A CUIDEBOOK FOR FIELD ACENTS

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FOREWARD

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Fifty years ago, Teegarden's Mind spoke to us. It reached out to us—through our thoughts, our dreams—and forever changed our perception of the cosmos and ourselves.

At once we knew that we were not alone; that however different our neighbours might be, communication—and *communion*—was possible.

As we look back on this landmark and its central role in the subsequent creation of our agency, it is also natural—especially for those of us who were there— to consider how much has changed. In my time as director, our searching (aided in part by the superior sensory abilities of The Mind) has yielded concrete evidence of over thirty worlds rich in life. Of these, nearly a dozen host biosignatures, artificial gases and weak radio waves indicating the presence of industrial intelligences. Many of these are nascent, close behind our own, while others, by virtue of their age and distance, may be far more advanced. Our cosmic backyard, which once consisted of two species spread across a mere handful of worlds, has quickly grown into a neighbourhood encompassing an entire galactic arm.

While for now we can only dream about what these peoples might be like, the distances separating us will inevitably become shorter as technology marches onward, and as our agents lay the proverbial tracks connecting our worlds. I have faith, of course, because we've seen it again and again throughout history. Shared fictions once connected warring tribes, just as roads connected nations, boats bridged continents, and optical networks guided a divided Earth of many creeds into a single global entity. Even as we spread out to distant stars, the process continues; in just a few short decades, we've threaded The Mind's long-throat Casimir wormholes into a vast instant communications network, connecting the lonely gaps of space which once threatened to divide our colonies irrevocably.

However, as optimistic as I am about our future in space, I have no desire to revise history, or to ignore the shadowy precedent of human nature. And the obvious fact is that each of these 'unifying' processes have been fraught with misconception, exploitation, and in many cases on Earth, wholesale genocide. When people of two different cultures come into contact, there is almost always an unequal exchange of resources dictated by power and justified by religion, racism, or nationalism.

While I'd like to believe we've grown past this, many argue that we only fostered peace with The Mind due to a simple calculus of resources: the costs of space travel are prohibitive, and the benefits of intellectual cooperation far outweigh anything which might be taken away from the toxic, saline world that is Its Body. However, if we were to suddenly encounter a spacefaring intelligence much like our own, on planets like our own, in a future where space travel is more accessible than it is today—the results could be disastrous. If, as the evidence suggests, they are more vulnerable than us, no law or mandate of non-interference could possibly preserve their autonomy in the face of corporations or

special interest groups hoping to influence the planet, for good or ill; one slip-up in policing, and the entire effort would be moot.

As counterintuitive as it may seem, SETIA's solution to this problem is to seek contact with these intelligences sooner rather than later. We cannot afford to send out mere messages, hoping against hope that two hundred, three hundred years from today we might receive a reply. Better to go there now, bearing knowledge of ourselves and (provided they agree to build and use it) a direct line of communication with Earth. The unfaithful actors of future centuries will have a much harder time exploiting intelligent life which understands human cultures, technologies, and diseases long before more than a handful of us appear on their doorstep. This is interference, true, but it is interference designed to minimize power differentials and foster a relationship of mutual trust and open conversation.

I understand the arguments against this path. Arguments played out in centuries of fiction. Arguments which warn against betraying knowledge of ourselves, inviting reprisal or attack. The controversy we've generated back home is understandable, even warranted. I understand the risk. But I have to believe in what this agency has always believed, and what the earliest pioneers of Earth-based SETI always preached. I paraphrase, but...

In a universe as vast as ours, the only thing that makes the darkness bearable is each other.

I want to know the life that's out there. I want to stand beneath an alien sun, among beings I could've never imagined. Strange and wonderful... I want to talk to them, if we can. To build something, if they're willing. And while I surely won't live long enough to see it, that endeavour starts here, with the agents who now sacrifice everything they've ever known in pursuit of a cosmic neighbourhood greater than us all. To our first wave, the crew members of the OZMA, the ARECIBO, the STAPLEDON, the SHKLOVSKII: your goal is not merely to seek out new intelligence, but to ensure that it thrives—that one day we may learn to live alongside one another, as equal partners in the enterprise of life.

