (b) in the form of a motion, military judges are in the position to frame their Mil.R.Evid. 104(a) analysis, determine reliability and fit, and ensure the orderly and proper presentation of scientific evidence during the course of the trial. If "good cause" exists, judges may defer ruling. If judges defer ruling, their duty to ultimately determine the reliability and relevance of scientific evidence remains throughout the course of the trial. In executing this duty, the trial judge will take such action, both during the motion and the trial, to ensure the members are not prejudiced. These actions include instructing counsel on the method they will use to raise the issue during the trial and limiting any statements about the scientific evidence made during voir dire, opening statement, or the testimony of other witnesses. In short, trial judges will independently control how the scientific evidence is presented to the members.[124]

Two possible approaches to modifying the Rules for Courts Martial accomplish this intent. The first is to mandate the litigation of these issues as a motion for appropriate relief under R.C.M. 906(b)(13). This proposed revision in R.C.M. 906(b)(13) states:

(b) Grounds for appropriate relief: The following may

be requested by motion for appropriate relief. This list is not exclusive.

. . . .

(13) Preliminary ruling on admissibility of evidence. *When motions provided to the military judge under R.C.M. 701(a)(4) and R.C.M. 701(b)(3) require, the military judge shall direct counsel to litigate the issue of admissibility of evidence and testimony offered under Mil.R.Evid. 702, 703, and 705 before trial on the merits.*[125]

Under this provision, the litigation of scientific evidence issues is triggered by the provisions contained in proposed R.C.M. 701(a)(4) and (b(4). If scientific evidence is at issue in the case, a motion *in limine* under proposed R.C.M. 906(b)(13) becomes a matter of course. Although judges may still delay decision of the issues "for good cause," as provided by R.C.M. 905(d), at a minimum the proposed modification will require counsel to frame of the issues in the context of the case, allow military judges to carefully consider the issues and, if the issue is in fact not ripe for consideration, permit judges to direct counsel on the best way to approach the issue to avoid prejudicing the members.

The second possible change would be to amend R.C.M. 801(a)(3) and mandate the litigation of the issues as part of the overall duties of the judge. This proposed modification states:

(a) Responsibilities of the military judge. The military judge is the presiding officer in a court-martial. The military judge shall:

. . . .

(3) Subject to the code and this Manual, exercise reasonable control over the proceedings to promote the purposes of these rules and this Manual. *When motions provided to the military judge under R.C.M. 701(a)(4) and R.C.M. 701(b)(3) require, the military judge shall direct counsel to litigate the issue of admissibility of evidence and testimony offered under Mil.R.Evid. 702, 703, and 705 before trial on the merits.*[126]

Although accomplishing the desired purpose, this provision suffers from the undesirable aspect of micromanaging the military judge under a provision that paints the broad sweep of a judge's duties in generic terms. The same purpose is accomplished by revising R.C.M. 906(b)(13), and places this judicial duty in the context where it belongs.

3. *Defining the Consequences*--My final procedural recommendation is to put teeth back into a ruling made by the military judge by creating a rebuttable presumption that a violation of that ruling by counsel constitutes "plain error," even absent objection by counsel or corrective action by the

military judge. This proposed amendment revises R.C.M. 801(e)(1)(a), and states:

> (A) Finality of Rulings. Any ruling by the military judge upon a question of law, including a motion for a finding of not guilty, or upon any interlocutory question is final. *Any violation of a final ruling of the military judge by the parties in the case creates a rebuttable presumption of "plain error" as defined by Mil.R.Evid. 103(d).*[127]

This change is necessary to restore confidence that a pretrial ruling by the military judge has meaning throughout the trial. It forces the appellate courts to analyze violations of a trial judge's ruling based on the potential prejudice the violations cause, and not on technical failure of counsel to raise again an issue previously litigated and ruled upon. This approach is consistent with the concept of requiring judges to be vigilant against violations of their decisions as a necessary part of an independent duty to ensure that only reliable evidence comes before the trier of fact. This change is also consistent with the holding in *Gamble,* which the C.M.A. ignored in *Munoz* and *Johnson.*

In performing their duties under *Daubert* and these proposed rules, military judges will be guided by the same principles of judicial discretion that control regulation of discovery and

other pretrial practice. Failure by counsel to comply with the requirements of these proposed rules will be handled in accordance with the provisions of R.C.M. 701(f)(3).[128] Judges have at their hands the discretionary tools to appropriately sanction gamesmanship or inartful practice.

Upon creating a procedural gate which forces consideration of all aspects of the admissibility of scientific evidence, the next issue is the substance of the analytical framework. In this respect, *Daubert* and the C.M.A.'s holding in *United States v. Houser* are instructive.

VI. *Daubert, Houser,* and The Analysis of Scientific Evidence: The Need for Substance Over Form

After declaring that the judge possesses an independent duty to function as gate keeper under Fed.R.Evid. 702, the Supreme Court in *Daubert* proceeded to identify the parameters of that gate and the analysis necessary before scientific evidence passes through it. A comparison of the Supreme Courts's analytical framework will show that the rough outline of *Daubert's* gate already exists under the approach established by the C.M.A. in *United States v. Houser.*[129] The two approaches are complementary, allowing for easy integration and application.

Unfortunately, the absence of a procedural gate in the Rules for Courts-Martial has resulted in the development of case law

based on the outer limits of admissibility established by the "plain error" doctrine, not the appellate review of a trial judge's critical analysis. This results in the failure of the C.M.A.'s *Houser* approach to accomplish the purpose that *Daubert* intends. An exploration of the *Daubert/Houser* analytical framework, coupled with an identification of those areas of military case law that have been effected by the lack of a procedural gate, will reveal the need for reexamination of the substantive case law governing scientific evidence and the appropriate role of the judge.

A. *Daubert and the Analysis of Scientific Evidence: Scientific Validity and Fit*

In determining whether scientific evidence meets the requirements under Fed.R.Evid. 702, the Supreme Court in *Daubert* expounded an analytical methodology founded on two principles: first, scientific validity, which means that the "proposed testimony must be supported by appropriate validation--i.e. "good grounds," based on what is known;"[130] and second, "fit," which the court defines as "whether expert testimony proffered in the case is sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute."[131]

The Supreme Court provided the following factors that may assist in the determination of scientific validity and fit:

1. **Whether or not the scientific knowledge can be (and has been) tested.** The court stated that "statements constituting a scientific explanation must be capable of empirical testing."[132] Coupled with this concept of empirical testing is the pragmatic consideration of whom the testing was done by and how the experts derived their knowledge of the tests. The context in which scientific knowledge arises becomes relevant.

On remand of *Daubert* from the Supreme Court, the Ninth Circuit considered the implications of these factor in evaluating reliability.[133] They expanded the scope of the analysis to include the circumstances and motives that caused the expert to develop the theory. Except in cases of forensic science performed by the government for purposes of criminal litigation,[134] the 9th Circuit found that

> one very significant fact to be considered is whether the experts are proposing to testify about matters growing naturally and directly out of research they have conducted independent of the litigation, *or whether they have developed their opinions expressly for purposes of testifying* . . . . But in determining whether proposed expert testimony amounts to good science, we may not ignore the fact that a scientist's normal workplace is the lab or the field, not the courtroom or the lawyer's office.[135]

This holding recognizes that a theory created and developed for the express purpose of advancing an advocate's position may possess a lower degree of reliability than one developed independent of litigation, then subsequently used in court. In determining whether sufficient validation has occurred, the judge is permitted to question and consider the bias of the testers.

With regard to the validating the testimony of experts who have not conducted their own pre-litigation research or subjected their work to peer review, the Ninth Circuit stated:

> For such a showing to be sufficient, the experts must explain precisely how they went about reaching their conclusions and point to some objective source--a learned treatise, the policy statement of a professional association, a published article in a reputable scientific journal or the like--to show that they have followed the scientific method, as it is practiced by (at least) a recognized minority of scientists in the field.[136]

The focus on these holdings is on the requirement for the proponent to present the judge with some factual, reliable body of information. This is accomplished by:

1. validating the methodology the expert used by demonstrating that the evidence has been derived from the proper

application of the scientific method; or

2. establishing, by authoritative reference to reliable sources, that the theory has been independently tested and validated and properly applied to the facts of the case at trial; and

3. showing the acceptability of this methodology in an established minority of the scientific community.

At a minimum, the expert must be conversant enough with the field to produce and explain this background documentation of the scientific theory in order to satisfy the judge.

2. **Whether the theory or technique has been subjected to peer review and publication.** Although rejecting the notion that publication is necessary for a finding of scientific reliability, the court notes that "submission to the scrutiny of the scientific community is a component of "good science," in part because it increases the likelihood that substantive flaws in methodology will be detected."[137] One legitimate form of "peer review" courts may still consider is the opinion of other courts, although this should not be the final arbiter of admissibility.[138]

Of equal importance, however, is the fact that prior precedent concerning the admissibility of some scientific theories may not have been subjected to the level of scrutiny the

Daubert envisions; in some cases, a closer scrutiny will reveal the admissibility of evidence that *Frye* prohibited, although the opposite is just as likely. The future effect of more intense judicial scrutiny of scientific evidence may have the practical effect of narrowing of the scope of what is admissible.

3. **The known or potential rate of error, and the existence and maintenance or standards controlling the techniques's operation.**[139] This approach is especially applicable in the "hard" sciences that involve the gathering of objective evidence by means of empirical testing and analysis. As techniques slide further down into *Gipson's* middle tier and begin to involve the less precise science of the psychology of human nature, the inability to project these types of results increases.[140] The balance that the judge must strike here is in determining the point where less precise standards of reliability cause the explanative theory to cease to be "helpful."[141]

4. **Widespread acceptance.** The court noted that general acceptance, the heart of the *Frye* test, "can be an important factor in ruling particular evidence admissible," and "the known technique that has been able to attract only minimal support within the community, may properly be viewed with skepticism."[142] However, this is only a single factor to consider, and does not dominate the independent duty of the judge to determine the reliability of the evidence.

5. **Focus on methodology, not outcome:** Although not listed as an explicit factor, the court addressed the type of scrutiny the judge should perform on the reliability of scientific evidence which produces results that are contrary to the experience or beliefs of the judge. The Supreme Court required that judges throw off their own conceptions of what is in fact valid, and evaluate each theory "solely on principles and methodology, *not on the conclusions they generate*."[143] This principle requires judges to admit evidence which is derived from a proper use of the scientific method, even if they do not like the results.

In examining this conclusion, the 3d Circuit in *Poali*[144] clarified that the proponent of scientific evidence need not prove the absolute truthfulness of the outcome of their research in order to establish scientific validity. The court stated that:

> This does not mean that plaintiffs have to prove their case twice--they do not have to demonstrate to the judge by a preponderance of the evidence that the assessments of their experts are correct, they only have to demonstrate by a preponderance of evidence that their opinions are reliable. As the Supreme Court has explained in describing the effect of the preponderance standard of Rule 104(a) generally, "the inquiry made by the court . . . is not whether the proponent of the

evidence wins or loses his case on the merits, but whether the evidentiary rules have been satisfied."[145]

Once again, a review of this precedent emphasizes the need for a judge to conduct an explicit reliability enquiry before allowing the evidence to go to the trier of fact.

6. **The logical relevance, or "fit" of the scientific evidence to the issues of the case--**Relevance for one purpose does not necessarily mean relevance for all purposes. The Supreme Court stated that

> Rule 702 further requires that the evidence or testimony "assist the trier of fact to understand the evidence or to determine a fact in issue." This condition goes primarily to relevance. "Expert testimony which does not relate to any issue in the case is not relevant and, ergo, nonhelpful." The consideration has been aptly described by Judge Becker as on of "fit." "Fit" is not always obvious, and scientific validity for one purpose is not necessarily scientific validity for another, unrelated purpose.[146]

This concept of "fit" relates to Fed.R.Evid. 401, which provides that relevant evidence "means evidence having any tendency to make the existence of any fact that is of consequence

to the determination of the action more probable or less probable than it would be without the evidence."[147] Explaining the impact of Fed.R.Evid. 401 and the concept of fit, the Supreme Court provided the following example:

> The study of the phases of the moon, for example, may provide valid scientific "knowledge" about whether a certain night was dark, and if darkness is a fact in issue, the knowledge will assist the trier of fact. However (absent creditable grounds supporting such a link), evidence that the moon was full on a certain night will not assist the trier of fact in determining whether an individual was unusually likely to have behaved irrationally on that night. Rule 702's "helpfulness" standard requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility.[148]

The judge, therefore, must make this connection between the scientific evidence and a factual issue of consequence before finding the evidence to be admissible.

7. **The interrelationship of Fed.R.Evid. 702 with other provisions of the Rules**--Finally, the Supreme Court directed the trial judge to consider other evidentiary concepts in order to determine reliability and fit. The court specifically cited to

Fed.R.Evid. 703's provision for consideration of otherwise inadmissible hearsay, Fed.R.Evid. 706's provision for court appointed experts, and the operation of Fed.R.Evid. 403 in excluding otherwise relevant evidence because of its prejudicial effect.[149] The thrust of this factor is that scientific evidence is considered in the context of the entire panoply of rules, not merely in the context of Fed.R.Evid. 702.

On its face, *Daubert* appears to liberalize the admissibility of scientific evidence by striking down the rigid *Frye* test and replacing it with a more flexible "totality of the circumstances" approach.[150] Indeed, the court addressed their concern that this new approach would create an evidentiary free-for-all, responding that "vigorous cross examination, presentation of contrary evidence, and careful instruction of the burden of proof" are sufficient engines to challenge "shaky but admissible evidence."[151] These traditional tools of the advocate, coupled with the more active role of the judge in controlling the presentation of the scientific evidence, is sufficient to meet the challenge.

But if a new gate exists, one logical consequence is that scientific theories previously scrutinized under a less activist approach must be subjected to new and potentially negative critical analysis. This analysis will require the detailed factual and legal inquiry required under *Daubert*. The imposition of this expanded gate keeping role, coupled with the more

detailed elements of *Daubert's* analytical framework suggest the need for trial and appellate courts to revisit a number of issues concerning the admissibility of scientific evidence.

B. *Houser and the Substantive Evidentiary Framework Applied to Military Courts*

Although the Rules for Courts-Martial have suffered from the threat of incomplete disclosure, potential gamesmanship, and the lack of a true gate, the substantive law interpreting the admissibility of scientific evidence in the military has achieved apparent clarity. In the case of *United States v. Houser,*[152] the C.M.A. established a straight-forward analytical framework to control admissibility of scientific evidence.[153] This framework requires the evaluation of:

1. the qualifications of the expert, as required by Mil.R.Evid. 702;

2. the subject matter of the expert testimony, as required by Mil.R.Evid. 702;

3. the basis for the expert testimony, as required by Mil.R.Evid 703;

4. the legal relevance of the evidence, as required by Mil.R.Evid. 401 and 402;

5. the reliability of the evidence, as required under the *Gipson* case; and

6. whether the "probative value" of the testimony outweighs other considerations as required by Mil.R.Evid. 403.[154]

This framework acts as a solid guide for examining scientific evidence issues. In practice, however, this framework merely restates and organizes the existing conceptual framework governing the admissibility of scientific evidence, without providing any greater guidance in resolving these issues. Prior precedents involving each element of this framework control their application to a specific class of scientific evidence. An analysis of these individual precedents will show that, although the framework itself is valid, *Daubert's* imposition of an independent duty on the judge, with its heightened scrutiny of scientific evidence, requires modifications to military case law and a more rigorous application of *Houser*. These needed modifications will be revealed by showing that:

1. the application of Mil.R.Evid. 103(d) has gutted the requirement to perform a *Gipson* reliability analysis absent objection, resulting in the recognition of questionable

scientific theories by default, not design;

2. the requirements of the *Daubert* methodology have raised the level of expertise needed to establish scientific validity beyond the level of an expert who is merely "helpful;"

3. the absence of an explicit examination of the reliability of the "facts and data reasonably relied upon" under Mil.R.Evid. 703 has resulted in confusion as to what level of reliability is required in order to be "helpful;"

4. The determination of "fit" has devolved into a hypertechnical series of rules that rely on semantics, not substance; and

5. the absence of an explicit examination of reliability of explanative theories has resulted in a confusing and irreconcilable scheme of precedent governing the admissibility of novel scientific evidence, as shown by cases involving "profile" evidence.

