TECHNICAL DATA & COMPUTER SOFTWARE AFTER NIGHT VISION: MARKING, DELIVERY & REVERSE ENGINEERING

By W. Jay DeVecchio

One of the intellectual property decisions garnering attention is the U.S. Court of Federal Claims’ opinion in Night Vision Corp. v. United States,1 which addressed marking requirements for prototypes and technical data under the Defense Federal Acquisition Regulation Supplement. The contractor in this case claimed the Government violated the regulation’s prohibition on disclosing limited rights technical data by providing access to the contractor’s prototype hardware (night vision goggles) to competitors.2 The court concluded, on summary judgment, that the Government was free to do so because the contractor did not attach data rights legends to the hardware itself.3

Although the DFARS data rights clause at issue in Night Vision applies to small businesses,4 its requirements for marking “limited rights” technical data and “restricted rights” computer software are essentially identical to the requirements for large businesses under the “standard” Department of Defense data rights clauses—i.e., DFARS 252.227-7013, “Rights in Technical Data—Noncommercial Items,” and DFARS 252.227-7014, “Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation.”5 Thus, while the ultimate conclusion in Night Vision with respect to data rights arguably has broad applicability, it should be of no precedential value. This is because even though the decision to dismiss the data rights claim may have been correct, this result was reached for the wrong reasons. The court’s conclusion that prototype hardware has to be marked with a technical data legend is erroneous, contrary to the regulations, and unsupported by the case law. Furthermore, it was incorrect to bolster this conclusion about tangible hardware based upon an earlier Armed Services Board of Contract Appeals decision regarding the marking requirements applicable to computer software.6

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Unfortunately, the court’s reasoning reflects a lack of clarity at bench and bar as well as among contractors and the Government about marking requirements for technical data and computer software. This is an important issue to get right, because although a company may do everything correctly in terms of documenting and demonstrating that its development occurred at private expense—and thus the contractor is entitled to limit the Government’s rights in technical data or restrict its rights in software—those limitations and restrictions can be lost if the contractor does not know how to mark data or software in strict accordance with the regulations, or if the Government does not appreciate its obligations under the clauses. Therefore, this Briefing Paper addresses what the marking requirements are (and are not) under the regulations and touches upon related issues, including (1) the relationship of the data rights clauses to contract deliverables, as well as (2) limitations on the Government’s right to reverse engineer hardware or software.

What Is Covered & What Is Not

■ DFARS “Technical Data”

Under the DFARS, “technical data” are defined as “recorded information, regardless of the form or method of the recording, of a scientific or technical nature.”7 (The definition includes “computer software documentation” but does not include “computer software.”8) The descriptive term “recorded information” indicates two things. First, it is obviously not unrecorded information—i.e., know-how. Second, technical data (being recorded) are not the underlying item, component, or process itself that is being used, developed, or delivered under the contract, but rather are data that pertain to the underlying hardware or process.

This latter distinction is reflected in the DOD data rights statute, 10 U.S.C.A. § 2520, and is borne out by the DFARS clauses. For example, if something is developed at private expense, then a contractor has the ability to “limit” the Government’s rights in technical data (or “restrict” its rights in computer software).9 Thus, the DFARS 252.227-7013 “Rights in Technical Data—Noncommercial Items” clause provides that the Government shall have only “limited rights”10 in technical data:

Pertaining to items, components, or processes developed at private expense and marked with the limited rights legend prescribed in paragraph (f) of this clause....

Correspondingly, the definition of “developed” turns not on the recorded information, but rather on the underlying item:12

Developed means that an item, component, or process exists and is workable.

Putting these aspects of the DOD regulations together necessarily leads to the conclusion that it is the circumstances of the development of the underlying item, component, or process that determines whether a contractor is able to limit the Government’s rights in technical data, while it is the technical data associated with the item, component, or process that is the subject of the clause. Stated simply, the clause specifies rights and obligations in the data, not the hardware.
To be sure, there are also technical data that do not pertain to an item, component, or process in which the Government will obtain rights under the contract. These include technical data created during the performance of a contract for a conceptual design or similar effort that does not require the development, manufacture, construction, or production of items, components, or processes. Typically, the Government will obtain either unlimited rights or Government purpose rights with respect to such data, but the key point, again, is that it is the data to which rights and obligations attach.

