

## Reconstructed stacktrace:

```
PC 0x0802ebc8 Line 486 of "usbdev/cdcacm.c" starts at address 0x802ebbe <cdcacm_release_rxpending+70>  
LR 0x0802eba1 Line 678 of "usbdev/cdcacm.c" starts at address 0x802eba0 <cdcacm_release_rxpending+40> (not relevant, as this is already  
completed inner function call)  
LR 0x0802edc3 Line 445 of "platforms/nuttx/NuttX/nuttx/include/arch/armv7-m/irq.h" starts at address 0x802edc2 <cdcuart_rxint+44>  
LR 0x802dfec Line 1054 of "serial/serial.c" starts at address 0x802dfec <uart_read+60> and ends at 0x802e002 <uart_read+82>.  
LR 0x0803056f Line 140 of "vfs/fs_read.c" starts at address 0x8030564 <nx_read+16> and ends at 0x8030572 <read>.  
LR 0x08030579 Line 171 of "vfs/fs_read.c" starts at address 0x8030578 <read+6> and ends at 0x803057c <read+10>.  
LR 0x080fc46f Line 11928 of "modules/mavlink/modules__mavlink_unity.cpp" starts at address 0x80fc464 <MavlinkReceiver::run()+148> and ends  
at 0x80fc474 <MavlinkReceiver::run()+164>.
```

[hardfault\_log] -- 2025-12-02-19:23:18 Begin Fault Log --

System fault Occurred on: 2025-12-02-19:23:18

Type:Hard Fault in file:armv7-m/arm\_hardfault.c at line: 173 running task: mavlink\_rcv\_if2

FW git-hash: 99c40407ffd7ac184e2d7b4b293f36f10fe561ef

Build datetime: Nov 4 2025 14:23:52

Build url: localhost

Processor registers: from 0x30028a9c

r0:0xfffffea r1:0x00000000 r2:0x00000002 r3:0x00000001 r4:0x30021650 r5:0x0000008a

r6:0x3002175c r7:0x300265a8

r8:0x30024dc0 r9:0x3002169c r10:0x00000000 r11:0x300216f4 r12:0x30028aa8 sp:0x30028b70

lr:0x0802eba1 pc:0x0802ebc8

xpsr:0x21000000 basepri:0x00000080 control:0x00000004

exe return:0xfffffe9

Fault status registers: from NVIC

cfsr:0x00008200

hfsr:0x40000000

dfsr:0x00000000

mmfsr:0x00000000

bfsr:0x00000000

afsr:0x00000000

abfsr:0x00000000

IRQ stack:

top: 0x24000f80

sp: 0x24000f10 Valid

bottom: 0x24000c80

size: 0x00000300

Invalid Stack! (Corrupted TCB) Stack base: 0x24000c80 Stack size: 0x00000300

User stack:

top: 0x30028e60

sp: 0x30028b70 Valid

bottom: 0x30027bb8

size: 0x000012a8

Invalid Stack! (Corrupted TCB) Stack base: 0x30027bb8 Stack size: 0x000012a8

Interrupt sp memory region, stack pointer lies within stack

0x240011cc 0x00000000

0x240011c8 0x00000000

0x240011c4 0x240011d8

0x240011c0 0x00000000

0x240011bc 0x00000000

0x240011b8 0x00000000

0x240011b4 0x00000000

0x240011b0 0x240011c4  
0x240011ac 0x00000000  
0x240011a8 0x00000000  
0x240011a4 0x00000000  
0x240011a0 0x00000000  
0x2400119c 0x240011b0  
0x24001198 0x00000000  
0x24001194 0x00000000  
0x24001190 0x00000000  
0x2400118c 0x00000000  
0x24001188 0x2400119c  
0x24001184 0x00000000  
0x24001180 0x00000000  
0x2400117c 0x00000000  
0x24001178 0x00000000  
0x24001174 0x24001188  
0x24001170 0x00000000  
0x2400116c 0x00000000  
0x24001168 0x00000000  
0x24001164 0x00000000  
0x24001160 0x24001174  
0x2400115c 0x00000000  
0x24001158 0x00000000  
0x24001154 0x00000000  
0x24001150 0x00000000  
0x2400114c 0x24001160  
0x24001148 0x00000000  
0x24001144 0x00000000  
0x24001140 0x00000000  
0x2400113c 0x00000000  
0x24001138 0x2400114c  
0x24001134 0x00000000  
0x24001130 0x00000000  
0x2400112c 0x00000000  
0x24001128 0x00000000  
0x24001124 0x24001138  
0x24001120 0x00000000  
0x2400111c 0x00000000  
0x24001118 0x00000000  
0x24001114 0x00000000  
0x24001110 0x24001124  
0x2400110c 0x00000000  
0x24001108 0x00000000  
0x24001104 0x00000000  
0x24001100 0x00000000  
0x240010fc 0x24001110  
0x240010f8 0x00000000  
0x240010f4 0x00000000  
0x240010f0 0x00000000  
0x240010ec 0x00000000  
0x240010e8 0x240010ac  
0x240010e4 0x00000000

0x240010e0 0x00000000  
0x240010dc 0x00000000  
0x240010d8 0x00000000  
0x240010d4 0x240010fc  
0x240010d0 0x00000000  
0x240010cc 0x00000000  
0x240010c8 0x00000000  
0x240010c4 0x00000000  
0x240010c0 0x24001098  
0x240010bc 0x00000000  
0x240010b8 0x00000000  
0x240010b4 0x00000000  
0x240010b0 0x00000000  
0x240010ac 0x240010c0  
0x240010a8 0x00000000  
0x240010a4 0x00000000  
0x240010a0 0x00000000  
0x2400109c 0x00000000  
0x24001098 0x240010d4  
0x24001094 0x00000001  
0x24001090 0x30027ab0  
0x2400108c 0x3002169c  
0x24001088 0x00000000  
0x24001084 0x00000000  
0x24001080 0x240010e8  
0x2400107c 0x00000000  
0x24001078 0x00000000  
0x24001074 0x38000bf0  
0x24001070 0x38002ea0  
0x2400106c 0x00000000  
0x24001068 0x00000000  
0x24001064 0x30027ab0  
0x24001060 0x24000f94  
0x2400105c 0x30027ab0  
0x24001058 0x2000a9b0  
0x24001054 0x00000000  
0x24001050 0x00000000  
0x2400104c 0x00000006  
0x24001048 0x00000020  
0x24001044 0x000005f0  
0x24001040 0x00000000  
0x2400103c 0x00000000  
0x24001038 0x00000000  
0x24001034 0x00000000  
0x24001030 0x00000000  
0x2400102c 0x00000000  
0x24001028 0x0000006b  
0x24001024 0x73615420  
0x24001020 0x656c6449  
0x2400101c 0x2400aad0  
0x24001018 0x00000000  
0x24001014 0x00000000

0x24001010 0x00000000  
0x2400100c 0x00000000  
0x24001008 0x00000000  
0x24001004 0x00000000  
0x24001000 0x00000000  
0x24000ffc 0x00000000  
0x24000ff8 0x00000000  
0x24000ff4 0x00000000  
0x24000ff0 0x00000000  
0x24000fec 0x00000000  
0x24000fe8 0x2400a8f4  
0x24000fe4 0x2400a8dc  
0x24000fe0 0x000002d6  
0x24000fdc 0x00000000  
0x24000fd8 0x00000000  
0x24000fd4 0x00000000  
0x24000fd0 0x00000000  
0x24000fcc 0x00000000  
0x24000fc8 0x00000006  
0x24000fc4 0x00000000  
0x24000fc0 0x00000000  
0x24000fbc 0x00000000  
0x24000fb8 0x00000000  
0x24000fb4 0x00000000  
0x24000fb0 0x00000002  
0x24000fac 0x08021239  
0x24000fa8 0x08021239  
0x24000fa4 0x00000000  
0x24000fa0 0x00000000  
0x24000f9c 0x2400ad70  
0x24000f98 0x2001e3c0  
0x24000f94 0x00000000  
0x24000f90 0x00000000  
0x24000f8c 0x24001020  
0x24000f88 0x00000000  
0x24000f84 0x30028a9c  
0x24000f80 0x00010000<-- Interrupt sp top  
0x24000f7c 0x080202dd  
0x24000f78 0x0000008a  
0x24000f74 0x30021650  
0x24000f70 0x30028b70  
0x24000f6c 0x00000003  
0x24000f68 0x00000003  
0x24000f64 0x08020955  
0x24000f60 0x00000000  
0x24000f5c 0x0802140f  
0x24000f58 0x300265a8  
0x24000f54 0x3002175c  
0x24000f50 0x24000f84  
0x24000f4c 0x00000000  
0x24000f48 0x00000000  
0x24000f44 0x00000000

