

The Results of Oceanographic Observations
in areas under national jurisdiction
of the United States of America
by the Cruise of R/V Keifu Maru

October 2016

Japan Meteorological Agency

DATA EXPLANATION

Hydrographic Observation

<i>STA-NO</i>	:Station number given by the ship code ("KS" is Keifu maru, "RF" is Ryofu maru) suffixed with four digits consecutive number.
<i>LOCATION</i>	:Latitude and longitude in degrees, minutes and tenth of minutes (if given) with the hemisphere indicated by 'N'/'S' and 'E'/'W'.
<i>DATE/TIME</i>	:Month, day and time of beginning and end of a hydrographic cast in the Japan Standard Time (JST), which is nine hours ahead of the Coordinated Universal Time (UTC).
<i>DEPTH</i>	:Water depth to the bottom in meters measured using a single beam echo sounder.

Standard Depth (Standard)

<i>DEPTH</i>	:Standard depths in meters.
<i>TEMPERATURE</i>	:Temperature in "the International Temperature Scale of 1990 (ITS-90)".
<i>SALINITY</i>	:Salinity in "the Practical Salinity Scale, 1978 (PSS-78)".
<i>O₂</i>	:Dissolved oxygen in micro mole per kilogram measured using a dissolved oxygen sensor.

Standard Depth (Calculated)

<i>Δst</i>	:Thermosteric anomaly in $10^{-8} \text{ m}^3\text{kg}^{-1}$
<i>ΔD</i>	:Geopotential anomaly in $10 \text{ m}^2\text{sec}^{-2}$

Observed

<i>DEPTH</i>	:CTD depth of sampling in meters.
<i>TEMPERATURE</i>	:CTD temperature in ITS-90.
<i>SALINITY</i>	:CTD salinity in PSS-78.
<i>O₂</i>	:Dissolved oxygen in micro mole per kilogram as determined titrimetrically by means of the Winkler Method.
<i>PO₄-P</i>	:Inorganic phosphate-phosphorus in micro mole per kilogram as determined colorimetrically by means of the reduction method using ascorbic acid (Strickland and Parsons, 1965).
<i>NO₃-N</i>	:(Nitrate+nitrite)-nitrogen in micro mole per kilogram as determined colorimetrically by means of the Muellin-Riley method using copper-cadmium reduction column (Wood, Armstrong and Richard, 1967).
<i>NO₂-N</i>	:Nitrite-nitrogen in micro mole per kilogram as determined colorimetrically by means of the Bendschneider and Robinson method (Strickland and Parsons, 1965).
<i>SiO₂</i>	:Silicate-silicon in micro mole per kilogram as determined colorimetrically by means of the reduction method using ascorbic acid (Grasshoff et al, 1983).
<i>PH</i>	:Hydrogen-ion concentration at 25 degree-C as determined by means of the spectrophotometric technique using the indicator dye <i>m</i> -cresol purple (Clayton and Byrne, 1993).
<i>CHL</i>	:Chlorophyll-a in micrograms per liter as determined by means of the fluorometric technique.
<i>PHA</i>	:Phaeopigments in micrograms per liter as determined by means of the fluorometric technique.

Note: Missing value is indicated by a mark "-".

DATA EXPLANATION

Current Observation

<i>CRUISE NO</i>	:Cruise number identified with the year and consecutive number in the year.
<i>DATE</i>	:Date of beginning and end of the subsurface current observations.
<i>OCEAN AREA</i>	:Observation area.
<i>SHIP</i>	:Ship Code. "KS" is Keifu maru, "RF" is Ryofu maru.

Observed

<i>STA-NO</i>	:Station number given by the ship code suffixed with three digits consecutive number.
<i>DATE/TIME</i>	:Month, day and time of an observation in JST.
<i>LOCATION</i>	:North latitude and east longitude in degrees, minutes and tenth of minutes (if given) with the hemisphere. Negative latitude means the south latitude.
<i>WATER DEPTH</i>	:Water depth to the bottom in meters.
<i>DEPTH(1)</i>	:Depth of the 1st (4th) layer in meters.
<i>DIR/SPEED(1)</i>	:True direction (in degrees) toward which current is flowing and speed given in tenths of knots of the subsurface current for the 1st (4th) layer determined with Acoustic Doppler Current Meter (ACM). When the speed is given as zero, the direction is also given as zero.
<i>DEPTH(2)</i>	:Same as above but for the 2nd (5th) layer.
<i>DIR/SPEED(2)</i>	:idem
<i>DEPTH(3)</i>	:Same as above but for the 3rd (6th) layer.
<i>DIR/SPEED(3)</i>	:idem
<i>TEMPERATURE</i>	:Surface temperature in "the International Temperature Scale of 1990 (ITS-90)".
<i>SALINITY</i>	:Surface salinity in "the Practical Salinity Scale, 1978 (PSS-78)".
<i>CTD STN-NO</i>	:Corresponding station number of hydrographic data.
<i>BT STN-NO</i>	:Corresponding station number of subsurface temperature data.

