

APL-UW PhilSea10 Event/Schedule and Input as of 9 December 2009

Revelle depart Kaohsiung 5 May 1600, return Kaohsiung 29 May 0800

1 km = 0.539956803455724 nm

To convert from local time to GMT in Taiwan subtract 8 hours.

May 1 is year day 121

Initial DVLA location is 21.33°N, 126.10°E (21° 19.8'N, 126° 06.0'E)

Initial SS500 location is 19.0°N, 130.2°E (19° 0.00'N, 130° 12.00'E)

Geodetic distance DVLA to SS500 is 500.192931 km

Distance from Kaohsiung to Hengsh'un is 70 nm; Hengsh'un location is 22.0N, 120.75E

Geodetic distance from Hengsh'un to SS500 is 1,039.922859 km or 561.5 nm

Total transit, Kaohsiung to SS500 is 631.5 nm, at 11.7 knots transit time is 54 hours

Day 119 (April29)	Travel
Day 120 (April30)	Travel (Arrive Kaohsiung in evening)
Day 121 (May1)	Dockside preparations – dock passes, unloading container #1 w/ ship's crane (MP, Tow body, etc.), placing and welding deck plates, re-locate ship's small crane etc.
Day 122 (May2)	Unloading containers #'s 2-4 (big crane), staging, initial equipment checks, ship's power transformer, installing C-Nav GPS
Day 123 (May3)	String cables, mount antennae, prepare lab space, test electronics
Day 124 (May4)	Dockside testing, deploy sources, deploy tow fish
Day 125 (May5):	1600 (1250800Z) Depart Kaohsiung for SS500
Day 126 (May6):	Transiting
Day 127 (May7):	2200 Arrive SS500 2200 Begin deploying and survey bottom transponders*
Day 128 (May8):	1000 Complete bottom transponder survey 1000-1400 Deep CTD cast 1400-1600 Deploy HX source to 1000 m 1600-2000 Calibrating HX source
Day 129 (May9):	0000 (1281600Z) 55-hour XmitRecord window begins
Day 130 (May10):	Xmitting
Day 131 (May11):	0700 (1302300Z) XmitRecord window ends 0700-1200 Raise HX to 150 m and calibrate (If time allows, conduct CTD to 500 m before 1200) 1200-1400 Recover HX 1400-1600 Deploy CTD Chain for 3.5 knot tow to DVLA (-10 km) 490 km (264.6 nm) requires 75.5 hours 1600 Begin towing CTD Chain
Day 134 (May14):	1930 Arrive DVLA (-10 km) 1930-2130 Recover CTD Chain 2130-2330 CTD Cast to 500 m 2330 Relocate to SS25 for drift (max. transit 35 km (18.9 nm) at 8 knots is 2.5 hours

Day 135 (May15): 0200 Arrive at SS25
0600-0800 Deploy HX to 150 m (can deploy earlier if cal. needed)
0800 (1350000Z) 10-hour XmitRecord window and drift begins
1800 (1351000Z) XmitRecord window and drift ends
1800-2000 Recover HX source
2000-2300 Relocate to DVLA (-10 km) 45 km (24 nm) 8 knots
2300 Begin CTD casts with transit to SS500, 10 km spacing,
3-hour average, 50 casts = 150 hours, 49 transits (5.4 nm)
at 8 knots requiring 0.75 hours each or 33 hours of transit,
totals 183 hours to get to SS500

Day 143 (May23): 1400 Complete 50th cast at SS500
1400-1600 Deploy MP source to 1000 m
1600-2000 Calibrate MP source

Day 144 (May24): **0000 (1431600Z) 55-hour XmitRecord window begins**
Day 145 (May25): **Xmitting**
Day 146 (May26): **0700 (1452300Z) XmitRecord window ends**
0700-0900 Recover MP source

Day 147 (May27): 0200 Depart for Kaohsiung, 54-hour transit at 11.7 knots
Day 148 (May28): Transiting
Day 149 (May29): 0800 Arrive Kaohsiung

*Bottom transponder locations; T1 is 5km toward the DVLA from SS500 on a great circle, and T2, T3, and T4 are also 5 km from SS500 but at 90 incremental angles from the great circle path to the DVLA.

T1 is at 19.023611°N, 130.159722°E (19° 1.416667'N, 130° 9.583333'E)

T2 is at 19.038056°N, 130.225000°E (19° 2.283333'N, 130° 13.500000'E)

T3 is at 18.976111°N, 130.240278°E (18° 58.566667'N, 130° 14.416667'E)

T4 is at 18.961944°N, 130.175000°E (18° 57.716667'N, 130° 10.500000'E)