THE MILITARY CONTRACT DEFENSE
WHAT IT IS, AN UPDATE

By: Capt. M. P. "Pappy" Papadakis JD

Crash, Burn, and Die for your Government Contractor

On March 31, 1995, a breath of understanding and life was infused into the cadaver of military contractor litigation. For the second time since Judge Scalia provided an umbrella of immunity for contractors who build equipment in accordance with reasonably precise design specifications that were approved by the government, a Federal Judge has taken the time to comprehend the United States Government's procurement procedures in order to render a correct opinion in line with the guidelines of both Scalia in *Boyle* and Higgonbotham in *Trevino*.

Judge Orinda Evans of the United States District Court, Northern District of Georgia, ruled in favor of plaintiff's in the military contract case *Gray v. Lockheed Aeronautical Systems*, civil number 1:91 cv 2399 ode. (Later upheld by the 11th Circuit appellate court) The case was initiated by widows of a crash at sea, where navy servicemen were killed as a result of flight control defects. The aircraft, a Navy S3, was designed and built by Lockheed for usage by the navy as an anti-submarine carrier based aircraft.

For the most part, the aircraft had been designed and built under a full scale development program initiated by the Navy. The contracts went through a multitude of phases ranging from research and development, mockup prototype, flight testing, and production. A large portion of the aircraft's design and development had been overseen by the military. The design of the flight control hydraulic actuators had been subcontracted out, while Lockheed maintained responsibility and approval authority for them. Judge Evans was quick to reason that there had been no contract with the government, that there was no government oversight of the aileron servo, and no approval by the government sufficient to trigger immunity.

Judge Evans followed *Boyle v. United Technologies Corp.*, 487 U.S. 500 1988 in recognizing that for there to be a contract defense there must have been more than a close working relationship between the government and the contractor. To satisfy *Boyle* there must be conformance with a reasonably precise set of specifications referring to the particular feature of the product claimed to be defective.

In this case, it was shown through testimony that the aileron servo was subcontracted to another company, and that defendant company maintained a large amount of control with little Navy involvement. There was no evidence that the Navy

ever reviewed and approved specific engineering drawings. Defendant introduced an Equipment Specification, Power Servos, Primary Flight Controls that the court found neither, timely or detailed enough to be considered reasonably precise specifications.

The court found that there was no evidence that the Navy had ever reviewed and approved specific engineering drawings, and even though the Navy did conduct overall acceptance reviews and audits of the aircraft that these with regards to the servo were mere rubber stamps. These rubber stamp audits were insufficient to trigger immunity.

The court even went further in denying any contract defense to the defendant. The court held that if the sole document that Lockheed entered as evidence of a the existence of a reasonably precise set of specifications were indeed specifications, (something the court had rejected earlier in her findings of fact and law), then Lockheed failed to insure that the aileron servo was built in conformance with those general equipment specifications.

This new ruling makes sense of what Justice Scalia tried to say in inappropriate terminology and language in the vague and often misunderstood Boyle holding of 1989.

On June 19th 1989, Justice of the Supreme Court Antonin Scalia penned the opinion Boyle vs United Technologies, 487 US 500, 108 S. Ct. 2510) and "proved once again that the court always does its worst work just before summer vacation" (an alleged quote of a disgusted dissenting supreme court justice).

Scalia and concurring justices leapt into the kitchen as chefs for contractor immunity. The military industrial complex provided the recipe. The defense was served topped with high sounding verbiage such as, "the procurement of equipment by the United States is an area of uniquely federal interest" and garnished that by stating in paraphrase that "the independent contractor performing it's obligation under a procurement contract has the same interest in getting the Government works done."

Of course this is not true. The defense contractor serves his stockholders with profit as her motive. Such can not be said about the government. In the perverted sense the military industrial complex, that exists for profit motives, was anointed with higher purposes by the court.

No one doubts for a second that the military man serves his country and may be expected to give his live in that service. Nowhere in the recruiting posters does it say that a military man is supposed to become a headstone in the cemetery of engineering mistake and defect, especially in peacetime.

The Contrary is true. The Navy Fliers' Creed states:

"I am a United States Navy Flyer. My countrymen built the best airplane in the world and entrusted it to me. They trained me to fly it, I will use it to the absolute limit of my power".

Worse, it is obvious that the law clerks that actually caucused and chose the Boyle wording were for the most part clueless as to military procurement procedures or else the wording in Boyle would have been ever so simplified. Under Boyle State tort law is displaced; immunity applies if it can be shown:

"a. The United States Government approved reasonably precise specifications.

b. The equipment conformed to those specifications; and

c. The supplier warned the United States about dangers in the use of the equipment known to the supplier but not the United States. pp. 2513."

The defense is an affirmative defense available for the contractor to plead, and with whom the burden of proof rests. The major problem with the contractor defense, as written by Scalia, is the fact that reasonably precise specification is not defined nor is the scope of the word government approval. Scalia's vagueness of wording and meaning made entry into the military product litigation arena a minefield of uncertainty and contradiction.

1. Did Scalia mean that a sophisticated product accompanied by reasonably precise specifications deserved immunity even if the defect complained about were not described in those specifications?

By example, he seemed to suggest that a product whose specifications are silent in the area of the defect complained of should not have federal preemption overrule state tort law and impose an immunity.

