CRUISE NOTES

CHIEF SCIENTIST ON SHIP     : T.J.Mueller
INSTITUTE                 : Institute fur Meereskunde Kiel
COUNTRY                   : Germany

SIGNIFICANT DATA GAPS       :

SPECIAL SHIP TRACK PATTERNS :

COMMENTS                    :

There were four general scientific objectives:
To obtain an improved knowledge of the physical processes controlling the subtropical gyre and the related mesoscale circulation through observations and circulation models.
To study the carbon cycle in the pelagic system and to estimate the carbon flow from this system to deeper waters.
To quantify the influence of the coastal upwelling and Saharan dust on the particle fluxes in the Canary region and to investigate its change through the last glacial and interglacial periods.
To quantify, understand and model the exchange system through the Strait of Gibraltar, processes of formation, evolution and fate of the Mediterranean outflow and to measure the biogeochemical fluxes accompanying the water exchanges.

ADCP INSTRUMENTATION

MANUFACTURER                : RDI
HARDWARE MODEL              : 150
SERIAL NUMBERS              :
FIRMWARE VERSION            :
TRANSMIT FREQUENCY          : 153.6 kHz
TRANSDUCER CONFIGURATION    : JANUS CONCAVE

COMMENTS                    :

ADCP INSTALLATION

METHOD/DESCRIPTION OF THE ATTACHMENT TO THE HULL :
LOCATION/DEPTH ON HULL      : Transducer depth at nominally 4 m
REPEATABLE ATTACHMENT :
DATE OF MOST RECENT ATTACH. :
ACOUSTIC WINDOW             :
COMMENTS                    :

ADCP INSTRUMENT CONFIGURATION

DEPTH RANGE                 : 20 to 492 m
BIN LENGTH                  : 8 m
NUMBER OF BINS              : 60
TRANSMIT PULSE LENGTH       : 16 m
BLANKING INTERVAL           : 4 m
ENSEMBLE AVERAGING INTERVAL : 300 s
SOUND SPEED CALCULATION     : function of transducer temperature
BOTTOM TRACKING             : unconfirmed
COMMENTS                    :

1
ADCP DATA ACQUISITION SYSTEM
SOFTWARE DEVELOPERS : RDI
SOFTWARE VERSIONS : DAS 2.48
DATA LOGGER, MAKE/MODEL : PC
ADCP/LOGGER COMMUNICATION : 
USER BUFFER VERSION : unconfirmed
CLOCK : unconfirmed

SHIP HEADING
INSTRUMENT MAKE/MODEL : gyro (Anschuetz)
synchro or stepper : 
Synchrono ratio : 
Compensation applied : 
GPS attitude system : 3-dimensional ADU2 (Ashtech)
Location of antennas : 
Rigid attachment : 
Logging rate : 

ANCILLARY MEASUREMENTS
Surface temp and salinity : unconfirmed
Pitch/roll measurements : 
Hydro cast measurements : yes
Biomass determination : no
Date of last calibration : 
Calibration coefficients : 
Beam-averaged AGC available? : 
Calibration net tows? : 

ADCP DATA PROCESSING/EDITING
Personnel in charge : T.J.Mueller
Date of processing : 
Added to NODC DB : OCT 2000
Notable scattering layers : 

Profile editing performed using CODAS software. Bottom reflection and wire interference cleaned as necessary.

NAVIGATION
GPS : YES
Make/model : Ashtech, GG24 (GPS/GLONASS)
Selective availability : 
P-code : 
Differential : similar to differential due to GG24
Sample interval : 
Location of antenna relative to transducer : 
Time obtained relative to start/end of ensemble : unconfirmed
Averaging/editing applied : yes, bad fixes edited out
Logged with ADCP data : yes
Logged independently : yes

Comments : 

CALIBRATION
Gyrocompass correction : yes
Bottom track method : No
Water track method : YES, misalignment=-0.7, scale=1.00

NAVIGATION CALCULATION
Navigation used : GPS
Reference layer depth range : unconfirmed
Filtering method for smoothing reference layer velocity (form/width) : Blackman window function
Finalized ship vel/positions : 

2
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<td>GENERAL ASSESSMENT</td>
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<td>VECTOR, CONTOUR, STICK PLOTS</td>
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<tr>
<td>REFERENCES (DATA REPORTS, ETC.)</td>
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