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### A Novel's Alien Invasion

A 2021 article from *The New York Times* states that the United States Defense Department has been collecting reports on navy pilots encounters with strange objects while flying “for more than 13 years as part of a shadowy, little-known Advanced Aerospace Threat Identification Program within the Pentagon” (Barnes and Cooper). This “shadowy” Pentagon program may be connected to another program that Duncan Forgan and Alexander Scholz’s 2016 article, “#FoundThem—21st Century Pre-Search and Post-Detection SETI protocols for Social and Digital Media,” introduces. These protocols were first created in 1989 by the International Academy of Astronautics, which they called “The IAA Search for Extraterrestrial Intelligence (SETI) post-detection protocols” (Forgan and Scholz). The standard narrative given by scholarly sources is that protocols need to be—and have been—put in place that will alert the proper authorities in the event of an alien invasion.

SETI and other post-detection protocols are also found in Margaret S. Race and Richard O. Randolph’s article “The Need for Operating Guidelines and a Decision-Making Framework Applicable to the Discovery of Non-intelligent Extraterrestrial Life.” When synthesized, these articles list and explain the step-by-step recommendations for detecting extraterrestrial intelligence and what should be done after contact. The protocols are broken into two sections: Pre-Detection Protocols and Post-Detection Protocols. The way the protocols stand now assumes that communication channels between scientists and the public would still resemble those of 1989, “which were specifically one-way with a narrative controlled by a select few media

outlets” (Forgan and Scholz). The SETI protocol does not “give guidance as to how scientists should prepare to navigate [the] media maelstrom” that would accompany an alien invasion (Forgan and Scholz). Especially in this modern era where “non-scientific dimensions [would strongly influence] decisions about the nature and scope of future missions and activities” (Race and Randolph 1583). Pointing out these modern flaws in a protocol created in the 80s led Forgan and Scholz to propose adding additional steps to both the pre- and post-detection protocols “as they pertain to the use of the internet and social media.”

The first step in pre-detection is for SETI scientists to “gauge how the public consumes news *at the beginning of the search*” (Forgan and Scholz). The scientists do this to discover which media outlets best suit their needs for displaying information they have gathered over decades. Scientists are to maintain “a blog [...] long-form news updates, as well as microblogging accounts such as Twitter and video publishing platforms like YouTube” (Forgan and Scholz). The success and use of mediums are noticeable in videos released to news outlets of flying objects, and articles such as Julian Barnes and Helene Cooper’s “U.S. Finds No Evidence of Alien Technology in Flying Objects, but Can’t Rule It out, Either.” The next step in the protocol is to clue in the public as to the scientist’s goals for their study, their protocols, and the experiments they will be conducting; this way, the public can follow along with the process. The rest of the Pre-Detection Protocol involves the scientists gaining the public’s trust and learning how to navigate the world of social media.

Forgan and Scholz explain that “protocols are necessary if there is to be a well-informed, sane global conversation amongst the world’s citizens following the discovery of intelligent life beyond the Earth” (Forgan and Scholz). When referring to *The New York Times* article that

Barnes and Cooper published, it is notable what information and how much of said information the government decided to share with the public. The “senior officials briefed on the intelligence conceded that the very ambiguity of the findings meant the government could not definitively rule out theories that the phenomena observed by military pilots might be alien spacecrafts” (Barnes and Cooper). Forgan and Scholz state that the “initial detection of what is deemed to be intelligence will likely be tentative,” as shown by the quote given to Barnes and Cooper by the U.S. government. Both Forgan and Scholz, and Race and Randolph give some variation of Post-Detection Protocols that should be taken in the event of an extraterrestrial sighting or signal. Forgan and Scholz’s post-detection consists of three different scenarios, the first being that if a signal “deemed to be intelligence” can be detected, it will be tentative as a way to remain cautious. This first scenario is also the start of Race and Randolph’s post-detection plan, stating, “if an alleged signal is detected, the discoverer should seek to verify the source as extraterrestrial” (1584). Their next step is to “confirm the discovery by independent observation with research colleagues at other sites” before they make a public announcement (Race and Randolph 1548). After confirming that the signal is credible, the scientist team is to “inform UN and appropriate government and professional bodies” of the identification; only then can the team announce to the public that an alien lifeform has been detected (Race and Randolph 1548). This step is followed by the release of all data “to the scientific community” so other sources can confirm the discovery (Race and Randolph 1548). As a last note, Race and Randolph mention that if the detection is in the form of an “electromagnetic signal,” then protection needs to be placed on “the appropriate frequencies,” and no response should be put out “without consultation” (1548).

