MODIS Sci. Team MTG Jan. 2001, Maryland

Overview of ADEOS-II/GLI Project

Teruyuki Nakajima
Center for Climate System, The University of Tokyo
teruyuki@ccsr.u-tokyo.ac.jp

Updates of GLI project

- Organization updated
- L2 algorithm shipped to EOC in Oct. 2000
  - Evaluation by OCTS, SeaWiFS, MODIS data
  - GSD (GLI Simulated data)
- Validation system under development
- Ocean color channel saturation: report and action
- Large budget cut: to 70% of FY2000
- GLI sensor re-test in Dec. 2000- March 2000
  - Review of the test plan by cal. WG in Nov.
- ADEOS-II satellite launch delay due to H-II rocket engine redesigning and system enhancement program

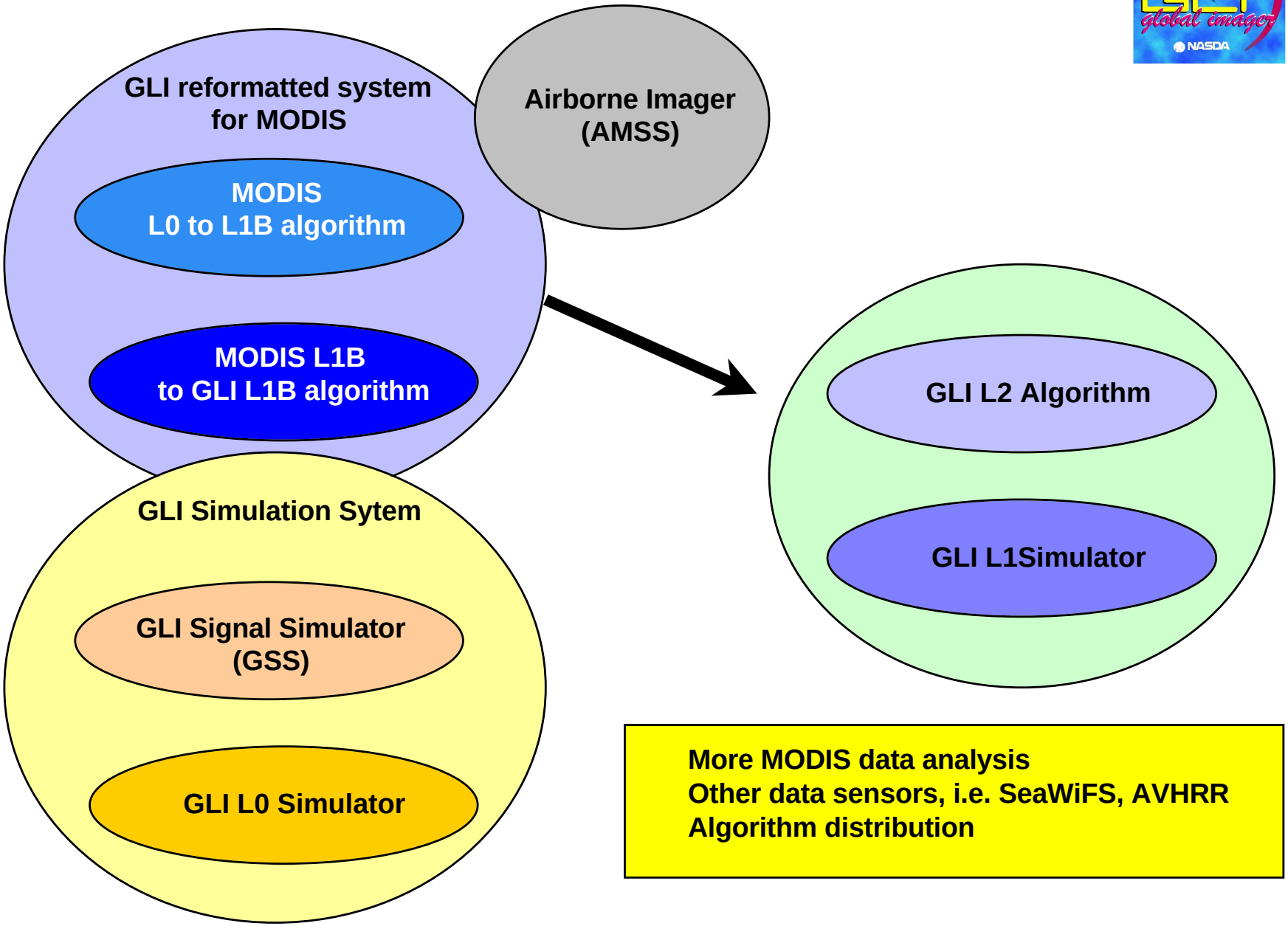
GLI PFT data-1

No.	l	spec	atmos	high	low
1	380	600	455	399	353
2	400	800	1137	1162	1217
3	412	800	1406	1482	1394
4	443	800	809	864	818
5	460	800	847	813	804
6	490	800	1392	1715	1757
7	520	600	656	645	601
