Preface

The 2017 National Defense Authorization Act (NDAA – the annual military funding bill) amendment to the Uniformed Services Former Spouses’ Protection Act (USFSPA) helps both military members and ex-spouses. This document demonstrates numerical examples of dividing military retirements that are consistent with the proposed NDAA amendment that modifies the USFSPA.


Background

Department of Defense regulation 7000.14 Vol 7b requires that if military retirement divorce assets are divided, they be divided in one of only two ways: a fixed-dollar division or a percentage-based division. The 2017 NDAA law is implemented as a percentage based method. The NDAA amendment requires that if a military retirement is going to be divided, the division must be done in accordance with rank and longevity at the time of divorce. This NDAA intent can be concisely captured with a litmus test:

“The marital asset must be calculated so that any action taken by either spouse after the marriage does not change the asset expressed in constant year dollars.”

If a division method can meet this criterion, then it’s equitable and meets the NDAA intent. If not, it is a bad method and should not be promulgated by an attorney or a court. I have yet to hear any argument against this litmus test. It is a powerful starting point for all mediation and litigation. When confronted with its simplicity, some attorneys have pushed back saying of “We
can’t do that. In our state we only do method {whatever}”. Either clients can’t afford to fight the entrenched attitude, or attorneys are unwilling, or courts are resistant. In any case, is because of the inequity of such attitudes that legislatures on both sides of the aisle unanimously approved the USFSPA amendment to the NDAA.

You may have heard of the DFAS Hypothetical example, which has been around for a decade or more as a way to accommodate promotions after a divorce. However, it has never been popular because it is crippled and awkward, giving COLA adjustments differently to the two spouses, and it’s woefully inadequate for multiple marriages, High-3 retirements, military duty before marriage, and other life situations. Another white paper shows why the NDAA Area Method is better in every way (http://www.increa.com/articles/division-dcv-practicum/AreaMethod-WhitePaper.pdf).

Some folks get distracted about COLA adjustments, but this is a red herring. In fact, with a percentage-based method such as the NDAA amendment, both spouses get COLA adjustments for all time after the divorce both before and after retirement.

For simple cases that involve no promotions, a simple time-based coverture fraction can be equitable. The rest of this paper shows that the simple time-based coverture fraction is NOT equitable when there are promotions involved outside the window of marriage. Additionally, the demonstrations show that either party can be damaged by doing a simple time-based coverture.

**Visualizing Math**

A military retirement is calculated according to Federal law using this formula:

\[
\text{monthly retirement check} = 2.5\% \times \text{base pay} \times \text{years}
\]

The base pay values are obtained from a 2015 military pay chart (https://www.dfas.mil/militarymembers/payentitlements/military-pay-charts.html). Also, government retirement calculations really use “months/12” for the years, so that’s what this
paper is standardized on. Lastly, note that for a Reserve retirement, years = retirement points / 360.

The formula can be visualized as the area of a rectangle where the vertical axis is monthly base pay and the horizontal axes is duty credit. The two sides multiply together to get the area:

The above diagram shows a 20-year (240-month) veteran retiring as a LtCol and receiving a monthly check 2.5% of the area of the rectangle = 2.5% * $8506.50 * 20 = $4253.25. COLA increases make the charted pay amount go up in future years, so the area of the diagram goes up each year in dollar value.

Notice that a military retirement is calculated from two distinct factors that are not comingle
ted together. This is foreshadowing that, in order to calculate marital portions of a retirement, two distinct coverture fractions should be used instead of the traditional civilian single time-based coverture fraction.

If a marriage included an entire military career, then the entire area of the diagram would be the marital asset vulnerable for division. Completing the example above, DFAS would be told to separate and send a spousal portion of 50% * $4253.25, or $2126.63 each month.

Many times the marriage overlaps only some of the military career. To show this, I’ve fabricated a different hypothetical case to visually show the traditional method of using a time-based coverture fraction to calculate the marital asset subject to division:
marital asset = retired pay \times \left( \frac{\text{marital duty time}}{\text{total duty time}} \right)

This can be shown visually as:

Notice that the coverture fraction divides the horizontal axes. The entire rectangle represents the retired pay, while the white portion is the marital asset and the hashed portion is the non-marital asset portion earned after the divorce. Some people refer to this formula as “smaller piece of a larger pie,” but be careful to note that the white section is NOT smaller than the marital asset at time of divorce. It is precisely and identically the same. The fraction is not an approximate “tit for tat” adjustment or approximate compensation, but rather a precise mathematical way to keep the marital asset exactly preserved – not higher or lower. The denominator getting bigger when more duty occurs does NOT dilution the marital asset – instead it is a mathematically precise way to preserve the marital asset from going up or down.

