Miltech Simulations U-2

ICAW Message Dictionary

Every message the MFD alert system can put on the alert line at the bottom of each MFD and on STAT → ICAW, A to Z: what it means and what to do. The warning panel lamps and the master caution are explained in Warnings and Alerts, the ICAW and HIST pages in Status Pages.

Note
How the three levels behave. A red **warning** lights the MASTER CAUTION lamp and sounds the tone at once. A yellow **caution** lights it and sounds the tone 5 seconds later, unless you press the lamp first. A cyan **advisory** never lights it.
L7 ACK clears the alert line; the message stays on STAT → ICAW for as long as its cause. An alert you inhibit on STAT → HIST no longer lights the master caution. Where a message behaves differently, its row says so.

A to Z

A B C D E F G H I L M N O P Q R S T U X Y

Message	What it means	What to do
ADF SIGNAL Advisory	The ADF is on but has had no bearing for 5 s. Normal after a start until you tune an NDB in range.	Tune an NDB in range, or set ADF PWR OFF. See Communication Pages (COM), Primary Flight Display (PFD).
ADI FAULT Warning	No INS attitude: INS off, not yet aligning, or the first 30 s of an alignment. Red ADI flag, blank horizon, autopilot off. Normal on every cold start.	Fly on the SFD. INS ON and start the alignment. Re-engage the autopilot when attitude is back. See Inertial Navigation System (INS), Primary Flight Display (PFD).
ADSU NO RESPONSE Advisory	The air data unit has no power (ESS DC SHED or essential DC lost). IAS FAIL and ALT FAIL come with it.	Fly on the SFD. Release ESS DC SHED or restore essential DC. See Primary Flight Display (PFD), Electrical and Avionics Power.
AIL GUST MISMATCH Caution	Lamp test only: MASTER LIGHT TEST held 7 s or more. Lights the CONFIG lamp.	None. Release the test. See Engine Start and Cockpit Controls, Flying the U-2S.
AIRCRAFT OVERSPEED Warning	At or past the red line: 181 KIAS (241 with GUST CONTROL UP below 43,000 ft), or the Mach limit (.651 between 30,500 and 42,999 ft, otherwise .751).	Overspeed checklist: throttle back, nose up gently, speed brakes out. See Specifications and Limitations, Primary Flight Display (PFD).
AIRSPEED DEVIATION Caution	Airspeed outside the PFD ALIM window for 5 s. Only with ALIM on, in the air.	Fly back inside the window, or change or switch off ALIM on the PFD. See Primary Flight Display (PFD).
AIRSPEED HIGH Caution	Above 180 KIAS (230 with gust control UP). Comes with the AIRSPEED lamp.	Slow down: power back, speed brakes out. See Primary Flight Display (PFD), Specifications and Limitations.
ALERT TIME Advisory	The UFCD TIME flight-time counter passed another ALERT interval (default 1 h).	ACK. Set ALERT to 0 on the UFCD TIME page to stop it. See Up-Front Control Display (UFCD), Navigation Pages (NAV).

