

FOS GIMP Flight Readiness Review

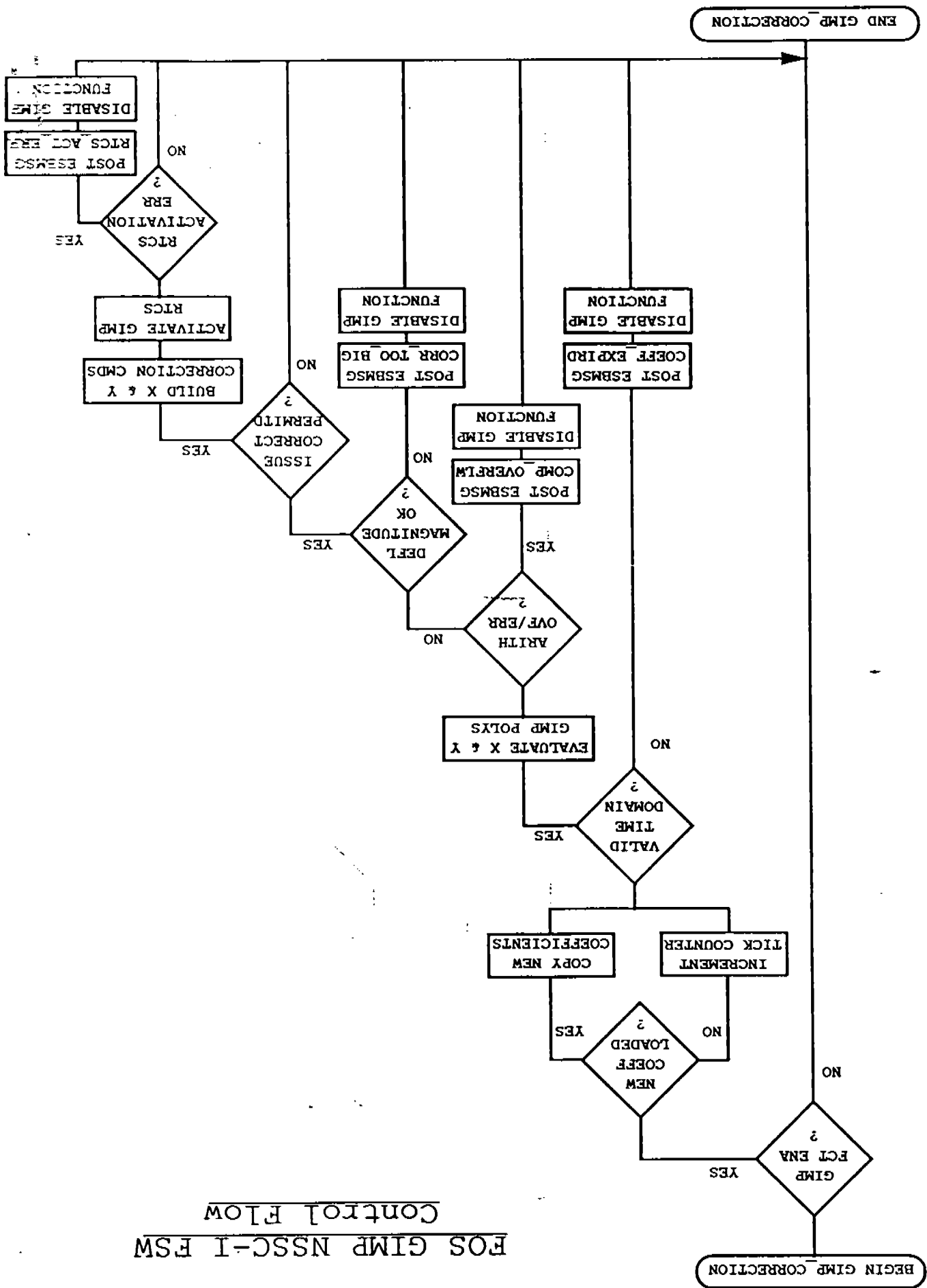
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o when sending of GIMP corrections is enabled, the flight software will pack the corrections into YXDGIMP and YYDGIMP S/M commands in FOS-unique RTCS 3 (common pool RTCS 122), and activate the RTCS

o 4 possible errors are detected - all result in posting of an Executive Status Buffer message, setting of an error bit in the standard header packet, and disabling of the GIMP function; errors are:

- GIMP coefficients expired
- arithmetic overflow during polynomial evaluation
- deflection magnitude too large
- RTCS activation error

FOS GIMP NSSC-I FSM
Control Flow



NSSC-I GIMP Testing Performed

- o NSSC-I Baseline 4.0 acceptance testing, performed in April '92 on our STIF realtime test system, included special tests of the GIMP software
- o tests included SMS-like management of the control flags, generation of corrections from typical GIMP polynomials, and generation of all error conditions; execution of GIMP corrections during typical NSSC-I operations
- o test verifications included monitoring telemetry, verifying the content and timing of GIMP correction commands in supervisory bus, and verifying error indicators in the Executive Status Buffer and Standard Header Packet
- o MOC and STScI participated in design of NSSC-I software
- o Code 512 and PASS communicated extensively on generation and scaling of polynomial coefficients
- o Code 512 evaluated preliminary GIMP PASS products