0x24000f40 0x00000000  
0x24000f3c 0x00000000  
0x24000f38 0x40000000  
0x24000f34 0x08020d3f  
0x24000f30 0x00000000  
0x24000f2c 0x08021017  
0x24000f28 0x00000000  
0x24000f24 0x3002169c  
0x24000f20 0x30024dc0  
0x24000f1c 0x00008200  
0x24000f18 0x30028a9c  
0x24000f14 0x00000003  
0x24000f10 0x40000000<-- Interrupt sp  
0x24000f0c 0x00000020  
0x24000f08 0x00000003  
0x24000f04 0x0000003b  
0x24000f00 0x000001c8  
0x24000efc 0x080291c1  
0x24000ef8 0x000000ad  
0x24000ef4 0x24000f10  
0x24000ef0 0x081849cb  
0x24000eec 0x24000f84  
0x24000ee8 0x00000251  
0x24000ee4 0x081732ff  
0x24000ee0 0x24000010  
0x24000edc 0x08020e09  
0x24000ed8 0x24000c54  
0x24000ed4 0x300216f4  
0x24000ed0 0x30028b70  
0x24000ecc 0x000001c8  
0x24000ec8 0x000004cb  
0x24000ec4 0x24000f10  
0x24000ec0 0x24000f84  
0x24000ebc 0x30027ab0  
0x24000eb8 0x24000000  
0x24000eb4 0x00000000  
0x24000eb0 0x00000000  
0x24000eac 0x00000000  
0x24000ea8 0x00000000  
0x24000ea4 0x00000000  
0x24000ea0 0x00000000  
0x24000e9c 0x00000000  
0x24000e98 0x00000000  
0x24000e94 0x00000000  
0x24000e90 0x00000000  
0x24000e8c 0x00000000  
0x24000e88 0x00003033  
0x24000e84 0x37636531  
0x24000e80 0x38783020  
0x24000e7c 0x000002ff  
0x24000e78 0x24000ec0  
0x24000e74 0x24000e80

0x24000e70 0x200091cc  
0x24000e6c 0x00000020  
0x24000e68 0x00000002  
0x24000e64 0x0000003d  
0x24000e60 0x00000e4c  
0x24000e5c 0x00001758  
0x24000e58 0x000000ef  
0x24000e54 0x000002ff  
0x24000e50 0x08185ac9  
0x24000e4c 0x081858c9  
0x24000e48 0x08029005  
0x24000e44 0x24000e50  
0x24000e40 0x00000000  
0x24000e3c 0x0802110d  
0x24000e38 0x24000e50  
0x24000e34 0x24000e50  
0x24000e30 0x00000000  
0x24000e2c 0x080210f1  
0x24000e28 0x200091cc  
0x24000e24 0x0000004f  
0x24000e20 0x0802ce2d  
0x24000e1c 0x081a2504  
0x24000e18 0x080211b1  
0x24000e14 0x081858c9  
0x24000e10 0x300216f4  
0x24000e0c 0x080211ad  
0x24000e08 0x24000e50  
0x24000e04 0x081858c9  
0x24000e00 0x24000e50  
0x24000dfc 0x0802b9dd  
0x24000df8 0x300216f4  
0x24000df4 0x30028b70  
0x24000df0 0x00000000  
0x24000dec 0x00001758  
0x24000de8 0x24000e80  
0x24000de4 0x000000ef  
0x24000de0 0x00000020  
0x24000ddc 0x24000e34  
0x24000dd8 0x63373330  
0x24000dd4 0x080389e1  
0x24000dd0 0x00000078  
0x24000dcc 0x00000000  
0x24000dc8 0x00000000  
0x24000dc4 0x00000000  
0x24000dc0 0x33363620  
0x24000dbc 0x00000007  
0x24000db8 0x00000010  
0x24000db4 0x0802c1ff  
0x24000db0 0x24000df0  
0x24000dac 0x30000030  
0x24000da8 0x081858fe  
0x24000da4 0x00000001