In each of these cases, my analysis will show that the primary fix to the system revolves around the military judge's explicit scrutiny of scientific evidence. Rigorous application of the *Daubert/Houser* analytical model by the military judge, coupled with implementation of my proposed procedural reforms,

will lead to the development of a body of case law which insures only reliable and relevant scientific evidence is presented to the trier of fact.

VII. Mil.R.Evid. 702-705 Practice: Revealing the Need for an Active Judge

A. *The "Abuse of Discretion" Standard, Mil.R.Evid. 103 and a Toothless Gate*

Although The *Houser* test stakes out in broad strokes a substantive gate for the admissibility of scientific testimony, procedure intervenes to impede its efficacy. As I have previously shown, this gate tends to function based not on judicial supervision, but instead on the diligence of counsel to object when error occurs. Failure to object subjects any admission of scientific evidence to "plain error" analysis, regardless of any prior ruling by the military judge.[155]

This "strict" application of the waiver doctrine under R.C.M. 103(d) has had a significant impact on appellate recognition of a number of novel scientific theories. Using plain error analysis, the military courts have found novel scientific theories to be "admissible" without these theories first being subject to detailed judicial scrutiny at the trial level.[156]

For example, the C.M.A., in *United States v. Suarez*,[157] confronted a challenge to the admissibility of major premise of Child Sexual Abuse Accommodation Syndrome. At trial, the defense counsel failed to object on reliability grounds, and the expert testified concerning the elements of the syndrome.[158] The judge conducted no explicit reliability or relevance analysis. The defense raised this issue for the first time at the appellate level.

In finding that the trial court did not commit plain error in admitting the testimony, the C.M.A. stated:

> Admissibility of "Child Sexual Abuse Accommodation Syndrome" evidence is *controversial to say the least*. Yet some forms of this testimony are *apparently* admissible in that it helps explain why many sexually abused children delay reporting their abuse, and why many children recant allegations of abuse and deny that anything occurred. . . . Even if these instructions might have been improved, *defense counsel saw no reason to object to the testimony of any of the expert witnesses* or to the instructions offered by the military judge. In any event, we fail to find plain error, much less to hold that such testimony was erroneously presented before the members.[159]

This holding, controlled by the plain error doctrine, is

consistent with current practice. Unfortunately, the effect of such holdings is its use as precedent beyond what the narrow rule of law states. Lower courts, relying on the C.M.A.'s implicit recognition of the syndrome's reliability, have allowed its use at subsequent trials without engaging in the *Houser* analysis. *Suarez* is now routinely cited as authority to admit both this specific syndrome and other novel scientific theories, albeit for limited purposes.[160]

However, when the C.M.A. subjects the distinct elements of the Child Sexual Abuse Accommodation Syndrome to closer scrutiny, it discovers reliability and relevance problems, especially when the focus of the evidence shifts from the victim alone to the dynamics of the family and characteristics of the perpetrator.[161] When the court explored the underlying theory more fully in *United States v. Banks,* the court labeled what they saw a "profile" used as substantive evidence of the accused's guilt and found error.[162] The result is two C.M.A. opinions landing on both sides of the admissibility of a scientific theory. The key difference between these two opinions is that, in *Saurez,* the trial court did nothing, while in *Banks,* the trial court developed the issues on the record.

This problem is easily avoided by requiring judges to develop, on the record, the bases for admission or exclusion of the scientific evidence, then requiring judges to follow through and enforce their rulings. The *Houser* framework and *Daubert* factors act as a viable format for making these findings. The

result of requiring an explicit *Daubert/Houser* analysis are twofold:

1. Once these findings have been made, they constitute a final ruling. Violation of this ruling by counsel constitutes a rebuttable presumption of plain error, while failure to enforce the consequences of a ruling constitutes an abuse of discretion. In order to make *Daubert* have a practical effect on the system, failure to conduct this analysis must be considered an abuse of discretion.

2. The appellate courts have a clear record of what the trial judges examined and the bases for their rulings, allowing determination of reliability and fit based not on the "plain error" doctrine, but instead upon the "abuse of discretion" standard. This review will be based upon a fully developed set of findings of fact and conclusions of law.

The procedural gate acquires teeth through the full imposition of an independent duty on the military judge to rule. The result will be case law founded on findings of fact, not the outer boundaries set by review of scanty records under the plain error doctrine. The onus, under *Daubert*, is on the judge.

B. *The Mustafa Expert: Is Being Helpful Enough?*

One of the findings the judge must make under *Houser* is that the witness is qualified to testify as an expert. Mil.R.Evid. 702 is a liberal rule of admissibility, designed to permit a broader scope of expert testimony to come before the trier of fact.[163] The military courts recognized this concept by substantially lowering the threshold of what constituted an "expert."[164] In *United States v. Mustafa,*[165] the C.M.A. explained:

> Mil.R.Evid. 702 and its progenitor, Federal Rule of Evidence 702, provide that any person whose testimony can "assist the trier of fact to understand the evidence or to determine a fact in issue" may testify as an expert. This is a much lower threshold for determining whether a given person is an expert and requires only that the proffered witness have some specialized knowledge as a result of experience or education. No longer are parties to litigation "limited to [the use of] experts in the strictest sense of the word." *The witness need not be "an outstanding practitioner," but only someone who can help the jury.*[166]

To determine whether the expert's testimony is "helpful," the C.M.A. has relied on the standard enunciated in *United States*

v. Snipes.[167] This case involved introduction of a novel theory that focused on the tendency of victims of sexual abuse to recant their initial complaints as rebuttal evidence.[168] Relying on the analysis provided by an Oregon state court opinion, the C.M.A. stated:

> Because the jurors said they had no experience with victims of child abuse, we assume they would not have been exposed to the contention that it is uncommon for children to report familial sexual abuse and then retract the story.[169] Such evidence might well help a jury make a more informed decision in evaluating the credibility of a testifying child.
>
> If a qualified expert offers to give testimony on whether the reaction of one child is similar to the reaction of most victims of familial child abuse, and if believed this would assist the jury in deciding whether a rape occurred, it may be admitted. . . .
>
> We think that there is a sufficient body of "specialized knowledge" as to the typical behavior of sexually abused children and their families to permit certain conclusions to be drawn by experts as to such behavioral patterns.[170]

Although the *Mustafa* line of cases theoretically remains valid under *Daubert*, the Supreme Court's holding may require that

the expert be more than merely helpful. This impact grows naturally from the nature of the judge's gate keeping role. Under *Daubert*, the imposition of an independent duty of the judge requires counsel to provide detailed information to the court concerning scientific validity and fit. This information will frequently be based on the expert's ability to explain and defend the methodology used to arrive at the major premise of the testimony, as well as the application of the major premise to the minor premise facts of the case. Although experts who fulfill this requirement may not need to be the "outstanding practitioner" rejected by *Mustafa*, they will need to have a familiarity with the theoretical underpinnings of their field of expertise which goes beyond the level required to be merely "helpful."[171]

When evaluated in the context of *Daubert*, *Mustafa* and *Snipes* show that the trial court needs to make four explicit findings concerning a expert's testimony under Mil.R.Evid. 702:

1. that a body of specialized knowledge exists concerning the subject matter of the testimony. To determine this factor, the expert must be conversant in the methodology underlying the creation of the explanative theory and the proper techniques for its application to the facts at issue, or else be able to point to some reliable source to validate the theory and it applications;[172]

2. that this knowledge is beyond the knowledge and experience of the trier of fact;

3. that giving the knowledge to the trier of fact would help in determining an issue in the case.

4. that the individual testifying, based on education, training, background, or experience, has a sufficient base of knowledge to be "helpful" to the members.

The most effective tool in ensuring that only reliable and relevant scientific evidence goes to the trier of fact is the judge's ability to keep the testimony of experts within the scope of their expertise as it applies to the facts of the case.[173] This tool works, however, only to the extent that the judge takes an activist role.

C. *Mil.R.Evid. 703 and Evidence "Reasonably Relied Upon:" What Degree of Facts or Data is Sufficient?*

After finding that the expert is qualified sufficiently to be "helpful," the military judge's next step in the *Houser* analysis requires a determination of whether an adequate "basis" in fact or data exists to support the expert's opinion. Mil.R.Evid. 703 broadens the acceptable basis for expert opinions to include otherwise inadmissible evidence, if it is of a type

"reasonably relied upon" by experts in that field.[174] The proponent must show first, then, that the theory is reliable under Mil.R.Evid. 702, then establish that an adequate basis in fact exists to support application of the theory to the case.[175]

Two recent C.M.A. opinions raise practical concerns about what the C.M.A. views as an adequate basis under Mil.R.Evid. 703: *United States v. Stinson*[176] and *United States v. King*.[177] Both of these cases involve the adequacy of the Mil.R.Evid. 703 basis for opinions about the rehabilitative potential of the accused during sentencing. In both cases, the accused had been convicted of some form of child sexual abuse. As will be shown, the key distinction between the two cases is the actions taken by the military judge.

In *Stinson*, a judge alone trial, the trial counsel proffered an expert social worker who had been involved extensively with child abuse cases during her career.[178] She had interviewed the victim, read the investigation, observed the accused's responses during providency and the heard the victim's testimony in the courtroom.[179] Without defense objection, she was recognized as an expert in the field of social work, with a speciality in child sexual abuse from both the victim and offender perspective.[180]

During the course of the testimony, the trial counsel asked the expert what type of information she needed to evaluate an offender's prognosis for reabuse. The witness stated:

What I would want to know is a *complete sexual history*,

you know, *background history* about child sexual abuse in his childhood, which may or many not make too much difference; the number of times the incident has occurred; when the incident started; *what kind of abuse*--for example, was it at fifteen, was he twenty-two, what kind of things he did to prepare himself to have sex with a child.[181]

Having established this field of data as the type an expert would have reasonably relied upon as a basis for determining the accused's prognosis, the trial counsel asked what that prognosis was. Defense objected, stating that, based on the witness' own testimony, her contact with accused was not adequate. Although the military judge acknowledge the lack of a basis concerning the background of the accused, he overruled the objection and allowed an opinion that the accused's prognosis for recovery was poor.[182]

The C.M.A. agreed with the trial judge, stating that two factors--the defense's extensive cross examination and the fact that this was a bench trial--limited any possible prejudice. The court justified its decision on the grounds that "an interview with a person is not a condition precedent to admissibility of testimony about that person. Lack of personal contact with the person goes to weight, not admissibility."[183] The court did not address the fact that the witness' own testimony indicated she lacked the data "reasonably relied upon" in that field.

This lack of foundation clearly concerned Judge Wiss. In

his dissent, he stated that he found both a lack of expertise on the part of the witness to testify about the accused's "prognosis" and an inadequate factual basis. He stated:

> Aggravating this situation is the fact that, though McIntyre purposed to opine as to appellant's personal "prognosis" for "reoffense", she did so without an knowledge of appellant himself. Instead, she quite clearly did so on the basis of her social work generally with victims and perpetrators of child abuse. Unless McIntyre was prepared to testify that all child sex abusers have "a fairly poor prognosis" and that all child sex abusers reflect "a high risk of reoffense," the witness lacked an adequate foundation upon which to offer an opinion as to appellant's propensities in these areas.[184]

The C.M.A. revisited this precise issue in *King*, a trial before members, where the trial counsel proffered an expert who possessed a masters degree in school psychology and education and a doctorate in education.[185] She had extensive practical experience in dealing with the psychological dynamics of child abuse, had evaluated the victim and read the accused's confession.[186] The defense counsel made no objections to this expert's qualification or the foundation for her testimony, although he skillfully cross examined the witness concerning the

paucity of the basis for her opinion.[187] In sentencing, the witness opined that the accused was a "regressed pedophile" and that his prognosis for recovery was "poor."[188] Despite the impressive (though non-psychological) credentials of the witness and a field of data equally as broad as found in *Stinson,* the court reject her testimony as plain error. With regard to the foundation for this expert's wide variety of opinions, the court observed that:

> This type of testimony illustrates how dangerous it is for judges to receive uncritically just anything that an expert wants to say. The evaluation of expert testimony does not stop with a recitation of academic degrees. Everything the expert says has to be relevant, reliable and helpful to the factfinder. *A rational and demonstrable basis is the sine qua non of expert testimony.*[189]

It is difficult to reconcile these opinions with a coherent and consistent rule, although they were decided within months of each other. By discussing the military judge's duty to scrutinize the evidence, *King's* holding is most consistent with *Daubert's* approach to scientific evidence. In *Stinson,* however, the military judge in fact evaluated the evidence and made a decision. In short, the major procedural distinction between these two cases is that, in *Stinson,* the military judge exercised

his "gate keeping" function, while in *King* the judge uncritically received the evidence without engaging in the analysis described above. This failure led to both plain and prejudicial error.

A synthesis of the procedural contexts of these two cases reconcile them to *Daubert* and support the goal of creating a true gate. Once again, the emphasis is on the role of the military judge. *King* and *Stinson* make sense by applying these two principles:

1. the proponent of scientific evidence must show both a reliable theory and an adequate and demonstrable basis in facts or data to support application of that theory to an issue in the case; and

2. the judge must actively screen the facts and data, then determine whether it is sufficient to allow the opinion to go to the trier of fact.

A judicial decision, on the record in the context of the proffer of the evidence, shifts the appellate analysis from the bare facts themselves to the reasons the judge exercised his discretion.

D. *Mil.R.Evid. 702 "Helpfulness," Semantics and Fit*

Once judges determine that the major and minor premises are

scientifically valid, the *Daubert/Houser* analytical framework requires them to focus on the interplay of Mil.R.Evid. 702 with Mil.R.Evid. 401 and 402.[190] This determination is crucial. As the court in *Daubert* noted, relevance for one purpose does not necessarily mean relevance for another; judges must determine whether there is a fit between the theory and an issue in the case.[191]

Mil.R.Evid. 401 describes relevant evidence as "evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence."[192] This broad definition of relevant evidence is then applied by Mil.R.Evid. 402's provision that "all relevant evidence is admissible, except as otherwise provided."[193] In the context of scientific evidence, the role of the judge under this scheme is to determine, first, the relevance of the scientific evidence to an issue, then whether a rule of evidence outside of Mil.R.Evid. 402 controls its admissibility. One rule judges must consider is the operation of Mil.R.Evid. 704 on the admissibility of "ultimate issue" opinions.

Mil.R.Evid. 704 states that "testimony in the form of an opinion or inference otherwise admissible is not objectionable because it embraces an ultimate issue to be decided by the trier of fact."[194] On its face, this rule opens the field of expert opinions and inferences. The reality, however, is somewhat more limited. The cases that deal with expert testimony concerning

child and sexual abuse disclose why.

Scientific evidence is frequently used in child and sexual abuse cases to bolster the credibility of a complaining witness. Generally, these witness has been impeached by apparently inconsistent conduct, such as failing to report the offense or remaining at home with the abuser after repeated abuse. The explanative theory of the expert's major premise shows that the complaining witnesses' conduct is consistent with the conduct of the class of individuals who have suffered a particular type of abuse.[195]

Testimony of this type has the potential, even though arguably relevant to the issue of credibility, to infringe on areas traditionally reserved for the factfinder--those of valuating the credibility of witnesses and deciding guilt.[196] The C.M.A. has attempted to draw a fine line between allowing "helpful" testimony from a qualified expert to explain the conduct of a victim of an offense, without putting the imprimatur of an expert on the truthfulness of the victim. The effect of this semantical line drawing is shown by examining the admissibility of the following three opinions: first, A was raped; second, A is suffering from the Rape Trauma Syndrome; and third, A's symptoms are consistent with the Rape Trauma Syndrome.