Contrasting the single coverture fraction just shown, the 2017 NDAA law requires a different type of division, which is immediately obvious on a retirement Area Diagram:
Notice if there is a promotion after the divorce as shown in the diagram, it is not part of the white portion. The white portion is still the marital asset and is still the same size. In order to get the proper coverture fraction, a single fraction is not capable of separating the white portion. Instead, a 2017 NDAA formula has to figure out what percentage the white portion is of the entire retirement check area. This can be done by dividing the white area by total area to get a percentage or fraction:

$$\text{marital asset} = \text{retired pay} \times \frac{(\text{marital duty time} \times \text{pay at divorce})}{(\text{total duty time} \times \text{pay at retirement})}$$

Remembering high school algebra, notice the above formula is also identical to:

$$\text{marital asset} = \text{retired pay} \times \left(\frac{\text{marital duty time}}{\text{total duty time}}\right) \times \left(\frac{\text{pay at divorce}}{\text{pay at retirement}}\right)$$

Both are the same formula. The first is often called the Area Method and the second is often called a Dual Coverture method. When there is no military duty time before the marriage, they are mathematically identical. If you have heard of the DFAS Hypothetical Method, it gives the same result as the Dual Coverture (proved in a separate white paper), but is more complicated and inexplicably calculates COLA differently for the military member compared to the spouse.
Looking at the Dual Coverture formula, notice the only difference compared to the single
coverture time-based formula is the second coverture fraction, respecting the rank and
longevity at the time of divorce, per the intent of the NDAA amendment. In essence, the first
coverture fraction “peels off” the hashed part to the right of the white part, and the second
coverture fraction “peels off” the hashed part on top of the white part.

It’s important to note that the pay amounts in the formulas come from the SAME year pay
chart. Although one is for divorce longevity and rank, and the other is for retired longevity and
rank, both pay values are looked up on the same year’s chart.

Demonstrations
For the rest of this document, I’ll use a hypothetical Reserve officer who started a military
career, was married 10 years later as an O-3 with 2200 duty credit points, and then divorced as
a 24-year Reserve O-5 with 4320 duty points of credit, who has accumulated 5550 duty points
upon retirement after 28 year in the military. Duty points convert to months by dividing by 30.
Duty points convert to years by dividing by 360 (these divisors are embedded in Federal
retirement law). For an active duty person, duty credit will be the same as longevity since
they’re always on duty.

Using this hypothetical person, I’ll demonstrate a few facts:

1. The NDAA method meets the litmus test when there are promotions outside of the
   marriage window.
2. Ex-spouses are damaged by the simple coverture method when there are promotions
   before marriage. Litmus test fails.
3. Military members are damaged by the simple coverture method when there are
   promotions after marriage. Litmus test fails.

Here is a summary of the hypothetical situation.

<table>
<thead>
<tr>
<th>Event</th>
<th>Service Pts (Mo)</th>
<th>Longevity &amp; Rank</th>
<th>Charted Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Marriage</td>
<td>1100 (36.667)</td>
<td>8 yr O-2</td>
<td>$5,921.10</td>
</tr>
<tr>
<td>At Divorce</td>
<td>4320 (144.000)</td>
<td>24 yr O-5</td>
<td>$8,762.40</td>
</tr>
<tr>
<td>Retire Option 1 – extra duty</td>
<td>5660 (188.667)</td>
<td>28 yr O-5</td>
<td>$8,762.40</td>
</tr>
<tr>
<td>Retire Option 2 – extra duty and promoted</td>
<td>5660 (188.667)</td>
<td>28 yr O-6</td>
<td>$10,738.20</td>
</tr>
</tbody>
</table>

If the math in this document becomes too onerous to you, consider downloading spreadsheet that does retirement division calculations ([http://www.increa.com/articles/division-military-coverture-value/area-method.xls](http://www.increa.com/articles/division-military-coverture-value/area-method.xls)).