Message	What it means	What to do
ALIGN MISMATCH Caution	The INS alignment position is more than 1 NM from where the aircraft really is.	Re-enter the position (BCDU NAV INIT) or use INS LOAD before you accept the alignment. See Inertial Navigation System (INS), Backup Control Display Unit (BCDU), Preflight and Power-Up.
ALT FAIL Caution	No valid PFD altitude: altimeter failure or air data unit without power. Red ALT box; no ALT hold.	Fly the SFD altimeter. Release ESS DC SHED or restore essential DC. See Primary Flight Display (PFD).
ALTITUDE DEVIATION Caution	More than 200 ft off the PFD altitude bug after you reached it.	Return to the bug altitude, or set a new bug. See Primary Flight Display (PFD), AFCS System (Autopilot).
AMAD OIL PRESS LOW Warning	AMAD oil pressure below 80 psi. Normal on a start until about 38 % N2; in flight it means a pushover under 0.2 g.	On a start: nothing. In flight: back to 1 g. If it stays with the engine running, land as soon as practical. See Engine Start and Cockpit Controls, Engine Start and Taxi.
ANTIFOG INVRTR ON Advisory	Windshield anti-fog runs from the emergency inverter (essential AC lost), or EMER INV TEST.	None. On emergency power use anti-fog only as needed. See Cabin, Oxygen and Hypoxia, Electrical and Avionics Power.
APCU FAULT Caution	The FAT probe is out of range, usually from pitot heat left on while standing still.	Pitot heat OFF until just before takeoff. See AFCS System (Autopilot), Status Pages (STAT), Preflight and Power-Up.
APCU NO RESPONSE Advisory	ESS DC SHED is selected: the autopilot computer has no power.	Fly by hand. Release SHED when you can. See AFCS System (Autopilot), Electrical and Avionics Power.
APPROACHING SET ALT Advisory	Within 1,000 ft of the PFD altitude bug, before you reach it.	None. Level off at the set altitude. See Primary Flight Display (PFD).
AUTOPILOT MAN TRIM Caution	The autopilot is engaged but not auto trimming (PITCH TRIM MODE MANUAL, or the pitch axis off).	PITCH TRIM MODE AUTO, or trim by hand. Centre the PITCH sync bar before you disconnect. See AFCS System (Autopilot).
AVP LOAD FAIL Advisory	A file on that MFD's STAT/LOAD page failed to load (for example SimBrief).	Read the reason on STAT/LOAD, fix it and LOAD again. See Status Pages (STAT), Electronic Flight Bag (EFB).
BCCU FAULT Caution	The emergency battery is not available: utility battery at half or less on the ground, or under 10 % in flight after a reset.	On the ground: no takeoff until the batteries are serviced. In flight: Battery Only checklist, land as soon as possible. See Electrical and Avionics Power.
BLEED AIR LEAK Caution	Fire warning test only (FIRE TEST). Comes with the BLEED lamp.	Return the test switch to the centre. See Preflight and Power-Up, Warnings and Alerts.
BOOST PRESS LOW Caution	A boost pump is off or unpowered, or the sump is nearly empty, with the engine running.	Both FUEL BOOST PUMP switches ON. Check essential AC and the sump. See Fuel System.

Message	What it means	What to do
CABIN ALTITUDE HIGH CABIN ALTITUDE HIGH Warning / Caution	Cabin pressure lost: yellow above the schedule, red above 35,000 ft cabin. Usually CANOPY SEAL OFF or RAM AIR on.	Oxygen ON. CANOPY SEAL ON, RAM AIR OFF. If it stays high, emergency descent. See Cabin, Oxygen and Hypoxia, System Pages (SYS).
CABIN TEMP HIGH Caution	Cockpit above 95 °F for 30 s. Common on the ground on a warm day with the engine off.	Cooler CABIN HEAT setting. On the ground the air conditioning needs the engine. See Cabin, Oxygen and Hypoxia.
CHECK SUMP QTY Caution	The sump indication is below your sump bug (SYS > PERF). Can come and go in a climb.	Check the wing tanks. In a climb lower the nose or select INBD SUMP TANK ON. See Fuel System, System Pages (SYS).
CHECK TOTAL FUEL CHECK TOTAL FUEL Warning / Caution	Total fuel below your yellow or red total-fuel bug (SYS > PERF).	Yellow: plan the recovery. Red: land as soon as possible. See Fuel System, System Pages (SYS).
CKPT AIR DUMP OPEN Advisory	RAM AIR is ON: cockpit pressure dumped.	If not intended: RAM AIR OFF. See Cabin, Oxygen and Hypoxia.
COM 1 FAULT COM 2 FAULT Caution	That COM radio has failed (simulator failure only).	Use the other COM radio, or COMM CNTL BACKUP. See Communication Pages (COM).
COUNT DOWN ALERT Advisory	The UFCD DN timer has reached zero.	None. Reset the timer on the UFCD TIME page. See Up-Front Control Display (UFCD).
COUNT UP ALERT Advisory	The UFCD UP timer has reached its set time.	None. Reset the timer on the UFCD TIME page. See Up-Front Control Display (UFCD).
CRS FAIL Caution	No valid course guidance for the PFD source (ILS receiver failure). Red CRS flag.	Disregard the course bar; select another steering source. See Primary Flight Display (PFD).
DATA ZEROIZED Warning	ZEROIZE held 3 s: mission data, codes and the INS alignment are erased.	None. Reload the mission data and start a new INS alignment. See Cockpit Panels, Navigation Pages (NAV), Inertial Navigation System (INS).
DC GEN OUT Warning	The main DC generator is off line after the engine has run. Normal after shutdown.	DC Generator Failure checklist: MAIN DC GENERATOR reset, then NORM; TR NORM. See Electrical and Avionics Power.
DDL2 FAULT Caution	The datalink is on but its uploads have failed for 30 s.	Check the EFB Datalink tab and your network, or switch the datalink off. See Electronic Flight Bag (EFB), Mission Equipment (PME), Status Pages (STAT).
DPS RECEIVED Advisory	A datalink upload (route or airports from the EFB) waits in the UPLD file.	Accept it into a store or reject it. See Electronic Flight Bag (EFB), Navigation Pages (NAV), Backup Control Display Unit (BCDU).
EGT HIGH Warning	EGT 842 °C or more (890 °C on a start). In practice in SEC at full throttle above about 55,000 ft.	Reduce throttle until it goes out. See Engine Start and Cockpit Controls, System Pages (SYS).