"If for example, the United States contracts for the purchase and installation of an air conditioner, specifying the cooling capacity, but not the precise manner of construction, the state law imposing upon the manufacturer of such units a duty of care to include a certain safety feature would not be a duty identical to anything promised the Government, but neither would it be contrary. The contractor could comply with both its contractual obligations and the state prescribed duty of care. No one suggests that state law would generally be

preempted in this context."

2. Did Scalia deem a level of approval sufficient to warrant immunity for the widget design?

The court further justifies its holding by stating that if elements one and two of the defense are met then the discretionary function of the Government has been shown sufficient to frustrate suits against the manufacturer. The court then states that such a discretionary function must be specific enough to consider the design feature in question and the approval must have resulted from a Government officer and not from the contractor itself. One surmises he meant a Government officer with sufficient stature to be endowed with approval authority and the ability to exercise a discretionary function. A Gs 4 janitor probably would not suffice anymore than a employee of the manufacturer.

> *"The first two of these conditions assure that the suit is within the area where the policy of the discretionary function" would be frustrated, i.e., they assure that the design feature in question was considered by a Government officer, and not merely by the contractor itself."*

3. Did Scalia intend to give immunity only to products designed and developed for specific military purposes, or was his purpose to immunize all products procured by the military including off the shelf items?

If one believes that the court meant that a" Federal Procurement officer purchasing stock equipments by model number" is the same as the Government purchasing an already designed off the shelf item, then it may be the courts intention to withhold immunity for such a procurement since it would appear that the government had no significant interest in any particular design feature of the widget.

> *"If for example, a federal procurement officer orders, by model number, a quantity of stock helicopters that happen to be equipped with escape hatches opening outward, it is impossible to say that the Government has a significant interest in that particular feature. That would be scarcely more reasonable than saying that a private individual who orders a craft by model number can not sue for the manufacturers negligence because he got precisely what he ordered."*

The court discarded older contractor defense rulings that relied on Feres Doctrine applications stating that imposing a Feres application would be too broad. In this paragraph he again seems to say that an off the shelf item deserves no immunity.

" Too broad, because if the Government contractor defense is to prohibit suit against the manufacturer whenever Feres would prevent suit against the government, then even injuries caused to military personnel by a helicopter purchased from stock (in the example above), or by any standard equipment purchased by the Government, would be covered. [Immune from liability].

The worst part of Scalia's difficult to decipher message was that it was so misunderstood by the dissent team. Their blistering rebuttal to Scalia's reasoned, but poorly written holding, unleashed the doomsayers in interpreting Scalia's meaning to far greater extent than it appears he had intended. It is entirely possible that the dissent did more harm than the holding, since everyone, including other uninformed justices, subsequently turned the original holding into the self fulfilling prophecy of the dissent.

Only the 5th Circuit in Trevino was able to cut the fog and reach the substance of Boyle. Simply stated, Scalia wanted to bestow immunity on a Government manufacturer who, in designing a product, was essentially doing that which the Government in its discretion had understood and deemed appropriate.

To understand what the true interpretation of *Boyle v. United Technology* was meant to be, one must first understand military procurement procedures.

Generally speaking, the Government contracts for the purchase of hardware by three general methods:

1. A full scale development of a new military product.

2. Off the shelf items that are to be extensively modified for military usage.

3. Off the shelf items.

An attorney must arm himself with the recent copy of the **FARs** (Federal Acquisition Regulations) and **DLARs** (Defense Acquisition Regulations) which precisely regulate government and defense procurement. These regulations may be purchased through the Government bookstores of the Government Printing Office. It may be ordered in Macintosh or CD Rom format at a nominal cost. These regulations define responsibilities and define terms utilized in Government contracting. It is clear that very few federal judges feel it necessary to be knowledgeable about the precise contractual requirements for federal procurement. My bet is that very few have ever cracked a page.

These rules state quite specifically who can approve or change contract requirements and technical specifications. Generally speaking, only the Contracting

Officer can approve or change specification. The Contracting Representative and specified Contract Office Technical Representatives do not have the power to change contract requirements or change specifications unless approved by the Contracting Officer. It is the Contracting Officer who is empowered to grant waivers and deviations. These are the persons empowered with the Government's discretionary power, with regard to military contracting. [This is probably who Scalia meant when he said " A Federal Government Procurement Officer".]

> *"The Contracting officer's Technical Representative or Technical Officer has been designated by the Contracting Officer (CO) as having primary responsibility for overseeing the Contractor's performance. A letter of designation specifies the C.O.T.R.'s duties . . . . The COTR also determines whether contract deliverables meet functional, technical and performance specifications. . . . The COTR is the Technical advisor to the CO for all aspects of contract administration, but must request changes to the contract through the CO." (Ch. 2 paragraphs 1 and 2)*

Historically, [prior to DOD secretary McNamara] each service contracted independently, utilizing methods differing between services and differing between contracts. The disorganized contracting, tailored to the specific needs was efficient in one way and a fiscal nightmare in others. The non uniformity created bookkeeping and cost accounting methods that were different enough that contract control and cost control was difficult to achieve. Contract comparison was difficult.