In *United States v. Cameron*,[197] the C.M.A. struggled with the testimony of a social worker who opined that the complaining witness, a twelve year old girl who had been extensively impeached during the defense case, was telling the truth about

her molestation. In wrestling with this case, the court first rejected the notion that this testimony was admissible as opinion testimony of the witness' character for truthfulness under Mil.R.Evid. 608(a).[198] The court then examined whether an expert's opinion that a witness is telling the truth is "helpful" to the trier of fact. In holding that this opinion exceeded the intent of Mil.R.Evid. 704, the court adopted the reasoning of the Air Force Court of Military Review in *United States v. Wagner,*[199] stating:

> Prior to the Federal and Military Rules of Evidence, the prevailing rule was that the factfinder needed no expert assistance in deciding whether a particular witness was to be believed. Indeed, it was often stated that, "the jury is the lie detector." This restriction was not relaxed by either the Federal or Military Rules of Evidence. The rule remains that, absent unusual circumstances, opinion testimony on whether or not to believe a particular witness' testimony simply is not deemed helpful to the factfinder, for the factfinders are perfectly capable of observing and assessing a witness' credibility.[200]

The court's concern about invading the duties of the factfinders are heightened when an expert is the party assessing credibility. In *Cameron,* which involved the explanative theory

of the Rape Trauma Syndrome, the C.M.A. found that an expert's testimony that the complaining witness in fact suffered from the syndrome exceeded the scope of permissible opinion, giving the victim's complaint "a stamp of scientific legitimacy."[201] Adopting the language of the Army Court of Military Review in *United States v. Tomlinson*,[202] the court stated:

> To allow an "expert" to offer his opinion on the resolution of a credibility dispute goes too far, and it makes no difference whether the opinion is express or follows inferentially from the expert's diagnosis of a psychological conditions suffered by the witness whose credibility is at issue The court members must decide whether a witness is telling the truth. Expert insights into human nature are permissible, but lie detector evidence--whether human or mechanical--is not. Otherwise, *trial could degenerate into a battle of experts expressing opinion on the veracity of various witnesses.*[203]

Using these principles as a guide, a practitioner can determine the admissibility of the three "opinions" that an expert could give regarding the complaining witness in a child or sex abuse case. The first opinion, wherein the experts states that "A was raped," invades the factfinder's role of determining guilt, and is inadmissible. The second opinion, wherein the

expert states that "A is suffering from rape trauma syndrome," invades the factfinder's role as "lie detector" in the courtroom by placing the imprimatur of an expert on the truthfulness of the victim and is inadmissible. The third opinion, wherein the expert states that "A's symptoms are consistent with the rape trauma syndrome" is acceptable, in that it gives the factfinder a major premise which they can use to evaluate the credibility of the witness, while allowing the members to consider the possibility that the symptoms of the witness are the product of some other psychological trauma.

This semantic scheme of admissibility has been further complicated by subsequent C.M.A. interpretations. For example, in *United States v. Arruza*,[204] the question "in your professional opinion do you believe that...[the child] had a sexual encounter"[205] was held to violate the "human lie detector" rule; in *United States v. Hill-Dunning*,[206] the question "did you base your opinion on your belief of what the victim told you" would have been permissible. In explaining this distinction, the court stated:

> However, the doctor could have testified that her expert opinion was based on her assumption that appellant was being truthful. Further, she could have opined that appellant's claim was consistent with her mental/emotional make-up. The relevant evidence here--the evidence that is "helpful to the finder of fact--is

> the expert's opinion about the dynamics of the appellant's mental condition at the times pertinent to the alleged offense. The fact that the doctor believed appellant may have been incidental to her expert opinion and, indeed, the basis of her opinion. However, the aim of her testimony was to inform the factfinders about a mental condition that causes unconscious "denial" and "repression " of certain matters. Put into its proper perspective, the question of the appellant's credibility is left with the finders of fact where it appropriately belongs.[207]

Again, the principle derived is semantic. The question "in making your diagnosis, did you base it on the assumption that Witness A was telling you the truth?" is acceptable; the question "do you believe Witness A when she says she was raped" is not. The practical effect of both questions and the responses received remain the same.

The result of these technical, legal constraints is that skilled counsel can navigate the rules and still allow experts to put their stamp on a witness' credibility, without technically invading the members' fact finding function. In a meeting between skilled counsel, the ground is set for the "battle of experts" that the court sought to avoid in the *Cameron* case. The major impact of these fine distinctions is the creation of a trap for the unwary counsel, the passive judge, and the overexuberant

witness who either has not been coached on the proper words or misspeaks in the heat of testimony.

If the content of expert testimony can be crafted to reach the substance of the ultimate issues in a case without violating the technical rules, a shift in focus in order. The focus needs to move from whether the scientific evidence meets some technical rubric to whether the theory is valid, the bases sufficient, and some fact at issue made more or less probable.

Recently, the C.M.A. has expanded its view of the relevance of psychological expert testimony to other, non-credibility issues. This expansion may represent a movement to recognize that psychiatric evidence, if otherwise "reliable," has a place in the courtroom outside of the narrow scope permitted by *Cameron* and its progeny. For example, the C.M.A. in *United States v. Combs*[208] held that defense psychiatric evidence concerning the ability of the accused to form the specific intent to kill would be admissible, if the defense could establish adequate Mil.R.Evid. 702 "helpfulness" and Mil.R.Evid. 703 basis. In the same vein, the Army Court of Military Review in *United States v. Hill-Dunning*, found that testimony concerning the accused's ability to form the specific intent to defraud would be admissible, if reliability were established.[209] By doing so, the courts appear to be striking closer to the intent of the drafters concerning Mil.R.Evid. 402 and 704; that is, if an expert's testimony is relevant to an issue in the case, reliable and supported by an adequate basis, then it should not be excluded.

The test for both judges and practitioners, then, is to find a fact in the case that the scientific evidence will make more or less probable. After determining the link between the proffered testimony to that fact, judges must determine if any other evidentiary rule precludes its use. Although the semantic rules laid down by *Cameron* and its progeny may still have some utility in avoiding prejudice to the members, the better approach would be for judges to carefully control the form and content of the testimony, then give such limiting instructions as are necessary to insure that the evidence is considered for the proper purpose. Paramount to this approach, again, is the active role of the military judge controlling the presentation of the evidence.

E. *The Absence of a Reliability Determination and "Helpfulness:" The Profile Cases*

The issue of "fit" is further clouded by the C.M.A.'s use of ill defined categories to exclude classes of scientific evidence without engaging in reliability analysis. This is best demonstrated in the rules concerning the use of "profiles" as evidence concerning the credibility, motive, intent or state of mind of witnesses.

In *Banks*, the C.M.A. clearly and unequivocally rejected the use of "profiles" as substantive evidence.[210] Adopting the language of the federal courts in dealing with this class of evidence, the court stated that it "denounces the use of this

type of evidence as substantive" of the accused's guilt, while narrowing its permissible to a limited number of categories.[211] These categories include the use of profiles

1. as purely background material to explain sanity issues;

2. as an investigative tool to establish reasonable suspicion; and

3. as rebuttal when a party opens the door by introducing potentially misleading evidence.[212]

Not included in these acceptable categories are "profiles" which establish the credibility of a witness after it has been attacked, the specific intent of the accused at the time of commission of the offense, or the accused's motive or intent in preparation and commission of the offense. Indeed, as noted by Judges Cox and Crawford in their dissenting opinions in *Banks*, the C.M.A. has failed to define what constitutes a "profile."[213] This lack of clarity represents a barrier to all forms of "novel" scientific evidence that seeks to explain the conduct of an individual based on an external set of factors derived from studying the population of individuals who have experienced a similar background or engaged in similar conduct.

The confusion caused by the lack of definition is revealed in five cases, each which involve scientific evidence of a

"profile" nature used for some purpose in trial on the merits. An examination of these case reveal no consistency of definition or application under the rubric "profile." These profiles were treated in the following manner:

1. In *U.S. v. August*,[214] the profile, presented by a Navy Family Advocacy Counsellor in rebuttal, identified a "typical" military child abuser as a person who "is E-6 and above, has about fifteen years or more in and the most typical comment from the commanding officer is 'I can't believe that. That's one of my best men.'"[215] The C.M.A. rejected this profile due to lack of an adequate showing of reliability. They further held, however, that if the profile had been reliable and proper limits were put on its use, it would have been admissible to rebut defense credibility evidence.[216] This profile of such a general nature that it could apply to the majority of staff non-commissioned officers in the services. The identifying traits are so broad, that its only possible utility is to rebut the inference that an outstanding performer would not abuse a child. The profile is of no apparent diagnostic or therapeutic value.

2. In *United States v. Neeley*,[217] the "profile" was based on the results of a Minnesota Multiphasic Personality Inventory, which compared the accused's response against a database of compiled from a broad-cross section of individuals. The profile was offered on the issue of sanity, to show that the accused had

inflated the results of the test in order to show he had a mental illness which he did not in fact have.[218] The C.M.A. held that this use was permissible, as long as the judge properly instructed the members on its limited use.[219] This evidence, derived from the interpretation of data provided by a standardized diagnostic tool used widely in the field of psychology, bears little relationship to the broad, general "profile" offered by the government in the *August* case.[220] It is also derived from a tool used in diagnosis and treatment of individuals with psychiatric disorders, and is not primarily for use in the courtroom. In short, this tool has a potentially high level of scientific validity. The key question concerning its use is one of logical relevance.

3. In *United States v. Combs*,[221] the C.M.A. expressed concern over testimony from a psychiatrist that the accused fit the profile of a child abuser, and child abusers generally use force to discipline, not to kill."[222] The issue here was the ability of the accused to form the specific intent to kill--not sanity evidence, but evidence concerning the a pertinent character trait of the accused's that negated the ability to form the specific intent.[223] No specific reliability determination was made on the record, although the implication was that the "profile" was based on clinical observation and testing of the population of child abusers. The evidence may very well have a solid basis in the scientific method. If so, its logical

relevance is high, as it is "helpful" in resolving the issue of the accused's *mens rea*.

4. In *Suarez*,[224] the expert presented a five stage "syndrome," derived from the interpretation of clinical observations of child abuse victims. The expert explained the conduct of the complaining witness in reporting the offense yet ultimately retracting the allegation. The C.M.A. held that use of this evidence to show that the complaining witness' conduct was consistent with other victims was not "plain error.[225] The term "profile" was not used in the case. However, the characteristics of the "profiles" presented above are present, since the conduct of the individual witness was compared against a pattern of conduct observed in victims of child abuse.

5. In *United States v. Meeks*,[226] the government expert presented a detailed description of the individual who committed a murder, based on an analysis of the crime scene.[227] Although the term "profile" was not used in the case, a close analysis of this testimony reveals a clear "profile" of the individual that committed the crime, one that could be (and was) applied to the accused. The creator of this "profile" was a "expert" in crime scenes interpretation, although his opinions bled over into the mental state and motive of the perpetrator. The C.M.A. found nothing to denounce in admitting this evidence, even though it concerned "certain generic characteristics of the perpetrator

derived from the evidence at the crime scene."[228] Indeed, although the testimony smacks of "profileness," the term never entered the discussion.[229]

These five cases involve scientific evidence derived from very different methodologies and applied to significantly different issues in the trial. The common characteristics they share are:

1. a major premise theory, derived by analyzing evidence gathered from across a broad number of individuals or cases, using methodologies, facts and data reasonably relied upon by experts in that field;

2. application of the major premise to the facts in the case, developing the minor premise testimony which makes the theory relevant to a fact at issue in the trial; and

3. an opinion has been rendered based on the major and minor premises.

The only significant distinction between these cases is that, in three of the five, the witnesses actually used the term "profile" to describe the explanative theory they were employing.[230] In the other two, a different descriptive term was used. The use of the term "profile" seemed to be the operative

factor controlling admissibility, not the inherent reliability or relevance of the major premise. The use of an undefined descriptive term to classify such broadly different types of evidence, and then apply rules of limited admissibility, violates the focus of *Daubert* and the liberal thrust of the Military Rules of Evidence. The rubric "profile," without further clarification, is of little practical use in evaluating these novel psychological theories.

A more productive approach would be to scrutinize this type of evidence in terms of the detail or specificity of the underlying theory, coupled with the facts that support it. Theories so generic that they apply to a broad cross section of the "healthy" population have limited utility. Their speculative nature render them unreliable, and not helpful except in very narrow circumstances.[231] As the degree of detail and support of the explanative theory increases, the helpfulness of the evidence expands to cover more relevant issues in the case.

The newly designated Court of Appeal of the Armed Forces (C.A.A.F.) could clarify this situation by dropping the "profile" distinction altogether, then require trial judges to strictly apply the *Daubert/Houser* analytical framework. The result would be a judicial determination on the record of trial of:

1. the reliability of the major premise and the supporting data of the minor premise, which in turn would determine what issues of fact the evidence will be "helpful" to resolve;

2. the sufficiency of the expert's qualifications to apply the major and minor premises in order to be "helpful" to the trier of fact;

3. the relevance of the opinion to a specific issue in the case, which may range from rebuttal of character evidence to evidence of the accused's specific intent;

4. whether any other rule of evidence bars admissibility of the opinion; and

5. whether the probative value of the opinion is substantially outweighed by other prejudicial effects.

None of this will happen until the military judge is empowered and required to engage in a thorough *Daubert/Houser* inquiry as a matter of judicial duty.

VIII. The *Daubert/Houser* Analytical Model

As shown in the examination of recent case law, the rough analytical framework necessary to accomplish the intent of *Daubert* currently exist in *Houser* and the cases that define the application of its analysis. However, the case law has lacked focus because of the devaluation of the role of the military

judge as a true gate keeper. The solution to the confusion is to require the judge to carefully scrutinize and determine the reliability and relevance of all scientific evidence presented in the case as a matter of course. By bringing together the elements of the *Houser* analytical framework, the *Daubert* method of determining scientific validity and fit, and a "judge centered" reading of the Military Rules of Evidence, the military judge will be fully capable of ensuring that only reliable and relevant scientific evidence is presented to the trier of fact. My proposed model of this framework is contained below:

The *Daubert/Houser* Analytical Framework: A Synthesis

A. **Burden of Proof:** The burden of establishing, by a preponderance of the evidence, the scientific validity, logical relevance and admissibility of scientific evidence shall be upon the proponent of that evidence.

B. **Assignment:** The burden of persuasion shall be upon the proponent of the scientific evidence.

C. **Rules of Evidence:** As this motion is a preliminary question to determine the admissibility of evidence under Mil.R.Evid. 104(a), the military judge is not bound by the rules of evidence except those regarding privileges. In order to determine the issues of the case, the military judge may consider hearsay

evidence, to include but not limited to the testimony of experts, affidavits, offers of proof, learned treatises, statements of professional organizations and other documentation related to the issues surrounding the admissibility of scientific evidence.