Race and Randolph conclude their Post-Detection Protocol by stating the continued review and revision of procedures (1548). Moving away from the expansion of Forgan and Scholz's first scenario, their second scenario states that if a signal cannot be "independently verified or is convincingly refuted, [then] the scientists must issue a clear statement to this effect," so as not to have the public assuming or going into a state of panic. The last scenario indicates that in the case of an "independently verified" signal, as in not by NASA or the government, the individual or team should make an announcement and loop in the experts (Forgan and Scholz). They all lay out the general steps that would need to be taken, starting with verifying that the received signal did come from an extraterrestrial life form. These articles end before first contact can be made, saying that further expansion of the protocol would be needed in the future. Where the scholarly sources stop the narrative, the novels pick it back up and expand on what could be.

The science fiction novels do not mention the standard scholarly narrative of protocols introduced by the articles. However, they pick up where these articles stop, at the first interaction between humans and aliens. While the scholarly articles focus on the science of discovery and knowledge, the novels take the narrative differently. The narratives from novels such as Rick Yancey's *The 5th Wave* and co-authored novel by Larry Niven and Jerry Pournelle, *Footfall*, add to the established narrative of first contact by describing how the interaction between aliens and humans would be our downfall and lead to war and bloodshed on both fronts. There is no mention of protocols already being in place before the aliens arrive. Instead, humans would first see some signal sent out by the aliens mere moments before they invade Earth. Coming fast and quick, they would give the humans no proper time to defend themselves or Earth. Mark Neal

poses the question, “what gaps remain to be filled to deal with these kinds of risks,” in his article “Preparing for extraterrestrial contact” (79). These novels fill those gaps left behind by scholars, help answer the question of alien risk, and help further the accepted narrative.

*The 5th Wave* opens with the main character Cassie as the fourth wave has already commenced. Before the start of the book, the aliens have already arrived in our solar system, and they conduct waves one, two, and three from space. “The Arrival,” as it is called, puts everyone on edge as they wait around for ten days; “waiting for something to happen while nothing is happening makes you jumpy” (Yancey 30). After the tenth day, the aliens set off a global EMP, killing all electronics, and thirty minutes later, “social order was breaking down” (Yancey 18 and 31). The second wave was just that, giant tsunamis that flooded entire states, lasting an entire day and driving the survivors inland (Yancey 45). The third wave was a deadly virus spread by birds that lasted twelve weeks and killed “ninety-seven percent” of the remaining human population (Yancey 45). The fourth wave introduces the aliens to the remaining human population. However, the humans do not know it because the aliens morph to look like humans in the fourth wave, “intruders in bodies indistinguishable from those of their prey” (Schmeink 345). The goal for the humans in *The 5th Wave* is hidden for much of the novel until Cassie meets a defective alien-human—“Silencers”—named Evan Walker, who informs and helps her stop the completion of the fifth wave. The fifth wave is when Silencers gather up what is left of the human children and train them to kill Silencers. The kids do not know that what they are being sent out to kill are not the alien-humans but the remaining human adults (Yancey).

Niven and Pournelle take great care in “creating [a] believable alien technical [civilization] close enough to the present level of human development to be both imaginable and

not so overwhelmingly superior military and technologically, that human victory would be inconceivable” in their novel *Footfall* (Webster 46). Unlike *The 5th Wave*, this novel has a global cast of characters, such as astronomers, politicians, survivalists, Russians, and a few science-fiction writers (Niven and Pournelle). However, the novels are similar because very few humans have contact with the aliens. This limitation is an effective measure the authors have taken to create an exciting novel. However, this limitation was set by the existing narrative, which stops just before the two species interact. For a novel to work correctly, it must have tension and suspense, which is where the narrative and the novel spit. While the idea of aliens existing is still a theory in the scientific community, people cannot entirely rely on fiction novels to fulfill the existing narrative. That is not the novel’s primary goal; its main goal is to sell. There must be a barrier between the actual narrative and the story, just as there must be a barrier between the aliens and humans to keep the suspense high for the final battle when the aliens and humans face to face.