Note: Missing value is indicated by a mark "-".

Hydrographic Observation

No. 1

STA-NO	LOCATION(Lat LOCATION(Long.)	DATE/TIME(START) (JST)	DATE/TIME(END) (JST)	DEPTH	CRUISE/NO	SUB-NO
KC-48472200	N16500 E 80	8 m 8 d 10 h 09 m	8 m 8 d 11 h 38 m	5 4 2 2 m	16-07	-
Rem	CTD					

TIME JST	DEPTH m	TEMPERATURE °C	SALINITY (psu)	O ₂ μmol/kg	PO4-P μmol/kg	NO3-N μmol/kg	NO2-N μmol/kg	SiO ₂ μmol/kg	pH	CHL μg/l	PIA μg/l	DEPTH m	TEMPERATURE °C	SALINITY (psu)	O ₂ μmol/kg	Δσ _t 10 ⁻³ m ³ /kg	ΔD 10 ⁻³ m ² /sec ²
	0	29.352	35.060	195.658	2.000							0	29.352	35.060	195.658	2.000	0.000
	10	29.353	35.061	195.558	2.059							10	29.353	35.061	195.558	2.059	0.059
	20	29.356	35.061	195.558	2.117							20	29.356	35.061	195.558	2.117	0.117
	30	29.351	35.066	195.658	2.176							30	29.351	35.066	195.658	2.176	0.176
	40	27.940	35.264	212.752	3.0289							40	27.940	35.264	212.752	3.0289	0.289
	50	25.356	35.246	221.344	6.409							50	25.356	35.246	221.344	6.409	0.409
	60	23.916	35.312	219.939	9.0516							60	23.916	35.312	219.939	9.0516	0.516
	70	22.968	35.299	217.437	4.0614							70	22.968	35.299	217.437	4.0614	0.614
	80	21.336	35.187	206.538	0.705							80	21.336	35.187	206.538	0.705	0.705
	90	17.942	34.846	195.527	9.861							90	17.942	34.846	195.527	9.861	0.861
	100	16.393	34.681	210.325	6.999							100	16.393	34.681	210.325	6.999	0.999
	110	15.295	34.572	205.924	1.28							110	15.295	34.572	205.924	1.28	1.28
	120	16.253	34.265	163.519	1.353							120	16.253	34.265	163.519	1.353	1.353
	130	8.733	34.122	160.015	5.35							130	8.733	34.122	160.015	5.35	5.35
	140	6.317	34.083	104.012	5.1686							140	6.317	34.083	104.012	5.1686	5.1686
	150	5.343	34.192	62.210	5.1809							150	5.343	34.192	62.210	5.1809	5.1809
	160	4.840	34.324	50.190	1.5							160	4.840	34.324	50.190	1.5	1.5
	170	4.568	34.409	54.281	2.009							170	4.568	34.409	54.281	2.009	2.009
	180	4.172	34.462	60.773	2.096							180	4.172	34.462	60.773	2.096	2.096
	190	3.488	34.518	71.162	2.249							190	3.488	34.518	71.162	2.249	2.249
	200	2.786	34.562	82.052	2.449							200	2.786	34.562	82.052	2.449	2.449
	210	2.104	34.615	101.643	2.734							210	2.104	34.615	101.643	2.734	2.734