D. **Specific Findings:** In determining the admissibility of scientific evidence, the military judge must consider the following issues and make specific findings:

1. **The qualifications of the expert**, as required by Mil.R.Evid. 702. In determining whether an expert is qualified, the following four factors must be considered:

a. that a body of specialized knowledge exists concerning the subject matter of the testimony. To determine this factor, the expert must be conversant in the methodology underlying the creation of the explanative theory and the proper techniques for application to the facts at issue or else be able to point to some reliable source to validate the theory and it applications;

b. that this knowledge is beyond the knowledge and experience of the trier of fact;

c. that giving the knowledge to the jurors would help in determining an issue in the case.

d. that the individual testifying, based on education, training, background, or experience, has a sufficient base of knowledge to be "helpful" to the trier of fact;

2. **The subject matter of the expert testimony**, as required by Mil.R.Evid. 702. This evidence should establish the following:

a. the content of the major premise that the witness intends to base his testimony upon;

b. the nature of the facts and data necessary to establish the minor premise that relates to the issue at trial; and

c. the opinion that the expert witness intends to tender to the court.

3. **The basis for the expert testimony**, as required by Mil.R.Evid 703. In considering the adequacy of the basis, the court must consider:

a. the type and extent of the facts and data that are reasonably relied upon by experts in the particular field in forming an opinion, regardless of their admissibility; and

b. whether the proponent of the evidence has demonstrated that there are sufficient facts and date present in the case at trial to support that opinion to a degree that it will be helpful to the trier of fact;

4. **The legal relevance of the evidence**, as required by Mil.R.Evid. 401 and 402. In determining this "fit" between the proffered evidence and the fact at issue, the court must consider:

a. whether it makes a fact more or less probable;

b. whether it is barred by any other rule of evidence.

When dealing with expert opinions concerning the credibility of witnesses, the judge must ensure that the language used by the expert is such as to avoid placing the imprimatur of an expert on the credibility of the witness.

5. **The reliability of the evidence**, as required under the *Gipson* case. Daubert and its progeny have provided a thorough scheme for determining the scientific validity of the proffered evidence. These factors include, but are not limited to:

a. whether or not the scientific knowledge can be (and has been) tested;

b. the circumstance under which the expert derived the body of scientific knowledge to be presented, including whether the research was done independent of, or as a consequence of the litigation at trial;

c. whether the technique has been subjected to peer review and publication;

d. the potential or known rate of error;

e. the existence and maintenance of standards controlling the technique's operation; and

f. widespread acceptance.

6. **Whether the "probative value" of the testimony outweighs other considerations as required by Mil.R.Evid. 403.** In making this determination, the military judge must focus on the methodology used to arrive at the result, not on its outcome.

E. **Ruling of the Military Judge:** the motion shall be determined before pleas are entered unless the military judge determines for good cause to defer ruling for good cause. The burden to rule on the issue, however, remains on the judge until such time that the issue is resolved. If the ruling is deferred, the military judge will direct counsel on the mode and order of presentation of this

evidence, including the following:

1. the degree, if any, to which the counsel may refer to or ask questions concerning the scientific evidence during voir dire of the members;

2. the degree, if any, to which the counsel may refer to the scientific evidence in their opening statements;

3. the mode and order of presenting witnesses who have information related to the scientific evidence, and the extent that questions can be asked related to that evidence; and

4. the manner in which the issue of the presentation of the scientific evidence will be raised during the trial on the merits in order to avoid prejudicing the members.

F. **Finality of Ruling:** the decision of the military judge concerning scientific evidence is final. Violation of that ruling by counsel constitutes plain error.

G. **Abuse of Discretion:** failure of the military judge to rule on the issues of admissibility of scientific evidence constitutes an abuse of discretion.

VII. Conclusions

Daubert and its focus on the role of the judge presents both a great challenge and an opportunity for the military justice system. The challenge is found in adapting the procedural system to establish the type of gate that the military judge, armed with an independent and affirmative duty to determine the scientific validity and relevance of scientific evidence, can effectively and efficiently keep. The opportunity is found in reviewing and trimming the thicket of case law that has evolved, in large measure, through the inaction of counsel and the silent scrutiny of judges operating under the plain error doctrine. The result, at the very minimum, will be the formulation of case law governing the admission of scientific evidence which is based upon detailed review of the issues at the trial level by judges equipped with the discretion that *Daubert* entails.

To accomplish this needed change, the proposed amendments to the Rules for Court-Martial contained in appendices A through E will create the procedural gate for the judge to guard. By ensuring full discovery of all scientific validity and fit issues early in the pretrial process, requiring pretrial motions to admit this evidence as a precondition to its use at trial, and mandating the independent role of the judge in screening this evidence, both before and during trial, the gate will be guarded.

Once this gate is created, military judges must focus their analysis on the factors that *Daubert* and *Houser* have enunciated. Critical to this analysis is the development of a record on each element of the analytical framework, to ensure appropriate appellate review of the fully developed issues, not the omissions of judges and counsel. Furthermore, by focusing on the applying this framework to the issues which the developed in the absence of a gate, the courts can quickly clarify the principles controlling scientific evidence and give the *Daubert/Houser* framework will have real meaning in practice. Enclosure F, a proposed framework for the litigating of scientific evidence issues under the procedural and substantive changes that *Daubert* dictates, will assist in this regard.

The result of the full adoption of the procedural and substantive implications of *Daubert* will be the protection of the members from the ravages of unreliable science and irrelevant opinions, while ensure that the legitimate, adequately developed theories assume their place in the court room.

APPENDIX A

Proposed revision to R.C.M. 701(a):

(4) Expert Witnesses:

(A) Before the beginning of trial on the merits, the trial counsel shall notify the defense of the names and address of the expert witnesses the trial counsel intends to call:

(1) in the prosecution's case in chief;

(2) in rebuttal of any defense witnesses of whom the government has received notice; and

(3) for any purpose under R.C.M. 1001(b) during sentencing.

(B) Accompanying the notice concerning expert witnesses, the government will provide the qualifications of the expert witness and a written summary of the testimony that the government intends to use under Rules 702, 703, or 705 of the Military Rules of Evidence during its case in chief, in rebuttal to any defense witnesses of whom the government has received notice, and during sentencing. This written summary must describe the issue to which the witness' testimony is relevant, the witness' opinions, and the bases and reasons therefor. This written summary should include supporting documentation, including but not limited to learned treatise supporting the scientific validity of the expert's opinion and the facts or data supporting the opinion.

(C) The trial counsel shall provide the military judge the information required under subparagraphs (a) and (b) in the form of a motion as provided by R.C.M. 916(b)(13).

APPENDIX B

Proposed Revision to R.C.M. 701(b):

(2) Expert Witnesses:

(A) Before the beginning of trial on the merits, the defense shall notify the trial counsel of the names and address of the expert witnesses the trial counsel intends to call:

(1) in the defense case in chief; and

(2) for any purpose under R.C.M. 1001(c) during sentencing.

(B) Accompanying the notice concerning expert witnesses, the defense will provide to the trial counsel the qualifications of the expert witness and a written summary of the testimony that the defense intends to use under Rules 702, 703, or 705 of the Military Rules of Evidence during its case in chief and during sentencing. This written summary must describe the issue to which the witness' testimony is relevant, the witness' opinions, and the bases and reasons therefor. This written summary should include supporting documentation, including but not limited to learned treatise supporting the scientific validity of the expert's opinion and the facts or data supporting the opinion.

(C) The defense shall provide the military judge the information required under subparagraphs (a) and (b) in the form of a motion as provided by R.C.M. 916(b)(13).

APPENDIX C

Proposed Revision to R.C.M. 906(b)(13):

(b) Grounds for appropriate relief. The following may be requested by motion for appropriate relief. This list is not exclusive.

. . . .

(13) Preliminary ruling on admissibility of evidence. *When motions provided to the military judge under R.C.M. 701(a)(4) and R.C.M. 701(b)(3) require, the military judge shall direct counsel to litigate the issue of admissibility of evidence and testimony offered under Mil.R.Evid. 702, 703, and 705 before trial on the merits.* [proposed language in italics]

APPENDIX D

Proposed Revision to R.C.M. 801(a)(3):

(a) Responsibilities of military judge. The military judge is the presiding officer of the court-martial. The military judge shall:

. . . .

(3) Subject to the code and this Manual, exercise reasonable control over the proceedings to promote the purposes of these rules and this Manual. *When motions provided to the military judge under R.C.M. 701(a)(4) and R.C.M. 701(b)(3) require, the military judge shall direct counsel to litigate the issue of admissibility of evidence and testimony offered under Mil.R.Evid. 702, 703, and 705 before trial on the merits.*

[proposed language in italics]

APPENDIX E

Proposed Revision to R.C.M. 801(e)(1)(A):

(A) Finality of Rulings. Any ruling by the military judge upon a question of law, including a motion for a finding of not guilty, or upon any interlocutory question is final. *Any violation of a final ruling of the military judge by the parties in the case creates a rebuttable presumption of "plain error" as defined by Mil.R.Evid. 103(d).* [proposed language in italics]

APPENDIX F

AN PROCEDURAL FRAMEWORK AND ANALYTICAL METHODOLOGY FOR CASES INVOLVING SCIENTIFIC EVIDENCE

[This framework is based on the adoption of the recommendations contained in this thesis, providing for broader discovery of scientific evidence issues and mandating consideration of the issues prior to trial, as contained in appendices A through E],

I. PRETRIAL DISCOVERY PRACTICE

A. **Trial Counsel:** Before trial, and after determination of an intention to use scientific evidence during the case in chief, in rebuttal of any defense witness of which the government has received notice, or as a matter in aggravation under R.C.M. 1001(b), the trial counsel must:

1. notify the defense of the names and addresses of all expert witnesses that the government intends to call as described above;

2. include the following information as part of the notice:

a. the qualifications of the expert in sufficient detail to establish that the expert will be "helpful" in

explaining the methodology used to derive the scientific evidence and explaining the evidence's application of the facts of the case;

b. a written summary, supported by references that includes, but is not limited to, learned treatises, statements of professional organization, or other reliable documentation, of the testimony the government intends to use, describing the following:

1) the subject matter of the expert testimony, as required by Mil.R.Evid. 702;

2) the basis for the expert testimony, as required by Mil.R.Evid 703;

3) the logical and legal relevance of the evidence, as required by Mil.R.Evid. 401 and 402;

4) the purported reliability of the evidence, as required under *United States v. Gipson*, 25 M.J. 246 (C.M.A. 1987); and

5) the justification why the "probative value" of the testimony outweighs other considerations as required by Mil.R.Evid. 403.

3. Make a motion under R.C.M. 906(b)(13) to admit the scientific evidence, providing the military judge with the same information contained in the written summary required in paragraph 2 above, and supporting admissibility with any legal authority to justify the validity of the scientific methodology employed and logical relevance of the evidence.

4. Respond to any defense motion to admit scientific evidence under R.C.M. 906(b)(13).

B. **Defense Counsel:** Before trial, and after determination of an intention to use scientific evidence during the defense case in chief, or as a matter in extenuation or mitigation under R.C.M. 1001(c), the defense counsel must:

1. notify the trial counsel of the names and addresses of all expert witnesses that the government intends to call as described above;

2. include in the following information as part of the notice:

a. the qualifications of the expert in sufficient detail to establish that the expert will be "helpful" in explaining the methodology used to derive the scientific evidence and explaining the evidence's application of the facts of the

case;

b. a written summary, supported by references that includes, but is not limited to, learned treatises, statements of professional organization, or other reliable documentation, of the testimony the defense intends to use, describing the following:

1) the subject matter of the expert testimony, as required by Mil.R.Evid. 702;

2) the basis for the expert testimony, as required by Mil.R.Evid 703;

3) the logical and legal relevance of the evidence, as required by Mil.R.Evid. 401 and 402;

4) the purported reliability of the evidence, as required under *United States v. Gipson*, 25 M.J. 246 (C.M.A. 1987); and

5) the justification why the "probative value" of the testimony outweighs other considerations as required by Mil.R.Evid. 403.

3. Make a motion under R.C.M. 906(b)(13) to admit the

scientific evidence, providing the military judge with the same information contained in the written summary required in paragraph 2 above, and support with any legal authority to justify the validity of the scientific methodology employed and logical relevance of the evidence.

4. Respond to any government motion to admit scientific evidence under R.C.M. 906(b)(13).

C. **Military Judge:** Upon receipt of the motion and response of counsel, the judge will determine whether a material issue of fact exists concerning the scientific evidence, and will take action on the motions consistent with the Rules for Courts-Martial and rules of practice in that circuit. The military judge shall take one of the following courses of action:

1. If counsel does not request oral argument on the issue or if opposing counsel does not oppose the motion, and no material issue of fact exists concerning the proffered scientific evidence, the military judge will make findings of fact and conclusions of law based upon the written motions;

2. If counsel do not request oral argument on the issue or if opposing counsel does not oppose the motion, and a material issue of fact does exist, the military judge shall notify counsel

and direct litigation of the issue before the court. If necessary, the military judge will direct trial counsel to procure independent expert testimony for the court, as provided by Mil.R.Evid. 706, in order to assist in determining the scientific validity, logical relevance and admissibility of the evidence.

3. If either counsel requests argument, the military judge will hear argument as provided under R.C.M. 905.

II. MOTION PRACTICE UNDER THE *DAUBERT/HOUSER* FRAMEWORK

A. Burden of Proof: The burden of establishing, by a preponderance of the evidence, the scientific validity, logical relevance and admissibility of scientific evidence shall be upon the proponent of that evidence.

B. Assignment: The burden of persuasion shall be upon the proponent of the scientific evidence.

C. Rules of Evidence: As this motion is a preliminary question to determine the admissibility of evidence under Mil.R.Evid. 104(a), the military judge is not bound by the rules of evidence except those regarding privileges. In order to determine the issues of the case, the military judge may consider hearsay evidence, to include but not limited to the testimony of experts,

affidavits, offers of proof, learned treatises, statements of professional organizations and other documentation related to the issues surrounding the admissibility of scientific evidence.

D. Specific Findings: In determining the admissibility of scientific evidence, the military judge must consider the following issues and make specific findings:

1. **The qualifications of the expert**, as required by Mil.R.Evid. 702. In determining whether an expert is qualified, the following four factors must be considered:

a. that a body of specialized knowledge exists concerning the subject matter of the testimony. To determine this factor, the expert must be conversant in the methodology underlying the creation of the explanative theory and the proper techniques for application to the facts at issue or else be able to point to some reliable source to validate the theory and it applications;

b. that this knowledge is beyond the knowledge and experience of the trier of fact;

c. that giving the knowledge to the jurors would help in determining an issue in the case.

d. that the individual testifying, based on education, training, background, or experience, has a sufficient base of knowledge to be "helpful" to the members;

2. **The subject matter of the expert testimony**, as required by Mil.R.Evid. 702. This evidence should establish the following:

a. the content of the major premise that the witness intends to base his testimony upon;

b. the nature of the facts and data necessary to establish the minor premise that relates to the issue at trial; and

c. the opinion that the expert witness intends to tender to the court.

3. **The basis for the expert testimony**, as required by Mil.R.Evid 703. In considering the adequacy of the basis, the court must consider:

a. the type and extent of the facts and data that are reasonably relied upon by experts in the particular field in forming an opinion, regardless of their admissibility; and

b. whether the proponent of the evidence has demonstrated that there are sufficient facts and date present in the case at trial to support that opinion to a degree that it will be helpful to the trier of fact;

4. **The legal relevance of the evidence**, as required by Mil.R.Evid. 401 and 402. In determining this "fit" between the proffered evidence and the fact at issue, the court must consider:

a. whether it makes a fact more or less probable;

b. whether it is barred by any other rule of evidence.

When dealing with expert opinions concerning the credibility of witnesses, the judge must ensure that the language used by the expert is such as to avoid placing the imprimatur of an expert on the credibility of the witness.

5. **The reliability of the evidence**, as required under the *Gipson* case. Daubert and its progeny have provided a thorough scheme for determining the scientific validity of the proffered evidence. These factors include, but are not limited to:

a. whether or not the scientific knowledge can be (and has been) tested;

b. the circumstance under which the expert derived the body of scientific knowledge to be presented, including whether the research was done independent of, or as a consequence of the litigation at trial;

c. whether the technique has been subjected to peer review and publication;

d. the potential or known rate of error;

e. the existence and maintenance of standards controlling the technique's operation; and

f. widespread acceptance.

