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Abstract: The JGOFS Data Management Task Team (DMTT) was charged with implementing timely data exchange between national groups participating in JGOFS, encourage and develop data management at the national level, and provide access of JGOFS data to the international scientific community. Over the life of the project, the DMTT and national groups have made JGOFS data at the regional scale (process studies), global scale (carbon survey) and from long-term measurements at key ocean sites (time-series), available online and on CD-ROMs.

Because of the complexity of interdisciplinary data and the extent of JGOFS itself, much remains to be done to secure the accessibility of all data collected in the project. The lack of a centralized International Project Data Center severely hampers the use of JGOFS data for synthesis and model validation, now and in the future. It is only recently that the JGOFS Data Management Task Team (DMTT) began working to compile a single database (the International JGOFS Master Dataset), in a single format and in a single location (in the WDC system, thanks to an initiative of PANGAEA/WDC-MARE; and on CDs or DVDs) before the end of the project (Dec. 2003).

As new programs are being designed or implemented, we must learn from the JGOFS data management experience. The major, past and current DMTT activities and achievements are presented, along with a set of recommendations regarding the data management in future international projects, which should result in the rapid and full availability of data, and its long-term preservation and accessibility.

Achievements: Nationally Approved Cruise Inventories

→ Examples from P.R. China-Beijing, Germany, United States

Date	Ship	Project	Cruise ID	Chief Scientist	Area
1/15/1991 - 28/10/1991	Yuan	Marginal Sea in the East China Sea	P9109	B. Zhu	East China Sea
2/08/1994 - 30/04/1994	Science 1	Marginal Sea in the East China Sea	P9404	B. Zhu	East China Sea
2/10/1994 - 09/09/1994	Yangqing No.2	Yellow Sea	P9405	H. Hong	Yellow Sea
4/10/1994 - 13/10/1994	Dongfanghong	Marginal Sea in the East China Sea	P9410	Y. Wang	East China Sea
5/08/1995 - 03/03/1995	Yangqing No.2	Yellow Sea	P9502	H. Hong	Yellow Sea
6/12/1995 - 09/03/1997	Science 1	Ocean Flux in the East China Sea	P9702	B. Zhu	East China Sea
7/10/1997 - 21/08/1997	Yangqing No.2	Yellow Sea	P9702	H. Hong	Yellow Sea
8/20/1997 - 08/03/1998	Yangqing No.2	Yellow Sea	P9702	H. Hong	Yellow Sea
9/12/1998 - 21/07/1998	Science 1	Ocean Flux in the East China Sea	P9807	F. Wang	East China Sea
10/10/1998 - 16/08/1998	Yang	Yellow Sea	P9807	F. Wang	Yellow Sea
11/12/1998 - 18/08/1999	Yang	Yellow Sea	P9807	F. Wang	Yellow Sea
12/10/1999 - 03/06/2000	Yang	Yellow Sea	P9807	F. Wang	Yellow Sea
13/10/2000 - 03/06/2000	Yang	Yellow Sea	P9807	F. Wang	Yellow Sea

