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Codeword Authorization :

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Orion State Security White Paper

AUTONOMOUS RECOVERED PERSONNEL

Genesis: Battlefield Recovery Program

Historical Background:

During the Mutant War mass casualty situations were common and battlefield medicine was forced to innovate. This stress led to the development of several new processes to preserve life.

One of these was the brain transposition device which came to be known as 'The Replicator'. Several instances of this or similar technologies were developed simultaneously by several of the combatants. These included the Terran Union, Oster Republic, Orion Confederation and of course the Deramus Enclave. As the war continued these technologies were shared among allies.

The Replicator was a breakthrough from previous Consciousness Transfer technologies because of its speed, cost, and portability. The typical replicator device is roughly 1.5x1x1 meters in size and usually weighs less than 30kg. The size of current devices is approximately 10% less than upon their first introduction in 2902. The devices are portable by a medic if somewhat bulky and cumbersome. They are easily made more mobile by employing a common grav sled. Coupled with a 'follow me' command to the grav sled a combat medic is usually able to have the device near to hand. Coupled with its cost of around 20,000 credits (expensive but well within reason for the benefit accrued) and its speed (About 3 minutes to complete a brain peel recording), The Replicator represents a generational breakthrough in Consciousness Transfer technology.

The combat application of this device would however have been moot without the simultaneous development of revolutionary new quantum data storage media. Previously Consciousness Transfer was made directly to a quantum computer core. An expensive process which on a battlefield would have been subject to directed or collateral electronic jamming. It would further have entailed having a host of quantum

computer cores within broadcast distance of a battle. Something that could at best be called impractical. The storage device made use of radical new quantum concepts to create a device the size of a cred stick (cred sticks are the size of a common 21st century writing stylus often referred to as a pen). A sort of quantum 'zip drive', for lack of a better descriptor, stored the replicated mind. These came to be known as 'Quantum Pens'. These devices allowed the creation and transport of large numbers of 'Consciousnesses'.

The process, however, isn't without its drawbacks. It isn't as accurate as traditional Consciousness Transfer tech (however as was the case with the original technology improvements are constantly being developed) and so lead to fidelity ratings more in line with Dup creation than Ghost creation. However to soldiers facing the possibility of death this was trivial. The chance of surviving even if physically killed was all that mattered. The presence or lack thereof of these devices on a battlefield was crucial to unit morale.

The BRP (Battlefield Recovery Program):

The BRP was the direct result of the new Replicator technology and subject to its own unique set of problems. As the Replicators were put to use it was found that not all downloads were complete. Data errors, long the bane of Consciousness Transfer technology was a problem. But an even greater problem was incomplete data transfer.

All consciousness transfers are subject to a time limit from the moment of true death. Hence the need for artificial life support of a subject's body during a classic 'brain peel' consciousness transfer. The speed of the new process negated the need for life support. However, the transposition process is still subject to a time limit from true death. The replicator manual states that the process 'must' begin within 6 minutes of true death. Needless to say, in the chaos of battle it was often difficult to determine this information. This led to many instances of transfers of brains beyond the time limit. A good percentage of these were actually successful. Others lead to incomplete or partial copies.

The existence of successfully copied individuals has raised social concerns. Some societies call for public hosting platforms for these copied individuals. Some successful transfers with sufficient economic assets have continued their lives as ghosts. However as noted there is political traction for providing hosting platforms for those successful transfers without means. A new veteran's benefit. As of the creation of this white paper, incomplete transfers, although publicly documented have largely not achieved widespread societal notice.

Neither societal concerns nor successful transfers are within the purview of this paper. They are merely noted here as background information.

Autonomous Recovered Personnel:

ARP for our purposes is defined as incomplete or fatally errored consciousness transfers.

The Shenzhou scientist, Dr. Harsha Das using Deramus Enclave shared technology discovered several key facts regarding ARP. These discoveries made ARP very interesting to the defense and military establishments of both galactic nation states.

