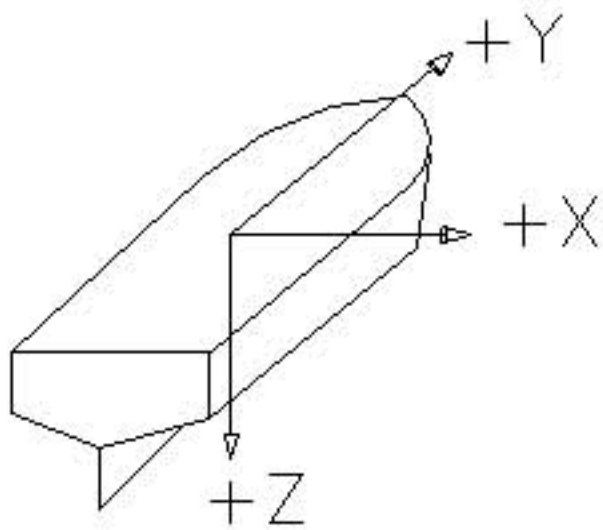
Coordinate Systems for Common OCS Equipment & Software

CARIS COORDINATE SYSTEM

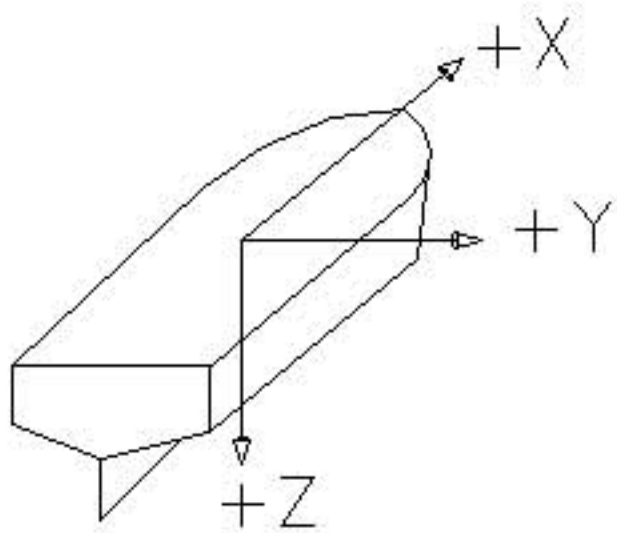


RFERENCE DATUM: WATERLINE
ORIGIN: RP defined in vessel reference frame
Note: Left handed coordinate system.

The Caris coordinate system is used when entering offsets in the Vessel Configuration Editor. For sidescan, these offsets are applied to ship nav to get a fish position when Recomputing SSS Nav.

For multibeam, the offsets are nessecary to reference the MBES head to the IMU.

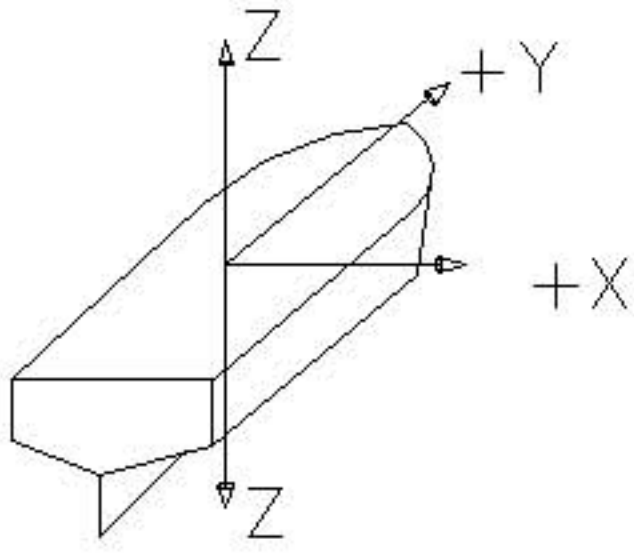
POS/MV COORDINATE SYSTEM



RFERENCE DATUM: TOP OF IMU
ORIGIN: Cross-hair on top of IMU
Note: Right handed coordinate system.

POS/MV coordinate system is used to locate the GPS antennae and multibeam to the IMU for ship navigation and MB attitude. These offsets are entered in the POS/MV controller program on initial setup.

HYPACK COORDINATE SYSTEM



RFERENCE DATUM: WATERLINE
ORIGIN: Survey transducer phase-center

Note: For most siutations, the "Y" offset is positive towards the bow, except in the case of the cable-counter layback where "Y" is positive to the stern. For the vertical offsets, the value entered will most often be positive, no matter what the direction, ie. antenna height is (+) and transducer depth in (+).