0x24000da0 0x00000003  
0x24000d9c 0x0802ba15  
0x24000d98 0x0000004f  
0x24000d94 0x24000e18  
0x24000d90 0x080211b1  
0x24000d8c 0x080211c1  
0x24000d88 0x0000000a  
0x24000d84 0x24000e18  
0x24000d80 0x080211b1  
0x24000d7c 0x24000e18  
0x24000d78 0x0000000a  
0x24000d74 0x00000000  
0x24000d70 0x00000002  
0x24000d6c 0x0802c23d  
0x24000d68 0x24000d70  
0x24000d64 0x080389e1  
0x24000d60 0x00000064  
0x24000d5c 0x00000000  
0x24000d58 0x00000000  
0x24000d54 0x00000002  
0x24000d50 0x24000dc0  
0x24000d4c 0x00000000  
0x24000d48 0x0000000a  
0x24000d44 0xdeadbeef  
0x24000d40 0xdeadbeef  
0x24000d3c 0xdeadbeef  
0x24000d38 0xdeadbeef  
0x24000d34 0xdeadbeef  
0x24000d30 0xdeadbeef  
0x24000d2c 0xdeadbeef  
0x24000d28 0xdeadbeef  
0x24000d24 0xdeadbeef  
0x24000d20 0xdeadbeef  
0x24000d1c 0xdeadbeef  
0x24000d18 0xdeadbeef  
0x24000d14 0xdeadbeef  
0x24000d10 0xdeadbeef  
0x24000d0c 0xdeadbeef  
0x24000d08 0xdeadbeef  
0x24000d04 0xdeadbeef  
0x24000d00 0xdeadbeef  
0x24000cfc 0xdeadbeef  
0x24000cf8 0xdeadbeef  
0x24000cf4 0xdeadbeef  
0x24000cf0 0xdeadbeef  
0x24000cec 0xdeadbeef  
0x24000ce8 0xdeadbeef  
0x24000ce4 0xdeadbeef  
0x24000ce0 0xdeadbeef  
0x24000cdc 0xdeadbeef  
0x24000cd8 0xdeadbeef  
0x24000cd4 0xdeadbeef

```
0x24000cd0 0xdeadbeef
0x24000ccc 0xdeadbeef
0x24000cc8 0xdeadbeef
0x24000cc4 0xdeadbeef
0x24000cc0 0xdeadbeef
0x24000cbc 0xdeadbeef
0x24000cb8 0xdeadbeef
0x24000cb4 0xdeadbeef
0x24000cb0 0xdeadbeef
0x24000cac 0xdeadbeef
0x24000ca8 0xdeadbeef
0x24000ca4 0xdeadbeef
0x24000ca0 0xdeadbeef
0x24000c9c 0xdeadbeef
0x24000c98 0xdeadbeef
0x24000c94 0xdeadbeef
0x24000c90 0xdeadbeef
0x24000c8c 0xdeadbeef
0x24000c88 0xdeadbeef
0x24000c84 0xdeadbeef
0x24000c80 0xdeadbeef<-- Interrupt sp bottom
0x24000c7c 0x00000000
0x24000c78 0x00000000
0x24000c74 0x00000000
0x24000c70 0x00000000
0x24000c6c 0x00000000
0x24000c68 0x00000000
0x24000c64 0x00000000
0x24000c60 0x00000000
0x24000c5c 0x00000000
0x24000c58 0xffffffff
0x24000c54 0x00000000
0x24000c50 0x00000000
User sp memory region, stack pointer lies within stack
0x30028e2c 0x00000000
0x30028e28 0x00000000
0x30028e24 0x30027ab0
0x30028e20 0x00000000
0x30028e1c 0x00000000
0x30028e18 0x00000000
0x30028e14 0x01000000
0x30028e10 0x00000000
0x30028e0c 0x00000000
0x30028e08 0x00004827
0x30028e04 0x00000000
0x30028e00 0x00000000
0x30028dfc 0x00000000
0x30028df8 0x00000000
0x30028df4 0x00000000
0x30028df0 0x00000000
0x30028dec 0x00000000
0x30028de8 0x00000000
```

