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FMS Pilot Companion Al

Made by the Frontier Manufacturing Service for the Wahoo Interceptor the Pilot Companion AI exists to aid vehicle operators by learning about the individual pilot and assisting them in their duties. Made available in YE 39, this program comes installed on a quantum computer insulated using the FMS Aerospace Insulation Method and encased in a small, rectangular box made from high-end durandium alloy. Pilots have dubbed it the "PiCo Box".

About PiCo

During the design phase of the Wahoo Interceptor the topic of performance limiters was debated. On one side of the argument were loyalists to the driving concept behind the Wahoo, and on the other side were people who recognized that the fighter would outperform the capabilities of their absolute best pilots and was dangerous without stricter limitations. It was agreed that both performance and safety had to be considered yet neither could be achieved without sacrificing the other. And thus a third option was found.

In order to remain true to FSCorp's 'people over computers' structure the Wahoo could absolutely not become a drone specific fighter. Rather than remove the pilot completely a different idea was born and work began on the Pilot Companion, an artificial intelligence designed specifically to fill the role of a copilot and then some.

With characteristics similar to a pet each PiCo is bound to it's pilot, training alongside them and learning what its partner needs most when operating a vehicle and filling the need. It is a semi-autonomous, partially sentient computer that is fully capable of learning on the job, operating a wide range of very different vehicles, operating the entire vehicle when needed, and even engaging in combat(rendering the vehicle an autonomous drone).

The PiCo is not susceptible to external hacking or jamming as it does not not respond to anyone other than its owner's voice and training. It travels with the pilot in a small, armored package that plugs directly into the vehicle's controls. Support for this plug-and-play operation will be standard on all FSCorp ships, mecha, and other miscellaneous vehicles. Vehicles that do not have the necessary plugs to support PiCo can usually be retrofit with the needed wiring, electronics, and/or programming needed.

Nomenclature Information

Designer: Frontier Manufacturing Service

Manufacturer: Frontier Manufacturing Service, Software Division

Name: Pilot Companion Artificial Intelligence

Nomenclature: Fs-G-E1

• Type: Software

Role: Copilot

Appearance

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At a glance it is just a $7.5 \times 2.5 \times 10$ cm metal box with two LED indicators, red and green, on its top side, the side that is both thinest and shortest. The box is painted black, thought the paint tends to flake off from being carried in the cargo pockets of pilots.



Operation

PiCo operates much like a dog. Being semi-sentient it has a very real desire to be with its pilot and protect him at all times. If the pilot is assaulted or endangered while outside of the vehicle PiCo, using the vehicle, will face any danger or hardship to see its pilot saved. This fierce, even suicidal loyalty is a tremendous force to contend with, however PiCo is a learning AI. It MUST be trained by it's pilot or it will be defeated quickly when fighting autonomously.

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Training

Every PiCo starts it's life as a blank slate. Training is not an option. In order for PiCo to enhance it's pilot's combat effectiveness it must be given the chance to familiarize itself with the pilot. In order for PiCo to reach its greatest potential as a copilot its pilot must take an active interest in training it. This is easily done.

PiCo has a binary mind, yes or no, good or bad. A pilot must understand this before attempting to train. Phrases like "good job" and "I like that" are positive and that is what PiCo remembers, a positive response to his action. That action will now be associated with the pilot's approval and with enough practice PiCo will begin to do said action automatically.

Phrases like "that's bad" and "don't do that" are negative. That action will now be associated with the pilot's disapproval and when an action is associated as such PiCo will stop doing that unless it believes it's action is absolutely necessary. With enough disapproval it will stop that action all together. This can be a very bad thing. If PiCo is interfering with a certain action it is more than likely that the pilot's action is posing a danger to himself, others, or the vehicle.

Analysis of data collected during battle will also shape how PiCo operates during a violent encounter. When acting autonomously an untrained PiCo will be more likely to behave like a basic drone with poor combat performance. They take hits more frequently and have a tendency to miss fast moving targets.

On the other hand, a PiCo that has been trained well is a true force to be reckoned with. They reflect the style of their trainer so a pilot who moves tactically through a battle zone and employs stealthy tactics will have a PiCo that moves in a similar fashion whereas a pilot who tends to "run and gun" will train his PiCo to move quickly and fire frequently. If employed on a mecha PiCo is capable of engaging in hand-to-hand combat, even martial arts, within the physical capabilities of the mecha.

Furthermore, they react to changes and dangers far quicker than humans do, so if an enemy fighter targets a PiCo's fighter it will wait until the absolute last microsecond before automatically evading. This feature can be disabled verbally but only by the pilot's voice. The pilot must recite a predetermined phrase in a natural tone of voice. Any wavering, trembling, or other anomalies in the voice, including shouting, will prevent the action.

Living Computer

It never "speaks" in the traditional sense as it lacks both the programming and processing power to create its own verbal responses, however many vehicles possess a computer with prerecorded statements to offer verbal feedback such as "enemy mecha; destroyed", "heat level; critical", "you are outnumbered two to one", and "reload complete". Like a dog there is no way to have a two-way conversation with PiCo so a pilot must train himself to look at the vehicle as if it were alive because once PiCo is plugged in the vehicle truely comes to life.

Death

It is always a possibility for a war machine to be destroyed. Since the PiCo Box must be connected to the wiring of the vehicle there is a chance that it will be pulled by the wires as the pilot ejects, perhaps pulling it out. Anything could happen and a destroyed PiCo Box could be the result.

Fortunately, it is only a computer and can be backed up elsewhere. Should a PiCo be destroyed a new Box can easily be flashed with the last save state.

Pricing

• Pilot Companion AI: 5000 DA

Replaceable Parts and Components

• Insulated "PiCo Box" hardcase: 2000 DA

• Adapter Cord Sets: 50 DA

OOC NOTES

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