Hydrographic Observation

No. 2

STA-NO	LOCATION(Lat.)	LOCATION(Long.)	DATE/TIME(START) (JST)	DATE/TIME(END) (JST)	DEPTH	CRUISE(No)	SUB-NO										
K S-4 8 4 8 2 1-0 0	N 1 6 5-0 1	E 8 m	8 d 1 7 h 0 2 m	8 m 8 d 1 8 h 4 5 m	5 5 0 8 m	1 6-0 7	-										
Rem CTD																	
TIME JST	DEPTH m	TEMPERATURE °C	SALINITY (psu)	O ₂ μmol/kg	PO ₄ -P μmol/kg	NO ₃ -N μmol/kg	NO ₂ -N μmol/kg	SiO ₂ μmol/kg	pH	CHL. μg/l	PHA μg/l	DEPTH m	TEMPERATURE °C	SALINITY (psu)	O ₂ μmol/kg	Δσ _t 10 ⁻⁴ m ³ /kg	ΔD 10 ⁻⁴ m ³ /kg
	0	28.9063	47.68	196.8589	0.000							0	28.9063	47.68	196.8589	0.000	0.000
	10	28.9073	47.68	196.7589	0.059							10	28.9073	47.68	196.7589	0.059	0.059
	20	28.9183	47.68	196.7589	0.119							20	28.9183	47.68	196.7589	0.119	0.119
	30	28.9203	47.69	196.8589	0.178							30	28.9203	47.69	196.8589	0.178	0.178
	50	28.9133	47.81	196.8588	0.297							50	28.9133	47.81	196.8588	0.297	0.297
	75	27.5473	51.61	222.5180	4.39							75	27.5473	51.61	222.5180	4.39	4.39
	100	26.0833	52.04	210.7470	0.562							100	26.0833	52.04	210.7470	0.562	0.562
	125	25.0213	53.07	203.8431	0.677							125	25.0213	53.07	203.8431	0.677	0.677
	150	24.1503	53.83	203.8401	0.783							150	24.1503	53.83	203.8401	0.783	0.783
	200	21.2035	51.74	186.9330	9.71							200	21.2035	51.74	186.9330	9.71	9.71
	250	17.9083	48.37	203.8279	11.27							250	17.9083	48.37	203.8279	11.27	11.27
	300	16.2513	46.67	209.8253	12.65							300	16.2513	46.67	209.8253	12.65	12.65
	400	13.2273	43.85	197.5212	15.10							400	13.2273	43.85	197.5212	15.10	15.10
	500	9.5463	41.61	168.0164	17.11							500	9.5463	41.61	168.0164	17.11	17.11
	600	6.9003	41.15	130.1868								600	6.9003	41.15	130.1868		
	700	5.6473	42.43	54.9105	19.93							700	5.6473	42.43	54.9105	19.93	19.93
	800	5.0803	43.29	48.8	21.02							800	5.0803	43.29	48.8	21.02	21.02
	900	4.6493	44.13	54.9	21.98							900	4.6493	44.13	54.9	21.98	21.98
	1000	4.2673	44.69	62.4	22.86							1000	4.2673	44.69	62.4	22.86	22.86
	1200	3.5513	45.31	74.9	24.40							1200	3.5513	45.31	74.9	24.40	24.40
	1500	2.8273	45.66	83.3	26.39							1500	2.8273	45.66	83.3	26.39	26.39
	2000	2.0843	46.16	102.9	32.25							2000	2.0843	46.16	102.9	32.25	32.25

Hydrographic Observation

No. 3 -1

STA-NO	LOCATION(Lat./Longitude)	DATE/TIME(START) (JST)	DATE/TIME(END) (JST)	DEPTH	CRUISE/NO	SUB/NO
K S-4849	20-00 N 165-00 E	8 m 8 d 23 h 53 m	8 m 9 d 04 h 03 m	5321 m	16-07	-
Rem CTD						