6. **Whether the "probative value" of the testimony outweighs other considerations as required by Mil.R.Evid. 403.** In making this determination, the military judge must focus on the methodology used to arrive at the result, not on its outcome.

E. Ruling of the Military Judge: the motion shall be determined before pleas are entered unless the military judge determines for good cause to defer ruling for good cause. The burden to rule on the issue, however, remains on the judge until such time that the issue is resolved. If the ruling is deferred, the military judge will direct counsel on the mode and order of presentation of this

evidence, including the following:

1. the degree, if any, to which the counsel may refer to or ask questions concerning the scientific evidence during voir dire of the members;

2. the degree, if any, to which the counsel may refer to the scientific evidence in their opening statements;

3. the mode and order of presenting witnesses who have information related to the scientific evidence, and the extent that questions can be asked related to that evidence; and

4. the manner in which the issue of the presentation of the scientific evidence will be raised during the trial on the merits in order to avoid prejudicing the members.

F. Finality of Ruling: the decision of the military judge concerning scientific evidence is final. Violation of that ruling by counsel constitutes plain error.

G. Abuse of Discretion: failure of the military judge to rule on the issues of admissibility of scientific evidence constitutes an abuse of discretion.

H. Failure of Counsel to Raise the Issue: If counsel fail to

comply with the requirements of R.C.M. 701(a)(4) and (b)(2), the military judge shall take such actions as are necessary to ensure fairness, as provided by R.C.M. 701(g)(3), to include, but not limited to:

1. order the party to permit discovery of the scientific evidence issues;

2. grant a continuance;

3. prohibit a party from introducing evidence, calling a witness or raising a defense not disclosed; and

4. enter such order as is just under the circumstances.

ENDNOTES

1. MANUAL FOR COURTS-MARTIAL, United States, 1984, MIL.R.EVID. 702-705 [hereinafter MCM]. The analytical framework for admission of scientific evidence is a function of the relationship between the Mil.R.Evid. 702-705 provisions that deal specifically with scientific evidence and the Mil.R.Evid. 401-403 provisions that deal with the admissibility of relevant evidence. One of the most concise statement of this framework as applied to military law is found in the case of United States v. Houser, 36 M.J. 392 C.M.A. (1993), which will be discussed in detail in the body of the thesis. *See infra,* pp. 54-59.

2. 113 S.Ct. 2786 (1993), *aff'd on remand,* 1995 U.S.App. Lexis 12 (9th Cir. 1995).

3. FED.R.EVID. 702-705

4. *See infra,* pp. 12-17, 51-59.

5. 24 M.J. 246 (C.M.A. 1987)

6. MCM, *supra* note 1, RULES FOR COURTS-MARTIAL [hereinafter R.C.M.].

7. 36 M.J. 392 C.M.A. (1993)

8. 293 F. 1013 (D.C. Cir. 1923).

9. *Id.* at 1014. The court found this to be an issue of first impression, and adopted the explanation of the evidentiary rule from the defendant's brief:

> When the question involved does not lie within the range of common experience or common knowledge, but

requires special experience or special knowledge, then the opinions of witnesses skilled in that particular science, art, or trade to which the question relates are admissible in evidence.

Contrasting this rule with Fed.R.Evid. 702 shows only marginal differences in wording, but none in substance. Although commentators frequently state that the implementation of Fed.R.Evid. 702 has dramatically opened the courtroom doors to expert testimony, the quoted language from *Frye* shows Fed.R.Evid. 702 itself makes no great departure from past practices. One of the leading complaints about Fed.R.Evid. 702 is that the drafters did not address whether the *Frye* remained applicable after promulgation of rule. It could be that the drafters saw no need to discuss applicability of *Frye,* because the rule they drafted so closely related to the evidentiary climate that *Frye* emerged from. The great liberalization that the Fed.R.Evid. provide is in Fed.R.Evid. 703's expansion of the types of facts and data the expert can rely upon in forming an opinion, Fed.R.Evid. 704's expansion of the types of opinions permitted, and the broadened definition of relevance under Fed.R.Evid. 401 and 402.

10. *Id.* (emphasis added).

11. *See* Brown v. Darcy, 783 F.2d 1389, 1394, 95 (9th Cir. 1986)(finds polygraph evidence to be unreliable based on general acceptance, reliability, and prejudice grounds); U.S. v. Hunter, 672 F.2d 815, 817 (10th Cir. 1985)(holds that polygraph evidence

will not be admitted in this jurisdiction until it is widely perceived as having a reasonable measure of precision); and U.S. v. Alexander, 526 F.2d 161 (8th Cir. 1975)(holds that trial court's responsibility is to initially assess whether a sufficient degree of general scientific acceptance has occurred to warrant admission of scientific evidence).

12. *See, e.g.*, U.S. v. Hill, No. ACMR 9300891, 1994 CMR Lexis 343 (A.C.C.A., Oct. 18, 1994), which provides a clear insight into this method of determining "general acceptance," before rejecting it and applying the factors enunciated in *Daubert,* 113 S.Ct. at 2797. In a case involving the use of "luminol" testing to determine the presence of blood, the court found a broad number of cases from state jurisdictions. These cases reached decisions on both sides of the issue of "general acceptance." The Army court proclaimed that "we can find no consensus among the state appellate courts on the proper standard to apply for the admission of expert testimony on luminol testing." The court, by implication, viewed this inquiry into jurisprudential acceptance as a substantive part of the "general acceptance" analysis.

13. *See* EDWARD J. IMWINKLERIED, EVIDENTIARY FOUNDATIONS, 220-231 (2d ed. 1980). This foundation for expert testimony lays out a careful "step by step" approach for establishing an adequate foundation for an expert's testimony under Fed.R.Evid. 702. This approach focuses only on what the expert says about reliability, and relies on the expert's conclusions on the reliability of the

process, with no external or independent documentation.

14. MANUAL FOR COURTS-MARTIAL, United States, ch. XXVII (rev. ed. 1969)[hereinafter 1969 Manual].

15. MCM, *supra* note 1, MIL.R.EVID. 702. This rule states:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or educations may testify thereto in the form of opinion or otherwise.

This rule is taken from Fed.R.Evid. 702 verbatim. *Id.*, app. 22, at A22-45. This rule is part of the liberalized scheme controlling the admissibility of scientific evidence, broadened especially by Mil.R.Evid. 703, 704, 401 and 402. *See supra* note 9.

16. *See* United States v. Snipes, 18 M.J. 172 (CMA 1984)(interprets Mil.R.Evid. 702-705 to represent a broadening of the allowable opinions of experts); and United States v. Mustafa, 22 M.J. 165 (C.M.A. 1986)(views Mil.R.Evid. 702 as liberalizing the class of witnesses who can be qualified as experts).

17. MCM, *supra* note 1, MIL.R.EVID. 702 analysis, app. 22, at A22-45.

18. *See* United States v. Downing, 753 F.2d 1224 (3d Cir. 1985)(overrules *Frye*, adopts test focused on reliability,

relevance and admissibility); *Compare* Brown v. Darcy, 783 F.2d 1389, 1394, 95 (9th Cir. 1986); U.S. v. Hunter, 672 F.2d 815, 817 (10th Cir. 1985); and U.S. v. Alexander, 526 F.2d 161 (8th Cir. 1975), all *supra* note 11.

19. *Gipson,* 24 M.J. at 246. The holding of *Gipson* concerning the admissibility of polygraph evidence has been superseded by the implementation of Mil.R.Evid. 707. This rule prohibits any use of the polygraph in military courts. MCM, *supra* note 1, MIL.R.EVID. 707. This has not effected, however, the validity of *Gipson's* approach to Mil.R.Evid. 702. The constitutional basis of Mil.R.Evid. 707 has also been questioned, at least as it applies to the defense. *See* United States v. Williams, 39 M.J. 555 (A.C.M.R. 1994)(dictum).

20. *Gipson,* 24 M.J. at 249.

21. *Id.*

22. *Id.* (citations omitted).

23. *Id.* at 251.

24. 753 F.2d 1224 (3d Cir. 1985). The *Downing* case, which led the federal courts in rejecting the *Frye* standard as the basis for interpreting admissibility under Fed.R.Evid. 702, is at the core of the Supreme Court's rationale in *Daubert.* The most significant departure the Supreme Court took from the *Downing* analysis was the imposition of an "independent duty" on the judge to determine the scientific validity and fit of the evidence. *Daubert,* 113 S.Ct. at 2794.

25. *Gipson,* 24 M.J. at 251. *See also* MCM, *supra* note 1,

MIL.R.EVID. 703, for full text of the Rule. Mil.R.Evid. 702 focuses on the reliability of the expert, based on her background, knowledge and experience, and the reliability of the method or technique used to arrive at the opinion. Mil.R.Evid. 703 focuses on the reliability of the underlying data used to form the opinion. Taken together, these rule cover the reliability determination the judge is required to make.

26. *Id.* *See also* MCM, *supra* note 1, MIL.R.EVID. 403, which states:

> Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the members, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.

This Rule acts as a substantive gate for the military judge to exclude evidence *sua sponte*. As such, it assists judges in accomplishing their duty, imposed by the Rules for Courts-Martial, to "exercise reasonable control over the proceedings to promote the purposes of these rules and this Manual. *See also* MCM, *supra* note 1, R.C.M. 801(a)(3). The drafters of Mil.R.Evid. 403 confirm this intent, stating that "The rule vests the judge with wide discretion in determining the admissibility of evidence that comes within the rule." MCM, *supra* note 1, MIL.R.EVID. 403

analysis, app. 22, at A22-32. This rule provides the most effective "gate" for the judge to use in excluding any otherwise relevant evidence. Review of the judge's rulings under Mil.R.Evid. 403 is based on an "abuse of discretion" standard.

27. *Gipson,* 24 M.J. at 251, citing to *Downing,* 753 F.2d at 1237.

28. *Id.* at 252.

29. *Id.*

30. *Id.* at 253, 254.

31. *Id.*

32. 113 S.Ct. 2768 (1993).

33. *Daubert,* 113 S.Ct. at 2792.

34. *Id. See* Daubert v. Merrell Dow Pharmaceuticals, Inc., 951 F.2d 1128 (9th Cir. 1991), *pet. granted,* 113 S.Ct 320 (1992).

35. *Id.* at 2792, 93.

36. *Id.* at 2794.

37. *Gipson,* 24 M.J. at 250, 251.

38. *Daubert,* 113 S.Ct. at 2793.

39. *Id.* at 2794 (emphasis added).

40. *Id.* at 2796 (emphasis added).

41. *Daubert,* 1995 U.S. App. Lexis 12 at *17.

42. 35 F.3d 717 (3d Cir. 1994). This opinion is also significant in that it reinterprets *Downing,* the case that the C.M.A. used in *Gipson* as its basis for modifying the examination of scientific evidence issues under Mil.R.Evid. 702. *See Gipson,* 24 M.J. at 251.

43. *Id.* at 748 (emphasis added). In *Poali*, the court makes no distinction between the reliability determinations which must be made under Fed.R.Evid. 702 and 703. The court explains that "we think the same reliability standard should apply under both rules because the policy considerations are the same. Moreover, applying the same standard avoids the need to make the metaphysical distinctions necessary to decide which rule applies." *Id.* at 749.

44. The motion for summary judgment already represents as substantial "gate" in the Federal Rules of Civil Procedure, and allows the judge to dismiss a suit if no material issue of fact remains. *See* FED.R.CIV.P. 56. This gate is one that the majority of civil suits must pass through before reaching a trial on the merits, and frequently represent the most significant litigation step in the pretrial process. An adverse ruling concerning the scientific validity of expert testimony may be "outcome determinative" when expert testimony is essential to determine causation, as was the case in *Daubert*.

45. *See* FED.R. CRIM. P. 12(b).

46. *See* MCM, *supra* note 1, R.C.M. 916(b)(13).

47. 6 F.3d 924 (2d Cir. 1993).

48. *Id.* at 938-39 (citations omitted). *Locascio* did not deal with the issue of judicial scrutiny of the reliability of the scientific theory under Fed.R.Evid. 702. Instead, the court focused on the trustworthiness of otherwise inadmissible hearsay evidence which acted as the expert's foundation under Fed.R.Evid.

703. In referring to this *sub silentio* review, it relied on the concepts underlying the Fed.R.Evid. 403 balancing test that the judge must conduct throughout the trial. The holding concerning the methodology used in determining the reliability of all scientific evidence appears to be broader than the specific issue decided. It appears to conflict with the Supreme Court's intent of insuring that an analysis of the validity of scientific evidence in fact occurs. *Cf. Poali*, 35 F.3d. at 749, 750 (discusses "abuse of discretion" standard for reviewing judicial decisions concerning admissibility of scientific evidence).

49. MCM, *supra* note 1, MIL.R.EVID. 103.

50. *See infra*, pp. 18-49.

51. 1969 MANUAL, *supra* note 14, § 54(c). This paternalism was arguably appropriate in a system where, prior to 1969, many of the counsel practicing before the courts were non-lawyers. The advent of a lawyer based system of representation at all levels of courts-martial which involve a punitive discharge made much of this paternalism unnecessary.

52. MCM, *supra* note 1, R.C.M. 913(c)(4) discussion (emphasis added).

53. *Id.*, MIL.R.EVID. 103(d).

54. *Id.*, MIL.R.EVID. 103(a).

55. *See* DAVID A. SCHLUETER, ET AL, MILITARY EVIDENTIARY FOUNDATIONS 250-64 (1st ed. 1994)[hereinafter SCHLUETER, ET AL]. This sample foundation is representative of the "best method" of laying foundations in military courts. However, the authors propose a

sample foundation that does not contain readily discernible "objection points"--that is, places where counsel request that the judge admit the evidence based on its scientific validity, adequate bases, relevance or probative value. This approach favors advocates attempting to push through their foundation while avoiding an objection. However, the approach is counter productive in that it fails to provide judges an opportunity to make an independent determination of these issues. This foundation does not focus on the *Daubert* analysis which will be discussed *infra,* pp. 51-59. For some reason, the authors chose to label the issue of scientific validity separately from the foundation for expert testimony, and made it part of a broader "authentication, identification and verification" category. *Id.* at 108. The two processes need to be conducted in tandem, however, unless the determination of reliability has been made before trial on the merits.

56. *Id.* at 251.

57. *See infra*, pp. 62-89.

58. *See* SCHLUETER, ET AL, *supra* note 55, at 24-28.

59. MCM, *supra* note 1, MIL.R.EVID. 104(a). This rule states:

> Preliminary questions concerning the qualification of a person to be a witness . . .[and] the admissibility of evidence . . . shall be determined by the military judge. In making this determination, *the military*

judge is not bound by the rules of evidence except for those with respect to privileges. *Id.* (emphasis added).

60. *See, e.g.*, SCHLUETER, ET AL, *supra* note 55, at 56.

61. *Id.* at 30-31. The commentators state:

> In one respect, the voir dire is functionally a restricted cross-examination during the proponent's direct examination. The opponent conducting the examination may ordinarily use leading questions. However, the opponent must remember that the voir dire's limited purpose is to test the competency of the witness or evidence. The voir dire has a limited scope, and the opponent may not conduct a general cross-examination on the case's merits under the guise of voir dire.

62. 24 M.J. 246, 251 (C.M.A. 1987).

63. MCM, *supra* note 1, MIL.R.EVID. 103(c).

64. *See* MCM, *supra* note 1, R.C.M. 913(b) discussion of the content of an opening statement, which states that "counsel should confine their remarks to evidence that they expect to be offered which they believe in good faith will be available and admissible and a brief statement of the issues." The problem with mid-trial litigation of expert issues is that any capable counsel will be able to articulate a "good faith" basis for an expert's testimony, even though that testimony may prove

unreliable. Discussion of an expert's theory in opening statement may already contaminate the members before any determination of reliability and relevance occurs.