A reasonable way to get a handle on contract administration [as between services] was to standardize the contracting procedure, accounting procedure, and contract control throughout DOD. The prime interest was to achieve a definable goal, in a acceptably technically efficient manner, at the lowest total cost possible. Thus, cost efficient contracting was born. Another goal was to stem the consistent cost overruns that were so typical in military - industry contracting.

To achieve these goals, cost control and scheduling control became the focus of management oriented contracting. It was understood that most development contracts would differ as to technical objective. The essence of controlling costs was to segment the contract into manageable and logical control units called **Phases** and subdivided internally into **Milestones**. The purpose of subdividing a large contract into several Phases and further into dozens or hundreds of milestone is multipurpose:

1. To schedule and plan out time lines for accomplishment of the individual portions of the contract. [Phases and milestones]

2. To cost apportion the contract. "Payment upon milestone or phase completion."

3. To create logical phase intervals, where continuation of the contract may be contingent on success of the previous phase. [Substantial dispute resolutions and contractual changes may logically occur at these junctures].

4. To create a logical subdivision of work tasks, so the government can readily sense and control contract progress.

By subdividing large contracts into small phases and milestones the Contracting Officer and the Contracting Representative can keep track of contract pricing and progress, and to an extent, control the contract process.

There are two basic examples of how to monitor a large contract:

First: The Procurement Contract -- The Government example for a purchase or production run for 10,000 widget over 5 years would be to simply create lot sizes for delivery of 1,000 widget every 6 months. [Successful completion of a lot, initiates a payment and schedules a follow on lot if everything else is satisfied.]

Second: The Development Contract -- Logical subdivisions into milestones are created that may include research and development reviews, logical progress reviews, technical development accomplishment, time line compliance, engineering data submission and compliance, control drawing submissions etc. (Submission of documents for the government may be to simply fulfill a contract data requirement of an individual milestone). Such a transfer of documents may or may not require governmental review or approval beyond simple receipt. On the other hand, such a transference of documents and final engineering work may have undergone a very thorough review and approval process by the Government.

There can be a major difference between acceptance and actual approval that Judge Higgenbotham understood in *Trevino*. With regard to most military contracts, these reasonably precise specifications and engineering support documents may be approved at some depth varying from automatic acceptance, rubber stamp review, to a thorough review resulting in approval.

In *Trevino v. General Dynamics*, 865 F.2d 1474, the learned Judge of the 5th Circuit Judge Higgonbotham suggests that for immunity to exist it is the manufacturers burden to show that design approval by the military consisted of more than a Rubber Stamp review.

" We hold that "approval" under the Boyle defense requires more than a rubber stamp….When the government merely accepts, without any substantive review or evaluation, the decisions made by a government contractor, then the contractor, not the government, is exercising discretion. A rubber stamp is not discretionary function; therefore, a rubber stamp is not approval under Boyle."

In *Trevino*, the government must actually exercise it's discretion over the specific design features to meet the first element of the Boyle defense. To wit: The Government approved reasonably precise specifications. The defense applies only when the Government uses its discretion in choosing a specific design feature.

In the *Trevino* holding the manufacturer does not meet the burden of the first element of Boyle when:

1. When it buys a product designed by a private manufacturer (off the shelf items).

2. When the Government leaves critical design feature decisions to the manufacturer. (Silence as to a design feature).

or

3. When the Government issues only concept requirements and general standards while the actual design features are left to the manufacturer.

"...The Government exercises its discretion over the design when it actually chooses a design feature. The government delegates the design discretion when it buys a product designed by a private manufacturer; when it contracts for the design of a product or a feature of a product, leaving the critical design decisions to the private contractor; or when it contracts out the design of a concept generated by the government, requiring only that the final design satisfy minimal or general standards established by the government."

The implication is clear that for immunity to exist it should be shown that reasonably precise design specifications were sufficiently reviewed by an Government offices with approval authority. A continuous back and forth dialogue between manufacturer and the Government's approval authority would suffice to show approval, but a rubber stamp would not.

Perhaps most importantly, once the Government has relinquished or transferred

its design discretion to the contractor that discretion remains with the contractor and does not revert back to the Government even if the Government retains the right of "final approval" or even an approval of a specific design without a substantive review or evaluation of the design features.

The question to be decided by the tier of fact is. Who exercised actual discretion over the design feature that is defective? If it was the Government, by virtue of an sufficient substantive approval, other than a rubber stamp, then the contractor deserves immunity.

> *"The requirement that the specifications be precise means that all significant details and critical design choices will be exercised by the government"*

In the *Kleeman vs. McDonnel Douglas Corporation*, 890 F.2d 698 the waters were muddied since the fact situation included a product that had clearly resulted from a full scale development program. Further, in this case, a series of developments relating to the defective landing gear occurred years subsequent to the original design. The original design had been approved. In fact, later the navy issued a notice of defect, concerning the original landing gear design. Such a notice suggests that the original design had failed to meet original contract requirements! Never the less the court still granted immunity, since at the time of design the government believed the gear design conformed to the then in effect precise specifications.

> *"It is a salient fact of governmental participation in the various stages of the aircraft's development that establishes the contractor defense. Indeed, active governmental oversight is relevant to all three elements of the defendant's burden. Where as here, the Navy was intimately involved at various stages of the design and development process, the required governmental approval of the alleged design defect is more likely to be made out."*

The court extends the contractor defense beyond the design of the original aircraft to include post development and post production events. In the court's wording the implication is clear that he would give post design modifications immunity as well, for so long as the modifications were conducted sufficient to meet the Boyle tests.