TIME JST	DEPTH m	TEMPERATURE °C	SALINITY (psu)	O ₂ μmol/kg	PO ₄ -P μmol/kg	NO ₃ -N μmol/kg	NO ₂ -N μmol/kg	SiO ₂ μmol/kg	pH	CHL. μg/l	PHA μg/l	DEPTH m	TEMPERATURE °C	SALINITY (psu)	O ₂ μmol/kg	Δσ _t in m ³ /kg	AD in m ³ /sec ²
0335	0	29.00	34.75	196.2	0.05	0.00	0.00	1.28	10.1	0.07	0.03	0	28.97	34.74	195.8	5.93	0.00
0402	10	29.00	34.75	196.1	0.05	0.00	0.00	1.28	10.5	0.07	0.03	10	28.98	34.74	195.7	5.93	0.06
0401	25	29.00	34.74	195.9	0.05	0.00	0.00	1.28	10.2	0.07	0.03	20	28.98	34.74	195.7	5.93	0.11
0357	53	29.08	34.89	197.1	0.05	0.01	0.00	1.28	10.0	0.09	0.04	30	28.99	34.74	195.8	5.93	0.17
0356	78	27.56	35.09	211.9	0.03	0.00	0.00	1.18	10.0	0.17	0.10	50	28.98	35.01	199.3	5.73	0.29
0354	101	26.03	35.10	209.1	0.05	0.00	0.00	1.18	0.90	0.23	0.20	75	27.25	35.16	214.6	5.08	0.43
0353	126	25.32	35.30	206.5	0.04	0.00	0.01	1.18	0.81	0.15	0.28	100	26.28	35.27	214.9	4.71	0.55
0352	152	24.32	35.72	201.4	0.06	0.26	0.15	1.38	0.59	0.08	0.17	125	25.16	35.34	207.9	4.33	0.67
0350	201	20.97	35.20	206.2	0.06	0.29	0.11	1.98	0.19	0.03	0.09	150	24.35	35.39	220.4	4.06	0.77
0348	250	18.01	34.85	319.9	0.27	3.61	0.01	3.47	9.45			200	21.85	35.25	220.5	3.47	0.97
0347	299	15.98	34.63	720.4	0.43	6.27	0.00	5.67	9.08			250	18.32	34.89	199.3	2.84	1.31
0346	350	14.38	34.48	220.0	0.63	9.04	0.00	8.97	8.61			300	16.35	34.68	207.2	2.55	1.27
0343	405	12.23	34.31	190.5	0.95	13.52	0.00	14.87	7.91			400	12.55	34.36	193.9	2.03	1.51
0341	452	10.25	34.20	315.0	1.51	20.52	0.00	25.07	6.66			500	9.07	34.15	149.2	1.57	1.70
0339	502	8.96	34.14	438.1	1.72	23.79	0.00	33.67	6.25			600	6.71	34.13	91.2	1.26	1.85
0336	602	6.47	34.14	815.2	2.47	34.09	0.00	62.37	4.62			700	5.54	34.27	54.1	1.01	1.97
0332	704	5.59	34.27	543.2	2.77	38.30	0.00	78.57	4.16			800	5.09	34.37	57.8	0.88	2.08
0328	803	5.05	34.38	582.2	2.82	39.04	0.00	88.67	4.34			900	4.68	34.46	65.1	0.79	2.17
0325	903	4.60	34.58	673.2	2.81	39.14	0.00	96.87	4.52			1000	4.25	34.48	68.6	0.72	2.26
0322	1003	4.19	34.48	660.2	2.85	39.76	0.00	104.47	4.49			1200	3.45	34.53	73.1	0.60	2.41
0316	1203	3.46	34.53	731.2	2.86	40.10	0.00	119.17	4.54			1500	2.75	34.56	83.5	0.51	2.61
0310	1402	3.01	34.55	802.2	2.84	39.90	0.00	127.57	4.71			2000	2.04	34.62	104.0	0.42	2.89
0305	1601	2.57	34.57	863.2	2.82	39.91	0.00	137.27	4.75			2500	1.73	34.65	120.9	0.37	3.13
0300	1800	2.26	34.60	955.2	2.79	39.57	0.00	143.27	4.90			3000	1.58	34.66	134.1	0.35	3.37
0255	2000	2.04	34.62	1037.2	2.74	39.04	0.00	146.87	5.04			3500	1.50	34.67	145.6	0.34	3.60