Message	What it means	What to do
ELEC BUS FAIL Warning	Both AC buses and the essential DC bus without power. You rarely see it: the MFDs go dark too.	BATTERY ON, then the Battery Only checklist. See Electrical and Avionics Power.
EMER AC FAIL Warning	The emergency AC bus has no power (inverter off with essential AC lost), or EMER INV TEST. Shows on a cold aircraft until the inverter is at NORM.	EMERGENCY INVERTER NORM, STANDBY GENERATOR NORM. After the TEST check, back to NORM. See Electrical and Avionics Power.
EMER BATT ON Warning	In flight, the utility battery is down to 10 % and the emergency battery has taken over: about 40 minutes left (70 with ESS DC SHED).	Battery Only checklist: land as soon as possible and shed load. See Electrical and Avionics Power.
EMER INVERTER ON Advisory	The emergency inverter carries the emergency AC bus. Normal on battery before engine start.	After the start check: NORM. In flight with ESS AC FAIL: ESS AC Failure checklist. See Electrical and Avionics Power, Engine Start and Taxi.
EMER START ARMED Advisory	EMERGENCY START SYS is in ARM.	Arm only for an airstart; otherwise OFF and close the cover. See Engine Start and Cockpit Controls, Engine Start and Taxi.
ENG MODE SECONDARY Caution	The engine is in secondary control: switch at SEC, below 54 % N2 (every start) or an automatic transfer.	Normal on a start. Otherwise SEC, then PRI. If it comes back, stay in SEC (up to 10 % less thrust). See Engine Start and Cockpit Controls, Engine Start and Taxi.
ENG OIL PRESS LOW Warning	Engine oil pressure 10 psi or less in flight: the engine is stopping.	Engine stopped: Engine Flameout - Airstart. Running: minimum power, land as soon as possible. See System Pages (SYS), Specifications and Limitations.
ENG OIL TEMP HIGH Warning	Engine oil 160 °C or more. Normal flying does not get there.	Reduce power and land as soon as practical. See System Pages (SYS), Specifications and Limitations.
ENG OIL TEMP LOW Warning	Engine oil -40 °C or colder: only an extremely cold-soaked engine.	On the ground warm up at idle. In flight see Engine Flameout - Airstart. See System Pages (SYS).
ESS AC FAIL Warning	The essential AC bus has no power: main generator off line and the standby generator not taking over. The autopilot loses power.	ESS AC Failure checklist; fly by hand. See Electrical and Avionics Power.
EW IBIT TIMEOUT Advisory	An EW BIT did not finish within 40 s.	With EW CONT on and the startup BIT done, run the BIT again. See Status Pages (STAT), Map, Traffic and Checklists, Standby Flight Display (SFD).
EW NO RESPONSE Advisory	The EW system does not answer: EW CONT OFF or no power. Normal until EW CONT goes to REC.	EW CONT to REC when you want the EW system. See Map, Traffic and Checklists, Standby Flight Display (SFD), Status Pages (STAT).