> *"The ultimate design of the product is determined not only by the original procurement specifications and contract specifications, but also by specific engineering analysis developed during the actual production process."*

The basic theory is that the Government exercised its discretion in choosing specific design features and thereby exercised a semblance of design control over the

manufacturer. It is a variant of the old defense "It ain't my fault, he made me do it".

The ultimate extension of Boyle to the absurd takes place in *Harduvel vs. General Dynamics*, 878 F.2d 1311 where the court took the greatest liberties with the evidence in creating a defense for a military product. The court actually changed the nature of defect to design defect from a series (a multitude) of manufacturing flaws. The defendant had testified that it had no design problems only manufacturing problems and the plaintiff's had introduced many instances of wire chaffing in F-16 aircraft. The plaintiff had introduced evidence of sharp edges, wrong connectors, and oversized screws that would and had cut insulation. Still the learned judge enlarged the immunity with missionary zeal.

> *"If a defect is one inherent in the product or the system the Government has approved it will be covered by the defense. Where a defect is an instance of shoddy workmanship, it implicates no federal interest. This distinction between "aberrational" defects and defects occurring through an entire line of products is frequently used in tort law to separate defects of manufacture from those of design."*

Even worse, in *Lewis v. Babcock, McDonnell Douglas Corp. & General Dynamics*, 985 F2d.83, the court held that a continued usage by the military of a defective component in an F-111 aircraft was enough to trigger the contract defense. The Court reasoned that since the Air Force later learned of the defect and continued using the defective part, even re ordering and installing a second one after the first was recognized defective, that this reordering was sufficient to trigger the defense. The original design had been approved as well.

> *"We hold that when the government reordered the specific Babcock cable, with knowledge of its alleged design defect, the Government approved reasonably precise specifications for that product such that the manufacturer qualifies for the military contractor defense for any defects in the design of that product."*

> *"We do not decide whether the contractor can invoke the military contractor defense where the Government merely tolerates a defect through continued usage of a product in the face of knowledge of a design defect acquired after the design stage ended....."*

This fact situation and result was not contemplated in Boyle, and it is highly speculative if this is the result desired by Scalia. There may be some justification in the result, however, since it is true that a manufacturer of the product can not unilaterally

change or modify the product subsequent to it's delivery to the military. Only the military can change the form, fit or function after delivery. If the result is justified, it is realistically because the military used its discretionary function to assume the risk of usage of a known defective product, and therefore, it was Government negligence that was the 100 % real cause of the accident. The result would be the same since the soldier would be barred from recovering under the Feres Doctrine.

The Contractor defense has nothing to do with national defense or national security. What judge can say that national security or defense is enhanced by killing a soldier or losing an expensive piece of military hardware due to defect in peacetime. I suggest a thinking judge, a defense bar or a plaintiff bar would suggest that military readiness, national security and military morale is enhanced by defect free products. Military morale is heightened by a Effective and reliable product that works good and lasts a long time. Contractor morale is attached to the profit their company makes. Military jet aircraft that have earned the nicknames, "Ensign Eater, Widow Maker, and Lawn Dart" are not in the national interest unless filling our national cemeteries are a priority.

Morale is never good during a missing man fly over at a military burial service. No judge can believe that national interest was served as the B-1 bomber sat out Desert Storm because of design problems. Perhaps, discipline is served when we force an ensign to fly a defective aircraft. I remember that we called that sort of mission a "C.B." or character builder. I guess that was what was meant by the phrase, "You buy your ticket, and you take your chances."

A Generic Examination of Military Contracting Procedures

The military Contractors may buy hardware in three manners.

1. By **Full Scale Development (F.S.D.)** of a totally new product.
2. By extensive modification of an existing product.
3. By off the shelf purchases of a existing product.

The Full Scale Development program for a new aircraft starts in the following manner:

The Government negotiates and funds a **Full Scale Development Contract** with several phases for the development and initial production of the new aircraft. In a Full Scale Development situation the **Development Plan** is usually divided into logical phases or subsections, for the purpose of this example they are:

A Contracting Officer is designated in writing. The location of the Contract Office is determined. Technical Representatives of the Contracting Officer are designated. An

overall Military Program Manager is named. The Development Plan, created by the manufacturer and approved by the military is usually reduced into a Program Manager's Master Notebook. It is within this Development Plan and Master Notebook that core elements of the contract defense may be found, such as:

1. Who will do the work?
2. When the work is to be completed.
3. What the cost and funding procedures are.
4. Milestones and milestone reviews.
5. Document genesis, and requirements.
6. Testing requirements.
7. Acceptance or Approval requirements.
8. Subcontract requirements and status.

Typical Divisions of a Full Scale Aircraft Development Program include, but are not limited to :

PHASE I. Development phase for engineering R. and D. studies
PHASE II. Development phase in test and mock up.
PHASE III. Development phase demonstration and flight testing.
PHASE IV. Production phase.

It is during the Full Scale Development phase [phase I.] that most design work is accomplished. Most final controlling specifications for subcomponent and component parts are decided upon and memorialized in writing.