- PERRIN ECHARRETA

FIRST CONTACT PROCEDURES: A STEP-BY-STEP GUIDE

NOTE: When planning a first contact approach, the following instructions should *not* be taken as gospel. They are merely guides—tools to inform your own good judgement when navigating the difficulties of contact. 'Civilization' is not a straight line, and any schema which attempts to sort cultural groups into strict, definitive categories will inevitably be reductive and harmful. While evidence indicates that the planets targeted for first contact will fall roughly into the 'WORLDLY INTELLIGENCE' grouping, it is also likely they will display characteristics from one or more other categories. This is doubly true given the transit time gap; anything may change over the many centuries it takes for you to arrive at your designation. Agents should therefore be prepared to encounter any of the following types of intelligence, and should not make unfounded assumptions about a society based solely on their perceived categorization.

#I. UNDEVELOPED INTELLIGENCE

Kardashev Type 0 – 0.5 Archaic-Preindustrial Far Below Human Capabilities Luzhkov Society B = Stable

Typical Criteria:

- Limited consciousness of world beyond self or tribe; may understand celestial mechanics if stars/planets are visible
- Localised disruption of physical environment resulting in decreased biodiversity
- Technology limited to basic metallurgy—producing simple tools, weapons, and agrarian implements from surface-level materials
- Fleeting sense-driven communication (sight, sound, touch, thought); representative forms of writing possible
- Sustenance-based energy consumption (photosynthesis, foraging, hunting, farming); possible burning of plants, biofuels, or fossil fuels

First Contact Approach:

- If no radio or EM signals detected in transit (a hallmark of this category), scan for intelligence from orbit
 - Signs typically include non-natural structures such as pyramids, canals, bridges, geometric land divisions, etc.
- 2. Deploy autonomous drones in remote areas to observe native fauna
- 3. **Manufacture new drones imitating native fauna, enabling closer observation** of more developed areas)
 - Should be used *only* to enable ROSETTA's understanding of local customs and languages (or closest communication equivalent); prolonged spying over many years is unnecessary, and risks damaging goodwill if discovered
- 4. **Fly shuttle across sky near the most developed area or centre of government**; fly-by should be loud, drawn out, and clearly visible to those in charge
 - If possible, re-paint or modify shuttle before flight to incorporate local, recognizable building materials (woods, stones); gives impression that craft is an artificial construction, not divine or unknowable
- 5. **Land on remote but easily accessible ground** (unused field, uninhabited island; choice should accommodate species capabilities) and wait for inhabitants to approach
 - When dealing with undeveloped societies, contact should be their choice and made on their terms
- 6. **With ROSETTA as translator, speak simply but truthfully of your intentions** to whoever approaches:
 - 1. You are a messenger from a faraway land
 - 2. Your people have learned to make many marvelous—but not miraculous—tools
 - 3. You wish to trade knowledge of these things, asking only their friendship in return
 - Consult ROSETTA to determine culturally correct mode of speech: a species governed by dominance hierarchies may see deference or humbleness as insulting, for example
- 7. **If necessary, make performative displays of your own vulnerability** and the limits of your technology to avoid being interpreted as a deity with power over life and death
 - While many will still see you as a magical being, they must know that you are constrained by factors outside your control, and that these limitations cannot be affected by bargaining, prayer or sacrifice
- 8. **If your offers are** *not* **accepted by the region's leadership, repeat this process** for the next largest cultural group on the planet
 - Unless the species is a gestalt mind with a singular will, it will likely be divided up into numerous cultural groups or tribes who must be approached individually