Achievements: Approved List of JGOFS Core Parameters

Parameter	Method	Unit	Notes
Chlorophyll a	HPLC	µg/L	
Chlorophyll b	HPLC	µg/L	
Chlorophyll c	HPLC	µg/L	
Chlorophyll d	HPLC	µg/L	
Chlorophyll e	HPLC	µg/L	
Chlorophyll f	HPLC	µg/L	
Chlorophyll g	HPLC	µg/L	
Chlorophyll h	HPLC	µg/L	
Chlorophyll i	HPLC	µg/L	
Chlorophyll j	HPLC	µg/L	
Chlorophyll k	HPLC	µg/L	
Chlorophyll l	HPLC	µg/L	
Chlorophyll m	HPLC	µg/L	
Chlorophyll n	HPLC	µg/L	
Chlorophyll o	HPLC	µg/L	
Chlorophyll p	HPLC	µg/L	
Chlorophyll q	HPLC	µg/L	
Chlorophyll r	HPLC	µg/L	
Chlorophyll s	HPLC	µg/L	
Chlorophyll t	HPLC	µg/L	
Chlorophyll u	HPLC	µg/L	
Chlorophyll v	HPLC	µg/L	
Chlorophyll w	HPLC	µg/L	
Chlorophyll x	HPLC	µg/L	
Chlorophyll y	HPLC	µg/L	
Chlorophyll z	HPLC	µg/L	
Chlorophyll aa	HPLC	µg/L	
Chlorophyll ab	HPLC	µg/L	
Chlorophyll ac	HPLC	µg/L	
Chlorophyll ad	HPLC	µg/L	
Chlorophyll ae	HPLC	µg/L	
Chlorophyll af	HPLC	µg/L	
Chlorophyll ag	HPLC	µg/L	
Chlorophyll ah	HPLC	µg/L	
Chlorophyll ai	HPLC	µg/L	
Chlorophyll aj	HPLC	µg/L	
Chlorophyll ak	HPLC	µg/L	
Chlorophyll al	HPLC	µg/L	
Chlorophyll am	HPLC	µg/L	
Chlorophyll an	HPLC	µg/L	
Chlorophyll ao	HPLC	µg/L	
Chlorophyll ap	HPLC	µg/L	
Chlorophyll aq	HPLC	µg/L	
Chlorophyll ar	HPLC	µg/L	
Chlorophyll as	HPLC	µg/L	
Chlorophyll at	HPLC	µg/L	
Chlorophyll au	HPLC	µg/L	
Chlorophyll av	HPLC	µg/L	
Chlorophyll aw	HPLC	µg/L	
Chlorophyll ax	HPLC	µg/L	
Chlorophyll ay	HPLC	µg/L	
Chlorophyll az	HPLC	µg/L	
Chlorophyll ba	HPLC	µg/L	
Chlorophyll bb	HPLC	µg/L	
Chlorophyll bc	HPLC	µg/L	
Chlorophyll bd	HPLC	µg/L	
Chlorophyll be	HPLC	µg/L	
Chlorophyll bf	HPLC	µg/L	
Chlorophyll bg	HPLC	µg/L	
Chlorophyll bh	HPLC	µg/L	
Chlorophyll bi	HPLC	µg/L	
Chlorophyll bj	HPLC	µg/L	
Chlorophyll bk	HPLC	µg/L	
Chlorophyll bl	HPLC	µg/L	
Chlorophyll bm	HPLC	µg/L	
Chlorophyll bn	HPLC	µg/L	
Chlorophyll bo	HPLC	µg/L	
Chlorophyll bp	HPLC	µg/L	
Chlorophyll bq	HPLC	µg/L	
Chlorophyll br	HPLC	µg/L	
Chlorophyll bs	HPLC	µg/L	
Chlorophyll bt	HPLC	µg/L	
Chlorophyll bu	HPLC	µg/L	
Chlorophyll bv	HPLC	µg/L	
Chlorophyll bw	HPLC	µg/L	
Chlorophyll bx	HPLC	µg/L	
Chlorophyll by	HPLC	µg/L	
Chlorophyll bz	HPLC	µg/L	
Chlorophyll ca	HPLC	µg/L	
Chlorophyll cb	HPLC	µg/L	
Chlorophyll cc	HPLC	µg/L	
Chlorophyll cd	HPLC	µg/L	
Chlorophyll ce	HPLC	µg/L	
Chlorophyll cf	HPLC	µg/L	
Chlorophyll cg	HPLC	µg/L	