Milestones are utilized to schedule and track design events. Basically, a milestone is a logical scheduling system that suggests dates certain events are to be completed. Milestones are utilized in the procurement funding portion of a military contract to signify completion of an event to initiate transfer of money from the Government to the contractor. Milestones are primarily scheduling and accounting devices tied to engineering progress. **MILESTONE REVIEWS** are regularly conducted by the governmental Contracting Officer or his Representative to insure that the project is on schedule and that funding transfers from the Government to the manufacturer is warranted. These may include other technical reviews, but generally they are not held for the purpose of technical approval.

During the development phase [PHASE I.] the **PRIME MANUFACTURER** will see the need to purchase or design items for installation and usage on the new aircraft. He may do this in several ways:

1. The Government may order the prime manufacturer to utilize certain items already in the inventory or supply system. These Items are called

G.F.E. or **G.F.A.E.** standing for government furnished equipment or aeronautical equipment. No new specifications are written.

2. The Prime may purchase certain items as off the shelf items, if they appear as an item on a **Government Approved List**. There is no qualification or verification required.

3. The Prime may approach a **SUBCONTRACTOR** to design and supply a new subcomponent part. In some cases the Prime must obtain permission from the Government to approach a subcontractor, in other cases permission is not needed. In either case the process is called **PRIME ITEM DEVELOPMENT (P.I.D.)**. The prime contractor will issue preliminary specifications, milestones, testing and verification requirements that the subcontractor must meet. The Prime manufacturer oversees the progress of the subcontractor much as the government oversees the prime.

In the P.I.D. case the subcontractor will provide demonstration of the new widget to the prime through analysis, testing, and verification and qualification demonstrations. Further, the subcontractor will submit a **Final Specification** to the Prime manufacturer for the design of the new widget. It (the Final Specification) will reference compliance with all required previous specifications or it will include exceptions thereto).

In some cases of subcomponent development the government may participate in a **First Article Testing and/or Configuration Audit** of a subcomponent designed through a C.I.D. or a S.I.D. process. [This configuration audit settles what configuration the final item will take as it is subsequently procured]. The Prime Contractor is the usual approving authority for the Final Specification of a subcontractor's part or component.

4. The prime contractor may undertake to develop a new component in house. In such case he will act a specification writer and verification and testing as well as approval authority. The prime manufacturer is responsible to meeting the Government's specifications and milestones.

As the Development- R. and D. phase nears completion [PHASE I.] The prime manufacturer has received and approved hundreds of such subcomponent final specifications supported by engineering and test verification data. The prime is usually the approving authority for the subcontractor with little or no Government involvement therein, unless of course the development was done under a C.I.D., then the government is the approval authority.

During this time each such subcontractor and the prime are creating technical supporting and compliance and verification documents that may be required by the original Government contract or by the myriad of subcontracts. The documents that

are required are listed on an attachment to the contract known as a Contract Data Requirement Listing,(C.D.R.L.) or in the case of a subcontract The Subcontractor Data Requirement List(S.D.R.L.)

So far we have shown great latitude of design to the manufacturer and little governmental interference. The subcontractors have received their approval (of P.I.D.S.) from the prime contractor.

As the development phase moves into system and aircraft mockup [PHASE II.] the final product is beginning to emerge in hardware form. The prime contractor has to show the government that its design is jelling into a workable system. The prime contractor is in the spotlight to demonstrate that its design will meet the Government's contract requirements.

Throughout the entire development phases the Government may and usually does conduct **Design Reviews**, **Critical Design Reviews**, and **Safety Reviews** of the prime contractor. The Government may conduct **unannounced inspections** of the prime or subcontractor at any time. When problems arise in design areas special Government attention may be triggered in the form of independent review team creation.

During Phase II. the contractor is demonstrating system integration to the government
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In PHASE III., as the final aircraft design evolves and is settled upon during flight testing, almost all the specification writing is complete except for the final specification for the purchase of the aircraft. During Production test (where first the company and later military test pilots fly the final product) many problems are found and corrected. The aircraft is tested to see conformance to performance requirements and specifications. In this time it is usual for a military “Inspection Board " (given differing names by the services) to verify performance and other specifications.

If these tests are satisfactory and the Government wants to mass produce the machine it will begin to move toward the **PRODUCTION PHASE** (PHASE IV).

At this point almost all the data has been collected sufficient to write a complete and comprehensive “reasonably precise " specification for the final configuration of the finished aircraft. One-step remains in which the Government is very deeply involved, that is the creation of the **"Configuration Audit"**. The Government may have been presented several design options and a multitude of installed equipment options to be installed on the air vehicle. This is like going to the automobile dealer and special ordering your car with a number of special options. The Configuration Audit essentially **baseline** the aircraft and all aircraft produced under the **production phase contract** [PHASE IV] must be delivered identical to the one specified. The manufacturer can't

change the design of the aircraft if such change effects **form, fit or function without** future Government approval. After such an audit is complete the Contractor writes a **FINAL SPECIFICATION** for the specific aircraft and forwards it to the government. It references other specifications, MilSpec, and milstd. that have been complied with.

What makes up the **Final Phase Four Procurement Contract** of such an aircraft? Usually it is the Contract itself, the Final Specification, the configuration audit, a set of control drawings, a contract data requirement list, a listing of deviations, waivers and exceptions to design specifications. (Such a listing notifies the government that during the development phases some of the original goals or specifications could not be met.)

