

Advanced Command/Combat Executive AI

The Advanced Command Executive program was created in [YE 34](#) by [NAM](#) to replace the Drei AI. It is far more adaptable, in terms of usage, compared to the Drei or [Precipice system](#). It is designed for use on Nepleslian warships, with less sophisticated variants available for civilian starships, while the Combat Executive variant is designed for use in power armors.

History

In the years since its inception, the Drei AI had, with some exceptions, served the needs of the [SMDIoN](#). However, it becomes less useful over time as new needs and requirements arose. In addition, some incidents that marred its service were quite glaring and caused many to question the security and wisdom of the AI system. This paranoia resulted in the [installation](#) of [Savtech's Precipice system](#) as a failsafe measure in most SMDIoN AI cores.

This resulted in greater power draws and memory use with two AIs running at the same time. To rectify this inefficient power and memory usage, as well as assuage fears of security risks within Drei (which had been fixed by [cassefin montreal](#)), NAM decided to make a new AI with expanded capabilities and unquestionable security.

The Combat Executive version was added to update the Precipice system, installed on Nepleslian Power Armors, and is less powerful than its Command counterpart.

Features

The following are some of the features of the ACE system.

Artificial Intelligence

The Advanced Command/Combat Executive, or ACE, is an artificial intelligence program that is fully capable of independent thought within its core programming limits. This allows it to be fully cognizant and responsive to rapid developments that a program incapable of such thought might lag behind in addressing.

Computing

Like other systems that came before it, the ACE is capable of high level, near instantaneous computing and analysis. The program is capable of assisting the user or users with any desired function. Since it is intended for use on warships and Power Armor, the ACE is far more flexible in its ability to think tactically and strategically.

The Command Executive is able to control starship systems in the event that human personnel are incapable of controlling them. This is especially important when connections are lost between the bridge and relevant subsystems due to combat damage. With the ACE as a failsafe measure to ensure the continued use of subsystems, starships maximize their survivability and ensure that they remain operational even under extreme circumstances.

The Combat Executive is much less powerful than the Command version since Power Armors lack the same level of computing power. It is only tasked with upholding three functions: to advise the Marine of all relevant tactical options, to ensure that the armor's various systems and hardware are all in working condition, and to ensure that the occupant is kept in the best possible condition, be it through combat drugs or other measures.

Memory

Both versions of the AI feature memory storage amounts as suited to their intended use. The Command Executive features much larger memory storage in comparison to the Combat Executive. The former must store military as well as personal data in its memory cores since sailors must spend extended periods of time aboard starships and need entertainment to keep them from going stir crazy while the latter only needs to collate and store combat data and visuals since Power Armors are not intended for prolonged habitation.

Network Synchronization

The ACE is capable of easily synchronizing with a variety of hardware, software, and other computers. This includes all other existing AI platforms in Nepleslia. It has both physical wired and wireless connectivity, allowing it to be hard-wired into a ship or communicate with objects which are not physically wired into the ship's computer systems.

To meet the demands of the [SMDIoN](#), the ACE AI is capable of linking multiple ships within a squadron or fleet. This allows a unit of warships to coordinate their own maneuvers as well as multiple squadrons to remain organized in fleet actions. The system can handle up to 100 warships on the same network without difficulty, making it ideal for small unit or fleet coordination. For larger engagements, each separate network must connect with others and share the load.

Intrusion Protection

The Command Executive features a unique system of protection. It will isolate the intrusion program by leading it on a false path to the core programming, essentially baiting the attacking program. Once it is isolated, the ACE will analyze the program and, after adding it to an archive of known attack programs if it is new, then send replicate the same program to seek out and attack the origin of the malicious program. The original is then wiped. In the event where the ACE is incapable of isolating the attacking program(s), it will do its best to wipe out the program. If necessary to prevent loss of control, the ACE will automatically shut itself down, wipe its memory core and begin reinstalling its core programming. While

this results in a loss of all data, it will prevent a hostile take-over of the starship's AI.

This feature is not present on the Combat Executive variant.

Interaction

Anyone can interact with the ACE by speaking to it or via a connected device such as a datajockey.

The Command Executive can produce an avatar using a [Yorna](#) platform or by use of a virtual, holographic avatar. This allows the ACE to appear in any part of the ship that features a holographic projector, a video screen or on datajockeys. It can also appear through the holographic projectors of wirelessly connected devices, though bandwidth may affect the avatar's resolution.

The appearance of this holographic avatar is set to feature a young, congenial looking male Nepleslian by default, though the avatar is entirely customizable for each captain, crew, and AI to tailor as they see fit to do so.

The Combat Executive has none of these functions. It is, instead, merely a disembodied voice in the Power Armor, though a customizable symbol does flash unintrusively, representing the ACE when it is speaking.

Speech and Personality

Both versions of the ACE Are capable of understanding speech, in many different accents and several different languages, including Nepleslian, Yamataian, and Abwehran. It may be spoken to conversationally, given requests, and given orders. It is not, however, capable of giving emotional responses or opinions on matters. If one were to ask it about the weather or the ship's lunch menu, the ACE would only be able to give weather reports or list off the menu, not a "It's a nice day." or "The hamburgers are very good."

The Command Executive can have a personality package installed to spice things up but these are usually just adjustments of existing command paths and do not render the AI any more or less able to give opinions or present any true emotion. However, this will allow the ACE to add more nuance to its responses and react with more human-like responses to crew interaction. Barring its inability to give opinions, the personality-equipped ACE could pass as a human. Without the package, the ACE gives more monotone and computer-like responses.

The Combat Executive is even more limited since its sole function is to oversee the smooth operation of Power Armor. It is possible to install a personality package for a Combat Executive, but it is an uncommon occurrence, since during a mission it serves no practical purpose. Nonetheless, the AI is very pleasant and works alongside the Marine to accomplish the mission. With more time in a single armor, the ACE and Marine would potentially be able to develop a close partnership.

Installation

The ACE (Command) is intended to be installed on all Nepleslian warships as a replacement of the Drei system.

The ACE (Combat) is intended to be installed on all Nepleslian Power Armors as a replacement of the the Precipice system.

Existing AI & Transition

The ACE replaces the existing AI personality but retains its data. It can be programmed to respond to the former AI's name(s) but that is not the default setting.

From:

<https://wiki.stararmy.com/> - **STAR ARMY**

Permanent link:

https://wiki.stararmy.com/doku.php?id=technology:nepleslia:ace_ai&rev=1668875424

Last update: **2023/12/20 22:55**