Message	What it means	What to do
FIRE Warning	FIRE TEST, or an engine fire from the simulator's failures. FIRE lamp on the glare shield.	Test: switch to centre. Real fire: Engine Fire or Overheat checklist. See Warnings and Alerts.
FLAP GUST MISMATCH Caution	7 s after a GUST CONTROL move the flaps are not where it sends them (usually no hydraulic pressure). Also in the lamp test.	Check hydraulic pressure. Keep to 130 KIAS or less until they match. See Engine Start and Cockpit Controls, Flying the U-2S.
FLAPS DOWN Warning	Flaps out above 130 KIAS (more than 5°), or above 45,000 ft (more than 3°).	Flaps up, or slow below 130 KIAS. See Specifications and Limitations.
FOOD READY Advisory	The Dragon Food tube is hot, about 10 minutes after FOOD HEATER START.	None. FOOD HEATER OFF when done. See Electronic Flight Bag (EFB), Speedbrakes and Lift Spoilers.
FUEL PRESS LOW Caution	Fuel pressure below 8 psi: both boost pumps off or the sump nearly empty.	Both FUEL BOOST PUMP switches ON; check essential AC and the sump. See Fuel System.
FUEL SUMP LOW Caution	The sump indication is at or below 38 gal: the engine is draining it faster than the wing tanks refill it.	Lower the nose or reduce power; INBD SUMP TANK ON until the sump is near 70 gal. See Fuel System, System Pages (SYS).
FUEL XFER 2 MINUTES Caution	A fuel transfer switch has been on for 2 minutes. Repeats every 2 minutes.	Check the balance and the sump; switch the transfer OFF when done. See Fuel System.
FUEL XFER ON Advisory	A fuel transfer or sump-tank switch is on.	None while you transfer. Switch off when done. See Fuel System, Cruise.
FWD LINK NOT KEYED AFT LINK NOT KEYED Advisory	The datalink is on but not sending yet (connecting, or the last upload failed).	Wait, or check the EFB Datalink tab; switch the datalink off if you do not use it. See Electronic Flight Bag (EFB), Mission Equipment (PME), Status Pages (STAT).
GS FAIL Caution	ILS steering with a localizer, and the ILS receiver has failed (simulator failure). Red GS flag.	Disregard the glideslope; fly a localizer-only approach. See Primary Flight Display (PFD), Emergency Procedures.
H70 LEAK Caution	The Emergency Start System has been fired. Stays until it is serviced on the ground.	Land: one airstart per flight. The crew services it once the pogos are back on. See Engine Start and Cockpit Controls.
HARD LANDING Advisory	A touchdown faster than the limit for your weight; the line shows the sink rate.	None. Nothing is damaged: use the sink rate to judge your flare. See Flying the U-2S, U2 101 - The Basics, Landing Gear, Brakes and Ground Handling.
HATCH HEATER HOT Advisory	HATCH HEATER in HTR & BLO with no OBC fitted, or without monitored AC.	HATCH HEATER OFF. See Cabin, Oxygen and Hypoxia, Preflight and Power-Up, Optical Bar Camera (OBC).
HIST FILE 80% FULL Advisory	That MFD's alert history holds 160 entries or more (of 200).	None. Clear it on STAT/HIST if you want. See Status Pages (STAT).