After production has begun each aircraft is inspected and test flown as it comes off the line. After such an Acceptance Flight Test a form **DD2050** is signed by the government plant representative to take possession of the aircraft. The acceptance also triggers funding to the manufacturer for delivery of the aircraft. This document is signed by a Government underling who has the power to take possession of an aircraft that has not met the configuration audit. The military signer of the DD 2050 does not have local authority or discretionary function sufficient to waive design specifications. This is reserved for a **CONTRACTING OFFICER (CO)**.

Subsequent to delivery of the aircraft the only way changes can be made by the manufacturer are through **ENGINEERING CHANGE PROPOSALS** that must be approved by the Contracting Officer (CO) and funded by the government.

Or

Through **Notice of Deficiency** which means that the Government has found that the manufacturer did not meet the original design specifications and so the manufacturer must fix the design at no cost to the government.

Besides the Program Manager's Master Notebook and the Development Plan, the most important document utilized to determine whether there has been a true governmental review and approval process is the **Contract Data Requirements Lists (C.D.R.L.)** this listing specifies what document submissions, reports and control drawings are to be submitted to the Government. The submission of such reports does not definitely mean that the government conducted the substantive review of those documents. It is proof, however, that certain documents were supposed to be turned over to the Government as part of the contract. These documents are certainly some evidence of governmental review.

When is a Specification a Reasonably Precise Specification?

During design and development of a new product, it is incumbent upon the designer to

meet certain design specifications, requirements and criteria. When the design is done and the product is complete, a set of documents will have been created that in combination make up the final specifications for the product. The final design specifications have gradually changed from the initial contract requirements and specifications.

The original R. and D. development phase contract between the Government and the contractor will include normal contractual language and requirements to be performed. The contract will usually include detailed and complete recitation of the work to be completed. It will include a section stating which Design Handbook criteria, military standards and military specifications are to be followed and met. It may include specialized preliminary design or equipment specifications for the system. It will include a Contract Data and Demonstration List (C.D.R.L.) of engineering data to be produced as well as a listing of engineering testing to be demonstrated. It will state what requirements **shall** be met and which items are to be reviewed and approved by the Government.

At the point in time of the signing of the development contract all such specifications and requirements that are included by reference are mandatory and they define the contract.

As the development proceeds, the manufacturer is given design latitude as how to accomplish these goals and requirements. If the manufacturer can not attain the requirements or specifications (those that **shall** be met), it is incumbent on the manufacturer to notify the Government of the impossibility in a timely fashion. When such requirements cannot be met, the manufacturer applies for a deviation or a waiver (occasionally misnamed an exception). The difference between a deviation and a waiver is that a deviation represents a temporary situation whereas a waiver is a permanent release from meeting a specification or contract requirement.

As the contract progresses to hardware stage it is usual for the contractor to be required to write an extremely complete finished product specification (end product specification) for the newly developed item. It is also usual to supply the Government with complete set of microfiche control drawings (blueprints), sufficient to build the end product. Often the contract will include a licensing agreement. Further, the contract will state what engineering reports, analysis, and testing verification reports an demonstrations must be supplied the Government to fulfill the Work Requirements and Contract Data Requirements portions of the contract. This procedure may or not require actual governmental approval of any of these items.

Such a developmental protocol will almost undeniably result in the Government's receipt of many reasonably precise engineering documents. Such a protocol will result in transmittal of documents from the manufacturer to the Government. From the

aspect of Military Contract Legal Defense, such a protocol may or may not constitute approval by the government of reasonably precise design specifications. This aspect can only be determined by the amount of governmental review conducted for the purpose of design approval by the Government.

In many instances the design is left to the manufacturer and actual approval of the system is also left to the manufacturer. This is especially true for subcomponent parts of a system that were obtained through prime item specification controlled by the manufacturer and not the Government.

From a legal aspect, the question of whether or not a manufacturer deserves immunity for a new design is determined by how much interface there was between the manufacturer and the Government concerning the issue of actual governmental approval of the manufacturer's product.

CONCLUSION

In products liability or negligence case against a designer or builder of a defective military product the plaintiff may still prevail if he can show that:

1. The design defect complained about was not actually covered by reasonably precise design specifications approved by the Government.

2. The design defect complained about was actually violative of the reasonably precise design specifications.

3. The approval of the design defect by the Government was only a rubber stamp of reasonably precise design specifications.

4. The approval of the design specifications came about as a result of fraud, deception or misrepresentation. (Cheating on verification and qualification testing) Here plaintiff might attempt R.I.C.O., Whistleblower, 402b actions as well as standard product causes. (There is no Contract defense to RICO or WHISTLEBLOWER)

5. The product failed to comply with reasonably precise specifications. (the classic manufacturing defect)

6. The manufacturer concealed a defect from the Government that the Government didn't otherwise know about.

7. In full-scale development programs many subcomponents have had little or no scrutiny by the Government. Many times the approval of the

subcomponent was made entirely by the manufacturer and not the Government. Therefore there may be no approval of specific design features by the Government.

8. In off the shelf purchases the manufacturer draws up a set of specifications describing a already designed product. In many instances the Government conducts no reviews or minimal reviews insufficient to warrant immunity since the reviews were mere rubber stamps.