**Demo #1– The NDAA Area Method works**

First, consider a snapshot at the time of divorce. It would be convenient for divorce proceedings if the retirement asset could be “cashed out” and disbursed at this time. As a minimum, we can do a valuation required by many states.

The relevant Area Diagram would look like this:

![Area Diagram](image)

The “BEFORE” marriage military duty could have been done unmarried, or could have been done with a different spouse (only the Area Method documented here does multiple spouses with fiduciary precision). Below are the calculations to figure out the area of the white portion marital asset, assuming there is no duty or promotion after divorce:

\[
\text{retirement pay} = 2.5\% \times 8762.40 \times \frac{4320}{360} = 2628.72 \text{ in 2015 dollars}
\]
\[\text{marital asset} = 2628.72 \times \left(\frac{1044677}{1261786}\right) = 2176.41\]

The total area is 144 * 8762.40, which equals 1,261,786. The white area is the same, minus the dotted section, 36.667 * 5921.10. The white area is equals 1,044,677. The marital asset valuation is $2176.41 per month in 2015 dollars. This is colored green above because this is the litmus test value. The NDAA methods will match it. Single coverture methods will not.

One caution: The letter of the 2017 NDAA requires a method that respects ranks and longevities at the time of divorce even if additional duty or promotions are done after the divorce before disbursement can begin. It does not explicitly say that the division method must respect ranks and longevities at the time of marriage, which is what is demonstrated here. If an attorney uses a time-only fraction, then the white part “hooked over” the “BEFORE” section is functionally not claimed as a marital asset (to the detriment of the ex-spouse). The DFAS Hypothetical Method is fine for separating promotions after divorce; unlike the Area Method it is not capable of separating promotions before marriage, so ex-spouses may be damaged.

The NDAA law was intended to address situations when there is additional military duty after divorce by requiring a method that respects ranks and longevities at the time of divorce even if additional duty or promotions are done after the divorce before disbursement can begin. This is done by using a coverture fraction putting the area of the white section in the numerator and putting the entire area in the denominator.

Visualizing the tabular data Retirement Option #1 (extra duty only), an Area Diagram would look like this:
\[
\text{retirement pay} = 2.5\% \times 8762.40 \times \frac{5660}{360} = \$3444.11 \text{ in 2015 dollars}
\]

\[
\text{marital asset} = \$3444.11 \times \left( \frac{144 \times 8762.40 - 36.667 \times 5921.10}{188.667 \times 8762.40} \right) = \$2176.41
\]

Notice that regardless of what happens after the divorce, the white marital portion is not touched. This meets the litmus test, and meets the requirements of the 2017 NDAA law.

Lastly, consider the Area Method using the tabular data Retirement Option #2 (extra duty and extra promotion after divorce). It’s worth noting that the enhanced retirement value is fully vested only when a military member continues at a promoted rank for 3 years after promotion, which clearly puts its accrual outside the marriage.

\[
\text{retirement pay} = 2.5\% \times 10738.20 \times \frac{5660}{360} = \$4220.71 \text{ in 2015 dollars}
\]

\[
\text{marital asset} = \$4220.71 \times \left( \frac{144 \times 8762.40 - 36.667 \times 5921.10}{188.667 \times 10738.20} \right) = \$2176.41
\]
Notice that regardless of what happens after the divorce, the white marital portion is not touched. This meets the litmus test, and meets the requirements of the 2017 NDAA law.

The remaining two demonstrations show that using single time-based coverture fractions, the litmus test fails because the marital asset changes based on what happens after the divorce. *Single time-based coverture fraction cannot meet the requirements of the NDAA law. NDAA law requires that the Dual Coverture or Area Method be used.* Contrary to information published anywhere else, the demonstrations show that both the military member and the ex-spouse can be damaged by using a single time-based coverture fraction. In other words, it doesn’t matter what “side” you’re on – the NDAA law and the Area Method is always better.

**Demo #2 – Without NDAA, ex-spouse is damaged**
Consider Retirement Option #1 in the table above. The Area Diagram would look like this:

![Area Diagram](image)

The calculations for this diagram are shown earlier. Total retirement is $3444.11 and the marital asset is $2176.41, both in 2015 dollars.