- 9. **If your offers** *are* **accepted, build goodwill by gifting knowledge on a utilitarian basis**—the simplest 'tricks' which produce the greatest good for the largest amount of everyday people
 - While gifts of concrete technology will be more immediately appreciated, they are also dangerous, and may foster dependence if the society does not understand how they work
 - Examples of high-priority knowledge:
 - Medical technologies (vaccines, antibiotics)
 - Agricultural innovations (complex irrigation, crop rotation)
 - Smelting techniques (to produce strong, cheap materials)
 - Low priority gifts include any knowledge which might come off as 'preachy' or didactic, such as: germ theory (difficult to believe at first) or humanitarian values (criticizing local morality will damage goodwill, making the process of abandoning inhumane practices more difficult in the long run)
- 10. Convince leadership to announce formal declaration of friendship
- 11. **Transmit LANDING signal to orbiting ship**; 'SECOND CONTACT' team will awaken to help disseminate knowledge and build infrastructure
 - [Construction of CASIMIR Wormhole Communications Ansible must be delayed until the planet has developed a high-technology sector capable of manufacturing the many complex components of such a device]

#2. WORLDLY INTELLIGENCE

Kardashev Type 0.5 – 1 Industrial-Atomic-Information Approaching Human Capabilities Luzhkov Society E = Most Unstable

Typical Criteria:

- Broader consciousness of world and place within universe; possible efforts at space exploration
- If species is comprised of individuals, us/them tribal thinking expands in scope to create and sow division between perceived cultural groups, nations, races
- Widespread destruction of environment (via industry, pollution, radiation) causing climate change and the possible creation of a new geological age
- Artificial production of necessities enables intense specialization; scarcity may be eliminated
- Exponential increase in information through mass production of long-lasting representative text
- Widespread advances in the engineering of alloys, plastic, chemicals, medicine, etc.
- Energy use approaches the total amount their home-world receives from its star; transition from fossil fuels to solar, hydro, wind, nuclear fission, possibly nuclear fusion

First Contact Approach:

- 1. **During transit, monitor all radio broadcasts** and EM channels to decipher the planet's mode of communication and dominant languages [SEE ROSETTA for further details on this process]
- 2. Broadcast message on all EM channels informing the planet of your projected arrival time; message should arrive long before you do, giving them the chance to debate, reply, and—if necessary—ask you to turn back
- 3. **Upon arrival, immediately land at the location designated by the target species**; if no return message is received, the mission commander has discretion to select their own landing approach, so long as that approach is obvious and undeniable (clandestine landings, however well intentioned, may irrevocably damage goodwill)

- [NOTE: The following advice is written assuming a geopolitical environment which
 parallels human development on Earth; without more data on alien psychologies, it is
 impossible to accurately predict the probable consequences of different landing
 approaches]
- Suggested Landing Locations Include:
 - The largest, most developed city of a given cultural region
 - PROS: Direct approach that builds substantial goodwill with the culture chosen
 - CONS: Other geopolitical groups will likely resent being overlooked, souring your relationship with them from the outset
 - Neutral ground equally accessible to all cultural groups (isolated mountain range, uninhabited island between continents, etc.)
 - PROS: By avoiding favouritism, goodwill is not jeopardized with any geopolitical group
 - CONS: May generate confusion, making humanity come across as more enigmatic and alien
 - Technologically undeveloped rural culture
 - PROS: A moral statement against the planet's major powers, forcing them to acknowledge their discounted or mistreated groups as being equally worthy of alien visitation
 - CONS: Languages of these groups will likely not be represented in EM broadcasts; without translation, cultural misconception or reactionary violence may occur
 - Any scientific institute or remote astronomical observatory
 - PROS: Ensures first contact will take place with those most receptive to the idea of alien life; mitigates the consequences of cultural miscommunication
 - CONS: Targeting an elite scientific group risks alienating both political leaders and the general population; turns first contact into an insular, intellectual affair rather than a global one
- 4. With ROSETTA as translator, explain your full and unambiguous intentions to whoever approaches:
 - 1. You belong to an intelligent species from a small, distant world
 - 2. Your people were once as they are, divided and burdened with the challenges of growing into a global civilization
 - 3. You wish to help them navigate these trials through an open exchange of information, experience, and technology
 - In your speech, ensure you do not come across as paternalistic; SETIA does not visit aliens to guide them into a better version of 'civilization,' but to give them the tools and knowledge necessary to guide their own fate in the face of a larger world that is, like it or not, coming their way
- 5. If your offers are *not* initially accepted by the region's leadership, secure permission to stay on the planet as a guest
 - Initial rejection is likely, as the society should be developed enough to understand your technological attainment and the possible threat of alien colonization
 - If the society values capitalistic exchange, a request to lease or temporarily rent land is preferable to permission, as it frames your stay on the planet as an equitable trade

rather than a forced concession made to a superior alien power; lets the government 'save face'