FAR “Data”

These same principles apply generally under the FAR as well. The FAR definition of “data” is broader than the DFARS definition of “technical data.” “Data” under the FAR encompass technical data as well as computer software. The definition is the same, however, in that the term “data” “means recorded information, regardless of form or the media on which it may be recorded.” And, as under the DFARS, “data” pertain to the hardware or processes. Among other places, this is reflected in the FAR 52.227-14 “Rights in Data—General” clause’s definition of “limited rights data,” which are “data (other than computer software) that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications thereof.”

Marking Requirements

Marking Technical Data Under The DFARS

This distinction between technical data and the items, components, or processes to which the data pertain means that the marking requirements of the regulations apply to the technical data, not to the underlying item, component, or process (in Night Vision, a prototype). This is seen in the marking provision of the DFARS 252.227-7013 “Rights in Technical Data—Noncommercial Items” clause.

Marking requirements. The Contractor, and its subcontractors or suppliers, may only assert restrictions on the Government’s rights to use, modify, reproduce, perform, display, or disclose technical data to be delivered under this contract by marking the deliverable data subject to restriction.

In turn, the DOD regulations impose strict marking protocols. That is, the technical data—not the underlying item, component, or process—must bear the specific legend authorized by the regulations under the contract clause, and no other. Therefore, if the contractor were asserting limited rights in technical data, it would be obliged to use the precise limited rights legend provided for in the DFARS 252.227-7015 clause. Any failure to use this legend could result in the contractor’s losing its ability to limit the Government’s rights, even if the underlying item, component, or process had indisputably been developed at private expense.

Specifically, DOD agencies may ignore any “nonconforming” technical data marking, which is defined as a marking “placed on technical data delivered or otherwise furnished to the Government that is not in the format authorized by this contract,” provided the Contracting Officer affords the contractor a 60-day period to correct the nonconforming marking. A nonconforming marking is different from an “unjustified” marking, which must be challenged by the DOD under the validation procedures of the DFARS 252.227-7037 “Validation of Restrictive Markings on Technical Data” clause. An unjustified legend is one in the correct format required by the clause, but that is incorrectly applied, such as a “limited rights” legend on “unlimited rights” data. The basic FAR 52.227-14 “Rights in Data—General” clause treats nonconforming and unauthorized markings under a unified procedure.

The DOD regulations also require that the particular legend must be applied in a particular manner. For technical data, the limited rights legend must be “conspicuously and legibly” marked on the technical data.

The authorized legends shall be placed on the transmittal document or storage container and, for printed material, each page of the printed material containing technical data for which
restrictions are asserted. When only portions of a page or printed material are subject to the asserted restrictions, such portions shall be identified by circling, underscoring with a note, or other appropriate identifier. Reproductions of technical data or any portions thereof subject to asserted restrictions shall also reproduce the asserted restrictions.

These marking requirements also contemplate electronic media, which is a point easily overlooked. The general marking instructions state:30

Technical data transmitted directly from one computer or computer terminal to another shall contain a notice of asserted restrictions.

This means that if a company has drawings, blueprints, process sheets, or the like that have been reduced to a digital medium and can be transmitted electronically, the legends must be included in the electronic version. This should not be an issue to the extent the electronic versions are simply digital images of hard copies that contain the authorized legend. But if a contractor’s processes do not “digitize” images from a properly marked hard copy, then the contractor could be at risk, depending on whether delivery occurs (as discussed below), if it puts the legends only on the hard copy and not also on the electronic edition of the data.

### Marking Data Under The FAR

The FAR takes a different approach with respect to limited and restricted rights data. The general policy is that contractors need not deliver such data to the Government, but rather provide only form, fit, and function data. On the other hand, if the agency does require delivery of limited or restricted rights data, then the basic FAR 52.227-14 “Rights in Data—General” clause is modified by including alternate provisions prescribing marking and legends. This is enunciated as follows.31

The clause at [FAR] 52.227-14, Rights in Data—General, enables the contractor to protect qualifying limited rights data and restricted computer software by withholding such data from delivery to the Government and delivering form, fit, and function data in lieu thereof. However, when an agency has a need to obtain delivery of limited rights data or restricted computer software, the clause may be used with its Alternates II or III, as set forth in paragraphs (d) and (e) of this section.