The fear that both novels produce is based on the lack of contact between the aliens and the humans. The less contact and more action the aliens take, the more fear they instill in the humans. This lack of contact and increased fear is due to the protocol narrative stopping just before contact. These fiction writers are adding to the protocol as they go because they have nothing but the Pre- and Post-Detection Protocol to go by. There is no pre-contact protocol. To further dehumanize or make the aliens seem less like intelligent creatures, the characters of both books refer to them as “the Others,” putting another barrier between the humans and aliens (Yancey 1). There is an interaction early on in Yancey’s novel between Cassie and a wounded human in a gas station, ““So you can either finish me off or help me. I know you’re human—”

‘How do you know?’ [...] ‘Because if you weren’t, you would have shot me already’” (Yancey 12). This interaction perfectly summarizes how America has fallen apart and how the mindset of humans has changed since the arrival of the shapeshifting aliens on Earth. This interaction between Cassie and the dying convenience store man differs from Cassie’s first contact with the Silencer, Evan Walker. In both novels, we see one human learn and get to know their perspective alien more. This is an addition to the protocol narrative, which furthers the contact and knowledge between the two species.

Wesley Dawson is the first character to make contact with the aliens of *Footfall*. When he travels into outer space to greet the aliens, the first thing he does after the aliens hold a gun to him is lift “his hand in greeting” (Niven and Pournelle 112-13). Unlike the Silencers of *The 5th Wave*, who are “smart about everything” and therefore much more dangerous, the Fithp of *Footfall* are a different kind of danger (Yancey 8). The Fithp’s lack of intelligence and “higher level of military and space technology” makes them more dangerous (Webster 48). However, the decreased intelligence gives the humans in *Footfall* the upper hand. Early in the novel, it is noted that the contact between aliens and humans will not be kind. The Fithp describe humans as “the prey” that must be submitted (Niven and Pournelle xiv). The reader is not told the aliens’ origin from *The 5th Wave*, which adds to their scariness. However, knowing that the Fithp are from another planet in our solar system is also scary. It makes the reader wonder if aliens are waiting for the right moment to leave Saturn or another planet and attack Earth.

Everyone forms their own opinions of their given aliens. The reader is given multiple perspectives in both novels to show how different people are reacting. Sadly, some of the humans are already turning on their kind. Roger believes that these so-called aliens are a trick

orchestrated by the CIA (Niven and Pournelle 58). Some people's first reaction is to get rid of whatever is in outer space, like John Fox, who says, "we may not even understand what these ETIs are using. Or maybe it's worse than what we've got. [...] Whatever that light in the sky does for us, the High-Beam is going ahead unless I stop it. And I intend to" (59). Only one person considers the possibility that "they hid at Saturn. No sign of them, nothing that made sense, anyway. They stayed hidden for more than a dozen years. Is that a sign of friendship?" however, the lead-up and the concluding question do not correlate (56). The only trustworthy information to go by now is the scholarly narrative, so we would not know why aliens would potentially stay hidden for more than a dozen years. We also do not know whether they would be friendly or not.

Nevertheless, the narrative continued from these novels is that no matter what, if aliens are detected by Earth's satellites, they are making themselves known now because they need Earth as their new home and for the humans occupying it to be gone. Unlike the scholarly narrative, the fictional narrative of *Footfall* has many people doing and thinking different things simultaneously. Since humans are not working in tandem, they will fail to achieve their individual goals. This is dissimilar from *The 5th Wave* narrative, which integrates the aliens into what is left of human society by taking over the United States army. This creates a false sense of security for the remaining humans and adds to the paranoia that no one can be trusted. *Footfall* has made it clear that its accepted narrative is human versus human versus alien. While *The 5th Wave* does have this human versus human idea, it is much more human versus alien, just a more subdued version of the theme produced in the adult book *Footfall*. *Footfall* is willing to complicate the narrative by bringing in humans as our own worst enemy. It is adult versus young adult novels, where "young" offers the reader more protection from the unfiltered narrative that



*Footfall* constructs. In *The 5th Wave*, Cassie says that her family stayed cooped up inside during the third wave partly to protect themselves. The other part was to keep themselves safe from the “pretty whacked-out people [who] roamed the streets, breaking into houses and setting fires, the whole murder, rape, and pillaging thing” (Yancey 48).