8	545	600	609	612	629
9	565	800	1194	894	1249
10	625	800	935	1121	1143
11	666	800	1181	1237	1046
12	680	800	1247	1120	1147
13	678	200	244	207	205
14	710	700	1351	1191	1149
15	710	250	313	337	271
16	749	550	984	1043	934
17	763	130	290	280	219
18	865	450	1204	1178	1131
19	865	130	351	341	278

No.	Lambda	Spec	Atmo.	High-T	Low-T
30	3.715	0.15	0.067- 0.120	0.059- 0.070	0.054- 0.069
31	6.7	0.1	---- -	0.019- 0.028	0.011- 0.021
32	7.3	0.1	0.032- 0.040	0.019- 0.025	0.016- 0.022
33	7.5	0.1	0.027- 0.035	0.020- 0.024	0.014- 0.021
34	8.6	0.1	0.040- 0.052	0.039- 0.049	0.025- 0.032
35	10.8	0.1	0.047- 0.060	0.043- 0.051	0.029- 0.040
36	12.0	0.1	0.049- 0.064	0.046- 0.059	0.033- 0.044

GLI PFT data-3

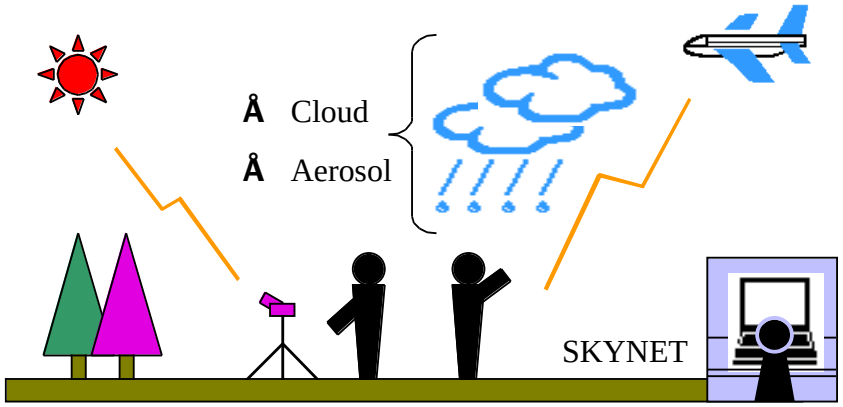
Validation of the GLI processing system

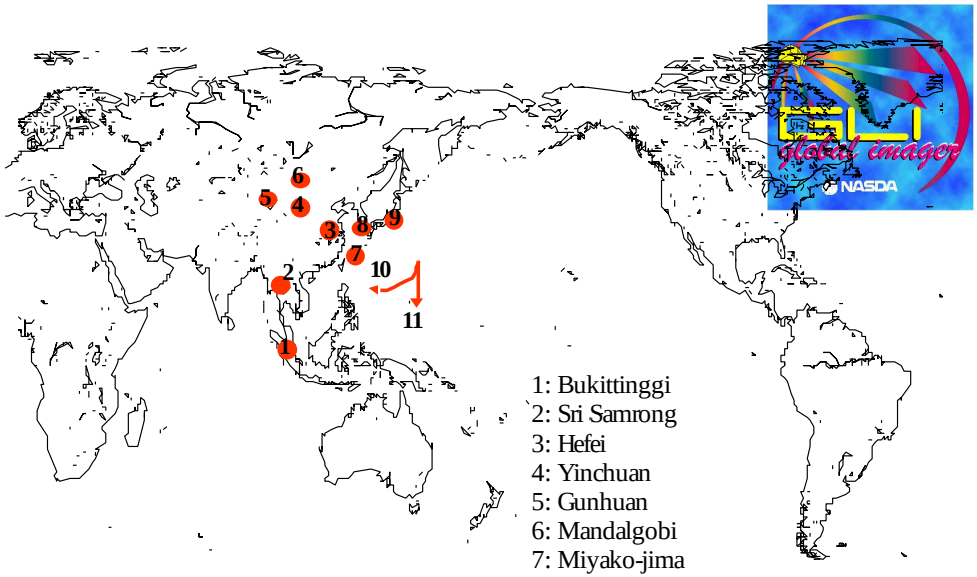


More MODIS data analysis
Other data sensors, i.e. SeaWiFS, AVHRR
Algorithm distribution