Hydrographic Observation

No. 4

STA-NO	LOCATION(Lat.)	LOCATION(Long.)	DATE/TIME(START) (JST)	DATE/TIME(END) (JST)	DEPTH	CHUISE-NO	SUB-NO										
K S-4 8 5 0	1 9 0 1	N 1 6 5 0 0 E	8 m 9 d 0 9 h 0 4 m	8 m 9 d 1 0 h 3 9 m	1 8 6 7 m	1	6-0-7										
Rem CTD																	
TIME JST	DEPTH m	TEMPERATURE °C	SALINITY (psu)	O ₂ μmol/kg	PO ₄ -P μmol/kg	NO ₃ -N μmol/kg	NO ₂ -N μmol/kg	SiO ₂ μmol/kg	pH	CHL μg/l	PHA μg/l	DEPTH m	TEMPERATURE °C	SALINITY (psu)	O ₂ μmol/kg	ΔD 10 ⁻⁴ m/kg	ΔD 10 ⁻⁶ m/sec ²
	0	29.001	34.645	195.960	0.000	0.000	0.000	0.000				0	29.001	34.645	195.960	0.000	0.000
	1	29.004	34.645	195.960	0.060							1	29.004	34.645	195.960	0.060	0.060
	2	29.006	34.645	196.060	0.121							2	29.006	34.645	196.060	0.121	0.121
	3	29.007	34.645	196.060	0.182							3	29.007	34.645	196.060	0.182	0.182
	5	27.613	34.613	207.755	0.301							5	27.613	34.613	207.755	0.301	0.301
	7	27.111	34.714	211.953	0.439							7	27.111	34.714	211.953	0.439	0.439
	10	26.145	34.826	210.749	0.570							10	26.145	34.826	210.749	0.570	0.570
	12	25.747	34.912	208.948	0.695							12	25.747	34.912	208.948	0.695	0.695
	15	24.614	35.138	203.043	0.812							15	24.614	35.138	203.043	0.812	0.812
	20	21.415	35.192	188.234	1.007							20	21.415	35.192	188.234	1.007	1.007
	25	17.622	34.800	193.427	1.666							25	17.622	34.800	193.427	1.666	1.666
	30	15.493	34.587	199.324	2.999							30	15.493	34.587	199.324	2.999	2.999
	40	11.489	34.268	185.918	5.288							40	11.489	34.268	185.918	5.288	5.288
	50	7.946	34.099	143.214	5.705							50	7.946	34.099	143.214	5.705	5.705
	60	6.483	34.213	69.717	18.444							60	6.483	34.213	69.717	18.444	18.444
	70	5.709	34.298	57.810	21.963							70	5.709	34.298	57.810	21.963	21.963
	80	5.015	34.401	60.386	20.677							80	5.015	34.401	60.386	20.677	20.677
	90	4.566	34.448	64.378	21.588							90	4.566	34.448	64.378	21.588	21.588
	100	4.200	34.490	71.371	22.422							100	4.200	34.490	71.371	22.422	22.422
	120	3.545	34.537	78.961	23.933							120	3.545	34.537	78.961	23.933	23.933
	150	2.713	34.575	85.851	25.899							150	2.713	34.575	85.851	25.899	25.899

Hydrographic Observation

No. 6

STA-NO	LOCATION(Lat.)	LOCATION(Long.)	DATE/TIME(START) (JST)	DATE/TIME(END) (JST)	DEPTH	CRUISE-NO	SUB-NO
K S-4852	N 17-00	E 165-00	8 m 9 d 22 h 23 m	8 m 9 d 23 h 57 m	5 4 1 2 m	16-07	-

Rem. CTD

TIME JST	DEPTH m	TEMPERATURE °C	SALINITY (psu)	O ₂ μmol/kg	PO ₄ -P μmol/kg	NO ₃ -N μmol/kg	NO ₂ -N μmol/kg	SiO ₂ μmol/kg	pH	CHL μg/l	PIA μg/l	DEPTH m	TEMPERATURE °C	SALINITY (psu)	O ₂ μmol/kg	$\Delta\sigma_t$ in ³ m ³ /kg	ΔD 10 ⁻³ m ² /sec ²
	0	29.116	34.636	195.5	6.05	0.00	0.00					0	29.116	34.636	195.5	6.05	0.00
	10	29.116	34.636	195.3	6.05	0.06	1					10	29.116	34.636	195.3	6.05	0.06
	20	29.123	34.636	195.4	6.05	0.12	2					20	29.123	34.636	195.4	6.05	0.12
	30	29.127	34.635	195.5	6.05	0.18	3					30	29.127	34.635	195.5	6.05	0.18
	50	29.083	34.639	196.0	6.04	0.30	5					50	29.083	34.639	196.0	6.04	0.30
	75	27.078	34.764	212.5	3.20	4.47	7					75	27.078	34.764	212.5	3.20	4.47
	100	26.050	34.893	211.9	4.92	0.57	6					100	26.050	34.893	211.9	4.92	0.57
	125	25.089	35.113	203.0	4.70	6.96	1					125	25.089	35.113	203.0	4.70	6.96
	150	24.170	35.357	201.5	4.03	0.80	5					150	24.170	35.357	201.5	4.03	0.80
	200	19.735	35.024	189.2	3.09	9.84	2					200	19.735	35.024	189.2	3.09	9.84
	250	16.402	34.685	205.4	2.56	1.28	2					250	16.402	34.685	205.4	2.56	1.28
	300	13.906	34.439	198.2	2.21	1.25	3					300	13.906	34.439	198.2	2.21	1.25
	400	9.523	34.193	136.6	1.62	1.45	0					400	9.523	34.193	136.6	1.62	1.45
	500	7.593	34.275	67.0	1.27	1.60	1					500	7.593	34.275	67.0	1.27	1.60
	600	6.520	34.382	49.8	1.05	1.72	6					600	6.520	34.382	49.8	1.05	1.72
	700	5.754	34.438	55.1	9.21	8.34	7					700	5.754	34.438	55.1	9.21	8.34
	800	5.256	34.472	58.8	8.31	9.31	8					800	5.256	34.472	58.8	8.31	9.31
	900	4.943	34.505	67.1	7.72	0.22	9					900	4.943	34.505	67.1	7.72	0.22
	1000	4.558	34.526	68.5	7.22	1.08	1					1000	4.558	34.526	68.5	7.22	1.08
	1200	3.856	34.549	71.9	6.32	2.65	1					1200	3.856	34.549	71.9	6.32	2.65
	1500	3.089	34.578	82.3	5.42	4.72	1					1500	3.089	34.578	82.3	5.42	4.72
	2000	2.204	34.617	99.9	4.32	7.68	2					2000	2.204	34.617	99.9	4.32	7.68