Since these novels’ job is to continue the established narrative, the authors decide to show as many perspectives as possible. *The 5th Wave* spans a wide area of the United States, starting in Ohio, where Cassie lived with her mom, dad, and five-year-old brother Samuel. The perspective shifts to another teenager, who is taken by the Silencers and manipulated into killing humans. The third perspective is that of Evan, the defected Silencer. *Footfall* also shifts between the aliens aboard their spaceship just outside Earth’s atmosphere, their human captives, and an underground U.S. base where the U.S. government and related teams conduct their plans. This array of perspectives is something that the narrative did not previously have. It is an excellent addition to seeing the situation from all sides, even if the real-life narrative would be solely from the human perspective.

These multi-perspective novels also help add the emotional reactions of humans to the narrative. The alien spaceship’s appearance produces a mixture of emotions from the humans, going from hope and curiosity to fear. The humans of *The 5th Wave* were not afforded that luxury because the aliens implemented wave one before they even landed on Earth, thus giving them no time to prepare physically or mentally for what was to come. Since the humans of *Footfall* do not yet know the aliens’ intentions, the United States decides to send out a “welcoming spacecraft” with Wes Dawson, the Congressman of California, aboard to welcome the aliens to Earth. After the initial shock of the alien’s existence, the next step in the narrative added by these novels

would be to send out a welcome party to make first contact with the aliens. That would have been the next step if the aliens had not hijacked the spacecraft and taken everyone on board prisoner (Niven and Pournelle 121). The Fithp land in Kansas because they see it as Earth's primary source of food, but are confronted by three humans who defend themselves as best they can until two of the three are captured (166-73). This is a commonality between the two novels. While not happening at the same chronological point in their perspective pages, both novels include a moment where humans, naive to the aliens' true power, try to make them leave Earth and ultimately fail (Niven and Pournelle 172-73).

Similar to, but not identical to, the aliens of *The 5th Wave* who wipe out humans through waves, the Fithp sent a meteor into the Indian Ocean that produced a "flashbulb [that] popped above the Indian Ocean, and was replaced at once by a swelling, darkening fireball" (Niven and Pournelle 329). Then, the tsunami hit India, "distorting the clouds and submerging all of India," wiping out billions (329). The humans follow this act of war by sending a jerry-rigged spaceship powered by an atomic bomb into space, which they codename "Archangel" (429 and 444). Unlike the accepted protocol narrative that real-world sources have already established, the continuation of the narrative via these novels leans toward making it up-as-we-go protocol, chaos, destruction, and war, with one side consistently winning over the other. Neil Gaiman wrote a review for *Footfall* in which he states that this novel "reinforces the impression that the book is essential parochial: The World is not threatened by aliens, only America is," which is true when looking at both *Footfall* and *The 5th Wave* (Gaiman 86). Americans created these novels and most of the science fiction alien invasion genre, so it makes sense that Americans are the most frightened by aliens coming to Earth. It is Americans who have created a standard narrative

for the possible or eventual detection of alien life. *Footfall* includes Russians, specifically the KGB, who are not scared of the aliens and believe that this is all a ruse conducted by the Americans until the United States contacts the Russians to set the record straight (Niven and Pournelle).

A somewhat mirroring theme in both novels is that the aliens need the Earth. However, they do not need the humans inhabiting it, so the aliens are “cleansing” Earth before officially calling it their home. This is seen very clearly in *The 5th Wave* because, with each new wave, more humans are killed. However, the Fithp do not necessarily want the humans gone. While being kept prisoner by the Fithp, Wes Dawson has become a member of the “Chtaptisck Fithp—which is to say the Traveler Heard,” and he was told by the leader of the Fithp that “—They will take the surrender of all humans, and they will incorporate them into their herd. [and the Fithp] intend to live on the Earth. They intend that all humans submit. They have come to stay. They mean to be the dominant but not only intelligent species on Earth” (Niven and Pournelle 343-344). The Fithp will not kill the humans if they do not have to, but they will kill those who do not submit, which is basically all humans. The Silencers, on the other hand, never allow the humans to surrender. They know that the humans will put up a fight, so they jump over the peaceful surrender and go straight for the kill.

As it stands, the narrative includes the phases of detection, contact, and altercation, but what has not been brought up is life after the aliens or life with aliens. The question remains: how will humans move on in life with the knowledge that aliens exist in the universe?

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