Chlorophyll ch	HPLC	µg/L	
Chlorophyll ci	HPLC	µg/L	
Chlorophyll cj	HPLC	µg/L	
Chlorophyll ck	HPLC	µg/L	
Chlorophyll cl	HPLC	µg/L	
Chlorophyll cm	HPLC	µg/L	
Chlorophyll cn	HPLC	µg/L	
Chlorophyll co	HPLC	µg/L	
Chlorophyll cp	HPLC	µg/L	
Chlorophyll cq	HPLC	µg/L	
Chlorophyll cr	HPLC	µg/L	
Chlorophyll cs	HPLC	µg/L	
Chlorophyll ct	HPLC	µg/L	
Chlorophyll cu	HPLC	µg/L	
Chlorophyll cv	HPLC	µg/L	
Chlorophyll cw	HPLC	µg/L	
Chlorophyll cx	HPLC	µg/L	
Chlorophyll cy	HPLC	µg/L	
Chlorophyll cz	HPLC	µg/L	
Chlorophyll da	HPLC	µg/L	
Chlorophyll db	HPLC	µg/L	
Chlorophyll dc	HPLC	µg/L	
Chlorophyll dd	HPLC	µg/L	
Chlorophyll de	HPLC	µg/L	
Chlorophyll df	HPLC	µg/L	
Chlorophyll dg	HPLC	µg/L	
Chlorophyll dh	HPLC	µg/L	
Chlorophyll di	HPLC	µg/L	
Chlorophyll dj	HPLC	µg/L	
Chlorophyll dk	HPLC	µg/L	
Chlorophyll dl	HPLC	µg/L	
Chlorophyll dm	HPLC	µg/L	
Chlorophyll dn	HPLC	µg/L	
Chlorophyll do	HPLC	µg/L	
Chlorophyll dp	HPLC	µg/L	
Chlorophyll dq	HPLC	µg/L	
Chlorophyll dr	HPLC	µg/L	
Chlorophyll ds	HPLC	µg/L	
Chlorophyll dt	HPLC	µg/L	
Chlorophyll du	HPLC	µg/L	
Chlorophyll dv	HPLC	µg/L	
Chlorophyll dw	HPLC	µg/L	
Chlorophyll dx	HPLC	µg/L	
Chlorophyll dy	HPLC	µg/L	
Chlorophyll dz	HPLC	µg/L	
Chlorophyll ea	HPLC	µg/L	
Chlorophyll eb	HPLC	µg/L	
Chlorophyll ec	HPLC	µg/L	
Chlorophyll ed	HPLC	µg/L	
Chlorophyll ee	HPLC	µg/L	
Chlorophyll ef	HPLC	µg/L	
Chlorophyll eg	HPLC	µg/L	
Chlorophyll eh	HPLC	µg/L	
Chlorophyll ei	HPLC	µg/L	
Chlorophyll ej	HPLC	µg/L	
Chlorophyll ek	HPLC	µg/L	
Chlorophyll el	HPLC	µg/L	
Chlorophyll em	HPLC	µg/L	
Chlorophyll en	HPLC	µg/L	
Chlorophyll eo	HPLC	µg/L	
Chlorophyll ep	HPLC	µg/L	
Chlorophyll eq	HPLC	µg/L	
Chlorophyll er	HPLC	µg/L	
Chlorophyll es	HPLC	µg/L	
Chlorophyll et	HPLC	µg/L	
Chlorophyll eu	HPLC	µg/L	
Chlorophyll ev	HPLC	µg/L	
Chlorophyll ew	HPLC	µg/L	
Chlorophyll ex	HPLC	µg/L	
Chlorophyll ey	HPLC	µg/L	
Chlorophyll ez	HPLC	µg/L	
Chlorophyll fa	HPLC	µg/L	
Chlorophyll fb	HPLC	µg/L	
Chlorophyll fc	HPLC	µg/L	
Chlorophyll fd	HPLC	µg/L	
Chlorophyll fe	HPLC	µg/L	
Chlorophyll ff	HPLC	µg/L	
Chlorophyll fg	HPLC	µg/L	
Chlorophyll fh	HPLC	µg/L	
Chlorophyll fi	HPLC	µg/L	
Chlorophyll fj	HPLC	µg/L	
Chlorophyll fk	HPLC	µg/L	
Chlorophyll fl	HPLC	µg/L	
Chlorophyll fm	HPLC	µg/L	
Chlorophyll fn	HPLC	µg/L	
Chlorophyll fo	HPLC	µg/L	
Chlorophyll fp	HPLC	µg/L	