When it comes to marking the data, the FAR is much less persnickety than the DFARS. It does not contemplate electronic transfers nor specify particular places to mark or marking methods. For example, Alternate II to FAR 52.227-14, which provides the limited rights legend, states simply that “the contractor may affix the following ‘Limited Rights Notice’ to the data.”32 With respect to software (discussed in more detail below), Alternate III to FAR 52.227-14 provides that “the Contractor may affix the following ‘Restricted Rights Notice’ to the computer software.”33

### Computer Software & Computer Software Documentation

(a) **DFARS**—In the DFARS, noncommercial computer software and software documentation are addressed in a separate clause, DFARS 252.227-7014, “Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation,” which describes when a contractor may assert “restricted rights”34 in noncommercial software and how the software and documentation must be marked. (“Commercial” computer software35 is treated and marked under license agreements. The DFARS clauses do not specify the form or content of those licenses.36)

Occasionally one hears the assertion that software documentation is analogous to technical data. At some level this is correct in the sense that software documentation can describe or depict the underlying software just as technical data can reflect the underlying item, component, or process. Thus, under the DFARS, “computer software documentation” means “owner’s manuals, user’s manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.”37

But the analogy to technical data is imperfect because, unlike the operation of the DFARS 252.227-7013 technical data clause, the DFARS
252.227-7014 software clause does not limit the marking obligation to software documentation, but rather applies it as well to the underlying software itself. This is reflected in clause’s definitions and operation.

Under the DFARS 252.227-7014 software clause, “computer software” is defined as “computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the software to be reproduced, recreated, or recompiled.” It “does not include computer databases or computer software documentation.” In accordance with this definition, the software clause delineates the Government’s license rights in all elements that are typically thought of as software including the object code and the source code. It also encompasses things that are documentary in nature (“design details,” “flow charts”), but that are not in the definition of computer software documentation (“manuals”).

In harmony with the DFARS 252.227-7013 technical data clause’s touchstone for limited rights, under the DFARS 252.227-7014 software clause, a contractor may assert “restricted rights” with respect to software when the software was developed at private expense:

The Government shall have restricted rights in noncommercial computer software required to be delivered or otherwise provided to the Government under this contract that were developed exclusively at private expense.

This definition of “restricted rights” does not encompass “computer software documentation.” That is because under DFARS, all computer software documentation as defined in the software clause (essentially manuals and instructions) that is “required to be delivered” under the contract must be delivered with unlimited rights, even if the software to which the manuals and instructions pertain was developed exclusively at private expense.

Nonetheless, there is certain “documentation” that may be deliverable but that will not be subject to unlimited rights, namely the types of documentation developed at private expense that are encompassed within the definition of computer software itself—i.e., “design details, algorithms, processes, flowcharts, formulae, and related material.” The DFARS 252.227-7014 software clause requires that these documentary materials as well as the actual software itself must be marked.

Marking requirements. The contractor, and its subcontractors or suppliers, may only assert restrictions on the Government’s right to use, modify, reproduce, release, perform, display, or disclose computer software by marking the deliverable software or documentation subject to restriction.

Like the DFARS 252.227-7013 technical data clause, the DFARS 252.227-7014 software clause requires contractors to use only the legends specified in the clause, and it requires those legends to be placed in accordance with the clause.

The Contractor, or its subcontractors or suppliers, shall conspicuously and legibly mark the appropriate legend on all computer software that qualify for such markings. The authorized legends shall be placed on the transmitted document or software storage container and each page, or portions thereof, of printed material containing computer software for which restrictions are asserted.

And, as with technical data, there is a marking requirement with respect to software that is transmitted electronically.

Computer software transmitted directly from one computer or computer terminal to another shall contain a notice of asserted restrictions.

In other words, the restricted rights legend must be embedded in the electronic version of the software if the software can be transmitted from one computer or computer terminal to another, which is increasingly the case in modern applications. This is commonly handled by having the legends embedded so that they appear in the “boot” screens or otherwise when the application loads. Additionally, it is prudent to embed the legend in the screens displayed during installation as well as in the “help” menus.

A good rule of thumb for marking computer software and computer software documentation is to put the legend in as many places as possible, not only embedded ele-
tronically, but also in or on all the software media, including the disks, the tapes, the packaging, and the accompanying technical literature and design documents, as well as copies of the source code. In other words, all the media that fit within the definition of “computer software” in the DFARS 252.227-7014 software clause should be marked legibly and conspicuously and, where possible, electronically.

(b) FAR—Marking software under the FAR is somewhat simpler. The FAR 52.227-14 “Rights in Data—General” clause defines computer software to include virtually everything associated with software:

“Computer software,” as used in this clause, means computer programs, computer databases, and documentation thereof.