- Possible modes of residence: stationing SETIA starship on a natural satellite; grounding shuttle at place of first contact; renting room and board at a residence in the capital city (preferred)
- 6. **Establish a reciprocal relationship with the local population by walking among them**, face to face, in pursuit of <u>GOODWILL</u>—a measure of alien trust in SETIA agents and enthusiasm towards the prospect of interspecies cooperation
 - Methods of building goodwill include (but are not limited to):
 - Showing interest in alien beliefs and cultural practices
 - Sharing information about SETIA and humanity
 - NOTE: Honesty can be initially dangerous in the case of conflicting cultural practices
 - Limited exchange of human cultural artifacts and information to anyone who explicitly asks for them
 - The moral costs of granting information are somewhat mitigated by the asking, which is critical: by making an active request, the alien parties involved assume responsibility for the possible consequences
 - While trading physical technology to aliens will be greatly appreciated in the short-term, SETIA agents should only do so in extraordinary circumstances; powerful tools in the hands of those without the wisdom to use them may inflict unintended harms on their society
- 7. Once sufficient goodwill has been cultivated, initiate a high-stakes negotiation with local leadership to convince them to announce a formal declaration of friendship between your two species
 - SETIA agents should not be hasty in attempting a final dialogue; agents must be prepared to leverage a significant amount of goodwill gained during their time on the planet to counter any objections or criticisms made by local leadership
- 8. **If high-stakes negotiation fails, repeat process starting from Step #4** for the next target population (assuming the planet hosts multiple geo-political groups)
- Transmit 'LANDING' signal to orbiting ship; 'SECOND CONTACT' team will awaken to offload entangled cores necessary to enable construction of CASIMIR Wormhole Communications Ansible
 - While SETIA crew should guide CASIMIR ansible construction, the initiative and authority must reside with local leadership; by constructing it themselves, the alien society should feel a sense of pride over the device, seeing it as the gateway to a new era rather than an otherworldly machine
- 10. **Report to SETIA leadership on Teegarden via CASIMIR ansible-link** (assuming Earth, SETIA, and humanity have not been profoundly altered or rendered extinct)

#3. SPACEFARING INTELLIGENCE

Kardashev Type 2 – 3 Stellar-Galactic At or Exceeding Human Capabilities Luzhkov Society D = Unstable Typical Criteria:

- Near light speed travel (15-50+% of LS) expands sphere of influence to include other planets, star systems, and galactic arms; drastically reduces risk of resource exhaustion or species extinction via natural cataclysm
- Invention of superluminal information networks likely; without it, culture and biology of isolated colonial groups rapidly differentiate
- Increased longevity and accelerated evolution of intelligence through biological manipulation or the creation of artificial minds; singularity events possible
- Exploration of higher-level physics and matter-energy manipulation
- Local energy use in any given system matches the total output of their sun; typically achieved through fusion, antimatter, or solar megastructures (Dyson swarms, Matryoshka brains)

First Contact Approach:

• [REDACTED]

#4. SUBLIME INTELLIGENCE

Kardashev Type 3 – 5 Extragalactic-Universal Far Beyond Human Capabilities Luzhkov Society – N/A

Possible Criteria:

- Social organization totally incomparable to animal hierarchies
- No meaningful conversation possible due to vast gulf in information processing capacity (SEE: SQ Sapience Quotient)
- Exceedingly high-bandwidth communication using neutrinos, gamma-rays, or other as-of-yet-undiscovered methods
- Ability to construct galaxy-spanning megastructures, simulate universes, manipulate space-time, or travel instantaneously between different possible realities
- Energy use approaches the sum total of galaxies or superclusters; achieved through the harnessing of gamma-ray bursts, quasar emissions, or supermassive black holes

First Contact Approach:

• [REDACTED]