Chlorophyll fq	HPLC	µg/L	
Chlorophyll fr	HPLC	µg/L	
Chlorophyll fs	HPLC	µg/L	
Chlorophyll ft	HPLC	µg/L	
Chlorophyll fu	HPLC	µg/L	
Chlorophyll fv	HPLC	µg/L	
Chlorophyll fw	HPLC	µg/L	
Chlorophyll fx	HPLC	µg/L	
Chlorophyll fy	HPLC	µg/L	
Chlorophyll fz	HPLC	µg/L	
Chlorophyll ga	HPLC	µg/L	
Chlorophyll gb	HPLC	µg/L	
Chlorophyll gc	HPLC	µg/L	
Chlorophyll gd	HPLC	µg/L	
Chlorophyll ge	HPLC	µg/L	
Chlorophyll gf	HPLC	µg/L	
Chlorophyll gg	HPLC	µg/L	
Chlorophyll gh	HPLC	µg/L	
Chlorophyll gi	HPLC	µg/L	
Chlorophyll gj	HPLC	µg/L	
Chlorophyll gk	HPLC	µg/L	
Chlorophyll gl	HPLC	µg/L	
Chlorophyll gm	HPLC	µg/L	
Chlorophyll gn	HPLC	µg/L	
Chlorophyll go	HPLC	µg/L	
Chlorophyll gp	HPLC	µg/L	
Chlorophyll gq	HPLC	µg/L	
Chlorophyll gr	HPLC	µg/L	
Chlorophyll gs	HPLC	µg/L	
Chlorophyll gt	HPLC	µg/L	
Chlorophyll gu	HPLC	µg/L	
Chlorophyll gv	HPLC	µg/L	
Chlorophyll gw	HPLC	µg/L	
Chlorophyll gx	HPLC	µg/L	
Chlorophyll gy	HPLC	µg/L	
Chlorophyll gz	HPLC	µg/L	
Chlorophyll ha	HPLC	µg/L	
Chlorophyll hb	HPLC	µg/L	
Chlorophyll hc	HPLC	µg/L	
Chlorophyll hd	HPLC	µg/L	
Chlorophyll he	HPLC	µg/L	
Chlorophyll hf	HPLC	µg/L	
Chlorophyll hg	HPLC	µg/L	
Chlorophyll hh	HPLC	µg/L	
Chlorophyll hi	HPLC	µg/L	
Chlorophyll hj	HPLC	µg/L	
Chlorophyll hk	HPLC	µg/L	
Chlorophyll hl	HPLC	µg/L	
Chlorophyll hm	HPLC	µg/L	
Chlorophyll hn	HPLC	µg/L	
Chlorophyll ho	HPLC	µg/L	
Chlorophyll hp	HPLC	µg/L	
Chlorophyll hq	HPLC	µg/L	
Chlorophyll hr	HPLC	µg/L	
Chlorophyll hs	HPLC	µg/L	
Chlorophyll ht	HPLC	µg/L	
Chlorophyll hu	HPLC	µg/L	
Chlorophyll hv	HPLC	µg/L	
Chlorophyll hw	HPLC	µg/L	
Chlorophyll hx	HPLC	µg/L	
Chlorophyll hy	HPLC	µg/L	
Chlorophyll hz	HPLC	µg/L	
Chlorophyll ia	HPLC	µg/L	
Chlorophyll ib	HPLC	µg/L	
Chlorophyll ic	HPLC	µg/L	
Chlorophyll id	HPLC	µg/L	
Chlorophyll ie	HPLC	µg/L	
Chlorophyll if	HPLC	µg/L	
Chlorophyll ig	HPLC	µg/L	
Chlorophyll ih	HPLC	µg/L	
Chlorophyll ii	HPLC	µg/L	
Chlorophyll ij	HPLC	µg/L	
Chlorophyll ik	HPLC	µg/L	
Chlorophyll il	HPLC	µg/L	
Chlorophyll im	HPLC	µg/L	
Chlorophyll in	HPLC	µg/L	
Chlorophyll io	HPLC	µg/L	
Chlorophyll ip	HPLC	µg/L	
Chlorophyll iq	HPLC	µg/L	
Chlorophyll ir	HPLC	µg/L	
Chlorophyll is	HPLC	µg/L	
Chlorophyll it	HPLC	µg/L	
Chlorophyll iu	HPLC	µg/L	
Chlorophyll iv	HPLC	µg/L	
Chlorophyll iw	HPLC	µg/L	
Chlorophyll ix	HPLC	µg/L	
Chlorophyll iy	HPLC		