65. *See* MCM, *supra* note 1, MIL.R.EVID. 104(b), which permits admission of evidence whose relevancy is conditioned on facts not yet in evidence.

66. *Id.*, MIL.R.EVID. 403.

67. *See, e.g.*, United States v. Meeks, 35 M.J. 64 (C.M.A. 1992). In this case, the judge conducted a reliability determination orally, based on offers of proof from trial counsel and argument from the defense.

68. *See* SCHLUETER, ET AL, *supra* note 55, at 20-21, for a discussion of these considerations. The authors cite a number of valid tactical reasons for litigating motions *in limine*, including the following:

> Finally, when the attorney is relying on a novel theory to exclude the evidence, making an *in limine* motion can increase the probability that the judge will exclude the evidence *because it gives the judge a chance to think through the theory*. If counsel springs the theory on the judge for the first time at trial, the judge is more likely to reject the theory and admit the evidence. Submitting the motion before trial demonstrates that the attorney has enough confidence in the theory to allow the judge time to think it through.

Id. (second emphasis added).

69. *See* MCM, *supra* note 1, R.C.M. 701 analysis, app. 21, at A21-31. A fuller discussion of the intent behind these discovery rules, and the failure of the current scheme to promote this intent is contained *infra,* pp. 22-38.

70. *Id.* (emphasis added)(citations omitted).

71. *Id.*

72. *Id.*, R.C.M. 701(a)(2)(B). The defense has a similar obligation to disclose on request of trial counsel, which arises when the defense first requests this information from the government. *Id.*, R.C.M. 701(b)(4).

73. *See* MCM, *supra* note 1, MIL.R.EVID. 703.

74. *See* Edward J. Imwinkleried, *The Bases of Expert Testimony: The Syllogistic Structure of Scientific Testimony,* 67 N.C.L.REV. 1 (1988)[hereinafter Imweinklereid].

75. *Id.* at 5.

76. *Id.*

77. *Id.* at 2.

78. *Id.*

79. MCM, *supra* note 1, MIL.R.EVID. 703.

80. *See also* MCM, *supra* note 1, R.C.M. 701(b)(3).

81. MCM, *supra* note 1, MIL.R.EVID. 702.

82. *See, e.g.,* United States v. Banks, 36 M.J. 150 (C.M.A. 1992). Here, the defense counsel had prepared an extensive case in rebuttal of the expected government expert testimony, and moved *in limine* to permit their expert to sit in the courtroom

and listen to the government experts testify. The government moved to exclude both the expert witness' presence and testimony, in part because they did not intend to offer the evidence the defense was seeking to rebut. *Id.* at 152, 153. The opinion of the court in this case shows no failure to comply in the discovery process; instead, the weaknesses in the process itself caused the confusion of issues.

83. I address this portion of the discussion to the defense's ability to obtain access to expert assistance. The government, especially in the military system, has access to a broad panoply of experts to assist in the preparation of the case, including the criminal investigatory department, the staff of medical and mental health facilities, and other Department of Defense employees. The government can access these assets at will. For the defense counsel, the route is more treacherous, involving either using the accused's limited funds, using the government's own experts to answer questions, or requesting expert assistance under R.C.M. 703(d).

84. MCM, *supra* note 1, R.C.M. 703(d).

85. 22 M.J. 288 (C.M.A. 1985), *cert. denied,* 479 U.S. 985 (1986).

86. MCM, *supra* note 1, R.C.M. 703(d).

87. *See* Ake v. Oklahoma, 470 U.S. 68 (1985), where the court declared:

> [W]e therefore hold that when a defendant demonstrates

> to the trial judge that his sanity at the time of the offense is to be a significant factor at trial, the State must, at a minimum, assure the defendant access to a competent psychiatrist who will conduct an appropriate examination and assist in evaluation, preparation and presentation of the case. This is not to say, of course, that the indigent defendant has a constitutional right to choose a psychiatrist of his personal liking or to receive funds to hire his own. Our concern is that the indigent defendant have access to a competent psychiatrist for the purpose we have discussed, and as in the case of the provision of counsel, we leave to the States the decision on how to implement this right.

88. *Garries,* 22 M.J. at 290 (citations omitted). *See also* United States v. Burnette, 29 M.J. 473 (C.M.A. 1989), *cert. denied,* 498 U.S. 821 (1990). In explaining the scope of this right, the C.M.A. in *Burnette* clarified that

> It is well established that, upon a proper showing of necessity, an accused is entitled to the assistance of an expert to aid in the preparation of his defense. This does not mean, however, that an accused is entitled to an expert of his own choosing. All that is required is that competent assistance be made available. *Id.* at 475 (citations omitted).

In most cases, the best "expert" the defense can hope for is a government employee who possesses the minimum required skill, knowledge, education or experience. At a minimum, this individual will not the government's own expert and becomes, at least by name, a member of the defense team. The defense is not entitled to an "outstanding practitioner" in preparing and presenting their case.

89. 39 M.J. 88 (C.M.A. 1994).

90. *See* MCM, *supra* note 1, R.C.M. 703(c)(1). *See also* discussion in *supra* note 83.

91. *See Id.*, R.C.M. 703(c)(2) and 703(d). The government, in the case of either an inadequate showing of necessity by the defense, a showing of necessity which involves *Gipson* middle level scientific evidence, or out of a desire to force a fuller disclosure of the defense theory through the litigation process, has the ability to recommend denial of the request to the convening authority and force litigation of the issue in front of the military judge.

By granting the government this power, the rules give the overly aggressive prosecutor the opportunity to "play chicken"--that is, to force the defense to either fold on their request for expert assistance or litigate the issue and lose whatever bargaining position they may have for a pretrial agreement. This inequity in bargaining power can act as a chilling effect on requests for expert assistance.

Although R.C.M. 705(d)(2) requires that a written offer for

a pretrial agreement must originate from defense counsel, subsection (1) permits the government to begin negotiations on the terms of the agreement. *See* MCM, *supra* note 1, R.C.M. 705. Any defense right that does not amount to a "due process of right of the accused" may be waived, thus constituting a "bargaining chip" in the plea negotiation process. *See Id.*, R.C.M. 705(c)(1)(a) and (b). Although R.C.M. 705(c)(1)(a) prohibits the government from forcing involuntary agreements and subsection (b) prohibits waiver of "due process" rights, R.C.M. 705(d)(3) grants the convening authority the sole discretion to grant or deny an offer for a pretrial agreement. *Id.* In other words, a convening authority is within his rights to deny a pretrial agreement, or to counter a defense offer with more restrictive terms if he feels that the prejudice to good order and discipline, the interference with command efficiency or the cost of case warrants a more severe punishment. By couching its position in the negotiation process in terms of "the more you make us work on this case, the higher cap we will recommend to the convening authority," the government does not violate the provisions of the Rule. Indeed, among the permissible rights the accused can waive are the substantive right of an Article 32 investigation, which in part is a discovery tool, the right to trial by members, and the right to the personal appearances of witnesses at sentencing. The convening authority's power over both requests for experts and the entering into pretrial agreements promotes efficiency, but may have a chilling effect on defense access to expert

assistance.

92. *Id.* Litigating a denial forces the defense to "lay its cards on the table" and reveal its theory of the case in order to show necessity. Under the guise of a fiscal decision, the judge is empowered to make a ruling concerning the relevance and necessity of the testimony. This fiscal decision is final, in that a finding of no "necessity" means that defense counsel does not get the benefit of the witness unless they are able to afford it on their own.

93. MCM, *supra* note 1, R.C.M. 905(b).

94. *Id.*, R.C.M. 906(b)(13).

95. *Id.*

96. *Id.* In the discussion of this rule, the drafters stated:

> A request for a preliminary ruling on admissibility is a request that certain matters which are ordinarily decided during the trial on the general issue be resolved before they arise, outside the presence of members. The purpose of such a motion is to avoid the prejudice that may result from bringing inadmissible matters to the attention of the court members.
>
> Whether to rule on an evidentiary question before it arises during trial on the general issue is a matter within the discretion of the military judge. *Id.*,

discussion.

Rulings concerning issues that are contingent on other issues of fact that may develop during trial on the merits may be unripe for determination. Under such circumstances, military judges are well advised to delay their ruling the issue arises, then address the issue in the context of the case. Judges can facilitate the proper addressing of these contingent issues by instructing counsel on the means they will use in bringing up the subject, as well as limiting the ability of counsel to make reference to the contingent matters in voir dire, opening statement or the testimony of other witnesses. By doing so, military judges continue to exercise control over the issue.

The reliability of scientific evidence and its overall logical relevance to an issue in the case are matters that are rarely dependent on the context of the case. Absent unusual circumstance, full discovery of the type proposed *infra,* pp. 40-43, will frame all of the scientific evidence issues in their appropriate context and render them capable of final ruling before the trial on the merits.

97. *Id.* The discussion cites to those provisions where the decisions concerning the admissibility of certain items of evidence, such as statements obtained in violation of UCMJ, Article 31(b) or evidence seized in violation of the 4th Amendment, must be decided prior to trial on the merits. Motions concerning scientific evidence do not fall in this category.

Counsel's belief that the military judge may be reticent to rule before trial is supported by R.C.M. 905(c)(2)(b), which provides:

> a motion made before pleas are entered shall be determined before pleas are entered unless, if otherwise not prohibited by this Manual, the military judge *for good cause* orders that determination be deferred until trial on the general issue . . . .

Id., R.C.M. 905(c)(2)(6)(emphasis added). This possible sense of futility is further supported by the exceptions contained in Mil.R.Evid. 104(c), which provides that the judge "shall" hear all motions involving the fourth and fifth amendments outside of the presence of the members, while hearings on "other preliminary matters shall be so conducted *when the interests of justice require*." *See* MCM, *supra* note 1, MIL.R.EVID. 104(c). The judge's discretion controls here, leaving the potential for counsel to be confused about how to proceed in the face of potentially unreliable evidence. For example, counsel will need to adapt what questions they ask during voir dire that relate to the members' ability to properly apply this theory, the statements they make about the scientific evidence in their opening statements, and the mode and order of presentation of witnesses who provide the basis in fact and data for the opinion. Uncertainty in this area leads to either overstating the scope of

the evidence that the judge will allow, or timidity in not wanting to commit to a theory that will ultimately be found inadmissible. At a minimum, counsel who raise a motion *in limine* need clear instructions from the judge on the methodology they should use in broaching the subject anew in front of the members.

98. *See, e.g., Banks*, 35 M.J. 150, 152-153 (C.M.A. 1992). Although both counsel apparently knew that the case would turn on the issues raised and answered by expert witnesses, only the defense raised a pretrial motion *in limine*. This motion arose under Mil.R.Evid. 615, the witness exclusion rule, which states:

> At the request of the prosecution or defense, the military judge shall order witnesses excluded so that they cannot hear the testimony of other witnesses, and the military judge may make the order *sua sponte*. This rule does not authorize exclusion of . . . (3) a person whose presence is shown by a party to be essential to the presentation of the party's case. MCM, *supra* note 1, MIL.R.EVID. 615.

The defense desired their expert to sit at defense table during the government's case in chief, and then testify as an expert witness for the defense based in part on what he observed. Although the defense expert's testimony attacked the theoretical underpinnings of the government's expert witnesses, the defense made no motion to exclude their testimony on Mil.R.Evid. 702

grounds.

The government opposed the motion and seized this opportunity to challenge the Mil.R.Evid. 702 aspects of the defense expert's testimony. Among other issues, these challenges focused on to two aspects of the Rule: first, that the defense expert would be acting as a "human lie detector" and that such testimony would not "helpful" because it invades province of the trier of fact ; and second that, because he was not a medical doctor, the defense expert could not testify about vaginal circumferences, in that a psychologist without a medical doctor's background was not "qualified as an expert." In short, the government attempted not to just exclude Dr. Underwager from the courtroom, but further attempted to exclude him from the trial altogether.

The judge ruled that Dr. Underwager could testify about interviewing techniques and sit in the court during psychological testimony, but could not testify about medical issues or about profile evidence. No rulings concerning the government's experts were made.

99. *See* FED.R.CRIM.P. 16 advisory note, *infra* note 118, wherein the drafters discuss the need to require full disclosure in order to avoid the tactics of surprise expert witnesses and ambush in federal trials.

100. *See* MCM, *supra* note 1, MIL.R.EVID. 103(d)

101. 32 M.J. 359 (C.M.A. 1991).

102. 35 M.J. 17 (C.M.A. 1992).

103. *Munoz,* 32 M.J. at 360.

104. *Id.* The defense revisited this issue several times during the course of the trial. *Id.* at 361-362.

105. *Id.*

106. *Id.* at 363.

107. *Id.*

108. *Johnson,* 35 M.J. at 20.

109. *Id.* at 21.

110. *Id.* It is unfortunate that the C.M.A. held the ruling of the judge to be of such little moment. According to the facts of the case, the judge had made a ruling concerning the "relevance" and "reliability" of the challenged testimony during the motion *in limine.* This ruling arguably could have constituted a "final ruling" under R.C.M. 801(e)(1)(a). MCM, *supra* note 1, R.C.M. 801(e)(1)(a). The trial counsel either negligently or intentionally exceeded the violated this final ruling, yet his violation was of no consequence to the case.

111. 27 M.J. 298 (C.M.A. 1988).

112. *Id.*

113. *Id.* at 370.

114. *Cf.* United States v. Sutton, 31 M.J. 10 (C.M.A. 199) (applies to military courts the rationale of Luce v. United States, 469 U.S. 38 (1984), which holds that there is no need to review for prejudice the decision of a court to defer ruling on a motion *in limine* to suppress prior convictions under Fed.R.Evid. 609(a), when accused does not take stand or put on character

evidence); and United States v. Gee, 39 M.J. 311 (C.M.A. 1994)(applies *Luce* rationale to all motions *in limine* deferred concerning issues of impeachment of the accused, where the accused does not take the stand or put on character evidence). This line of cases has only marginal application to the area of scientific evidence, and focus on the issue of preservation of objections where the defense elects not to put on evidence based on no ruling or an adverse ruling during a motion *in limine*. Most aspects of scientific evidence issues are capable of resolution during a motion *in limine*, especially the issues of validity and relevance to a specific factual issue in the case. At a minimum, the ruling concerning the reliability of the major premise, the application of the minor premise facts to the major premise, and the adequacy of the factual basis are all purely legal issues prone to determination prior to the trial on the merits. *See infra*, pp. 50-86. If the military judge determines to defer the issue of relevance to the trial on the merits, the judge can instruct counsel on the mode of presentation to avoid prejudice.

115. UCMJ, Article 36(a). This article provides that the Rules for Courts-Martial shall "apply the principles of law and rules of evidence general recognized in the trial of criminal cases in the United States district court."

116. FED.R.CRIM.P. 16, advisory committee's note on the Dec. 1, 1993 amendment to Rule 16(a)(1)(E). The committee explained in detail the rationale behind this rule, stating:

New subdivisions (a)(1)(E) and (b)(1)(C) expand federal criminal discovery by requiring disclosure of the intent to rely on expert opinion testimony, what the testimony will consist of, and the bases of the testimony. The amendment is intended to minimize surprise that often results from unexpected expert testimony, reduce the need for continuances, and to provide the opponent with a fair opportunity to test the merit of the expert' s testimony through focused cross-examination. *See* Eads, *Adjudication by Ambush: Federal Prosecutors' Use of Nonscientific Experts in a System of Limited Criminal Discovery*, 67 N.C.L. Rev. 577, 622 (1989).