A military Contract case is a difficult and costly case to prepare, but not all military cases should be turned down simply because they are difficult. The fact that the law is open to many interpretations and the fact that many facets of a military products design phase undergo various amount of Government scrutiny makes a military case equally difficult for the defense bar to evaluate. [Remember it is an affirmative defense and the burden of proof rests with the manufacturer claiming it] The defense bar will always attempt to persuade the plaintiff and the court that they are deserving of a contractor defense, while the fact situation may not support such an assertion. For a plaintiff to have a chance to prevail in this litigation arena the only way to move forward is to discover precisely what documents and evidence exists to support the defendant in his assertion of his affirmative military contract defense. Every effort of the plaintiff should be concentrated in discovering what the defendant relies upon to prove up facts that would show that the government used its discretionary function while approving reasonably precise design specifications. The plaintiffs first set of discovery documents should smoke out all aspects of a potential contractor defense. Once the plaintiff is apprised of the evidence in support of a contract defense she can evaluate the probabilities of prevailing in view of the recent holding.

GLOSSARY OF MILITARY AND GOVERNMENT CONTRACTING TERMINOLOGY

The terms utilized here comprise names given to specific varieties of documents that are in widespread and common usage throughout the military aviation industry. The precise and current names and definitions must be ascertained within the context of each individual case since the terminology may change slightly with time and in some cases with each manufacturer.

***Aircraft Audit (configuration audit)** : Should a development of a new aircraft be successful,*
and should procurement of many such aircraft be planned the development aircraft will undergo an audit. This audit specifies exactly what each subsequent aircraft will be equipped with and what specification it will be built to.

***Aircraft baseline:** When the configuration audit is complete the aircraft is said to be base lined. All aircraft subsequently built and delivered will be identical to the*

baseline aircraft. From this point forward the manufacturer can do nothing to change the form, fit or function of the baseline aircraft without first obtaining government permission.

***Bidder** : An entity that responds to a Government request for sealed bids.*

***C.I.D.S.** Critical Item Development Specification: This is a specification for the design and development of a new and required item not contemplated in the original contract, usually issued by the government.*

***C.D.R.L.** Contract Data Requirement List: This is a list made part of a government contract that delineates data submission requirements.*

***C.O.D. A Correction of Defect or Deficiency** is a descriptive title for the actual Technical Order that in fact orders the change implemented. It is usual to see words to the effect. "This is a Correction of Deficiency Technical Order. PURPOSE: "This Technical Order was needed in order to bring the aircraft into compliance with contract specification ---------paragraph--------"*

***CHANGE ORDERS** : A written order, signed by the Contracting Officer, directing the contractor to make a change that the Change Clause authorizes.*

***Company Final Compliance Documents**: These are the documents required of the manufacturer by the government in a military contract that the contractor must supply to the military in accordance with the provisions of the contract. They signify completion of milestones and completion of requirements. In total these documents and the final specification when completed and approved by the government make up the basis of saying the military manufacturer has gained the approval of the military for a reasonably precise set of specifications.*

***Company witnessed verification tests**: Often these are called for within the contract. In the military case the military often is a viewer of certain compliance tests. The current contracting rules allow that the military can watch any test it wishes to unannounced. With regard to a sub manufacturer, the prime contractor may be the only witness to their required tests although again the government can watch any test it wants to.*

***Contract Administration**: Management of the contract to ensure that the Government receives the product specified within established costs and schedules.*

***Contracting Officer**: (CO) : A person with the authority to enter into, to administer and /or terminate contracts. He has approval authority.*

Contracting Officer's Technical Representative (COTR) *: An individual to whom the CO delegates certain contract administration responsibilities, usually related to technical acceptance issues.*

A Configuration Audit*: A formalized procedure where the final design aspects of a product are decided upon, before a production contract is initiated.*

Deviation *: A deviation is a request by a manufacturer for the right to temporarily not comply with a contract requirement or specification.*

Development Contract R and D*. : A type of contract that creates and usually tests hardware prototype or several models of the new product.*

Development Plan *: A contract for development will call for the prime manufacturer to provide an agreed upon Development Plan. This document is the master plan for the scheduling and development of the new product. This plan must usually be delivered to the government no later than 30 days of signing the contract.*

Engineering Change Proposal*: E.C.P.s are used both in military and civilian context. They are simply a proposal to make a change. The group making the proposal does not have the authority to institute the change. These are usually kept and are discoverable.*

Engineering Changes*. Engineering changes are what result in the civilian world when an E.C.P. is approved and the product is changed.*

Engineering Orders*: Engineering orders are the Navy terminology for an approved change.*

Exceptions *: Exceptions are failures of an end product to comply with the contract requirements during an acceptance proceeding. (Example: the navy accepts delivery of an aircraft without all radios installed. The missing radios are listed as exceptions). Occasionally the word is misused and refers to either Deviations or Waivers.*

FIRST ARTICLE GOVERNMENT TESTING*: A government contracting clause that mandates a shipment of a first article (production prototype) to a specified government lab for testing and approval by the government.*

FIRST ARTICLE CONTRACTOR TESTING*: A government Contracting clause that mandates testing in the manufacturers lab at a time when government witnesses may be present for the purpose of approval.*

Form DOD 2050*: This form was the acceptance check form of the delivery of a*

separate singular aircraft to the military. It is signed by the local military plant representative, and it acknowledges that the military aircraft appears and is accepted in conformance with some contract and some military specifications. Some judges have been fooled into believing that this document is the proof of the existence of reasonably precise military specifications.