Message	What it means	What to do
HIST FILE CLEARED Advisory	That MFD's alert history reached 200 and emptied itself.	None. See Status Pages (STAT).
HYD INDICATOR Caution	In flight, the hydraulic pressure signal is lost (essential AC dead). Normally with ESS AC FAIL.	ESS AC failure steps. The hydraulics still work. See Electrical and Avionics Power.
HYD PRESS LOW Warning	Hydraulic pressure below 2,800 psi in flight: mainly when the engine stops. Comes with the HYD lamp.	Hydraulic Failure checklist. Below 1,500 psi: gear by the GEAR RELEASE T-handle, lift spoilers on EMER. See Electrical and Avionics Power, System Pages (SYS).
IAS FAIL Caution	No valid PFD airspeed: pitot ice, airspeed failure, or air data unit without power. No MACH hold.	Fly the SFD airspeed. Pitot heat ON; release ESS DC SHED. See Primary Flight Display (PFD), Electrical and Avionics Power.
IFF MODE 4 RPLY FAIL Caution	The IFF has Mode 4 on but no Mode 4 code (zeroized, or switched off without HOLD).	Select Mode 4 OFF. See Up-Front Control Display (UFCD), Status Pages (STAT), Backup Control Display Unit (BCDU).
ILS FAULT Caution	The ILS receiver has failed (simulator failure).	Fly a non-precision approach, or use NAV or TAC steering. See Emergency Procedures, Standby Flight Display (SFD).
INS DATE MISMATCH Caution	The sim date or time changed with the INS on, and the clocks differ by more than 2 minutes.	No effect on navigation. Set the sim date back, or leave it. See Inertial Navigation System (INS).
INS DEGRADED Advisory	The INS went to NAV with a limited alignment (accepted early, or you moved before FULL NAV READY).	None. It upgrades by itself. See Inertial Navigation System (INS).
INS GPS MISMATCH Caution	The INS position is over 1,000 ft from the GPS. Usually GPS updating OFF on NAV/DATA.	Set GPS updating ON, or make a manual position update. See Inertial Navigation System (INS), Navigation Pages (NAV).
INU TEMP Advisory	INS unit temperature 115 °F or more: a very hot ramp with the INS on.	None. Keep ground time short on a hot ramp. See Inertial Navigation System (INS), Navigation Pages (NAV).
L INBD DUMP COMP R INBD DUMP COMP L OUTBD DUMP COMP R OUTBD DUMP COMP Advisory	Dumping from that tank and it is down to 30 gal (inboard) or 150 gal (outboard).	Close that DUMP switch. See Fuel System.
L INBD DUMP OPEN R INBD DUMP OPEN L OUTBD DUMP OPEN R OUTBD DUMP OPEN Advisory	That tank's DUMP switch is open: fuel goes overboard.	None while you dump on purpose. If not intended, close the switch now. See Fuel System.
LANDING GEAR NOT DN Warning	Gear handle UP on the ground, or in flight with the flaps at 20° or more. Also in the lamp test.	Gear handle DOWN, or flaps below 20° if you are not landing. See Landing Gear, Brakes and Ground Handling.

Message	What it means	What to do
LOW OXY QTY Caution	Both LOX converters together hold less than 2 L.	Descend to a lower cabin altitude and land. On the ground, service the LOX. See Cabin, Oxygen and Hypoxia.
MACH DEVIATION Caution	Mach outside the PFD MLIM window for 5 s. Only with MLIM on, in the air.	Fly back inside the window, or change or switch off MLIM on the PFD. See Primary Flight Display (PFD).
MACH RATE Caution	Mach rising fast enough to reach .75 within 5 s.	Stop the acceleration: nose up slightly, power back a little. See Primary Flight Display (PFD), High Altitude and the Cruise Climb.
MAIN AC GEN OUT Warning	The main AC generator is off line after the engine has run. Normal after shutdown.	Main AC Generator Failure checklist: OFF-RESET then NORM. See Electrical and Avionics Power.
MON DC VOLTS LOW Caution	The monitored DC bus below 25.5 V for 15 s. Normal shortly after shutdown on the battery.	Check the DC generator and the TR. If neither comes back, Battery Only checklist. See Electrical and Avionics Power.
N1 FAN OVERSPEED Warning	Fan speed N1 above 102 %.	Reduce throttle until it goes out. See Engine Start and Cockpit Controls, System Pages (SYS).
N2 CORE OVERSPEED Warning	Core speed N2 above 106.3 %. At 110.25 % the fuel is cut.	Reduce throttle until it goes out. See Engine Start and Cockpit Controls, System Pages (SYS).
NAV STEERING Advisory	The INS steering computer cannot fly the selection as entered (status word in magenta).	Read the magenta status on the NAV page; re-enter the steering if needed. See Navigation System (INS Steering), Navigation Pages (NAV).
NO. 1 OXY NO. 2 OXY Warning	That oxygen system is OFF or empty. Shows in a cold cockpit.	OXYGEN SYSTEM 1 / 2 ON. If a converter is empty, use the other and descend. See Cabin, Oxygen and Hypoxia.
ORBIT REJECT Advisory	F/T steering with ORB set, but the ACTIVE file has no usable orbit; the line gives the reason.	LOAD a file with a valid orbit, or set ORB to 0. See Navigation System (INS Steering), Up-Front Control Display (UFCD).
OVERHEAT Warning	OHEAT TEST only: no engine-bay overheat is simulated.	Return the switch to the centre. See Warnings and Alerts.
PITCH DISC Advisory	The autopilot pitch axis is not engaged (after a disconnect, switch off or a trip).	Fly by hand. After a trip, cycle the PITCH switch and re-engage. See AFCS System (Autopilot).
Q-BAY ALTITUDE HIGH Q-BAY ALTITUDE HIGH Warning / Caution	The equipment bay is above its pressure schedule. Comes with every cabin pressure loss.	Restore cabin pressure, then descend. See Cabin, Oxygen and Hypoxia, System Pages (SYS).
RESET BARO Advisory	The AVP has just started: the altimeter is not set yet. Red ALT box on the PFD.	Set the altimeter (PFD BARO or the SFD knob). See Primary Flight Display (PFD), Preflight and Power-Up.