First, a significant amount of technical information is retained by most ARP. When transfers are incomplete it is almost always personal awareness and personal history which are lost or corrupted. What interested the military is that combat training neural pathways (as well as other learned skills or habits) are picked up in the downloading process in an ARP. These simulated pathways must be reanimated via training. However, the training is easier than starting from scratch and greater skill levels are achieved via this process than an average human would achieve in initial acquisition of a skill given the same training time and regimen.

Second, without personal information, data storage requirements for ARP are reduced. Storage needed is reduced to the point that non-quantum computer equipment can be used for their storage or deployment.

When presented with these discoveries Shenzhou defense thinkers (both human and AI) saw the possibility that the ARP could be used to pilot combat mechs and drones. Their use gives these machines far greater efficacy than remote pilots, AIs or even worse standalone computer programs (Expert, Agent or Intellect). Also as noted in documents captured in the Matthew III raid, the ARP could be copied and used multiple times limiting the effect of battlefield casualties to equipment lost.

Dr. Das was immediately given nearly unlimited support and began to make good progress on integrating ARP with various weapons systems.

Dr. Harsha Das:

Details regarding Dr. Das, especially his early life, remain elusive.

It is believed he was born on Vipassana between 2905 and 2908. The first concrete evidence we have comes from his enrollment in The Yogi Chrysanthemum Polytechnical Institute in 2918. His age was listed as 13 but analysis of a photo from his enrollment file points to a more likely age of 10. Thus, our uncertainty regarding his age.

The Yogi Chrysanthemum Polytechnical Institute is a well-respected scientific university. Dr. Das was quite evidently a prodigy as he ranked at the top of his class. He graduated in only 3 years and took a further 3 to achieve a Doctor of Medicine degree.

Upon graduation he immediately entered the Shenzhou Federal Department of Health, known as the Mahamakut. It appears he was almost immediately assigned to the Deramus sourced replicator project. He appears on Mahamakut payroll records beginning in 2925. Based on our estimates above he would have been between 16 and 20 years old at this time.

According to records captured in the Matthew III raid, Dr. Das began his work on Autonomous Recovered Personnel in 2935. By 2938 he had made his two major discoveries regarding ARP. He was immediately placed in charge of the Kamisama no okurimono project to exploit his ARP discoveries.

By 2941 Orion State Security had discovered the broad outline and the intent of the Kamisama no okurimono project. In 2942 in conjunction with Orion Naval Intelligence and using assets of the 14th Orion Marine Jump Division a plan was conceived and carried out to obtain and/or deny to the enemy the research of the Kamisama no okurimono project.

The raid was almost flawless in its execution and the Marines obtained almost the totality of Shenzhou research on ARP to that point. In addition, they were able to capture Dr. Das and destroy his research facility on Matthew III. The raid effectively closed the knowledge gap between the Free Peoples Alliance and the Expansionist States regarding Autonomous Recovered Personnel.

Back in Orion Space Dr. Das turned out to be quite pliable in the area of national allegiance. He had a tunnel like focus on his work. His handlers noted he was likely somewhere on the autism spectrum however they were never able to convince him to sit for evaluation. With no records of his parent's prenatal genetic edits of his embryo we are not able to confirm this hypothesis except anecdotally.

The OSS set him up in a research facility on Corinth in the Hyperion Sector. He remained at that facility from 2942 through 2963.

During his time on Corinth Dr. Das perfected the process of training and placing ARP into any number of machines with an emphasis on military mechs and drones.

Autonomous Recovered Personnel (cont'd):

The existence of Autonomous Recovered Personnel is a State Secret. It remains so for every Galactic Nation with access to the technology. In the Orion Confederation, even those personnel intimately involved in the Battlefield Recovery Program do not realize that incomplete and fatally errored downloads are retained by the state. Official policy is that incomplete and fatally errored recordings are deleted.

The legal basis for the retention of these downloads is the Marjole/Dombrowski War Powers Act (OCL 2101-2881) which empowers the Defense Department to appropriate all usable materials from battlefield casualties, organic and inorganic. The intent of this section of the law was to allow the use of viable organs from battlefield casualties for

emergency medical purposes as well as the recovery of reusable implants. A review by the OSS legal division can find no legitimate legal basis that this section of the law would not also be construed to apply to the incomplete and fatally errored downloads of battlefield casualties.