Atmosphere/Teruyuki Nakajima

E-mail:teruyuki@ccsr.u-tokyo.ac.jp

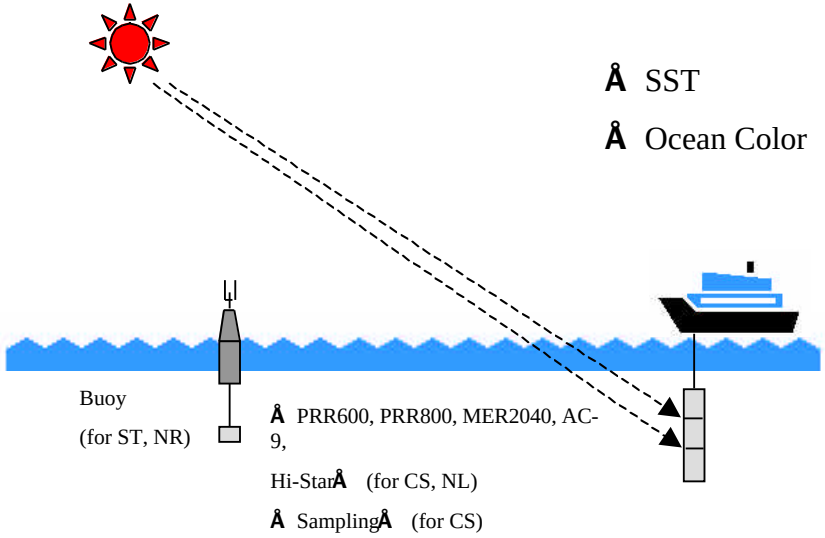


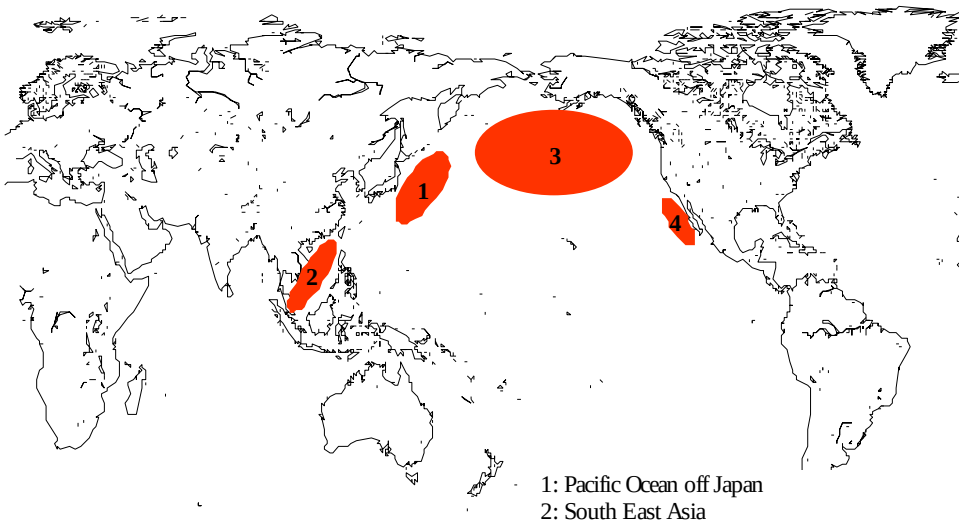


1: Bukittinggi
2: Sri Samrong
3: Hefei
4: Yinchuan
5: Gunhuan
6: Mandalgobi
7: Miyako-jima
8: Fukue-jima
9: Chiba
10: Line-Australia
11: Ship Mirai