Like other provisions in Rule 16, subdivision (a)(1)(E) requires the government to disclose information regarding its expert witnesses if the defendant first requests the information. Once the requested information is provided, the government is entitled, under (b)(1)(C) to reciprocal discovery of the same information from the defendant. The disclosure is in the form of a written summary and only applies to expert witnesses that each side intends to call during its case-in-chief. Although no specific timing requirements are included, it is expected that the parties will make their requests and disclosures in a timely fashion.

With increased use of both scientific and nonscientific expert testimony, one of counsel's most basic discovery needs is to learn that an expert is expected to testify. *See* Gianelli, *Criminal Discovery, Scientific Evidence, and DNA*, 44 Vand.L.Rev. 793 (1991); Symposium on Science and the Rules of Legal Procedure, 101 F.R.D. 599 (1983). This is particularly important if the expert is expected to testify on matters which touch on new or controversial techniques or opinions. The amendment is intended to meet this need by first, requiring notice of the expert's qualifications which in turn will permit the requesting party to determine whether in fact the witness is an expert within the definition of Federal Rule of Evidence 702. Like Rule 702, which generally provides a broad definition of who qualifies as an "expert," the amendment is broad in that it includes both scientific and nonscientific experts. It does not distinguish between those cases where the expert will be presenting testimony on novel scientific evidence. The rule does not extend, however, to witnesses who may offer only lay opinion testimony under Federal Rule of Evidence 701. Nor does the amendment extend to summary witnesses who may testify under Federal Rule of Evidence 1006 unless the witness is called to offer expert opinions apart from, or in addition to, the summary evidence.

Second, the requesting party is entitled to a summary of the expected testimony. This provision is intended to permit more complete pretrial preparation by the requesting party. For example, this should inform the requesting party whether the expert will be providing only background information on a particular issue or whether the witness will actually offer an opinion. In some instances, a generic description of the likely witness and that witness's qualifications may be sufficient, e.g., where a DEA laboratory chemist will testify, but it is not clear which particular chemist will be available.

Third, and perhaps most important, the requesting party is to be provided with a summary of the bases of the expert's opinion. Rule 16(a)(1)(D) covers disclosure and access to any results or reports of mental or physical examinations and scientific testing. But the fact that no formal written reports have been made does not necessarily mean that an expert will not testify at trial. At least one federal court has concluded that that provision did not otherwise require the government to disclose the identity of its expert witnesses where no reports had been prepared. *See, e.g.*, United States v. Johnson, 713 F.2d 654 (11th Cir. 1983, *cert. denied*, 484 U.S. 956 (1984) (there is no right to witness list and Rule 16 was not implicated

because no reports were made in the case). The amendment should remedy that problem. Without regard to whether a party would be entitled to the underlying bases for expert testimony under other provisions of Rule 16, the amendment requires a summary of the bases relied upon by the expert. That should cover not only written and oral reports, tests, reports, and investigations, but any information that might be recognized as a legitimate basis for an opinion under Federal Rule of Evidence 703, including opinions of other experts.

117. FED.R.CRIM.P. 16(a)(1)(E). The remaining text of the rule contains the following limitations on disclosure:

> (2) Information not subject to disclosure. Except as provided in paragraphs (A), (B), (D), and (E) of subdivision (a)(1), this rule does not authorize the discovery or inspection of reports, memoranda, or other internal government documents made by the attorney for the government or other government agents in connection with the investigation or prosecution of the case. Nor does the rule authorize the discovery or inspection of statements made by government witnesses or prospective government witnesses except as provided in 18 U.S.C. @ 3500.

This limitation on disclosure reflect elements of federal practice, and are not necessarily consistent with the broader discovery scheme under R.C.M. 701. The current Rules for Courts-Martial governing the disclosure of statements, memorandum and other documents already cover this field, making this portion of the federal rule irrelevant to our discussion.

With regard to the defense requirement for discovery in this area, Fed.R.Crim.P. 16(b)(1)(C) states:

> Expert witnesses. If the defendant requests disclosure under subdivision (a)(1)(E) of this rule and the government complies, the defendant, at the government's request, must disclose to the government a written summary of testimony the defendant intends to use under Rules 702, 703 and 705 of the Federal Rules of Evidence as evidence at trial. This summary must describe the opinions of the witnesses, the bases and reasons therefor, and the witnesses' qualifications. *Id.*, Rule 16(b)(1)(C).

118. For example, a defense counsel desiring to delay pretrial discovery of their theory of the case based on the scientific evidence they intend to present, or desiring to surprise the government with this evidence at trial, could merely not request disclosure of the government's expert witnesses. The drafters explains that

> [w]here a request is necessary, it is required to trigger the duty to disclose as a means of specifying what must be produced. Without the request, a trial counsel might be uncertain in many cases as to the extent of the duty to obtain matters not in the trial counsel's immediate possession.

MCM, *supra* note 1, R.C.M. 701 analysis, app. 21, at A21-31, 32. When a rule already explicitly states what information is required to be disclosed, this need for a trigger is negated. The proposed amendments contained in appendices A and B both describe in detail the information that must be disclosed. No trigger is necessary.

119. MCM, *supra* note 1, R.C.M. 701.

120. See *infra*, pp. 93-95. The defense disclosure requirements will track those of the proposal related to the trial counsel. The proposed R.C.M. 701(b)(2)(A) and (B) states:

> Expert Witnesses:
>
> (a) Before the beginning of trial on the merits, the defense shall notify the trial counsel of the names and address of the expert witnesses the trial counsel intends to call:
>
> (1) in the defense case in chief; and
>
> (2) for any purpose under R.C.M. 1001(c) during sentencing.

(b) Accompanying the notice concerning expert witnesses, the defense will provide to the trial counsel the qualifications of the expert witness and a written summary of the testimony that the defense intends to use under Rules 702, 703, or 705 of the Military Rules of Evidence during its case in chief and during sentencing. This written summary must describe the issue to which the witness' testimony is relevant, the witness' opinions, and the bases and reasons therefor. This written summary should include supporting documentation, including but not limited to learned treatise supporting the scientific validity of the expert's opinion and the facts or data supporting the opinion.

121. *See infra,* pp. 50-59.

122. *Id.*

123. *See infra,* pp. 93-95. The proposed amendment to R.C.M. 701(b)(2)(C), which contains the analogous defense requirement states:

(C) The defense shall provide the military judge the information required under subparagraphs (a) and (b) in the form of a motion as provided by R.C.M. 916(b)(13).

124. *See* R.C.M. 801(a)(3), which empowers the military judge to, "subject to the code and this Manual, exercise

reasonable control over the proceedings to promote the purposes of these rules and Manual." MCM, *supra* note 6, R.C.M. 801(a)(3). The discussion warns that the judge "should prevent the unnecessary waste of time and promote the ascertainment of truth," while avoiding "undue interference with the parties' presentations or the appearance of partiality." *Id.* Due to *Daubert's* imposition of an independent duty, no allegation of undue interference or partiality can be raised when judges step in to determine these issues, even if they act *sua sponte.*

125. *See infra,* p. 96 [proposed language in italics].

126. *See infra,* p. 97 [proposed language in italics].

127. *See infra,* p. 98 [proposed language in italics].

128. MCM, *supra* note 1, R.C.M. 701(f)(3). This rule states:

> If at any time during the court-martial it brought to the attention of the military judge that a party has failed to comply with this rule, the military judge may take on or more of the following actions:
>
> (A) Order the party to permit discovery;
>
> (B) Grant a continuance;
>
> (C) Prohibit the party from introducing evidence, calling a witness, or raising a defense not disclosed; and
>
> (D) Enter such other order as is just under the circumstances. This rule shall not limit the right of

the accused to testify on the accused's behalf.

129. 36 M.J. 392 (C.M.A. 1993).

130. 113 S.Ct. 2786, 2795 (1993).

131. *Id.*

132. *Id.* at 2792. *Daubert* involves scientific evidence related to the methodologies used in the laboratory. These methodologies, using the scientific method of testing a hypothesis and deriving conclusions, produce quantifiable results--the empirical data that the Supreme Court discusses here.

In the area of psychology, especially when it involves the effects of child or sexual abuse, the ability to collect data is more limited. Ethics prevent testing a hypothesis concerning the effects of this type of abuse, except in very narrow circumstances. *See, e.g.*, Kathy Ann Merritt, M.D., *Children's Memory for a Salient Medical Procedure: Implications for Testimony*, 94 PEDIATRICS 17 (1994)(Children subject to an invasive medical procedure involving insertion of a probe into the urethra; follow up testing conducted to determine content and quality of memory of event over time). The psychological syndromes often offered in courts-martial are derived not from the laboratory, but from clinical observation of patients over time, where evidence is accumulated and ultimately interpreted to define the syndrome. *See* David McCord, *Syndromes, Profiles and Other Mental Exotica: A New Approach to the Admissibility of Nontraditional Psychological Evidence in Criminal Cases*, 66

OR.L.REV. 19, 27 (1986)(discusses characteristics of novel psychological evidence)[hereinafter McCord]. In this respect, psychological evidence does not possess the same level of empirical data that traditional, laboratory tested scientific evidence possesses. *Id.* at 29. However, the widespread use of these syndromes and techniques indicate "wide spread acceptance" in the mental health field, based on a consensus that the methodologies used comport with the scientific method as applied to psychology. *See* AMERICAN PSYCHIATRIC ASSOCIATION, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS, xviii-xxi (4th ed. 1994)(describes methodology used to arrive at diagnostic criteria for mental disorders).

133. 1995 U.S. App. Lexis 12 (9th Cir, 1995).

134. *Id.* at *16, n. 5. This recognizes that evidence produced by the government for forensic purposes (such as a criminal trial) is not tainted by the motives of financial gain or partisan advocacy, but instead is designed to assist in the blind pursuit of justice.

135. *Id.* at *15-16 (emphasis added).

136. *Id.* at *18.

137. *Id.*

138. *See, e.g.*, United States v. Hill, 1994 CMR Lexis 240, *5-11 (A.C.C.A. Oct. 18, 1994).

139. 113 S.Ct. 2786, 2792 (1993).

140. *See* McCord, *supra* note 132, at 27-35. The author cites the following nine characteristics of non-traditional

psychological testimony which distinguishes it from more traditional hard science:

1. Comparison of an individual's behavior with that of others in similar circumstances;

2. Not offered on the issue of the defendant's sanity;

3. Scientific, but not "hard" scientific;

4. Not far removed from common understanding;

5. Injection of expert testimony where historically it has not been used;

6. Reflects directly on witness credibility;

7. Impact on the jury unknown but suspect;

8. Research findings in nonlegal sources; and

9. Cutoff point not easily established.

141. *See Gipson*, 24 M.J. 246, 251 (C.M.A. 1987). The second prong of *Gipson's* reliability analysis is balancing the possibility that "admitting the evidence would overwhelm, confuse, or mislead the jury."

142. *Daubert*, 113 S.Ct. at 2797.

143. *Id.* (emphasis added).

144. 35 F.3d 717, 744 (3d Cir. 1994).

145. *Id.* (citations omitted). *See also* United States v. Garcia, 40 M.J. 533 (A.F.C.M.R. 1994). *Garcia* is a clear example of what caused the Supreme Court's concern about outcome based analysis. This case involved a very tenuous eye witness identification. The defense proffered a highly qualified

forensic psychologist to impeach the reliability of the identification under the circumstances. The testimony was relevant to the effect of environmental factors on witness memory and identification, a field of testimony that has not been fruitful for the defense in military courts prior to the *Daubert* decision. *See, e.g.*, United States v. Hicks, 7 M.J. 561 (A.C.M.R. 1978), *pet. denied*, 7 M.J. 249 (C.M.A. 1979)(court disallowed the use of expert testimony to rebut validity of eyewitness identification). One of the grounds the judge cited in *Garcia* for strictly limiting and at times disallowing the testimony was the fact that

> [s]he found portions of Dr. Wills' testimony "a little bit incredulous (sic) sometimes" because it ran counter to what she believed was commonly true; his testimony about confidence versus accuracy would confuse and mislead members as he would attack "the whole system" police and courts use to identify suspects; and his testimony about the suggestibility of the line up was cumulative to the investigators testimony about not following standard procedures.

Garcia, 40 M.J. at 535. Applying *Daubert*, the A.F.C.M.R. found this outcome based analysis to be error. *Id.*

146. *Daubert*, 113 S.Ct. at 2785 (citations omitted).

147. FED.R.EVID. 401

148. *Daubert,* 113 S.Ct. at 2785.

149. *Id.* The Supreme Court stated:

Throughout, a judge assessing a proffer of expert scientific evidence under Rule 702 should also be mindful of other applicable rules. Rule 703 provides that expert opinions based on otherwise inadmissible hearsay are to be admitted only if the facts or data are "of a type reasonable relied upon by experts in the particular field in forming opinions or inferences upon the subject." Rule 706 allows the court at its discretion to procure the assistance of an expert of its own choosing. Finally, Rule 403 permits the exclusion of relevant evidence "if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury. . . ." Judge Weinstein has explained: "Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it. Because of this risk, the judge in weighing possible prejudice against probative force under Rule 403 of the present rules exercises more control over experts than over lay witnesses." (citations omitted)(omissions in original).

150. *Id.* at 2798.

151. *Id.*

152. 36 M.J. 392 (C.M.A. 1993), *cert. denied,* 114 S.Ct. 182 (1993).

153. *Id.* At trial, this case focused on the credibility of a 15 year neighbor of the accused after an allegation of rape. After the defense conducted a scathing cross examination of the complaining witness, the government offered the testimony of a civilian psychologist concerning the "rape trauma syndrome." This witness testified that the complaining witness' conduct was consistent with that of rape victims as a group. The defense did not mount a pretrial challenge to the reliability of the scientific evidence. During trial, the defense objected to the expert testimony based on "lack of foundation," which the C.M.A. construed to be an objection under Mil.R.Evid. 703 and 403. The court also determined to discuss the Mil.R.Evid. 702 implications of the testimony.

154. *Id.* at 397. In applying this framework, the court also established the standard of review at the appellate level, stating:

> In reviewing these factors, the standard on appeal is whether the military judge has abused his or her discretion. To establish this, the appellant must come "forward with conclusive argument" that there has been an abuse of discretion. As Judge Magruder once observed:

> "Abuse of discretion" is a phrase which sounds worse than it really is. All it need mean is that, when judicial action is taken in a discretionary matter, such action cannot be set aside by a reviewing court unless it has a definite and firm conviction that the court below committed a clear error of judgment in the conclusion it reached upon a weighing of the relevant factors. Magruder, J., THE NEW YORK LAW JOURNAL at 4, col. 2 (March 1, 1962), quoted in QUOTE IT II: A DICTIONARY OF LEGAL QUOTATIONS 2 (1988).

155. *See Johnson,* 35 M.J. at 21.

156. *See, e.g., id.* In *Johnson*, the military judge had limited the testimony of the expert to elements of "post traumatic stress disorder." *Id.* at 21. The testimony strayed into elements of the "Child Sexual Abuse Accommodation Syndrome," including a discussion of "family profile evidence" that the court ultimately deplored in the *Banks* case. *Id.* Although critical of this "profile" type of evidence and suggestive that its relevance was marginal at the best, C.M.A. does not find its admission to be plain error, despite the judge's prior ruling concerning its inadmissibility.

157. 35 M.J. 374 (C.M.A. 1992).

158. *Id.* In an appendix, the court quoted the entire

content of the expert's testimony. *Id.* at 377-378.

159. *Id.* at 376 (emphasis added)(citations omitted).