None of those subsidiary terms is further defined. This means the contractor may either withhold all restricted rights computer software as permitted by the FAR data rights clause and only furnish form, fit, and function data or, if Alternate III to the clause is included in the contract, affix the specific “Restricted Rights Notice” of the clause on the software, as broadly defined. Unlike the DFARS, there are no explicit requirements in the FAR for placing the legend, nor a requirement to embed the legend electronically. Alternate III to the FAR data rights clause simply states:

If delivery of such computer software is so required, the contractor may affix the following “Restricted Rights Notice” to the computer software....

Note also that the Alternate III to the FAR 52.227-14 data rights clause provides for both a long form and a short form “Restricted Rights Notice.” In almost all circumstances, the short form is preferable and should be requested by contractors and approved by the Government.

Unlike the DFARS, the FAR does not afford the Government unlimited rights in software documentation, such as manuals, that must be delivered under the contract. To the contrary, the FAR expressly excludes such items from the allocation of unlimited rights.

■ Firmware

“Firmware” is essentially software etched into the silicon of a computer chip. There is no exemption from the marking requirements of either the DFARS or the FAR simply because the software is on a chip rather than in some other medium. This was confirmed by the Armed Services Board of Contract Appeals in 2002 in General Atronics Corporation. That decision stands for the proposition that something must be done by contractors either to mark the chips or otherwise inform the Government that the contractor is providing a chip that contains restricted rights software. The decision does not stand for the corollary proposition, suggested by the court in Night Vision, that the technical data limited rights legends should be placed on hardware. Nor, as discussed above, does the DFARS technical data clause in any way support such an inference.

In all events, the General Atronics holding presents practical difficulties. For example, many, if not most, types of firmware have no capability to contain, much less display, an embedded restricted rights notice. Similarly, reproducing the notice on the chip itself would truly be an exercise of form over substance, as the legend in most cases would almost certainly be so small as to be unreadable, assuming it could even be applied cost effectively. This means that contractors must otherwise apprise the Government of the existence of the firmware and the restricted rights that apply to it. This can be done in several ways. The contractor should state in its proposal, as well as in any submission accompanying its proposal in which it must identify restricted rights data (such as the attachment required by the DFARS 252.227-7014 software clause and by DFARS 252.227-7017, “Identification and Assertion of Use, Release, or Disclosure Restrictions”), that there is a restricted rights software in a chip that bears a particular identifying number, that it is to be found at a particular coordinate on a particular circuit board, and that it is going into a particular item or component. The contractor should also consider identifying the location of this chip and
including the restricted rights legend in any documentation that accompanies the hardware. In some cases, the contractor may also be able to place the restricted rights legend on the circuit board itself or on the cover or container for the circuit board, indicating that a chip or chips within the container are subject to restricted rights.

- Omitted Or Incorrect Legends

Both the FAR and the DFARS caution that any limited or restricted rights data or software delivered without the legend authorized by the clauses will be deemed to have been furnished to the Government with unlimited rights. But, if a contractor that inadvertently failed to apply the proper limited or restricted legend acts quickly to fix the problem, there is redemption.

Specifically, to the extent the data or software have not been disclosed without restriction outside the Government, the contractor may request permission within six months after delivery of the information (or a longer time approved by the CO for good cause shown) to have the correct notices placed on the qualifying data or software. The FAR, and similarly the DFARS, provide that the CO may do so if the contractor:

(i) Identifies the data to which the omitted notice is to be applied;
(ii) Demonstrates that the omission of the notice was inadvertent;
(iii) Establishes that the use of the proposed notice is authorized; and
(iv) Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.

Delivery Under The Contract

- Relationship Of Data Rights Clauses To Contract Deliverables

All of these issues related to the marking requirements, however, presume the data or software in question are a deliverable under the contract. Although the FAR and DFARS data rights clauses anticipate delivery (e.g., “If delivery of such data is so required, the contractor may...”), they do not establish any delivery requirements for the contract nor provide a mechanism for the Government to obtain delivery of technical data or software. Rather, the clauses’ principal role is to define the license rights—i.e., the rights of use—the Government obtains in data or software. The clauses specify rights, not deliverables. This is a common misunderstanding. Data deliverables are specified elsewhere in the contract. If the data or software are not a deliverable, then the Government will get theoretical rights in data or software that it does not have.