Notice the marital asset is the same because whether there was a promotion after the divorce is irrelevant. Consider what the marital asset would be if we incorrectly calculate it using only a single time-based coverture fraction with married months on the numerator and total months on the denominator:
marital asset = $3444.11 \times \left( \frac{107.33}{188.667} \right) = $1959.31

The marital asset is shown in red print to highlight that by using a single coverture fraction, the marital asset is incorrectly reduced from $2176.41 to $1959.31, damaging the ex-spouse. What happens is the white portion of the diagram above the pre-marital section is incorrectly excluded – the ex-spouse does not get credit for that part even through promotions happened during the marriage. The same thing would happen if you used Retirement Option #2 from the table above. In either case, these example numbers show the ex-spouse should be receiving $217.10 (11.1%) more money each month. After 10 years of retirement, this ads up to a $26,052 error dividing a marital asset. And this is in constant 2015 dollars, not accounting for COLA that will actually occur.

Lastly, note that if DFAS is allowed to implement the NDAA 2017 by using the Hypothetical Method, the Hypothetical Method is not capable of correcting for lower promotions before marriage. It can only correct for higher promotions after marriage. In other words, the ex-spouse will be damaged if there was pre-marital solo work. This is a reason an Area Method implementation is better than a Hypothetical Method implementation.

Demo #3 – Without NDAA, military is damaged
Consider Retirement Option #2 in the table above. The Area Diagram would look like this:

The calculations for this diagram are shown earlier. Total retirement is $4220.71 and the marital asset is $2176.41, both in 2015 dollars.
Consider what the marital asset would be if we **incorrectly** calculate it using only a single time-based coverture fraction with married months on the numerator and total months on the denominator:

\[
\text{marital asset} = \$4220.71 \times \left( \frac{107.33}{188.667} \right) = \$2401.10
\]

By using a single coverture fraction, the marital asset is incorrectly raised from $2176.41 to $2401.10, **damaging the military member**. This is because the hashed portion of the diagram above the marital section has been included as white area – even though the ex-spouse contributed nothing toward earning it. Using these example numbers, the ex-spouse is receiving $224.69 (10.3%) each month more than they should be. After 10 years of retirement, this adds up to a $26,963 error dividing a marital asset.

**Area Diagrams also stop “based on” confusion**

Some would say that duty or promotion enhancements after a divorce should still be divided as marital assets because they are “based on” marital years. I’ve documented elsewhere several arguments to dispel this assertion and the diagrams in this paper make the assertion even more starkly ridiculous.

In particular, some attorneys say that the hashed portion overlays and is therefore “based on” the white portion, so they argue that it should be considered part of the white portion and should be divided. Those same attorneys have never argued that the white portion overlays or is “based on” the dotted portion, so that it should be considered part of the dotted portion and not divided. The inequitable inconsistency is damming to their assertion and the diagrams make their assertions clearly egregious.

**Summary**

The 2017 NDAA amendment is equitable to both parties under all situations when implemented with Area Diagrams as shown in this document.
Spousal Portion

<table>
<thead>
<tr>
<th>Situation</th>
<th>Time-based Coverture</th>
<th>2017 NDAA Area Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>No promotion outside of marriage</td>
<td>Equity if duty outside marriage set aside</td>
<td>Equitable</td>
</tr>
<tr>
<td>Promotion after Divorce</td>
<td>Spouse receives higher portion (mil damaged)</td>
<td>Equitable</td>
</tr>
<tr>
<td>Promotion before Marriage</td>
<td>Spouse receives lower portion (ex-spouse damaged)</td>
<td>Equitable</td>
</tr>
</tbody>
</table>

The 2017 NDAA amendment is equitable to both spouses under all situations when implemented with Area Diagrams as shown in this document. A time-based coverture method is inequitable if promotions occur outside the marriage. The new 2017 NDAA method must be used in division orders to create DFAS percentages that pass the equitable litmus test.

Either the ex-spouse or the military member can be damaged if a simple time-based coverture fraction is used. This insight is based on original research that has not been prior recognized by big QDRO contract houses like Troyan or the American Bar Association Family Law Section. So far, both have declined to help elucidate these issues to attorneys and courts across the nation.

The most recent version of this document and legal language to implement an Area Method or Dual Coverture division formula to calculate the DFAS percentage are available at [http://www.increa.com/articles/division-2017NDAA-USFSPA-tutorial](http://www.increa.com/articles/division-2017NDAA-USFSPA-tutorial).

Additional engagement opportunities:

[https://www.facebook.com/military.divorce.retirement.division/](https://www.facebook.com/military.divorce.retirement.division/)

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