Ocean/Joji Ishizaka

E-mail:ishizaka@net.nagasaki-u.ac.jp

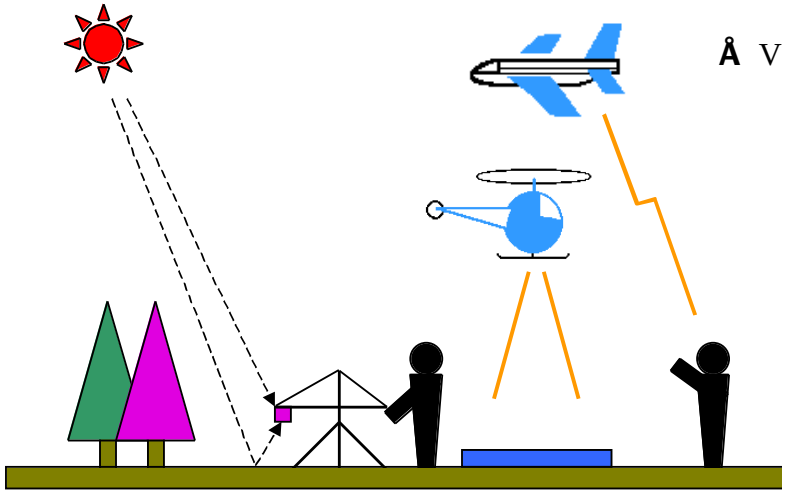




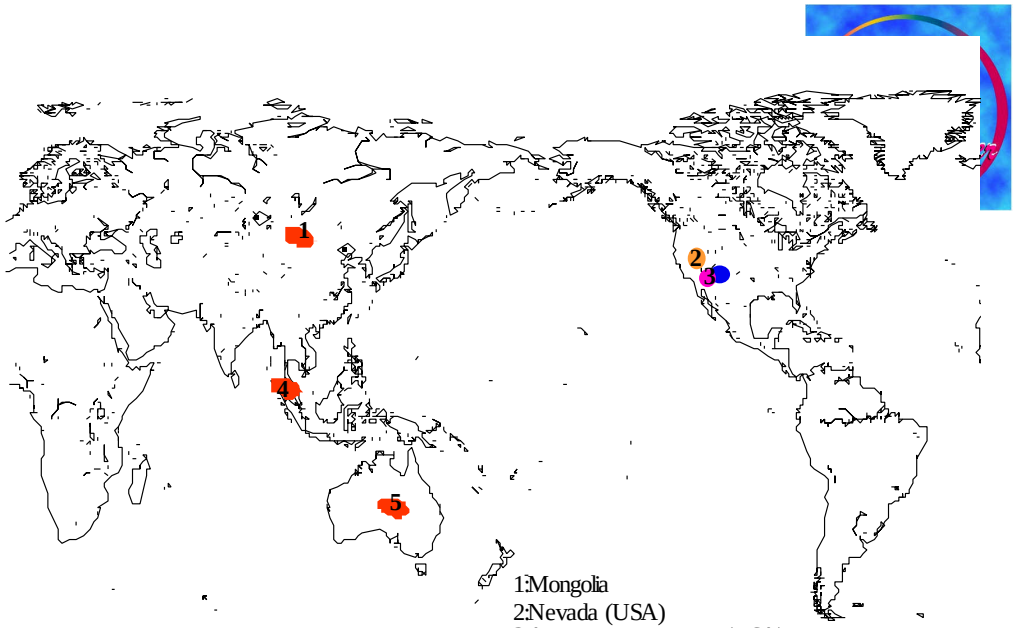
1: Pacific Ocean off Japan
2: South East Asia
3: North Pacific
4: California