The FAR makes this point plainly:

Also, in selecting a data rights clause, it is important to note that any such clause does not specify the data (in terms of type, quantity or quality) that is to be delivered, but only the respective rights of the Government and the contractor to use, disclose, or reproduce such data.

Similarly, the DOD’s 2001 policy guidance, Intellectual Property: Navigating Through Commercial Waters, states:

DOD must ensure that the contract requires the delivery of all information that is necessary to accomplish each element of the acquisition strategy. It is important to realize that the standard DFARS clauses that establish the rights in technical data or computer software do not specify requirements. Therefore, when drafting delivery requirements for either technical data or computer software, it is important to specify:

- Content (e.g., level of detail or nature of information),
- Recording/storage format (e.g., image files vs. word processing format), and
- Delivery/storage medium (e.g., paper, CD-ROM, or on-line access).

This point is also reflected in the DFARS’ marking provisions, which address marking “the deliverable” data or software.

Contractor and Government personnel are often surprised about this issue, particularly with respect to technical data, because they assume that since the hardware is a deliver-
able then the data rights must follow automatically. This reflects a dual misunderstanding about the facts that (1) the technical data to which the clause applies are distinct from the underlying item, component, or process, and (2) data deliverables are usually distinct from hardware deliverables.

Government personnel also sometimes say this result is unfair, especially when the Government has paid entirely for the development of an item, component, or process but simply failed ministerially to require the delivery of the associated technical data. Their assertion often is that if the Government paid for the development, the Government is entitled to delivery of the data. The principal flaw in this view, apart from the point that it is not supported by the clauses, is that the Government and the contractor bargained for delivery of, and the contractor was only paid to deliver, those things identified as deliverables in the solicitation and contract, not things that were not.

This dichotomy between rights and deliverables requires both contractors and the Government to consider the issue carefully in the acquisition phase. Contractors should scrutinize solicitations to determine exactly what is and is not required to be delivered, and price accordingly. Conversely, if the Government expects that technical data, software, or software documentation will be delivered, then it should ensure that such delivery is specifically identified and required. This is typically done through the Contract Data Requirements List (CDRL) and elaborated upon by the Data Item Descriptions (DIDs). Particular attention should be paid to Data Accession List (DAL) requirements, which are increasingly found in CDRLs. Both parties should ensure that there is clarity about what is deliverable as well as the format for delivery, while contractors should ensure there are marking procedures in place to cover the DAL information and that the company’s engineers understand the need for marking. Deliverables may also occasionally be identified elsewhere in the contract, such as in option line items. Again, however, the fact that data are identified in an option does not make the data deliverable unless and until the option is properly exercised.

Similarly, both parties must be sensitive to activities by Integrated Product Teams (IPTs), where contractor and Government technical personnel work closely together. These teams may establish access (electronically or otherwise) to a contractor’s in-process technical data and software, which often are not identified as deliverables under the contract. Even so, prudence suggests that contractors either should mark these data with the proper legends or expressly exclude IPT data and software from delivery and marking requirements. This will eliminate the risk of the Government’s later asserting that there was constructive or implied delivery through the IPT process.

Deferred Ordering & Deferred Delivery

The Government’s position with respect to data deliveries is enhanced considerably if it has incorporated deferred ordering clauses. The clause at FAR 52.227-16, “Additional Data Requirements,” states in pertinent part that the CO “may, at any time during contract performance or within a period of three years after acceptance of all items to be delivered under this contract, order any data first produced or specifically used in the performance of this contract.”70 For DOD contracts, the comparable clause is DFARS 252.227-7027, “Deferred Ordering of Technical Data or Computer Software,” which broadly permits the Government to “order any technical data or computer software generated in the performance of this contract or any subcontract hereunder” for a similar three-year period. Under these provisions, the contractor is paid only for the costs of converting the data or software into the prescribed format and for its reproduction and delivery.71

DOD contracts may also include the DFARS 252.227-7026 “Deferred Delivery of Technical Data or Computer Software” clause, which operates somewhat differently from the deferred ordering clause. The deferred deliv-
ery clause requires the parties to identify in advance the data or software the Government may later elect to have delivered within two years after acceptance of all items under the contract or the contract’s termination, whichever is later.\(^72\)

- **The “Changes” Clause**

Without these provisions, there is no standard FAR or DFARS clause authorizing the Government to require unilaterally the delivery of technical data or software that were not previously identified as a deliverable under the contract. Occasionally, the Government will assert incorrectly that the “Changes” clause (e.g., FAR 52.243-1, “Changes—Fixed Price”) affords this right. It does not. Nothing in the clause states or suggests that a data deliverable pertaining to unchanged “drawings, designs, or specifications” can be created.\(^73\) What the CO can do under the clause is to add new development tasks and thus concomitantly create (and specify) a new contract data deliverable, for which the contractor would be entitled to an equitable price and schedule adjustment.\(^74\) The CO cannot, however, retroactively direct delivery of data with respect to unchanged items, components, processes, or software.