Message	What it means	What to do
ROLL DISC Advisory	The autopilot roll axis is not engaged (after a disconnect, switch off or a trip).	Fly by hand. After a trip, cycle the ROLL switch and re-engage. See AFCS System (Autopilot).
RPLAN DISABLE Advisory	An executed replan has stopped (END DP reached, new steering or a new ACTIVE file).	None if done; EXEC again if you still want it. See Navigation System (INS Steering), Navigation Pages (NAV).
SEAL PRESS OFF Advisory	Hatch and nose seal pressure low. Normal until 20 s after engine start.	None. See Cabin, Oxygen and Hypoxia, Engine Start and Taxi.
SPOILER PRESS LOW Caution	The emergency lift-spoiler accumulator is low, after every EMER deployment.	Spoiler switch EMER to let it recharge (about three deployments when full). See Speedbrakes and Lift Spoilers.
STALL STRIP IN Advisory	Gear handle DOWN with the stall strips in.	Set the landing flaps (24° or more), or pull the stall strip handle. See Cabin, Oxygen and Hypoxia, Landing, Descent and Approach.
STALL STRIP OUT Advisory	Gear handle UP with the stall strips out, above 18,000 ft.	Push the stall strip handle in, or raise the flaps. See Cabin, Oxygen and Hypoxia, Takeoff and Climb, Electronic Flight Bag (EFB).
STBY AC GEN ON Advisory	The standby generator carries essential AC, or STBY GEN TEST.	After the start check: NORM. In flight with MAIN AC GEN OUT: Main AC Generator Failure checklist. See Electrical and Avionics Power, Engine Start and Taxi.
SUMP INDICATOR Advisory	In flight the sump gauge has no power (EMER AC lost): it stands at 62 gal.	Restore EMER AC. Plan fuel on the total count and time. See Fuel System, Electrical and Avionics Power.
TACAN FAULT Advisory	The TACAN has no power: its volume knob at the OFF stop, or no DC power.	Turn the TACAN volume knob up if you need TACAN. See Up-Front Control Display (UFCD), Communication Pages (COM).
TP DESIGNATE FAILED Advisory	A designate made no TP: all 10 slots full, or no sensor aimed.	Aim a sensor at the ground, or clear a TP on NAV/DPS. See Targeting Points, SYERS-2A Camera, ASARS-2 Radar.
TP LIST FULL Advisory	All 10 targeting point slots are full.	Clear a TP on NAV/DPS. See Targeting Points, Navigation Pages (NAV).
TR ON Advisory	The TR supplies the DC buses. Normal on ground power with BATTERY NORM.	After the start check: NORM. In flight with DC GEN OUT: DC Generator Failure checklist. See Electrical and Avionics Power, Engine Start and Taxi.
UTIL BATT LOW Caution	The utility battery is at half charge or less (batteries alone on the DC buses).	Get a generator or the TR back; shed load and land as soon as practical. On the ground, ground power or engine. See Electrical and Avionics Power.
XFER PRESS LOW Caution	A transfer pump runs without delivering: source tank empty, or normal while the sump is filling.	If it stays, switch the transfer OFF. See Fuel System.

Message	What it means	What to do
YAW DISC Advisory	The autopilot yaw axis is not engaged (after a disconnect, switch off or a trip).	Fly by hand. After a trip, cycle the YAW switch and re-engage. See AFCS System (Autopilot).

No message matches the filter.

Related pages: Warnings and Alerts · Status Pages (STAT) · Emergency Procedures

Miltech Simulations U-2. SIMULATION USE ONLY. This documentation describes the simulated aircraft as delivered in the add-on and must not be used for real-world aviation.