160. *See, e.g.,* U.S. v. Marrie, 39 M.J. 993 (A.F.C.M.R. 1994)(cites *Suarez* as authority to admit syndrome testimony); United States v. Garcia, 40 M.J. 533 (A.F.C.M.R. 1994)(finds theory behind eyewitness identification testimony to be "no more mysterious" than that sanctioned by *Suarez*); *Houser,* 36 M.J. at 398 (compare syndrome in that case to admissibility of syndrome in *Suarez); Banks,* 36 M.J. 150, 177 (C.M.A. 1992)(Cox, dissenting, cites *Suarez* as part of basis for his decision). This reliance on *Suarez* is surprising, because at best *Suarez* stands for the proposition that a sufficient challenge has not yet been mounted to allow the court to make a clear determination of its admissibility.

161. *Banks,* 36 M.J. at 160-161. *See also* Roland C. Summit, M.D., *The Child Sexual Abuse Accommodation Syndrome,* 7 CHILD ABUSE AND NEGLECT 177, 177-192 (postulates a five phase model concerning the incest victim, focusing specifically on the family dynamics which contribute to and compound the effects of the abuse on the victim).

162. *Id.*

163. *See Daubert,* 113 S.Ct. at 2794.

164. DAVID A. SALTZBURG, ET AL, MILITARY RULES OF EVIDENCE MANUAL 726 (3d ed. 1991)[hereinafter SALTZBURG, ET AL]. Under this interpretation of expertise, a graduate degree and substantial clinical experience are no longer required; rather, anybody whose

background and experience in a specific area exceeds that of the trier of fact could testify, so long as their testimony is helpful.

165. 22 M.J. 165 (C.M.A. 1986), *cert. denied,* 479 U.S. 953 (1986). This case involved the testimony of an Army CID agent about "blood spatter" evidence, a technique useful in reconstructing the dynamics of a crime scene. The witness had been trained in the application of the theory during an intensive one week course which involved lectures, readings of learned treatises, and experiments. The course concluded with a test, which the witness passed. He had no other training, nor was he a "scientist" in the sense of degrees, publications or experience.

The major premise for this testimony involved the physical sciences, and could be quantified and measured through experimentation. The premise was both verified and verifiable. The focus in this case was on the competency of the witness to apply the major premise to the facts of the case and thereby help the factfinder--no attack was mounted against the technique itself. Using the "three tiered" approach enunciated in the *Gipson* case, the methodology came closer to the first tier of "reliable, verifiable" science, such as x-rays and bullet ballistics, which have a solid scientific backing and objective methods of verification. The qualifications and skill of an "expert" becomes more significant as the subject matter moves further down into the second *Gipson* tier, where polygraph testimony and other "novel" scientific theories" lurk. *See*

Gipson, 24 M.J. at 249.

166. *Id.* at 167-168 (emphasis added)(bracket material in the original)(citations omitted). *See also* United States v. Stark, 30 M.J. 328 (C.M.A. 1990). In *Stark*, the defense objected, and the military judge conducted his own voir dire of the witness on his qualifications as a forensic psychologist, and found the testimony "helpful," even though the expert specialized in child credibility, not child abuse. The C.M.A., holding that the judge did not abuse his discretion, also found that the defense's cross examination was "nothing short of commendable," precisely one of the factors that the Supreme Court in *Daubert* noted would control protection of the trier of fact from shaky but admissible scientific evidence. *Daubert*, 113 S.Ct. at 2798. Although the examination engaged in by the judge came in response to defense objection, the type of analysis conducted is precisely what *Daubert* envisions.

167. 18 M.J. 172 (C.M.A. 1984).

168. *Id.* In *Snipes*, the judge did not conduct an explicit review of the reliability of the evidence, nor did he make a determination concerning the fit of the evidence to a particular issue in the case. In determining that the judge did not abuse his discretion in admitting the testimony, the court stated:

> The military judge has the discretion to decide whether there is a "specialized knowledge" that will assist him in understanding the evidence or determining the facts

in issue. Our review of the record discloses no abuse of that discretion by the judge when he permitted these witnesses to testify. *This is, of course, particularly true where there was no objection by defense counsel,* Mil.R.Evid. 103(a)(1), and where the military judge is the trier of fact.

Id. at 179 (emphasis added). Once again, the determination of the legal basis of reliability was governed, in large part, by the failure of defense counsel to object to the admissibility of the evidence.

169. *Id.* One tool counsel can use to develop an independent basis for introduction of Mil.R.Evid. 702 evidence is conducting voir dire concerning the lack of experience of the members in the area at issue. This establishes on the record a need for expert assistance in understanding the evidence.

170. *Id.* at 178-179. Although finding that the body of specialized knowledge is reliable is implicit in this analysis, the C.M.A. in *Snipes* held that defense failure to raise this issue resulted in waiver under Mil.R.Evid. 103.

171. *See Paoli,* 35 F.3d 717, 741 (3d. Cir. 1994). The Third Circuit held that, although they have attempted to avoid "imposing overly rigorous requirements of expertise and have been satisfied with more general qualifications," the "level of expertise may affect the reliability of the expert's opinion."

172. *See* MCM, *supra* note 1, MIL.R.EVID. 104(a), which states

that, in determining this issue, the judge is not bound by the rules of evidence. As the Ninth Circuit noted on remand of *Daubert*, the expert must be able to point to some learned treatise, statement of a professional organization, or other reliable source to show that the methodology used was valid, and properly applied to this case. 1995 U.S.App. Lexis 12, *17 (9th Cir. 1995).

173. *See Banks*, 36 M.J. at 167-168. This case represents the potential problems with an uncritical reliance on the proponent's proffer and opponent's objection. Here, the defense proffered their witness as an expert in "clinical psychology, therapy, child development, child sexual abuse, *and as a scientist*." *Id.* at 158 (emphasis added). Although the trial counsel conducted extensive voir dire of the witness' background and credentials, he did not object to the scope of the witness' expertise. The judge recognized him as an expert in these areas. *Id.* The result was a witness qualified to talk about the entire field of "science" that could be relevant to the case. Given this broad scope of expertise, the trial judge committed error in excluding any relevant scientific testimony from this witness. *Id.* at 168. Although, during a motion *in limine*, he had previously restricted the expert to psychological issues, the judge's subsequent broad recognition of the expert as a "scientist" effectively undercut this prior ruling. The government's failure to raise an objection to this broadened scope negated the effect of that prior ruling, and the judge's

uncritical acceptance of the defense proffer cemented the error. *Id.*

174. MCM, *supra* note 1, MIL.R.EVID. 703. In pre-Military Rules of Evidence practice, an expert frequently had no personal contact with the facts of the case; the expert would testify about the major premise behind the scientific theory, and then be asked an extensive "hypothetical" which contained all of the minor premise facts that had been or would be introduced into evidence. *Id.*, analysis, app. 22, at A22-45. The expert would respond with an opinion based on the hypothetical facts. All of the hypothetical facts must have been admitted into evidence at trial for the opinion to be admissible. At the conclusion of the case, the court would then instruct the members that the expert's opinion would have validity only if the facts in the hypothetical had been established during the course of the case.

175. *See* SALTZBURG, ET AL, *supra* note 164, at 738. The commentators discuss the methodology the judge should employ in determining what facts or data are reasonably relied upon by experts in a particular field in forming an opinion:

> To make the determination, the judge may consider: the testimony of the expert who is called; literature that is offered in support of, or in opposition to, the testimony; and testimony of other experts. When making the decision to admit or to exclude expert testimony, the judge is making a preliminary decision on an

evidence question that is covered by Rule 104(a) This means that *in a hearing on the evidence question* the judge is not bound by the Rules of Evidence other than the privilege rules; this signifies that the judge can consider hearsay testimony, which often may take the form of books, especially learned treatises.

This process contemplates a full blown evidentiary hearing involving judicial consideration of the testimony of multiple experts and the review of learned treatises. This hearing occurs outside of the presence of the members. The focus of this hearing is on whether it is reasonable for an expert to rely on the facts and data available in reaching their opinion in a particular case. The issue of the reliability of the theory and its "helpfulness" is also addressed. *Id. See also Daubert,* 113 S.Ct. at 2796.

176. 34 M.J. 233 (C.M.A. 1992).

177. 35 M.J. 337 (C.M.A. 1992).

178. *Stinson,* 34 M.J. at 238.

179. *Id.*

180. *Id.* at 235.

181. *Id.* at 236.

182. *Id.*

183. *Id.* at 239.

184. *Id.* at 241.

185. *King,* 35 M.J. at 340.

186. *Id.*

187. *Id.* at 342.

188. *Id.* at 343.

189. *Id.* On the specific issue of the Mil.R.Evid. 703 basis of the expert's testimony on sentencing, the court stated:

> People accused crime--as well as their alleged victims--are discrete individuals. It is not "only the name that changes." They are not some mosaic or composite of 20 or 30 years worth of other people. Counsel will do well to limit their witnesses to people who either have a basis for making generalizations that bear a rational relationship to issues in the case or who know something germane about the subject of a given court-martial. *Id.*

190. *See Gipson,* 24 M.J. 246, 251 (C.M.A. 1987). As the C.M.A. noted in *Gipson,* one of the key findings the court must make is the relationship between the offered scientific evidence and an issue in the case.

191. *Daubert*, 113 S.Ct. at 2795-2796.

192. MCM, *supra* note 1, MIL.R.EVID. 401.

193. *Id.*, MIL.R.EVID 402.

194. *Id.*, MIL.R.EVID 704.

195. *See* Summit, *supra* note 161. The effectiveness of the Chile Sexual Abuse Accommodation Syndrome model comes from its observation of victims over time and in different circumstances.

Once the data is compiled, a clear pattern emerges--one that includes unconvincing reporting and retraction. The usefulness of the syndrome is that it explains that a complaining witness' seemingly counter intuitive conduct is in fact the exact type of actions a victim will engage in under similar circumstances.

196. *See* MCM, *supra* note 1, MIL.R.EVID 704 analysis, app. 22, at A22-45.

197. 21 M.J. 59 (C.M.A. 1985).

198. MCM, *supra* note 1, MIL.R.EVID. 608(a).

199. 20 M.J. 758 (A.F.C.M.R. 1985).

200. *Cameron,* 21 M.J. 63 (citations omitted).

201. *Id.* at 64.

202. 20 M.J. 897 (A.C.M.R. 1985).

203. *Cameron,* 21 M.J. at 64-65 (emphasis added). The court proceeded to clarify its holding, stating:

> We do not suggest that all testimony concerning the effects of emotional trauma are inadmissible. For example, testimony that emotional trauma may caused lapses or inconsistencies in recollection may have been proper rebuttal evidence to show that the inconsistencies in recollection would have been proper rebuttal evidence . . . . As the Supreme Court of California has recognized, such testimony "may play a . . . useful role by disabusing the [court] of some widely held misconceptions about . . . victims, so that

it may evaluate the evidence free of the constraints of popular myths." Testimony of this type is relevant and may not be unduly prejudicial provided the testimony is couched in general terms and is not offered as a professional evaluation of the truthfulness of a witness. *Id.*

Syndrome testimony, such as that offered in the *Cameron* case, serves the purpose of explaining the impeached conduct of the complaining witness in a manner consistent with truthfulness. Under *Cameron,* it cannot be used as substantive evidence that the offense actually occurred, that the witness is actually suffering from the syndrome, or that the witness is telling the truth. Instead, an expert is permitted to testify that a witness' symptoms are "consistent" with the elements of a syndrome or other psychological diagnosis.

204. 26 M.J. 234 (C.M.A. 1988), *cert. denied*, 489 U.S. 1011 (1989).

205. *Id.* at 237.

206. 26 M.J. 260 (C.M.A. 1988).

207. *Id.* at 263.

208. 39 M.J. 288 (C.M.A. 1994).

209. 26 M.J. 269 (C.M.A. 1986).

210. *See Banks,* 36 M.J. at 162.

211. *Id.*

212. *Id.* (citations omitted).

213. *Id.* at 177.

214. 21 M.J. 363 (C.M.A. 1986).

215. *Id.* at 364. The relevance of this evidence was not made clear on the record at trial, although the government argued on appeal that it rebutted good military character evidence offered by the defense.

216. *Id.* at 365.

217. 25 M.J. 105 (C.M.A. 1987).

218. *Id.* at 106.

219. *Id.* at 107-108. The C.M.A. found that, if the evidence had been offered for purposes of attacking the character of the accused, then it was inadmissible. If, however, it was used as the Mil.R.Evid. 703 facts and data that are reasonably relied upon by experts in this field, then it was admissible. Regardless, a limiting instruction should have been given. In this case, no explicit reliability examination was conducted by the judge, the defense failed to object, and the determination of prejudice was predicated on the plain error standard.

220. *August,* 22 M.J. at 365.

221. 39 M.J. 288 (C.M.A. 1994).

222. *Id.* at 291.

223. *Id.* at 290.

224. *Suarez,* 35 M.J. at 375-376.

225. *Id.* at 376-77.

226. 35 M.J. 64 (C.M.A. 1992).

227. *Id.* at 65. The witness testified as follows:

> . . . the perpetrator in the instant case was "an organized individual, an individual that had planned and spent some time in the preparation of this crime." Also, in his "professional opinion,...the person that was responsible went there with sex and killing on his mind,: and had come with weapons. When asked about any relationships between the offender or offenders and the victims, Mr. Ray testified that there was "a manifestation of familiarity with the crime scene," and that he found "no evidence" of a second perpetrator. Mr. Ray opined that Debra Nichols was the "the targeted individual," although the perpetrator wanted both victims together. Finally, Mr. Ray testified that he believed that the perpetrator was "not going to attract unnecessary attention to himself, because he had a right to be there" and that he "had a safe place to go" after committing the crimes." *Id.*

228. *Id.* at 69.

229. *Id.* One distinguishing feature of *Meeks* is that the judge exercised his discretion in a motion founded upon an objection by counsel. He reviewed, via an offer of proof from the trial counsel, the evidence that was to be presented, plus a brief relation of the foundation of both the major and minor premises. In short, he considered reliability, appropriately limited the scope of the testimony to the issues he found relevant, and ensured that only this evidence came before the

court. Although the scrutiny of the judge here did not rise to the level envisioned by *Daubert*, at the minimum the judge developed an adequate record for review.

230. *See Banks*, 36 M.J. at 175-176. Concerning the lack of a clear definition of a profile, Judge Cox complained in his dissent that:

> The problem I have with the majority's approach is the apparent conclusion that scientific background testimony plus "corroboration" equals a "profile," and that "profiles" are generally evil per se. In so doing, the majority makes no allowance at all for standard "major premise" expert testimony. Indeed, it is precisely as used in this court-martial that all major premise expert testimony is received to assist factfinders in understanding scientific background, when such assistance will help the evaluate evidence before them. Thus a physician who has not examined a victim or plaintiff, but who describes characteristics of broken bones, would, under the majority's theory, be presenting profile testimony. . . .
>
> Contrary to the majority view, the testimony in the forgoing examples is generally admissible, not because a "profile" is or is not presented, but because the logical syllogism is valid. Merely labeling testimony as "profile," as the majority does, is no

answer. There is no rules of evidence defining "profile" evidence or delimiting its admissibility. the primary rule of evidence at play is simply Mil.R.Evid. 402, entitled, "Relevant evidence generally admissible; irrelevant evidence inadmissible." *Id.* 231. *See August, 22* M.J. at 365, n. 4. Judge Cox explained this method, stating:

> All trial participants should take care to insure that proper limits are placed on such evidence; that it is clear to the triers(s) of fact that the evidence goes to credibility rather than the ultimate issue of guilt. Of course, in cases of this sort where there is often a "one-on-one" situation, anything bolstering the credibility of one party inherently attacks the credibility of the other and by implication leads to a resolution of the ultimate question. Possible prejudice can be averted by recognizing the limited purposes of such evidence.

One of the most efficient methods of accomplishing this goal is to ensure that the independent duty of the judge in the area of scientific evidence is in fact fulfilled.