- **Notification**

Because a party’s respective rights in technical data or software apply to deliverables, most DOD solicitations and many civilian agency solicitations require the contractor to identify in its proposal all limited rights technical data or restricted rights software it may deliver. Under the FAR, this is done at the CO’s discretion by including FAR 52.227-15, “Representation of Limited Rights Data and Restricted Computer Software,” which is described as “an aid” to the CO in determining whether to include the various alternates available under FAR 52.227-14 that require marking deliverable data as opposed to withholding it.\(^75\) While contractors should fill out the form accompanying FAR 52.227-15 as thoroughly as possible, there is no adverse consequence under the FAR for failing to do so.

The DFARS imposes more stringent obligations. They include DFARS 252.227-7017, “Identification and Assertion of Use, Release, or Disclosure Restrictions.” This solicitation provision requires contractors to identify in their proposals in a very particular format all technical data or computer software to be furnished with restrictions of any sort, including limited rights, restricted rights, Government purpose rights, specifically negotiated license rights, or even commercial license rights. In turn, the information identified by the contractor in response to this solicitation provision must be contained in the identical list the contractor provides under the DFARS data rights clauses themselves.\(^76\) If the contractor fails to do so before contract award, then it may be precluded after award from asserting limited or restricted rights because other assertions may only be made after award “based on new information or inadvertent omissions unless the inadvertent omissions would have materially affected the source selection decision.”\(^77\) There is no comparable constraint in the FAR.

There is another DFARS notification requirement that has no FAR analogue—DFARS 252.227-7028, “Technical Data or Computer Software Previously Delivered to the Government.” This solicitation provision is intended to alert the Government to rights in data it already has under other contracts. For large contractors, completing the response to this clause can be daunting.

**Reverse Engineering**

In *Night Vision*, the Court of Federal Claims suggested in a footnote that the Government has the ability to provide an item to which limited rights pertain (in that case a prototype) to a third party to have the item reversed engineered.\(^78\) This suggestion is somewhat too broad as applied to the DOD.

As a general matter, reverse engineering is permissible under intellectual property law so long as a patent or a contract preclusion does not cover the object. Therefore, if a trade secret is embodied in an item that is freely avail-
able, any third party may reverse engineer the item and discover the trade secret. By a parity of reasoning, the Government could provide an item developed at private expense to a third party for reverse engineering without violating the principles of intellectual property law or violating the technical data clause. As discussed above, the DFARS 252.227-7013 technical data clause applies to the data pertaining to the end item, component, or process not to the item, component, or process itself. Indeed, the DFARS technical data provisions recognize that reverse engineering may be appropriate with respect to items in which the Government has only limited rights when there is a need for competitive reprocurement. This is reflected in the regulations permitting the Government to negotiate specific license rights in data, which provide that before “negotiating for additional rights in limited rights data” the Government should consider:

Reverse engineering, or providing items from Government inventories to contractors who request the items to facilitate the development of equivalent items through reverse engineering.

What the Government cannot do under the clause is to provide limited rights technical data to a third party for the third party’s use in reverse engineering.

Nor, of course, can the Government provide restricted rights computer software to a third party for reverse engineering. Under both the FAR and the DFARS, there are very limited circumstances in which the Government can provide restricted software to third parties, and none of those circumstances contemplates reverse engineering the software. Although the Government has the right to modify restricted rights software, modification does not encompass reverse engineering by third parties. This point is specifically made in the DFARS:

The Government shall not permit the recipient to decompile, disassemble, or reverse engineer the software....

Even the Government’s ability to reverse engineer hardware is not without limitations, at least with respect to the DOD. There are DOD regulations addressing reverse engineering in the context of acquiring “replenishment parts.”

