



# *Overhaul of Fear God & Dread Nought*

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# Introduction

- ◆ *Fear God & Dread Nought* first edition published in 2001
  - Development hinted at modeling discontinuities
  - Problems weren't perceived as severe and work arounds were put in place to reduce the “edge effects” of the combat system models
  - Development of *Dawn of the Rising Sun* (2004) made it abundantly clear the problems were bigger than first realized
- ◆ *Admiralty Trilogy* design team began a multi-year effort to correct and unify the combat modeling and the game mechanics for all the games within our system
  - See the Cold Wars 2009 presentation on the ATG website for more details
  - *Command at Sea* 4<sup>th</sup> ed (2008) was the first “harmonized” product
- ◆ Overhaul of the *FG&DN* rules began in 2010
  - *FG&DN* 1.1 Damage Rules revision came out in early 2011 & 2012
  - The rest of the rules are *finally* under full scale revision



# Overhaul Overview

- ◆ Format – The rules will deal exclusively with the game mechanics, explanatory and historical information will be moved to a separate product
  - Based on positive feedback we received on *Persian Incursion*
- ◆ Visual Detection
  - Ship-to-ship model now the same as in *Dawn of the Battleship (DoB)*
  - Air-to-ship ranges greatly reduced
  - Ship-to-air ranges increased
  - Visual identification as in *DoB*
  - Searchlight model the same as in *DoB*
  - Major revision to starshell rules
    - Can be employed in both fire phases
    - Reduced area of effectiveness
  - Night time illumination only reduces the effect of low visibility, doesn't negate it





# Overhaul Overview

## ◆ Gunnery

- *FG&DN* first edition was the basis for gunnery used in other games
- Long and Extreme range band base chance to hit reduced to 5% and 1% respectively
- Long and Extreme range band gunnery modifiers halved
- Changes to optical rangefinders
  - German RF operator eyesight modifier (Naval SITREP 52)
  - Coincidence RF reduced effective range in poor visibility conditions
  - Speed penalty for Royal Navy ships (Naval SITREP 52)
- Overconcentration now starts after two ships
- Attacks against land targets will be resolved as in *DoB*

## ◆ Damage

- Retained the *FG&DN* 1.1 rules with slight modifications due to *DoB*
- Break out flooding from torpedoes and mines from shells and bombs
- More graceful failure of the torpedo protection system



# Visual Detection

- ◆ Ship-to-ship detection changed to conform with *DoB*
  - Detection ranges rounded to nearest 500 yards
  - Variability simplified, single die roll, no math
    - Roll d100, run across until a column with a higher detection prob is reached
      - Example: 38.0 kyds visibility, roll 68, detection range is under the 75% column

<i>Visibility Range (kyds)</i>	<i>Probability of Detection and Visual Detection Range (kyds)</i>				
	<i>10%</i>	<i>25%</i>	<i>50%</i>	<i>75%</i>	<i>100%</i>
40.0	40.0	38.0	34.5	30.0	27.0
<b>38.0</b>	38.0	36.0	32.5	<b>28.0</b>	26.0
36.0	36.0	34.0	31.0	26.5	24.5
34.0	34.0	32.5	29.0	25.0	23.0

- ◆ Air-to-ship detection ranges to be reduced by about half
  - Low grazing angles make it hard to spot wakes
- ◆ Ship-to-air detection ranges will increase by about 1/3
  - Reflects the use of binoculars and narrower search sectors by ship lookouts



# Visual Detection

- ◆ Visual identification will be the same as in *DoB*
  - Very simplistic – ship, type, nationality, class die roll
  - Hull down/hull up table entries
- ◆ Searchlight model same as *DoB*
  - Detection die roll approach identical to visual detection
- ◆ Starshells
  - To hit die roll the same as any other gunnery attack
    - Starshells cannot be used randomly, requires a previous detection
  - Single die roll to determine where the starshell goes if it misses
    - Combines range and bearing error
  - Effective illumination range is reduced to 1,500 yards
  - Can be used in both Planned and Reaction Fire Phases
- ◆ Illumination only reduces the effect of low visibility caused by reduced lighting – no longer a net positive modifier



# Gunnery

- ◆ Base chance to hit for Long and Extreme Range Bands reduced from 10% and 5% respectively to 5% and 1%
  - Detailed research into late 19<sup>th</sup> century and early 20<sup>th</sup> century gunnery exercises and World War I reports showed we are too optimistic
  - A gun may physically be able to shoot that far, but hitting the target at extreme range is a completely different issue
- ◆ Gunnery modifier multiplier for Long and Extreme Range Bands reduced from 2 to 1
- ◆ Changes to how optical range finders affect gunnery
  - Germans will get a modifier to allow greater effective range finder range
    - Details in Naval SITREP #52
  - Coincidence range finders will have their maximum effective range reduce by 15% in poor visibility ( $\leq 40\%$ )
  - Barr & Stroud range finders have a -1 modifier for speeds  $\geq 20$  knots



# Gunnery

- ◆ Overconcentration modifier will be changed to allow two ships to fire on the same target without penalty
  - 1924 U.S. Naval War College Gunnery lecture notes addresses the results of an experiment on the impact multiple ships firing at the same target
    - Report will be posted on the ATG website
  - Consistent with a less explicit Royal Navy report
- ◆ Naval gunfire attacks against land targets will be the same as those in *DoB*
  - Critical hit model focuses on a land structure's ability to function
    - Greatly simplifies interactions with coastal defenses





# Damage

- ◆ Initial changes to *FG&DN* damage model made in 2011 & 2012
  - Damage control model dependent on the stress to the ship's DC cadre
    - Varies with ship size
  - New ship damage point model put in place in 2012
    - 2012 Standard damage point listing for all ships in AT series posted on the Wargame Vault at no cost
- ◆ Weapon damage effects consistent with the energy-based model (2006)
  - See *Weapons Effects and Warship Vulnerability* presentation on ATG website
- ◆ Flooding critical hit level now depends on the cause
  - Shells and bombs tend to cause lower levels of flooding that take longer to develop, torpedoes and mines flood whole compartments instantaneously
  - Torpedoes and mines cause D6+4% flooding
  - Shells, bombs, and subsequent flooding critical hits are D6+1%



# Damage

- ◆ Torpedo protection system modified to fail more realistically
  - Current system is pretty much a binary result
  - Modification is subtle but will allow the torpedo protection bulges to fail more gracefully
- ◆ Shift to a three state approach
  - TPS system absorbs all of a torpedo's/mine's damage, there is no automatic flooding critical hit (D6+4%)
  - TPS system absorbs 50% of the damage, the automatic flooding critical die roll is halved
  - TPS system absorbs <50% of the damage, the automatic flooding critical inflicts the full amount of the die roll



# Conclusions

- ◆ It's been a long time coming, but the *FG&DN* overhaul is just about completed
  - The Harmonization Process started over a decade ago – 2004
  - Weapon damage model revision completed – 2006
  - *Command at Sea* 4<sup>th</sup> edition was the first product – 2008
  - Revised Damage Point model completed – 2012
  - Visual detection and gunnery changes from *Dawn of the Battleship* – 2016
- ◆ Incorporation of these collective modifications will make *FG&DN* a more realistic and playable game
- ◆ The players, however, are the ones who grade our work; so pick up this new edition, play it, and give us your feedback