Current Observation

No. 1

CRUISE NO		DATE (START)		DATE (END)		OCEAN AREA										SHIP	
1 6 0 7		8 8		8 9		W E S T E R N P A C I F I C										K S	
STA-NO	DATE	TIME JST	LOCATION (Lat)	LOCATION (Long)	WATER DEPTH m	DEPTH m	CURRENT DIRECTION(SPEED)	DEPTH m	CURRENT DIRECTION(SPEED)	DEPTH m	CURRENT DIRECTION(SPEED)	DEPTH m	CURRENT DIRECTION(SPEED)	TEMPERATURE °C	SALINITY (psu)	CTD STN-NO	BT STN-NO
AS-567	8 8 0 9 3 5 2 2-0 4		1 6 5-0 0	5 5 1 1	3 6	8 8 0 7	5 6	8 6 0 6	9 6	7 4 0 4							
AS-567					1 5 6	6 1 0 3	1 9 6	4 6 0 1						2 9 3 5 3 5 0 6 0	KS-4847		
AS-568	8 8 1 6 2 5 2 1-0 5		1 6 5-0 0	5 5 1 1	3 6	6 1 0 8	5 6	6 7 0 8	9 6	6 4 0 6							
AS-568					1 5 6	2 7 0 4	1 9 6	5 5 0 4						2 8 9 1 3 4 7 6 8	KS-4848		
AS-569	8 8 2 3 1 5 2 0-0 5		1 6 5-0 0	5 3 5 2	3 6 3 1 5 0 5	5 6 3 2 2 0 5	9 6 3 3 1 0 7										
AS-569					1 5 6	3 3 4 0 7	1 9 6	3 4 2 0 7						2 8 9 8 3 4 7 4 3	KS-4849		
AS-570	8 9 0 8 3 0 1 9-0 5		1 6 5-0 0	1 6 5 5	3 6 3 2 0 0 3	5 6 3 4 7 0 3	9 6	9 0 4									
AS-570					1 5 6	4 0 5	1 9 6	3 4 7 0 4						2 9 0 0 3 4 6 4 5	KS-4850		
AS-571	8 9 1 5 0 5 1 8-0 5		1 6 5-0 0	5 0 1 2	3 6 2 5 7 0 2	5 6 2 6 4 0 2	9 6 2 6 7 0 1										
AS-571					1 5 6	3 2 9 0 3	1 9 6	2 9 0 5						2 8 8 0 3 4 4 6 6	KS-4851		
AS-572	8 9 2 1 5 5 1 7-0 3		1 6 5-0 0	5 3 8 1	3 6	4 3 0 1	5 6 2 1 5 0 1	9 6 1 9 3 0 2									
AS-572					1 5 6	2 1 2 0 1	1 9 6	2 6 0 0 4						2 9 1 2 3 4 6 3 6	KS-4852		