Those are defined in DFARS Appendix E (“DOD Spare Parts Breakout Program”) as follows:

A part, repairable or consumable, purchased after provisioning of that part for: replacement; replenishment of stock; or use in the maintenance, overhaul, and repair of equipment such as aircraft, engines, ships, tanks, vehicles, guns and missiles, ground communications and electronic systems, ground support, and test equipment. As used in this appendix, except when distinction is necessary, the term “part” includes subassemblies, components, and subsystems as defined by the current version of MIL-STD-280.

When acquiring parts fitting this definition, reverse engineering is not to be undertaken until the DOD agency has satisfied or exhausted the methods and procedures specified in DFARS 217.7503, “Acquisition of Parts When Data Is Not Available.” These include, in descending order of preference, (1) conducting a procurement using a performance specification when “items of an identical design are not required,” or (2) acquiring the part from “the firm which developed or designed the item or process or its licensees,” provided the production capacity and quality control are adequate and the price is fair and reasonable. If the first two methods do not work, then COs are to consider four supplemental alternatives: (a) encouraging the developer to license others to manufacture the parts, (b) acquiring the necessary rights in data, (c) pursuing a leader company acquisition in accordance with FAR Subpart 17.4, or (d) incorporating an option allowing the Government to require the contractor to establish a second source. It is only as “a last alternative” that the “contracting activity may develop a design specification for a competitive acquisition through reverse engineering.” Contracting activities “shall not do reverse engineering unless—(1) Significant cost savings can be demonstrated; and (2) the action is authorized by the head of the contracting activity.” In a challenge to an agency’s actions to reverse engineer items, the courts will analyze the extent to which the DOD has adhered to these requirements and, presumably, would find reverse engineering improper if the agency failed to meet them.
These Guidelines are intended to assist you in understanding how to identify and maximize your protection of technical data and computer software rights in Government contracts. They are not, however, a substitute for professional representation in any specific situation.

1. Recognize that you do not have to mark your hardware with a technical data legend to protect your data rights. Conversely, even if you do, the Government may still provide it to third parties to be reverse engineered, although at the DOD the agency must first meet the requirements of DFARS 217.7503 if the hardware is a “replenishment part.”

2. If you want to preclude the Government from providing your hardware to others, endeavor to negotiate contract language covering the point. This is not contrary to the data rights clauses or regulations, because they apply only to the recorded information pertaining to the hardware, not to the hardware itself.

3. Have in place sound contract, engineering, and configuration control processes to ensure that all limited rights technical data and restricted rights software are marked with the exact legend required by the regulations, and that the legends are placed in the correct manner.

4. Make certain that these marking practices encompass technical data or software that are made available to the Government through Data Accession Lists or Integrated Product Teams.

5. Be aware that the best practice is to embed the correct legend digitally in software if possible, for example in the “boot” screens, as well as in any technical data that may be transmitted electronically.

6. Take all reasonable steps to mark your firmware with the restricted rights legend or to mark the circuit cards or circuit board assemblies with the legend. Correspondingly, you should notify the Government in your proposals that you have firmware at particular locations on particular circuit cards that are subject to restricted rights, and do the same thing in your software documentation.

7. Remember that at the DOD, you must specifically identify in your proposal all technical data and computer software that you intend to furnish with less than unlimited rights. This is accomplished at the DOD by thoroughly and carefully filling out the forms required by the DFARS 252.227-7013, 252.227-7014, and 252.227-7017 contract clauses.

8. Under the FAR, the required notification of rights you are asserting is made by responding to FAR 52.227-15, “Representation of Limited Rights Data and Restricted Computer Software.” But the best practice is to withhold limited rights data and restricted rights software and instead deliver only form, fit, and function data.

9. If you inadvertently use an incorrect legend or fail to mark your data or software, seek the CO’s permission as soon as possible to place the correct legends on the data or software.

10. In formulating solicitations, Government personnel should include express delivery requirements for any technical data or software the agency needs. Alternatively, include deferred ordering provisions in the solicitation and contract.

11. Conversely, contractors and the Government must recognize that there is no obligation for contractors to deliver, and no contractual authority for the agencies to require delivery of, data or software absent express delivery requirements or deferred ordering clauses.

12. If you want to protect against reverse engineering, the best solution is to negotiate preclusions to be included in the contract. Otherwise, there are no limitations on reverse engineering hardware by the civilian agencies, but there are constraints on DOD agencies when seeking to reverse engineer “replenishment parts.” No agency is authorized, however, to reverse engineer software.