

Description of data format (revision date: July 2007)

Data group name	Field	Data name	Units / Type	Comments
header	1	year	UTC date	data reference header
	2	month		
	3	day		
	4	hour	UTC time	
	5	minute		
	6	second		
	7	LAT	degrees	
	8	LON	degrees	
Nav GPS Shipmate (Bridge)	9	year	UTC date	typical GPS information first GPS
	10	month		
	11	day		
	12	hour	UTC time	
	13	minute		
	14	second		
	15	LAT	degrees	
	16	LON	degrees	
	17	COG	degrees	
18	SOG	knots		
GG24 GPS + Glonass	19	year	UTC date	typical GPS information second GPS
	20	month		
	21	day		
	22	hour	UTC time	
	23	minute		
	24	second		
	25	LAT	degrees	
	26	LON	degrees	
	27	COG	degrees	
28	SOG	knots		
ADU-2 GPS + specials	29	hour	UTC time	ADU-2 does not send any date information typical GPS information third GPS
	30	minute		
	31	second		
	32	LAT	degrees	
	33	LON	degrees	
	34	COG	degrees	
	35	SOG	knots	
	36	heading	degrees	
	37	pitch	degrees	
	38	roll	degrees	
Gyro compass	39	heading	degrees	north seeking gyro
Doppler log	40	VHW	knots	speed through water
	41	trip meter	naut. miles	passed miles since last reset
Echosounder	42	DBT	meter	depth below transducer, variable time intervall
DWD weather data	43	wind dir. rel.	degrees	data interval ~ 10 secs all values are averages over the last 60 seconds
	44	wind speed rel.	m/sec	
	45	wind dir. abs.	degrees	
	46	wind speed abs.	m/sec	
	47	air temp.	°C	
	48	humidity	%rel	
	49	air pressure	hPa	
50	water temp.	°C		

Description of data format (continued)

Data group name	Field	Data name	Units / Type	Comments
Thermo-salinometer	51	water temp.	°C	measured
	52	conductivity	ms/cm	measured
	53	salinity	IPSU 78	calculated
	54	sigma(T)	---	not calculated yet, comes later
global radiation sensor	55	IR radiation	W/m ²	
	56	temp. IR sensor	°C	
	57	glob. radiation	W/m ²	
	58	PAR	μE/(s*m ²)	
GPS gyro device from DWD	59	Year	UTC date	typical GPS information and specials Heading, pitch and ROT are not very exact and therefore not usefull. They are mainly recorded for observation
	60	Month		
	61	Day		
	62	Hour	UTC time	
	63	Minute		
	64	Second		
	65	LAT	degrees	
	66	LON	degrees	
	67	COG	degrees	
	68	SOG	knots	
	69	HDT	degrees	
	70	Pitch	degrees	
	71	Roll	degrees	
	72	ROT	°/min	

Some explanations

LAT	latitude	
LON	longitude	
COG	course over ground	
SOG	speed over ground	
HDT	heading true (geogr. north)	
VHW	velocity through water	
DBT	depth below transducer	(on RV POSEIDON you should add 4.5 meters to get the real depth)
ROT	rate of turn	

LAT	positive = NORTH (of equator) negative = SOUTH (of equator)
LON	positive = EAST (of Greenwich) negative = WEST (of Greenwich)
roll	positive = to starboard (right side) negative = to port (left side)
ROT	positive = to starboard (right side) negative = to port (left side)

heading = direction of ships keel