Land/Yoshiaki Honda

E-mail:yhonda@rsirc.cr.chiba-u.ac.jp



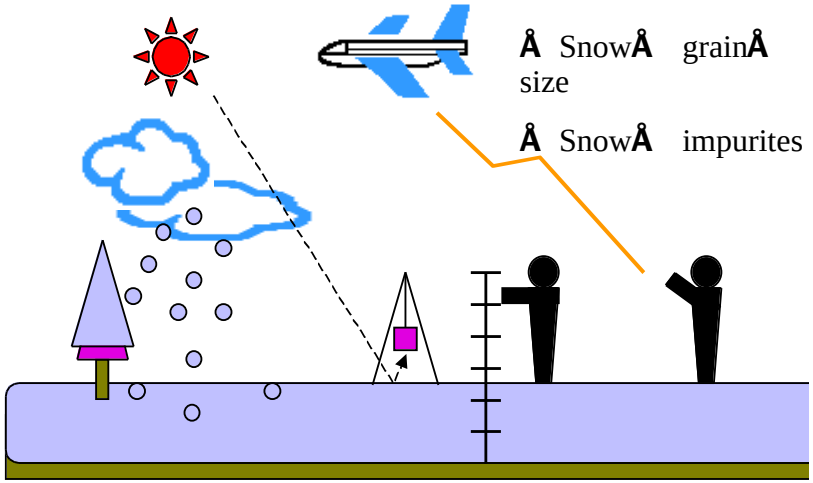
Å V



1:Mongolia
2:Nevada (USA)
3:Arizona, New Mexico (USA)
4:Vietnam
5:Australia

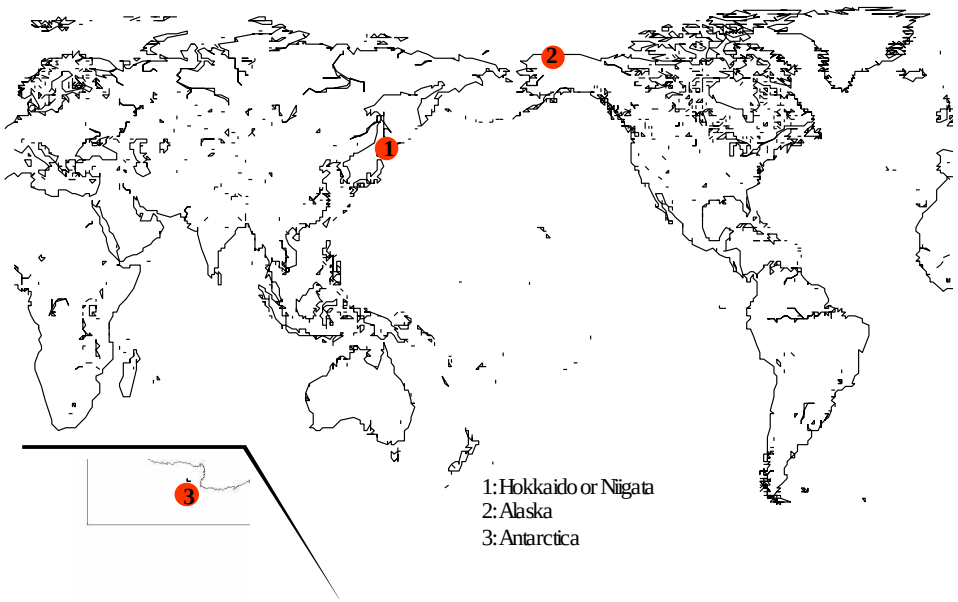
Cryosphere/Teruo Aoki

E-mail:teaoki@mri-jma.go.jp



Å SnowÅ grainÅ size

Å SnowÅ impurites



1: Hokkaido or Niigata
2: Alaska
3: Antarctica

GCOM-B/Second Generation Global Imager (SGLI)

OCI (IFOV=1km)

No.	λ (nm)	Δλ (nm)	Lstd	Lmax	S/N
O1	412	10	65	140	800
O2	443	10	54	140	800
O3	490	10	43	120	800
O4	520	20	31	90	800
O5	565	20	23	80	800
O6	625	20	17	65	800
O7	678	10	12	50	1000
O8	749	10	7	32	800
O9	865	20	5	20	800

ALI (IFOV=1km, 250m global)

No.	λ (nm)	Δλ (nm)	Lstd	Lmax	S/N	
A1	380	10	60	400	250	
A2	400	10	TBD	TBD	TBD	
A3	443	10	TBD	TBD	TBD	
A4	678P1	TBD	TBD	TBD	TBD	
A5	678P2	TBD	TBD	TBD	TBD	
A6	678P3	TBD	TBD	TBD	TBD	
A7	865P1	TBD	TBD	TBD	TBD	
A8	763	8	10	350	100	
A9	865P2	TBD	TBD	TBD	TBD	
A10	460	50	40	624	250	250m
A11	545	50	25	549	200	250m
A12	678	50	15	150	100	250m
A13	865	50	20	257	250	250m
A14	940	20	10	200	200	
A15	1050	20	8	203	150	
A16	865P3	TBD	TBD	TBD	TBD	

SWI (IFOV=1km)

No.	λ (μm)	Δλ (μm)	Lstd	Lmax	S/N	
S1	1.24	0.02	5	138	150	
S2	1.38	0.04	1.5	94	100	
S3	1.64	0.1	5	70	150	250m
S4	2.21	0.1	1.3	50	100	

TMI (IFOV=1km)

No.	λ (μm)	Δλ (μm)	Tlow	NEDT	Tstd	NEDT	Tmax
T1	3.7	0.3	250	0.5	300	0.1	340
T2	6.7	0.5	210	0.5	300	0.1	300
T3	7.3	0.5	210	0.5	300	0.1	300
T4	7.5	0.5	210	0.5	300	0.1	300
T5	8.6	0.5	180	0.5	300	0.1	340
T6	10.8	0.7	180	0.5	300	0.1	340
T7	12	0.7	180	0.5	300	0.1	340

Spec. in Dec. 2000