***Military Specifications** : Books of current military guidelines that the military expects designers to accomplish as a minimum in their design proposals. The individual contract states which specifications and which issue of specifications will be applicable to the existing contract. These specifications tell what must be accomplished, but not how it is to be achieved.*

***Military Standards**: Books of standards that the military expect the designer to adhere to. These to will be delineated in the contract.*

***Military Design Handbook Criteria**: General guidelines of the military stating some current design philosophy and criteria.*

***M.T.B.F.** Mean Time Between Failure Reports: In military contracting and in conjunction with system safety it is often a requirement of the manufacturer to predict time to failure of his design.*

***N.O.D., Notice of Deficiency**: This is a recent government contracting section that requires the manufacturer to report (fess up) to the Government for any parts or designs that fail to meet the original specification and original contract requirements. It is a semi warranty. The manufacturer is supposed to fix these defects free of charge. Often such N.O.D. result in mediation or arbitration where the cost of the fix is negotiated.*

***P.I.D.S.** Prime Item Development Specification : This is a specification, usually authored by the prime contractor to a subcomponent manufacturer for the design and development of a new item.*

***Procurement Contract**: A procurement contract simply purchases a number of the previously base lined aircraft.*

***Qualifications Requirements** : The manufacturer must be pre qualified to compete for a contract through a demonstration of their abilities to perform the contract.*

***R.F.P.** Request for Proposal: This is a Government contracting device that invites or solicits manufacturers to submit proposals for the design or development of a product. It is part of the competitive bidding rules of D.O.D.*

R.F.Q. *Request for Quote: This is a government-contracting device that solicits competitive pricing. It is sort of a sealed bid. Once a single contractor is selected the price becomes negotiable for follow on items.*

S.D.R.L *Subcontractor's data requirement list: A listing made part of a subcontract that delineates data submission requirements.*

Specification *: A description of the technical requirements for a material, product or service.*

Statement of Work *: A detailed and complete description of requirements prepared for inclusion in a Government solicitation.*
(It is similar to the work requirements included in a contract)

Study Contract *: A contract to study and possibly suggest preliminary designs concepts for a new item. The result will never include any hardware.*

Ship file or Ship log*: In both civilian practice and in the military a log is begun at the factory for every airplane produced. Starting with the keel beam every operation is signed off as it is completed and every major step is Q.C.'d. These signatures delineate the workers and the dates each step was completed and who the work was done by. It culminates in the final inspections and test flights.*

System Safety Group*. This is a safety department common to most major manufacturers. In the military context in a big development contract the manufacturer must have such a group or form one.*

System Safety Development Plan*. In large Government contracts the company must have a complete systems safety development plan.*

Systems safety Plan*. In a large Government procurement contract it is usual for the manufacturer to have to continue the development plan with a lessons learned and continuing systems safety analysis group.*

Systems Safety Studies *: It is usual that a manufacturer will do the following studies of his developing product. The Military requires it. Large manufacturers do it in the civilian world because a safe product is good economics. These studies are discoverable:*
A. Systems Safety Failure Mode and Effect Studies.
B. Systems Safety Fault Tree Analysis.
C. Systems Safety Hazard Analysis.
D. Systems Safety Lessons Learned Tracking.
E. Systems Safety Committee Meetings.

F. Systems Safety Updates to studies.
G. Systems safety Common Cause Failure studies.

Technical Orders: *Is the Air Force name for an Air Force issued Change.*

Waiver: *A waiver is granted by the Government when a manufacturer finds it impossible to comply with a contract requirement or a specification.*

About the Author

M. P. Papadakis has been an attorney for thirty years. He was a U.S. Navy carrier pilot and Research and Development test pilot. He was the Navy representative to the Joint Forces Search and Rescue committee and the S.A.R. project Officer at Naval Air development Center Warminster. In this billet he was involved in government contracting and procurement. He specializes in overcoming the Military Contract defense.

Papadakis has been Co Counsel on:

Wahl vs. Mc Donnel-Douglas, .
Harduvel vs. General Dynamics,
Grey vs. Lockheed, .
Klug vs. Menasco,.
Steudler vs. Fairchild,
Gagne vs. Fairchild,
Malatesta vs. Fairchild,
Barton vs. Fairchild,
Brundige vs. McDonnel Douglas,
Olsen vs. McDonnel Douglas,
Dorn vs. General Dynamics, .
Hartney vs. Hydro Aire,
Cocozza vs. Rockwell,
B-1 Bomber Case, sealed .
Black vs. Fairchild, .
Rayhill vs. Fairchild,
Himselv. State of Alaska.

Papadakis has investigated/ evaluated /or consulted on fifty three other Military Contractor cases that have involved:
Track vehicles, a submarine and the following aircraft. C-12, C-130, C-21, KC 135, E-2,

B-1, B-52, S-3, S-2, T-28, T-34, T33, T-38, A-4, A-6, A-7, A-10, F-4, F-16, F-18, F100, F-105, F111, Ov-2, Mohawk, Kiowa (Bell 206), Huey, Huey Cobra, Apache, Hughes 500 Night Stalker, H-434, Jolly Green Giant, Anthrax Vaccine.