# THE REASONING BEHIND THE IO-117 CODE OF CONDUCT PROJECT

**THE IO-117 CODE OF CONDUCT RECOMMENDATIONS, WHICH ARE NOW AVAILABLE: https://www.moonbounce.dk/onewebmedia/IO-117%20CODE%20OF%20CONDUCT-FINAL%20DOCUMENT%20VERSION.pdf ARE BASED ON THE OPERATIONAL BEHAVIOR OF THE SATELLITE'S DIGITAL PACKET TRANSPONDER, THE MECHANICS OF ITS ORBIT, AS WELL AS THE EXPERIENCE OF SEVERAL STATION OPERATORS WITH HUNDRES OF HOURS OF PASS TIME ON IO-117. THE IO-117'S TRANSPONDER IS A SINGLE CHANNEL DIGIPEATER THAT ALLOWS ONLY ONE STATION'S TRANSMISSION IN AT A TIME AND DIGIPEATS THE MESSAGE OUT ON THE SAME FREQUENCY. A SUCCESSFUL DIGIPEAT HAS AS MUCH TO DO ABOUT THE STATION SETUP AS IS DOES ABOUT BEING LUCKY WITH PERFECT TIMING TO GET A SUCCESSFUL TRANSMISSION ACCOMPLISHED DURING A BUSY PASS.**

**WHEN MANY STATIONS ARE CALLING THE SATELLITE SIMULTANEOUSLY THE SATELLITE HAS A HARDER TIME RECEIVING AN INTACT PACKET TRANSMISSION FROM YOUR STATION. PACKET COLLISIONS DESTROY MANY PACKET SIGNALS AND THERFORE THE SATELLITE TRANSPONDER CAN NOT INTERPRET OR DIGIPEAT YOUR SIGNAL. REMEMBER, THIS IS ALL HAPPENING ON THE EXACT SAME FREQUENCY. ON A CROWDED PASS THIS IS REPRESENTED BY THE DIGIPEATER SEEMINLY GOING SILENT WITH ONLY ONE OR TWO SIGNALS BEING DIGIPEATED BETWEEN THE SATELLITE'S USUAL TELEMETRY TRANSMISSIONS EVERY 45 SECONDS. ON A NON-CROWDED PASS MANY SIGNALS ARE DIGIPEATED IN THAT 45 SECOND TIME FRAME.**

**IO-117 IS A MEO SATELLITE ORBITING JUST UNDER 6000KM. THAT GIVES IT A MASSIVE FOOTPRINT THAT IS RELATIVELY SLOW MOVING ON EARTH WHEN COMPARED TO LEO SATS. THIS IS ONE REASON FOR THE RECOMMENDATION FOR CQ CALLS TO BE SPACED AT LEAST FIVE MINUTES APART. YOUR CQ WILL BE HEARD BY ALL STATIONS IN THE PASS THAT ARE NOT TRANSMITTING OR IN A FADE OR OBSTRUCTION SITUATION. VERY FEW NEW STATIONS WILL SEE YOUR CQ IF YOU SEND IT AT ONE, TWO OR THREE MINUTE INTERVALS. GIVE THE IO-117 FOOTPRINT A CHANCE TO PROGRESS SIGNIFICANTLY BETWEEN YOUR CQ CALLS. IN ADDITION, IT MAY TAKE SEVERAL MINUTES FOR A STATION TO SUCCESSFULLY ANSWER YOUR FIRST CQ.**

**WITH THIS KNOWLEDGE IN HAND THERE ARE SEVERAL WAYS TO ADDRESS THE ISSUES FACED IN TRYING TO GET YOUR SIGNAL DIGIPEATED, BUT IT WILL TAKE THE ENTIRE PASS GROUP'S COOPERATION AND EFFORT TO HAVE AN IMPACT DURING CROWDED PASSES. THE KEYS TO IMPROVEMENT RESIDES IN STATIONS SENDING SHORTER MESSAGES, SENDING MESSAGES WITHOUT, WHAT IN REALITY IS USELESS INFORMATION, TIMING TRANSMISSIONS TO WHEN YOU THINK THE STATION YOU WANT TO CONTACT WILL ACUTALLY BE LISTENING, SENDING MINIIMAL OR NO CQ'S DURING A CROWDED PASS AND CERTAINLY NO DOUBLE OR TRIPLE TRANSMISSIONS OF IDENTICAL MESSAGES WITHIN SECONDS OR EVEN MINUTES OF ONE ANOTHER. THE RECENT UHM (YOU HEARD ME) TECHNOLOGY RELEASED IN OZ9AAR'S GREENCUBE TERMINAL PROGRAM V.85 SHOULD HELP DECREASE THE AMOUNT OF UNNECESSARY SIGNALS DIGIPEATED BUT WE CAN ALL DO MORE. PLEASE CONSIDER THE CODE OF CONDUCT SUGGESTIONS WHEN OPERATING ON IO-117 AND LETS ALL ENJOY IO-117 AS LONG AS IT FLYIES VERY HIGH AND CONTINUES TO TALK BACK TO US.**