Autonomous Recovered Personnel became a viable weapon platform control system as the Mutant war was winding down. They were used in a limited number of instances during the long peace treaty ratification process but only limited Naval personnel who had been read into the program were aware of exactly what was piloting the drones being used. To date there has been only one apostate actor threatening revelation of the program. That individual was eliminated with prejudice by OSS badged personnel.

Dr. Harsha Das (cont'd):

With the basic framework of the ARP project completed in 2963 Dr. Das' work on the project was complete. The Project Director Dr. Avram White had requested that Dr. Das remain on the project to work on implantation improvements, but Director Adams of the Terra/Sol Department of the OSS also made a request for his services. Director Adam's request was honored by OSS Managing Director Victor Korchenkolov on Koning.

Dr. Das officially began working in the London office of the Terra/Sol Department of the OSS in 2964. From what we have been able to piece together from the remaining records of this office, Dr. Das was working on Brain Transposition and BRP technology.

He was given 2 seemingly divergent priorities by Director Adams. The first was work on Brain Transposition on expired time subjects. What the scientists euphemistically called expired time subjects, were brains of individuals who were past true death by days, months and in several cases even years.

The second priority was researching the quantum entanglement patterns of Battlefield Recovered Personnel.

It should be noted here that because of the criminal nature of Director Adams tenure at the Terra/Sol Department of the OSS and his subsequent destruction of many records thereof, our information on Dr. Das since 2964 is incomplete. OSS electronic archaeologists continue the work of recovering information. This White Paper will be updated as new information becomes available.

We have little information on the success or direction of Dr. Das' research during the 2964 through 2987 time period. We do know that somehow during 2987 he escaped or was released from OSS custody. Since 2987 we do not know his whereabouts.

Information on the operations within the London Office of the Terra/Sol Department of the OSS, comes from an anonymous source within that office now believed to be Badged Agent Cybil Mar. Agent Mar was born as Margarett Winstrom and identified at the age of 8 by Director Adams as a Cerebrophage. She later disappeared from Director Adams 'orphanage program'. She reappeared sometime later with a new appearance under the alias Cybil Mar. Using this identify she was hired by Director Adams. She

became one of the OSS' most successful field agents on Terra/Sol. The Director had no idea of Ms. Mar/Winstrom's real identity. This mete-infiltration of the Agency was not discovered by Director Adams until the King William Island incident.

Information provided by the anonymous source was that Dr. Das had some success with expired time subjects but with anomalies connected with quantum entanglement patterns of the storage medium occurring.

The anonymous source also indicated that while working for Director Adams, Dr. Das had written a white paper titled; "Volunteer Memory Re-engagement in Autonomous Recovered Personnel". The paper examined unbidden prior memory emergence in ARP. That is the extent of our knowledge regarding this paper.

For our Headquarters scientific staff this has raised several questions.

If ARP has access to previous life personal memories these must be stored somewhere. Does it indicate that these memories are stored but repressed? Perhaps this is some product of the new quantum process used in quantum pens that is not yet understood. Does it mean an AI sized memory (which is somewhat similar to a human mind) can be stored on quantum pens? Perhaps subject to memory swap protocols like AIs are currently subject to when downloading to a robotic shell or BioCon. Even if this is so it would be a massive change to the current size limitations for an AI level intelligence. Are there any other effects that incur to ARP accessing previous life memories?

Desideratum

- 1) Current whereabouts of Dr. Harsha Das.
- 2) Continued surveillance of Director Merval Adams.
- 3) Current whereabouts of any Autonomous Recovered Personnel developed by Dr. Das during his tenure at the London Office of the Terra/Sol Department of the OSS.
- 4) Current whereabouts of the OSS Badged Agent Cybil Mar.
- 5) A copy of Dr. Das' paper, "Volunteer Memory Re-engagement in Autonomous Recovered Personnel".
- 6) Executive policy determination on the Orion Confederation's position on Autonomous Recovered Personnel if or when they receive societal notice.

7) An action plan by the OSS Memetics Division to deal with any potential societal notice.

END WHITE PAPER

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