0x30028de4 0x00000000  
0x30028de0 0x00000000  
0x30028ddc 0x00000000  
0x30028dd8 0x00000000  
0x30028dd4 0x00000000  
0x30028dd0 0x00000000  
0x30028dcc 0x00000000  
0x30028dc8 0x00000000  
0x30028dc4 0x00000000  
0x30028dc0 0x00000000  
0x30028dbc 0x00000000  
0x30028db8 0x00000000  
0x30028db4 0x00000000  
0x30028db0 0x00000000  
0x30028dac 0x00000000  
0x30028da8 0x00000000  
0x30028da4 0x00000000  
0x30028da0 0x00000000  
0x30028d9c 0x00000000  
0x30028d98 0x00000000  
0x30028d94 0x00000000  
0x30028d90 0x00000000  
0x30028d8c 0x00000000  
0x30028d88 0x00000000  
0x30028d84 0x00000000  
0x30028d80 0x00000000  
0x30028d7c 0x00000000  
0x30028d78 0x00000000  
0x30028d74 0x00000000  
0x30028d70 0x00000000  
0x30028d6c 0x00000000  
0x30028d68 0x00000000  
0x30028d64 0x00000000  
0x30028d60 0x00000000  
0x30028d5c 0x0000be52  
0x30028d58 0x04beff03  
0x30028d54 0x0efee744  
0x30028d50 0x0304c001  
0x30028d4c 0x02000000  
0x30028d48 0x00000000  
0x30028d44 0x00000000  
0x30028d40 0x00000000  
0x30028d3c 0x00000000  
0x30028d38 0x00000000  
0x30028d34 0x00000000  
0x30028d30 0x00000000  
0x30028d2c 0x00000000  
0x30028d28 0x00000000  
0x30028d24 0x00000000  
0x30028d20 0x00000000  
0x30028d1c 0x01020191  
0x30028d18 0x00000000

0x30028d14 0x00050000  
0x30028d10 0x0000004b  
0x30028d0c 0x43454843  
0x30028d08 0x5f485341  
0x30028d04 0x00000000  
0x30028d00 0x00010102  
0x30028cfc 0x00002bbe  
0x30028cf8 0xffbf0000  
0x30028cf4 0x03fd4827  
0x30028cf0 0xdeadbeef  
0x30028cec 0xdeadbeef  
0x30028ce8 0xdeadbeef  
0x30028ce4 0xdeadbeef  
0x30028ce0 0xdeadbeef  
0x30028cdc 0xdeadbeef  
0x30028cd8 0xdeadbeef  
0x30028cd4 0xdeadbeef  
0x30028cd0 0xdeadbeef  
0x30028ccc 0xdeadbeef  
0x30028cc8 0xdeadbeef  
0x30028cc4 0xdeadbeef  
0x30028cc0 0xdeadbeef  
0x30028cbc 0xdeadbeef  
0x30028cb8 0xdeadbeef  
0x30028cb4 0xdeadbeef  
0x30028cb0 0xdeadbeef  
0x30028cac 0x00000000  
0x30028ca8 0x0000002d  
0x30028ca4 0x00980030  
0x30028ca0 0x00000000  
0x30028c9c 0x000000f3  
0x30028c98 0x00000098  
0x30028c94 0x0000002b  
0x30028c90 0x000000c1  
0x30028c8c 0x00000001  
0x30028c88 0xa09257cc  
0x30028c84 0xd6ac0000  
0x30028c80 0x17beffbd  
0x30028c7c 0x000017fd  
0x30028c78 0xf3990102  
0x30028c74 0x00002bbe  
0x30028c70 0xffbc0000  
0x30028c6c 0x02fdd92d  
0x30028c68 0x0644fd06  
0x30028c64 0xd2a25048  
0x30028c60 0x27010102  
0x30028c5c 0x00002bbe  
0x30028c58 0xffbf0000  
0x30028c54 0x03fdb3ab  
0x30028c50 0x01020000  
0x30028c4c 0x2fbefbbe  
0x30028c48 0x000002fd

0x30028c44 0x00000000  
0x30028c40 0x00000000  
0x30028c3c 0x00000000  
0x30028c38 0x00000019  
0x30028c34 0x00000019  
0x30028c30 0x00000003  
0x30028c2c 0xdeadbeef  
0x30028c28 0xdeadbeef  
0x30028c24 0xdeadbeef  
0x30028c20 0xdeadbeef  
0x30028c1c 0xdeadbeef  
0x30028c18 0xdeadbeef  
0x30028c14 0x00000001  
0x30028c10 0xa09257cc  
0x30028c0c 0x00000000  
0x30028c08 0x00020a59  
0x30028c04 0xdeadbeef  
0x30028c00 0xdeadbeef  
0x30028bfc 0x00000002  
0x30028bf8 0x30025b70

from assembly: stndb sp!, {r4, r5, r6, r7, r8, r9, sl, fp, lr}; vpush{d8}; sub.w sp, sp,  
#548 → so stack frame size is  $9+2+548/4 = 148$  words, but fewer are in the dump

0x30028bf4 0x080fc46f LR read() stack frame

0x30028bf0 0x300260f8

0x30028bec 0x08030579 LR nx\_read() stack frame

0x30028be8 0x300260f8

0x30028be4 0x30024dc0

0x30028be0 0x00000040

0x30028bdc 0x00000040

0x30028bd8 0x00000003

0x30028bd4 0x0803056f LR uart\_read() stack frame

0x30028bd0 0xffffffff

0x30028bcc 0x00000000

0x30028bc8 0x00000000

0x30028bc4 0x00000048

0x30028bc0 0x300265a8

0x30028bbc 0x30025f10

0x30028bb8 0x30025a58

0x30028bb4 0x30028c48

0x30028bb0 0x00000040

0x30028bac 0x00000040

0x30028ba8 0x30024dc0

0x30028ba4 0x0802dfed LR cdquart\_rxint() stack frame

0x30028ba0 0x30021650

0x30028b9c 0x0802edc3 LR cdcacm\_realease\_rxpending() stack frame

0x30028b98 0x00000001

0x30028b94 0x00000000

0x30028b90 0x3002169c

0x30028b8c 0x30024dc0

0x30028b88 0x300265a8

0x30028b84 0x30028c48

0x30028b80 0xffffffff80  
0x30028b7c 0x000000f0  
0x30028b78 0x00000080  
0x30028b74 0x00000001  
0x30028b70 0x00000080<-- User sp

0x30028b6c 0x0802eba1  
0x30028b68 0x80000011  
0x30028b64 0x4055358e  
0x30028b60 0x42636a50  
0x30028b5c 0x3f666666  
0x30028b58 0x42636a50  
0x30028b54 0x00000000  
0x30028b50 0x00000000  
0x30028b4c 0x00000000  
0x30028b48 0x00000000  
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[hardfault\_log] -- 2025-12-02-19:23:18 END Fault Log --